

**FINAL GENERIC ENVIRONMENTAL IMPACT STATEMENT
NIAGARA COUNTY SHOVEL READY PROJECT**

DATE: August 30, 2011

LOCATION: Lockport Road
Town of Cambria
Niagara County, New York

LEAD AGENCY: Town of Cambria Town Board
4160 Upper Mountain Road
Sanborn, Niagara County, New York 14132

STATEMENT PREPARED BY:

Wendel Duchscherer
140 John James Audubon Parkway, Suite 201
Amherst, NY 14228
(716) 688-0766

Date of Acceptance of the Draft
Generic Environmental Impact Statement: July 21, 2011

Date of Public Hear on Draft Generic
Environmental Impact Statement: August 11, 2011

Deadline for Submission of Comments: August 21, 2011

Date of Acceptance of the Final
Generic Environmental Impact Statement: September 15, 2011

**Final Generic Environmental Impact Statement
Niagara County Shovel Ready Project**

TABLE OF CONTENTS

1.	Introduction.....	1
2.	Summary of the Draft Generic Environmental Impact Statement.....	3
3.	Project Changes Since the Publication of the DGEIS/Changes to the DGEIS.....	8
4.	Responses to Comments	9

MAPS AND FIGURES

Map 1 – Site Location

Map 3 – PD Zoning Plan (amended)

APPENDICES

Appendix A: SEQR Documentation from DGEIS (see DGEIS)

- Resolution: Seeking Lead Agency Status/ Conducting a Coordinated Review
- Request for Lead Agency Status Mailing (includes Environmental Assessment Form: Part 1)
- Positive Declaration
- Resolution: Accepting SEQR Lead Agency / Positive Declaration
- Correspondence from New York State Department of Environmental Conservation concurring that the Town of Cambria Town Board should act as SEQR Lead Agency

Appendix B: Additional SEQR Documentation

- Notice of Completion: Draft Generic Environmental Impact Statement
- Comment Letter: New York State Department of Environmental Conservation on DGEIS
- Public Hearing Notice

Appendix C:

- Public Hearing Minutes

Appendix D: Additional Studies

- Phase I Archaeological Investigation Report
- Phase I Environmental Site Assessment
- Threatened and Endangered Species Report
- Notice of Intent and Certification Letter to NYS Dept of Agriculture and Markets

**Final Generic Environmental Impact Statement
Niagara County Shovel Ready Project**

Appendix E:

- Stormwater Pollution Prevention Plan (SWPPP)

Appendix F:

- DGEIS Executive Summary

Final Generic Environmental Impact Statement Niagara County Shovel Ready Project

1. INTRODUCTION

This Final Generic Environmental Impact Statement (FGEIS) is prepared pursuant to the New York State Environmental Quality Review Act (SEQRA), Article 8 of the New York Environmental Conservation Law, and its implementing regulations, 6 NYCRR Part 617. It has been prepared on behalf of the Town of Cambria Town Board, acting as Lead Agency, in relation to the environmental review of the proposed Niagara County Shovel Ready.

The proposed action involves the rezoning and environmental assessment of approximately 152 acres of land situated north of Lockport Road, in the Town of Cambria, Niagara County, New York, to achieve pre-approved, shovel ready certification for the subject property under the Build Now-NY Program initiative. The objective is to qualify the property under the high technology-manufacturing site development profile, as set forth under this program. Shovel ready certification is an ongoing component of the Build Now-NY program that gives official recognition to sites that have completed intensive state and local government review necessary to accelerate future investment and development, and are prepared to offer businesses the opportunity to break ground on a new facility in a greatly expedited process.

The proposed action includes rezoning of the approximately 152 - acre subject property from A-R (Agricultural Residential) and B-2 (General Business) to P-D (Planned Development). Rezoning approval comes from the Town of Cambria Town Board (with a recommendation from the Town Planning Board). The P-D zoning will enable flexibility for the potential development of high technology commercial and manufacturing uses, along with associated parking and site amenities.

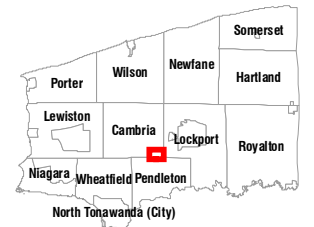
The subject property is comprised of five tax parcels identified as follows (Map 1):

<u>Parcel No.</u>	<u>Tax Parcel No.</u>	<u>Size (acres)</u>	<u>Ownership</u>
1	Part of 121.00 - 1 - 23.111	56.6	Donald Walck
2	121.00 - 2 - 50.11	37.7	Joseph Ohol
3	Part of 121.00 - 2 - 19.111	28.5	George and John Wasik
4	Part of 121.00 - 2 - 47	27.7	Joseph Ohol
5	Part of 121.00 - 2 - 48.111	<u>1.5</u>	George and John Wasik
	Total	152.0	

Parcel 1 has 2,560 linear feet of frontage along Lockport Road; the remaining properties are situated north and northeast of Parcel 1 and Lockport Road (with no roadway frontage).

NIAGARA COUNTY
Shovel Ready
Project
TOWN OF CAMBRIA - NEW YORK

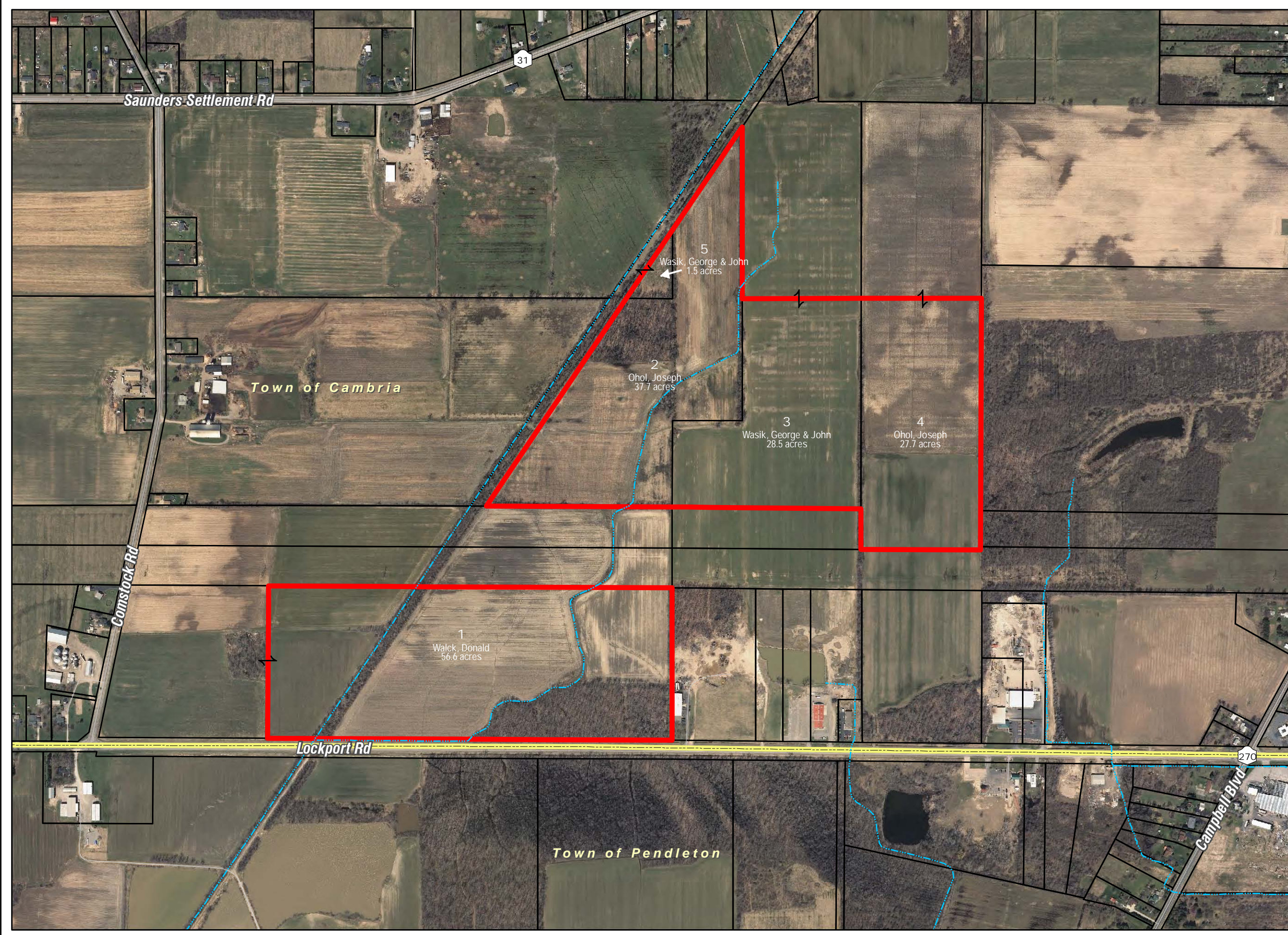
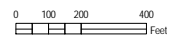
SITE LOCATION



NIAGARA COUNTY - NEW YORK
NOT DRAWN TO SCALE

LEGEND

- Municipal Boundary
- Parcel Boundary (2010)
- Hydrography
- Project Site



Wendel Duchscherer Architects & Engineers, P.C. shall assume no liability for 1. Any errors, omissions, or inaccuracies in the information provided regardless of how caused or; 2. Any decision or action taken or not taken by the reader in reliance upon any information or data furnished hereunder.
Data Sources: NYS GIS Clearinghouse, Niagara County Real Property Services, National Hydrology Dataset, 2008 Digital Orthomagey

Final Generic Environmental Impact Statement Niagara County Shovel Ready Project

The proposed action would involve future development on the 56.6-acre property that fronts along Lockport Road (Parcel 1) and 95.4-acre site located to the north (Parcels 2, 3, 4 and 5). Parcel 1 offers approximately 47 acres of developable area. Development on the northerly parcels could involve the use of Parcels 2, 3 and 4, with an estimated developable area of approximately 85 acres. The preferred concept for future development includes an approximate 38-acre open space / agricultural area, west of the intermittent stream in the vicinity of Parcel 2. This concept for future development could reduce the need for expanded infrastructure (paved surfaces and utilities), preserve open space and allow for continued agricultural uses on a portion of the property.

The Town of Cambria conducted a Coordinated Review under SEQR and established itself as Lead Agency on April 14, 2011. On the same date, the Cambria Town Board determined that the project had potential to result in adverse environmental impacts and issued a Positive Declaration, directing that a Generic Environmental Impact Statement be prepared to assess those potential impacts. The notification of the Positive Declaration was posted in the Environmental Notice Bulletin on May 17, 2011. A Public Scoping Session to identify the issues to be addressed in the DGEIS was held on April 28, 2011 (relevant SEQR documentation is included in Appendix A).

Wendel Duchscherer, on behalf of the Lead Agency, the Town of Cambria, prepared a Draft Generic Environmental Impact Statement (DGEIS). The DGEIS was accepted as complete and ready public review by the Cambria Town Board on July 21, 2011. Copies of the DGEIS were provided to Involved and Interested agencies, and made available to the public at Town Hall and on the Town's website. The Notice of Completion of the DGEIS and the Notice of Public Hearing on the DGEIS were posted in the Environmental Notice Bulletin on August 1, 2011.

A Public Hearing on the DGEIS was held on August 11, 2011 in the Cambria Town Hall to obtain comments from the public (see Transcript in Appendix C). Only one person provided comments or questions at the public hearing. Written comments were accepted until August 21, 2011. The NYS Department of Environmental Conservation provided written comments on August 19, 2011 (see Appendix B). Verbal discussions were held with Mr. Edward Rutkowski of the New York State Department of Transportation. The DOT had several comments on the document. The Cambria Planning Board and Town Board met and provided comments on the project. No written comments were received from the public. The Niagara County Planning Board met on August 15, 2011 and recommended approval for the rezoning of the subject property (no other comments were received from the County).

The Draft GEIS for the Niagara County Shovel Ready Project is considered part of this FGEIS, as required in Section 617.9(b)(8) of the SEQR regulations. This FGEIS describes changes to the DGEIS and addresses all substantive issues raised on the DGEIS.

**Final Generic Environmental Impact Statement
Niagara County Shovel Ready Project**

2. SUMMARY OF THE DGEIS

As noted above, the DGEIS for the Niagara County Shovel Ready Project is considered part of the FGEIS, and it is hereby incorporated by reference, subject to the changes explicitly provided for in this FGEIS. The identified environmental impacts associated with the proposed development of the Project Site are summarized in the chart below and are discussed in detail in Section 4 of the DGEIS.

Potential Environmental Impacts:

Environmental Factor	Potential Impacts and Proposed Mitigations
Land and Soils	The subject property is primarily comprised of active and fallow farmland. Temporary impacts, such as erosion, dust, runoff and/or sedimentation may occur during construction, but measures will be in place to minimize these impacts. Through the use of appropriate mitigation for future site development, no significant, long-term negative impacts to land or soils are anticipated. At full build out, approximately 86 acres of land will be committed to building and parking.
Water Resources	To limit potential impacts to groundwater resources, stormwater will be managed, as required, by the NYSDEC. New infrastructure will be constructed to better manage water resources (new public water and sewer lines and area-wide stormwater management system). Wetlands that exist on the subject property will be avoided; buildings will be located away from these resources. Under these conditions, no significant negative impacts to water resources are anticipated.
Ecological Resources (Vegetation and Wildlife)	The subject property contains a mix of ground cover and two isolated areas of woodlands that contain freshwater wetlands. No rare, threatened or endangered species were identified on the site; the site is not a significant habitat (see T&E study in Appendix D). As future site development will be limited to areas that have been cleared of natural vegetation (farm fields), identified wetlands and woodlands will be avoided, and there are no species of concern identified on the site, no significant adverse impacts to vegetation or wildlife are anticipated.

**Final Generic Environmental Impact Statement
Niagara County Shovel Ready Project**

Environmental Factor	Potential Impacts and Proposed Mitigations
Floodplains	No portion of the subject project site falls within the boundaries of a 100-year floodplain. Therefore, the proposed action will not have significant adverse impacts on floodplain resources.
Stormwater Management	At present, stormwater on the project site follows the topography, draining from northeast to southwest. Future site development will alter drainage patterns; impervious surfaces will increase the rate and volume of stormwater runoff. During construction, exposed soils may be subject to erosion. Future site development will require a permit for stormwater management activities and the preparation of a Stormwater Pollution Prevention Plan (SWPPP) to manage runoff at pre-development levels and to capture pollutants conveyed in stormwater during and after site development (quantity and quality controls). The design and construction of stormwater detention basins and improvements, as required, to highway culverts along Lockport Road will mitigate potential impacts. A draft SWPPP was prepared for use by future developers to ensure compliance with these regulations (see Appendix E).
Climate and Air Quality	The site is proposed to be developed with high technology uses, which are not “smoke stack” industries, and limited air emissions are expected. The NYSDEC regulates air emissions, and all discharges to the atmosphere would be required to be in full compliance with State and Federal air quality permitting standards. Projected traffic volumes, even at full build-out, would not be large enough to result in significant air quality impacts. Therefore, no significant negative impacts to climate or air quality are anticipated.
Socioeconomics	The proposed action is expected to result in long-term beneficial socioeconomic impacts for the Town and region. The conversion of the property to high technology use will generate short-term construction jobs and long-term employment opportunities. Future site development will also generate increased tax revenues for the Town, County, school district and State.

**Final Generic Environmental Impact Statement
Niagara County Shovel Ready Project**

Environmental Factor	Potential Impacts and Proposed Mitigations
Land Use and Zoning	<p>The proposed action is located within the area identified for future commercial and industrial development in the Town’s Comprehensive Plan. The site will be rezoned Planned Development to provide greater flexibility of future use; design standards (setbacks, landscaping, building height, lighting, parking, signage, etc.) will be included to mitigate potential adverse impacts from site development. Therefore, impacts to land use and open space are not anticipated.</p>
Agricultural Resources	<p>The proposed action could potentially impact approximately 103.5 acres of farmland. This loss is not significant in terms of the agricultural industry in the area, the extent of valuable farmland in the Town, and the Town’s desire for increased development in certain areas (as supported by their Comprehensive Plan). Future site development would not be incompatible with surrounding agricultural uses and would not infringe on active farmlands in the adjacent area. Targeting non-residential uses in the vicinity of farms is a good strategy for farmland protection. The proposed action offers for the arrangement of site development in a manner that could increase development density on Parcels 3 and 4. This would enable the continued use and protection of portions of Parcel 2 for farming. Therefore, no significant adverse impacts to agricultural resources are expected.</p>
Transportation	<p>A Traffic Impact Study was conducted to assess potential transportation impacts. Future site development will increase traffic on local roadways. The traffic analysis showed that the roadway system and accompanying intersections in the project area are operating at a Level of Service C or better. An assessment of full build-out found that existing conditions would degrade. Proposed driveway locations and separation was found to meet or exceed all requirements for sight and braking distances. No signal timing or phasing improvements recommended for local intersections. Proper mitigation and roadway improvements, and the establishment of proper thresholds, would result in no significant adverse impacts on the transportation system.</p>

**Final Generic Environmental Impact Statement
Niagara County Shovel Ready Project**

Environmental Factor	Potential Impacts and Proposed Mitigations
Historic and Cultural Resources	At the request of the NYS Office of Parks, Recreation and Historic Preservation, cultural resource assessments were performed on the subject property. These studies, which are included in Appendix D, found no historic or prehistoric artifacts or evidence of native habitation on the site. Based on these findings, the proposed action is not anticipated to result in adverse impacts to historic or cultural resources.
Community Facilities	No significant adverse impacts are anticipated. Future site development will be restricted to high technology uses (no residential), with no direct impacts to schools, parks or recreational programs. According to local emergency service providers, they have the capacity and capability to accommodate development on the subject property. All new construction must comply with NYS Building Codes. Under these conditions, the proposed action is not anticipated to result in adverse impacts to community facilities.
Visual Resources	Future development of the subject property will change the visual character of the site, with views of three-dimensional structures replacing those of open fields and generally level farmland. Views of the structures on the site would be available from certain vantage points. Vegetation and distance from the site will help to mitigate some views. Development in the vicinity of the site (along Lockport Road) is commercial in nature; single family residences are found along nearby roadways, with the closest being approximately one-half mile away. The proposed zoning will include design standards to help mitigate visual impacts, including height, building design and site lighting restrictions. The Plan also includes “buffer” areas that will also help to screen the development. Under these conditions, the proposed action is not anticipated to adversely impact the character of the surrounding area.
Noise and Odors	There will be short-term noise impacts due to construction of the roadway and infrastructure. Long-term noise levels would be consistent with surrounding development. Allowed uses under the new zoning are not likely to produce

**Final Generic Environmental Impact Statement
Niagara County Shovel Ready Project**

Environmental Factor	Potential Impacts and Proposed Mitigations
	odors and the Town regulates noise. Therefore, no significant negative impacts associated with noise or odors are anticipated.
Public Utilities and Infrastructure	A new water line has been installed along Lockport Road that has the capacity to service future site development with public water supply. Sanitary sewer service would have to be extended to the site. The Niagara County Wastewater Treatment Plant has the capacity to accommodate future flow from the project, and the existence of a 21-inch interceptor west of the site would allow for the management of greater wastewater flow from future site development. A Map, Plan and Report were prepared for the proposed sewer line extension along Lockport Road, which would be constructed by the Town when warranted. A sewer line extension to service Parcels 3 and 4 would have to be constructed by the developers of these lands at such time that site development is proposed. Electrical service is available in the area to support future development; a natural gas line is also situated proximate to the site. Therefore, the proposed action is not expected to result in adverse environmental impacts.
Energy Utilization	The proposed action will result in a long-term increase in the use of energy resources, including electricity and natural gas. Buildings that would be constructed on the project site would utilize energy efficient systems and be constructed of energy efficient building materials, in accordance with the New York State Energy Code and Building Code. The project is not expected to have a significant adverse impact on energy resources.
Public Health and Safety	A Phase I Environmental Site Assessment was completed and no recognized environmental conditions were found on the properties.

Final Generic Environmental Impact Statement Niagara County Shovel Ready Project

Various measures will be taken to avoid, minimize and/or mitigate potentially significant adverse environmental impacts to the maximum extent practicable. SEQR requires a lead agency to balance the social, economic and environmental impacts of a proposed project.

The DGEIS included an analysis of various alternative development scenarios in Chapter 5 of that document. Based on that assessment, it was determined that construction of the roadways and utilities is a preferred alternative to the “No Action” alternatives. The Figures depicting the alternative site development scenarios as described in the Draft Generic Environmental Impact Statement are provided in the Final Generic Environmental Impact Statement as reference.

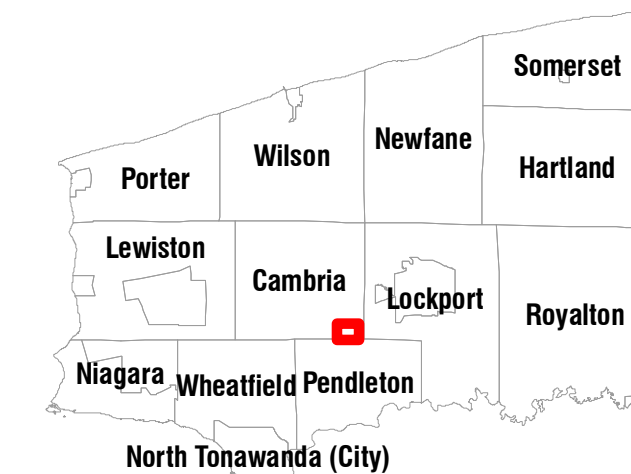
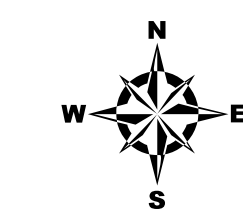
3. PROJECT CHANGES SINCE THE PUBLICATION OF THE DGEIS/CHANGES TO THE DGEIS

There have been no significant project changes since the publication of the DGEIS. The following small changes have occurred, and documentation that was completed after the DGEIS is now included.

- The potential use of the Transfer of Development Rights concept has been removed from the project and the area denoted for Greenspace/Agriculture/Buffer has been clearly delineated, and Map 3 has been amended to illustrate these changes. See the last comment under “Comments from the Town of Cambria” for more information on this change.
- Map 3 has also been amended to clearly illustrate the areas of allowed uses for this PD Zoning District Plan. The “Development Area” allows those uses that are outlined and defined in this FGEIS. The Stormwater management area (on the back properties) has been clearly drawn on the map; following property lines and the stream corridor. This area is now labeled “Development Area/ Stormwater Management Area” and will allow stormwater facilities and related uses, other utility needs, and support structures and uses for the proposed development. The “Agriculture/ Greenspace/ Buffer Area” as discussed previously will allow uses such as greenspace, agriculture, landscaping, and open space/ passive recreation. The “Open Space” area will be maintained as is. It should be noted that small areas between the above uses and along property lines are left un-shaded because they may be utilized as utility corridors. On the “front properties”, the area denoted as “Stormwater Management and Setback Area” is intended for stormwater facilities, and landscaping and open space. The

NIAGARA COUNTY
Shovel Ready
Project
TOWN OF CAMBRIA - NEW YORK

MAP 3 - PD Zoning Plan

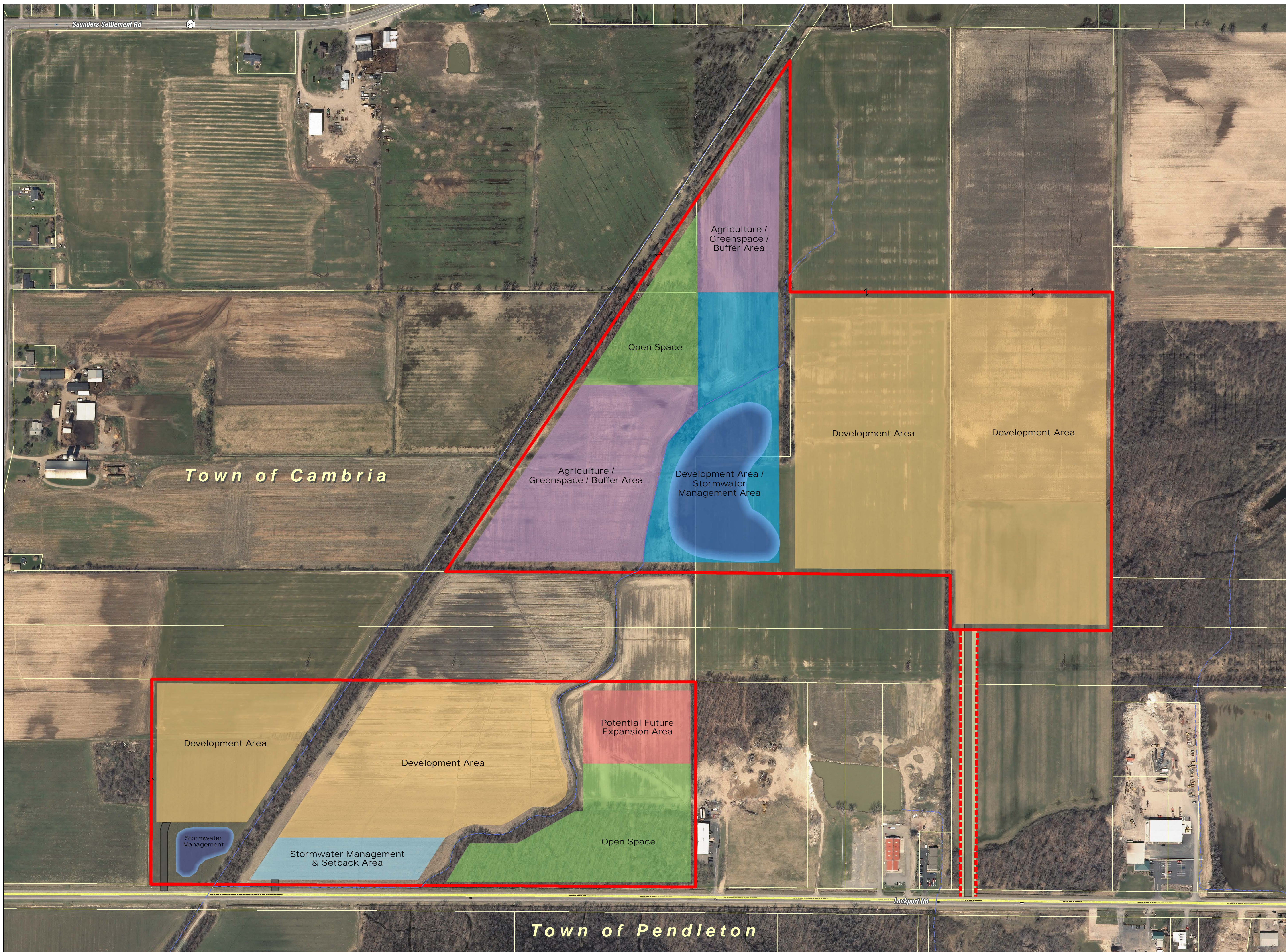


NIAGARA COUNTY - NEW YORK

LEGEND

- Municipal Boundary
- Parcel Boundary (2010)
- Site Location
- Hydrography
- Pond
- Pavement
- PD Land Use Plan
 - Development Area
 - Development Area/Stormwater Management
 - Open Space
 - Access Area
 - Agriculture/Greenspace/Buffer Area
 - Potential Future Expansion Area
 - Stormwater Management & Setback Area

0 50 100 200
Feet



Wendel Duchscherer Architects & Engineers, P.C. shall assume no liability for 1. Any errors, omissions, or inaccuracies in the information provided regardless of how caused or 2. Any decision or action taken or not taken by the reader in reliance upon any information or data furnished hereunder. Data Sources: NYS GIS Clearinghouse, 2008 Digital Orthoimagery

Final Generic Environmental Impact Statement Niagara County Shovel Ready Project

- “Potential Future Expansion Area” has not been evaluated under this GEIS and any future proposed use would most probably require a Supplemental GEIS.
- The Phase I Site Assessment, completed for Parcels 1, 3 and 4, was finalized on July 29, 2011.
 - The Threatened and Endangered Species Study was published on July 20, 2011
 - A generic Stormwater Pollution Prevention Plan (SWPPP) was completed.
 - The Executive Summary was left out of the DGEIS and has been included in Appendix F of this FGEIS.
 - Phase I Archaeological Investigation Report was finalized and is now included.
 - The following changes/amendments were made to the DGEIS:
 - On page 1, section 1.2, first paragraph, the following sentence was changed: “...the property is comprised of five tax parcels...”.
 - On page 10, section 3.5.3, first paragraph, the following sentence was changed: “Agricultural land on the project site represents approximately 126 acres of land...”.
 - On page 6, section 4.5 and 4.5.1 are amended as discussed in the last question under Town comments.
 - On page 4 of section 7.3, the maximum height will remain 75 feet, but will now include a note which reads as follows; “higher buildings or other structures could be allowed through the issuance of a variance.”

4. RESPONSES TO COMMENTS

This Chapter contains the responses to the comments received on the Draft Environmental Impact Statement for the Niagara County Shovel Ready project. The DGEIS was released for public review on July 21, 2011. A comment letter was received from the New York State Department of Environmental Conservation, and verbal comments were received from the State Department of Transportation and the NYS Department of Agriculture and Markets (as of this date no written comments have been received from these two agencies). The letter from DEC is included in Appendix B of the FGEIS. Verbal comments were also received from the Town of Cambria Planning Board and Town Board.

A public hearing to receive comments was held on August 11, 2011 at 7:00 PM at Cambria Town Hall, Sanborn, New York. A transcript of the meeting is included in Appendix C. Only one individual provided comments at the Public Hearing. Public comments were

**Final Generic Environmental Impact Statement
Niagara County Shovel Ready Project**

accepted until August 21, 2011. No written comments were received by the Town from the public.

As there were not a large number of comments that were received from Involved or Interested Agencies on the project, each comment will be addressed individually.

New York State Department of Environmental Conservation (NYSDEC)

The comment letter from the NYSDEC is included in Appendix B of this FGEIS.

Comment: *The Table of Contents lists an Executive Summary; however, there is no Executive Summary included in the DGEIS. Will the Executive Summary be included in the final document?*

Response: The Executive Summary has been finalized and is attached in Appendix F.

Comment: *Subsection 4.3.2 Wetlands states that "future site development would be designed to fully avoid the two existing areas of wetlands". It is noted that Map 19, Preferred Concept Plan, shows that the proposed structures and parking spaces will avoid the wetland area. However, the maps in Appendices F and G, showing the proposed water and sewer transmission mains for the project, indicate that they may be installed within the regulated 100-foot adjacent area of NYS Freshwater Wetland CB-2. Potential impacts and permitting requirements related to this work should be discussed. It appears that the installation of the water main was covered by an Article 24 permit issued to the Niagara County Water District for a transmission main on Lockport Road from Ward Road to Campbell Boulevard (DEC No. 9-2999-00020) in November 2010. However, it does not appear that a permit was issued for installation of the sewer transmission main.*

Response: No permits were issued for the sewer line project proposed along Lockport Road (the waterline has been constructed). The Town will not proceed with that project until a later date (they may wait for development to be proposed on these sites). As to the permitting issue, the future installation of the sanitary sewer line may necessitate minor disturbances to the 100-foot adjacent area

**Final Generic Environmental Impact Statement
Niagara County Shovel Ready Project**

for NYS Freshwater Wetland CB-2 along Lockport Road. It is our understanding that the permitting for this type of work (minor disturbance of an adjacent area) is easy to permit with appropriate mitigations.

Comment: *Subsection 4.4 Climate and Air Quality should include discussion of project impacts on climate change, including greenhouse gas emissions. Climate change guidance documents are available on the Department website at <http://www.dec.ny.gov/regulations/56552.html>.*

Response: It is our understanding that the analysis of greenhouse gases is completed when requested in Scoping. We did not receive such a request. It must be clearly understood that the proposed action is a generic assessment of site development, and does not include specific users for the site. Any proposed use that would generate high levels of greenhouse gases (none anticipated), would not be acceptable, and would require a Supplemental EIS.

Comment: *The first sentence of the third paragraph of Subsection 4.7 Community Facilities states that "the proposed Planned Development (PD) zoning will prohibit the development of non-residential uses on the site..."; however based on the intent of this proposed project it seems that this sentence should state that residential uses are prohibited. Please revise.*

Response: The statement in the DGEIS is in error. The sentence has been revised to read "Since the proposed Planned Development (PD) zoning will prohibit the development of residential uses on the site, no direct impacts to school, parks or recreational programs are anticipated".

Comment: *Department staff have reviewed the wetland delineation report in Appendix D and would like to do a site inspection to review the flagged wetland boundary in the field to determine the limits of Article 24 jurisdiction in the project area. Please send a written request for site inspection for boundary verification to Mr. Charles Rosenburg, NYSDEC, Division of Fish, Wildlife and Marine Resources at the address above.*

Response: It is our understanding based on discussions with the Wetland Consultant that he has requested field verification of the flagged areas.

**Final Generic Environmental Impact Statement
Niagara County Shovel Ready Project**

Comment: *Copies of the Cultural Resources Survey, additional studies, and any correspondence received from NYS Office of Parks, Recreation and Historic Preservation in response to the Cultural Resources Survey should be included in Appendix E.*

Response: We have completed the Cultural Resource Study, including the study for Parcel 3, and these have been submitted to the New York State Office of Parks, Recreation and Historic Preservation for their review.

Comments from the New York State Department of Transportation (NYSDOT)

The following verbal comments were received from the NYSDOT.

Comment: *Will we establish thresholds at which the traffic impact study will need to be updated? Because of the potential impacts of greater than 100 trips per hour to the intersections of Robinson Road/ SW Lockport Bypass (SR 93) and Lockport Road/ Ward Road (SR 429), should they be included in the TIS?*

Response: With regards to establishing thresholds for requiring updates to the TIS, we would recommend that an update be prepared after 5 years expires from the date of this TIS in the DGEIS.

Other thresholds relate to the issue of studying these additional intersections. When completing the TIS for this project, we had to make assumptions about the users on the sites and where the traffic would come from and head to. Based on conservatively high, full build out numbers, there is a potential, as indicated by the NYSDOT, that intersections further to the east (Route 93) and further to the west (Route 429) could be greatly impacted (more than 100 peak car trips per hour) by the project. Since these peak numbers may never be reached and the amount of time it could take to get full build out, it made no sense to study intersections further and further from the site (approximately 4 to 5 miles away from the site) at this time.

Therefore, we would propose that a threshold of 50% build out (600,000 ft²) or when the site generated cumulative traffic volumes of 529 vehicles per hour (peak). At these thresholds, any applicant would need to perform an update to the traffic study and include these other two intersections. These threshold levels were chosen because they are the levels that could potentially create 100 peak trips per hour at these intersections.

Final Generic Environmental Impact Statement Niagara County Shovel Ready Project

The Town would be responsible for tracking these peak car trips (at each application), coordinating with the NYSDOT, and requesting traffic study updates as needed.

Comments from NYS Department of Agriculture and Markets

The NYS Department of Agriculture and Markets, as an Interested Agency, provided the following verbal comments through Mr. Robert Somers, Ph.D., Manager of the Agricultural Protection Unit.

Comment: *The Department was concerned about the proposed sewer line extension that would service the properties located behind the power line right-of-way. For the sewer line proposed out in Lockport Road in 2009, the Department had recommended lateral restrictions be placed on those properties not presently zoned B-2. At first, the Department requested a new Preliminary Notice of Intent (NOI) for the sewer line being extended into the sites to serve the proposed Business Park.*

After the review of the Preliminary Notice of Intent for the sewer line into the back properties, Agriculture and Markets determined that a NOI process was not applicable, because this sewer line would not be paid for by public funds (private developer would pay for them). Therefore they requested that we complete a Certification Letter for the original sewer line project proposed in 2009, but include the new extension and reasoning supporting why this would not have an adverse impact on agriculture.

Response: We have included in Appendix D, a copy of the Draft Preliminary Notice of Intent for the sewer line extension into the “back properties”, and the draft “Certification Letter”. We firmly believe that these two documents illustrate why these proposed sewer line extensions do not adversely affect agriculture.

Comments from the Town of Cambria (Planning Board and Town Board)

The Planning Board and the Town Board reviewed the DGEIS. Based upon this review and information garnered from meetings that were held on the project, the Planning Board recommended the rezoning to the Town Board. The Planning Board and Town Board had the following comments that were relayed to Wendel for inclusion in the FGEIS.

**Final Generic Environmental Impact Statement
Niagara County Shovel Ready Project**

Comment: *The Planning Board found the proposed uses acceptable. During review of the DGEIS, Town representatives had questions over the definitions of the allowable uses.*

Response: The following definitions were created to address the Planning Board's concerns. These definitions are as follows:

Data Center: A facility which houses large numbers of computer systems and equipment, such as server racks, communications hardware and data storage equipment, for the purpose of large-scale data processing, data storage, computer services, internet service or other computing/server functions.

High Technology Manufacturing: A manufacturing facility that uses advanced technology, innovation or science in the development of products and services, rather than traditional manufacturing processes, and therefore do not present impacts in terms of odor, smoke, vibrations, air pollution, or noise.

Financial Centers: A facility that provides financial services, such as banking, investment services, stock brokering, credit card services or finance (in a non-retail format).

Logistics: Support facilities for logistics operations, including warehousing, distribution centers, and storage or administration services. Facilities must document that impacts due to traffic, noise or other operations will not have negative environmental impacts or impede public health or safety. For the Town of Cambria, a logistics center cannot include more than 25% of the proposed buildings on site being warehousing.

E-commerce: Facility that supports development, marketing, selling, distribution, delivering and servicing the sale of goods and/or services over the internet or via other electronic technologies. No retail sales occur on-site.

Light Manufacturing: A use engaged in the manufacture, predominately from previously prepared materials, of finished products or parts, or food materials, including processing (including processing of food and dairy products), fabrication, assembly, treatment packaging, incidental storage, sales, and distribution of such products, but excluding basic industrial processing and slaughterhouses.

**Final Generic Environmental Impact Statement
Niagara County Shovel Ready Project**

Research & Development: A Facility in which scientific research, investigation, testing, or experimentation takes place. It does not include manufacturing or selling of products, except as incidental to the main purpose of the facility.

Comment: *As noted in the DGEIS, the FGEIS was to include any other design requirements requested by the Town.*

Response: During the review of the DGEIS, the following design requirements were discussed.

- a. Due to the nature of the sites, the type of users desired for this area, and threshold established during the DGEIS process, the Planned Development zoning district could include maximum and minimum building sizes, as follows:
 - Minimum Building Size: 100,000 Square Feet
 - Maximum Building Size: 820,000 Square Feet
- b. Any development on Parcel 1 (Walck property) should include the following minimum design standards:
 - Loading docks should not face Lockport Road.
 - The front of any buildings should have architectural finishes and windows (no long blank walls).
- c. Signage at the highway should only include ground signage (no pylon or pole signs); signs should not greater than 15 feet in height (and in conformance with other Town signage requirements).
- d. Entrance roads connecting to Lockport Road shall include landscaped entrance features (trees, landscaped islands, etc.) to improve the aesthetics of the site entrance (without impacting safety).
- e. The entrance road from the back properties should have a wide median entranceway.

Comment: *The Town raised concerns over the use of TDR (Transfer of Development Rights) or PDR (Purchase of Development Rights) concepts for portions of Parcel 2, as indicated as such on Map 3 in the DGEIS. The Town prefers that the use of PDR's or TDR's be removed from the "Plan".*

**Final Generic Environmental Impact Statement
Niagara County Shovel Ready Project**

Response: The PD Zoning Plan includes areas denoted as “Open Space” and “Possible Purchase of Development Rights Area”. The Open Space areas are mostly restricted from development due to environmental constraints issues (wetlands). The area denoted as “Possible Purchase Development Rights Area” was proposed for the following reasons:

- a. It avoids the impact of having to cross the creek that runs through this area.
- b. This part of the properties is difficult to access. There were concerns of very long dead-end roads, or necessity to cross the power line right-of-ways twice.
- c. It affords the opportunity to provide a buffer to the active Agricultural area (Ohol Farm) to the west and screening from properties to the west and northwest.
- d. It helps to limit any impacts to wetland or wooded areas on the sites.
- e. It illustrates a well designed PD Zoning District; incorporating well placed greenspace areas, potential continuation of a farming use, and maximizing development in the areas best suited for development (developers will be allowed to have minimal setbacks and no requirements for green space within the “development area” illustrated on the PD zoning plan).
- f. It provides an area for developers to utilize to improve the “Green” nature of their plans and potentially helping with reaching LEED criteria.
- g. It helps with mitigating the potential impacts to agriculture in the area.

If the Town does not want to utilize PDR’s or TDR’s to accomplish this, it is not necessary (they are just tools to accomplish this development pattern). It must be understood, that the Zoning Plan of this PD District, illustrates that for this Plan, this area is not being developed.

To make these lands part of the “PD development”, an option would be for the user to purchase all of the lands (95.4 acres), develop the areas denoted as “development area” and “development area/ stormwater management area”, and provide the required greenspace in the areas denoted as “Open space” and “Greenspace/Agriculture/Buffer”. These areas would be preserved through a conservation easement in the name of the Town and deed restrictions placed on these lands.

**Final Generic Environmental Impact Statement
Niagara County Shovel Ready Project**

If an applicant/developer (user) only wants to purchase a portion of the site (back development area), they would be required to purchase a representative portion of the Greenspace/Agriculture /Buffer (one acre of buffer for every 2.5 acres of development area). These “buffer” lands would then have a Conservation easement placed on them and deed restrictions put in place. By utilizing this process and meeting this requirement, the Town accomplishes all of the objectives listed in items “a.” through “g” listed above. It creates a more environmentally sound project and allows the developer to maximize their development in the “development areas”

Public Comments

No written comments were received from the public. The transcript for the Public Hearing is contained in Appendix C. The following was the only comment received at the public hearing:

Comment: *A scenario was discussed where a company would come in and receive tax breaks to build a large structure. After their tax incentives expire, they would abandon the building, leaving it vacant. How will the Town address this issue?*

Response: The comment does not relate to potential environmental impacts of the proposed action and is not something that can be addressed by the Town of Cambria at this time.

APPENDIX A

SEQR Documentation from DGEIS

NOTICE
SEQR: REQUEST FOR LEAD AGENCY DESIGNATION
TOWN OF CAMBRIA

This notice is filed pursuant to Part 617 6NYCRR, Article 8 of the Environmental Conservation Law (SEQRA).

Address: Town of Cambria
4160 Upper Mountain Road
Sanborn, NY 14132

Action: NIAGARA COUNTY SHOVEL READY PROJECT – REZONING AND GEIS
Location: Lockport Road, Town of Cambria, Niagara County, New York.

Description & Location of Action:

The proposed action is for the rezoning of approximately 168 acres of land located north of Lockport Road in the Town of Cambria (which is owned by three separate property owners), and the completion of a GEIS to achieve pre-approved, shovel ready certification for the subject project under the Build Now-NY Program initiative. The objective is to qualify the property under the high technology manufacturing generic site development profile, as set forth under this program. Shovel ready certification is an ongoing component of the Build Now-NY program that gives official recognition to sites that have completed intensive state and local government review necessary to accelerate future investment and development, and are prepared to offer businesses the opportunity to break ground on a new facility in a greatly expedited process.

A Generic Environmental Impact Statement (GEIS) will be prepared to assess the environmental impacts associated with the proposed action (rezoning and future development of the site). To assist with this effort, a conceptual land use scheme will be developed for the site that is sufficient to identify potential environmental constraints and appropriate areas for future development on the site. The GEIS will establish mitigations and thresholds to guide future development at the site. It is the intent of the Niagara County Industrial Development Agency to facilitate future redevelopment of the site under the Build Now – NY Shovel Ready Initiative Program and the GEIS will provide information necessary for streamlining future development approvals of facilities that are in conformance with that document.

As the most local agency with permitting authority, the Town of Cambria wishes to declare Lead Agency and conduct a coordinated review of the proposal.

Identified potential Involved Agencies are:

Niagara County Department of Economic Development and Planning
Niagara County Department of Health
Niagara County Sewer District
Niagara County Water District
New York State Department of Environmental Conservation
New York State Department of Agriculture and Markets

Identified interested agencies may be:

Empire State Development Corporation
National Grid
Buffalo Niagara Enterprise
Niagara County Legislature
Town of Lockport
Town of Pendleton

It is the intent of the Town of Cambria to make a Positive Declaration under SEQR and require the completion of a Generic Environmental Impact Statement for this project.

As a potential Involved or Interested Agency, please notify us by **April 12, 2011** if your agency objects to the Town of Cambria acting as Lead Agency or if you have any specific comments or concerns regarding the project. If there are no objections to the Cambria Town Board acting as Lead Agency, the Town Board will proceed with their review and issuance of a determination of significance (Positive Declaration).

For further information please contact:

Andrew C. Reilly, AICP, PE
Consultant for the Applicant
Wendel Companies
140 John James Audubon Parkway, Suite 201
Amherst, New York 14228
Phone: (716) 688-0766

or

Wright H. Ellis, Supervisor
Town of Cambria
4160 Upper Mountain Road
Sanborn, New York 14132-9416
Phone: (716) 433-7664

BY ORDER OF THE TOWN BOARD OF THE TOWN OF CAMBRIA

Wright H. Ellis, Supervisor

Lead Agency Resolution

WHEREAS, the Town of Cambria has received a Rezoning application from Mr. Donald Walck, Mr. Miron Wasik and Mr. Sanley Ohol, and

WHEREAS, the application is for the rezoning of approximately 168 acres of land, six parcels along the north side of Lockport Road, between Comstock Road and Campbell Blvd, from B-2 and A-R to P-D, and

WHEREAS, it is the intent of the Mr. Walck, Mr. Wasik and Mr. Ohol in association with Niagara County to create a 'High Technology Manufacturing Site' developed under the Build Now-NY initiative (Shovel Ready Program), and

WHEREAS, the rezoning application appears to be in conformance with the Comprehensive Plan, and

WHEREAS, pursuant to Part 617 of the implementing regulations pertaining to Article 8 (State Environmental Quality Review Act - SEQR) of the Environmental Conservation Law, the Cambria Town Board would like to designate themselves as Lead Agency.

NOW, THEREFORE, BE IT RESOLVED, that the Cambria Town Board requests SEQR Lead Agency designation for the project, with the intent to require a GEIS, and authorizes the Town Clerk to perform the appropriate Lead Agency mailings, and

BE IT FURTHER RESOLVED, that the rezoning application and subsequent DGEIS be referred to the Planning Board for their review, comment and recommendation.

APPENDIX A

State Environmental Quality Review Act POSITIVE DECLARATION Notice of Determination of Significance And Intent to Prepare a Draft Environmental Impact Statement

This notice is issued pursuant to Part 617 of the State regulations pertaining to Article 8 (State Environmental Quality Review Act - SEQR) of the Environmental Conservation Law. The Town of Cambria Town Board, as SEQR Lead Agency, has determined that the proposed action described below may have a significant effect on the environment and that a Draft Environmental Impact Statement will be prepared after scoping.

Title of Action: Niagara County Shovel Ready Project

Jurisdiction: The proposed action is a request for rezoning. Rezoning approval is the jurisdiction of the Town of Cambria Town Board, as recommended by the Town Planning Board.

SEQR Status: Type I

Applicable Threshold: The proposed action involves the rezoning of approximately 152 acres of land to enable development of high technology manufacturing uses, which exceeds the threshold set forth in 617.4(b) (6) (i) - a project or action that involves the physical alteration of 10 acres.

Description of Action: The proposed action involves the rezoning and environmental assessment of approximately 152 acres of land situated north of Lockport Road, in the Town of Cambria, Niagara County, New York, from A-R (Agricultural Residential District) to B-2 (General Business District) to Planned Development (PD), to achieve pre-approved, shovel ready certification for the subject property under the Build Now-NY Program initiative. The objective is to qualify the property under the high technology-manufacturing site development profile, as set forth under this program. It has been determined that potential environmental impacts may result from the proposed action; therefore, the Town of Cambria, as Lead Agency, has authorized the Project Sponsor to prepare a Generic Environmental Impact Statement to assess said potential impacts.

Reasons Supporting this Determination:

- 1. Impact on Land:** The proposed action will result in the construction of buildings and paved surfaces on vacant land.
- 2. Impact on Water:** The proposed action will require the extension of public water service and result in use of public water supply.
- 3. Impact on Plants and Animals:** The proposed action will result in the removal of certain ground cover on the site.
- 4. Impact on Agricultural Land Resources:** The proposed action will result in the conversion of agricultural lands to commercial use, removing these lands from active farming.
- 5. Impact on Aesthetic Resources:** The proposed action could result in significant changes to viewsheds in the area, potentially impacting the character of the community.
- 6. Impact on Transportation:** The proposed action could result in significant changes to existing traffic volumes and patterns in the surrounding community.

7. **Impact on Energy:** The proposed action will require the creation or extension of an energy transmission or system to serve a major commercial or industrial use.
8. **Noise and Odor Impacts:** The proposed action may generate significant noise above ambient levels in the vicinity.
9. **Impact on Growth and Character of the Community:** The proposed action will cause a significant change in the density of land use that could negatively impact the character of the neighborhood and may create a significant demand for additional community services (police, fire, etc.).

For Further Information Contact: Wright H. Ellis, Supervisor
Town of Cambria Town Board
4160 Upper Mountain Road
Sanborn, NY 14132

A PUBLIC SCOPING SESSION WILL BE HELD ON MAY 11, 2011.

A copy of this notice will be sent to:

Environmental Notice Bulletin
Division of Environmental Permits
4th Floor
625 Broadway
Albany, NY 12233-1750
enb@gw.dec.state.ny.us

NYS Dept. of State
65 Court Street
Buffalo, NY 14203

Wright H. Ellis, Supervisor
Town of Cambria
4160 Upper Mountain Road
Sanborn, NY 14132-9416

NYS Dept. of Transportation
Region 5
100 Seneca Street
Buffalo, NY 14203

David Denk, Regional Permit Administrator
NYSDEC, Region 9
270 Michigan Ave
Buffalo, NY 14203-2999

Niagara County Health Dept
Mountainview Campus – Shaw Building
5467 Upper Mountain Road
Lockport, NY 14094-1894

Niagara County IDA
6311 Inducon Corporate Drive
Sanborn, NY 14132

Resolution for the Issuance of a SEQR Positive Declaration of Significance

WHEREAS, the Town of Cambria has received a Rezoning application from Mr. Donald Walck, Mr. Miron Wasik and Mr. Stanley Ohol, in association with the County of Niagara, for the rezoning of approximately 152 acres of land, encompassing four parcels located along the north side of Lockport Road, between Comstock Road and Campbell Blvd, from B-2 and A-R to P-D; and

WHEREAS, it is the intent of the Mr. Walck, Mr. Wasik , Mr. Ohol and the County to create a 'High Technology Manufacturing Site' in conjunction with the Build Now-NY Shovel Ready Program Initiative coordinated under the Empire State Development Corporation and the Governor's Office of Regulatory Reform; and

WHEREAS, the Cambria Town Board referred this application to the Planning Board for the review and investigation of issues associated with this action and the subsequent potential development of the land; and

WHEREAS, pursuant to Part 617 of the implementing regulations pertaining to Article 8 (State Environmental Quality Review Act - SEQR) of the Environmental Conservation Law, the Cambria Town Board has conducted a coordinated review to establish itself as the SEQR Lead Agency for this action.

NOW, THEREFORE BE IT RESOLVED, that the Cambria Town Board, having heard no objections to their Lead Agency designation, hereby establishes itself as the SEQR Lead Agency for this project, and

BE IT FURTHER RESOLVED that the Cambria Town Board has determined that certain significant adverse environmental impacts may result from the proposed action and hereby issues a Positive Declaration of Significance, requiring the preparation of a Generic Environmental Impact Statement (GEIS), in conformance with the SEQR regulations, to fully evaluate the potential adverse environmental impacts associated with this action, and

BE IT FURTHER RESOLVED, that the Cambria Town Board will schedule a Public Scoping Session for April __, 2011 at ** at the ** to help specify the focus of the GEIS to only the potentially significant adverse impacts that may result from the proposed action, and to eliminate consideration of those impacts that are irrelevant or non-significant, and

BE IT FINALLY RESOLVED that the Town Board authorizes the Town of Cambria Town Clerk, with assistance from the Wendel, the consultant on this project, to complete the appropriate paperwork and filing requirements for this Positive Declaration, and publish the required public meeting notice for the Public Scoping Session. A draft scoping document, completed by Wendel, will also be made available at the Town Clerk's office and on the Town's website for public review.

New York State Department of Environmental Conservation

Division of Environmental Permits, Region 9

270 Michigan Avenue, Buffalo, New York, 14203-2915

Phone: (716) 851-7165 · Fax: (716) 851-7168

Website: www.dec.ny.gov



Joe Martens
Acting Commissioner

April 7, 2011

RECEIVED

APR 11 2011

WENDEL

Honorable Wright H. Ellis
Town of Cambria
4160 Upper Mountain Road
Sanborn, New York 14132-9416

Dear Supervisor Ellis:

**SEQR LEAD AGENCY DESIGNATION
NIAGARA COUNTY SHOVEL READY PROJECT
LOCKPORT ROAD - TOWN OF CAMBRIA**

This is in response to your correspondence received by the Department on March 15, 2011, which included a description of the proposed action, a full Environmental Assessment Form and a location map. The Department concurs that the Town of Cambria should act as SEQR Lead Agency, since the environmental impacts of the proposal are primarily of local significance. Based upon our review of the project information submitted, the following environmental concerns were identified:

1. A portion of this site is located within New York State regulated Freshwater Wetland CB-2. A Freshwater Wetlands Permit pursuant to Article 24 of the New York State Environmental Conservation Law will be required by this office for any physical disturbance within the wetland or its regulated 100-foot wide adjacent area. The boundary of this wetland should be delineated to determine the full extent of the regulated wetland and adjacent area on the project site. Please complete and submit the enclosed Request for a Wetland Determination or Delineation form to the attention of Mr. Charles Rosenberg of the Department's Division of Fish, Wildlife and Marine Resources via mail, fax (716-851-7053) or e-mail (cprosenb@gw.dec.state.ny.us). The delineation should be completed prior to the completion of the GEIS and development of project plans.

It is very likely that the project area also includes federally regulated wetlands. For questions regarding federally regulated wetlands, the federal permitting process and to request a delineation of federally regulated wetlands, you should contact the U.S. Army Corps of Engineers at: Chief, Regulatory Branch, U.S. Army Corps of Engineers (Corps), Buffalo District, 1776 Niagara Street, Buffalo, NY 14207 or (716) 879-4330. If Federal Wetlands are involved, the Corps may require the project sponsor to obtain Section 401 Water Quality Certification from this Department.

2. Since project activities will involve land disturbance of 1 acre or more, the project sponsor, owner or operator is required to obtain a State Pollutant Discharge Elimination System General Permit for Stormwater Discharges from Construction Activity (GP-0-10-001). This General Permit requires the project sponsor, owner or operator to control stormwater runoff according to a Stormwater Pollution Prevention Plan (SWPPP), which is to be prepared prior to filing a Notice Of Intent (NOI) and prior to commencement of the project. More information on General Permit GP-0-10-001, as well as the NOI form, is available on the Department's website at www.dec.ny.gov/chemical/43133.html.

The Town of Cambria is designated as an MS4 community. The project sponsor, owner or operator of a construction activity that is subject to the requirements of a regulated, traditional land use control MS4 shall have their SWPPP reviewed and accepted by the MS4 community. The "MS4 SWPPP Acceptance" form must be signed by the principle executive officer or ranking official from the MS4 community, or by a duly authorized representative of that person, and submitted, along with the NOI form, to the Department at NOTICE OF INTENT, NYSDEC, Bureau of Water Permits, 625 Broadway, Albany, New York 12233-3505, telephone: 518/402-8111 to receive Department approval before construction commences.

3. Please be aware that if this project requires Sewer Extension Approval, the Niagara County Health Department, 5467 Upper Mountain Road, Lockport, New York 14094, telephone: 716/439-7444 which acts as our agent, will be the approving agency. Information concerning Sewer Extension Approval can be obtained by contacting that agency.

A detailed Downstream Sewer Capacity Analysis must be performed and submitted for the Niagara County Shovel Ready Project. Recent wet weather flow monitoring data and proposed new development flow should be analyzed relative to theoretical capacity at key nodes in the downstream sewer system and at pump stations (if any) to determine if capacity exists.

Recent wet weather system flow data can consist of:

- Information from recent Sanitary Sewer System Evaluation Studies, or
- Wet weather data collected at (minimum of 3) key downstream nodes specified by the municipality.
 - This dated information can consist of instantaneous flow measurements or continuous flow or sewer depth measurements obtained during significant wet weather events, preferably during high groundwater conditions. Peak sewer flow recording methods are an acceptable method to collect this information.
 - Depth or flow measurements should continue until a significant wet weather event occurs, but would not have to extend beyond three months. A significant wet weather event is considered to be a daily rainfall amount of ½" or greater.

The Downstream Sewer Capacity Analysis must also contain a narrative and a detailed map showing the downstream routing of sewers from the proposed project site to the Wastewater Treatment Plant. Line sizes, theoretical capacity and pump stations must be identified and included in the analysis.

4. A portion of the site appears to be within an archaeologically sensitive area, as shown on the enclosed New York State Office of Parks, Recreation and Historic Preservation (OPRHP) map (Website www.oprhp.state.ny.us/nr/main.asp). As part of the SEQR process, the Town should evaluate this concern, unless it can be verified by appropriate documentation that the site has been significantly disturbed in a way that would destroy potential artifacts. Please recognize that normal agricultural activities, such as plowing, would not constitute such land disturbance. If there are any questions regarding this, contact OPRHP (telephone: 518/237-8643). Note: If any of the described Department approvals are required, an appropriate archaeological investigation must be conducted in order to satisfy the New York State Historic Preservation Act.

5. This project site is located within Niagara County Agricultural District #6. A Notice of Intent must be filed with the Commissioner of the NYS Department of Agriculture and Markets pursuant to 1 NYCRR Part 371 for any work contemplated within an agricultural district.

The Department strongly recommends that a meeting be held with the Town, your consultant and Department staff early in the scoping of the generic environmental impact statement and the project plans to ensure that all relevant issues are included in the project review. If you have any questions regarding this letter or if you wish to set up a project meeting, please feel free to contact me at 716/851-7165.

Respectfully,



Lisa M. Porter
Deputy Permit Administrator

cc: Mr. Jeffrey Konsella, NYSDEC DOW
Mr. Charles Rosenberg, NYSDEC DFWMR
Buffalo District, US Army Corps of Engineers
Mr. Andrew Reilly, Wendel DuChescherer

APPENDIX B

Additional SEQR Documentation

State Environmental Quality Review
Notice of Completion of Draft EIS

July 21, 2011

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.

A DRAFT Generic Environmental Impact Statement has been completed and accepted by the Cambria Town Board as lead agency, for the proposed action described below.

Comments on the DRAFT Generic Environmental Impact Statement are requested and will be accepted by the contact persons until August **21, 2011**.

Name of Action: Niagara County Shovel Ready Project

Description of Action: The proposed action involves the rezoning and environmental assessment of approximately 152 acres of land situated north of Lockport Road, in the Town of Cambria, Niagara County, New York, from A-R (Agricultural Residential District) to B-2 (General Business District) to Planned Development (PD), to achieve pre-approved, shovel ready certification for the subject property under the Build Now-NY Program initiative. The objective is to qualify the property under the high technology-manufacturing site development profile, as set forth under this program. It has been determined that potential environmental impacts may result from the proposed action; therefore, the Town of Cambria, as Lead Agency, has authorized the Project Sponsor to prepare a Generic Environmental Impact Statement to assess said potential impacts.

Location: Lockport Road, east of Campbell Blvd., Town of Cambria, Niagara County, New York

Potential Environmental Impacts:

Land and Soils: Proposed action will result in the construction of buildings and paved surfaces on vacant land.

Water Resources: The proposed action will require the extension of public water service and result in use of public water supply.

Impact on Plants and Animals: The proposed action will result in the removal of certain ground cover on the site.

Impact on Agricultural Land Resources: The proposed action will result in the conversion of agricultural lands to commercial use, removing these lands from active farming.

Impact on Aesthetic Resources: The proposed action could result in significant changes to viewsheds in the area, potentially impacting the character of the community.

Impact on Transportation: The proposed action could result in significant changes to existing traffic volumes and patterns in the surrounding community.

Impact on Energy: The proposed action will require the creation or extension of an energy transmission or system to serve a major commercial or industrial use.

Noise and Odor Impacts: The proposed action may generate significant noise above ambient levels in the vicinity.

Impact on Growth and Character of the Community: The proposed action will cause a significant change in the density of land use that could negative impact the character of the neighborhood and may create a significant demand for additional community services (police, fire, etc.).

A copy of the Draft EIS is available on the Town's website: <http://www.townofcambria.com>
or it may be obtained from:

Town of Cambria
Wright H. Ellis, Supervisor
4160 Upper Mountain Road
Sanborn, New York 14132
Phone: 716-433-8523

Andrew C. Reilly
Wendel Companies
140 John James Audubon Parkway
Suite 201
Buffalo, New York 14228
Phone: 716-688-0766

A copy of this notice has been sent to:

See Attached list.

New York State Department of Environmental Conservation

Division of Environmental Permits, Region 9

270 Michigan Avenue, Buffalo, New York, 14203-2915

Phone: (716) 851-7165 · Fax: (716) 851-7168

Website: www.dec.ny.gov



Joe Martens
Commissioner

August 19, 2011

Honorable Wright H. Ellis
Town of Cambria
4160 Upper Mountain Road
Sanborn, New York 14132

Dear Supervisor Ellis:

COMMENTS ON DRAFT GENERIC EIS NIAGARA COUNTY SHOVEL READY PROJECT LOCKPORT ROAD, EAST OF CAMPBELL BOULEVARD TOWN OF CAMBRIA, NIAGARA COUNTY

Based upon the Department's review of the Draft Generic Environmental Impact Statement (DGEIS) for the rezoning and future development of the Niagara County Shovel Ready Project site on Lockport Road, the following comments are provided.

Table of Contents

1. The Table of Contents lists an Executive Summary, however there is no Executive Summary included in the DGEIS. Will the Executive Summary be included in the final document?

Section 4.0 – Potential Environmental Impacts

2. Subsection 4.3.2 Wetlands states that "future site development would be designed to fully avoid the two existing areas of wetlands". It is noted that Map 19 – Preferred Concept Plan shows that the proposed structures and parking spaces will avoid the wetland area, however the maps in Appendices F and G showing the proposed water and sewer transmission mains for the project indicate that they may be installed within the regulated 100 foot adjacent area of NYS Freshwater Wetland CB-2. Potential impacts and permitting requirements related to this work should be discussed. It appears that the installation of the water main was covered by an Article 24 permit issued to the Niagara County Water District for a transmission main on Lockport Road from Ward Road to Campbell Boulevard (DEC No. 9-2999-00020) in November 2010, however it does not appear that a permit was issued for installation of the sewer transmission main.
3. Subsection 4.4 Climate and Air Quality should include discussion of project impacts on climate change, including greenhouse gas emissions. Climate change guidance documents are available on the Department website at <http://www.dec.ny.gov/regulations/56552.html>.
4. The first sentence of the third paragraph of Subsection 4.7 Community Facilities states that "the proposed Planned Development (PD) zoning will prohibit the development of non-residential uses on the site..."; however based on the intent of this proposed project it seems that this sentence should state that residential uses are prohibited. Please revise.

Hon. Wright H. Ellis
August 19, 2011
Page 2

Appendix D – Wetland Delineation Report

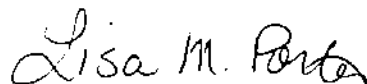
5. Department staff have reviewed the wetland delineation report in Appendix D and would like to do a site inspection to review the flagged wetland boundary in the field to determine the limits of Article 24 jurisdiction in the project area. Please send a written request for site inspection for boundary verification to Mr. Charles Rosenburg, NYSDEC, Division of Fish, Wildlife and Marine Resources at the address above.

Appendix E – Cultural Resources Survey

6. Copies of the Cultural Resources Survey, additional studies, and any correspondence received from NYS Office of Parks, Recreation and Historic Preservation in response to the Cultural Resources Survey should be included in Appendix E.

If you have any questions regarding this letter, please feel free to contact me at 716/851-7165.

Respectfully,



Lisa M. Porter
Deputy Permit Administrator

cc: Mr. Charles Rosenburg, NYSDEC Division of Fish, Wildlife & Marine Resources
Mr. Andrew Reilly, Wendel Duchscherer

NOTICE OF PUBLIC HEARING TOWN OF CAMBRIA

PLEASE TAKE NOTICE that the Town Board of the Town of Cambria will conduct a Public Hearing at the Cambria Town Hall, 4160 Upper Mountain Road, Sanborn, New York 14132, on the 11th day of August, 2011 at 8:00 p.m. to hear and consider public comment on the proposed Draft Generic Environmental Impact Statement (DGEIS) on the re-zoning application from Walck, Wasik, and Ohol to rezone approximately 152 acres of land encompassing five parcels of land situate along the north side of Lockport Road between Comstock Road and Campbell Blvd. From B-2 and A-R to P-D to create a “High Technology Manufacturing Site” in conformance with the Build Now – NY Shovel Ready Program.

Copies of the Draft Generic Environmental Impact Statement are available in the Office of the Town Clerk at the above address for inspection and/or copying during regular office hours. All interested parties will be heard.

DATED: July 27, 2011

BY ORDER OF THE TOWN BOARD,
TOWN OF CAMBRIA
Lou Ann Murawski, Town Clerk

APPENDIX C

Public Hearing Minutes

TOWN OF CAMBRIA TOWN BOARD

AUGUST 11, 2011

The regular meeting of the Town of Cambria Town Board was held on the 11th day of August 2011 at 8:00 p.m. at the Town of Cambria Town Hall, 4160 Upper Mountain Road, Town of Cambria, NY

BOARD MEMBERS PRESENT:

Wright H. Ellis, Supervisor
Robert E. Blackman, Councilman
George J. Bush, Councilman
Joseph Ohol, Councilman
Randy M. Roberts, Councilman

ALSO PRESENT:

Jon T. MacSwan, Highway Superintendent
Lou Ann Murawski, Town Clerk
Robert E. Roberson, Attorney
Randy Roeseler/Andrew Reilly, Wendel
David E. Godfrey, Niagara County Legislator
12 interested individuals

Following salute to the flag, Supervisor Ellis opened the public hearing on the DGEIS for the Niagara County Shovel Ready Project. The Clerk read the following public hearing notice:

NOTICE OF PUBLIC HEARING

Please take notice that the Town Board of the Town of Cambria will conduct a public hearing at the Cambria Town Hall, 4160 Upper Mountain Road, Sanborn, New York 14132, on the 11th day of August 2011 at 8:00 p.m. to hear and consider public comment on the proposed Draft Generic Environmental Impact Statement (DGEIS) on the re-zoning application from Walck, Wasik and Ohol to rezone approximately 152 acres of land encompassing five parcels of land situate along the north side of Lockport Road between Comstock Road and Campbell Blvd. from B-2 and A-R to P-D to create a "High Technology Manufacturing Site" in conformance with the Build Now – NY Shovel Ready Program.

Copies of the Draft Generic Environmental Impact Statement are available in the Office of the Town Clerk at the above address for inspection and/or copying during regular office hours. All interested parties will be heard.

BY ORDER OF THE TOWN BOARD TOWN OF CAMBRIA

Andrew Reilly presented an overview of the project and, more specifically, the DGEIS. The project involves 152 acres of land of which approximately 86 acres would be developed. He explained the project will not impact any floodplains, wetlands or protected streams. Also, there are no threatened or endangered species or archaeological or historic resources that will be affected. The proposed PD zoning would allow uses such as data centers, high technology manufacturing, light assembly, financial centers and agriculture. The PD zoning is in accordance with the Town's Comprehensive Plan.

Mr. Reilly explained the purpose of the public hearing is to determine the specific and relevant environmental issues addressed in the draft GEIS and the potential impacts of the proposed project. Questions and comments received on the draft GEIS will be addressed in a final GEIS document. He further explained that the public comment period will be open for a ten day period for the submission of any comments.

The following individuals were given an opportunity to be heard:

Ron Caracci, Andrews Road, expressed his concern that developers are initially attracted to sites such as this for the tax breaks and once the tax incentives are no longer available, they abandon the property. He suggested the Board look into the exit strategies of the potential developers of the site.

As there were no further questions or comments, the public hearing was closed.

APPENDIX D

Additional Studies

**PHASE I ARCHAEOLOGICAL
INVESTIGATION REPORT**

**Niagara County Shovel Ready Application Project,
Town of Cambria,
Niagara County, New York**

Prepared for:

**Wendel Duchscherer Architects and Engineers
140 John James Audubon Pkwy, Suite 201
Amherst, New York 14228**

Prepared by:

**Tetra Tech, Inc.
Cultural Resources Services Group
285 Ellicott Street
Buffalo, New York 14203**

Report Author:

**Bonnie L. Locking, M.A.
Principal Investigator**

August 2011



TETRA TECH

MANAGEMENT SUMMARY

SHPO Project Review Number: 10PR05289

Involved State and Federal Agencies (DEC, CORPS, FHWA, etc.): CORPS, DEC

Phase of Survey: 1A/B

Location Information

Location: Comstock and Lockport Roads

Minor Civil Division: Town of Cambria

County: Niagara

Survey Area (Metric and English)

Length: Not applicable

Depth: Not applicable

Number of Acres Surveyed: 40.7 hectares (100.5 acres)

Number of Square Meters and Feet Excavated (Phase II, Phase III only): Not applicable

Percentage of the Site Excavated (Phase II, Phase III only): Not applicable

USGS 7.5-Minute Quadrangle Map: Cambria

Archaeological Survey Overview

Number and Interval of Shovel Tests: 181 / 15 meter interval (50 feet)

Number and Size of Units: Not applicable

Width of Plowed Strips: 3 meters (10 feet)

Surface Survey Transect Interval: Not applicable

Results of Archaeological Survey

Number and name of prehistoric sites identified: 0

Number and name of historic sites identified: 0

Number and name of sites recommended for Phase II/Avoidance: 0

Results of Architectural Survey

Number of buildings/structures/cemeteries within project area: 0

Number of buildings/structures/cemeteries adjacent to project area: 0

Number of previously determined NR listed or eligible building/structures/cemeteries/districts: 0

Number of identified eligible buildings/structures/cemeteries/districts: 0

Report Author(s): Bonnie L. Locking

Date of Report: August 2011

TABLE OF CONTENTS

SECTION	PAGE
1.0 INTRODUCTION	1
1.1 PROJECT DESCRIPTION	1
1.2 BACKGROUND RESEARCH	1
1.2.1 Environmental Setting	1
1.2.2 Past and Present Land Uses and Current Conditions	5
1.2.3 Previous Cultural Resource Investigations	5
1.3 PREVIOUS DISTURBANCE	8
1.4 ARCHAEOLOGICAL SENSITIVITY ASSESSMENT	8
1.5 TESTING RECOMMENDATIONS	8
2.0 FIELD INVESTIGATIONS	9
2.1 METHODOLOGY	9
2.2 RESULTS	9
3.0 SUMMARY AND RECOMMENDATIONS	11
4.0 BIBLIOGRAPHY	12

LIST OF FIGURES

FIGURE	PAGE
Figure 1 Project Location Map for the Niagara County Shovel Ready Application Project, Town of Cambria, Niagara County, New York	2
Figure 2 USDA Soils Map for the Niagara County Shovel Ready Application Project, Town of Cambria, Niagara County, New York	4
Figure 3 Niagara County Shovel Ready Application Project, Town of Cambria, Niagara County, New York – Location Shown on the F.W. Beers & Co. Atlas, 1875	6
Figure 4 Niagara County Shovel Ready Application Project, Town of Cambria, Niagara County, New York – Location Shown on the NY, 15-minute Series Topographic Quadrangle, 1900.	7
Figure 6 Archaeological Investigation Map for the Niagara County Shovel Ready Application Project, Town of Cambria, Niagara County, New York	10

LIST OF TABLES

TABLE	PAGE
Table 1. Soil Descriptions for the Niagara County Shovel Ready Application Project, Town of Cambria, Niagara County, New York	3
Table 2. Previously Identified Cultural Resources within 1.6 kilometers (1.0 mile) of the Niagara County Shovel Ready Application Project, Town of Cambria, Niagara County, New York	5

LIST OF ATTACHMENTS

<u>ATTACHMENT</u>	<u>DESCRIPTION</u>
Attachment A	Photographic Record
Attachment B	Shovel Test Record

1.0 INTRODUCTION

A Phase I archaeological investigation of the proposed Niagara County Shovel Ready Application Project (Project), located in the Town of Cambria, Niagara County, New York, was undertaken by the Tetra Tech, Inc.'s (Tetra Tech) Cultural Resources Services Group between May 11, 2011 and July 29, 2011. This survey was conducted on behalf of Wendel Duchscherer Architects and Engineers in accordance with cultural resource management practices as required on the Federal and State level. Specifically, the Phase I archaeological investigation was conducted in accordance with the National Historic Preservation Act of 1966, as amended, Executive Order 11593, the regulations of the Advisory Council on Historic Preservation (36 Code of Federal Regulations [CFR] 800), Section 14.09 of the New York State Parks, Recreation and Historic Preservation Law of 1980, and the New York Archaeological Council's (NYAC) *Standards for Cultural Resource Investigations and Curation of Collections* (1994).

The Phase I archaeological investigation of the Project included a reconnaissance survey (visual assessment, site walkover, and photodocumentation), background research including archaeological site file searches, and systematic surface inspection and subsurface excavations of the approximately 67.9 hectares (ha) (167.9 acres [ac]) Project area. The purpose of the Phase I archaeological investigation was to identify prehistoric or historic archaeological sites within the Project area.

The Phase I archaeological investigation was completed under the direction of Bonnie L. Locking. Ms. Locking meets 36 CFR 61 qualifications for conducting Archaeological Review and Compliance Projects in New York. Aaron Clute, Patrick Fazioli, Michael Rienti, and Codi Vileno assisted as archaeological field technicians. This report summarizes the background research, describes the environment of the Project area, presents the field methods employed in the survey, and describes the results and recommendations of the field investigation.

1.1 PROJECT DESCRIPTION

To give state and local economic developers and edge in attracting businesses, New York State developed the concept of "pre-permitting" or certifying sites through the New York State Shovel Ready Certification Program. By having communities select and prepare sites for specifically targeted economic development, potential time delays posed by the permitting and environmental review processes can be minimized. The Niagara County Department of Economic Development has funding available for the preparation of a Shovel Ready Certification Application for the proposed site in Town of Cambria, referred to as the Cambria Site.

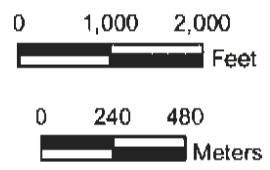
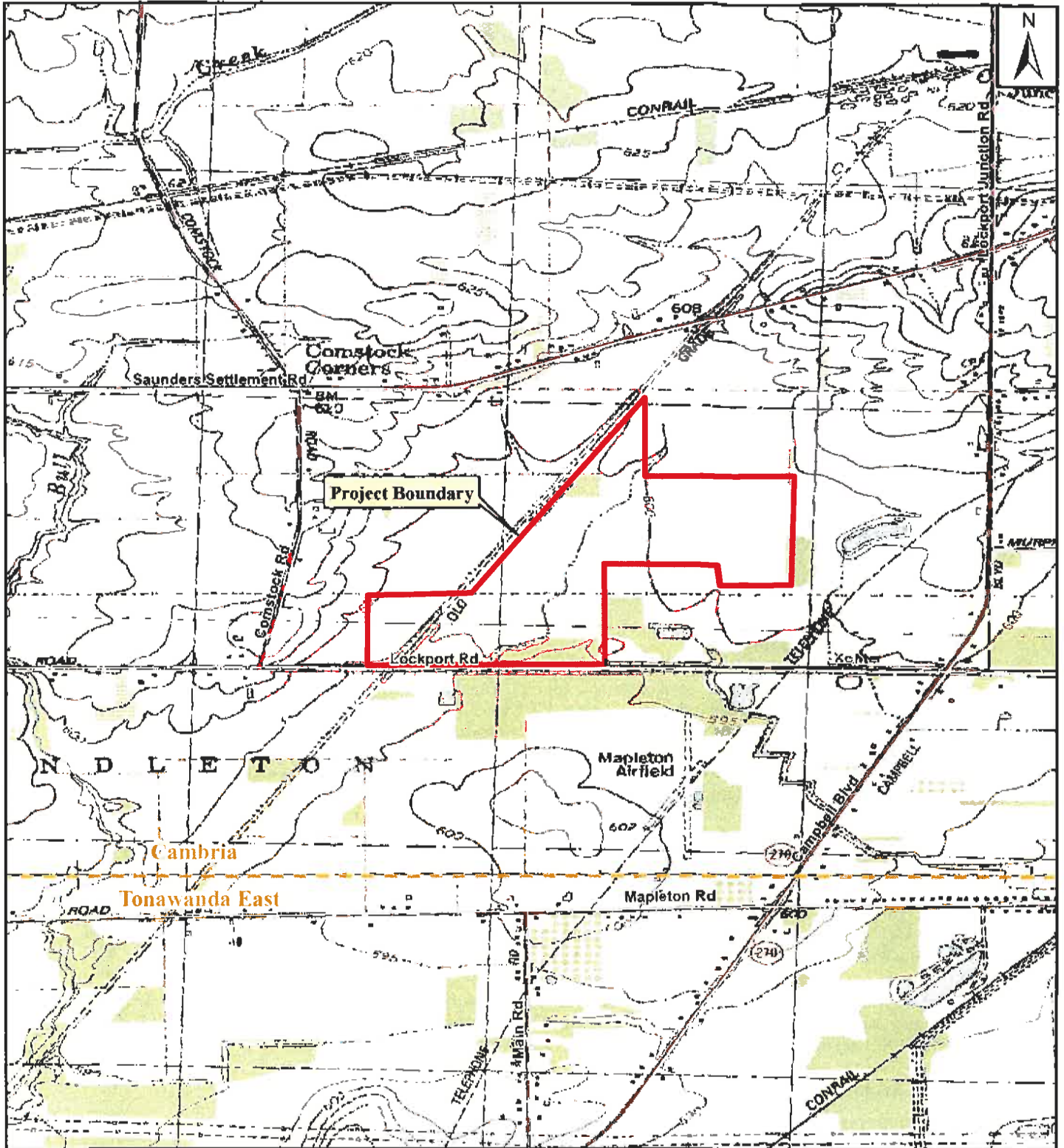
The Cambria Site is approximately 67.9 ha (167.9 ac) and located directly adjacent to and north of Lockport Road, in Cambria, NY (see Figure 1). Lockport Road is a two-lane highway which runs through a predominately agricultural area. The proposed Project area is located within in a rural environment and currently contains undeveloped agricultural fields with a wetland bordering the southern Project boundary.. The site is currently zoned Special Light Industrial. The property has the potential to be developed into a facility for a data center or other high tech application. No existing structures are located within the Project area.

Portions of the Cambria Site are not suitable for the proposed development (see Figure 5). The Project's archaeological Area of Potential Effect (APE) is limited to only those areas proposed for development and includes 40.7 ha (100.5 ac) of the 67.9 ha (167.9 ac) property.

1.2 BACKGROUND RESEARCH

1.2.1 Environmental Setting

The Project area is located within the northern portion of the Erie-Ontario Plain Physiographic Province (United States Department of Agriculture [USDA] 1986). The topographic features of the Project area were originally created by glacial activities and postglacial lake sedimentation. The Project area is nearly level lying at an elevation of 180 meters (m) (590 feet [ft]) above sea level. The topography within 1.6 kilometers (km) (1 mile [mi]) of the Project area ranges from 180 m (590 ft) to 191 m (625 ft) above mean sea level (MapTech 1997).



- Legend**
- Project Boudary
 - USGS Topo Boundary

Figure 1. Project Location Map for
Niagara County Shovel Ready
Project, Town of Cambria,
Niagara County, New York.

Prepared For: **Wendel Duchscherer**
Architects and Engineers

Prepared By: **TETRA TECH** Date: **8/2011**

Source: USGS 7.5' Topographic Quadrangles Digital Raster Graphic (DRG); DRG used: Cambria, New York 1980.

Agricultural portions of the Project area are currently planted with winter wheat. The remainder of the Project area has been recently harvested or contains grass ground cover. The Project is bordered to the north and west by agricultural areas and to the south and east by forested wetlands. At the time of the field survey, standing water was observed in several locations throughout the Project area.

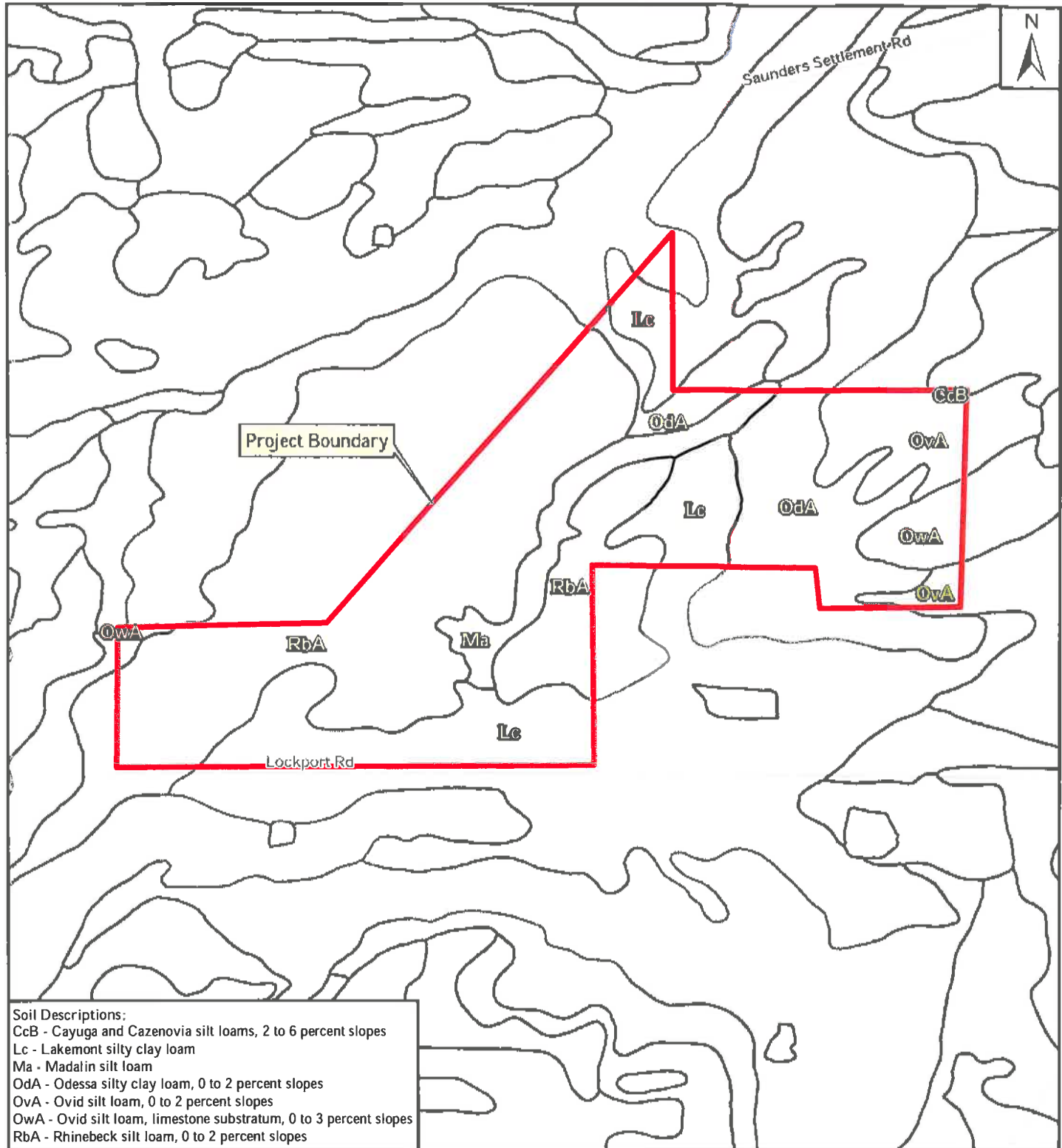
Soils within the Project area are dominated by Rhinebeck Silt Loams. Minor amounts of Odessa Silty Clay Loam, Ovid Silt Loam, and Cayuga and Cazenovia Silt Loams are located within the northeastern portion of the Project area. A band of Madalin Silt Loam is located within the central portion of the Project Area. Soils in the southern portion of the Project area consist primarily of Lakemont Silty Clay Loam and Rhinebeck Silt Loam. Additionally, Lakemont Silty Clay Loam is present in the northwest corner of the Project area. A soil map overlain by the Project area is presented in Figure 2, and Table 1, below, describes the soils in greater detail.

Table 1. Soil Descriptions for the Niagara County Shovel Ready Application Project, Niagara County, New York.

Name	Soil Horizon Depth (cm)	Color	Texture, Inclusions	Slope %	Drainage	Landform
Cayuga and Cazenovia Silt Loam (CcB)	A 0-20 (0-8 in) B 20-64 (8-25 in) C 64-127 (25-50 in)	Dk GBm Rd Brn-Brn RBm	Si Lo Si Cl Lo Grl Lo	2-6%	Moderately Well Drained	Glacial Lakebeds
Lakemont Silty Clay Loam (Lc)	A 0-20 (0-8 in) B 20-66 (8-26 in) C 66-127 (26-50 in)	Blk-V Dk Gry Blk-RYlw Dk Rgry-RBm	Si Cl Lo Si Cl Si Cl Lo	0-3%	Poorly Drained & Very Poorly Drained	Old Glacial Lake Basins
Madalin Silt Loam (Ma)	A 0-15 (0-6 in) B 15-66 (6-26 in) C 66-152 (26-60 in)	V Dk Gry Lt GBm-Lt Lt O Gry	Si Lo Si Cl Si Cl	0-2%	Very Poorly Drained	Depressions, Glacial Lakebeds
Odessa Silty Clay Loam (OdA)	A 0-20 (0-8 in) B 20-84 (8-33 in) C 84-142 (33-60 in)	Dk GBm Dk Gry-BYlw Gry-Brn	Si Cl Lo Si Cl Si Cl	0-2%	Somewhat Poorly Drained	Glacial Lake
Ovid Silt Loam (OvA)	A 0-28 (0-11 in) B 28-61 (11-24 in) C 61-127 (24-50 in)	Dk GBm-Lt Gry RBm-Lt BGry RBm	Si Lo Si Cl Lo Lo	0-2%	Somewhat Poorly Drained	Glacial Lake
Ovid Silt Loam (OwA)	A 0-28 (0-11 in) B 28-61 (11-24 in) C 61-122 (24-48 in)	Dk GBm RBm RBm	Si Lo Si Cl Lo Lo	0-3%	Somewhat Poorly Drained	Reworked Lake Plains, Till Plains
Rhinebeck Silt Loam (RbA)	A 0-25 (0-10 in) B 25-58 (10-23 in) C 58-152 (23-60 in)	V Dk GBm Dk GBm Brn	Si Lo Si Cl Lo Si Cl Lo	0-2%	Somewhat Poorly Drained	Lake Plains

Source: USDA Natural Resources Conservation Service 2011, USDA 1986

KEY: Shade: Dk - Dark, V - Very, Lt - Light
Color: Bl - Black, Brn - Brown, Gr - Gray, GBm - Grayish Brown, YBrn - Yellowish Brown, O - Olive.
Texture: Si - Silt, Lo - Loam, Grl - Gravel, Sa - Sand, Sh - Shale, Be - Bedrock, Ch - Channery, Cl - Clay



Soil Descriptions:
 CcB - Cayuga and Cazenovia silt loams, 2 to 6 percent slopes
 Lc - Lakemont silty clay loam
 Ma - Madalin silt loam
 Oda - Odessa silty clay loam, 0 to 2 percent slopes
 Ova - Ovid silt loam, 0 to 2 percent slopes
 Owa - Ovid silt loam, limestone substratum, 0 to 3 percent slopes
 RbA - Rhinebeck silt loam, 0 to 2 percent slopes

Legend

- Project Boundary
- Roads
- Soils

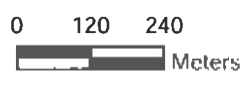


Figure 2. USDA Soils Map for Niagara County Shovel Ready Project, Town of Cambria, Niagara County, New York.

Prepared For: Wendel Duchscherer Architects and Engineers

Prepared By: **TETRA TECH** Date: 8/2011

Source: U.S. Department of Agriculture, Natural Resources Conservation Service, Soil Survey Geographic (SSURGO) database for Niagara County Area, New York 2010.

1.2.2 Past and Present Land Uses and Current Conditions

Background research was performed on past and present land uses at the New York State Office of Parks, Recreation, and Historic Preservation's (NYSOPRHP's) Field Services Bureau and the State University of New York at Buffalo. Evidence for past land uses by prehistoric, proto-historic, and historic Native American groups was based on background research performed at the NYSOPRHP. The research suggests that past land uses by Native American groups in the vicinity of the Project area were associated with major drainages and their tributaries, including Twelve Mile Creek (NYSOPRHP 2006). A site file search at the NYSOPRHP indicated that the Project area is considered archaeologically sensitive. One previously recorded archaeological site in the immediate vicinity of the Project area was identified and is discussed below in Section 1.2.3.

The Town of Cambria, established in 1808, was the first town formed in Niagara County. The early economy of Cambria was mainly agrarian-based accompanied by small cottage industries. The Project area was cleared of timber during the 19th-century and later used for agricultural activities. Today, the Project area remains as agricultural land, having been cultivated as recently as this past growing season. Adjacent areas are partially developed with residential and agricultural structures.

Additionally, historic maps were consulted to investigate prior land use of the Project area (see Figures 3 and 4). Lockport Road and Comstock Road are shown in their current configurations as early as 1875 on the F.W. Beers & Co. Atlas. A review of the U.S. Geological S 15-minutes series quadrangle maps confirms that no permanent development has occurred within the Project area.

1.2.3 Previous Cultural Resource Investigations

Site file research at the NYSOPRHP, including information from the New York State Museum (NYSM) site files, indicated that no archaeological sites are located within the Project area. Located within 1.6 km (1 mi) of the Project area is the Mapleton Ponds Site (06307.000066) (see Table 2). The Mapleton Ponds Site, a prehistoric archaeological site of an undetermined time period, is located approximately 439 m (1,140 ft) south of the Project.

No historic structures listed in, or eligible for listing in, the State or National Register of Historic Places (S/NRHP) were recorded within or near the Project area.

Table 2. Previously Identified Cultural Resources within 1.6 -kilometers (1.0 mile) of the Niagara County Shovel Ready Application Project, Niagara County, New York

NYSOPRHP Site #	Additional Site #	Distance to APE m(ft)	Time Period	Site Type
06307.000066	Mapleton Ponds Site	439 (1440)	Unknown	Stray Find

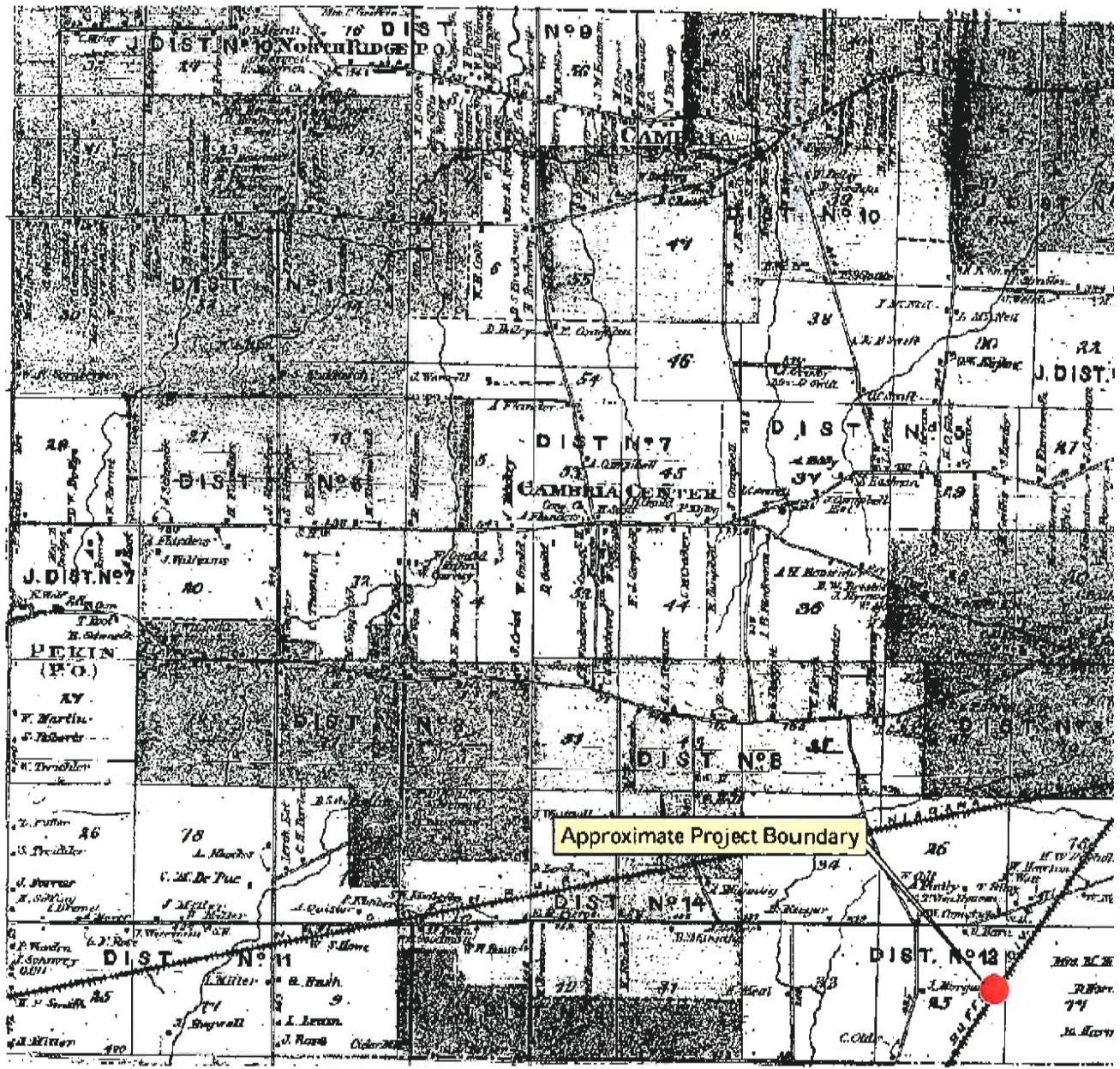
Site file research indicated the Project area has not been previously surveyed for cultural resources; however, the NYSOPRHP files list three previous cultural resource surveys that have been conducted within 1.6 km (1 mi) of the Project (cited below).

Butterbaugh Archeological Consulting, Inc.

2005 Phase I Archeological Report for the Mapleton Ponds Subdivision, Town of Pendleton, Niagara County, New York.


2005 Phase I Archeological Report for the Feigle Road Subdivision, Town of Pendleton, Niagara County, New York.

2005 Phase I Archeological Letter Report for the Mapleton Ponds Subdivision Addition, Town of Pendleton, Niagara County, New York.



Approximate Project Boundary

Legend

 Project Boundary

Not to Scale

Figure 3. Niagara County Shovel Ready Project, Town of Cambria, Niagara County, New York-Location Shown on the Beers, Upton, & Co Atlas, 1875.

Prepared For: Wendel Duchscherer Architects and Engineers

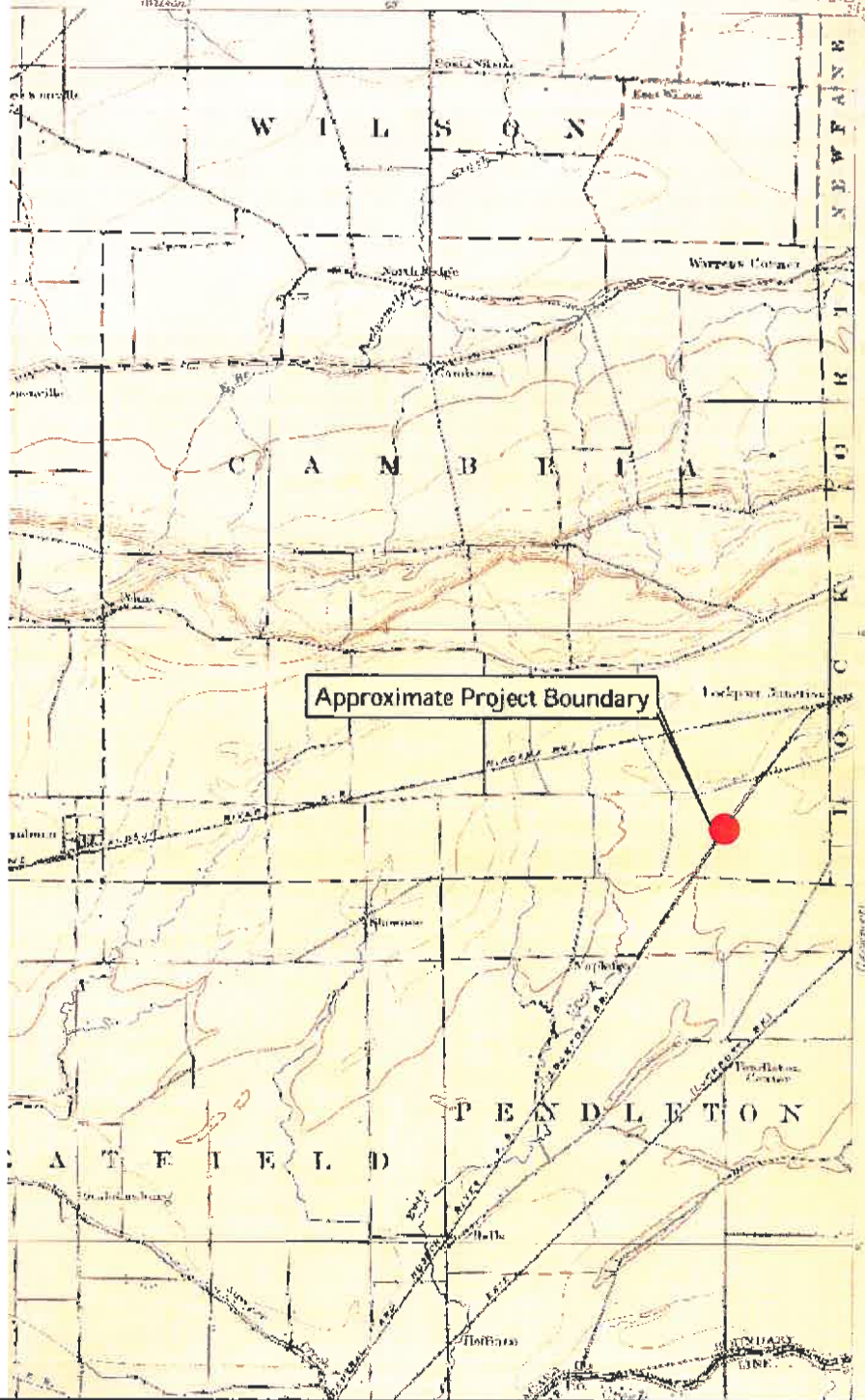
Source: Beers, Upton & Co Atlas, 1875

Prepared By:  TETRATECH

Date: 8/2011

TOPOGRAPHIC SHEET

DEPARTMENT OF GEOLOGY
REFERENCE COLLECTION
NEW YORK
TONAWANDA QUADRANGLE



Legend

 Project Boundary

Not to Scale

Figure 4. Niagara County Shovel Ready Project, Town of Cambria, Niagara County, New York-Location Shown on the Tonawanda 15-series USGS Quadrangle (1900).

Prepared For:

Wendel Duchscherer
Architects and Engineers

Prepared By:



Date:
8/2011

Source: Tonawanda 15 series USGS Quadrangle 1900.

1.3 PREVIOUS DISTURBANCE

The entire Project area has been cleared in the historic and/or recent past. A narrow swath parallel to the north shoulder of Lockport Road has been excavated to accommodate a water line and hydrant system, resulting in disturbance within the southwest corner of the Project area. Additionally, drainage ditches within the Project area were recently excavated, with the overburden and debris from the excavations placed on the ground no more than 15 m (50 ft) from the affected areas. Currently two unpaved farm roads bisect the APE. No other ground disturbances were observed during the survey.

1.4 ARCHAEOLOGICAL SENSITIVITY ASSESSMENT

The sensitivity assessment for the Phase IA archaeological investigation reconnaissance survey included a visual assessment, site walkover, and photodocumentation of the Project area, as well as background research and archaeological site file searches at the NYSOPRHP's Field Services Bureau. The assessment for archaeological sensitivity of the Project area was based on site characteristics (e.g., landform/terrain, soil characteristics, and proximity to water). Also taken into consideration was the nature and level of observed disturbance or modification to the landscape in the Project area due to historic and recent human development.

Based on the results of the Phase IA reconnaissance survey, site file search, and background research the Project was identified as having a moderate probability of containing prehistoric archaeological sites that could be adversely affected by Project activities. In addition, at least one prehistoric archaeological site is known to exist in the immediate vicinity. The Project was identified as containing areas with a low probability of containing historic archaeological sites based on the results of the Phase IA archaeological investigation reconnaissance survey, site file search, and background research. A review of historic maps and aerial photography failed to show any historic development within or nearby the Project area.

1.5 TESTING RECOMMENDATIONS

As a result of the general sensitivity assessment of the Project area for cultural resources and previous disturbance, and at the recommendation of the NYSOPRHP, the scope of work for the Phase IB archaeological investigation of the Project area included subsurface test excavations within the entire APE.

2.0 FIELD INVESTIGATIONS

2.1 METHODOLOGY

Based on the Phase IA archaeological sensitivity assessment Tetra Tech implemented Phase IB archaeological investigations following NYSOPRHP recommendations. Phase IB archaeological investigations consisted of systematic surface inspection along 5 m (15 ft) interval transects in portions of the APE with adequate ground visibility. Surface inspection was conducted after the property had been cleared of vegetation and measurable rain had fallen.

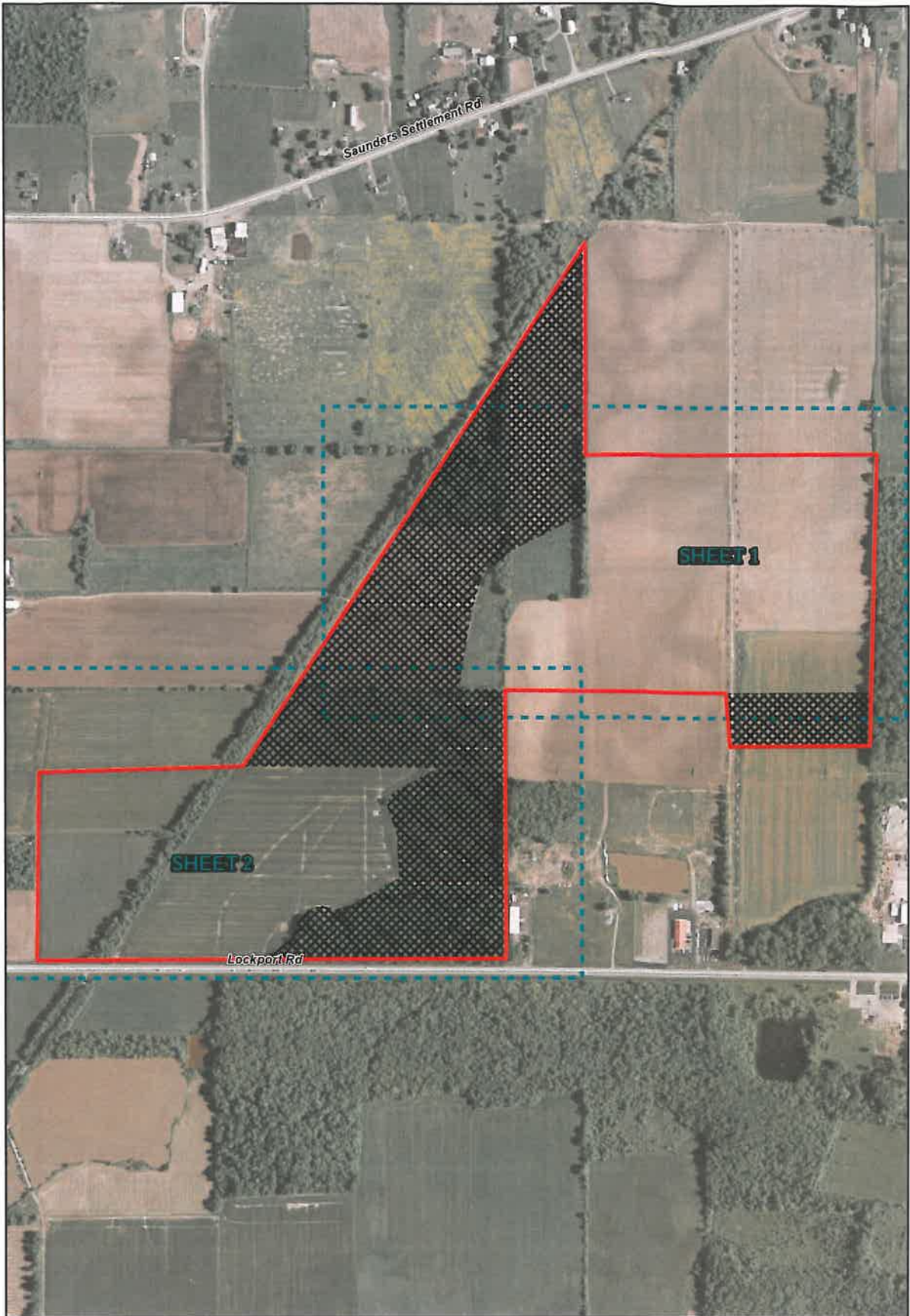
In areas with no surface visibility, subsurface shovel tests (ST) were excavated. Subsurface STs were plotted within transects located at 15 m (50 ft) intervals along a grid pattern in undisturbed portions of the APE (see Figure 5). The soil from each 50 centimeter (cm) (20 inch [in]) diameter ST was removed and screened through ¼-in mesh hardware cloth by natural soil levels. The excavations continued in depth until a sterile stratum was reached or a natural obstacle was encountered. A data log of soil stratigraphy and ST characteristics was recorded prior to backfilling and re-sodding each ST; soil colors were described using the Munsell® system (Munsell Color 1994) (see Attachment B). . Any cultural material secured during the excavations was provenienced by ST and stratigraphic level and placed in plastic bags for processing and curation.

2.2 RESULTS

Archaeological testing was conducted during seasonably warm conditions between May 11-19, June 15-17 and July 25-29, 2011.

Tetra Tech conducted a systematic surface inspection of approximately 35.9 ha (88.6 ac) of the APE for the Project. No cultural material was recovered during the surface inspection. Soils were predominantly very compact with a low percentage of gravel/till inclusions.

In areas where surface inspection was not possible, a total of 192 STs were plotted, of which 181 were able to be fully excavated. The characteristic soil profile for the STs consisted of an A horizon (Level 1) containing a dark grayish brown silty clay. Depths ranged from 15 cm (6 in) to 47 cm (18.5 in), with an average of 28 cm (11 in). B horizon (Level 2) soils generally consisted of a sterile stratum of yellowish brown silty clay. No cultural material was recovered from the 181 excavated STs.



Legend

- Project Boundary
- No Impacts
- Sheet Boundary

Source: ESRI ArcGIS Online and data partners, including imagery from agencies supplied via the Content Sharing Program. Boundary data, Tetra Tech July 2011

0 300 600

Feet

0 60 120

Meters

N

Figure 5 Key. Phase I Archaeological Investigation Map for the Niagara County Shovel Ready Project, Town of Cambria Niagara County, New York.

Prepared For: **Wendel Duchscherer Architects and Engineers**

Prepared By: **TETRA TECH** Date: **8/2011**

P:\GIS\Projects\WCS\Cambria\Map\MapKey.mxd



Legend

- Negative Shovel Test
- ▣ No Impacts
- ▭ Project Boundary
- Sheet Boundary

N

0 100 200 Feet

0 25 50 Meters

SHEET 1

Figure 5 - Phase I Archaeological Investigation Map for the Niagara County Shovel Ready Project, Town of Cambria, Niagara County, New York.

Prepared For: Wendel Duchscherer
 Prepared By: Architects and Engineers TETRA TECH

Date: 8/2011

Source: ESRI ArcGIS Online and data partners, including imagery from agencies supplied via the Content Sharing Program. Boundary and ST data, Tetsa Tech July 2011.



<p>Legend</p> <ul style="list-style-type: none"> ○ Negative Shovel Test ■ No Impacts ▭ Project Boundary - - - Sheet Boundary 	<p>SHEET 2</p> <p><small>Source: ESRI ArcGIS Online and data partners, including imagery from GeoEye, DigitalGlobe, GeoEye, IGN, AeriFi, AeroGRID, IGN, and the USDA. Imagery copyright 2011 ESRI and its licensors. All rights reserved.</small></p>	<p>Figure 5 . Phase I Archaeological Investigation Map for the Niagara County Shovel Ready Project, Town of Cambria, Niagara County, New York.</p> <p>Prepared For: Wendel Duchscherer Architects and Engineers</p> <p>Prepared By: TETRA TECH</p> <p>Date: 8/2011</p>
--	--	--

3.0 SUMMARY AND RECOMMENDATIONS

A Phase I archaeological investigation of the proposed Niagara County Shovel Ready Application Project, located in the Town of Cambria, Niagara County, New York was undertaken by Tetra Tech's Cultural Resources Services Group between May 11, 2011 and July 29, 2011. The Phase IA archaeological investigation included a reconnaissance survey (visual assessment, site walkover, and photodocumentation) of the Project area, as well as background research and archaeological site file searches at the NYSOPRHP's Field Services Bureau. The Phase IB archaeological investigation was conducted within undisturbed portions of the Project area in order to identify any previously unrecorded archaeological sites that may be affected by implementation of the Project.

The Project area totals approximately 67.9 ha (167.9 ac), of which 40.7 ha (100.5 ac) is defined as the Project APE. Background research and archaeological site file search at NYSOPRHP's Field Services Bureau and the New York State Museum indicated no archaeological sites were recorded within the Project area. However, one previously identified archaeological site, the Mapleton Ponds Site, was recorded within a 1.6 km (1 mile) radius of the Project area. Background research and archaeological site file searches confirmed that no historic structures or properties listed in or eligible for listing in the S/NRHP were located within the Project area.

Based on the results of the Phase IA cultural resources reconnaissance survey, site file search, background research, and visual reconnaissance, the Project was identified as having a moderate probability of containing prehistoric archaeological sites and a low probability of containing historic sites. Phase IB testing recommendations, per NYSOPRHP consultation, included systematic surface inspection and subsurface test excavations within the entire Project APE.

As part of the Phase IB archaeological survey, approximately 35.9 ha (88.6 ac) were surface inspected and a total of 181 STs were excavated along transects placed at 15 m (50 ft) intervals. No cultural material was recovered or identified within the 181 excavated STs, or from the surface inspection of the APE. Based on the results of the Phase IB archaeological survey, Tetra Tech does not recommend any additional testing of the Project area.

Based on the results of this Phase I archaeological investigation, no adverse effects on prehistoric or historic archaeological resources are anticipated for the Project as a result of construction and maintenance activities associated with developing the Cambria Site. No additional archaeological investigations are recommended for the Niagara County Shovel Ready Application Project, Town of Cambria, Niagara County, New York.

4.0 BIBLIOGRAPHY

Beers, F.W.

1875 *Illustrated Historical Atlas of Erie County, New York*. Frederick W. Beers and Company, New York.

Munsell Color.

1994 *Munsell Soil Color Chart*. MacBeth Division of Kollmorgen Instruments Corporation. Baltimore, Maryland.

New York Archaeological Council

1994 *Standards for Cultural Resource Investigations and Curation of Collections*.

United States Department of Agriculture.

1986 *Soil Survey of Niagara County, New York*. Soil Conservation Service, in cooperation with the Cornell University Agricultural Experiment Station.

United States Department of Agriculture

2011 Natural Resources Conservation Service: Soil Data Mart. Accessed at <http://soildatamart.nrcs.usda.gov/County.aspx?State=NY> on August 18, 2011.

United States Geological Survey.

1900 Topographic Quadrangle, 15-minute Series Quadrangle, Cambria, New York.

United States Geological Survey.

1980 Topographic Quadrangle, 7.5-minute Series Quadrangle, Cambria, New York.

ATTACHMENT A
PHOTOGRAPHIC RECORD

Attachment B
PHOTOGRAPHIC RECORD

Company: Wendel Duchscherer Architects and Engineers
Project: Niagara County Shovel Ready Application Project
Town of Cambria, Niagara County, New York



Photographer: A. Clute
Date: 5/19/11
Photo No.: 1
Direction: S
Comments: Property 1 facing south toward Lockport Rd. Note raised grass covered compact dirt farm access road in center.



Photographer: A. Clute
Date: 5/19/11
Photo No.: 2
Direction: S
Comments: Disturbance on Property 1 along field margin. Drainage ditch with overburden deposited on surface.

Attachment B

PHOTOGRAPHIC RECORD

Company: Wendel Duchscherer Architects and Engineers
Project: Niagara County Shovel Ready Application Project
Town of Cambria, Niagara County, New York



Photographer: A. Clute
Date: 5/19/11
Photo No.: 3
Direction: S
Comments: Stream along eastern extent of Property 1. Shovel test investigations conducted in right side of photograph.



Photographer: A.Clute
Date: 6/17/11
Photo No.: 4
Direction: S
Comments: Property 4 facing south from Shovel Test 4.5.8.

Attachment B
PHOTOGRAPHIC RECORD

Company: Wendel Duchscherer Architects and Engineers
Project: Niagara County Shovel Ready Application Project
Town of Cambria, Niagara County, New York



Photographer: A. Clute
Date: 7/26/11
Photo No.: 5
Direction: NW
Comments: Overview of Property 6 from SE corner.



Photographer: A. Clute
Date: 6/15/11
Photo No.: 6
Direction: W
Comments: Property 7 at Shovel Test 7.15.1 facing west along southern boundary.

Attachment B

PHOTOGRAPHIC RECORD

Company: Wendel Duchscherer Architects and Engineers
Project: Niagara County Shovel Ready Application Project
Town of Cambria, Niagara County, New York



Photographer: A. Clute
Date: 6/15/11
Photo No.: 7
Direction: S
Comments: Overview of Property 7 facing south.



Photographer: A. Clute
Date: 6/15/11
Photo No.: 8
Direction: N
Comments: Disturbance between Property 6 and Property 7. Raised compact dirt farm access road and drainage ditch flanked by overburden and debris.

ATTACHMENT B
SHOVEL TEST RECORD

Shovel Test	Depth (cm)	Soil Color	Soil Texture	Cultural Material	Depth (cm)	Soil Color	Soil Texture	Cultural Material
11	14	10YR 4/2 D GBr	Si Lo	-	43	10YR 5/4 Ybr	Si Cl	-
11	15	10YR 4/2 D GBr	Si Lo	-	45	10YR 5/4 Ybr	Si Cl	-
11	16	10YR 4/2 D GBr	Si Lo	-	46	10YR 5/4 Ybr	Si Cl	-
11	17	10YR 4/2 D GBr	Si Lo	-	45	10YR 5/4 Ybr	Si Cl	-
12	14	10YR 4/2 D GBr	Si Lo	-	44	10YR 5/4 Ybr	Si Cl	-
12	15	10YR 4/2 D GBr	Si Lo	-	47	10YR 5/4 Ybr	Si Cl	-
12	16	10YR 4/2 D GBr	Si Lo	-	45	10YR 5/4 Ybr	Si Cl	-
12	17	10YR 4/2 D GBr	Si Lo	-	46	10YR 5/4 Ybr	Si Cl	-
13	16	10YR 4/2 D GBr	Si Lo	-	43	10YR 5/4 Ybr	Si Cl	-
13	17	10YR 4/2 D GBr	Si Lo	-	42	10YR 5/4 Ybr	Si Cl	-
13	18	10YR 4/2 D GBr	Si Lo	-	43	10YR 5/4 Ybr	Si Cl	-

Property 1

Shovel Test	Depth (cm)	Soil Color	Soil Texture	Cultural Material	Depth (cm)	Soil Color	Soil Texture	Cultural Material
1	1	10YR 4/2 D GBr	Si Lo	-	46	10YR 5/4 Ybr	Si Cl	-
1	2	10YR 4/2 D GBr	Si Lo	-	46	10YR 5/4 Ybr	Si Cl	-
2	1	10YR 4/2 D GBr	Si Lo	-	46	10YR 5/4 Ybr	Si Cl	-
2	2	10YR 4/2 D GBr	Si Lo	-	45	10YR 5/4 Ybr	Si Cl	-
2	3	10YR 4/2 D GBr	Si Lo	-	47	10YR 5/4 Ybr	Si Cl	-
2	4	10YR 4/2 D GBr	Si Lo	-	46	10YR 5/4 Ybr	Si Cl	-
2	5	10YR 4/2 D GBr	Si Lo	-	47	10YR 5/4 Ybr	Si Cl	-
2	6	10YR 4/2 D GBr	Si Lo	-	45	10YR 5/4 Ybr	Si Cl	-
3	1	10YR 4/2 D GBr	Si Lo	-	46	10YR 5/4 Ybr	Si Cl	-
3	2	10YR 4/2 D GBr	Si Lo	-	47	10YR 5/4 Ybr	Si Cl	-
3	3	10YR 4/2 D GBr	Si Lo	-	46	10YR 5/4 Ybr	Si Cl	-
3	4	10YR 4/2 D GBr	Si Lo	-	46	10YR 5/4 Ybr	Si Cl	-
3	5	10YR 4/2 D GBr	Si Lo	-	47	10YR 5/4 Ybr	Si Cl	-
3	6	10YR 4/2 D GBr	Si Lo	-	46	10YR 5/4 Ybr	Si Cl	-
3	7	10YR 4/2 D GBr	Si Lo	-	46	10YR 5/4 Ybr	Si Cl	-
3	8	10YR 4/2 D GBr	Si Lo	-	44	10YR 5/4 Ybr	Si Cl	-
4	1	10YR 4/2 D GBr	Si Lo	-	46	10YR 5/4 Ybr	Si Cl	-
4	2	10YR 4/2 D GBr	Si Lo	-	46	10YR 5/4 Ybr	Si Cl	-
4	3	10YR 4/2 D GBr	Si Lo	-	44	10YR 5/4 Ybr	Si Cl	-
4	4	10YR 4/2 D GBr	Si Lo	-	47	10YR 5/4 Ybr	Si Cl	-
4	5	10YR 4/2 D GBr	Si Lo	-	46	10YR 5/4 Ybr	Si Cl	-
4	6	10YR 4/2 D GBr	Si Lo	-	45	10YR 5/4 Ybr	Si Cl	-
4	7	10YR 4/2 D GBr	Si Lo	-	45	10YR 5/4 Ybr	Si Cl	-
4	8	10YR 4/2 D GBr	Si Lo	-	44	10YR 5/4 Ybr	Si Cl	-
5	1	10YR 4/2 D GBr	Si Lo	-	43	10YR 5/4 Ybr	Si Cl	-
5	2	10YR 4/2 D GBr	Si Lo	-	47	10YR 5/4 Ybr	Si Cl	-

Property 4

Shovel Test	Depth (cm)	Soil Color	Soil Texture	Cultural Material	Depth (cm)	Soil Color	Soil Texture	Cultural Material
5	3	10YR 4/2 D GB	Si Lo	-	46	10YR 5/4 Ybr	Si Cl	-
5	4	10YR 4/2 D GB	Si Lo	-	47	10YR 5/4 Ybr	Si Cl	-
5	5	10YR 4/2 D GB	Si Lo	-	47	10YR 5/4 Ybr	Si Cl	-
5	6	10YR 4/2 D GB	Si Lo	-	45	10YR 5/4 Ybr	Si Cl	-
5	7	10YR 4/2 D GB	Si Lo	-	46	10YR 5/4 Ybr	Si Cl	-
5	8	10YR 4/2 D GB	Si Lo	-	45	10YR 5/4 Ybr	Si Cl	-
5	9	10YR 4/2 D GB	Si Lo	-	45	10YR 5/4 Ybr	Si Cl	-
6	1	10YR 4/2 D GB	Si Lo	-	44	10YR 5/4 Ybr	Si Cl	-
6	2	10YR 4/2 D GB	Si Lo	-	46	10YR 5/4 Ybr	Si Cl	-
6	3	10YR 4/2 D GB	Si Lo	-	45	10YR 5/4 Ybr	Si Cl	-
6	4	10YR 4/2 D GB	Si Lo	-	46	10YR 5/4 Ybr	Si Cl	-
7	1	10YR 4/2 D GB	Si Lo	-	45	10YR 5/4 Ybr	Si Cl	-
7	2	10YR 4/2 D GB	Si Lo	-	45	10YR 5/4 Ybr	Si Cl	-
7	3	10YR 4/2 D GB	Si Lo	-	46	10YR 5/4 Ybr	Si Cl	-
7	4	10YR 4/2 D GB	Si Lo	-	47	10YR 5/4 Ybr	Si Cl	-
7	5	10YR 4/2 D GB	Si Lo	-	46	10YR 5/4 Ybr	Si Cl	-
8	1	10YR 4/2 D GB	Si Lo	-	45	10YR 5/4 Ybr	Si Cl	-
8	2	10YR 4/2 D GB	Si Lo	-	45	10YR 5/4 Ybr	Si Cl	-
8	3	10YR 4/2 D GB	Si Lo	-	45	10YR 5/4 Ybr	Si Cl	-
8	4	10YR 4/2 D GB	Si Lo	-	46	10YR 5/4 Ybr	Si Cl	-
8	5	10YR 4/2 D GB	Si Lo	-	46	10YR 5/4 Ybr	Si Cl	-
9	1	10YR 4/2 D GB	Si Lo	-	45	10YR 5/4 Ybr	Si Cl	-
9	2	10YR 4/2 D GB	Si Lo	-	45	10YR 5/4 Ybr	Si Cl	-
9	3	10YR 4/2 D GB	Si Lo	-	44	10YR 5/4 Ybr	Si Cl	-
9	4	10YR 4/2 D GB	Si Lo	-	46	10YR 5/4 Ybr	Si Cl	-
9	5	10YR 4/2 D GB	Si Lo	-	45	10YR 5/4 Ybr	Si Cl	-
10	1	10YR 4/2 D GB	Si Lo	-	44	10YR 5/4 Ybr	Si Cl	-
10	2	10YR 4/2 D GB	Si Lo	-	43	10YR 5/4 Ybr	Si Cl	-
10	3	10YR 4/2 D GB	Si Lo	-	45	10YR 5/4 Ybr	Si Cl	-
10	4	10YR 4/2 D GB	Si Lo	-	46	10YR 5/4 Ybr	Si Cl	-
10	5	10YR 4/2 D GB	Si Lo	-	46	10YR 5/4 Ybr	Si Cl	-
10	6	10YR 4/2 D GB	Si Lo	-	44	10YR 5/4 Ybr	Si Cl	-
11	1	10YR 4/2 D GB	Si Lo	-	45	10YR 5/4 Ybr	Si Cl	-
11	2	10YR 4/2 D GB	Si Lo	-	45	10YR 5/4 Ybr	Si Cl	-
11	3	10YR 4/2 D GB	Si Lo	-	45	10YR 5/4 Ybr	Si Cl	-
11	4	10YR 4/2 D GB	Si Lo	-	44	10YR 5/4 Ybr	Si Cl	-
11	5	10YR 4/2 D GB	Si Lo	-	46	10YR 5/4 Ybr	Si Cl	-
11	6	10YR 4/2 D GB	Si Lo	-	46	10YR 5/4 Ybr	Si Cl	-
11	7	10YR 4/2 D GB	Si Lo	-	45	10YR 5/4 Ybr	Si Cl	-

Shovel Test	Depth (cm)	Soil Color	Soil Texture	Cultural Material	Depth (cm)	Soil Color	Soil Texture	Cultural Material	Soil Texture	Cultural Material
Property 7										
1	17	10YR 4/2 D GBr	Si Lo	-	27	10YR 4/4 Br	Si Cl	-	Si Cl	-
1	18	10YR 4/2 D GBr	Si Lo	-	28	10YR 4/4 Br	Si Cl	-	Si Cl	-
1	22	10YR 4/2 D GBr	Si Lo	-	32	10YR 5/4 Ybr	Si Cl	-	Si Cl	-
1	4	Not Excavated - Disturbed. Brushpile and debris at surface.								
1	5	Not Excavated - Disturbed. Brushpile and debris at surface.								
1	23	10YR 4/2 D GBr	Si Lo	-	33	10YR 5/4 Ybr	Si Cl	-	Si Cl	-
1	18	10YR 4/2 D GBr	Si Lo	-	28	10YR 5/4 Ybr	Si Cl	-	Si Cl	-
2	1	10YR 4/2 D GBr	Si Lo	-	34	10YR 4/4 Br	Si Cl	-	Si Cl	-
2	2	10YR 4/2 D GBr	Si Lo	-	36	10YR 4/4 Br	Si Cl	-	Si Cl	-
2	3	10YR 4/2 D GBr	Si Lo	-	39	10YR 4/4 Br	Si Cl	-	Si Cl	-
2	4	10YR 4/2 D GBr	Si Lo	-	33	10YR 4/4 Br	Si Cl	-	Si Cl	-
2	5	10YR 4/2 D GBr	Si Lo	-	29	10YR 4/4 Br	Si Cl	-	Si Cl	-
2	6	10YR 4/2 D GBr	Si Lo	-	35	10YR 4/4 Br	Si Cl	-	Si Cl	-
2	7	10YR 4/2 D GBr	Si Lo	-	31	10YR 4/4 Br	Si Cl	-	Si Cl	-
3	1	10YR 4/2 D GBr	Si Lo	-	31	10YR 4/4 Br	Si Cl	-	Si Cl	-
3	2	10YR 4/2 D GBr	Si Lo	-	29	10YR 4/4 Br	Si Cl	-	Si Cl	-
3	3	10YR 4/2 D GBr	Si Lo	-	30	10YR 4/4 Br	Si Cl	-	Si Cl	-
3	4	10YR 4/2 D GBr	Si Lo	-	29	10YR 4/4 Br	Si Cl	-	Si Cl	-
3	5	10YR 4/2 D GBr	Si Lo	-	27	10YR 4/4 Br	Si Cl	-	Si Cl	-
3	6	10YR 4/2 D GBr	Si Lo	-	31	10YR 4/4 Br	Si Cl	-	Si Cl	-
3	7	10YR 4/2 D GBr	Si Lo	-	28	10YR 4/4 Br	Si Cl	-	Si Cl	-
4	1	10YR 4/2 D GBr	Si Lo	-	30	10YR 4/4 Br	Si Cl	-	Si Cl	-
4	2	10YR 4/2 D GBr	Si Lo	-	34	10YR 4/4 Br	Si Cl	-	Si Cl	-
4	3	10YR 4/2 D GBr	Si Lo	-	34	10YR 4/4 Br	Si Cl	-	Si Cl	-
4	4	10YR 4/2 D GBr	Si Lo	-	40	10YR 5/4 Ybr	Si Cl	-	Si Cl	-
4	5	10YR 4/2 D GBr	Si Lo	-	34	10YR 4/4 Br	Si Cl	-	Si Cl	-
4	6	10YR 4/2 D GBr	Si Lo	-	34	10YR 4/4 Br	Si Cl	-	Si Cl	-
4	7	10YR 4/2 D GBr	Si Lo	-	35	10YR 5/4 Ybr	Si Cl	-	Si Cl	-
5	1	10YR 4/2 D GBr	Si Lo	-	34	10YR 4/4 Br	Si Cl	-	Si Cl	-
5	2	10YR 4/2 D GBr	Si Lo	-	31	10YR 4/4 Br	Si Cl	-	Si Cl	-
5	3	10YR 4/2 D GBr	Si Lo	-	33	10YR 4/4 Br	Si Cl	-	Si Cl	-
5	4	10YR 4/2 D GBr	Si Lo	-	33	10YR 4/4 Br	Si Cl	-	Si Cl	-
5	5	10YR 4/2 D GBr	Si Lo	-	34	10YR 4/4 Br	Si Cl	-	Si Cl	-
5	6	10YR 4/2 D GBr	Si Lo	-	34	10YR 4/4 Br	Si Cl	-	Si Cl	-
5	7	10YR 4/2 D GBr	Si Lo	-	25	10YR 4/4 Br	Si Cl	-	Si Cl	-
6	1	10YR 4/2 D GBr	Si Lo	-	40	10YR 4/4 Br	Si Cl	-	Si Cl	-
6	2	10YR 4/2 D GBr	Si Lo	-	36	10YR 4/4 Br	Si Cl	-	Si Cl	-
6	3	10YR 4/2 D GBr	Si Lo	-	30	10YR 4/4 Br	Si Cl	-	Si Cl	-

Shovel Test	Depth (cm)	Soil Color	Soil Texture	Cultural Material	Depth (cm)	Soil Color	Soil Texture	Cultural Material
6	4	10YR 4/2 D GBr	Si Lo	-	35	10YR 4/4 Br	Si Cl	-
6	5	10YR 4/2 D GBr	Si Lo	-	36	10YR 4/4 Br	Si Cl	-
6	6	10YR 4/2 D GBr	Si Lo	-	35	10YR 4/4 Br	Si Cl	-
6	7	10YR 3/2 V D GBr	Si Lo	-	30	10YR 5/2 GBr	Si Cl	-
7	1	10YR 3/2 V D GBr	Si Lo	-	40	10YR 5/2 GBr	Si Cl	-
7	2	10YR 3/2 V D GBr	Si Lo	-	45	10YR 5/2 GBr	Si Cl	deep tire ruts on surface
7	3	10YR 4/2 D GBr	Si Lo	-	41	10YR 4/4 Br	Si Cl	-
7	4	10YR 4/2 D GBr	Si Lo	-	39	10YR 4/4 Br	Si Cl	-
7	5	10YR 4/2 D GBr	Si Lo	-	44	10YR 4/4 Br	Si Cl	-
7	6	10YR 4/2 D GBr	Si Lo	-	31	10YR 4/4 Br	Si Cl	-
7	7	10YR 4/2 D GBr	Si Lo	-	34	10YR 4/4 Br	Si Cl	-
8	1	10YR 4/2 D GBr	Si Lo	-	37	10YR 4/4 Br	Si Cl	-
8	2	10YR 4/2 D GBr	Si Lo	-	34	10YR 4/4 Br	Si Cl	-
8	3	10YR 4/2 D GBr	Si Lo	-	39	10YR 4/4 Br	Si Cl	-
8	4	10YR 4/2 D GBr	Si Lo	-	36	10YR 4/4 Br	Si Cl	-
8	5	10YR 4/2 D GBr	Si Lo	-	33	10YR 4/4 Br	Si Cl	-
8	6	10YR 4/2 D GBr	Si Lo	-	30	10YR 4/4 Br	Si Cl	-
8	7	10YR 4/2 D GBr	Si Lo	-	27	10YR 4/4 Br	Si Cl	-
9	1	10YR 4/2 D GBr	Si Lo	-	36	10YR 5/4 Ybr	Si Cl	-
9	2	10YR 4/2 D GBr	Si Lo	-	39	10YR 5/4 Ybr	Si Cl	-
9	3	10YR 4/2 D GBr	Si Lo	-	40	10YR 5/3 Br	Si Cl	-
9	4	10YR 4/2 D GBr	Si Lo	-	35	10YR 5/3 Br	Si Cl	-
9	5	10YR 4/2 D GBr	Si Lo	-	38	10YR 5/4 Ybr	Si Cl	-
9	6	10YR 4/2 D GBr	Si Lo	-	32	10YR 5/4 Ybr	Si Cl	-
9	7	10YR 4/2 D GBr	Si Lo	-	44	10YR 4/4 Br	Si Cl	-
10	1	10YR 4/2 D GBr	Si Lo	-	33	10YR 4/4 Br	Si Cl	-
10	2	10YR 4/2 D GBr	Si Lo	-	35	10YR 4/4 Br	Si Cl	-
10	3	10YR 4/2 D GBr	Si Lo	-	34	10YR 4/4 Br	Si Cl	-
10	4	10YR 4/2 D GBr	Si Lo	-	36	10YR 4/4 Br	Si Cl	-
10	5	10YR 4/2 D GBr	Si Lo	-	33	10YR 4/4 Br	Si Cl	-
10	6	10YR 4/2 D GBr	Si Lo	-	33	10YR 4/4 Br	Si Cl	-
10	7	10YR 4/2 D GBr	Si Lo	-	33	10YR 4/4 Br	Si Cl	-
11	1	10YR 4/2 D GBr	Si Lo	-	34	10YR 4/4 Br	Si Cl	-
11	2	10YR 4/2 D GBr	Si Lo	-	36	10YR 4/4 Br	Si Cl	-
11	3	10YR 4/2 D GBr	Si Lo	-	37	10YR 4/4 Br	Si Cl	-
11	4	10YR 4/2 D GBr	Si Lo	-	34	10YR 4/4 Br	Si Cl	-
11	5	10YR 4/2 D GBr	Si Lo	-	33	10YR 4/4 Br	Si Cl	-
11	6	10YR 4/2 D GBr	Si Lo	-	29	10YR 4/4 Br	Si Cl	-
11	7	10YR 4/2 D GBr	Si Lo	-	34	10YR 4/4 Br	Si Cl	-

Shovel Test	Depth (cm)	Soil Color	Soil Texture	Cultural Material	Depth (cm)	Soil Color	Soil Texture	Cultural Material
12	1	10YR 4/2 D GBr	Si Lo	-	37	10YR 5/4 Ybr	Si Cl	-
12	2	10YR 4/2 D GBr	Si Lo	-	35	10YR 5/4 Ybr	Si Cl	-
12	3	10YR 4/2 D GBr	Si Lo	-	37	10YR 5/3 Br	Si Cl	-
12	4	10YR 4/2 D GBr	Si Lo	-	40	10YR 5/4 Ybr	Si Cl	-
12	5	10YR 4/2 D GBr	Si Lo	-	39	10YR 5/4 Ybr	Si Cl	-
12	6	10YR 4/2 D GBr	Si Lo	-	35	10YR 5/4 Ybr	Si Cl	-
12	7	10YR 4/2 D GBr	Si Lo	-	30	10YR 5/4 Ybr	Si Cl	-
13	1	10YR 4/2 D GBr	Si Lo	-	35	10YR 4/4 Br	Si Cl	-
13	2	10YR 4/2 D GBr	Si Lo	-	29	10YR 4/4 Br	Si Cl	-
13	3	10YR 4/2 D GBr	Si Lo	-	37	10YR 4/4 Br	Si Cl	-
13	4	10YR 4/2 D GBr	Si Lo	-	33	10YR 4/4 Br	Si Cl	-
13	5	10YR 4/2 D GBr	Si Lo	-	31	10YR 4/4 Br	Si Cl	-
13	6	10YR 4/2 D GBr	Si Lo	-	32	10YR 4/4 Br	Si Cl	-
13	7	10YR 4/2 D GBr	Si Lo	-	37	10YR 4/4 Br	Si Cl	-
14	1	10YR 4/2 D GBr	Si Lo	-	37	10YR 5/4 Ybr	Si Cl	-
14	2	10YR 4/2 D GBr	Si Lo	-	38	10YR 5/4 Ybr	Si Cl	-
14	3	10YR 4/2 D GBr	Si Lo	-	33	10YR 5/4 Ybr	Si Cl	-
14	4	10YR 4/2 D GBr	Si Lo	-	31	10YR 5/4 Ybr	Si Cl	-
14	5	10YR 4/2 D GBr	Si Lo	-	36	10YR 5/4 Ybr	Si Cl	-
14	6	10YR 4/2 D GBr	Si Lo	-	31	10YR 5/4 Ybr	Si Cl	-
14	7	10YR 4/2 D GBr	Si Lo	-	34	10YR 5/4 Ybr	Si Cl	-
15	1	10YR 4/2 D GBr	Si Lo	-	33	10YR 5/4 Ybr	Si Cl	-
15	2	10YR 4/2 D GBr	Si Lo	-	35	10YR 5/4 Ybr	Si Cl	-
15	3	10YR 4/2 D GBr	Si Lo	-	36	10YR 4/4 Br	Si Cl	-
15	4	10YR 4/2 D GBr	Si Lo	-	35	10YR 4/4 Br	Si Cl	-
15	5	10YR 4/2 D GBr	Si Lo	-	34	10YR 5/4 Ybr	Si Cl	-
15	6	10YR 4/2 D GBr	Si Lo	-	38	10YR 5/4 Ybr	Si Cl	-
15	7	10YR 4/2 D GBr	Si Lo	-	39	10YR 5/6 Ybr	Si Cl	-

Key:

Color: Blk - Black, Br - Brown, Gy - Gray, GBr - Grayish Brown, Ybr - Yellowish Brown
Shade: V - Very, D - Dark, Pl - Pale
Texture: Sa - Sand, Cl - Clay, Lo - Loam



PHASE I ENVIRONMENTAL SITE ASSESSMENT

**NIAGARA COUNTY SHOVEL READY
APPLICATION PROJECT**

TOWN OF CAMBRIA, NIAGARA COUNTY, NEW YORK

Prepared for:

**Wendel Duchscherer Architects and Engineers
140 John James Audubon Pkwy, Suite 201
Amherst, New York 14228**

Submitted by:

**Tetra Tech
285 Ellicott St.
Buffalo, NY 14203**

July 2011

TABLE OF CONTENTS

1.0	Executive Summary	1
2.0	Introduction.....	1
2.1	Purpose.....	1
2.2	Detailed Scope of Services	2
2.3	Significant Assumptions	2
2.4	Limitations and Exceptions.....	2
2.5	Special Terms and Conditions	3
2.6	User Reliance	3
3.0	Site Description.....	3
3.1	Location and Description of Location	3
3.2	Site and Vicinity Characteristics.....	3
3.3	Current Use of the Project Site	3
3.4	Description of Structures, Roads, Other Improvements	3
3.5	Current Uses of Adjacent Properties.....	4
4.0	User Provided Information	4
4.1	Title Records.....	4
4.2	Environmental Liens, Activity, and/or Use Limitations.....	4
4.3	Specialized Knowledge.....	4
4.4	Valuation Reduction for Environmental Issues	4
4.5	Owner, Property Manager, and Occupant Information	4
4.6	Reason for Performing Phase I Environmental Site Assessment	4
5.0	Records Review	5
5.1	Standard Environmental Record Sources	5
5.1.1	Additional Environmental Record Sources	5
5.2	Physical Setting Sources	5
5.2.1	Topography	5
5.2.2	Geology and Soils	5
5.2.3	Hydrogeology	6
5.3	Floodplains.....	6
5.4	Surface Water and Wetlands.....	6
5.5	Sensitive Species.....	6
5.6	Historical Use Information on the Property.....	6
5.6.1	7
5.6.2	Aerial Photographs.....	7
5.6.3	City Directories.....	7
5.6.4	Ownership History	7
5.7	Historical Use Information on Adjacent Properties.....	7
5.7.1	City Directories.....	7
6.0	Site Reconnaissance.....	8
6.1	Methodology and Limiting Conditions.....	8
6.2	General Site Setting/Characteristics	8
6.3	Potential Environmental Conditions	9
6.3.1	Hazardous Materials Storage	9

6.3.2	Polychlorinated Biphenyls (PCBs)	9
6.3.3	Aboveground and Underground Storage Tanks (ASTs and USTs)	9
6.3.4	Drinking Water/Sewer System	9
6.3.5	Natural Gas or Petroleum Transmission	9
6.3.6	Electric Transmission	9
6.3.7	Air or Water Discharges	9
6.3.8	Transportation	9
6.3.9		9
6.3.10	De minimis Conditions	9
7.0	Findings, Data Gaps, Opinions, And Conclusions	10
7.1	Findings	10
7.2	Data Gaps	10
7.3	Opinion	10
7.4	Conclusions	10
8.0	Deviations	10
9.0	Additional Services	10
10.0	References	10
	SIGNATURES	12

APPENDICES

- Appendix A Site Vicinity Map, Detailed Site Map
- Appendix B EDR Report
- Appendix C Aerial Photographs
- Appendix D Photographic Documentation

**PHASE I ENVIRONMENTAL SITE ASSESSMENT
NIAGARA COUNTY SHOVEL READY APPLICATION PROJECT
TOWN OF CAMBRIA, NIAGARA COUNTY, NEW YORK**

1.0 EXECUTIVE SUMMARY

Tetra Tech, Inc. (Tetra Tech) performed a Phase I Environmental Site Assessment (ESA) of the Niagara County Shovel Ready Application Project site which consists of approximately 168 acres of agricultural and forested land located north of and adjacent to Lockport Road and East of Comstock Road in the Town of Cambria, Niagara County, New York. This Executive Summary is not intended to replace more detailed information contained elsewhere in this report.

Currently, the project site consists of agricultural and forested land bordered by agricultural fields and a small woodlot to the north of the project site. To the east of the project site are agricultural fields and a small forested pond. South of the project site is Lockport Road with adjacent forested areas and an agricultural field; west of the project site is Comstock Road with adjacent agricultural fields and a small woodlot. Historically, the project site has been primarily in agriculture and this is estimated to have continued for over 50 years.

Based on Tetra Tech's review of the Federal and State environmental database report prepared by Environmental Data Resources, Inc., environmental incidents or listed facilities were not identified for the project site or adjacent and surrounding properties. Based on the results of Tetra Tech's site reconnaissance, review of regulatory records, review of historical information, I and personal interviews, there were no recognized environmental conditions, historical recognized environmental conditions, and/or de minimis conditions requiring additional assessment and/or corrective action identified on the project site.

2.0 INTRODUCTION

2.1 Purpose

The purpose of this Phase I ESA was to evaluate the project site and current on-site activities with regard to recognized environmental conditions, historical recognized environmental conditions, and de minimis conditions associated with the project site. A recognized environmental condition is described by the ASTM Standard as: *the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property.* An historical recognized environmental condition is described by the ASTM Standard as: *an environmental condition, which in the past would have been considered a recognized environmental condition, but which is not currently a recognized environmental condition because the site has been remediated or will not currently impact the property.* According to the Standard, *de minimis conditions generally do not present a material*

risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

2.2 Detailed Scope of Services

Tetra Tech has performed a Phase I ESA in general accordance with ASTM E 1527-05 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process. Any deletions and/or additional services which deviate from this standard are described within Section 9.0. This standard does not include investigation into all areas of local, State, and Federal environmental requirements. These requirements were not addressed within this report and Tetra Tech is not responsible for other legal obligations for non-compliance with regulations not addressed specifically herein.

2.3 Significant Assumptions

Our findings and opinions are based upon information provided to us by others and upon our site observations and are subject to and limited by the terms and conditions of Tetra Tech's Agreement for Environmental Services. We have not verified the completeness or accuracy of the information provided by others, unless noted otherwise. Our observations were based upon conditions readily visible at the site at the time of our visit, and the site visit did not include services typically performed during an Environmental Compliance Audit or a Phase II ESA. If additional information becomes available which may affect our conclusions and recommendations, we request the opportunity to review the information and reserve the right to modify our report, as warranted.

2.4 Limitations and Exceptions

Tetra Tech, by virtue of providing the services described herein, does not assume the responsibility of the person(s) in charge of the site, or otherwise undertake responsibility for reporting to any local, State, or Federal public agencies any conditions at the site which may present a potential concern to public health, safety, or the environment. It is Tetra Tech's understanding that the Client will notify appropriate regulatory agencies as required.

Tetra Tech has inquired about the usage of underground storage tanks (USTs) through an Environmental Data Resources (EDR) report and has conducted a visual assessment of the project site for obvious evidence of a UST system(s). The EDR reported that no USTs were located within 0.25 miles of the project site's center. Unless otherwise noted in this report, Tetra Tech did not find evidence of a current or former UST system. Occasionally, evidence of a UST system may be removed without removing the UST; therefore, Tetra Tech cannot entirely preclude the possibility that a UST system exists, or has existed, on the project site.

2.5 Special Terms and Conditions

Special terms and conditions in relation to this project have been addressed throughout various sections detailing the specifications for which the assessment has been completed.

2.6 User Reliance

This report has been prepared for the exclusive use of Wendel Duchscherer Architects and Engineers (the Client) for this specific project. These services have been provided in accordance with generally accepted environmental practices. No other warranty, expressed, or implied, is made. The contents of this report should not be construed in any way to indicate a recommendation by Tetra Tech to purchase, sell, or develop the project site.

3.0 SITE DESCRIPTION

3.1 Location and Description of Location

The project site is located north of and adjacent to Lockport Road and East of Comstock Road in the Town of Cambria, Niagara County, New York. See the Site Vicinity Map (Figure 1) in Appendix A for a graphic depiction of the project site location.

3.2 Site and Vicinity Characteristics

The project site is an approximately 168 acres and irregularly shaped (Appendix A; Figure 1). The site is comprised of seven landowners as depicted on Map 2 of Appendix A and are listed here: Tract 1: 56.6 acres, Donald Walck; Tract 2: 8.4 acres, NYSEG; Tract 3: 7.5 acres, Niagara Mohawk Power Corporation; Tract 4: 37.7 acres, Stanley Ohol; Tract 5: 1.5 acres, Miron B. Wasik; Tract 6: 28.5 acres, Miron B. Wasik; Tract 7: 27.7 acres, Stanley Ohol. Currently, the primary use is agricultural land with undeveloped forested land occurring in the northern and southern sections of the project site. The project site and its surrounding properties are located within a rural land use area.

3.3 Current Use of the Project Site

The project site is currently 93 percent agricultural with small undeveloped forested areas. No residential or commercial development exists on the project site.

3.4 Description of Structures, Roads, Other Improvements

The project site currently does not contain structures, roads, or other improvements.

3.5 Current Uses of Adjacent Properties

To the east of the project site are agricultural fields and a forested area containing a small pond. South of the project site is Lockport Road with an adjacent forested area and a small agricultural field. The forested area south the project site represents the largest forested area in the vicinity of the project site. West and north of the project site is entirely adjacent agricultural fields. Immediately bordering the western side of the site and traversing a portion of the site is an old railroad grade as identified in Figure 1 of Attachment A.

4.0 USER PROVIDED INFORMATION

4.1 Title Records

Tetra Tech requested (from who?) but was not provided with recorded land title records for all parcels.

4.2 Environmental Liens, Activity, and/or Use Limitations

Tetra Tech requested (from who?) but was not provided with information regarding environmental liens and/or activity and use limitations for all parcels.

4.3 Specialized Knowledge

Tetra Tech requested (from who?) but was not provided with specialized knowledge regarding information concerning recognized environmental conditions in connection with the project site.

4.4 Valuation Reduction for Environmental Issues

Tetra Tech requested (from who?) but was not provided with information regarding value reduction in purchase price or fair market value due to the presence of contamination.

4.5 Owner, Property Manager, and Occupant Information

The current owners of the project site are provide in Figure 1 and listed here: Tract 1: 56.6 acres, Donald Walck; Tract 2: 8.4 acres, NYSEG; Tract 3: 7.5 acres, Niagara Mohawk Power Corporation; Tract 4: 37.7 acres, Stanley Ohol; Tract 5: 1.5 acres, Miron B. Wasik; Tract 6: 28.5 acres, Miron B. Wasik; Tract 7: 27.7 acres, Stanley Ohol.

4.6 Reason for Performing Phase I Environmental Site Assessment

It is Tetra Tech's understanding that this Phase I ESA is being used as part of the environmental inquiry into the property in association with a proposed sale and potential development of the project site.

5.0 RECORDS REVIEW

5.1 Standard Environmental Record Sources

Federal and State environmental databases and records were reviewed in an effort to determine whether environmental incidents have been reported on the project site and to locate properties with environmental liabilities in the vicinity of the site. A detailed summary of Federal and State databases searched (Standard Environmental Records) is presented in the EDR report (Appendix B). Federal and State regulatory databases were researched and reported in accordance with the minimum search distance specified by ASTM E 1527-05.

The results of the search of the Standard Environmental Records indicated no entries for the project site and a single record for an aboveground storage tank (AST) within 0.25 miles of the site and two entries for Solid Waste Facilities/Landfill (SWF/LF) sites within 0.5 miles of the site. See page 5 of the Executive Summary of the EDR report in Appendix B for further details on these sites.

5.1.1 Additional Environmental Record Sources

During the course of this Phase I ESA, Tetra Tech was not provided with nor discovered previously performed environmental reports in connection with this project site. However, the EDR report provides additional information on topography, geology, soils, wetlands, floodplains, and water sources that are reported within applicable sections of this report.

5.2 Physical Setting Sources

5.2.1 Topography

Based upon a review of the USGS 7.5 Minute Topographic Quadrangle Map “Cambria, N.Y.”, dated 1980, the project site generally slopes southward. Ground surface elevation for the project site ranges from approximately 615 feet/ 188 meters above mean sea level (AMSL) in the northwest to approximately 595 feet/ 181 meters in the southeastern portion of the project site. A copy of the relevant portion of this USGS map is included in Figure 1 of Appendix A as the Site Vicinity Map. Surface water and/or storm water runoff from the project site is estimated to flow south toward Bull Creek.

5.2.2 Geology and Soils

The Project area is located within the northern portion of the Erie-Ontario Lowland Physiographic Region which consists of low relief extending south of Lake Erie and Lake Ontario (Thompson 1977). The region contains both featureless old lake bottoms and rolling hills which represent moraine deposits. The topographic features of the Project area were originally created by glaciation and postglacial lake sedimentation.

The bedrock of the Erie-Ontario Lowlands consists of Lower and Middle Paleozoic shales and limestones. Some of the strata contain abundant fossils of corals, trilobites, brachiopods,

bryozoans, crinoids, and other fauna. Most of this rock is covered by glacial features and deposits, including numerous drumlins.

According to the EDR report three soil types occur on the project site: 1) Rhinebeck (silt loam), 2) Madalin (silt loam), and 3) Lakemont (silty clay loam). All are Class D soils with very slow infiltration rates. These soils are clayey, have a high water table, or are shallow to an impervious layer and range from somewhat poorly drained to very poorly drained.

5.2.3 Hydrogeology

Based upon an interpretation of the regional topography, the direction of groundwater flow in site vicinity is estimated to be to the southward toward Bull Creek. However, an intrusive hydrogeologic evaluation of the property was not performed; therefore, the actual direction of groundwater flow was not determined.

5.3 Floodplains

According to the EDR report overview map the site is located outside of Federal Emergency Management Agency (FEMA) 100- and 500-year floodplains (Appendix B).

5.4 Surface Water and Wetlands

Based upon a review of the USGS 7.5 Minute Topographic Quadrangle Map “Cambria, N.Y.”, dated 1980 a tributary to Bull Creek flows from north to south across the project site (Attachment A: Figure 1). This tributary was field verified during the site reconnaissance survey as well as an unmapped farm ditch occurring between parcels 6 and 7 as discussed in Section 6.0.

The overview map provided in the EDR depicts a National Wetland Inventory (NWI) and New York State Freshwater Wetland occurring within the forested area in the southern portion of the projects site. This wetland area was confirmed during a site reconnaissance as described in Section 6.0.

5.5 Sensitive Species

Tetra Tech has submitted request for information letters in regards to rare, threatened, and endangered species and habitats occurring in the vicinity of the projects site. The United States Fish and Wildlife Service (USFWS) and the New York State Department of Environmental Conservation’s (NYSDEC’s) New York Natural Heritage Program have both been contacted and responses are pending at the time of this report. Regulated plant or animal species would be addressed upon identification.

5.6 Historical Use Information on the Property

Tetra Tech reviewed limited ownership history from available county records, aerial photographs and/or maps relevant to the project site. Based upon this information, it has been determined that the majority of the project site has been historically cleared of timber and subsequently utilized for agricultural purposes.

5.6.1

5.6.2 Aerial Photographs

Aerial photographs dated 1958, 1995, 2002, 2006, and 2009 were reviewed for obvious evidence of detrimental environmental activities within the area of the project site. Copies of these photographs are provided in Appendix C. No historic detrimental environmental activities were identified in any of the photographs and the general land use of the project site and surrounding areas remained the same from 1958 to present.

5.6.3 City Directories

Based on Tetra Tech's previous experience and the historically rural nature of the project site, Tetra Tech presumes significant historical city directories do not exist for the project site.

5.6.4 Ownership History

As stated within ASTM E 1527-05, "environmental liens or activity and use limitations identified shall be reported to the environmental professional conducting a Phase I Environmental Site Assessment. Unless added by a change in the scope of work to be performed by the environmental professional, this practice does not impose on the environmental professional the responsibility to undertake a review of recorded land title records and judicial records for environmental liens or activity and use limitations. The user should either (1) engage a title company or title professional to undertake a review of reasonably ascertainable recorded land title records and lien records for environmental liens or activity and use limitations currently recorded against or relating to the property, or (2) negotiate such an engagement of a title company or title professional as an addition to the scope of work to be performed by the environmental professional." As such an engagement of a title company or title professional has not been negotiated as an addition to the scope of work for this Phase I ESA, Tetra Tech presumes the user has engaged a title company or title professional to undertake a review of reasonably ascertainable recorded land title records and lien records.

5.7 Historical Use Information on Adjacent Properties

Tetra Tech reviewed aerial photographs to determine historical property use of the adjacent properties. These source materials are the same as those used to determine the history of the project site.

5.7.1 City Directories

Based on Tetra Tech's previous experience and the historically rural nature of the project site, Tetra Tech presumes significant historical city directories do not exist for the project site.

6.0 SITE RECONNAISSANCE

6.1 Methodology and Limiting Conditions

Mr. Barry Eckwahl, Environmental Scientist employed by Tetra Tech performed a site reconnaissance on June 28, 2011 to review current site conditions. Tetra Tech personnel walked the site and property boundaries and viewed adjacent parcels to the maximum extent practicable. An escort was not provided during Tetra Tech's site reconnaissance. Photographic documentation of the site visit is provided in Appendix D.

6.2 General Site Setting/Characteristics

The majority of the project area is in agricultural land use and no developed residential or commercial areas were observed. Project area habitat types that are within or immediately adjacent to the Project area include:

- Agriculture (~93%)
- Undeveloped forest (~7%)
- Stream
- Wetlands

Agriculture

Currently the majority of the properties are in active agriculture planted with corn, soybean, and winter wheat. Some fields remained fallow for the current year, but there was no evidence of long term abandonment.

Undeveloped Forest

Undeveloped forest is located in parcels 4 and 1 (Appendix A: Map 2) and combined occupy an estimated 7% of all of the properties. Both forested areas contained wetlands with an upland forested perimeter. These areas are dominated with silver maple (*Acer Saccharinum*), red maple (*Acer rubrum*), and green ash (*Fraxinus pennsylvanica*), with some white oak (*Quercus alba*) and black walnut (*Juglans nigra*) occurring on the drier perimeters.

Streams and Ditches

One stream and one ditch occur on the properties. The primary stream flows from north to south and is depicted on the aerial overview (Appendix A: Map 2). An unmapped farm ditch that flows south also occurs between parcels 6 and 7.

Wetlands

As discussed earlier, the two forested compartments on the properties are primarily palustrine forested wetlands. However, some palustrine emergent wetlands do occur outside these areas and are primarily associated with the banks of the stream and ditch that occur on these properties. National Wetlands Inventory and New York State Freshwater Wetlands are mapped within the forested area of Parcel 1.

6.3 Potential Environmental Conditions

The following conditions were specifically assessed for their potential to create a recognized environmental condition:

6.3.1 Hazardous Materials Storage

Obvious evidence of hazardous materials storage was not observed on the project site. Obvious evidence of hazardous materials or regulated substances being improperly stored, dumped, or spilled on the project site (e.g., surface staining, stressed or dead vegetation, unusual odors, etc.) was not observed.

6.3.2 Polychlorinated Biphenyls (PCBs)

Electrical equipment manufactured prior to 1979 has the potential for containing PCBs and therefore subject to regulation by the United States Environmental Protection Agency (EPA). Transformers labeled with a blue or black dot have either been tested for the presence of PCBs and contained concentrations of PCBs less than 50 parts per million (ppm) or were manufactured after 1978. It is unknown if the Niagara Mohawk Power Corporation, Inc. 230kV overhead transmission line that traversed the project site contains such transformers.

6.3.3 Aboveground and Underground Storage Tanks (ASTs and USTs)

Aboveground storage tanks, underground storage tanks, or pipelines indicative of USTs were not observed on the project site.

6.3.4 Drinking Water/Sewer System

The project site is not currently serviced by municipal water or sewer. According to the EDR report, no water wells are located within 0.25 miles of the project site.

6.3.5 Natural Gas or Petroleum Transmission

The project site is not traversed by any known natural gas or petroleum transmission systems.

6.3.6 Electric Transmission

The project site is traversed, from east to west by a Niagara Mohawk Power Corporation, Inc. 230kV overhead transmission line.

6.3.7 Air or Water Discharges

Air or water discharges were not observed on the project site.

6.3.8 Transportation

An old railroad grade (Appendix A: Map 2) borders parcels 2, 3, 4, and 5 and traverses the site at Parcel 1. Except for a pile of railroad ties observed during the reconnaissance survey, the grade has naturally become vegetated.

6.3.9

6.3.10 De minimis Conditions

The site is relatively free of debris and trash.

7.0 FINDINGS, DATA GAPS, OPINIONS, AND CONCLUSIONS

7.1 Findings

Based on the results of our site reconnaissance, review of regulatory records (i.e., EDR), review of historical information and interviews; recognized environmental conditions (RECs), historical recognized environmental conditions (HRECs) or de minimis conditions requiring additional assessment and/or corrective action were not revealed with respect to the project site.

7.2 Data Gaps

ASTM 1527-05 states that “A data gap occurs as a result of a lack of or inability to obtain information required by this practice despite good faith efforts by the environmental professional to gather such information.” No significant data gaps are identified that would affect the conclusions made herein.

7.3 Opinion

It is Tetra Tech’s opinion that on-site conditions, investigations and research did not reveal evidence of RECs, HRECs or de minimis conditions likely to impact the project site. It is also Tetra Tech’s opinion significant data gaps were not identified that would affect this opinion.

7.4 Conclusions

Tetra Tech has performed a Phase I ESA of the proposed project site. This assessment was conducted in general conformance with the scope and limitations of ASTM Practice E 1527-05. Exceptions to, or deletions from, this practice are described in Section 9.0 of this report.

8.0 DEVIATIONS

There were no significant deviations from the proposed scope of work.

9.0 ADDITIONAL SERVICES

No additional services were performed in conjunction with this Phase I ESA.

10.0 REFERENCES

Tetra Tech utilized the following references in preparation of this report:

- Environmental Data Resources (EDR) Report (2011).
- Various Aerial Photography Sources.
- USGS 7.5 minute Topographic Map Cambria, N.Y., dated 1980.
- Site Reconnaissance field notes and photographs.

- Niagara County Geographical Information Systems (GIS) available from the County Website.
- Geography of New York State. John H. Thompson, Editor. Syracuse University Press, Syracuse, New York. (1977).

DRAFT

SIGNATURES

We declare that, to the best of our professional knowledge and belief, the Project Manager listed below meets the definition of environmental professional as defined in of §312.10 of 40 CFR 312. The Project Manager has the specific qualifications based on education, training, and experience to assess a property of the nature, history and setting of the project site. Tetra Tech developed and performed the all appropriate inquiries in general accordance with the standards and practices set forth in 40 CFR Part 312.

Report Prepared By:

Report Reviewed By:

Senior Review By:

Brad Schaeffer
Environmental Scientist

Brad Schaeffer
Project Manager

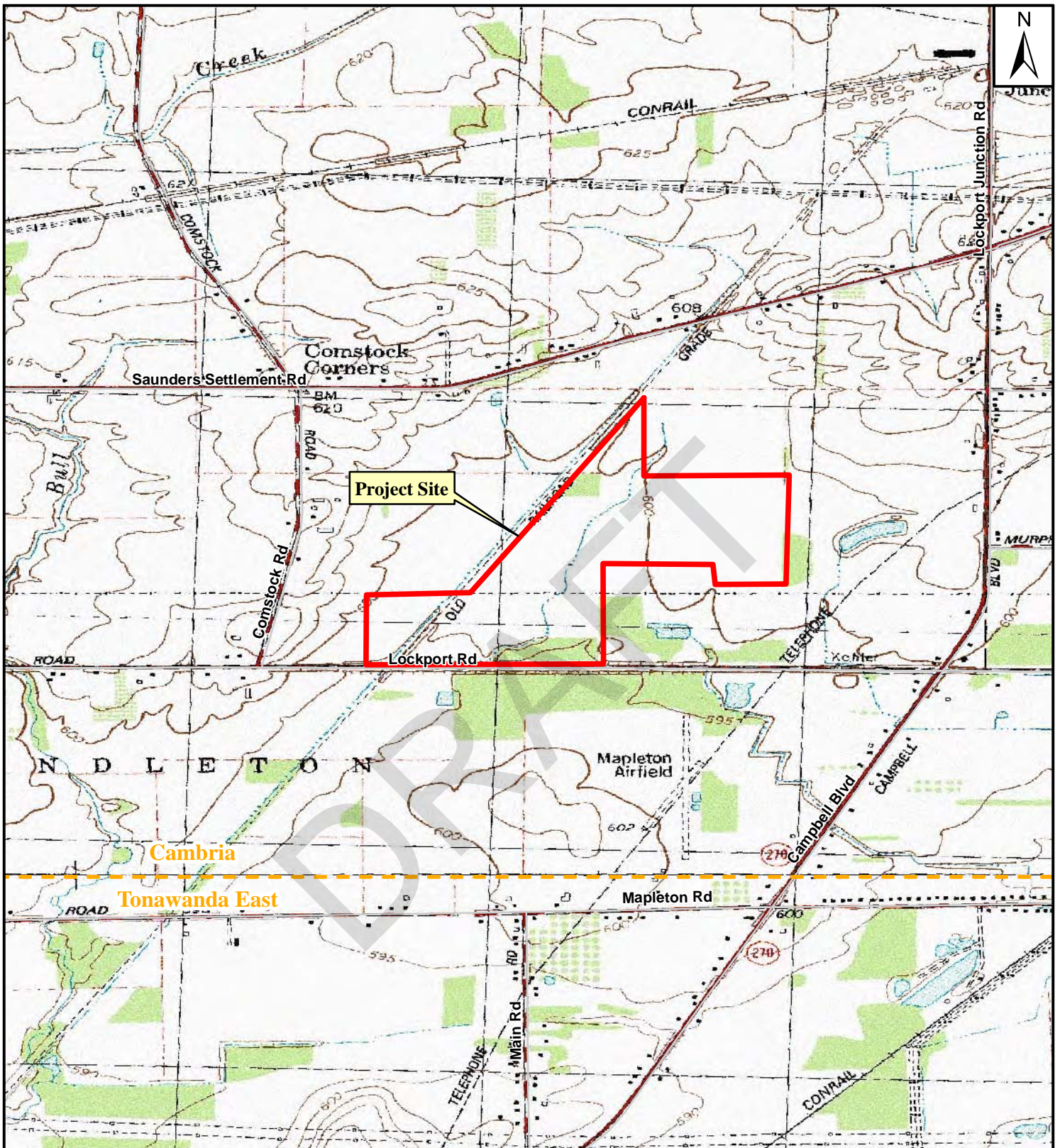
Director / Vice President

DRAFT

APPENDIX A

Site Vicinity Map

Site Aerial Map



**Project Location
Niagara County**



0 1,000 2,000
Feet

0 240 480
Meters

Legend

- Project Site
- USGS Topo Boundary

**Figure 1. Site Location for
Shovel Ready Project,
Town of Cambria, New York.**

Prepared
For: **Wendel**

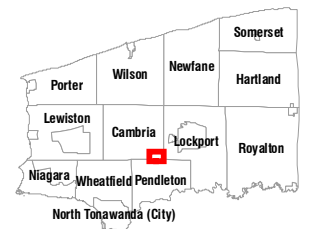
Prepared
By: **TETRA TECH**

Date:
6/2011

Source: USGS 7.5' Topographic Quadrangles Digital Raster Graphic (DRG); DRG used, Cambria, New York 1980.

NIAGARA COUNTY
Shovel Ready
Project
TOWN OF CAMBRIA - NEW YORK

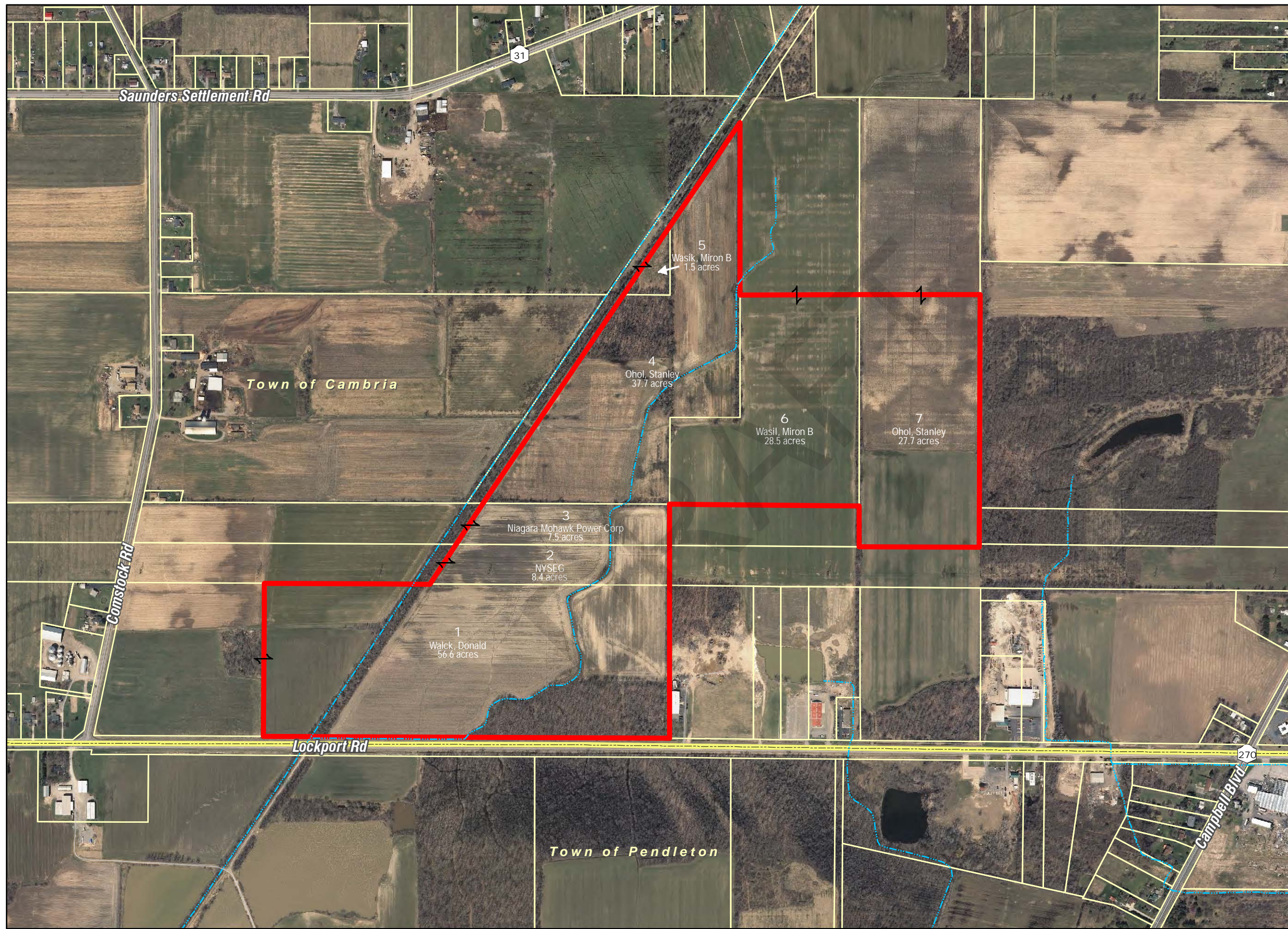
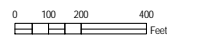
MAP 2 - SITE LOCATION



NIAGARA COUNTY - NEW YORK
NOT DRAWN TO SCALE

LEGEND

- Municipal Boundary
- Parcel Boundary (2009)
- Hydrography
- Project Site



Wendel Duchscherer Architects & Engineers, P.C. shall assume no liability for 1. Any errors, omissions, or inaccuracies in the information provided regardless of how caused or; 2. Any decision or action taken or not taken by the reader in reliance upon any information or data furnished hereunder.
Data Sources: NYS GIS Clearinghouse, Niagara County Real Property Services, National Hydrology Dataset, 2008 Digital Orthomagey

APPENDIX B

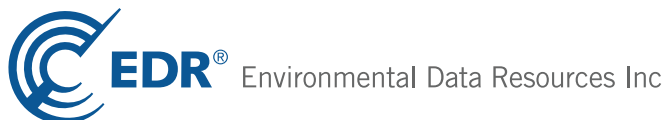
Environmental Data Resources, Inc. (EDR) Report

Cambria Expanded

Comstock Rd/Lockport Rd
Lockport, NY 14094

Inquiry Number: 3132096.2s
July 25, 2011

The EDR Radius Map™ Report with GeoCheck®



440 Wheelers Farms Road
Milford, CT 06461
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
Executive Summary	ES1
Overview Map	2
Detail Map	3
Map Findings Summary	4
Map Findings	7
Orphan Summary	14
Government Records Searched/Data Currency Tracking	GR-1
 <u>GEOCHECK ADDENDUM</u>	
Physical Setting Source Addendum	A-1
Physical Setting Source Summary	A-2
Physical Setting SSURGO Soil Map	A-5
Physical Setting Source Map	A-12
Physical Setting Source Map Findings	A-14
Physical Setting Source Records Searched	A-23

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2011 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-05) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

COMSTOCK RD/LOCKPORT RD
LOCKPORT, NY 14094

COORDINATES

Latitude (North): 43.139000 - 43° 8' 20.4"
Longitude (West): 78.770200 - 78° 46' 12.7"
Universal Transverse Mercator: Zone 17
UTM X (Meters): 681345.2
UTM Y (Meters): 4778449.0
Elevation: 598 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 43078-B7 CAMBRIA, NY
Most Recent Revision: 1980

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from: 2006, 2008
Source: USDA

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL..... National Priority List

EXECUTIVE SUMMARY

Proposed NPL..... Proposed National Priority List Sites
NPL LIENS..... Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL..... National Priority List Deletions

Federal CERCLIS list

CERCLIS..... Comprehensive Environmental Response, Compensation, and Liability Information System
FEDERAL FACILITY..... Federal Facility Site Information listing

Federal CERCLIS NFRAP site List

CERC-NFRAP..... CERCLIS No Further Remedial Action Planned

Federal RCRA CORRACTS facilities list

CORRACTS..... Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG..... RCRA - Large Quantity Generators
RCRA-SQG..... RCRA - Small Quantity Generators
RCRA-CESQG..... RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

US ENG CONTROLS..... Engineering Controls Sites List
US INST CONTROL..... Sites with Institutional Controls

Federal ERNS list

ERNS..... Emergency Response Notification System

State- and tribal - equivalent CERCLIS

SHWS..... Inactive Hazardous Waste Disposal Sites in New York State
VAPOR REOPENED..... Vapor Intrusion Legacy Site List

State and tribal leaking storage tank lists

LTANKS..... Spills Information Database
HIST LTANKS..... Listing of Leaking Storage Tanks
INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

TANKS..... Storage Tank Facility Listing
UST..... Petroleum Bulk Storage (PBS) Database
CBS UST..... Chemical Bulk Storage Database

EXECUTIVE SUMMARY

MOSF UST.....	Major Oil Storage Facilities Database
CBS AST.....	Chemical Bulk Storage Database
MOSF AST.....	Major Oil Storage Facilities Database
MOSF.....	Major Oil Storage Facility Site Listing
CBS.....	Chemical Bulk Storage Site Listing
INDIAN UST.....	Underground Storage Tanks on Indian Land
FEMA UST.....	Underground Storage Tank Listing

State and tribal institutional control / engineering control registries

ENG CONTROLS.....	Registry of Engineering Controls
INST CONTROL.....	Registry of Institutional Controls
RES DECL.....	Restrictive Declarations Listing

State and tribal voluntary cleanup sites

INDIAN VCP.....	Voluntary Cleanup Priority Listing
VCP.....	Voluntary Cleanup Agreements

State and tribal Brownfields sites

ERP.....	Environmental Restoration Program Listing
BROWNFIELDS.....	Brownfields Site List

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS.....	A Listing of Brownfields Sites
---------------------	--------------------------------

Local Lists of Landfill / Solid Waste Disposal Sites

ODI.....	Open Dump Inventory
DEBRIS REGION 9.....	Torres Martinez Reservation Illegal Dump Site Locations
SWTIRE.....	Registered Waste Tire Storage & Facility List
SWRCY.....	Registered Recycling Facility List
INDIAN ODI.....	Report on the Status of Open Dumps on Indian Lands

Local Lists of Hazardous waste / Contaminated Sites

US CDL.....	Clandestine Drug Labs
DEL SHWS.....	Delisted Registry Sites
US HIST CDL.....	National Clandestine Laboratory Register

Local Lists of Registered Storage Tanks

HIST UST.....	Historical Petroleum Bulk Storage Database
HIST AST.....	Historical Petroleum Bulk Storage Database

Local Land Records

LIENS 2.....	CERCLA Lien Information
LUCIS.....	Land Use Control Information System

Records of Emergency Release Reports

HMIRS.....	Hazardous Materials Information Reporting System
------------	--

EXECUTIVE SUMMARY

NY Spills..... Spills Information Database
NY Hist Spills..... SPILLS Database

Other Ascertainable Records

RCRA-NonGen..... RCRA - Non Generators
DOT OPS..... Incident and Accident Data
DOD..... Department of Defense Sites
FUDS..... Formerly Used Defense Sites
CONSENT..... Superfund (CERCLA) Consent Decrees
ROD..... Records Of Decision
UMTRA..... Uranium Mill Tailings Sites
MINES..... Mines Master Index File
TRIS..... Toxic Chemical Release Inventory System
TSCA..... Toxic Substances Control Act
FTTS..... FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
HIST FTTS..... FIFRA/TSCA Tracking System Administrative Case Listing
SSTS..... Section 7 Tracking Systems
ICIS..... Integrated Compliance Information System
PADS..... PCB Activity Database System
MLTS..... Material Licensing Tracking System
RADINFO..... Radiation Information Database
FINDS..... Facility Index System/Facility Registry System
RAATS..... RCRA Administrative Action Tracking System
HSWDS..... Hazardous Substance Waste Disposal Site Inventory
UIC..... Underground Injection Control Wells
MANIFEST..... Facility and Manifest Data
DRYCLEANERS..... Registered Drycleaners
NPDES..... State Pollutant Discharge Elimination System
AIRS..... Air Emissions Data
E DESIGNATION..... E DESIGNATION SITE LISTING
INDIAN RESERV..... Indian Reservations
SCRD DRYCLEANERS..... State Coalition for Remediation of Drycleaners Listing
PCB TRANSFORMER..... PCB Transformer Registration Database
COAL ASH EPA..... Coal Combustion Residues Surface Impoundments List
COAL ASH..... Coal Ash Disposal Site Listing
FINANCIAL ASSURANCE..... Financial Assurance Information Listing
COAL ASH DOE..... Seam-Electric Plan Operation Data

EDR PROPRIETARY RECORDS

EDR Proprietary Records

Manufactured Gas Plants..... EDR Proprietary Manufactured Gas Plants

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property. Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

EXECUTIVE SUMMARY

STANDARD ENVIRONMENTAL RECORDS

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: The Solid Waste Facilities/Landfill Sites records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. The data come from the list.

A review of the SWF/LF list, as provided by EDR, and dated 04/14/2011 has revealed that there are 2 SWF/LF sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
PENDLETON MOTORS	5130 LOCKPORT ROAD	SSE 1/4 - 1/2 (0.303 mi.)	2	12
PREVITYS MOTOR CARS INC.	5212 LOCKPORT ROAD	SE 1/4 - 1/2 (0.480 mi.)	3	13

State and tribal registered storage tank lists

AST: The Aboveground Storage Tank database contains registered ASTs. The data come from the Department of Environmental Conservation's Petroleum Bulk Storage (PBS) Database.

A review of the AST list, as provided by EDR, and dated 04/05/2011 has revealed that there is 1 AST site within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>DONALD D. WALCK FARMS</i>	<i>4720 LOCKPORT RD.</i>	<i>W 1/8 - 1/4 (0.245 mi.)</i>	<i>1</i>	<i>7</i>

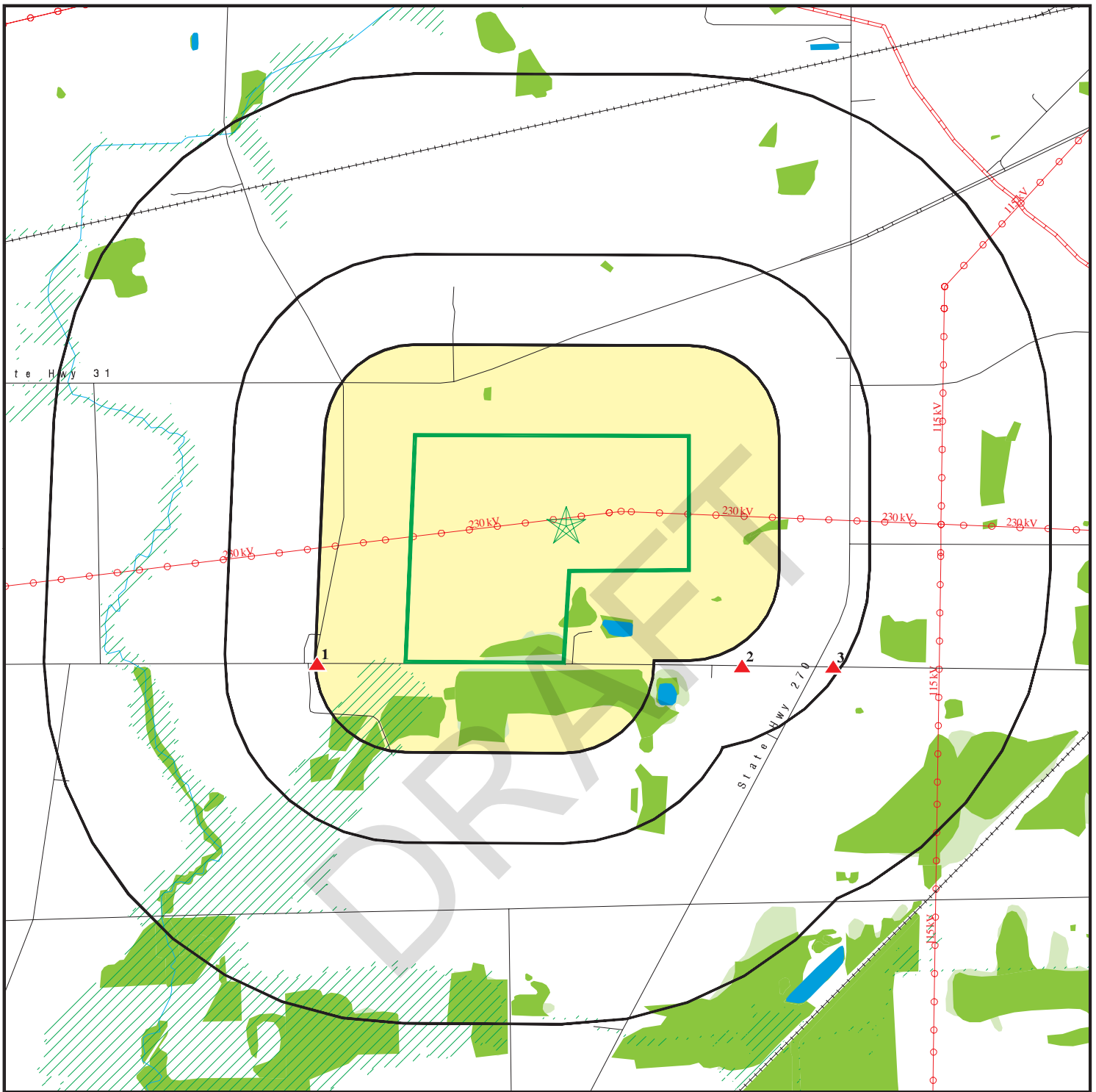
EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 22 records.

<u>Site Name</u>	<u>Database(s)</u>
RICHMOND AVENUE PROJECT	ERP, INST CONTROL
LOCKPORT CITY LANDFILL	SHWS, ENG CONTROLS, INST CONTROL
LOCKPORT ENGERY ASSOCIATES NAES-LO	RCRA-CESQG, FINDS, MANIFEST
EIGHTEENMILE CREEK CORRIDOR	SHWS
OLD UPPER MOUNTAIN ROAD SITE	SHWS
LOCKPORT AFB	CERC-NFRAP
LOCKPORT LF (T)	SWF/LF
NYSEG - ROBINSON ROAD REGULATOR ST	RCRA-NonGen, FINDS
MODERN DISPOSAL	NY Spills, NY Hist Spills
DEAD GRASS ON DOT ROW	NY Spills, NY Hist Spills
SANTA ROSA TRUCKING	NY Spills, NY Hist Spills
HASELEY TRUCKING	NY Spills, NY Hist Spills
GOLDING TRUCK	NY Spills, NY Hist Spills
C&D LANDFILL	NY Spills, NY Hist Spills
BRIGHAM CONCRETE	NY Spills, NY Hist Spills
TELEDYNE TRUCK	NY Spills, NY Hist Spills
TELEDYNE CO.	NY Spills, NY Hist Spills
VACANT PROPERTY	NY Spills, NY Hist Spills
CITY OF LOCKPORT	NY Spills, NY Hist Spills
CUSTOM CREWS	NY Spills, NY Hist Spills
WATER TREATMENT PLANT	NY Spills
CORNER OF	NY Spills

DRAFT

OVERVIEW MAP - 3132096.2s



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites

Indian Reservations BIA

Power transmission lines

Oil & Gas pipelines from USGS

100-year flood zone

500-year flood zone

National Wetland Inventory

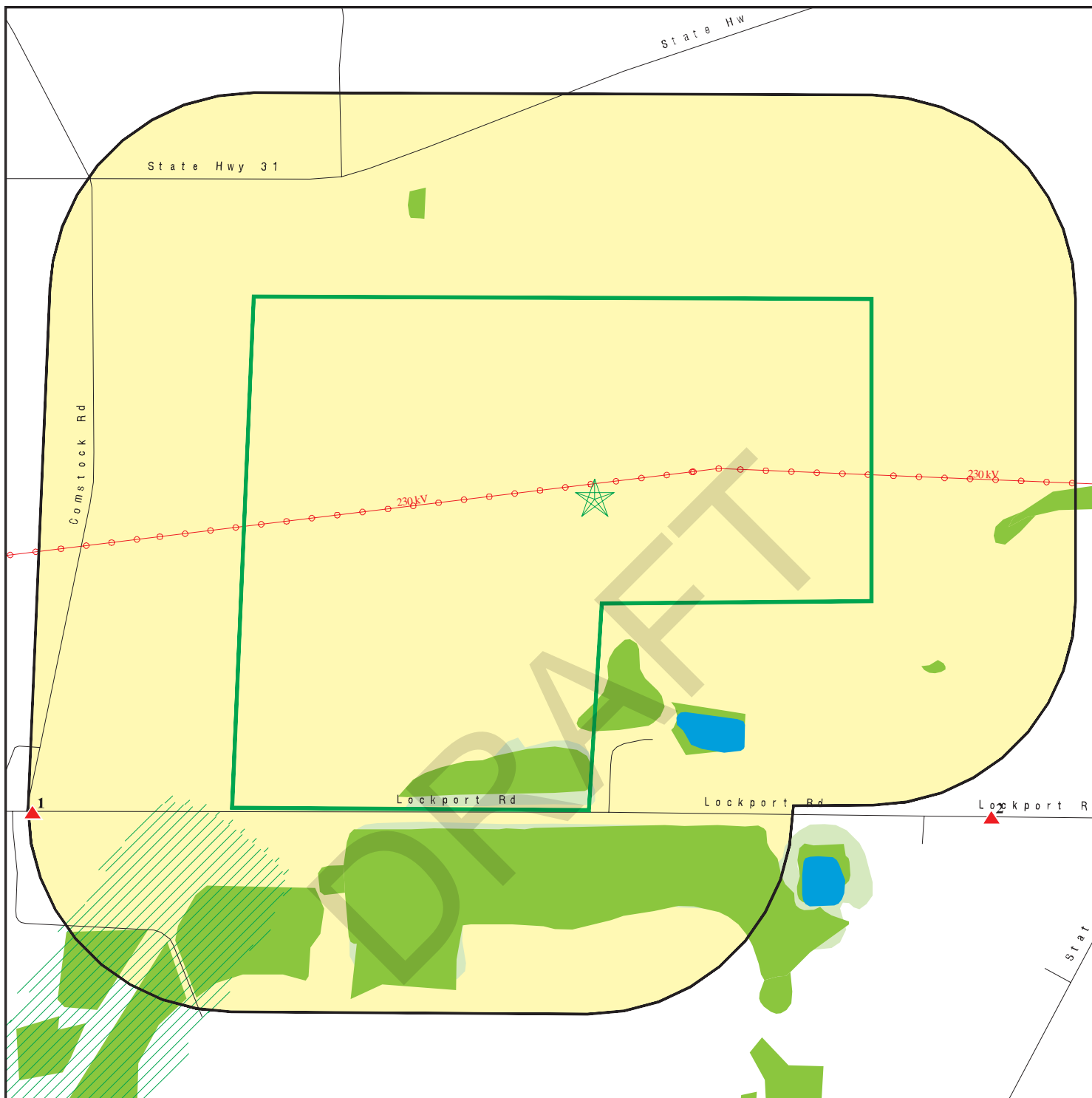
State Wetlands

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Cambria Expanded
 ADDRESS: Comstock Rd/Lockport Rd
 Lockport NY 14094
 LAT/LONG: 43.1390 / 78.7702

CLIENT: Tetra Tech Inc
 CONTACT: Bonnie Locking
 INQUIRY #: 3132096.2s
 DATE: July 25, 2011 12:53 pm

DETAIL MAP - 3132096.2s



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

Sensitive Receptors

National Priority List Sites

Dept. Defense Sites

Indian Reservations BIA

Power transmission lines

Oil & Gas pipelines from USGS

100-year flood zone

500-year flood zone

National Wetland Inventory

State Wetlands

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Cambria Expanded
 ADDRESS: Comstock Rd/Lockport Rd
 Lockport NY 14094
 LAT/LONG: 43.1390 / 78.7702

CLIENT: Tetra Tech Inc
 CONTACT: Bonnie Locking
 INQUIRY #: 3132096.2s
 DATE: July 25, 2011 12:54 pm

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
<i>Federal NPL site list</i>								
NPL		1.000	0	0	0	0	NR	0
Proposed NPL		1.000	0	0	0	0	NR	0
NPL LIENS		TP	NR	NR	NR	NR	NR	0
<i>Federal Delisted NPL site list</i>								
Delisted NPL		1.000	0	0	0	0	NR	0
<i>Federal CERCLIS list</i>								
CERCLIS		0.500	0	0	0	NR	NR	0
FEDERAL FACILITY		1.000	0	0	0	0	NR	0
<i>Federal CERCLIS NFRAP site List</i>								
CERC-NFRAP		0.500	0	0	0	NR	NR	0
<i>Federal RCRA CORRACTS facilities list</i>								
CORRACTS		1.000	0	0	0	0	NR	0
<i>Federal RCRA non-CORRACTS TSD facilities list</i>								
RCRA-TSDF		0.500	0	0	0	NR	NR	0
<i>Federal RCRA generators list</i>								
RCRA-LQG		0.250	0	0	NR	NR	NR	0
RCRA-SQG		0.250	0	0	NR	NR	NR	0
RCRA-CESQG		0.250	0	0	NR	NR	NR	0
<i>Federal institutional controls / engineering controls registries</i>								
US ENG CONTROLS		0.500	0	0	0	NR	NR	0
US INST CONTROL		0.500	0	0	0	NR	NR	0
<i>Federal ERNS list</i>								
ERNS		TP	NR	NR	NR	NR	NR	0
<i>State- and tribal - equivalent CERCLIS</i>								
SHWS		1.000	0	0	0	0	NR	0
VAPOR REOPENED		1.000	0	0	0	0	NR	0
<i>State and tribal landfill and/or solid waste disposal site lists</i>								
SWF/LF		0.500	0	0	2	NR	NR	2
<i>State and tribal leaking storage tank lists</i>								
LTANKS		0.500	0	0	0	NR	NR	0
HIST LTANKS		0.500	0	0	0	NR	NR	0
INDIAN LUST		0.500	0	0	0	NR	NR	0
<i>State and tribal registered storage tank lists</i>								
TANKS		0.250	0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
UST		0.250	0	0	NR	NR	NR	0
CBS UST		0.250	0	0	NR	NR	NR	0
MOSF UST		0.500	0	0	0	NR	NR	0
AST		0.250	0	1	NR	NR	NR	1
CBS AST		0.250	0	0	NR	NR	NR	0
MOSF AST		0.500	0	0	0	NR	NR	0
MOSF		0.500	0	0	0	NR	NR	0
CBS		0.250	0	0	NR	NR	NR	0
INDIAN UST		0.250	0	0	NR	NR	NR	0
FEMA UST		0.250	0	0	NR	NR	NR	0
State and tribal institutional control / engineering control registries								
ENG CONTROLS		0.500	0	0	0	NR	NR	0
INST CONTROL		0.500	0	0	0	NR	NR	0
RES DECL		0.125	0	NR	NR	NR	NR	0
State and tribal voluntary cleanup sites								
INDIAN VCP		0.500	0	0	0	NR	NR	0
VCP		0.500	0	0	0	NR	NR	0
State and tribal Brownfields sites								
ERP		0.500	0	0	0	NR	NR	0
BROWNFIELDS		0.500	0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS		0.500	0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
ODI		0.500	0	0	0	NR	NR	0
DEBRIS REGION 9		0.500	0	0	0	NR	NR	0
SWTIRE		0.500	0	0	0	NR	NR	0
SWRCY		0.500	0	0	0	NR	NR	0
INDIAN ODI		0.500	0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US CDL		TP	NR	NR	NR	NR	NR	0
DEL SHWS		1,000	0	0	0	0	NR	0
US HIST CDL		TP	NR	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
HIST UST		0.250	0	0	NR	NR	NR	0
HIST AST		TP	NR	NR	NR	NR	NR	0
Local Land Records								
LIENS 2		TP	NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LUCIS		0.500	0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0
NY Spills		0.125	0	NR	NR	NR	NR	0
NY Hist Spills		0.125	0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA-NonGen		0.250	0	0	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
DOD		1.000	0	0	0	0	NR	0
FUDS		1.000	0	0	0	0	NR	0
CONSENT		1.000	0	0	0	0	NR	0
ROD		1.000	0	0	0	0	NR	0
UMTRA		0.500	0	0	0	NR	NR	0
MINES		0.250	0	0	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
HSWDS		0.500	0	0	0	NR	NR	0
UIC	TP		NR	NR	NR	NR	NR	0
MANIFEST		0.250	0	0	NR	NR	NR	0
DRYCLEANERS		0.250	0	0	NR	NR	NR	0
NPDES	TP		NR	NR	NR	NR	NR	0
AIRS	TP		NR	NR	NR	NR	NR	0
E DESIGNATION		0.125	0	NR	NR	NR	NR	0
INDIAN RESERV		1.000	0	0	0	0	NR	0
SCRD DRYCLEANERS		0.500	0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA		0.500	0	0	0	NR	NR	0
COAL ASH		0.500	0	0	0	NR	NR	0
FINANCIAL ASSURANCE	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0

EDR PROPRIETARY RECORDS

EDR Proprietary Records

Manufactured Gas Plants		1.000	0	0	0	0	NR	0
-------------------------	--	-------	---	---	---	---	----	---

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)
EDR ID Number
EPA ID Number

1
West
1/8-1/4
0.245 mi.
1291 ft.

DONALD D. WALCK FARMS
4720 LOCKPORT RD.
LOCKPORT, NY 14094

AST U003399879
HIST AST N/A

Relative:
Higher

AST:

Region: STATE
DEC Region: 9
Site Status: Active
Facility Id: 9-446467
Program Type: PBS
UTM X: 192259.61365000001
UTM Y: 4782575.2399599999
Expiration Date: 2013/06/28

Actual:
606 ft.

Affiliation Records:

Site Id: 54410
Affiliation Type: On-Site Operator
Company Name: DONALD D. WALCK FARMS
Contact Type: Not reported
Contact Name: DONALD D. WALCK FARMS
Address1: Not reported
Address2: Not reported
City: Not reported
State: NN
Zip Code: Not reported
Country Code: 001
Phone: (716) 625-8745
Phone Ext: Not reported
Email: Not reported
Fax Number: Not reported
Modified By: TRANSLAT
Date Last Modified: 3/4/2004

Site Id: 54410
Affiliation Type: Emergency Contact
Company Name: DONALD D. WALCK FARMS
Contact Type: Not reported
Contact Name: ANDREW MILLEVILLE
Address1: Not reported
Address2: Not reported
City: Not reported
State: NN
Zip Code: Not reported
Country Code: 001
Phone: (716) 625-8591
Phone Ext: Not reported
Email: Not reported
Fax Number: Not reported
Modified By: TRANSLAT
Date Last Modified: 3/4/2004

Site Id: 54410
Affiliation Type: Mail Contact
Company Name: DONALD D. WALCK FARMS
Contact Type: OWNER
Contact Name: DONALD D. WALCK
Address1: 4720 LOCKPORT RD.
Address2: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DONALD D. WALCK FARMS (Continued)

U003399879

City: LOCKPORT
State: NY
Zip Code: 14094
Country Code: 001
Phone: (716) 625-8745
Phone Ext: Not reported
Email: Not reported
Fax Number: Not reported
Modified By: LDGOMEZ
Date Last Modified: 5/23/2008

Site Id: 54410
Affiliation Type: Owner
Company Name: DONALD D. WALCK FARMS
Contact Type: OWNER
Contact Name: DONALD D. WALCK
Address1: 4720 LOCKPORT RD.
Address2: Not reported
City: LOCKPORT
State: NY
Zip Code: 14094
Country Code: 001
Phone: (716) 625-8745
Phone Ext: Not reported
Email: Not reported
Fax Number: Not reported
Modified By: LDGOMEZ
Date Last Modified: 5/23/2008

Equipment Records:

F00 - Pipe External Protection - None
G01 - Tank Secondary Containment - Diking (Aboveground)
J02 - Dispenser - Suction
H99 - Tank Leak Detection - Other
D00 - Pipe Type - No Piping
A00 - Tank Internal Protection - None
B01 - Tank External Protection - Painted/Asphalt Coating
I04 - Overfill - Product Level Gauge (A/G)
E01 - Piping Secondary Containment - Diking (Aboveground)
I00 - Overfill - None
B01 - Tank External Protection - Painted/Asphalt Coating
A00 - Tank Internal Protection - None
G01 - Tank Secondary Containment - Diking (Aboveground)
H99 - Tank Leak Detection - Other
D01 - Pipe Type - Steel/Carbon Steel/Iron
J02 - Dispenser - Suction
F00 - Pipe External Protection - None
A00 - Tank Internal Protection - None
B01 - Tank External Protection - Painted/Asphalt Coating
F00 - Pipe External Protection - None
I05 - Overfill - Vent Whistle
C01 - Pipe Location - Aboveground
G00 - Tank Secondary Containment - None
H99 - Tank Leak Detection - Other
J02 - Dispenser - Suction
D00 - Pipe Type - No Piping
C01 - Pipe Location - Aboveground

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DONALD D. WALCK FARMS (Continued)

U003399879

E00 - Piping Secondary Containment - None
C01 - Pipe Location - Aboveground
E00 - Piping Secondary Containment - None

Tank Info:

Tank Number: 2
Tank Id: 167851
Tank Location: 2
Tank Type: Steel/Carbon Steel/Iron
Tank Status: In Service
Tank Model: Not reported
Pipe Model: Not reported
Install Date: 3/1/1972
Capacity Gallons: 11000
Tightness Test Method: NN
Date Test: Not reported
Next Test Date: Not reported
Date Tank Closed: Not reported
Register: True
Modified By: LDGOMEZ
Last Modified: 5/23/2008

Tank Number: 3
Tank Id: 173568
Tank Location: 2
Tank Type: Steel/Carbon Steel/Iron
Tank Status: In Service
Tank Model: Not reported
Pipe Model: Not reported
Install Date: 12/1/1989
Capacity Gallons: 2000
Tightness Test Method: NN
Date Test: Not reported
Next Test Date: Not reported
Date Tank Closed: Not reported
Register: True
Modified By: LDGOMEZ
Last Modified: 5/23/2008

Tank Number: 4
Tank Id: 173569
Tank Location: 3
Tank Type: Steel/Carbon Steel/Iron
Tank Status: In Service
Tank Model: Not reported
Pipe Model: Not reported
Install Date: 12/1/1999
Capacity Gallons: 500
Tightness Test Method: NN
Date Test: Not reported
Next Test Date: Not reported
Date Tank Closed: Not reported
Register: True
Modified By: LDGOMEZ
Last Modified: 5/23/2008

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DONALD D. WALCK FARMS (Continued)

U003399879

HIST AST:

PBS Number: 9-446467
SWIS Code: 2909
Operator: DONALD D. WALCK FARMS
Facility Phone: (716) 625-8745
Facility Addr2: Not reported
Facility Type: FARM
Emergency: ANDREW MILLEVILLE
Emergency Tel: (716) 731-9733
Old PBSNO: Not reported
Date Inspected: 19990616
Inspector: PFK
Result of Inspection: 1
Owner Name: DONALD D. WALCK FARMS
Owner Address: 4720 LOCKPORT RD.
Owner City,St,Zip: LOCKPORT, NY 14094
Federal ID: Not reported
Owner Tel: (716) 625-8745
Owner Type: Corporate/Commercial
Owner Subtype: Not reported
Mailing Contact: Not reported
Mailing Name: DONALD D. WALCK FARMS
Mailing Address: 4720 LOCKPORT RD.
Mailing Address 2: Not reported
Mailing City,St,Zip: LOCKPORT, NY 14094
Mailing Telephone: (716) 625-8745
Owner Mark: First Owner
Facility Status: 1 - Active PBS facility, i.e. total capacity of the PBS tanks is greater than 1,100 gallons, regardless if Subpart 360-14 tanks exist or not at the facility.

Certification Flag: False
Certification Date: 04/20/2000
Expiration: 06/28/2003
Renew Flag: False
Renew Date: 19930301
Total Capacity: 13500
FAMT: True
Facility Screen: No Missing Data
Owner Screen: No Missing Data
Tank Screen: No Missing Data
Dead Letter: False
CBS Number: Not reported
Town or City: LOCKPORT (C)
County Code: 29
Town or City Code: 09
Region: 9

Tank ID: 2
Tank Location: ABOVEGROUND
Tank Status: In Service
Install Date: 19720301
Capacity (Gal): 11000
Product Stored: DIESEL
Tank Type: Steel/carbon steel
Tank Internal: 0
Tank External: 10
Pipe Location: Aboveground

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DONALD D. WALCK FARMS (Continued)

U003399879

Pipe Type: STEEL/IRON
Pipe Internal: None
Pipe External: 00
Tank Containment: 80
Leak Detection: 90
Overfill Protection: 00
Dispenser Method: Suction
Date Tested: Not reported
Next Test Date: Not reported
Missing Data for Tank: No Missing Data
Date Closed: Not reported
Test Method: Not reported
Deleted: False
Updated: True
SPDES Number: Not reported
Lat/Long: Not reported

Tank ID: 3
Tank Location: ABOVEGROUND
Tank Status: In Service
Install Date: 19891201
Capacity (Gal): 2000
Product Stored: DIESEL
Tank Type: Steel/carbon steel
Tank Internal: 0
Tank External: 10
Pipe Location: Aboveground
Pipe Type: STEEL/IRON
Pipe Internal: None
Pipe External: 00
Tank Containment: 80
Leak Detection: 90
Overfill Protection: 40
Dispenser Method: Suction
Date Tested: Not reported
Next Test Date: Not reported
Missing Data for Tank: No Missing Data
Date Closed: Not reported
Test Method: Not reported
Deleted: False
Updated: True
SPDES Number: Not reported
Lat/Long: Not reported

Tank ID: 4
Tank Location: ABOVEGROUND ON SADDLES LEGS, STILTS, RACK, OR CRADLE
Tank Status: In Service
Install Date: 19991201
Capacity (Gal): 500
Product Stored: UNLEADED GASOLINE
Tank Type: Steel/carbon steel
Tank Internal: 0
Tank External: 10
Pipe Location: Aboveground
Pipe Type: STEEL/IRON

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DONALD D. WALCK FARMS (Continued)

U003399879

Pipe Internal: None
Pipe External: 00
Tank Containment: 80
Leak Detection: 90
Overfill Protection: 60
Dispenser Method: Suction
Date Tested: Not reported
Next Test Date: Not reported
Missing Data for Tank: No Missing Data
Date Closed: Not reported
Test Method: Not reported
Deleted: False
Updated: True
SPDES Number: Not reported
Lat/Long: Not reported

2
SSE
1/4-1/2
0.303 mi.
1601 ft.

PENDLETON MOTORS
5130 LOCKPORT ROAD
PENDLETON, NY 14094

SWF/LF S108468267
N/A

Relative:
Higher

SWF/LF:

Actual:
599 ft.

Flag: INACTIVE
Region Code: 9
Phone Number: Not reported
Owner Name: Not reported
Owner Type: Not reported
Owner Address: Not reported
Owner Addr2: Not reported
Owner City,St,Zip: Not reported
Owner Email: Not reported
Owner Phone: Not reported
Contact Name: Not reported
Contact Address: Not reported
Contact Addr2: Not reported
Contact City,St,Zip: Not reported
Contact Email: Not reported
Contact Phone: Not reported
Activity Desc: Vehicle Dismantling
Activity Number: 32J14
Active: No
East Coordinate: 194165
North Coordinate: 4782426
Accuracy Code: 4.2 - Utilization of GIS and existing spatial data
Regulatory Status: None
Waste Type: Not reported
Authorization #: None
Authorization Date: Not reported
Expiration Date: Not reported

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s) EDR ID Number
EPA ID Number

3
SE
1/4-1/2
0.480 mi.
2536 ft.

PREVITYS MOTOR CARS INC.
5212 LOCKPORT ROAD
PENDLETON, NY 14904

SWF/LF **S108468283**
N/A

Relative:
Higher

SWF/LF:

Actual:
600 ft.

Flag: ACTIVE
Region Code: 9
Phone Number: 7166258802
Owner Name: Not reported
Owner Type: Not reported
Owner Address: Not reported
Owner Addr2: Not reported
Owner City,St,Zip: Not reported
Owner Email: Not reported
Owner Phone: Not reported
Contact Name: Not reported
Contact Address: Not reported
Contact Addr2: Not reported
Contact City,St,Zip: Not reported
Contact Email: Not reported
Contact Phone: Not reported
Activity Desc: Vehicle Dismantling
Activity Number: 32J16
Active: Yes
East Coordinate: 194667
North Coordinate: 4782438
Accuracy Code: 4.2 - Utilization of GIS and existing spatial data
Regulatory Status: None
Waste Type: Not reported
Authorization #: None
Authorization Date: Not reported
Expiration Date: Not reported

DRAFT

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
CAMBRIA	1003864424	LOCKPORT AFB	RTE 31	14094	CERC-NFRAP
LOCKPORT	S102174788	MODERN DISPOSAL	RT 104		NY Spills, NY Hist Spills
LOCKPORT	1004758908	LOCKPORT ENGERY ASSOCIATES NAES-LO	RT 270 & PLANT RD		RCRA-CESQG, FINDS, MANIFEST
LOCKPORT	S103568895	DEAD GRASS ON DOT ROW	RT 31		NY Spills, NY Hist Spills
LOCKPORT	S109416409	EIGHTEENMILE CREEK CORRIDOR	62ND & 300TH MILL ST	14094	SHWS
LOCKPORT	S102176541	SANTA ROSA TRUCKING	RT 78		NY Spills, NY Hist Spills
LOCKPORT	S102178530	HASELEY TRUCKING	RT 93		NY Spills, NY Hist Spills
LOCKPORT	S102245182	GOLDING TRUCK	RT 93 & RT		NY Spills, NY Hist Spills
LOCKPORT	S104509463	C&D LANDFILL	RT 93		NY Spills, NY Hist Spills
LOCKPORT	S102178122	BRIGHAM CONCRETE	RT 93		NY Spills, NY Hist Spills
LOCKPORT	S103593178	LOCKPORT LF (T)	?	14094	SWF/LF
LOCKPORT	S109824865	RICHMOND AVENUE PROJECT	CANAL CHURCH & NIAGARA STS	14094	ERP, INST CONTROL
LOCKPORT	S104652307	TELEDYNE TRUCK	HINMAN & RT 93		NY Spills, NY Hist Spills
LOCKPORT	S104652338	TELEDYNE CO.	HINMAN RD & RT 93		NY Spills, NY Hist Spills
LOCKPORT	S110610528	LOCKPORT CITY LANDFILL	OAKHURST RD	14094	SHWS, ENG CONTROLS, INST CON
LOCKPORT	S109209074	OLD UPPER MOUNTAIN ROAD SITE	OLD UPPER MOUNTAIN RD	14094	SHWS
LOCKPORT	1001489124	NYSEG - ROBINSON ROAD REGULATOR ST	ROBINSON RD & NYS RTE 93	14094	RCRA-NonGen, FINDS
LOCKPORT	S102173936	VACANT PROPERTY	STATE RD		NY Spills, NY Hist Spills
LOCKPORT	S102178015	CITY OF LOCKPORT	STATE RD		NY Spills, NY Hist Spills
LOCKPORT	S102175006	CUSTOM CREWS	STATE ST		NY Spills, NY Hist Spills
LOCKPORT	S108129845	WATER TREATMENT PLANT	STATE ST		NY Spills
LOCKPORT	S108298195	CORNER OF	STATE ST & N TRANSIT RD	14094	NY Spills

GEOCHECK[®] - PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

CAMBRIA EXPANDED
COMSTOCK RD/LOCKPORT RD
LOCKPORT, NY 14094

TARGET PROPERTY COORDINATES

Latitude (North): 43.13900 - 43° 8' 20.4"
Longitude (West): 78.7702 - 78° 46' 12.7"
Universal Tranverse Mercator: Zone 17
UTM X (Meters): 681345.2
UTM Y (Meters): 4778449.0
Elevation: 598 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map: 43078-B7 CAMBRIA, NY
Most Recent Revision: 1980

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

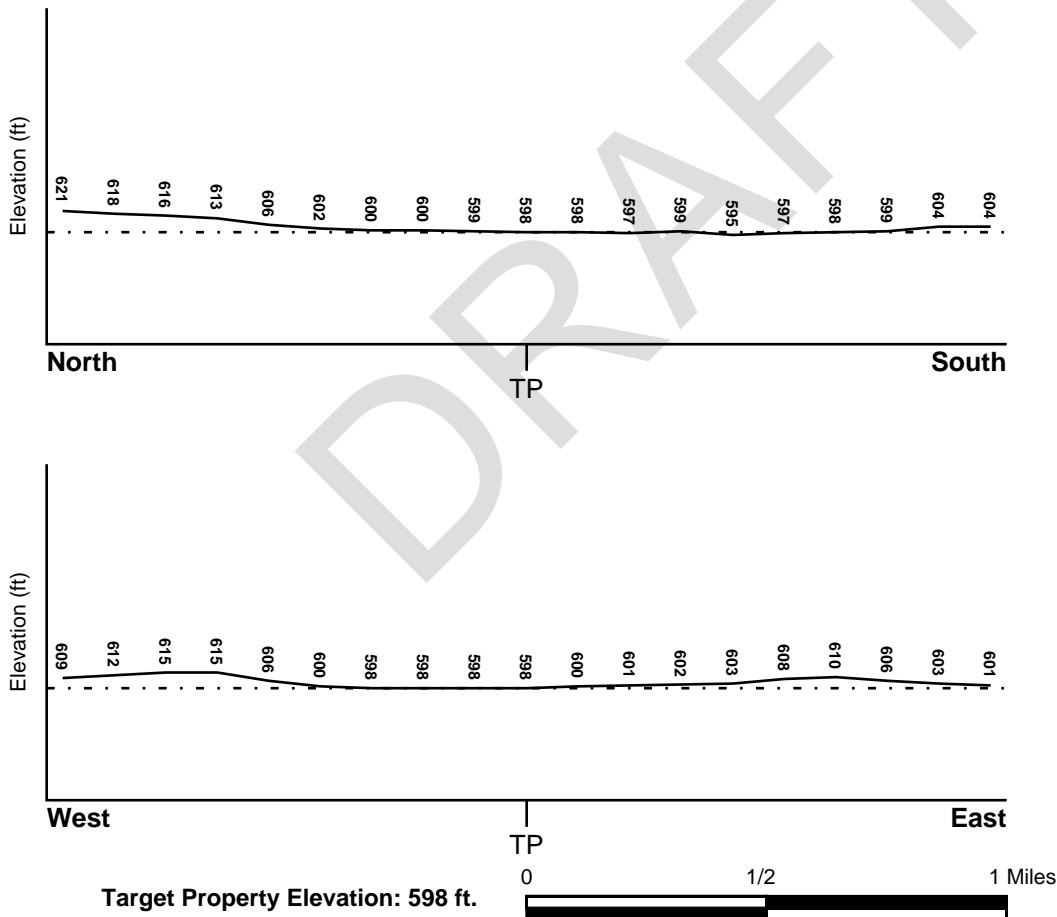
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General SW

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Target Property County
NIAGARA, NY

FEMA Flood Electronic Data
YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property: 36063C - FEMA DFIRM Flood data

Additional Panels in search area: Not Reported

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property
CAMBRIA

NWI Electronic Data Coverage
YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data:*

Search Radius: 1.25 miles
Status: Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

Era:	Paleozoic
System:	Silurian
Series:	Middle Silurian (Niagoaran)
Code:	S2 <i>(decoded above as Era, System & Series)</i>

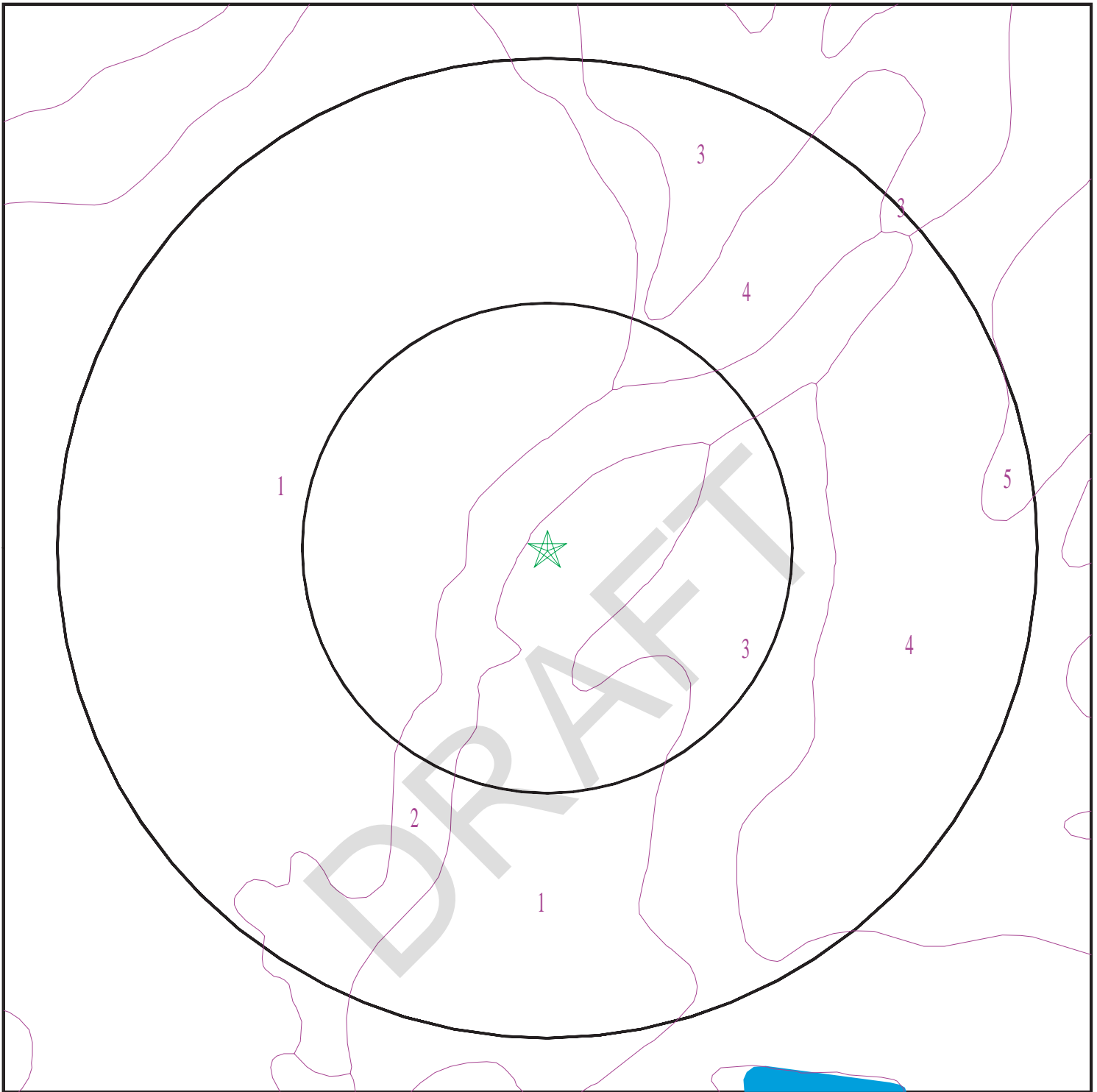
GEOLOGIC AGE IDENTIFICATION

Category: Stratified Sequence

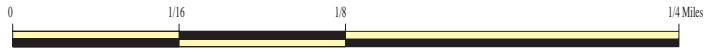
Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

DRAFT

SSURGO SOIL MAP - 3132096.2s



- ★ Target Property
- ∩ SSURGO Soil
- ∩ Water



SITE NAME: Cambria Expanded
ADDRESS: Comstock Rd/Lockport Rd
Lockport NY 14094
LAT/LONG: 43.1390 / 78.7702

CLIENT: Tetra Tech Inc
CONTACT: Bonnie Locking
INQUIRY #: 3132096.2s
DATE: July 25, 2011 12:54 pm

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Rhinebeck

Soil Surface Texture: silt loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Somewhat poorly drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 20 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	9 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.1
2	9 inches	22 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.1

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
3	22 inches	59 inches		Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.1

Soil Map ID: 2

Soil Component Name: Madalin

Soil Surface Texture: silt loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Very poorly drained

Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	5 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.4

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
2	5 inches	25 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.4
3	25 inches	59 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.4

Soil Map ID: 3

Soil Component Name: Lakemont

Soil Surface Texture: silty clay loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Poorly drained

Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	7 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 0 Min: 0	Max: 8.4 Min: 7.4

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
2	7 inches	25 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 0 Min: 0	Max: 8.4 Min: 7.4
3	25 inches	59 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 0 Min: 0	Max: 8.4 Min: 7.4

Soil Map ID: 4

Soil Component Name: Odessa

Soil Surface Texture: silty clay loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Somewhat poorly drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 20 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	7 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.4

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
2	7 inches	33 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.4
3	33 inches	59 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.4

Soil Map ID: 5

Soil Component Name: Ovid

Soil Surface Texture: silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Somewhat poorly drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 28 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	11 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.4

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
2	11 inches	24 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.4
3	24 inches	59 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.4

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
1	USGS2242650	1/4 - 1/2 Mile NW
2	USGS2242454	1/4 - 1/2 Mile North
A3	USGS2242465	1/2 - 1 Mile North
A4	USGS2242464	1/2 - 1 Mile North
5	USGS2242610	1/2 - 1 Mile West
6	USGS2242471	1/2 - 1 Mile North
7	USGS2242760	1/2 - 1 Mile SE
8	USGS2242466	1/2 - 1 Mile NW
9	USGS2242757	1/2 - 1 Mile SE
10	USGS2242459	1/2 - 1 Mile NW

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No PWS System Found		

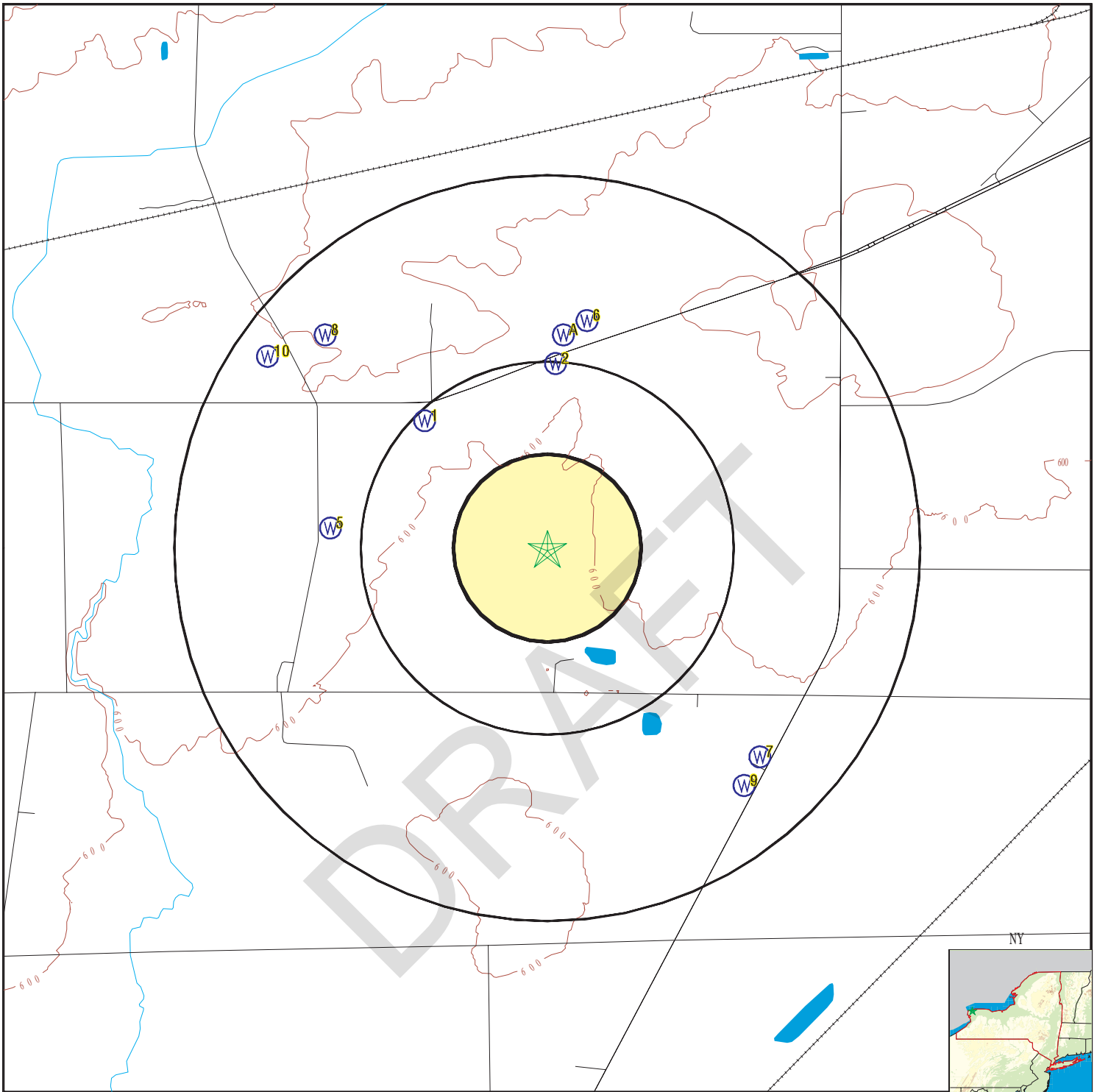
Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No Wells Found		

DRAFT

PHYSICAL SETTING SOURCE MAP - 3132096.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME: Cambria Expanded
 ADDRESS: Comstock Rd/Lockport Rd
 Lockport NY 14094
 LAT/LONG: 43.1390 / 78.7702

CLIENT: Tetra Tech Inc
 CONTACT: Bonnie Locking
 INQUIRY #: 3132096.2s
 DATE: July 25, 2011 12:54 pm

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

1
NW
1/4 - 1/2 Mile
Higher

FED USGS USGS2242650

Agency cd:	USGS	Site no:	430838078463701
Site name:	NI 508		
Latitude:	430838	EDR Site id:	USGS2242650
Longitude:	0784637	Dec lat:	43.14394575
Dec lon:	-78.77670144	Coor meth:	M
Coor accr:	T	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	36
State:	36	County:	063
Country:	US	Land net:	Not Reported
Location map:	CAMBRIA I-05-2	Map scale:	25000
Altitude:	612		
Altitude method:	Interpolated from topographic map		
Altitude accuracy:	5		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Niagara. New York. Area = 774 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	19880406	Mean greenwich time offset:	EST
Local standard time flag:	N		
Type of ground water site:	Test hole, not completed as a well		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	Not Reported		
Source of depth data:	Not Reported		
Project number:	NY86-16400		
Real time data flag:	Not Reported		
Daily flow data end date:	Not Reported	Daily flow data begin date:	Not Reported
Peak flow data begin date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data count:	Not Reported	Peak flow data end date:	Not Reported
Water quality data end date:	Not Reported	Water quality data begin date:	Not Reported
Ground water data begin date:	Not Reported	Water quality data count:	Not Reported
Ground water data count:	Not Reported	Ground water data end date:	Not Reported

Ground-water levels, Number of Measurements: 0

2
North
1/4 - 1/2 Mile
Higher

FED USGS USGS2242454

Agency cd:	USGS	Site no:	430846078461201
Site name:	NI 857		
Latitude:	430846	EDR Site id:	USGS2242454
Longitude:	0784612	Dec lat:	43.146168
Dec lon:	-78.76975675	Coor meth:	M
Coor accr:	T	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	36
State:	36	County:	063
Country:	US	Land net:	Not Reported
Location map:	CAMBRIA I-05-2	Map scale:	25000

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Altitude: 610
 Altitude method: Interpolated from topographic map
 Altitude accuracy: 5
 Altitude datum: National Geodetic Vertical Datum of 1929
 Hydrologic: Not Reported
 Topographic: Not Reported
 Site type: Ground-water other than Spring Date construction: Not Reported
 Date inventoried: 19880405 Mean greenwich time offset: EST
 Local standard time flag: N
 Type of ground water site: Test hole, not completed as a well
 Aquifer Type: Not Reported
 Aquifer: Not Reported
 Well depth: Not Reported Hole depth: Not Reported
 Source of depth data: Not Reported
 Project number: NY86-16400
 Real time data flag: Not Reported Daily flow data begin date: Not Reported
 Daily flow data end date: Not Reported Daily flow data count: Not Reported
 Peak flow data begin date: Not Reported Peak flow data end date: Not Reported
 Peak flow data count: Not Reported Water quality data begin date: Not Reported
 Water quality data end date: Not Reported Water quality data count: Not Reported
 Ground water data begin date: Not Reported Ground water data end date: Not Reported
 Ground water data count: Not Reported

Ground-water levels, Number of Measurements: 0

**A3
North
1/2 - 1 Mile
Higher**

FED USGS USGS2242465

Agency cd: USGS Site no: 430850078461201
 Site name: NI 538
 Latitude: 430850 EDR Site id: USGS2242465
 Longitude: 0784612 Dec lat: 43.14727911
 Dec lon: -78.76975677 Coord meth: M
 Coord accr: T Latlong datum: NAD27
 Dec latlong datum: NAD83 District: 36
 State: 36 County: 063
 Country: US Land net: Not Reported
 Location map: CAMBRIA I-05-2 Map scale: 25000
 Altitude: 610.00
 Altitude method: Interpolated from topographic map
 Altitude accuracy: 5.0
 Altitude datum: National Geodetic Vertical Datum of 1929
 Hydrologic: Niagara. New York. Area = 774 sq.mi.
 Topographic: Not Reported
 Site type: Ground-water other than Spring Date construction: Not Reported
 Date inventoried: 19880415 Mean greenwich time offset: EST
 Local standard time flag: N
 Type of ground water site: Single well, other than collector or Ranney type
 Aquifer Type: Not Reported
 Aquifer: LOCKPORT DOLOMITE
 Well depth: 43.0 Hole depth: Not Reported
 Source of depth data: Not Reported
 Project number: NY86-16400
 Real time data flag: 0 Daily flow data begin date: 0000-00-00
 Daily flow data end date: 0000-00-00 Daily flow data count: 0
 Peak flow data begin date: 0000-00-00 Peak flow data end date: 0000-00-00

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Peak flow data count: 0
 Water quality data end date: 1961-08-16
 Ground water data begin date: 1961-06-13
 Ground water data count: 1

Water quality data begin date: 1961-08-16
 Water quality data count: 1
 Ground water data end date: 1961-06-13

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel

1961-06-13	11.3	

Note: The site was being pumped.

A4
North
1/2 - 1 Mile
Higher

FED USGS USGS2242464

Agency cd:	USGS	Site no:	430850078460901
Site name:	NI1111	EDR Site id:	USGS2242464
Latitude:	430850	Dec lat:	43.14727911
Longitude:	0784609	Coor meth:	M
Dec lon:	-78.7689234	Latlong datum:	NAD27
Coor accr:	F	District:	36
Dec latlong datum:	NAD83	County:	063
State:	36	Land net:	Not Reported
Country:	US	Map scale:	62500
Location map:	ENB-3, PL 1		
Altitude:	610		
Altitude method:	Interpolated from topographic map		
Altitude accuracy:	10		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Not Reported		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	1945
Date inventoried:	1968	Mean greenwich time offset:	EST
Local standard time flag:	N		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	LOCKPORT DOLOMITE		
Well depth:	43.1	Hole depth:	Not Reported
Source of depth data:	other reported		
Project number:	ENB3		
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1961-06-13	Ground water data end date:	1961-06-13
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel

1961-06-13	11.3	

1961-06-13 11.3

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

5
West
1/2 - 1 Mile
Higher

FED USGS USGS2242610

Agency cd:	USGS	Site no:	430823078465501
Site name:	NI 473	EDR Site id:	USGS2242610
Latitude:	430823	Dec lat:	43.13977907
Longitude:	0784655	Coor meth:	M
Dec lon:	-78.78170158	Latlong datum:	NAD27
Coor accr:	T	District:	36
Dec latlong datum:	NAD83	County:	063
State:	36	Land net:	Not Reported
Country:	US	Map scale:	25000
Location map:	CAMBRIA I-05-2		
Altitude:	612		
Altitude method:	Interpolated from topographic map		
Altitude accuracy:	5		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Niagara. New York. Area = 774 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	19880405	Mean greenwich time offset:	EST
Local standard time flag:	N		
Type of ground water site:	Test hole, not completed as a well		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	Not Reported	Hole depth:	73
Source of depth data:	Not Reported		
Project number:	NY86-16400		
Real time data flag:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data end date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported
Peak flow data count:	Not Reported	Water quality data begin date:	Not Reported
Water quality data end date:	Not Reported	Water quality data count:	Not Reported
Ground water data begin date:	Not Reported	Ground water data end date:	Not Reported
Ground water data count:	Not Reported		

Ground-water levels, Number of Measurements: 0

6
North
1/2 - 1 Mile
Higher

FED USGS USGS2242471

Agency cd:	USGS	Site no:	430852078460601
Site name:	NI 544	EDR Site id:	USGS2242471
Latitude:	430852	Dec lat:	43.14783467
Longitude:	0784606	Coor meth:	M
Dec lon:	-78.76809004	Latlong datum:	NAD27
Coor accr:	T	District:	36
Dec latlong datum:	NAD83	County:	063
State:	36	Land net:	Not Reported
Country:	US	Map scale:	92157
Location map:	BULL GW-53		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Altitude: 610.00
 Altitude method: Interpolated from topographic map
 Altitude accuracy: 5.0
 Altitude datum: National Geodetic Vertical Datum of 1929
 Hydrologic: Niagara. New York. Area = 774 sq.mi.
 Topographic: Not Reported
 Site type: Ground-water other than Spring Date construction: Not Reported
 Date inventoried: Not Reported Mean greenwich time offset: EST
 Local standard time flag: N
 Type of ground water site: Single well, other than collector or Ranney type
 Aquifer Type: Not Reported
 Aquifer: LOCKPORT DOLOMITE
 Well depth: 37.0 Hole depth: Not Reported
 Source of depth data: Not Reported
 Project number: BULLGW-53
 Real time data flag: 0 Daily flow data begin date: 0000-00-00
 Daily flow data end date: 0000-00-00 Daily flow data count: 0
 Peak flow data begin date: 0000-00-00 Peak flow data end date: 0000-00-00
 Peak flow data count: 0 Water quality data begin date: 1961-08-16
 Water quality data end date: 1961-08-16 Water quality data count: 1
 Ground water data begin date: 1961-06-13 Ground water data end date: 1961-06-13
 Ground water data count: 1

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1961-06-13	3.50	

7
SE
1/2 - 1 Mile
Higher

FED USGS USGS2242760

Agency cd: USGS Site no: 430751078453301
 Site name: NI 391
 Latitude: 430751 EDR Site id: USGS2242760
 Longitude: 0784533 Dec lat: 43.13089037
 Dec lon: -78.75892281 Coor meth: M
 Coor acc: T Latlong datum: NAD27
 Dec latlong datum: NAD83 District: 36
 State: 36 County: 063
 Country: US Land net: Not Reported
 Location map: CAMBRIA I-05-2 Map scale: 25000
 Altitude: 598
 Altitude method: Interpolated from topographic map
 Altitude accuracy: 3
 Altitude datum: National Geodetic Vertical Datum of 1929
 Hydrologic: Not Reported
 Topographic: Not Reported
 Site type: Ground-water other than Spring Date construction: Not Reported
 Date inventoried: 19880405 Mean greenwich time offset: EST
 Local standard time flag: N
 Type of ground water site: Test hole, not completed as a well
 Aquifer Type: Not Reported
 Aquifer: Not Reported
 Well depth: Not Reported Hole depth: Not Reported
 Source of depth data: Not Reported
 Project number: NY86-16400
 Real time data flag: Not Reported Daily flow data begin date: Not Reported
 Daily flow data end date: Not Reported Daily flow data count: Not Reported
 Peak flow data begin date: Not Reported Peak flow data end date: Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Peak flow data count: Not Reported
 Water quality data end date: Not Reported
 Ground water data begin date: Not Reported
 Ground water data count: Not Reported

Water quality data begin date: Not Reported
 Water quality data count: Not Reported
 Ground water data end date: Not Reported

Ground-water levels, Number of Measurements: 0

8
NW
1/2 - 1 Mile
Higher

FED USGS USGS2242466

Agency cd:	USGS	Site no:	430850078465601
Site name:	NI1112	EDR Site id:	USGS2242466
Latitude:	430850	Dec lat:	43.14727903
Longitude:	0784656	Coor meth:	M
Dec lon:	-78.78197946	Latlong datum:	NAD27
Coor accr:	F	District:	36
Dec latlong datum:	NAD83	County:	063
State:	36	Land net:	Not Reported
Country:	US	Map scale:	62500
Location map:	ENB-3, PL 1		
Altitude:	610		
Altitude method:	Interpolated from topographic map		
Altitude accuracy:	10		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Not Reported		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	1968	Mean greenwich time offset:	EST
Local standard time flag:	N		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	LOCKPORT DOLOMITE		
Well depth:	36.6	Hole depth:	Not Reported
Source of depth data:	other reported		
Project number:	ENB3		
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1961-06-13	Ground water data end date:	1961-06-13
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

	Feet below	Feet to
Date	Surface	Sealevel

1961-06-13	3.5	

9
SE
1/2 - 1 Mile
Lower

FED USGS USGS2242757

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Agency cd:	USGS	Site no:	430747078453601
Site name:	NI 384		
Latitude:	430747	EDR Site id:	USGS2242757
Longitude:	0784536	Dec lat:	43.12977926
Dec lon:	-78.75975616	Coor meth:	M
Coor accr:	T	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	36
State:	36	County:	063
Country:	US	Land net:	Not Reported
Location map:	CAMBRIA I-05-2	Map scale:	25000
Altitude:	600		
Altitude method:	Interpolated from topographic map		
Altitude accuracy:	5		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Niagara. New York. Area = 774 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	19880405	Mean greenwich time offset:	EST
Local standard time flag:	N		
Type of ground water site:	Test hole, not completed as a well		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	Not Reported	Hole depth:	46
Source of depth data:	Not Reported		
Project number:	NY86-16400		
Real time data flag:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data end date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported
Peak flow data count:	Not Reported	Water quality data begin date:	Not Reported
Water quality data end date:	Not Reported	Water quality data count:	Not Reported
Ground water data begin date:	Not Reported	Ground water data end date:	Not Reported
Ground water data count:	Not Reported		

Ground-water levels, Number of Measurements: 0

**10
NW
1/2 - 1 Mile
Higher**

FED USGS USGS2242459

Agency cd:	USGS	Site no:	430847078470701
Site name:	NI 533		
Latitude:	430847	EDR Site id:	USGS2242459
Longitude:	0784707	Dec lat:	43.14644569
Dec lon:	-78.78503512	Coor meth:	M
Coor accr:	T	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	36
State:	36	County:	063
Country:	US	Land net:	Not Reported
Location map:	CAMBRIA I-05-2	Map scale:	25000
Altitude:	620.00		
Altitude method:	Interpolated from topographic map		
Altitude accuracy:	5.0		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Niagara. New York. Area = 774 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	1961
Date inventoried:	Not Reported	Mean greenwich time offset:	EST

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Local standard time flag: N
Type of ground water site: Single well, other than collector or Ranney type
Aquifer Type: Not Reported
Aquifer: LOCKPORT DOLOMITE
Well depth: 48.4 Hole depth: Not Reported
Source of depth data: other reported
Project number: NY86-16400
Real time data flag: 0
Daily flow data end date: 0000-00-00
Daily flow data begin date: 0000-00-00 Daily flow data count: 0
Peak flow data begin date: 0000-00-00 Peak flow data end date: 0000-00-00
Peak flow data count: 0 Water quality data begin date: 1961-06-13
Water quality data end date: 1961-06-13 Water quality data count: 1
Ground water data begin date: 1961-06-13 Ground water data end date: 1961-06-13
Ground water data count: 1

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1961-06-13	3.80	

DRAFT

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

AREA RADON INFORMATION

State Database: NY Radon

Radon Test Results

County	Town	Num Tests	Avg Result	Geo Mean	Max Result
NIAGARA	CAMBRIA	16	2.73	1.71	13.8
NIAGARA	HARTLAND	12	4.13	2.62	12.9
NIAGARA	LEWISTON	121	2.6	1.47	20.2
NIAGARA	LOCKPORT	98	2.61	1.49	50.1
NIAGARA	NEWFANE	17	2.55	1.71	7.9
NIAGARA	NIAGARA	81	1.01	0.73	6.3
NIAGARA	NIAGARA FALLS	384	1.41	0.92	12.1
NIAGARA	NO. TONAWANDA	153	1.71	1.12	15.6
NIAGARA	PENDLETON	16	2.47	1.23	16.8
NIAGARA	PORTER	59	2.16	1.54	8.6
NIAGARA	ROYALTON	14	1.91	1.44	3.9
NIAGARA	SOMERSET	7	1.43	1.31	2.6
NIAGARA	WHEATFIELD	29	0.93	0.68	3.6
NIAGARA	WILSON	12	1.27	1	3.3

Federal EPA Radon Zone for NIAGARA County: 2

- Note: Zone 1 indoor average level > 4 pCi/L.
 : Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
 : Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for NIAGARA COUNTY, NY

Number of sites tested: 177

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area	0.800 pCi/L	98%	2%	0%
Basement	1.130 pCi/L	95%	5%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Scanned Digital USGS 7.5' Topographic Map (DRG)

Source: United States Geologic Survey

A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Freshwater Wetlands

Source: Department of Environmental Conservation

Telephone: 518-402-8961

HYDROGEOLOGIC INFORMATION

AQUIFLOW^R Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

New York Public Water Wells

Source: New York Department of Health

Telephone: 518-458-6731

OTHER STATE DATABASE INFORMATION

Oil and Gas Well Database

Department of Environmental Conservation

Telephone: 518-402-8072

These files contain records, in the database, of wells that have been drilled.

RADON

State Database: NY Radon

Source: Department of Health

Telephone: 518-402-7556

Radon Test Results

Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

PHYSICAL SETTING SOURCE RECORDS SEARCHED

STREET AND ADDRESS INFORMATION

© 2010 Tele Atlas North America, Inc. All rights reserved. This material is proprietary and the subject of copyright protection and other intellectual property rights owned by or licensed to Tele Atlas North America, Inc. The use of this material is subject to the terms of a license agreement. You will be held liable for any unauthorized copying or disclosure of this material.

DRAFT

APPENDIX C

Aerial Photographs

Comstock Road and Lockport Road, Cambria, NY

Overlays (Off) ▾ Compare (Off) ▾ Survey ▾ Share ▾

Historic Aerials

Feature your company as a watermark!

2006
2005
2002
1972
1966
1963
1958

1:267 ft.



© 2011 Google
Image U.S. Geological Survey

Google

Imagery Date: 3/27/1995

43°08'20.51" N 78°46'24.70" W elev 598 ft

Eye alt 9096 ft



© 2011 Google
Image © 2011 DigitalGlobe

Google

Imagery Date: 9/8/2002

43°08'22.77" N 78°46'25.04" W elev 599 ft

Eye alt 9096 ft



© 2011 Google
Image USDA Farm Service Agency

Google

Imagery Date: 6/4/2006

43°08'22.77" N 78°46'25.04" W elev 599 ft

Eye alt 9096 ft



© 2011 Google
Image USDA Farm Service Agency

Google

Imagery Date: 5/3/2009

43°08'22.77" N 78°46'25.04" W elev 599 ft

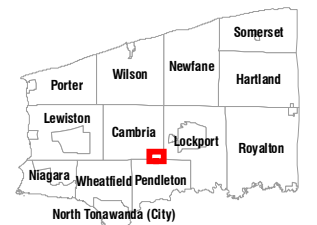
Eye alt 9096 ft

APPENDIX D

Photographic Documentation

NIAGARA COUNTY
Shovel Ready
Project
TOWN OF CAMBRIA - NEW YORK

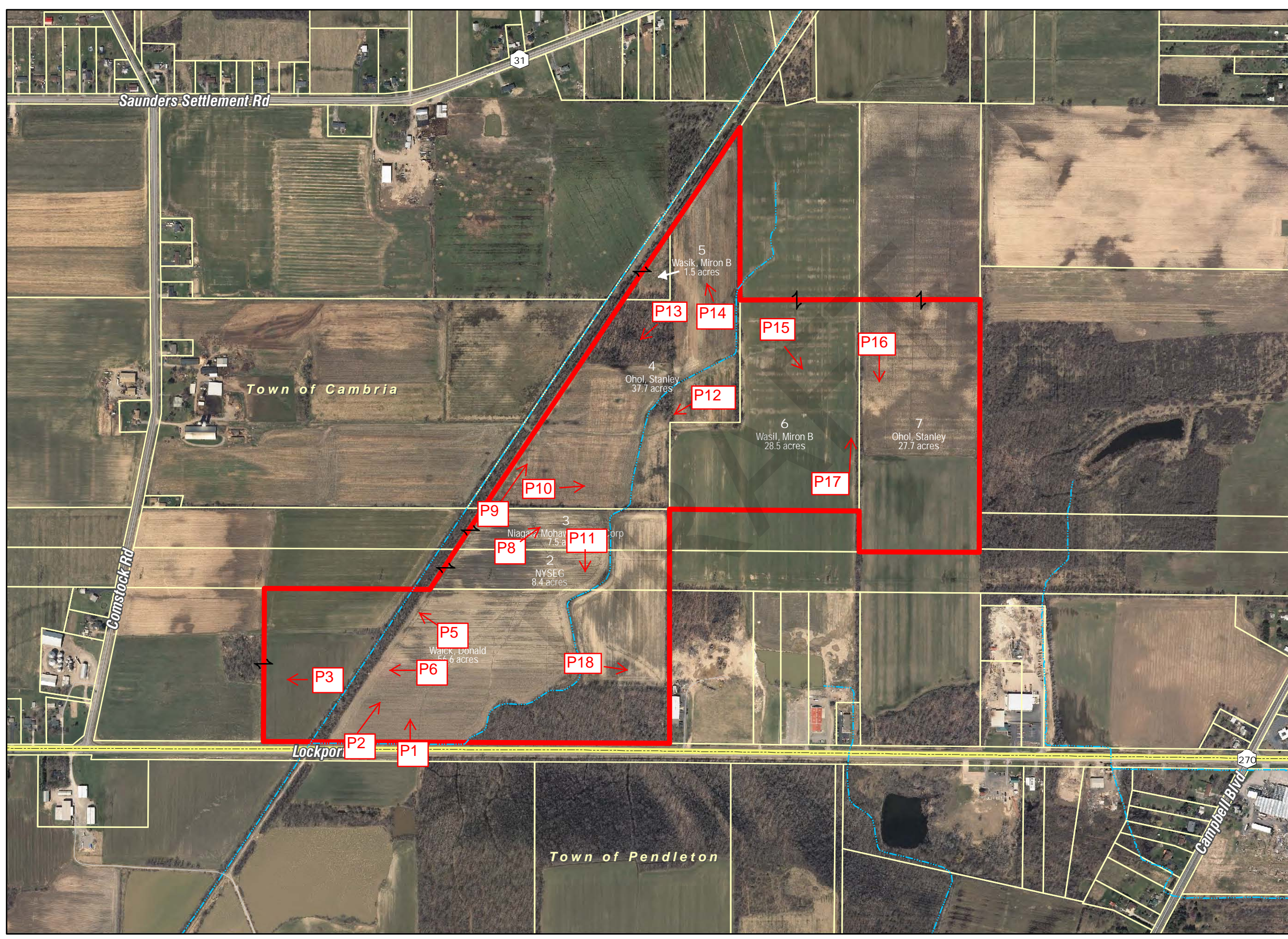
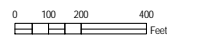
MAP 2 - SITE LOCATION



NIAGARA COUNTY - NEW YORK
NOT DRAWN TO SCALE

LEGEND

- Municipal Boundary
- Parcel Boundary (2009)
- Hydrography
- Project Site



Wendel Duchscherer Architects & Engineers, P.C. shall assume no liability for 1. Any errors, omissions, or inaccuracies in the information provided regardless of how caused or; 2. Any decision or action taken or not taken by the reader in reliance upon any information or data furnished hereunder. Data Sources: NYS GIS Clearinghouse, Niagara County Real Property Services, National Hydrology Dataset, 2008 Digital Orthomagey

TETRA TECH, INC.

PHOTOGRAPHIC RECORD

Company:
Project:

Tetra Tech, Inc.
Niagara County Shovel Ready Project



Photographer: B.Eckwahl
Date: 6/28/11
Photo No.: 1
Direction: N
Comments: Winter wheat



Photographer: B. Eckwahl
Date: 6/28/11
Photo No.: 2
Direction: NE
Comments: Hedgerow and winter wheat

TETRA TECH, INC.

PHOTOGRAPHIC RECORD

Company: Tetra Tech, Inc.
Project: Niagara County Shovel Ready Project



Photographer: B. Eckwahl
Date: 6/28/11
Photo No.: 3
Direction: W
Comments: Planted field



Photographer: B. Eckwahl
Date: 6/28/11
Photo No.: 4
Direction: NE
Comments: Hedgerow and planted field

TETRA TECH, INC.

PHOTOGRAPHIC RECORD

Company: Tetra Tech, Inc.
Project: Niagara County Shovel Ready Project



Photographer: B. Eckwahl
Date: 4/14/11
Photo No.: 5
Direction: NW
Comments: winter wheat



Photographer: B. Eckwahl
Date: 6/28/11
Photo No.: 6
Direction: SW
Comments: winter wheat and hedgerow

TETRA TECH, INC.

PHOTOGRAPHIC RECORD

Company: Tetra Tech, Inc.
Project: Niagara County Shovel Ready Project



Photographer: B. Eckwahl
Date: 6/28/11
Photo No.: 7
Direction:
Comments:



Photographer: B. Eckwahl
Date: 6/28/11
Photo No.: 8
Direction: E
Comments: winter wheat and power line

TETRA TECH, INC.

PHOTOGRAPHIC RECORD

Company: Tetra Tech, Inc.
Project: Niagara County Shovel Ready Project



Photographer: B. Eckwahl
Date: 6/28/11
Photo No.: 9
Direction: NE
Comments: planted field



Photographer: B. Eckwahl
Date: 6/28/11
Photo No.: 10
Direction: E
Comments: planted field

TETRA TECH, INC.

PHOTOGRAPHIC RECORD

Company:
Project:

Tetra Tech, Inc.
Niagara County Shovel Ready Project



Photographer: B. Eckwahl
Date: 6/28/11
Photo No.: 11
Direction: S
Comments: Primary stream/ditch



Photographer: B. Eckwahl
Date: 6/28/11
Photo No.: 12
Direction: NA
Comments: old rail ties

TETRA TECH, INC.

PHOTOGRAPHIC RECORD

Company:
Project:

Tetra Tech, Inc.
Niagara County Shovel Ready Project



Photographer: B. Eckwahl
Date: 6/28/11
Photo No.: 13
Direction: SW
Comments: PFO on parcel 4



Photographer: B. Eckwahl
Date: 6/28/11
Photo No.: 14
Direction:
Comments: planted field

TETRA TECH, INC.

PHOTOGRAPHIC RECORD

Company: Tetra Tech, Inc.
Project: Niagara County Shovel Ready Project



Photographer: B. Eckwahl
Date: 6/28/11
Photo No.: 15
Direction: SE
Comments: winter wheat



Photographer: B. Eckwahl
Date: 6/28/11
Photo No.: 16
Direction: S
Comments: N/S agricultural ditch between parcel 6 and 7

TETRA TECH, INC.

PHOTOGRAPHIC RECORD

Company:
Project:

Tetra Tech, Inc.
Niagara County Shovel Ready Project



Photographer: B. Eckwahl
Date: 6/28/11
Photo No.: 17
Direction: N
Comments: agricultural ditch
between parcels 6 and 7



Photographer: B. Eckwahl
Date: 6/28/11
Photo No.: 18
Direction: NE
Comments: winter wheat



July 20, 2011

U.S. Fish and Wildlife Service
3817 Luker Road
Cortland, New York 13045

Re: Habitat Assessment and Occurrence Determination Request for Federally Listed Endangered and Threatened Species for Niagara County Shovel Ready Application Project, Town of Cambria, Niagara County, New York

Dear USFWS:

Tetra Tech has been retained by Niagara County to provide environmental consulting services for the Niagara County Shovel Ready Application Project. The properties are located at the junction of Comstock and Lockport Roads and total to approximately 168 acres (Attachment A of Habitat Assessment). Property 2 is owned by New York State Electric and Gas and Property 3 is owned by Niagara Mohawk Power Corporation.

A USFWS database search for the occurrence of ESA species for Niagara County, New York resulted in a listing for the bald eagle and eastern prairie fringed orchid. A New York Natural Heritage Program record search request for Parcel 1 (about 57 acres of the current project extents) resulted in no records of sensitive species or habitats in the vicinity of Parcel 1. (Attachment B of Habitat Assessment).

At this time a specific project is not proposed, however due to the limited number of species listed we would like to receive the USFWS's determination on the likely occurrence of the bald eagle and eastern prairie fringed orchid on these properties based on habitat conditions. This would allow project planning to move forward with or without consideration for these species.

To assist you with your evaluation we have also attached a habitat assessment, aerial photographs, and photographic log documenting the site conditions.

We thank you for your assistance in this matter and would appreciate it if you could respond to:

Brad Schaeffer
Tetra Tech, Inc.
285 Ellicott St.
Buffalo, NY 14203
Brad.Schaeffer@tetrattech.com

Tetra Tech

285 Ellicott St, Buffalo, New York 14203
Tel 716.849.9419 Fax 716.849.9420 www.tetrattech.com

If you have questions or need additional information, please contact me at (716) 849-9419

Sincerely,

A handwritten signature in black ink that reads "Bradley A. Schaeffer". The signature is written in a cursive, flowing style.

Brad Schaeffer
Project Manager

Enclosures: Habitat Assessment (w/ USGS Maps and Aerials, Photographic Log)

cc: TT File: WD-400
Wendel-Duchscherer, Architects & Engineers, P.C. (Mr. Andrew C. Reilly)

Niagara County Shovel Ready Application Project, Town of Cambria, Niagara County, New York

OVERVIEW

The Niagara County Shovel Ready Application Project properties are located at the junction of Comstock and Lockport Roads and total to approximately 168 acres (Attachment A). At this time a specific project is not proposed, however due to the limited number of species listed the USFWS's determination on the likely occurrence of ESA species on these properties based on habitat conditions is being requested. This would allow project planning to move forward with or without consideration for these species.

Based on a recent review of the Endangered Species Program website (www.fws.gov/northeast/nyfo/es/section7.htm, Endangered Species – Section 7 Consultation), the following two species have been identified as known occurrences in Niagara County:

- Bald Eagle (*Haliaeetus leucocephalus*; delisted)*
- Eastern Prairie Fringed Orchid (*Platanthera leucophaea*), historic)

In addition, a New York Natural Heritage Program record search request for a 57 acre portion of the current extents resulted in no records of sensitive species or habitats (Attachment B). A revised request for information was submitted on June 21, 2011 and a response is pending.

To further help with your evaluation, a habitat assessment was conducted within the Project area on June 28, 2011. The following sections provide general habitat descriptions and photographic documentation is provided in Attachment C.

HABITAT TYPES

Project area habitat types that are within or immediately adjacent to the Project area include:

- Agriculture (~93%)
- Undeveloped forest (~7%)
- Stream
- Wetlands

Agriculture

Currently the majority of the properties are in active agriculture planted with corn, soybean, and winter wheat. Some fields remained fallow for the current year, but there was no evidence of long term abandonment.

Undeveloped Forest

Undeveloped forest is located in parcels 4 and 1 and combined occupy an estimated 7% of all of the properties. Both forested areas contain wetlands with an upland forested perimeter. These areas are dominated with silver maple (*Acer Saccharinum*), red maple (*Acer rubrum*), and green ash (*Fraxinus pennsylvanica*), with some white oak (*Quercus alba*) and black walnut (*Juglans nigra*) occurring on the drier perimeters.

Streams and Ditches

One stream and one ditch occur on the properties. The primary stream flows from north to south and is depicted on the aerial overview in Attachment A. A farm ditch that flows south also occurs between parcels 6 and 7.

Wetlands

As discussed earlier, the two forested compartments on the properties are primarily palustrine forested wetlands. However, some palustrine emergent wetlands do occur outside these areas and are primarily associated with the banks of the stream and ditch that occur on these properties.

THREATENED AND ENDANGERED SPECIES

Bald Eagle

Overview of Required Habitat – Bald eagles most commonly use areas close to bays, rivers, lakes, or other bodies of water that reflect the general availability of their primary food sources – fish and waterfowl. They tend to avoid areas with nearby human activity and development. Perch sites are typically in deciduous and coniferous trees. Communal roost sites used by two or more eagles are common. Large stick nests are usually built in tall trees near water. Nest trees include pines, spruce, firs, cottonwoods, oaks, poplars, and beech. Most commonly, wintering areas are associated with open water and waterfowl concentrations or in areas with abundant dead fish. Roost sites are typically in conifers or other sheltered areas.

Conditions in the Project Area – No bald eagles or bald eagle nests were observed during the habitat assessment field survey. Except for transient individuals that may move through the area, bald eagles are unlikely to nest, roost, or forage within the Project area.

Eastern Prairie Fringed Orchid

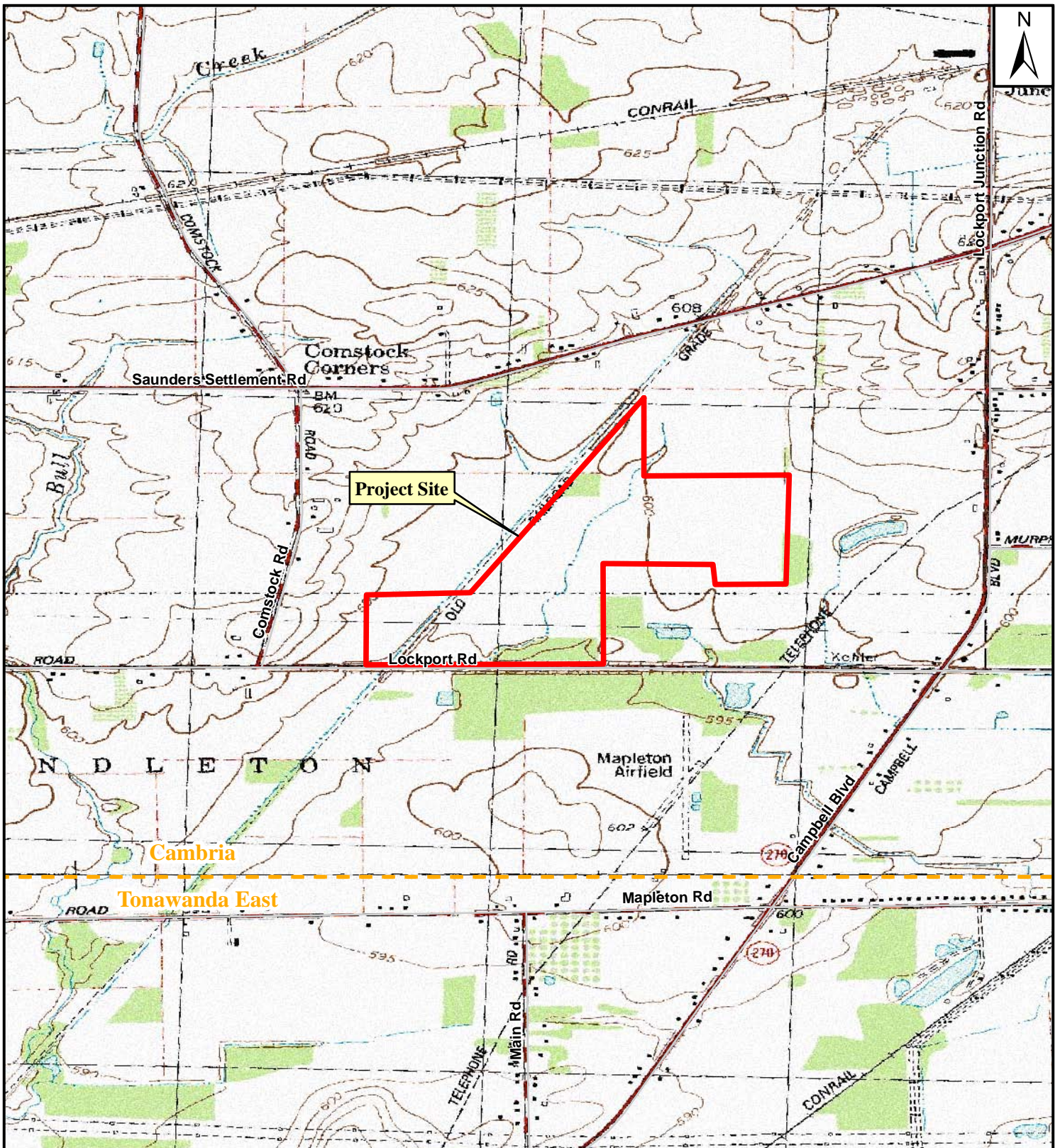
Overview of Required Habitat – The eastern prairie fringed orchid occurs in a wide variety of habitats, from mesic prairie to wetlands such as sedge meadows, marsh edges, even bogs. It requires full sun for optimum growth and flowering and a grassy habitat with little or no woody encroachment. A symbiotic relationship between the seed and soil fungi, called mycorrhizae, is necessary for seedlings to become established. This fungi helps the seeds

assimilate nutrients in the soil (taken from USFWS fact sheet).

Conditions in the Project Area – The combined properties are almost all active agricultural, forest wetland, forested upland, hedgerows, and stream/ditch corridor. There is no mesic prairie and no significant palustrine emergent wetlands. There is little to no habitat for the eastern prairie fringed orchid.

Attachment A

Figures



**Project Location
Niagara County**



0 1,000 2,000
Feet

0 240 480
Meters

Legend

- Project Site
- USGS Topo Boundary

**Figure 1. Site Location for
Shovel Ready Project,
Town of Cambria, New York.**

Prepared
For: **Wendel**

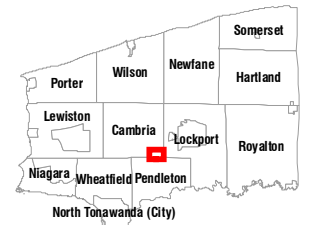
Prepared
By: **TETRA TECH**

Date:
6/2011

Source: USGS 7.5' Topographic Quadrangles Digital Raster Graphic (DRG); DRG used, Cambria, New York 1980.

NIAGARA COUNTY
Shovel Ready
Project
TOWN OF CAMBRIA - NEW YORK

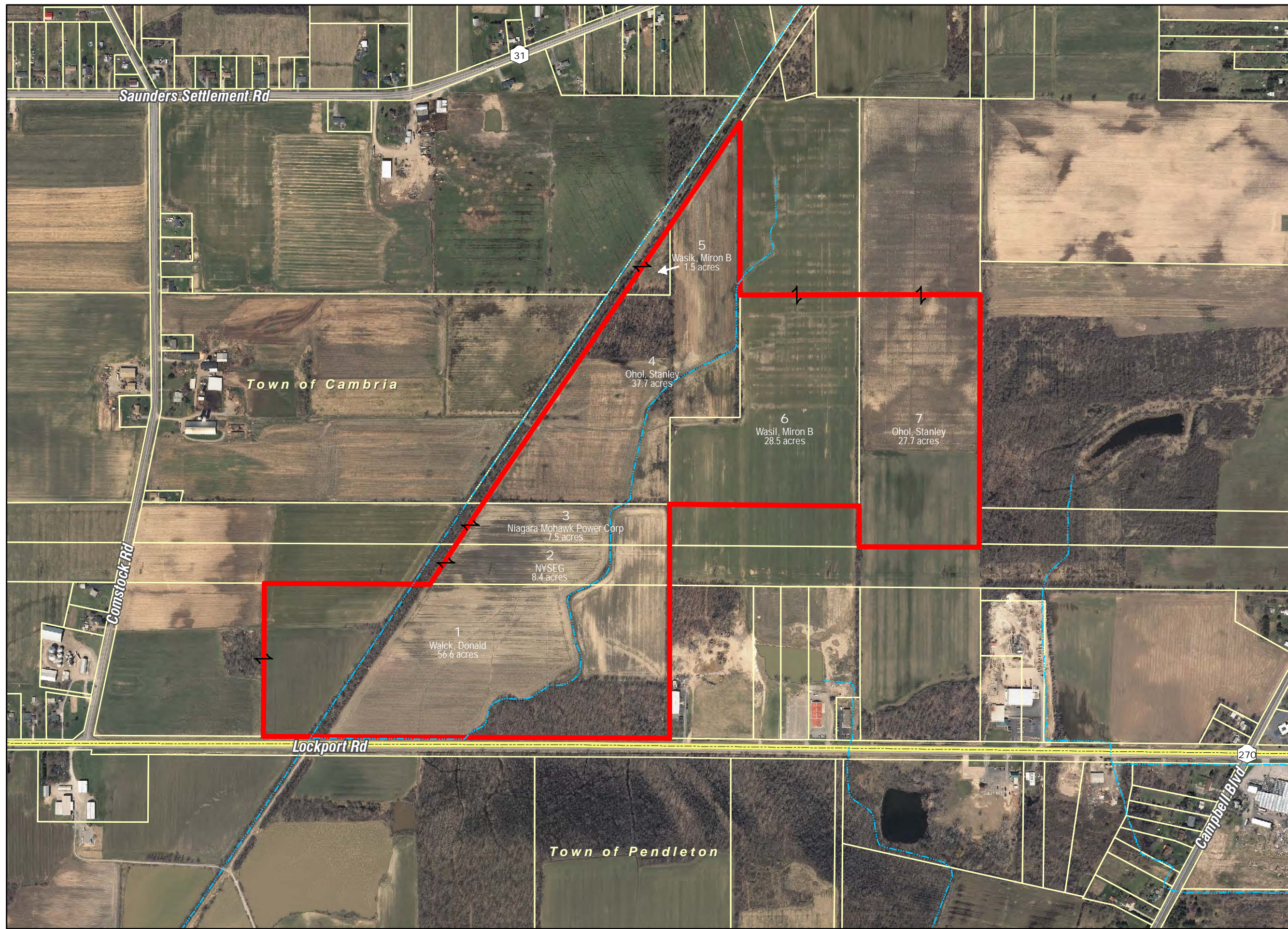
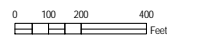
MAP 2 - SITE LOCATION



NIAGARA COUNTY - NEW YORK
NOT DRAWN TO SCALE

LEGEND

- Municipal Boundary
- Parcel Boundary (2009)
- Hydrography
- Project Site



Wendel Duchscherer Architects & Engineers, P.C.
shall assume no liability for
1. Any errors, omissions, or inaccuracies in the information
provided regardless of how caused or; 2. Any decision or
action taken or not taken by the reader in reliance
upon any information or data furnished hereunder.
Data Sources: NYS GIS Clearinghouse
Niagara County Real Property Services, National Hydrology Dataset,
2008 Digital Orthomagey

Attachment B

NYSDEC Natural Heritage Program Correspondence



June 21, 2011

Information Services
Attn: J. Pietrusiak
New York State Department of Environmental Conservation
625 Broadway, 5th Floor
Albany, NY 12233-4757

**Re: Data Request for Listed Rare, Threatened, and Endangered Species
Records and Significant Natural Communities for the Niagara
County Shovel Ready Application Project, Town of Cambria,
Niagara County, New York**

Dear J. Pietrusiak:

Tetra Tech, Inc. (Tetra Tech) has been retained by Niagara County to provide environmental consulting services for the Niagara County Shovel Ready Application Project. Tetra Tech, on behalf of Niagara County previously consulted with the New York State Department of Environmental Conservation regarding the above referenced Niagara County Shovel Ready Application Project, and your office provided a letter response dated September 27, 2010 (Attachment A).

Since the initial request, the proposed Project boundaries have changed: 1) the boundary of Property 1 has been reduced from 77 acres to approximately 56.6 acres; and 2) six additional properties located adjacent and northeast of Property 1 are now part of the proposed Project. Property 2 is owned by New York State Electric and Gas and Property 3 is owned by Niagara Mohawk Power Corporation. These utility right-of-ways will not be impacted by the Project. Properties 4 through 7 have a combined total acreage of approximately 95 acres. Please see the new Project boundary aerial map for a breakdown of the acreage of Properties 4 through 7.

The Properties 4 through 7 are located northeast of the junction of Comstock and Lockport Roads in the Town of Cambria. The property is currently used for agricultural purposes and is within Niagara County Agricultural District #6. It is also currently zoned General Business and has the potential to be developed into a facility for a data center or other high tech application (commercial development). The proposed new Project boundary is depicted on the enclosed U.S. Geological Survey topographical map (Cambria quadrangle map) (Attachment C).



Approximate longitude and latitude coordinates for the Properties are:

Property Number	Approx. Center of Property	
	Longitude	Latitude
4	-78.772107°	43.138867°
5	-78.770607°	43.141605°
6	-78.767068°	43.140875°
7	-78.764259°	43.141384°

Tetra Tech herein requests to initiate agency consultation on behalf of Niagara County for Properties 4 through 7 for the preparation of a Shovel Ready Certification Application for the Town of Cambria. Tetra Tech respectfully requests that the New York Natural Heritage Program review the enclosed Project information and provide input regarding known rare species or significant natural communities in the vicinity of Properties 4 through 7.

Thank you for your assistance in this matter. Tetra Tech is also seeking similar information from Region 9 of the NYSDEC. If you have any questions or need additional information concerning this request, please contact please contact Noelle Ronan at (716) 849-9419 or noelle.ronan@tetrattech.com, or me by email at bonnie.locking@tetrattech.com.

Sincerely,
Tetra Tech Inc.

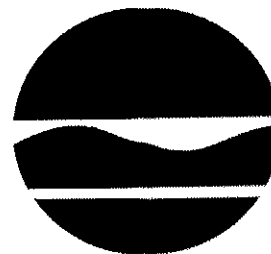
A handwritten signature in black ink that reads 'Bonnie Locking'.

Bonnie Locking
Project Manager

cc: TT File WD400
Wendel-Duchscherer, Architects & Engineers, P.C. (Mr. Andrew C. Reilly)

Attachments

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Division of Fish, Wildlife & Marine Resources
New York Natural Heritage Program
625 Broadway, 5th Floor, Albany, New York 12233-4757
Phone: (518) 402-8935 • **Fax:** (518) 402-8925
Website: www.dec.ny.gov



Alexander B. Grannis
Commissioner

September 27, 2010

Bonnie Locking
Tetra Tech
285 Ellicott Street
Buffalo, NY 14203

Dear Ms. Locking:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to an Environmental Assessment of the proposed 'Niagara County Shovel Ready Application Project', 77-Acre Parcel, site as indicated on the map you provided, located in the Town of Cambria, Niagara County.

We have no records of rare or state-listed animals or plants, significant natural communities or other significant habitats, on or in the immediate vicinity of your site.

The absence of data does not necessarily mean that rare or state-listed species, natural communities or other significant habitats do not exist on or adjacent to the proposed site. Rather, our files currently do not contain information which indicates their presence. For most sites, comprehensive field surveys have not been conducted. We cannot provide a definitive statement on the presence or absence of all rare or state-listed species or significant natural communities. This information should not be substituted for on-site surveys that may be required for environmental assessment.

Our databases are continually growing as records are added and updated. If this proposed project is still under development one year from now, we recommend that you contact us again so that we may update this response with the most current information.

This response applies only to known occurrences of rare or state-listed animals and plants, significant natural communities and other significant habitats maintained in the Natural Heritage Data bases. Your project may require additional review or permits; for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the appropriate NYS DEC Regional Office, Division of Environmental Permits, as listed at www.dec.ny.gov/about/39381.html.

Sincerely,
Tara Salerno
Tara Salerno, Information Services
New York Natural Heritage Program

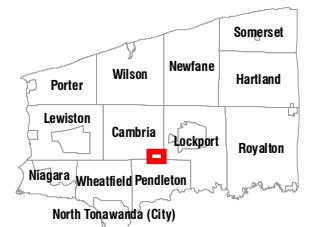
Enc.
cc: Reg. 9

908

Attachment C
Photographic Documentation

NIAGARA COUNTY
Shovel Ready
Project
TOWN OF CAMBRIA - NEW YORK

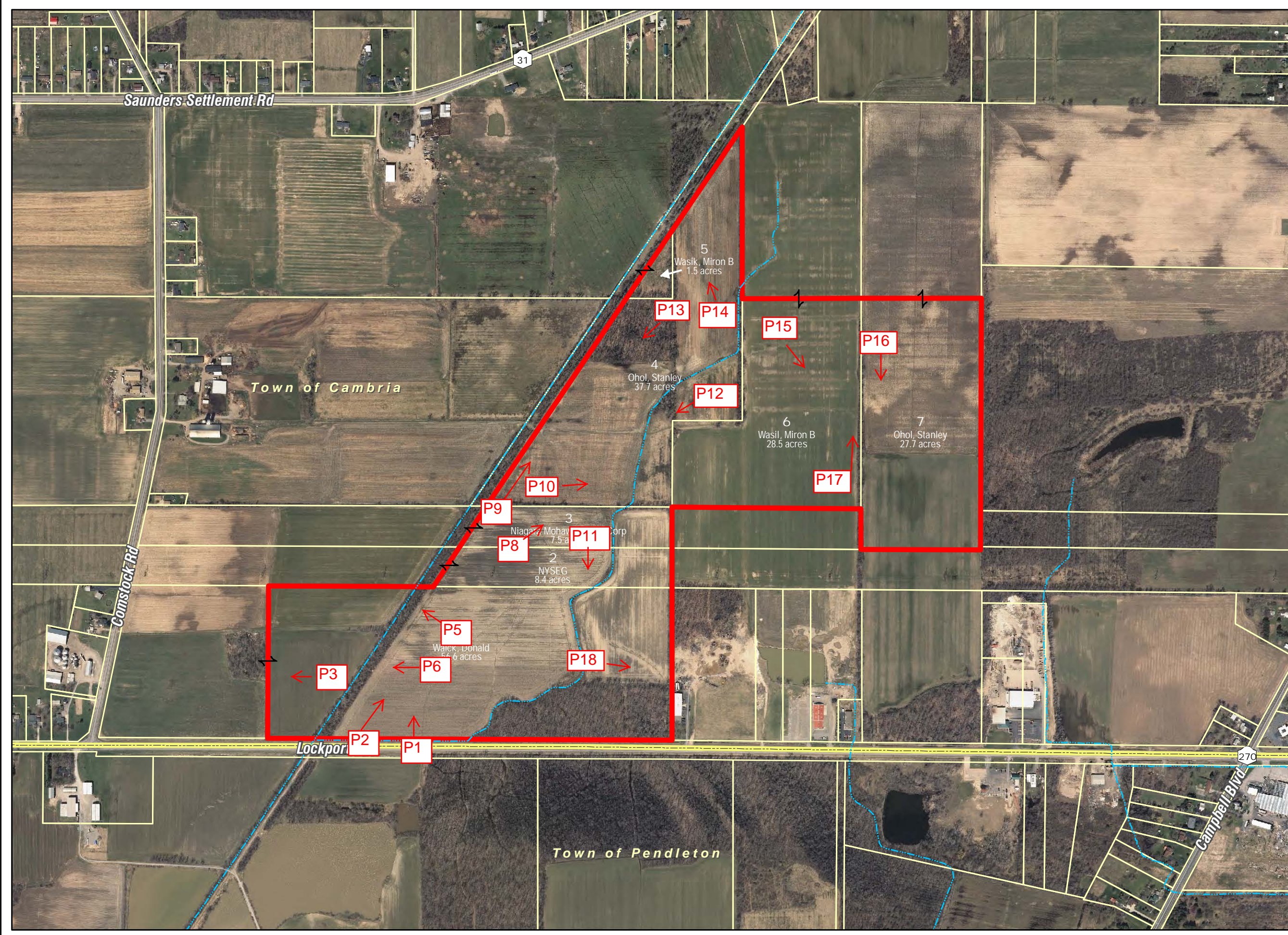
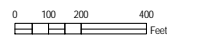
MAP 2 - SITE LOCATION



NIAGARA COUNTY - NEW YORK
NOT DRAWN TO SCALE

LEGEND

- Municipal Boundary
- Parcel Boundary (2009)
- Hydrography
- Project Site



Wendel Duchscherer Architects & Engineers, P.C. shall assume no liability for 1. Any errors, omissions, or inaccuracies in the information provided regardless of how caused or; 2. Any decision or action taken or not taken by the reader in reliance upon any information or data furnished hereunder. Data Sources: NYS GIS Clearinghouse, Niagara County Real Property Services, National Hydrology Dataset, 2008 Digital Orthomagey

TETRA TECH, INC.

PHOTOGRAPHIC RECORD

Company: Tetra Tech, Inc.
Project: Niagara County Shovel Ready Project



Photographer: B.Eckwahl
Date: 6/28/11
Photo No.: 1
Direction: N
Comments: Winter wheat



Photographer: B. Eckwahl
Date: 6/28/11
Photo No.: 2
Direction: NE
Comments: Hedgerow and winter wheat

TETRA TECH, INC.

PHOTOGRAPHIC RECORD

Company:
Project:

Tetra Tech, Inc.
Niagara County Shovel Ready Project



Photographer: B. Eckwahl
Date: 6/28/11
Photo No.: 3
Direction: W
Comments: Planted field



Photographer: B. Eckwahl
Date: 6/28/11
Photo No.: 4
Direction: NE
Comments: Hedgerow and
planted field

TETRA TECH, INC.

PHOTOGRAPHIC RECORD

Company: Tetra Tech, Inc.
Project: Niagara County Shovel Ready Project



Photographer: B. Eckwahl
Date: 4/14/11
Photo No.: 5
Direction: NW
Comments: winter wheat



Photographer: B. Eckwahl
Date: 6/28/11
Photo No.: 6
Direction: SW
Comments: winter wheat and hedgerow

TETRA TECH, INC.

PHOTOGRAPHIC RECORD

Company: Tetra Tech, Inc.
Project: Niagara County Shovel Ready Project



Photographer: B. Eckwahl
Date: 6/28/11
Photo No.: 7
Direction:
Comments:



Photographer: B. Eckwahl
Date: 6/28/11
Photo No.: 8
Direction: E
Comments: winter wheat and power line

TETRA TECH, INC.

PHOTOGRAPHIC RECORD

Company:
Project:

Tetra Tech, Inc.
Niagara County Shovel Ready Project



Photographer: B. Eckwahl
Date: 6/28/11
Photo No.: 9
Direction: NE
Comments: planted field



Photographer: B. Eckwahl
Date: 6/28/11
Photo No.: 10
Direction: E
Comments: planted field

TETRA TECH, INC.

PHOTOGRAPHIC RECORD

Company:
Project:

Tetra Tech, Inc.
Niagara County Shovel Ready Project



Photographer: B. Eckwahl
Date: 6/28/11
Photo No.: 11
Direction: S
Comments: Primary stream/ditch



Photographer: B. Eckwahl
Date: 6/28/11
Photo No.: 12
Direction: NA
Comments: old rail ties

TETRA TECH, INC.

PHOTOGRAPHIC RECORD

Company:
Project:

Tetra Tech, Inc.
Niagara County Shovel Ready Project



Photographer: B. Eckwahl
Date: 6/28/11
Photo No.: 13
Direction: SW
Comments: PFO on parcel 4



Photographer: B. Eckwahl
Date: 6/28/11
Photo No.: 14
Direction:
Comments: planted field

TETRA TECH, INC.

PHOTOGRAPHIC RECORD

Company: Tetra Tech, Inc.
Project: Niagara County Shovel Ready Project



Photographer: B. Eckwahl
Date: 6/28/11
Photo No.: 15
Direction: SE
Comments: winter wheat



Photographer: B. Eckwahl
Date: 6/28/11
Photo No.: 16
Direction: S
Comments: N/S agricultural ditch between parcel 6 and 7

TETRA TECH, INC.

PHOTOGRAPHIC RECORD

Company:
Project:

Tetra Tech, Inc.
Niagara County Shovel Ready Project



Photographer: B. Eckwahl
Date: 6/28/11
Photo No.: 17
Direction: N
Comments: agricultural ditch
between parcels 6 and 7



Photographer: B. Eckwahl
Date: 6/28/11
Photo No.: 18
Direction: NE
Comments: winter wheat

PRELIMINARY AND FINAL NOTICE OF INTENT

**TO UNDERTAKE AN ACTION WITHIN AN
AGRICULTURAL DISTRICT**

TOWN OF CAMBRIA

LOCKPORT ROAD-OHOL/WASIK SANITARY SEWER EXTENSION

NIAGARA COUNTY, NEW YORK

AGRICULTURAL DISTRICT NO. 6

August 2011

PUBLIC ENTITY:

**TOWN OF CAMBRIA
4160 UPPER MOUNTAIN ROAD
SANBORN, NEW YORK 14132**

PROJECT PLANNER:

**WENDEL COMPANIES
140 JOHN JAMES AUDUBON PARKWAY
SUITE 201
AMHERST, NY 14228**

**PRELIMINARY AND FINAL NOTICE OF INTENT TO UNDERTAKE
AN ACTION WITHIN AN AGRICULTURAL DISTRICT**

The agency proposing to undertake the action is:

Town of Cambria
4160 Upper Mountain Road
Sanborn, New York 14132
County of Niagara

I. DESCRIPTION OF PROPOSED ACTION

The proposed project involves the installation of approximately 1600 linear feet of 4-inch diameter pressure sewer line to support future development of a shovel-ready, high-technology business park, to be certified under the Build Now-NY Program initiative (see Draft Generic Environmental Impact Statement – DGEIS – for more information on this project). The subject property is located north of Lockport Road (*see Figure 1*), east of Comstock Road and west of Campbell Blvd. (NYS Route 270), in the Town of Cambria, Niagara County, New York. The new sanitary sewer line will extend from a proposed four-inch pressure sewer line, which will be located along Lockport Road and was previously approved under a separate Notice of Intent (*see Figure 2*). The proposed pressure sewer line will be installed within the right-of-way of an access road that will be constructed along the current location of a gravel access road that is utilized to access the subject property.

There are four parcels of land, totaling approximately 110.7 acres that are affected by this action, refer to *Figure 3* and *Table 1* below. These lands are owned by the Wasik’s and Ohol’s who have specifically requested this rezoning and are partners in the shovel ready application. Three of these parcels comprise the 93.9-acre subject property. All three parcels are zoned Agricultural and Residence (AR). Under the proposed action, the site would be rezoned Planned Development (PD), allowing for the development of high technology business uses and the establishment of appropriate conditions to mitigate potential impacts.

TABLE 1 – AFFECTED PARCELS ON LOCKPORT ROAD AND COMSTOCK ROAD				
OWNER/ADDRESS	TAX PARCEL	ACREAGE (ACRES)	FRONTAGE (FEET)	COMMENTS
Joseph Ohol 5817 Comstock Rd. Sanborn, NY 14132	121.00-2-47	16.80	755.00	Wooded/Agricultural
Joseph Ohol 5817 Comstock Rd. Sanborn, NY 14132	121.00-2-50.111	37.7	N/A	Agricultural
George & John Wasik 4983 Saunders Settlement Rd. Sanborn, NY 14132	121.00-2-19.111	28.5	N/A	Agricultural
Joseph Ohol 5817 Comstock Rd. Sanborn, NY 14132	121.00-2-47	27.7	N/A	Agricultural

II. AGRICULTURAL SETTING AND LOCATION

The Town of Cambria is a rural community located in Niagara County, New York. Lockport Road is located in the southeast quadrant of the Town. This project is located north of Lockport Road, within Agricultural District No. 6. (see Figure 4). Land use in the project area is rural, with a mix of agriculture; single-family residential, commercial businesses and open space (see Figure 5). Presently, much of the subject property is farmed; crops raised on the site include wheat, hay, soybean and other field crops.

The primary soils on the site include Rhinebeck silt loam, Odessa silty clay loam and Ovid silt loam. There are also areas of hydric soils (Lakemont silty clay loam). Approximately 0.3 acres of the 93.9-acre subject property (less than one percent) contains prime farm soils (see Figure 4). All of these soils on the property have a seasonal high water table that rises to within one-foot or less of the surface in early spring and during periods of excessive wetness. Runoff is slow and there are some areas of short-term ponding. If the soils were drained they would offer greater agricultural value.

III. ANTICIPATED AGRICULTURAL IMPACTS

Approximately 9,556 acres of lands in the Town of Cambria are in agricultural use, representing approximately 41 percent of the land use in the Town. Agricultural land on the subject property accounts for less than one percent of the total amount of agricultural land in the Town. It is estimated that the proposed action could potentially impact 71.5 acres of farmland located within Niagara County Agricultural District No. 6. Although the proposed action would support development that would, in turn, result in the loss of farmland, the loss is not significant in terms of the agricultural industry in the area, the extent of valuable farmland that exists in the Town, and the Town's desire for increased development in certain areas. Furthermore, the seasonal wetness on the property is limiting the variety of crops that are being grown. As the property is not well drained, the overall use of the lands for agricultural purposes is diminishing. It must also be noted that the owners of these lands have requested this rezoning designation, and support the extension of infrastructure into these sites.

The proposed sewer line extension would support business park development on the subject property, which is comprised of three individual parcels. Although development is anticipated for the two easternmost parcels, the 37.7-acre property to the west may remain undeveloped. One option that is being considered would allow for a transfer of development rights from this parcel, enabling denser development on the other two properties that would be supported by the sanitary sewer line extension. This could potentially allow for continued agricultural use on the 37.7-acre site, thereby reducing the overall potential impacts of this action on agricultural use and resources in the project area.

The Town of Cambria Comprehensive Plan targets this area of the Town for the future development of commercial and industrial uses, while targeting much of the rest of the Town for Agriculture and rural residential. In conformance with the Comprehensive Plan, the proposed action would support and bring about high technology manufacturing and other similar uses to this vicinity. These types of uses are not incompatible with the surrounding farming uses and would not infringe on active farmlands adjacent to the site.

IV. PREFERRED ROUTING

The proposed sanitary sewer line extension will be installed along the route of an existing, gravel driveway that provides access to the subject property. As this property is landlocked (lacking frontage along a public roadway), driveway access is required. As the gravel driveway already exists, it is the logical location for the construction of a permanent access driveway to the site. In turn, this driveway would be the most feasible location for the sewer line construction.

V. ADVERSE AGRICULTURAL EFFECTS WHICH CANNOT BE AVOIDED

The proposed action will result in unavoidable short-term impacts related to the construction. These impacts will be temporary, localized and relatively minor in nature, including increased traffic levels and the movement of construction equipment, increased noise in the immediate vicinity of the site, the creation of fugitive dust due to soil disturbance and minute, localized increases in air emissions.

The removal of 71.5 acres of farmland from active use is a long-term unavoidable impact. As the agricultural industry in Cambria is relatively strong, it is expected that agriculture will remain the dominant land use in the Town, with the potential for over 9,485 acres of farmland to continue in use. Further, the potential for the transfer of development rights could allow for the continued use of over 15 acres of land that is currently being farmed. Future site development that would result from the extension of the sanitary sewer line would consist of high technology manufacturing and business uses that would be compatible with farming.

VI. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF AGRICULTURAL RESOURCES

The proposed action will result in the consumption and commitment of some non-renewable natural resources during construction and post development. The installation of the sewer line will support the development of approximately 71.5 acres of land that will be committed to other use. In all likelihood, farmland that is developed as a result of the sewer line extension will never be converted back to farming use. All materials and energy resources consumed in the anticipated construction of the proposed action are irreversible and irretrievable commitments. Construction materials and fossil fuels used site development and the operation and maintenance of structures cannot be recovered. Although it is difficult at this time to quantify the full extent of the commitment of resources, once the action is complete, the physical and visual character of the subject property will be changed and there will be an irreversible and irretrievable loss of farmland and wildlife habitat. The human effort involved in constructing and maintaining the proposed project, along with the capital expended, are also irreversible and irretrievable commitments of resources.

VII. MITIGATION MEASURES

Impacts from the proposed action will be mitigated as follows. Additional information on project mitigation can be found in the DGEIS.

- A. The sewer line and all related appurtenances shall be located in a manner that minimizes the disruption of farm enterprises in the vicinity of the site.
- B. Construction techniques will be used, to minimize soil compaction, loss of topsoil, and disturbance of the soil profile.
- C. All construction will adhere to the guidelines set forth in the "Minimum Construction Standards

for Water/Sewer Transmission Mains located Wholly or Partially in an Agricultural District" as required by the Department of Agriculture and Markets (see *Attachment A and B*).

- D. Hydric soils and prime farmland soils will be fully avoided during construction.
- E. To enable the development of high technology land uses, which are supported by the sewer line extension, the subject property will be rezoned Planned Development, which will allow for the establishment of appropriate conditions on site development that will minimize impacts to surrounding land uses and allow for the potential transfer of development rights.
- F. Appropriate thresholds will be established for sewage generation and water demand.

VIII. NON-FARM DEVELOPMENT

The Town of Cambria has always been a strong supporter of agricultural activities and the zoning in the vicinity of the project area support the continuation of this land use. In accordance with the Cambria Comprehensive Plan, rural agriculture land use is supported to preserve and protect agricultural areas and to provide for limited residential development, together with other non-intensive compatible activities. The zoning and the Town's Comprehensive Plan will allow farming to continue in the area without taking away the rights of the farmers to sell off portions of their land when they desire.

In 1997, the Comprehensive Plan was updated for the Town to prevent overdevelopment and allow for light industrial and manufacturing activity in targeted areas. The proposed action would support such land use in an area that has been targeted by the Town. The only access to the site would be via the access driveway from Lockport Road, where the sewer extension would be located. No additional roads or road extensions will be established that would encourage further non-agricultural land use. For more information, see the DGEIS.

IX. PROJECT FUNDING

This proposed action will be financed by the developer of the subject business park. The Town of Cambria anticipates commencement of the proposed action to occur sometime in the next five years.

All department inquiries concerning this notice should be directed to:

Name: Andrew C. Reilly, AICP, PE
Title: Planning Consultant
Address: Wendel Companies
140 John James Audubon Parkway
Suite 201
Amherst, New York 14228
Telephone: (716) 688-0766

I hereby state that, to the best of my knowledge, the information contained in this Notice of Intent is truthful and accurate.

Signed: _____
Andrew C. Reilly, AICP, PE

Date: August 19, 2011

September 6, 2011

Mr. Robert Haggerty
First Deputy Commissioner
Agricultural Districts Program
Department of Agriculture and Markets
10B Airline Drive
Albany, New York 12235

**SUBJECT: TOWN OF CAMBRIA CERTIFICATION LETTER
LOCKPORT ROAD SEWER LINE EXTENSION
NIAGARA COUNTY AGRICULTURAL DISTRICT NO. 6**

Dear Mr. Haggerty:

In your letter dated July 31, 2009, you indicated that the proposed action detailed in the Final Notice of Intent (NOI) would not have an unreasonable adverse affect on the continuing viability of farm enterprises within the district; or on State environmental plans, policies, and objectives. The waterline project related to that NOI, was certified in an April 29, 2011 letter and subsequently constructed. For the sewer line component of the project, your decision was based on the recommendation that lateral restrictions be adopted on the sewer line, restricting lateral connections to only those properties presently zoned B-2.

Since that time (2009), the Town has not proceeded with the sewer line project and has re-evaluated its needs in that area of the Town. Based on the changes in circumstances, the Town is amending the project as follows:

- The sewer line will be extended north through the parcel identified as Tax Parcel 121.00-2-47 (Ohol property) to service a proposed business park (see attached map) on lands that are proposed to be rezoned Planned Development (PD).

It was originally suggested that a separate Notice of Intent be completed for this sewer line extension, but since the sewer line would be constructed by private entities and not involve the expenditure of public funds, an NOI is not applicable. Therefore, to accomplish the plan for the sewer line and future development in this area, the Town cannot agree to the extent of the lateral restrictions requested by the Department of Agriculture and Markets and does not believe they are necessary to minimize potential impacts on Agriculture.

The Town of Cambria certifies that we have made explicit findings that the requirements of Section 305(4) have been met and that, to the maximum extent practicable, adverse agricultural impacts revealed

in the Notice of Intent will be avoided and/or minimized. The reasons that support this finding are as follows:

1. The sewer line and all related appurtenances shall be located in a manner that minimizes the disruption of farm enterprises.
2. Construction techniques will be used, to the greatest extent possible, to minimize soil compaction, loss of topsoil, and disturbance of the soil profile.
3. All land disturbed by construction activities will be restored to pre-construction conditions to the maximum extent practicable.
4. All construction activities will adhere to the guidelines set forth in the “Minimum Construction Standards for Water/Sewer Transmission Mains located Wholly or Partially in an Agricultural District”, as required by the New York State Department of Agriculture and Markets.
5. Construction along Lockport Road will mainly take place within the existing road right-of-way. Construction of the extension of the sewer line into the Ohol property will occur near the property line, in an area used as a farm access road.
6. The lands north of the power line ROW, to be eventually serviced by the sewer line extension, are marginal agricultural properties. These property owners are planning to sell these lands and have signed agreements to market their properties.
7. The proposed plan for development of these properties is in accordance with the Town of Cambria Comprehensive Plan. That Plan indicates that this southeastern corner of the Town is planned for industrial and commercial development. Much of the remaining portions of the Town are in agriculture and agriculture/ residential use. This targeted approach for commercial and industrial development helps to minimize sprawl and protect agricultural areas.
8. The agricultural lands proposed for future development of the industrial park represent less than one (1) percent of the total acreage of agricultural lands in the Town of Cambria.
9. At their meeting on July 15, 2009, the Niagara County Agricultural and Farmland Protection Board acknowledged that the better agricultural soils in the Town of Cambria are located west of Comstock Road and these soils will be protected by lateral restrictions.

10. Lateral restrictions are planned for those properties to the west of Comstock Road (as noted above), and to the east of Comstock Road, excluding the properties zoned B-2 and that are part of this PD designation.

11. The development plan for these properties, (which was the subject of a Generic EIS) includes a buffer area (that can continue as farming) in the Planned Development District, which lies between the Ohol Farm on Comstock Road and the proposed development, further mitigating potential impacts to agriculture in this area. The establishment of this buffer area will be accomplished through the following process. When the Town rezones these properties to Planned Development (PD), the zoning of the site will be controlled by a PD Zoning Plan (copy attached). This Zoning Plan illustrates the buffer area as Agriculture/Greenspace/Buffer, which will be the only allowable uses on this part of the properties that comprise the future project site, per the zoning. When the properties are proposed for development, the developer/applicant will not be permitted to develop this portion of the property. Through the site plan approval process, they would either, (1) purchase all of the lands and establish a conservation easement for the buffer area in the name of the Town (and deed restrict the property) or, (2) if a developer was only purchasing a portion of the “development area”, they would have to purchase a representative portion of the “Greenspace/Agriculture/Buffer” area (one acre of “buffer” would need to be purchased for every two and one half acres of “development area” purchased). Once purchased these “buffer lands” would have a conservation easement and deed restrictions placed on the lands (allowing only greenspace or agriculture use). Either scenario will result in the desired development pattern.

Thank you for your attention to this matter. Should you have any questions or comments, please do not hesitate to contact me.

Sincerely,

WENDEL DUCHSCHERER

Andrew C. Reilly, PE, AICP

CC: Wright H. Ellis, Cambria Supervisor
Lou Ann Murawski, Cambria Town Clerk
Robert Roberson, Cambria Town Attorney

APPENDIX E

Stormwater Pollution Prevention Plan

GENERIC
STORMWATER
POLLUTION PREVENTION PLAN
(SWPPP)

Prepared for:

Niagara County
Shovel Ready Project

Cambria, NY

August 2011

Prepared by:



140 John James Audubon Parkway
Suite 201
Amherst, NY 14228

Storm Water Pollution Prevention Plan

PROJECT NAME: *Niagara County Shovel Ready Project*

PROJECT TYPE: New Construction

TOWN OF: Cambria

COUNTY OF: Niagara

DATE: *August 2011*

*Prepared by: Wendel
WD Project No. 324817*

Storm Water Pollution Prevention Plan

Table of Contents

I. Introduction

- (1) Scope of the Project
- (2) Location of Project
- (3) Routing of Runoff
- (4) Project Type and Size
- (5) Guidance and Applicability
- (6) State / National Register of Historic Places

II. Project Maps and Plans

- (1) Location Maps
- (2) Project Plans

III. Project Soils

- (1) NRCS Soils Map at Project Location
- (2) Soil Types
- (3) Soil Disturbance Distribution
- (4) Discussion of Soil Characteristics and Erosion Hazard Potential

IV. General Requirements of the Owner / Operator

V. Inspection and Maintenance Requirements

- (1) Inspection Schedule

VI. Construction Phasing

- (1) Prior to Soil Disturbance
- (2) Sequence of Construction Activities
- (3) Pollution Prevention Measures

VII. Erosion and Sediment Control Measures

- (1) Erosion and Sediment Control Plan
- (2) Temporary Erosion and Sediment Control Measures
- (3) Permanent Erosion and Sediment Control Measures
- (4) Applicable Standard Sheets and Special Details
- (5) Installation Sequence
- (6) Maintenance Schedule
- (7) SWPPP Implementation Responsibilities

VIII. Existing Watershed Information

IX. Post Construction Stormwater Control Practices

- (1) Water Quantity
- (2) Water Quality
- (3) Runoff Reduction
- (4) Maintenance of Post-Construction Stormwater Control Practices

Storm Water Pollution Prevention Plan

Appendices

- (A) Location Maps
- (B) NRCS Soil Report
- (C) Standards and Specifications for Erosion and Sediment Control
- (D) NOI / NOT & Project Correspondence
- (E) Contractor Certifications / Inspection Forms
- (F) SPDES General Permit – GP-0-10-001
- (G) Calculations
- (H) Maintenance Checklist
- (I) Contract Plans

Storm Water Pollution Prevention Plan

This document is intended to be a template set up with existing information on the entire project site. Individual developers may cater this SWPPP to reflect size and scope of their individual projects. Items that will require modification based on specific plans of development are italicized in *the color red*.

I. Introduction

A stormwater management assessment has been conducted for the proposed project in order to protect the waters of the State of New York from the adverse impacts of storm water runoff. This report presents an analysis of the project in accordance with the State Pollutant Discharge Elimination System (SPDES) General Permit for Storm Water Discharges from Construction Activity (Permit No. GP-0-10-001) and the New York State Stormwater Management Design Manual (SMDM-latest revision). As required, stormwater management practices are implemented where appropriate to provide pollutant removal, runoff reduction, reduction in stream channel erosion, and control of the overbank and extreme flood events. Practices are also designed to meet any additional local stormwater requirements.

As site disturbance in the project area is approximately *152-acres*, a Storm Water Pollution Prevention Plan (SWPPP) is required for compliance with the General Permit. A Notice of Intent (NOI) has been submitted to the Bureau of Water Permits to initiate the permit process. The SWPPP addresses erosion and sediment control, water quantity control, water quality treatment, and runoff volume reduction.

The SWPPP documents are the means and methods by which the proposed project will comply with applicable State and local regulations. The SWPPP is intended to be a work in progress document and should be updated by a Qualified Inspector throughout the duration of the project. If the SWPPP requires modification (due to site conditions, change in project scope, etc.), all modifications shall be made by a Qualified Professional in accordance with the New York State Department of Environmental Conservation's (NYSDEC) technical standards.

- (1) Scope of the Project: *The project involves the construction of buildings, parking lots, driveways and landscaping. Work will include grading and drainage improvements, stormwater management facilities, and utilities to support the proposed function of the site.*
- (2) Location of Project: *The project site is located on the north side of Lockport Road just east of Comstock Road in the town of Cambria, Niagara County, New York. The site is comprised primarily of open lands that have been actively used for agriculture, with limited areas of woodland. No structures currently exist on the site. The land is nearly level with an intermittent drainage channel that flows in a southwesterly direction toward Lockport Road.* Several location maps have been included in Appendix A for reference.

Storm Water Pollution Prevention Plan

Table 1- Location Table

Approximate Coordinate Position at Center of Project (UTM)	
Easting	193,392
Northing	4,782,979

- (3) Routing of Runoff: *Runoff from the site is collected in various drainage ways throughout the project site. These drainage ways are shown on USGS mapping as intermittent streams which flow to the south towards a 4'x6' elliptical CMP culvert under Lockport Road.* The stream continues to the south along an old pipeline corridor another 7,000 feet into the Town of Pendleton where it joins with Bull Creek. This intermittent stream is an unnamed tributary to Bull Creek and is considered to be a Class C stream. Bull Creek is also a Class C stream near the point of confluence. Therefore, runoff from the project area is not tributary to a body of water with AA or AA-s State Classification.
- (4) Project Type and Size: *All projects at the proposed site will be new construction but sizes have not yet been determined.*
- (5) Guidance and Applicability: The SPDES General Permit (GP-0-10-001) was reviewed to determine the project requirements for permit coverage. The nature of the project is new construction. As disturbance is greater than 1-acre, full coverage under the General Permit is required and both erosion and sediment controls and permanent post-construction stormwater management practices are required. Quantity controls (C_{pv}, Q_p, and Q_f) are required as well as water quality volume treatment (WQ_v) and runoff volume reduction (RR_v). The Town of Cambria is a regulated MS4. As a result, the SWPPP must first be reviewed and approved by the Town. When satisfied with the SWPPP, the Town will issue an MS4 SWPPP Acceptance Form. The applicant will then send the signed MS4 SWPPP Acceptance Form along with the NOI to the NYDEC Albany office to initiate permit coverage. *The project SWPPP has been prepared in conformance with the technical standards and permit coverage will be authorized five (5) business days from the date the NYSDEC receives the signed MS4 SWPPP Acceptance Form and completed NOI.*
- (6) State / National Register of Historic Places: The New York State Office of Parks, Recreation and Historic Places (OPRHP) website shows that a portion of the site lies within an archeo-sensitive area. A print of this mapping has been included in Appendix A. Subsequent cultural resource investigations were performed on the areas to be impacted. No cultural resources were located on the investigated portions of the site. *Results of the investigation have been submitted to OPHRP and a response letter confirming "no impacts" is expected in the very near future. A copy of this letter will be included in Appendix D once it is received.*

Storm Water Pollution Prevention Plan

II. Project Maps and Plans

- (1) Location Maps: Several maps are included in Appendix A including a State Road Map, a Site Location Map, a Wetlands Map, and a Topography Map. Also included in Appendix A is a Flood Plain FIRMette as generated through the FEMA Map Service Center website, a print from the Stormwater Interactive Map to confirm project coordinates, prints from the NYSDEC's Environmental Mapper to confirm stream classifications, and a print from the NYS Office of Parks, Recreation, and Historic Preservation website. As may be seen on the mapping, there are no navigable waters or streams within the project limits and the project is not located within the floodway or within the limits of the 100-year floodplain.
- (2) Project Plans: *Reduced size copies of the applicable Contract Plans have been included as Appendix I. The plans include information on existing conditions, site preparation, erosion and sediment control, layout, utilities, grading and drainage.*

III. Project Soils

- (1) NRCS Soils Map at Project Location: Soil maps have been included in Appendix B showing the Map Unit Symbols and Hydrologic Soil Groups of the local soils. This information was acquired through the Web Soil Survey website as hosted by the USDA National Resources Conservation Service (NRCS). The applicable project site was defined on the website and the above-mentioned maps were generated. It should be noted that the project delineation shown on the maps is an approximate representation of the limits of disturbance. *The actual area of disturbance for this project is approximately 152-acres.* The following information gives a general overview of the types of soils that are present within the limits of construction.
- (2) Soil Types: The following soil types currently exist at the site:

Storm Water Pollution Prevention Plan

Table 2 – Soil Types

Map Unit Symbol	Map Unit Name, Texture, % Slope Range	Hydrologic Soil Group (HSG)	Erosion Hazard Potential
<i>CcB</i>	<i>Cayuga and Cazenovia silt loams, 2 to 6 % slopes</i>	<i>C</i>	<i>High (K=0.49-0.32)</i>
<i>Lc</i>	<i>Lakemont silty clay loam</i>	<i>D</i>	<i>High (K=0.49)</i>
<i>Ma</i>	<i>Madalin silt loam</i>	<i>D</i>	<i>High (K=0.37)</i>
<i>OdA</i>	<i>Odessa silty clay loam, 0 to 2 % slopes</i>	<i>D</i>	<i>High (K=0.49)</i>
<i>OvA</i>	<i>Ovid silt loam, 0 to 2 % slopes</i>	<i>C</i>	<i>Medium (K=0.32)</i>
<i>OwA</i>	<i>Ovid silt loam, limestone substratum, 0 to 3 % slopes</i>	<i>C</i>	<i>Medium (K=0.32)</i>
<i>RbA</i>	<i>Rhinebeck silt loam, 0 to 2 % slopes</i>	<i>D</i>	<i>High (K=0.49)</i>

- (3) Soil Disturbance Distribution: Soil maps included in Appendix B support the following soil disturbance distribution:

Table 3 – Soil HSG Distribution

HYDROLOGIC SOIL GROUP (HSG)				
	A	B	C	D
% Distribution	<i>0</i>	<i>0</i>	<i>12</i>	<i>88</i>

- (4) Discussion of Soil Characteristics and Erosion Potential: As may be seen on the Soil Map, the area is comprised of several soil types; The *Cayuga and Cazenovia silt loams and Ovid silt loams* have an HSG rating of C. Group C soils have a slow infiltration rate when thoroughly wet and consist mainly of soils having a layer that impedes the downward movement of water. The *Lakemont silty clay loam, Madalin silt loam, Odessa silty clay loam and Rhinebeck silt loam* have an HSG rating of D. Group D soils have a very slow infiltration rate (high runoff rate) when thoroughly wet and consist mainly of clays with a high shrink-swell potential, soils that have a high water table, soils that have claypan or a clay layer at or near the surface, and/or soils that are over nearly impervious material.

Storm Water Pollution Prevention Plan

The erosion factor K is an indicator of the susceptibility of a soil to sheet and rill erosion by water. Values of K typically range from 0.02 to 0.69 with the basic interpretation that the higher the value, the more susceptible the soil is to erosion. Soils with a K equal to or greater than 0.37 are given a high erosion hazard potential. K values from 0.36 to 0.24 are given a medium erosion hazard potential where K values less than 0.24 are given a low erosion hazard potential.

Consequently, soils on the project site have a medium to high erosion hazard potential. Regardless of this value or rating, the surrounding water bodies or drainage systems must be protected to the greatest extent possible from degradation due to stormwater runoff from the construction site.

IV. General Requirements of Owner / Operator

- The Owner or Operator must satisfy the following criteria prior to being authorized to discharge under GP-0-10-001:
 - i. A project review pursuant to the State Environmental Quality Review Act (SEQRA), when SEQRA is applicable.
 - ii. Where required, all necessary Department permits subject to the *Uniform Procedures Act (UPA)* (see NYCRR part 621) have been obtained, unless otherwise notified by the Department pursuant to 6 NYCRR 621.3(a)(4). Owners / operators of construction activities that are required to obtain *Uniform Procedures Act (UPA)* permits must submit a preliminary SWPPP to the appropriate DEC regional office at the time all other necessary UPA permit applications are submitted. The preliminary SWPPP must include sufficient information to demonstrate that the construction activity qualifies for authorization under this general permit.
 - iii. The final SWPPP has been prepared and,
 - iv. An NOI has been submitted to the NYSDEC in accordance with the requirements of GP-0-10-001.
- Prior to the start of construction activities, the Owner or Operator must identify the contractor(s) that will be responsible for installing, constructing, repairing, inspecting and maintaining the erosion and sediment control devices on site; and the contractor(s) or subcontractor(s) that will be responsible for the construction of all post construction stormwater management practices included in the SWPPP / construction drawings. The Owner / Operator shall have each of these contractors and subcontractors identify at least one trained individual from their company that will be responsible for implementation, maintenance, inspection, etc. of the SWPPP and associated components. **The Owner / Operator shall ensure at least one trained individual is on site on a daily basis when soil disturbance activities are being performed.**
- The Owner / Operator shall have each of the contractors and subcontractors identified above sign a copy of the contractor certification statement, which has been included in Appendix E.

Storm Water Pollution Prevention Plan

- **Certifications, Inspections and Reports:** The Contractor shall be responsible for complying with the requirements and conditions described in the New York State Department of Environmental Conservation SPDES General Permit for Storm Water Discharge from Construction Activity, Permit No. GP-0-10-001 (See Appendix F). A sample Contractor/Subcontractor Certification Form is included in Appendix E and must be signed and certified by all contractors / subcontractors involved in earth disturbance activities.
- The Owner or Owner's representative must maintain a copy of the SWPPP at the construction site throughout construction, from the beginning of construction activities through final stabilization. The Notice of Intent (NOI) for the Project must be posted at the construction site for public viewing or must be immediately available to the public if requested. The SWPPP and any reports, inspections or certifications required by the permit must be kept onsite with the SWPPP and must be made available to any authorized entity requesting the documents. Authorized entities include representatives from the NYSDEC, EPA, and/or the local MS4 receiving the discharge. The aforementioned entities must be allowed entry for inspection at the site if so requested.
- The Owner or Operator must ensure that all necessary components of the SWPPP are implemented from the start of construction activity until all areas of disturbance have reached final stabilization, and the Notice of Termination has been submitted.
- The Owner or Operator of the construction activity shall not disturb more than 5-acres at any one time without prior written authorization from the NYSDEC or regulating MS4.
- The Owner / Operator shall install any additional site specific practices that may be necessary to protect water quality.
- The Owner / Operator must ensure that all erosion and sediment control devices are maintained and in effective operating condition at all times.
- If there is a change in the Owner / Operator, or a change in the operational control over the construction plan and specification, the original Owner / Operator must notify the new Owner / Operator in writing of the requirement to obtain permit coverage by submitting an NOI with the Department. Once the new Owner / Operator obtains coverage, the original Owner / Operator shall then submit a Notice Of Termination (NOT) with the name and permit identification number of the new Owner / Operator to the Department. If the original Owner / Operator maintains ownership of a portion of the construction activity and will disturb soil, they must maintain their coverage under the General Permit.

Storm Water Pollution Prevention Plan

V. Inspection and Maintenance Requirements

- (1) Inspection Schedule: An Owner or Operator shall have a Qualified Inspector conduct site inspections as detailed below:
 - For construction sites where construction activities are on-going, the Qualified Inspector shall conduct a site inspection a minimum of once every seven (7) days.
 - If greater than 5-acres are disturbed (with the necessary authorizations) the Owner / Operator must have a Qualified Inspector conduct at least two (2) site inspections every seven (7) calendar days for as long as 5 or more acres remains disturbed. The inspections shall be separated by a minimum of 2 full calendar days.
 - For construction activities that have been temporarily suspended (winter shut down) and temporary stabilization measures have been installed on all disturbed areas, the Qualified Inspector must conduct a site inspection at least once every 30-days. The Owner or Operator must notify the Regional Office stormwater contact in writing prior to reducing the frequency of inspections.
 - The Qualified Inspector shall prepare an inspection report subsequent to each and every inspection. A sample checklist and inspection report has been included in Appendix E.
 - The Qualified Inspector must notify the Owner / Operator (and appropriate contractors or sub-contractors) of any necessary corrective actions within one business day of the completion of the inspection. All reports are to be signed by the Qualified Inspector, and be maintained on-site with the SWPPP.
 - **The Owner / Operator is required to begin implementation of the corrective actions within one business day of receiving notification from the Qualified Inspector.** All corrective actions must be implemented in a reasonable timeframe.
 - The Owner or Owner's representative is responsible for a final site inspection when the site has achieved final stabilization. Wendel or another Qualified Professional or Qualified Inspector must perform the final inspection and file a Notice of Termination (NOT) form to terminate coverage under the SPDES General Permit GP-0-10-001.

Storm Water Pollution Prevention Plan

VI. Construction Phasing

- (1) **Prior to Soil Disturbance:** Before any soil disturbance may occur, the Contractor is required to install several controls. These controls include (but are not limited to) a stabilized construction entrance, check dams, and any required perimeter sediment controls (i.e. silt fence). An initial site assessment and inspection shall be conducted by Wendel or another Qualified Professional prior to the commencement of construction activities to determine the necessary controls and to verify that the initial erosion and sediment control devices are properly installed and are operating as intended (see Appendix E for a sample inspection form).

The Contractor shall perform daily site maintenance at the end of each day of construction, especially after measurable rainfall events. This maintenance shall include walking the site, inspecting all erosion and sediment control devices, looking for extraneous material (litter), and briefly checking all storm water outfall locations downstream of disturbed areas for evidence of turbidity, sedimentation, or oil and grease in the receiving waters/storm sewer system. All debris should be picked up and disposed of in an appropriate manner.

- (2) **Sequence of Construction Activities:** The Contractor must submit to the Engineer for approval, a construction / progress schedule showing the order in which the Contractor proposes to complete the work, the date on which the work on the project will start, the major items of work (implementation of soil erosion control measures, earthwork, excavation, mobilization, backfill operations, seeding and mulching operations, etc.), the critical features, and the anticipated dates for completing each task.

The Contractor's work schedule and method shall be consistent with the SWPPP or amended SWPPP. Once approved, the project schedule shall become part of the SWPPP. The focus of the method and schedule should be to prevent erosion and to prevent pollutants from the construction site from mixing with stormwater.

The following is a recommended sequence of major construction activities, erosion and sediment control tasks, and inspection activities for the project:

- (A) Conduct a pre-construction meeting.
- (B) Provide a protected onsite location for the project SWPPP and associated certifications, inspections and reports.
- (C) *Set up a staging area, stabilized construction entrance and required perimeter erosion and sediment control measures, including siltfence and check dams.*
- (D) *Stabilize any existing disturbed areas within the property that are outside the limits of construction / soil disturbance.*
- (E) *Engage a Qualified Professional to perform an Initial Site Inspection and Assessment.*

Storm Water Pollution Prevention Plan

- (F) *Implement any additional sediment and erosion control devices identified during the initial site assessment.*
- (G) *Engage a Qualified Inspector to conduct site inspections and complete inspection reports for the duration of construction activities.*
- (H) *Perform required clearing and grubbing and any associated site preparation/demolition work.*
- (I) *Commence earthwork activities.*
- (J) *Begin installation of underground utilities (waterlines, sanitary sewers and storm sewers).*
- (K) *Construct pavement to required subbase elevations.*
- (L) *Complete installation of asphalt pavement courses.*
- (M) *Continue with final grading, topsoiling and establishment of vegetation.*
- (N) *Stabilize all denuded areas, stockpiles, and/or areas where construction activities have temporarily or permanently ceased as soon as practicable, but in no case more than 7 days after construction activity has ceased.*
- (O) *Complete installation of permanent seeding and planting/landscaping.*
- (P) When vegetation is established and the site is stable, remove silt fence and other temporary erosion control measures that remain and reseed / repair any area damaged during removal.
- (Q) When site has reached final stabilization (80% vegetative cover), engage a Qualified Professional or Qualified Inspector to conduct a final site inspection and file a Notice of Termination (NOT) to terminate permit coverage.

- (3) **Pollution Prevention Measures:** Pollution prevention measures shall be used to prevent construction materials with the potential for adversely affecting stormwater from entering the storm sewer system. Some potential construction materials with the potential for polluting stormwater include, but are not limited to: equipment fuel, solvents, lubricants, asphalt, concrete, hazardous waste, and demolition debris. Also, prevention measures should address any contaminated soil that may be present on the project site.

Pollution prevention includes good housekeeping measures and proper disposal of construction materials and contaminated soil. These prevention measures can be best obtained by good management practices (i.e. requirements for treatment of solvents and lubricants, operating procedures for spillage, waste disposal and drainage from raw material storage). Construction chemicals shall be stored in an area that is away from any temporary or permanent storm water drainage facilities and in an area that is above the ground surface, so that surface water runoff does not deteriorate the associated container/bag. All containers shall be adequately sealed at the end of each workday or at the end of use. Construction debris shall be stockpiled in one specific area within the site that is located away from any temporary or permanent storm water drainage facility.

Pollution prevention addresses those construction materials and contaminated soils with the greatest potential for polluting the storm water. Typical measures applicable to this project site may be summarized as follows:

Storm Water Pollution Prevention Plan

Construction Waste

- Designate a disposal area on site.
- Collect, remove and dispose of waste at designated disposal area.
- Use good housekeeping practices, (i.e., clean spills up immediately, provide and use container with lids, and arrange for refuse pickup before the containers reach capacity).

Hazardous Waste Disposal

- Determine what the requirements are for disposing waste materials by checking with authorities in waste management.
- Follow the manufacturer's recommended method for disposal.
- Communicate plan for disposal with the regulating authorities.
- Use good housekeeping practices.
- To prevent hazardous contaminants from entering waterways, all construction equipment and vehicles will be staged as far from the banks of waterways as possible
- All instances of equipment refueling and staging of fuels will take place in a manner consistent with relevant regulations and safety practices.
- In addition, all excess or staged materials will be surrounded by silt fencing, covered or otherwise stabilized, or promptly removed to prevent sediment transport.

Contaminated Soils

- Communicate plan for disposal with the regulating authority.
- Identify a licensed and insured waste transporter.
- Designate and design a staging area.
- Determine what the regulations are for disposing of contaminated soil by checking with State regulatory agency or consult with private firms specializing in disposal of contaminated soil.

Sanitary Sewer Waste

- Treat or dispose of waste according to State or local requirements.
- Do not bury or discharge untreated waste on site.
- Use good housekeeping practices to avoid illicit discharges.
- Use temporary facilities to contain waste prior to having waste haulers transport waste offsite, and communicate with the municipality if discharging waste into sanitary sewer system.

Solvents, Lubricants and Petroleum Products

- Use good housekeeping practices (i.e., contain and clean up spills immediately, construct dikes to contain spills, use preventive maintenance to fix gas or oil leaks from construction vehicles and monitor filling procedures).

Storm Water Pollution Prevention Plan

Concrete Disposal

- No wet or fresh concrete shall be allowed to escape to any waterways, nor shall washings from concrete trucks, mixers, or other devices be allowed to enter any storm water conveyance systems. Prevent concrete wash water from polluting stormwater by erecting temporary preventive dikes until the concrete hardens.

A spill management plan that addresses potential spillage at the site should be generated by the contractor. The documented plan should entail stopping the initial source of the spillage, containing and cleaning up spillage immediately, and disposing of contaminated materials through the proper channels and authorities.

Construction and waste materials expected to be stored on-site consist of materials and equipment typically used to construct buildings, supporting utilities, roadways and associated site improvements. Materials generally consist of soil, stone, pipe line, building materials (concrete, wood, brick, mortar, steel, etc) concrete structures, landscaping materials, etc. Equipment generally consists of heavy earth moving equipment, trenching, fine grading equipment, and compaction equipment. It is anticipated that some type of small crane will also be required at various stages in the building construction.

VII. Erosion and Sediment Control Measures

- (1) Temporary Erosion and Sediment Control Measures: Temporary provisions for erosion and sediment control are shown on the contract plans which are included in Appendix I. The following temporary controls will be utilized, or employed if required, based on the conditions of the project:

Temporary Stabilized Construction Entrance/Exit – Temporary construction entrances will be placed as necessary and maintained to minimize the tracking of soils offsite. During and/or immediately following wet weather events, it may become necessary to wash the tires of construction vehicles prior to exiting the project site if material is being tracked offsite, as determined by the Qualified Inspector, Qualified Professional and/or other agencies having jurisdiction over the site.

Equipment / Material Storage Areas – Equipment and material storage areas will be provided as required to complete the proposed construction and shall be at locations determined by the contractor (see Section VI, Construction Phasing). The storage areas shall be graded to ensure that any material spillage shall be directed away from entering the storm drainage system. In addition, any identified chemical (oil, grease, etc.) spills shall be addressed immediately and appropriate local officials contacted if necessary.

Temporary Soil Stockpiles – Temporary topsoil stockpile areas will be protected with perimeter silt fencing and seeded as soon as possible to minimize the potential for sediment transport and erosion.

Storm Water Pollution Prevention Plan

Silt Fence – Silt fencing shall be installed as a minimum requirement to filter potential sediment-laden runoff. If site conditions warrant, additional erosion and sediment control practices shall be installed.

Inlet Protection - Inlet Protection will be provided at all inlets receiving storm water runoff from disturbed areas. Inlet protection will assist in preventing sediment laden water from entering the storm sewer system through drainage inlets and may be removed once the tributary area is permanently stabilized.

Check Dams – Check dams will be provided for all ditches, channels, and/or swales that receive storm water runoff from disturbed areas. Check dams are used to reduce erosion in drainage channels by restricting the velocity of flow in the channel. Check dams may be removed once the channel and area tributary to the channel is permanently stabilized.

Other – Add other controls used.

- (3) Permanent Erosion and Sediment Control Measures: Permanent controls are those that will remain after construction completion. Newly constructed pavement will permanently protect the underlying soils from erosion and all other disturbed areas will be topsoiled, seeded, and mulched to establish a healthy stand of vegetation. *Retention ponds are permanent erosion and sediment control measures as they reduce post-development discharge rates and velocities as well as provide a permanent pool for sediment to drop out of suspension. Add other controls used.*
- (4) Applicable Standard Sheets and Special Details: Dimensions and installation details for erosion and sediment control practices are shown on the Project Plans and detail sheets. Appendix C includes the applicable information from the New York State Standards and Specifications for Erosion and Sediment Control, also known as the NYSDEC’s “Blue Book”.
- (5) Installation Sequence: The Contractor is responsible for the implementation of all erosion and sediment control features. The schedule of these installations will be as outlined by the contractor or as shown in Section VI – Construction Phasing.
- (6) Maintenance Schedule: The Contractor under contract for the installation of erosion and sediment control measures shall be responsible for their continued maintenance, operation and ultimate removal. This designated party shall also be responsible to remedy any component of the SWPPP that is in need of maintenance, repair, or replacement. Inspections shall be conducted as outlined in sections IV & V of the SWPPP, and as outlined in the erosion and sediment control details included in Appendix C. The measures shall be maintained as required by the NYS Standards and Specifications for Erosion and Sediment Control, the Stormwater Management Design Manual, and/or as directed by the engineer / Qualified Professional / Qualified Inspector.

Storm Water Pollution Prevention Plan

- (7) SWPPP Implementation Responsibilities: *The Applicant* will ultimately be responsible for ensuring the implementation of all components of the SWPPP and for meeting the conditions of the SPDES General Permit GP-0-10-001. These responsibilities are outlined under Section V, inspection and maintenance requirements. While the Owner/Operator is ultimately responsible for ensuring compliance with the General Permit, the Contractor is responsible to include in his bid the costs for any/all required erosion and sediment control measures, their maintenance, repair and ultimate removal, and for Qualified Professionals/Qualified Inspectors to perform the required inspections and generate the reports/certifications required by the General Permit.

VIII. Existing Watershed Information

The site is located in the southeast corner of the Town of Cambria, Niagara County, New York. The project area includes a southern area (lot 1) that fronts to Lockport Road and a northern area (lots 2, 3, 4, and 5) that will be accessed by a driveway/roadway to Lockport Road (see Site Location Map in Appendix A).

The southern area is further subdivided into two separate areas; south-west and south-east. The land is divided by an old right-of-way that was intended to be used as a pipeline corridor. Current understanding is that no pipeline was ever constructed and the right-of-way remains unused. The corridor now resembles an abandoned railroad embankment; elevated in the middle with drainage ways on either side following the alignment of the corridor.

The south-west area slopes to the east/southeast at between 0.15% and 1.5% towards a drainage way running northeast to southwest along the west side of the old pipeline corridor. This drainage way is shown on the USGS map as an intermittent stream which flows to the south through a 4'x6' elliptical CMP culvert under Lockport Road. The stream continues to the south along the old pipeline corridor another 7,000 feet into the Town of Pendleton where it joins with Bull Creek.

The south-east area of development slopes to the southeast/south at between 0.2% and 1.5% towards another intermittent drainage way that runs in general from northeast to southwest through the adjacent farm fields. This drainage way joins with the drainage way from the south-west area at the Lockport Road culvert and continues south to Bull Creek. The project area includes land on the east side of the drainage way but this area is to remain undeveloped.

The northern area of development in general slopes to the west/southeast at between 0.2% and 1% towards the same intermittent drainage way that runs through the south-east area of development. The project area includes land on the west side of the drainage way but this area is also to remain undeveloped. A portion of land at the southern end of this area drains overland due south towards Lockport Road and is part of the Bear Ridge – Tonawanda Creek watershed.

Storm Water Pollution Prevention Plan

Large springtime rain events combined with warm weather snow melt has been known to result in localized flooding just upstream of the Lockport Road culvert. Although the exact depth of flooding is not known, the extents of the flooding seem vast due the shallow slope of the terrain. It is estimated that the water surface elevation during such an event may approach 597.

The NYSDEC Environmental Resource Mapper was used to determine the location and classification of waterways that are in the project vicinity. Stream classification information has been included in Appendix A. The table below summarizes the receiving water bodies / water way name and classification.

Table 4 – Receiving Water Bodies

<i>Method of Stormwater Conveyance</i>	<i>Receiving Body of Water</i>	<i>Stream Class</i>
<i>Intermittent Stream Flow</i>	<i>Bull Creek</i>	<i>C</i>

IX. Post Construction Stormwater Control Practices

Briefly explain post-construction controls.

- (1) Water Quantity: *Describe how acceptable quantity controls are being achieved. Calculations are included in appendix G.*
- (2) Water Quality: *Describe how acceptable water quality treatment is provided. Calculations are included in appendix G.*
- (3) Runoff Reduction: *Describe how acceptable runoff reduction is provided. Calculations are included in appendix G.*

Table 5 – Stormwater Management Plan Summary

Item	Value
Initial WQv (ac-ft)	
Target WQv (ac-ft)	
WQv Provided (ac-ft)	
WQv Flowrate Required (cfs)	
WQv Flowrate Provided (cfs)	
Minimum RRv Required (ac-ft)	
RRv Provided (ac-ft)	
Channel Bank Volume (Cpv)	
Overbank Flood Control (Qp)	
Extreme Flood Control (Qf)	
Local Requirements	

Storm Water Pollution Prevention Plan

- (4) Maintenance of Post-Construction Stormwater Control Practices: *Describe here the general maintenance requirements of the installed post-construction stormwater control practices. Checklists and/or maintenance forms are included in Appendix H.*

**Table 6 - Post – Construction
Stormwater Management Maintenance Information**

Maintained by	?
Name, Address, Phone of Responsible Party	?
Description of Maintenance Activity for each Facility and Frequency	<i>See Appendix H</i>
Description of Funding Source	?
Minimum vegetative cover Requirements	80% Vegetative cover
Access and safety issues	?
Testing and disposal of sediment	?
Local and non-local Permits	NYSDEC SPDES General Permit – GP-0-10-001 ?

Storm Water Pollution Prevention Plan

APPENDIX A

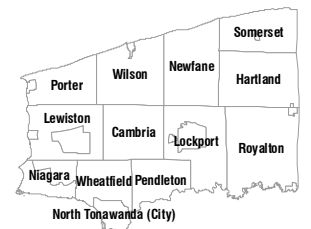
LOCATION MAPS

NIAGARA COUNTY

Shovel Ready Project

TOWN OF CAMBRIA - NEW YORK

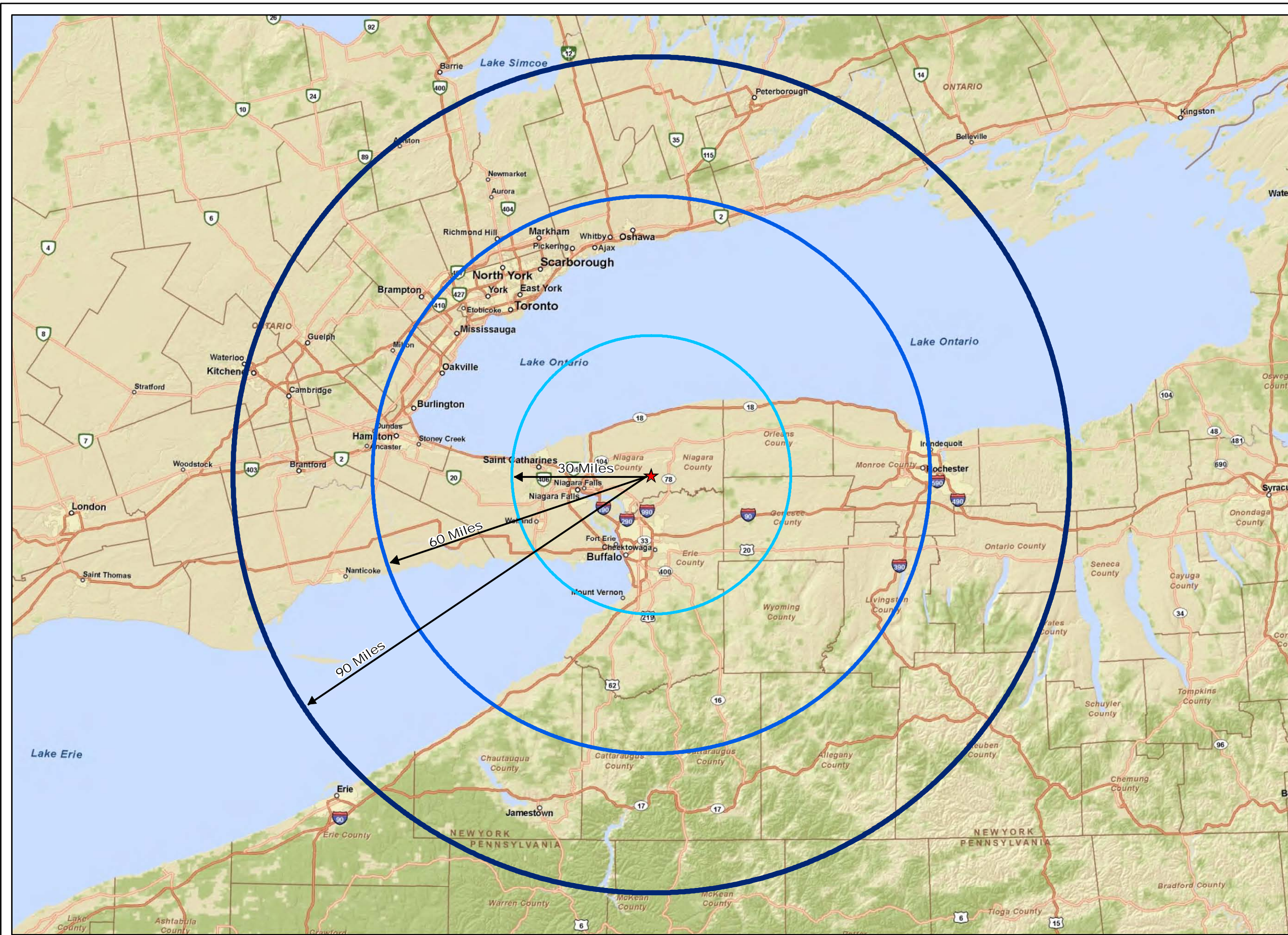
MAP 1 - NYS ROAD MAP



NIAGARA COUNTY - NEW YORK
NOT DRAWN TO SCALE

LEGEND

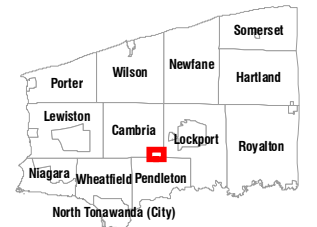
- ★ Site Location
- Radii Buffers
 - 30 Miles
 - 60 Miles
 - 90 Miles



Wendel Duchscherer Architects & Engineers, P.C. shall assume no liability for the information provided regardless of how caused or 2. Any decision or action taken or not taken by the reader in reliance upon any information or data furnished hereunder. Data Sources: Esri, Data

NIAGARA COUNTY
Shovel Ready
Project
TOWN OF CAMBRIA - NEW YORK

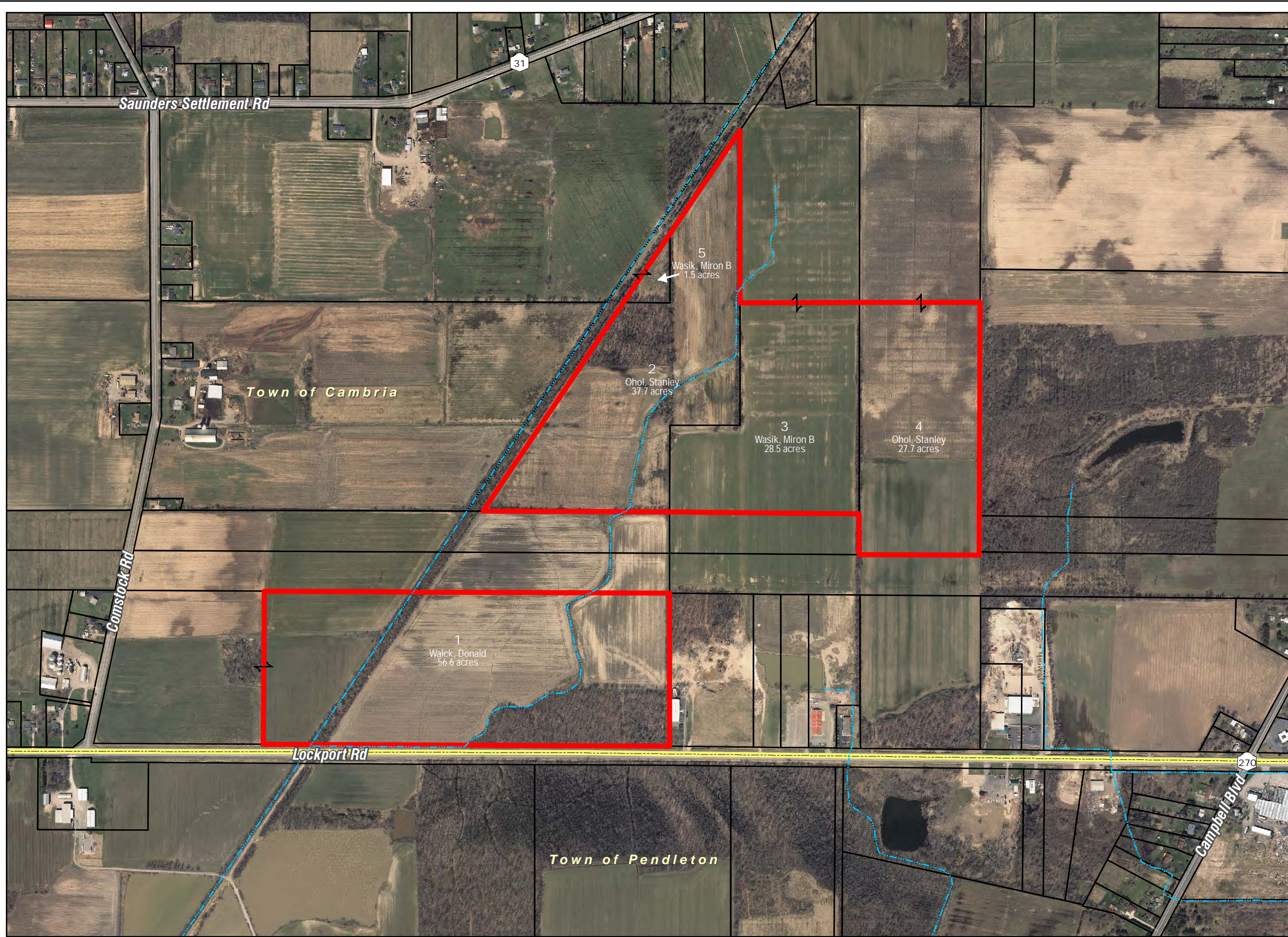
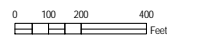
MAP 2 - SITE LOCATION



NIAGARA COUNTY - NEW YORK
NOT DRAWN TO SCALE

LEGEND

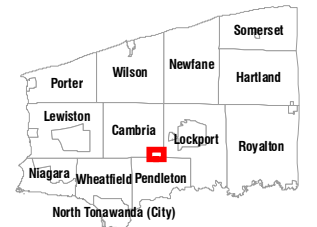
- Municipal Boundary
- Parcel Boundary (2010)
- Hydrography
- Project Site



Wendel Duchscherer Architects & Engineers, P.C.
shall assume no liability for
1. Any errors, omissions, or inaccuracies in the information
provided regardless of how caused or; 2. Any decision or
action taken or not taken by the reader in reliance
upon any information or data furnished hereunder.
Data Sources: NYS GIS Clearinghouse
Niagara County Real Property Services, National Hydrology Dataset,
2008 Digital Orthomagey

NIAGARA COUNTY
Shovel Ready
Project
TOWN OF CAMBRIA - NEW YORK

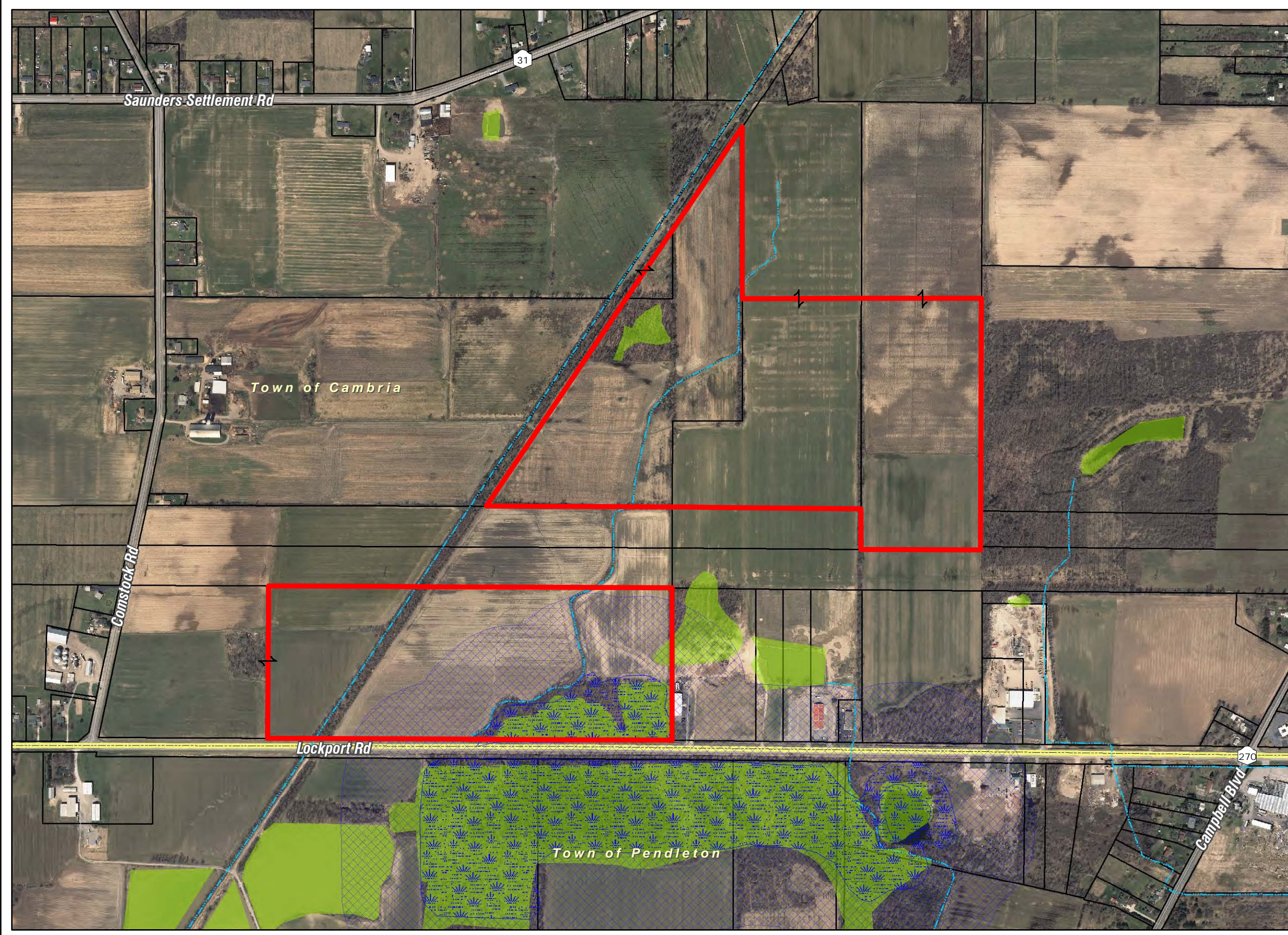
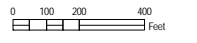
MAP 7 - WETLANDS



NIAGARA COUNTY - NEW YORK
NOT DRAWN TO SCALE

LEGEND

- Municipal Boundary
- Project Site
- Hydrography
- Federal Wetlands
- State Wetland
- State Wetland Checkzone

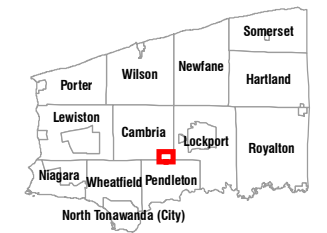


Wendel Duchscherer Architects & Engineers, P.C.
shall assume no liability for
1. Any errors, omissions, or inaccuracies in the information
provided regardless of how caused or; 2. Any decision or
action taken or not taken by the reader in reliance
upon any information or data furnished hereunder.
Data Sources: NYS GIS Clearinghouse
Niagara County Real Property Services, National Hydrology Dataset,
2008 Digital Orthomagey

COMSTOCK Corners

NIAGARA COUNTY Shovel Ready Project TOWN OF CAMBRIA - NEW YORK

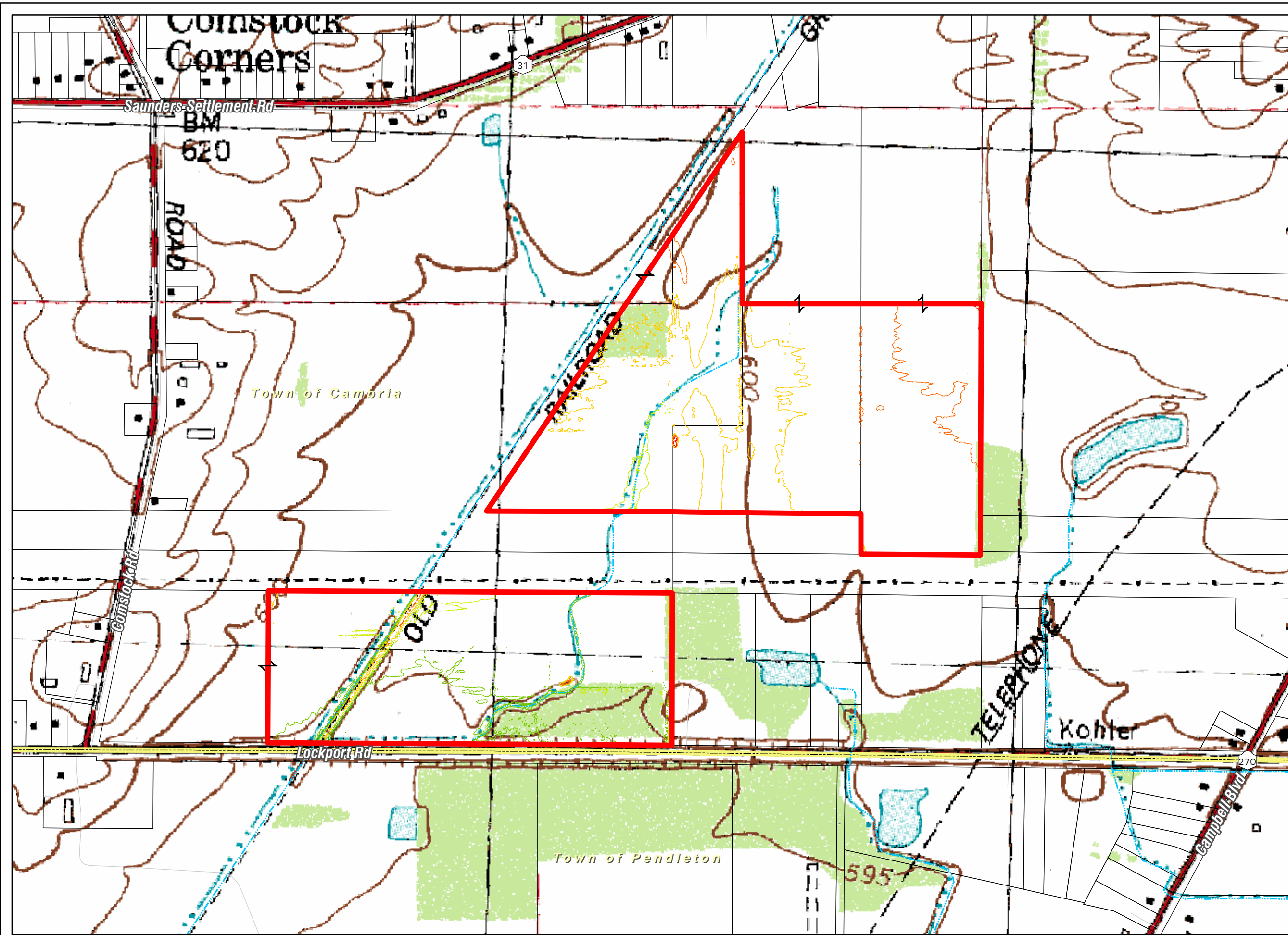
MAP 5 - Topography



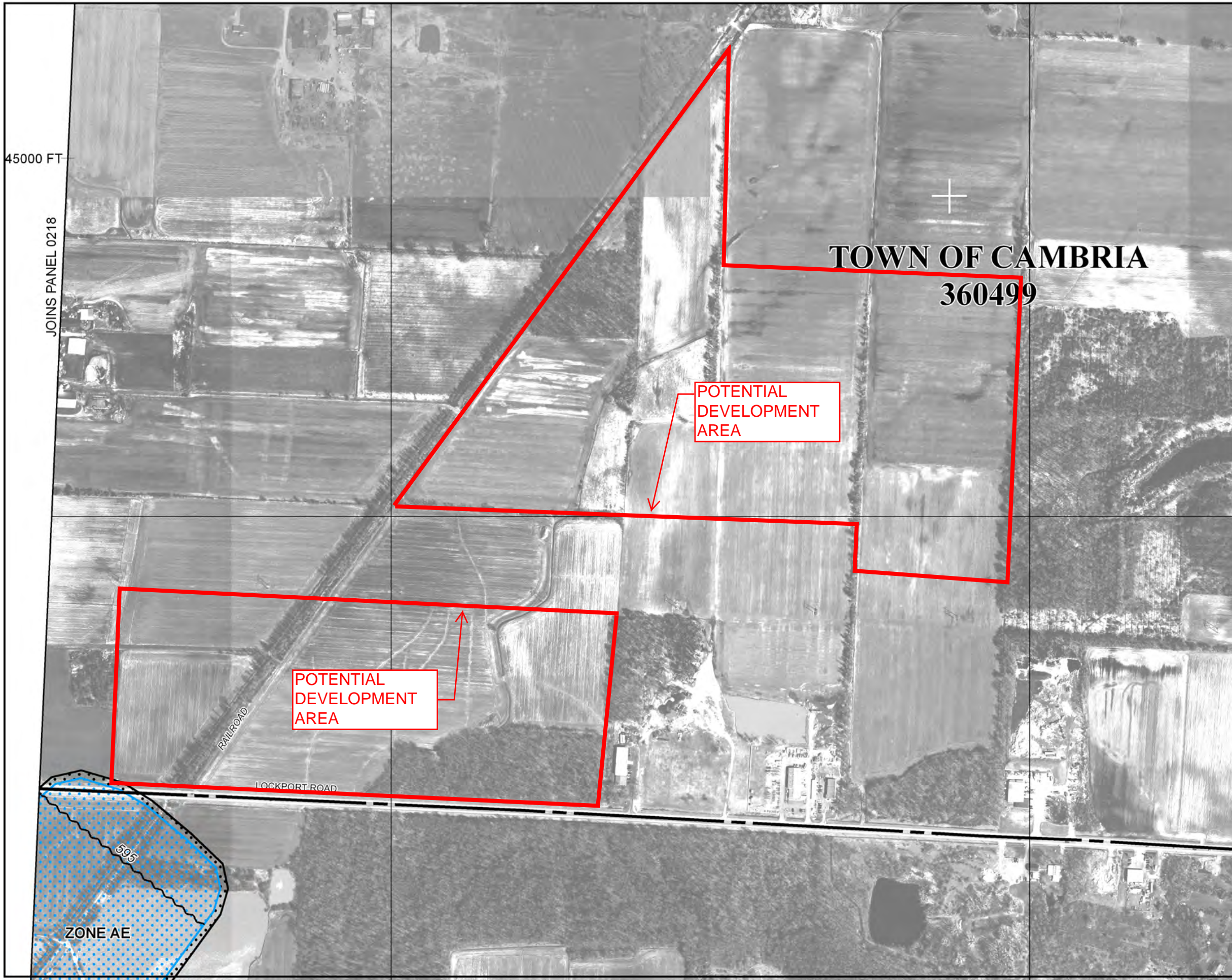
NIAGARA COUNTY - NEW YORK
NOT DRAWN TO SCALE

LEGEND

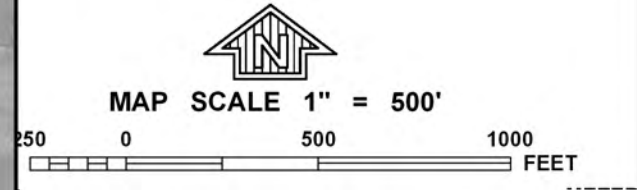
- Municipal Boundary
- Parcel Boundary
- Project Site
- Hydrography
- LIDAR Contour (2' Interval)
- 594'
- 596'
- 598'
- 600'
- 602'
- 604'



Wendel Duchscherer Architects & Engineers, P.C.
shall assume no liability for
1. Any errors, omissions, or inaccuracies in the information
provided regardless of how caused or; 2. Any decision or
action taken or not taken by the reader in reliance
upon any information or data furnished hereunder.
Data Sources: NYS GIS Clearinghouse
Niagara County Real Property Services, National Hydrology Dataset,
2008 Digital Orthoimagery



45000 FT
JOINS PANEL 0218



TOWN OF CAMBRIA
360499

POTENTIAL
DEVELOPMENT
AREA

POTENTIAL
DEVELOPMENT
AREA

NFIP PANEL 0219E


FIRM
FLOOD INSURANCE RATE MAP
for NIAGARA COUNTY, NEW YORK
(ALL JURISDICTIONS)

CONTAINS:

COMMUNITY	NUMBER
CAMBRIA, TOWN OF	360499
LOCKPORT, TOWN OF	361013
PENDLETON, TOWN OF	360509

PANEL 219 OF 430
MAP SUFFIX: E
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

 MAP NUMBER
36063C0219E

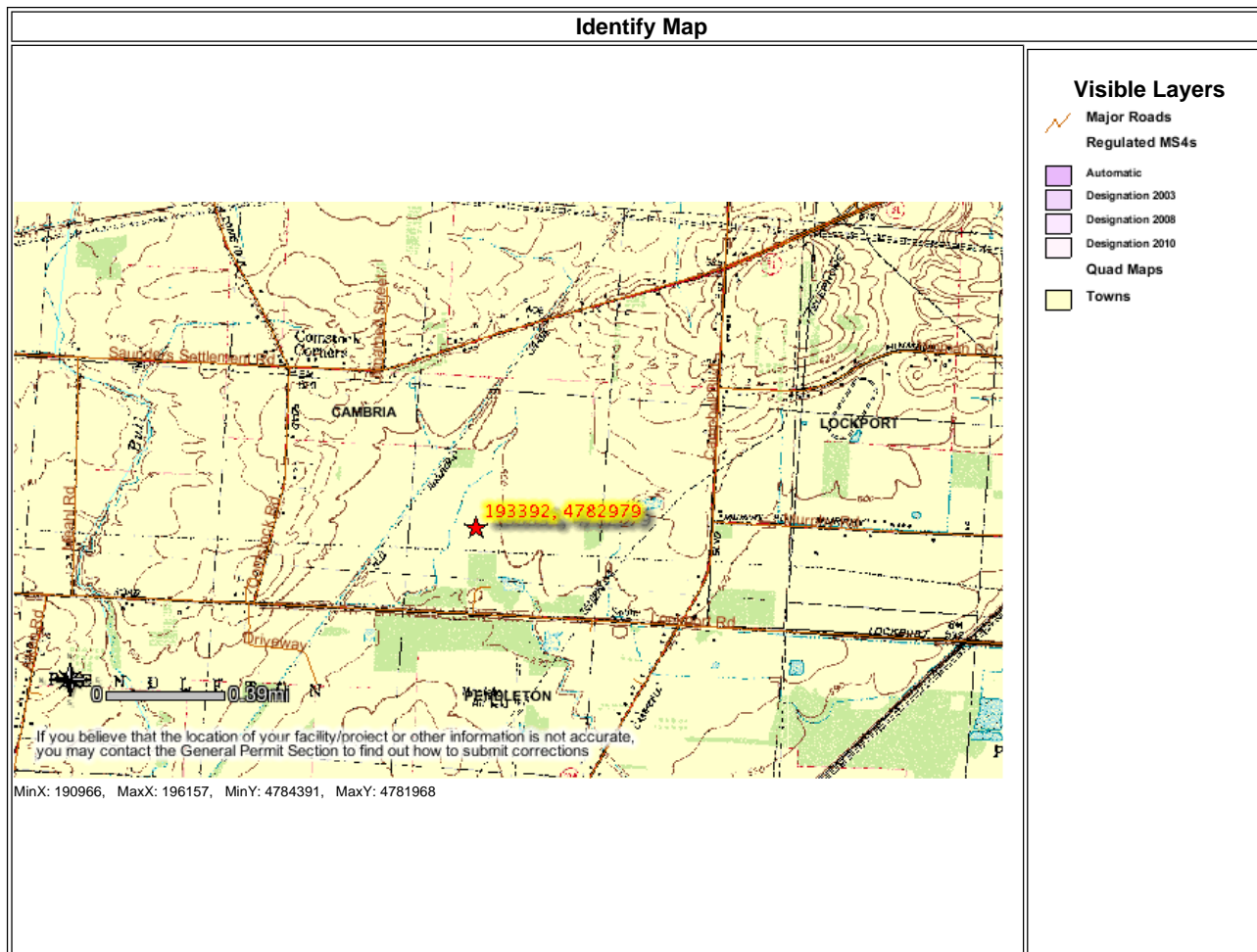
EFFECTIVE DATE
SEPTEMBER 17, 2010

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

[print page] [close window]

Please set your printer orientation to "Landscape".



[\[print page\]](#)[\[close window\]](#)**The Coordinates of the point you clicked on are:**

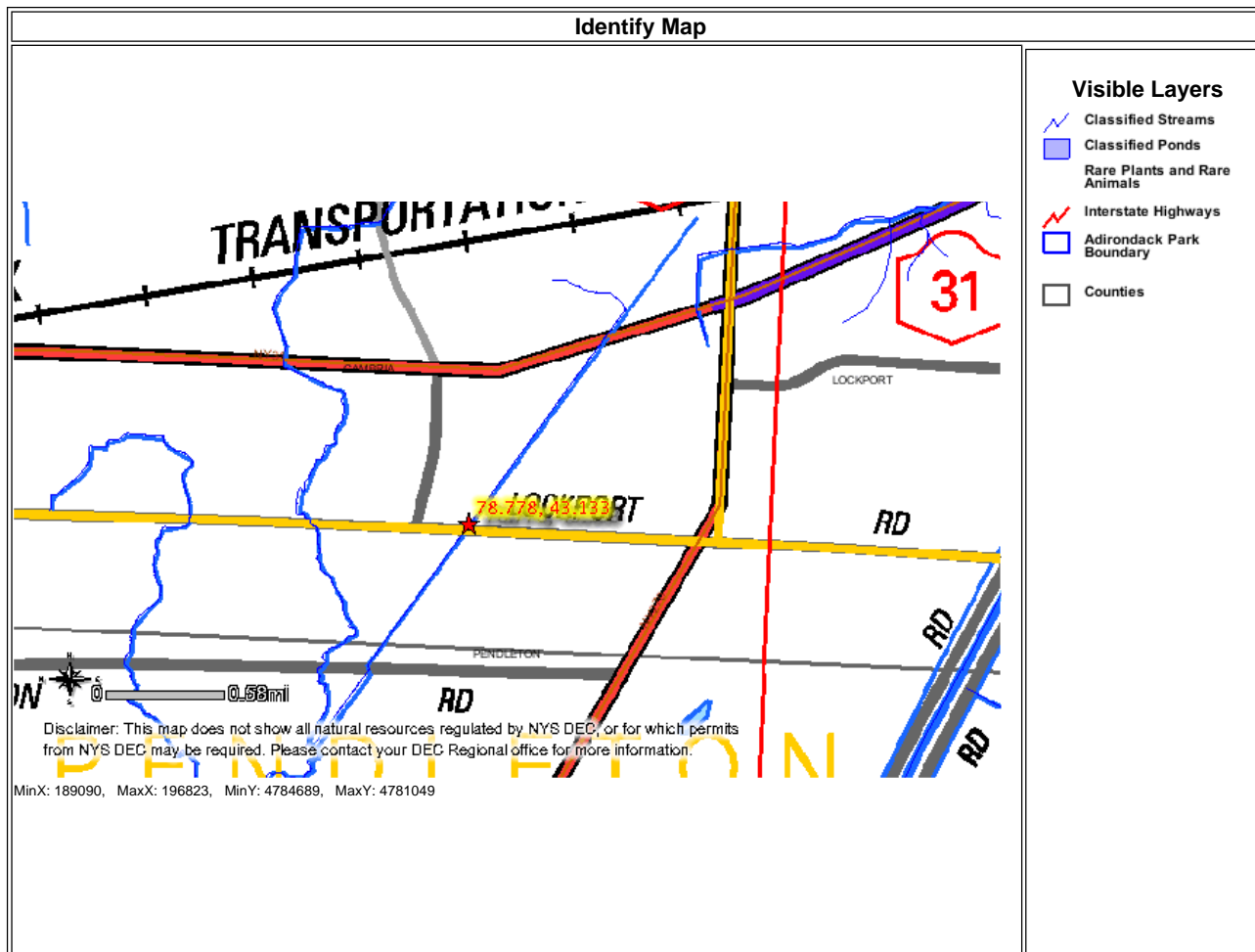
UTM 18	E : 193392	Longitude/Latitude	W : 78.769
	N : 4782979		N : 43.137

Towns

SWIS	Municipality	County	DEC Region	Area (Mile ²)
292000	CAMBRIA	NIAGARA	9	39.82

[print page] [close window]

Please set your printer orientation to "Landscape".



Disclaimer: This map was prepared by the New York State Department of Environmental Conservation using the most current data available. It is deemed accurate but is not guaranteed. NYS DEC is not responsible for any inaccuracies in the data and does not necessarily endorse any interpretations or products derived from the data.

[\[print page\]](#)[\[close window\]](#)**The Coordinates of the point you clicked on are:**

NYTM	E : 192653	Longitude/Latitude	W : 78.778
	N : 4782592		N : 43.133

Classified Streams

Regulation	Standard	Classification
837-43	C	C
837-43	C	C

USGS Quadrangle

USGS Quadrangle Name
CAMBRIA

If your project or action is within or near an area with a rare animal, a permit may be required if the species is listed as endangered or threatened and the department determines the action may be harmful to the species or its habitat.

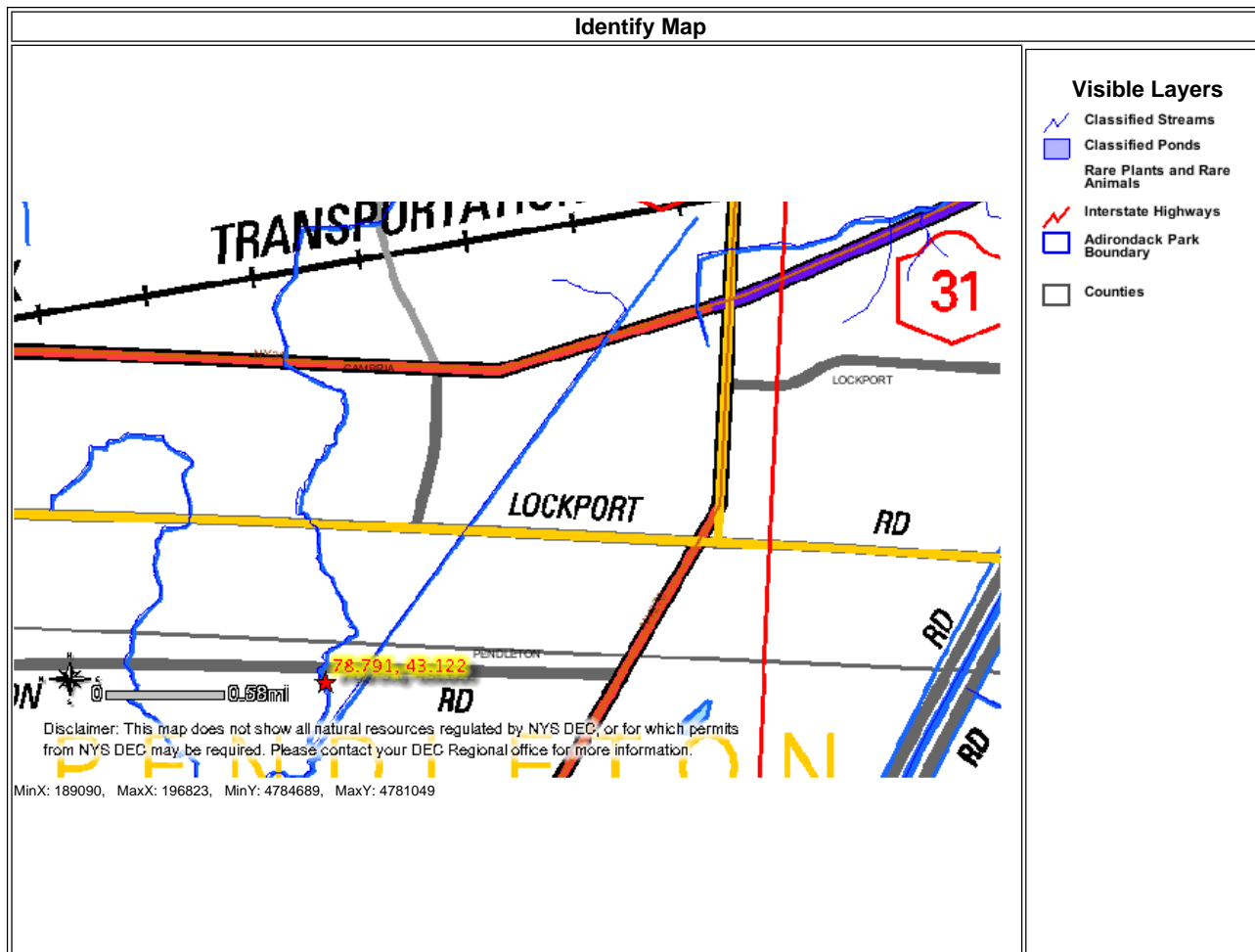
If your project or action is within or near an area with rare plants and/or significant natural communities, the environmental impacts may need to be addressed.

Please refer to the "Need a Permit?" tab for permit information or other authorizations regarding these natural resources.

Disclaimer: If you are considering a project or action in, or near, a wetland or a stream, a NYS DEC permit may be required. The Environmental Resources Mapper does not show all natural resources which are regulated by NYS DEC, and for which permits from NYS DEC are required. For example, Regulated Tidal Wetlands, and Wild, Scenic, and Recreational Rivers, are currently not included on the maps.

[print page] [close window]

Please set your printer orientation to "Landscape".



Disclaimer: This map was prepared by the New York State Department of Environmental Conservation using the most current data available. It is deemed accurate but is not guaranteed. NYS DEC is not responsible for any inaccuracies in the data and does not necessarily endorse any interpretations or products derived from the data.

[print page]

[close window]

The Coordinates of the point you clicked on are:

NYTM	E : 191531	Longitude/Latitude	W : 78.791
	N : 4781355		N : 43.122

Classified Streams

Regulation	Standard	Classification
837-41	C	C

USGS Quadrangle

USGS Quadrangle Name
TONAWANDA EAST

If your project or action is within or near an area with a rare animal, a permit may be required if the species is listed as endangered or threatened and the department determines the action may be harmful to the species or its habitat.

If your project or action is within or near an area with rare plants and/or significant natural communities, the environmental impacts may need to be addressed.

Please refer to the "Need a Permit?" tab for permit information or other authorizations regarding these natural resources.

Disclaimer: If you are considering a project or action in, or near, a wetland or a stream, a NYS DEC permit may be required. The Environmental Resources Mapper does not show all natural resources which are regulated by NYS DEC, and for which permits from NYS DEC are required. For example, Regulated Tidal Wetlands, and Wild, Scenic, and Recreational Rivers, are currently not included on the maps.

Storm Water Pollution Prevention Plan

APPENDIX B

NRCS SOILS REPORT



United States
Department of
Agriculture



NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for Niagara County Area, New York

NC Shovel Ready West



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://soils.usda.gov/sqi/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<http://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://soils.usda.gov/contact/state_offices/).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Soil Data Mart Web site or the NRCS Web Soil Survey. The Soil Data Mart is the data storage site for the official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means

for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

Contents

Preface	2
How Soil Surveys Are Made	5
Soil Map	7
Soil Map (West Site).....	8
Legend.....	9
Map Unit Legend (West Site).....	10
Map Unit Descriptions (West Site).....	10
Niagara County Area, New York.....	12
Lc—Lakemont silty clay loam.....	12
Ma—Madalin silt loam.....	12
OdA—Odessa silty clay loam, 0 to 2 percent slopes.....	13
OwA—Ovid silt loam, limestone substratum, 0 to 3 percent slopes.....	14
RbA—Rhinebeck silt loam, 0 to 2 percent slopes.....	15
Soil Information for All Uses	16
Soil Properties and Qualities.....	16
Soil Qualities and Features.....	16
Hydrologic Soil Group (West Site).....	16
Soil Reports.....	22
Soil Erosion.....	22
RUSLE2 Related Attributes (West Site).....	22
References	24

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the

Custom Soil Resource Report

individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

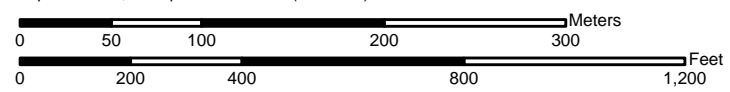
Custom Soil Resource Report Soil Map (West Site)



78° 46' 50"



Map Scale: 1:4,310 if printed on A size (8.5" x 11") sheet.




78° 46' 10"

Custom Soil Resource Report

MAP LEGEND






















Area of Interest (AOI)


 Area of Interest (AOI)


Soils


 Soil Map Units

Special Point Features




-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot
-  Spoil Area
-  Stony Spot

 Very Stony Spot

 Wet Spot

 Other

Special Line Features

-  Gully
-  Short Steep Slope
-  Other






Political Features

 Cities

Water Features

 Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

MAP INFORMATION

Map Scale: 1:4,310 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:15,840.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
 Coordinate System: UTM Zone 17N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Niagara County Area, New York
 Survey Area Data: Version 9, Jul 9, 2010

Date(s) aerial images were photographed: 8/5/2006

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend (West Site)

Niagara County Area, New York (NY664)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Lc	Lakemont silty clay loam	23.7	37.8%
Ma	Madalin silt loam	2.1	3.3%
OdA	Odessa silty clay loam, 0 to 2 percent slopes	1.1	1.7%
OwA	Ovid silt loam, limestone substratum, 0 to 3 percent slopes	0.1	0.2%
RbA	Rhinebeck silt loam, 0 to 2 percent slopes	35.7	56.9%
Totals for Area of Interest		62.7	100.0%

Map Unit Descriptions (West Site)

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that

Custom Soil Resource Report

have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Niagara County Area, New York

Lc—Lakemont silty clay loam

Map Unit Setting

Mean annual precipitation: 31 to 37 inches

Mean annual air temperature: 46 to 50 degrees F

Frost-free period: 145 to 190 days

Map Unit Composition

Lakemont and similar soils: 70 percent

Description of Lakemont

Setting

Landform: Depressions

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Tread

Down-slope shape: Concave

Across-slope shape: Concave

Parent material: Reddish clayey and silty glaciolacustrine deposits

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.02 to 0.20 in/hr)

Depth to water table: About 0 inches

Frequency of flooding: None

Frequency of ponding: Occasional

Calcium carbonate, maximum content: 15 percent

Available water capacity: Moderate (about 8.6 inches)

Interpretive groups

Land capability (nonirrigated): 4w

Typical profile

0 to 8 inches: Silty clay loam

8 to 26 inches: Silty clay

26 to 60 inches: Silty clay loam

Ma—Madalin silt loam

Map Unit Setting

Mean annual precipitation: 31 to 37 inches

Mean annual air temperature: 46 to 50 degrees F

Frost-free period: 145 to 190 days

Map Unit Composition

Madalin and similar soils: 70 percent

Description of Madalin

Setting

Landform: Depressions
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Clayey and silty glaciolacustrine deposits

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Calcium carbonate, maximum content: 15 percent
Available water capacity: Moderate (about 8.1 inches)

Interpretive groups

Land capability (nonirrigated): 4w

Typical profile

0 to 6 inches: Silt loam
6 to 26 inches: Silty clay
26 to 60 inches: Silty clay

OdA—Odessa silty clay loam, 0 to 2 percent slopes

Map Unit Setting

Mean annual precipitation: 31 to 37 inches
Mean annual air temperature: 46 to 50 degrees F
Frost-free period: 145 to 190 days

Map Unit Composition

Odessa and similar soils: 75 percent

Description of Odessa

Setting

Landform: Lake plains
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Reddish clayey and silty glaciolacustrine deposits

Properties and qualities

Slope: 0 to 2 percent

Custom Soil Resource Report

Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 6 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Available water capacity: Moderate (about 8.8 inches)

Interpretive groups

Land capability (nonirrigated): 3w

Typical profile

0 to 8 inches: Silty clay loam
8 to 33 inches: Silty clay
33 to 60 inches: Silty clay

OwA—Ovid silt loam, limestone substratum, 0 to 3 percent slopes

Map Unit Setting

Elevation: 250 to 1,000 feet
Mean annual precipitation: 31 to 37 inches
Mean annual air temperature: 46 to 50 degrees F
Frost-free period: 145 to 190 days

Map Unit Composition

Ovid, limestone substratum, and similar soils: 80 percent

Description of Ovid, Limestone Substratum

Setting

Landform: Reworked lake plains, till plains
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Loamy till with a significant component of reddish shale or reddish glaciolacustrine clays, mixed with limestone and some sandstone

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 40 to 60 inches to lithic bedrock
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)
Depth to water table: About 6 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Available water capacity: Moderate (about 6.9 inches)

Interpretive groups

Land capability (nonirrigated): 3w

Typical profile

0 to 11 inches: Silt loam

11 to 24 inches: Silty clay loam

24 to 48 inches: Loam

RbA—Rhinebeck silt loam, 0 to 2 percent slopes

Map Unit Setting

Elevation: 80 to 1,000 feet

Mean annual precipitation: 31 to 37 inches

Mean annual air temperature: 46 to 50 degrees F

Frost-free period: 145 to 190 days

Map Unit Composition

Rhinebeck and similar soils: 70 percent

Description of Rhinebeck

Setting

Landform: Lake plains

Landform position (two-dimensional): Footslope

Landform position (three-dimensional): Tread

Down-slope shape: Concave

Across-slope shape: Linear

Parent material: Clayey and silty glaciolacustrine deposits

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Somewhat poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 6 to 18 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 15 percent

Available water capacity: Low (about 3.6 inches)

Interpretive groups

Land capability (nonirrigated): 3w

Typical profile

0 to 10 inches: Silt loam

10 to 23 inches: Silty clay loam

Soil Information for All Uses

Soil Properties and Qualities

The Soil Properties and Qualities section includes various soil properties and qualities displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each property or quality.

Soil Qualities and Features

Soil qualities are behavior and performance attributes that are not directly measured, but are inferred from observations of dynamic conditions and from soil properties. Example soil qualities include natural drainage, and frost action. Soil features are attributes that are not directly part of the soil. Example soil features include slope and depth to restrictive layer. These features can greatly impact the use and management of the soil.

Hydrologic Soil Group (West Site)

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Custom Soil Resource Report

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.


Custom Soil Resource Report Map—Hydrologic Soil Group (West Site)



Custom Soil Resource Report

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Units

Soil Ratings


 A

 A/D


 B

 B/D

 C

 C/D


 D

 Not rated or not available

Political Features

 Cities

Water Features

 Streams and Canals


Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

MAP INFORMATION

Map Scale: 1:4,310 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:15,840.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
Coordinate System: UTM Zone 17N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Niagara County Area, New York
Survey Area Data: Version 9, Jul 9, 2010

Date(s) aerial images were photographed: 8/5/2006

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Hydrologic Soil Group (West Site)

Hydrologic Soil Group— Summary by Map Unit — Niagara County Area, New York (NY664)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Lc	Lakemont silty clay loam	D	23.7	37.8%
Ma	Madalin silt loam	D	2.1	3.3%
OdA	Odessa silty clay loam, 0 to 2 percent slopes	D	1.1	1.7%
OwA	Ovid silt loam, limestone substratum, 0 to 3 percent slopes	C	0.1	0.2%
RbA	Rhinebeck silt loam, 0 to 2 percent slopes	D	35.7	56.9%
Totals for Area of Interest			62.7	100.0%

Rating Options—Hydrologic Soil Group (West Site)

Aggregation Method: Dominant Condition

Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

The aggregation method "Dominant Condition" first groups like attribute values for the components in a map unit. For each group, percent composition is set to the sum of the percent composition of all components participating in that group. These groups now represent "conditions" rather than components. The attribute value associated with the group with the highest cumulative percent composition is returned. If more than one group shares the highest cumulative percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher group value should be returned in the case of a percent composition tie.

The result returned by this aggregation method represents the dominant condition throughout the map unit only when no tie has occurred.

Component Percent Cutoff: None Specified

Custom Soil Resource Report

Components whose percent composition is below the cutoff value will not be considered. If no cutoff value is specified, all components in the database will be considered. The data for some contrasting soils of minor extent may not be in the database, and therefore are not considered.

Tie-break Rule: Higher

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.

Soil Reports

The Soil Reports section includes various formatted tabular and narrative reports (tables) containing data for each selected soil map unit and each component of each unit. No aggregation of data has occurred as is done in reports in the Soil Properties and Qualities and Suitabilities and Limitations sections.

The reports contain soil interpretive information as well as basic soil properties and qualities. A description of each report (table) is included.

Soil Erosion

This folder contains a collection of tabular reports that present soil erosion factors and groupings. The reports (tables) include all selected map units and components for each map unit. Soil erosion factors are soil properties and interpretations used in evaluating the soil for potential erosion. Example soil erosion factors can include K factor for the whole soil or on a rock free basis, T factor, wind erodibility group and wind erodibility index.

RUSLE2 Related Attributes (West Site)

This report summarizes those soil attributes used by the Revised Universal Soil Loss Equation Version 2 (RUSLE2) for the map units in the selected area. The report includes the map unit symbol, the component name, and the percent of the component in the map unit. Soil property data for each map unit component include the hydrologic soil group, erosion factors Kf for the surface horizon, erosion factor T, and the representative percentage of sand, silt, and clay in the surface horizon.

Report—RUSLE2 Related Attributes (West Site)

RUSLE2 Related Attributes— Niagara County Area, New York								
Map symbol and soil name	Pct. of map unit	Slope length (ft)	Hydrologic group	Kf	T factor	Representative value		
						% Sand	% Silt	% Clay
Lc—Lakemont silty clay loam								
Lakemont	70	—	D	.49	5	18.6	44.4	37.0
Ma—Madalin silt loam								
Madalin	70	—	D	.37	3	21.3	54.7	24.0
OdA—Odessa silty clay loam, 0 to 2 percent slopes								
Odessa	75	—	D	.49	3	18.6	44.4	37.0

Custom Soil Resource Report

RUSLE2 Related Attributes– Niagara County Area, New York								
Map symbol and soil name	Pct. of map unit	Slope length (ft)	Hydrologic group	Kf	T factor	Representative value		
						% Sand	% Silt	% Clay
OwA—Ovid silt loam, limestone substratum, 0 to 3 percent slopes								
Ovid, limestone substratum	80	—	C	.32	3	26.0	52.0	22.0
RbA—Rhinebeck silt loam, 0 to 2 percent slopes								
Rhinebeck	70	—	D	.49	3	21.3	54.7	24.0

References

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

National Research Council. 1995. Wetlands: Characteristics and boundaries.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. <http://soils.usda.gov/>

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. <http://soils.usda.gov/>

Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. <http://soils.usda.gov/>

Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.

United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.

United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. <http://soils.usda.gov/>

United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. <http://www.glti.nrcs.usda.gov/>

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. <http://soils.usda.gov/>

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. <http://soils.usda.gov/>

Custom Soil Resource Report

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210.



A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for Niagara County Area, New York

NC Shovel Ready East Side



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://soils.usda.gov/sqi/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<http://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://soils.usda.gov/contact/state_offices/).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Soil Data Mart Web site or the NRCS Web Soil Survey. The Soil Data Mart is the data storage site for the official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means

for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

Contents

Preface	2
How Soil Surveys Are Made	5
Soil Map	7
Soil Map (East Side).....	8
Legend.....	9
Map Unit Legend (East Side).....	10
Map Unit Descriptions (East Side).....	10
Niagara County Area, New York.....	12
CcB—Cayuga and Cazenovia silt loams, 2 to 6 percent slopes.....	12
Lc—Lakemont silty clay loam.....	13
Ma—Madalin silt loam.....	14
OdA—Odessa silty clay loam, 0 to 2 percent slopes.....	15
OvA—Ovid silt loam, 0 to 2 percent slopes.....	15
OwA—Ovid silt loam, limestone substratum, 0 to 3 percent slopes.....	16
RbA—Rhinebeck silt loam, 0 to 2 percent slopes.....	17
Soil Information for All Uses	19
Soil Properties and Qualities.....	19
Soil Qualities and Features.....	19
Hydrologic Soil Group (East Side).....	19
Soil Reports.....	25
Soil Erosion.....	25
RUSLE2 Related Attributes (East Side).....	25
References	27

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the

Custom Soil Resource Report

individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.


Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report

MAP LEGEND

Area of Interest (AOI)


 Area of Interest (AOI)

Soils


 Soil Map Units

Special Point Features




-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot
-  Spoil Area
-  Stony Spot

 Very Stony Spot


 Wet Spot

 Other

Special Line Features

-  Gully
-  Short Steep Slope
-  Other






Political Features

 Cities

Water Features

 Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

MAP INFORMATION

Map Scale: 1:7,100 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:15,840.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
 Coordinate System: UTM Zone 17N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Niagara County Area, New York
 Survey Area Data: Version 9, Jul 9, 2010

Date(s) aerial images were photographed: 8/5/2006

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend (East Side)

Niagara County Area, New York (NY664)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
CcB	Cayuga and Cazenovia silt loams, 2 to 6 percent slopes	0.5	0.5%
Lc	Lakemont silty clay loam	13.3	13.1%
Ma	Madalin silt loam	7.2	7.1%
OdA	Odessa silty clay loam, 0 to 2 percent slopes	28.4	28.0%
OvA	Ovid silt loam, 0 to 2 percent slopes	14.1	13.9%
OwA	Ovid silt loam, limestone substratum, 0 to 3 percent slopes	5.5	5.4%
RbA	Rhinebeck silt loam, 0 to 2 percent slopes	32.4	31.9%
Totals for Area of Interest		101.4	100.0%

Map Unit Descriptions (East Side)

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

Custom Soil Resource Report

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Niagara County Area, New York

CcB—Cayuga and Cazenovia silt loams, 2 to 6 percent slopes

Map Unit Setting

Mean annual precipitation: 31 to 37 inches

Mean annual air temperature: 46 to 50 degrees F

Frost-free period: 145 to 190 days

Map Unit Composition

Cayuga and similar soils: 40 percent

Cazenovia and similar soils: 35 percent

Description of Cayuga

Setting

Landform: Lake plains, till plains

Landform position (two-dimensional): Summit

Landform position (three-dimensional): Crest, tread

Down-slope shape: Concave

Across-slope shape: Convex

Parent material: Clayey glaciolacustrine deposits over loamy till derived from limestone, dolomite, sandstone, or shale

Properties and qualities

Slope: 2 to 6 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 18 to 36 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 15 percent

Available water capacity: Moderate (about 8.3 inches)

Interpretive groups

Land capability (nonirrigated): 2e

Typical profile

0 to 8 inches: Silt loam

8 to 25 inches: Silty clay

25 to 60 inches: Gravelly loam

Description of Cazenovia

Setting

Landform: Reworked lake plains, till plains

Landform position (two-dimensional): Summit

Landform position (three-dimensional): Crest

Down-slope shape: Concave

Across-slope shape: Convex

Parent material: Loamy till that contains limestone with an admixture of reddish lake-laid clays or reddish clay shale

Custom Soil Resource Report

Properties and qualities

Slope: 2 to 6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 24 to 48 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Available water capacity: Moderate (about 8.5 inches)

Interpretive groups

Land capability (nonirrigated): 2e

Typical profile

0 to 11 inches: Silt loam
11 to 28 inches: Silty clay loam
28 to 60 inches: Silt loam

Lc—Lakemont silty clay loam

Map Unit Setting

Mean annual precipitation: 31 to 37 inches
Mean annual air temperature: 46 to 50 degrees F
Frost-free period: 145 to 190 days

Map Unit Composition

Lakemont and similar soils: 70 percent

Description of Lakemont

Setting

Landform: Depressions
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Reddish clayey and silty glaciolacustrine deposits

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.02 to 0.20 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: None
Frequency of ponding: Occasional
Calcium carbonate, maximum content: 15 percent

Custom Soil Resource Report

Available water capacity: Moderate (about 8.6 inches)

Interpretive groups

Land capability (nonirrigated): 4w

Typical profile

0 to 8 inches: Silty clay loam

8 to 26 inches: Silty clay

26 to 60 inches: Silty clay loam

Ma—Madalin silt loam

Map Unit Setting

Mean annual precipitation: 31 to 37 inches

Mean annual air temperature: 46 to 50 degrees F

Frost-free period: 145 to 190 days

Map Unit Composition

Madalin and similar soils: 70 percent

Description of Madalin

Setting

Landform: Depressions

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Tread

Down-slope shape: Concave

Across-slope shape: Concave

Parent material: Clayey and silty glaciolacustrine deposits

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Very poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 0 inches

Frequency of flooding: None

Frequency of ponding: Frequent

Calcium carbonate, maximum content: 15 percent

Available water capacity: Moderate (about 8.1 inches)

Interpretive groups

Land capability (nonirrigated): 4w

Typical profile

0 to 6 inches: Silt loam

6 to 26 inches: Silty clay

26 to 60 inches: Silty clay

OdA—Odessa silty clay loam, 0 to 2 percent slopes

Map Unit Setting

Mean annual precipitation: 31 to 37 inches

Mean annual air temperature: 46 to 50 degrees F

Frost-free period: 145 to 190 days

Map Unit Composition

Odessa and similar soils: 75 percent

Description of Odessa

Setting

Landform: Lake plains

Landform position (two-dimensional): Footslope

Landform position (three-dimensional): Tread

Down-slope shape: Concave

Across-slope shape: Linear

Parent material: Reddish clayey and silty glaciolacustrine deposits

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Somewhat poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 6 to 18 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 15 percent

Available water capacity: Moderate (about 8.8 inches)

Interpretive groups

Land capability (nonirrigated): 3w

Typical profile

0 to 8 inches: Silty clay loam

8 to 33 inches: Silty clay

33 to 60 inches: Silty clay

OvA—Ovid silt loam, 0 to 2 percent slopes

Map Unit Setting

Elevation: 250 to 1,000 feet

Mean annual precipitation: 31 to 37 inches

Mean annual air temperature: 46 to 50 degrees F

Frost-free period: 145 to 190 days

Map Unit Composition

Ovid and similar soils: 75 percent

Description of Ovid

Setting

Landform: Reworked lake plains, till plains

Landform position (two-dimensional): Footslope

Landform position (three-dimensional): Base slope

Down-slope shape: Concave

Across-slope shape: Linear

Parent material: Loamy till with a significant component of reddish shale or reddish glaciolacustrine clays, mixed with limestone and some sandstone

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Somewhat poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 6 to 18 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 15 percent

Available water capacity: Moderate (about 8.6 inches)

Interpretive groups

Land capability (nonirrigated): 3w

Typical profile

0 to 11 inches: Silt loam

11 to 24 inches: Silty clay loam

24 to 60 inches: Loam

OwA—Ovid silt loam, limestone substratum, 0 to 3 percent slopes

Map Unit Setting

Elevation: 250 to 1,000 feet

Mean annual precipitation: 31 to 37 inches

Mean annual air temperature: 46 to 50 degrees F

Frost-free period: 145 to 190 days

Map Unit Composition

Ovid, limestone substratum, and similar soils: 80 percent

Description of Ovid, Limestone Substratum

Setting

Landform: Reworked lake plains, till plains

Landform position (two-dimensional): Footslope

Landform position (three-dimensional): Base slope

Down-slope shape: Concave

Custom Soil Resource Report

Across-slope shape: Linear

Parent material: Loamy till with a significant component of reddish shale or reddish glaciolacustrine clays, mixed with limestone and some sandstone

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: 40 to 60 inches to lithic bedrock

Drainage class: Somewhat poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)

Depth to water table: About 6 to 18 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 15 percent

Available water capacity: Moderate (about 6.9 inches)

Interpretive groups

Land capability (nonirrigated): 3w

Typical profile

0 to 11 inches: Silt loam

11 to 24 inches: Silty clay loam

24 to 48 inches: Loam

RbA—Rhinebeck silt loam, 0 to 2 percent slopes

Map Unit Setting

Elevation: 80 to 1,000 feet

Mean annual precipitation: 31 to 37 inches

Mean annual air temperature: 46 to 50 degrees F

Frost-free period: 145 to 190 days

Map Unit Composition

Rhinebeck and similar soils: 70 percent

Description of Rhinebeck

Setting

Landform: Lake plains

Landform position (two-dimensional): Footslope

Landform position (three-dimensional): Tread

Down-slope shape: Concave

Across-slope shape: Linear

Parent material: Clayey and silty glaciolacustrine deposits

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Somewhat poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 6 to 18 inches

Frequency of flooding: None

Custom Soil Resource Report

Frequency of ponding: None

Calcium carbonate, maximum content: 15 percent

Available water capacity: Low (about 3.6 inches)

Interpretive groups

Land capability (nonirrigated): 3w

Typical profile

0 to 10 inches: Silt loam

10 to 23 inches: Silty clay loam

Soil Information for All Uses

Soil Properties and Qualities

The Soil Properties and Qualities section includes various soil properties and qualities displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each property or quality.

Soil Qualities and Features

Soil qualities are behavior and performance attributes that are not directly measured, but are inferred from observations of dynamic conditions and from soil properties. Example soil qualities include natural drainage, and frost action. Soil features are attributes that are not directly part of the soil. Example soil features include slope and depth to restrictive layer. These features can greatly impact the use and management of the soil.

Hydrologic Soil Group (East Side)

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Custom Soil Resource Report

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.


Custom Soil Resource Report Map—Hydrologic Soil Group (East Side)



Custom Soil Resource Report

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Units

Soil Ratings

 A

 A/D

 B

 B/D

 C

 C/D


 D

 Not rated or not available


Political Features

 Cities

Water Features

 Streams and Canals


Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

MAP INFORMATION

Map Scale: 1:7,100 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:15,840.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
Coordinate System: UTM Zone 17N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Niagara County Area, New York
Survey Area Data: Version 9, Jul 9, 2010

Date(s) aerial images were photographed: 8/5/2006

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Hydrologic Soil Group (East Side)

Hydrologic Soil Group— Summary by Map Unit — Niagara County Area, New York (NY664)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
CcB	Cayuga and Cazenovia silt loams, 2 to 6 percent slopes	C	0.5	0.5%
Lc	Lakemont silty clay loam	D	13.3	13.1%
Ma	Madalin silt loam	D	7.2	7.1%
OdA	Odessa silty clay loam, 0 to 2 percent slopes	D	28.4	28.0%
OvA	Ovid silt loam, 0 to 2 percent slopes	C	14.1	13.9%
OwA	Ovid silt loam, limestone substratum, 0 to 3 percent slopes	C	5.5	5.4%
RbA	Rhinebeck silt loam, 0 to 2 percent slopes	D	32.4	31.9%
Totals for Area of Interest			101.4	100.0%

Rating Options—Hydrologic Soil Group (East Side)

Aggregation Method: Dominant Condition

Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

The aggregation method "Dominant Condition" first groups like attribute values for the components in a map unit. For each group, percent composition is set to the sum of the percent composition of all components participating in that group. These groups now represent "conditions" rather than components. The attribute value associated with the group with the highest cumulative percent composition is returned. If more than one group shares the highest cumulative percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher group value should be returned in the case of a percent composition tie.

Custom Soil Resource Report

The result returned by this aggregation method represents the dominant condition throughout the map unit only when no tie has occurred.

Component Percent Cutoff: None Specified

Components whose percent composition is below the cutoff value will not be considered. If no cutoff value is specified, all components in the database will be considered. The data for some contrasting soils of minor extent may not be in the database, and therefore are not considered.

Tie-break Rule: Higher

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.

Soil Reports

The Soil Reports section includes various formatted tabular and narrative reports (tables) containing data for each selected soil map unit and each component of each unit. No aggregation of data has occurred as is done in reports in the Soil Properties and Qualities and Suitabilities and Limitations sections.

The reports contain soil interpretive information as well as basic soil properties and qualities. A description of each report (table) is included.

Soil Erosion

This folder contains a collection of tabular reports that present soil erosion factors and groupings. The reports (tables) include all selected map units and components for each map unit. Soil erosion factors are soil properties and interpretations used in evaluating the soil for potential erosion. Example soil erosion factors can include K factor for the whole soil or on a rock free basis, T factor, wind erodibility group and wind erodibility index.

RUSLE2 Related Attributes (East Side)

This report summarizes those soil attributes used by the Revised Universal Soil Loss Equation Version 2 (RUSLE2) for the map units in the selected area. The report includes the map unit symbol, the component name, and the percent of the component in the map unit. Soil property data for each map unit component include the hydrologic soil group, erosion factors Kf for the surface horizon, erosion factor T, and the representative percentage of sand, silt, and clay in the surface horizon.

Report—RUSLE2 Related Attributes (East Side)

RUSLE2 Related Attributes— Niagara County Area, New York								
Map symbol and soil name	Pct. of map unit	Slope length (ft)	Hydrologic group	Kf	T factor	Representative value		
						% Sand	% Silt	% Clay
CcB—Cayuga and Cazenovia silt loams, 2 to 6 percent slopes								
Cayuga	40	—	C	.49	3	21.3	54.7	24.0
Cazenovia	35	—	B	.32	3	26.0	52.0	22.0
Lc—Lakemont silty clay loam								
Lakemont	70	—	D	.49	5	18.6	44.4	37.0
Ma—Madalin silt loam								
Madalin	70	—	D	.37	3	21.3	54.7	24.0

Custom Soil Resource Report

RUSLE2 Related Attributes– Niagara County Area, New York								
Map symbol and soil name	Pct. of map unit	Slope length (ft)	Hydrologic group	Kf	T factor	Representative value		
						% Sand	% Silt	% Clay
OdA—Odessa silty clay loam, 0 to 2 percent slopes								
Odessa	75	—	D	.49	3	18.6	44.4	37.0
OvA—Ovid silt loam, 0 to 2 percent slopes								
Ovid	75	—	C	.32	3	26.0	52.0	22.0
OwA—Ovid silt loam, limestone substratum, 0 to 3 percent slopes								
Ovid, limestone substratum	80	—	C	.32	3	26.0	52.0	22.0
RbA—Rhinebeck silt loam, 0 to 2 percent slopes								
Rhinebeck	70	—	D	.49	3	21.3	54.7	24.0

References

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

National Research Council. 1995. Wetlands: Characteristics and boundaries.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. <http://soils.usda.gov/>

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. <http://soils.usda.gov/>

Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. <http://soils.usda.gov/>

Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.

United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.

United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. <http://soils.usda.gov/>

United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. <http://www.glti.nrcs.usda.gov/>

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. <http://soils.usda.gov/>

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. <http://soils.usda.gov/>

Custom Soil Resource Report

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210.

Storm Water Pollution Prevention Plan

APPENDIX C

STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL

VEGETATIVE MEASURES FOR EROSION AND SEDIMENT CONTROL

Erosion is the gradual wearing away of the land surface as a result of uncontrolled wind and water energy.

Sedimentation is the result of transport and delivery of eroded soil particles, deposited at some point. Erosion and sediment control is a complex interaction of soils, engineering water management, agronomic and horticultural practices. Decisions for resolving erosion conditions, both on site and within the upper watershed, are formulated based on surface and subsurface water, soil material, climatic conditions, and anticipated land use. Creating a stable slope is necessary prior to vegetating. Sloughing and slumping are not helpful in establishing a uniform protective cover.

General planning considerations for vegetating a steep slope will include evaluating the soil. Factors such as soil texture and steepness affect the stability of the slope. Texture also influences the permeability and water holding capacity of the soil. Many slopes are stripped of topsoil during the construction phase, leaving an infertile, compacted soil surface, void of valuable organic matter. Topsoil must be reapplied. Overly compacted slopes should be decompact with appropriate equipment. Soil pH and nutrient level are determined by obtaining a representative soil sample for analysis from an accredited lab. Appropriate plants are selected to meet the final slope and soil conditions for the site.

Liming material sold in New York varies considerably in several ways. The mineral content (calcium and magnesium) of the limestone may be high or low, the fineness or particle sizes vary between suppliers, and the cost varies greatly. Two types of limestone are sold. The most common is limestone high in calcium. Dolomitic limestone contains magnesium (Mg) and calcium (Ca). Limestone sold in NY varies from 0 to 20% Mg while the calcium content of lime varies from 14.7% to 51.5%. Particle size determines how rapidly the calcium and magnesium will react with the acid in the soil. The finer the particle sizes, the quicker the reaction.

When purchasing agricultural limestone, one should state on the order that the amount should be adjusted to 100% effective neutralizing value (ENV). This is the way to compare materials as it adjusts for the reactive Ca and Mg and the particle size. The ENV is stated as the ratio needed to convert a limestone recommendation to 100% ENV. Thus, if the recommendation is 4 tons/acre of 100% ENV lime and the lime being used had an 80% ENV (1/ENV = 1.25), 4 times 1.25 or 5 tons/acre would be required.

The amount of limestone needed can be estimated by using the table below. A soil test is the only way to determine the

soil pH. This table is very general, but it is useful for planning.

General lime guidelines (at 100% ENV)

<i>Initial Soil pH</i>	<i>Sands</i>	<i>Sandy Loams</i>	<i>Loams and Silt Loams</i>	<i>Silty Clay Loams</i>
T/A of lime¹				
4.5	2.5	6.0	9.5	13.0
4.6-4.7	2.5	6.0	9.0	12.5
4.8-4.9	2.5	5.5	8.5	12.0
5.0-5.1	2.0	5.0	7.5	10.5
5.2-5.3	1.5	4.0	6.5	8.5
5.4-5.5	1.0	3.0	4.0	6.0
5.6-5.7	1.0	2.0	3.0	4.5
5.8-5.9	0.7	1.5	2.5	3.5
6.0-6.1	0.6	1.5	2.0	3.0
6.2-6.3	0.4	1.0	1.5	2.0
6.~6.5	0.3	0.7	1.0	1.5
6.6-6.7	0.2	0.5	0.7	1.0

Lime guidelines are in tons per acre and are based on a plow depth of 8.0 inches. Correct rate if plowing to a different depth.

REFERENCE: Cornell Cooperative Extension. 2003 Cornell Guide for Integrated Field Crop Management, Pg. 32.

Fertilizer is sold with an analysis printed on the tag or bag. The first number is the percent of nitrogen (N), the second is phosphorus (P), and the third is potassium (K). Other elements are sometimes included and are listed with these basic three components. For example, a forty pound bag of 5-10-5 contains 2 lbs. N, 4 lbs. P (as P₂O₅), and 2 lbs. of K (as K₂O). Select an appropriate analysis to meet the nutrients required for the specific site. Always apply as closely as possible the required amount of fertilizer to meet the requirements of the site. Adding surplus nitrogen may cause pollution of drinking water and saltwater ecosystems. Excessive phosphorus may accelerate the aging process of freshwater ecosystems. Excessive amounts of N and K₂O may result in 'burning' the grass and killing it.

Water management on and above potentially eroding sites is extremely important. Large watersheds above a site may require extensive water control measures. Water flow paths must be controlled to allow the safe delivery of the water to an outlet to the side or bottom of the slope. Shallow ditches or diversions across the slope and above the area to be seeded is an effective method of avoiding wash-out of the seed and soil. Diversions may be constructed at a point where surface runoff water is intercepted and carried away from the slope and to a safe outlet. On large slopes,

benching may be necessary for bench drains or future maintenance (see standard for Land Grading). Subsurface drainage is frequently included to prevent long term saturated soil conditions and sloughing.

Conservation plantings need to effectively hold soil and control erosion, and they should enhance and blend with their surroundings. Mature plant size, form, and appearance must be considered along with their functionality to match the anticipated land use. Basic erosion control is accomplished by providing cover to the soil surface utilizing plants and/or mulch. It is the system of seedbed preparation, soil amendments, plant selection, proper timing of planting, and mulching that will optimize the chances of success. Characteristics of grasses such as low growth, horizontal above and below ground stems, leafy growth, and many fine roots for binding soil particles, make them the primary choice for vegetating slopes. Once the grass type is selected, then appropriate forbs, shrubs, or trees may be added to meet site conditions. The use of appropriate mulches will depend on site criteria and should be carefully evaluated. Although some materials are costly, they may prevent the need for more costly reshaping and reseeding.

Selection of proper vegetative materials for site stabilization is critical for environmental success. Species should be selected that are not considered “invasive.” A primary list of invasive plants can be found at the website of the Invasive Plant Council of New York State (<http://www.ipcnys.org>). Any species not on this list but considered suspect should be verified at the appropriate regional or local level for acceptance.

STANDARD AND SPECIFICATIONS FOR TEMPORARY CRITICAL AREA PLANTINGS



Definition

Providing erosion control protection to a critical area for an interim period. A critical area is any disturbed, denuded slope subject to erosion.

Purpose

To provide temporary erosion and sediment control. Temporary control is achieved by covering all bare ground areas that exist as a result of construction or a natural event.

Conditions Where Practice Applies

Temporary seedings may be necessary on construction sites to protect an area, or section, where final grading is complete, when preparing for winter work shutdown, or to provide cover when permanent seedings are likely to fail due to mid-summer heat and drought. The intent is to provide temporary protective cover during temporary shutdown of construction and/or while waiting for optimal planting time.

Criteria

Water management practices must be installed as appropriate for site conditions. The area must be rough graded and slopes physically stable. Large debris and rocks are usually removed. Seedbed must be seeded within 24 hours of disturbance or scarification of the soil surface will be necessary prior to seeding.

Fertilizer or lime are not typically used for temporary seedings.

IF: Spring or summer or early fall, then seed the area with ryegrass (annual or perennial) at 30 lbs. per acre (Approximately 0.7 lb./1000 sq. ft. or use 1 lb./1000 sq. ft.).
IF: Late fall or early winter, then seed Certified 'Aroostook' winter rye (cereal rye) at 100 lbs. per acre (2.5 lbs./1000 sq. ft.).

Any seeding method may be used that will provide uniform application of seed to the area and result in relatively good soil to seed contact.

Mulch the area with hay or straw at 2 tons/acre (approx. 90 lbs./1000 sq. ft. or 2 bales). Quality of hay or straw mulch allowable will be determined based on long term use and visual concerns. Mulch anchoring will be required where wind or areas of concentrated water are of concern. Wood fiber hydromulch or other sprayable products approved for erosion control (nylon web or mesh) may be used if applied according to manufacturers' specification. Caution is advised when using nylon or other synthetic products. They may be difficult to remove prior to final seeding.

STANDARD AND SPECIFICATIONS FOR PERMANENT CRITICAL AREA PLANTINGS



Definition

Establishing grasses with other forbs and/or shrubs to provide perennial vegetative cover on disturbed, denuded, slopes subject to erosion.

Purpose

To reduce erosion and sediment transport.

Conditions Where Practice Applies

This practice applies to all disturbed areas void of, or having insufficient, cover to prevent erosion and sediment transport. See additional standards for special situations such as sand dunes and sand and gravel pits.

Criteria

All water control measures will be installed as needed prior to final grading and seedbed preparation. Any severely compacted sections will require chiseling or disking to provide an adequate rooting zone, to a minimum depth of 12". The seedbed must be prepared to allow good soil to seed contact, with the soil not too soft and not too compact. Adequate soil moisture must be present to accomplish this. If surface is powder dry or sticky wet, postpone operations until moisture changes to a favorable condition. If seeding is accomplished within 24 hours of final grading, additional scarification is generally not needed, especially on ditch or stream banks. Remove all stones and other debris from the surface that are greater than 4 inches, or that will interfere with future mowing or maintenance.

Soil amendments should be incorporated into the upper 2 inches of soil when feasible. **The soil should be tested to determine the amounts of amendments needed.** Apply ground agricultural limestone to attain a pH of 6.0 in the upper 2 inches of soil. If soil must be fertilized before

results of a soil test can be obtained to determine fertilizer needs, apply commercial fertilizer at 600 lbs. per acre of 5-10-10 or equivalent. If manure is used, apply a quantity to meet the nutrients of the above fertilizer. This requires an appropriate manure analysis prior to applying to the site. Do not use manure on sites to be planted with birdsfoot trefoil or in the path of concentrated water flow.

Seed mixtures may vary depending on location within the state and time of seeding. Generally, warm season grasses should only be seeded during early spring, April to May. These grasses are primarily used for vegetating excessively drained sands and gravels. See Standard and Specification for Sand and Gravel Mine Reclamation. Other grasses may be seeded any time of the year when the soil is not frozen and is workable. When legumes such as birdsfoot trefoil are included, spring seedings are preferred. See Table 3.1 "Permanent Critical Area Planting Mixture Recommendations" for additional seed mixtures.

General Seed Mix:

¹ add inoculant immediately prior to seeding

	<u>Variety</u>	<u>lbs./acre</u>	<u>lbs/1000 sq. ft.</u>
Birdsfoot trefoil ¹ <u>OR</u>	Empire/Pardee	8 ²	0.20
Common white clover ¹	Common	8	0.20
<u>PLUS</u>			
Tall fescue	KY-31/Rebel	20	0.45
<u>PLUS</u>			
Redtop <u>OR</u>	Common	2	0.05
Ryegrass (perennial)	Pennfine/Linn	5	0.10

² Mix 4 lbs each of Empire and Pardee OR 4 lbs of Birdsfoot and 4 lbs white clover per acre.

Time of Seeding: The optimum timing for the general seed mixture is early spring. Permanent seedings may be made any time of year if properly mulched and adequate moisture is provided. Late June through early August is not a good time to seed, but may facilitate covering the land without additional disturbance if construction is completed. Portions of the seeding may fail due to drought and heat. These areas may need reseeding in late summer/fall or the following spring.

Method of seeding: Broadcasting, drilling, cultipack type

seeding, or hydroseeding are acceptable methods. Proper soil to seed contact is key to successful seedings.

Mulching: Mulching is essential to obtain a uniform stand of seeded plants. Optimum benefits of mulching new seedings are obtained with the use of small grain straw applied at a rate of 2 tons per acre, and anchored with a netting or tackifier. See the mulch standard and specification for choices and requirements.

Irrigation: Watering may be essential to establish a new seeding when a drought condition occurs shortly after a new seeding emerges. Irrigation is a specialized practice and care must be taken not to exceed the application rate for the soil or subsoil. When disconnecting irrigation pipe, be sure pipes are drained in a safe manor, not creating an erosion concern.

Table 3.1
Permanent Critical Area Planting Mixture Recommendations

Seed mixture	Variety	Rate in lbs. per acre	Rate in lbs. Per 1000 sq. ft.
Mix #1			
Creeping red fescue	Ensylva, Pennlawn, Boreal	10	.25
Perennial ryegrass	Pennfine, Linn	10	.25
*This mix is used extensively for shaded areas.			
Mix #2			
Switchgrass	Shelter, Pathfinder, Trailblazer, or Blackwell	20	.5
*This rate is in pure live seed, this would be an excellent choice along the upland edge of a wetland to filter runoff and provide wildlife benefits. In areas where erosion may be a problem, a companion seeding of sand lovegrass should be added to provide quick cover at a rate of 2 lbs. per acre (0.05 lbs. per 1000 sq. ft.).			
Mix #3			
Switchgrass	Shelter, Pathfinder, Trailblazer, or Blackwell	4	.1
Big bluestem	Niagara	4	.1
Little bluestem	Aldous or Camper	2	.05
Indiangrass	Rumsey	4	.1
Coastal panicgrass	Atlantic	2	.05
Sideoats grama	El Reno or Trailway	2	.05
Wildflower mix		.5	.01
*This mix has been successful on sand and gravel plantings. It is very difficult to seed without a warm season grass seeder such as a Truax seed drill. Broadcasting this seed is very difficult due to the fluffy nature of some of the seed, such as bluestems and indiangrass.			
Mix #4			
Switchgrass	Shelter, Pathfinder Trailblazer, or Blackwell	10	.25
Coastal panicgrass	Atlantic	10	.25
*This mix is salt tolerant, a good choice along the upland edge of tidal areas and roadsides.			
Mix #5			
Saltmeadow cordgrass (<i>Spartina patens</i>)—This grass is used for tidal shoreline protection and tidal marsh restoration. It is planted by vegetative stem divisions.			
'Cape' American beachgrass can be planted for sand dune stabilization above the saltmeadow cordgrass zone.			
Mix #6			
Creeping red fescue	Ensylva, Pennlawn, Boreal	20	.45
Tall fescue	KY 31, Rebel	20	.45
Perennial ryegrass	Pennfine, Linn	5	.10
Birdsfoot trefoil	Empire, Pardee	10	.45
*General purpose erosion control mix. Not to be used for a turf planting or play grounds.			

STANDARD AND SPECIFICATIONS FOR TOPSOILING



Definition

Spreading a specified quality and quantity of topsoil materials on graded or constructed subsoil areas.

Purpose

To provide acceptable plant cover growing conditions, thereby reducing erosion; to reduce irrigation water needs; and to reduce the need for nitrogen fertilizer application.

Conditions Where Practice Applies

Topsoil is applied to subsoils that are droughty (low available moisture for plants), stony, slowly permeable, salty or extremely acid. It is also used to backfill around shrub and tree transplants. This standard does not apply to wetland soils.

Design Criteria

1. Preserve existing topsoil in place where possible, thereby reducing the need for added topsoil.
2. Conserve by stockpiling topsoil and friable fine textured subsoils that must be stripped from the excavated site and applied after final grading where vegetation will be established.
3. Refer to USDA Soil Conservation Service (presently Natural Resource Conservation Service) soil surveys or soil interpretation record sheets for further soil texture information for selecting appropriate design topsoil depths.

Site Preparation

1. As needed, install erosion control practices such as diversions, channels, sediment traps, and stabilizing measures, or maintain if already installed.
2. Complete rough grading and final grade, allowing for depth of topsoil to be added.
3. Scarify all compact, slowly permeable, medium and fine textured subsoil areas. Scarify at approximately right angles to the slope direction in soil areas that are steeper than 5 percent. Areas that have been overly compacted shall be decompacted to a minimum depth of 12 inches with a deep ripper or chisel plow prior to topsoiling.
4. Remove refuse, woody plant parts, stones over 3 inches in diameter, and other litter.

Topsoil Materials

1. Topsoil shall have at least 6 percent by weight of fine textured stable organic material, and no greater than 20 percent. Muck soil shall not be considered topsoil.
2. Topsoil shall have not less than 20 percent fine textured material (passing the NO. 200 sieve) and not more than 15 percent clay.
3. Topsoil treated with soil sterilants or herbicides shall be so identified to the purchaser.
4. Topsoil shall be relatively free of stones over 1 1/2 inches in diameter, trash, noxious weeds such as nut sedge and quackgrass, and will have less than 10 percent gravel.
5. Topsoil containing soluble salts greater than 500 parts per million shall not be used.

Application and Grading

1. Topsoil shall be distributed to a uniform depth over the area. It shall not be placed when it is partly frozen, muddy, or on frozen slopes or over ice, snow, or standing water puddles.
2. Topsoil placed and graded on slopes steeper than 5 percent shall be promptly fertilized, seeded, mulched, and stabilized by "tracking" with suitable equipment.

3. Apply topsoil in the following amounts:

Site Conditions	Intended Use	Minimum Topsoil Depth
1. Deep sand or loamy sand	Mowed lawn	6 in.
	Tall legumes, unmowed	2 in.
	Tall grass, unmowed	1 in.
2. Deep sandy loam	Mowed lawn	5 in.
	Tall legumes, unmowed	2 in.
	Tall grass, unmowed	none
3. Six inches or more: silt loam, loam, or silt	Mowed lawn	4 in.
	Tall legumes, unmowed	1 in.
	Tall grass, unmowed	1 in.

STANDARD AND SPECIFICATIONS FOR MULCHING



Definition

Applying coarse plant residue or chips, or other suitable materials, to cover the soil surface.

Purpose

The primary purpose is to provide initial erosion control while a seeding or shrub planting is establishing. Mulch will conserve moisture and modify the surface soil temperature and reduce fluctuation of both. Mulch will prevent soil surface crusting and aid in weed control. Mulch is also used alone for temporary stabilization in non-growing months.

Conditions Where Practice Applies

On soils subject to erosion and on new seedlings and shrub plantings. Mulch is useful on soils with low infiltration rates by retarding runoff.

Criteria

Site preparation prior to mulching requires the installation of necessary erosion control or water management practices and drainage systems.

Slope, grade and smooth the site to fit needs of selected mulch products.

Remove all undesirable stones and other debris to meet the needs of the anticipated land use and maintenance required.

Apply mulch after soil amendments and planting is accomplished or simultaneously if hydroseeding is used.

Select appropriate mulch material and application rate or material needs. Determine local availability.

Select appropriate mulch anchoring material.

NOTE: The best combination for grass/legume establishment is straw (cereal grain) mulch applied at 2 ton/acre (90 lbs./1000sq.ft.) and anchored with wood fiber mulch (hydromulch) at 500 – 750 lbs./acre (11 – 17 lbs./1000 sq. ft.). The wood fiber mulch must be applied through a hydroseeder immediately after mulching.

Table 3.7
Guide to Mulch Materials, Rates, and Uses

Mulch Material	Quality Standards	per 1000 Sq. Ft.	per Acre	Depth of Application	Remarks
Wood chips or shavings	Air-dried. Free of objectionable coarse material	500-900 lbs.	10-20 tons	2-7"	Used primarily around shrub and tree plantings and recreation trails to inhibit weed competition. Resistant to wind blowing. Decomposes slowly.
Wood fiber cellulose (partly digested wood fibers)	Made from natural wood usually with green dye and dispersing agent	50 lbs.	2,000 lbs.	—	Apply with hydromulcher. No tie down required. Less erosion control provided than 2 tons of hay or straw.
Gravel, Crushed Stone or Slag	Washed; Size 2B or 3A—1 1/2"	9 cu. yds.	405 cu. yds.	3"	Excellent mulch for short slopes and around plants and ornamentals. Use 2B where subject to traffic. (Approximately 2,000 lbs./cu. yd.). Frequently used over filter fabric for better weed control.
Hay or Straw	Air-dried; free of undesirable seeds & coarse materials	90-100 lbs. 2-3 bales	2 tons (100-120 bales)	cover about 90% surface	Use small grain straw where mulch is maintained for more than three months. Subject to wind blowing unless anchored. Most commonly used mulching material. Provides the best micro-environment for germinating seeds.
Jute twisted yarn	Undyed, unbleached plain weave. Warp 78 ends/yd., Weft 41 ends/yd. 60-90 lbs./roll	48" x 50 yds. or 48" x 75 yds.	—	—	Use without additional mulch. Tie down as per manufacturers specifications. Good for center line of concentrated water flow.
Excelsior wood fiber mats	Interlocking web of excelsior fibers with photodegradable plastic netting	8" x 100" 2-sided plastic, 48" x 180" 1-sided plastic	—	—	Use without additional mulch. Excellent for seeding establishment. Tie down as per manufacturers specifications. Approximately 72 lbs./roll for excelsior with plastic on both sides. Use two sided plastic for centerline of waterways.
Compost	Up to 3" pieces, moderately to highly stable	3-9 cu. yds.	134-402 cu. yds.	1-3"	Coarser textured mulches may be more effective in reducing weed growth and wind erosion.
Straw or coconut fiber, or combination	Photodegradable plastic net on one or two sides	Most are 6.5 ft. x 3.5 ft.	81 rolls	—	Designed to tolerate higher velocity water flow, centerlines of waterways, 60 sq. yds. per roll.

Table 3.8
Mulch Anchoring Guide

Anchoring Method or Material	Kind of Mulch to be Anchored	How to Apply
1. Peg and Twine	Hay or straw	After mulching, divide areas into blocks approximately 1 sq. yd. in size. Drive 4-6 pegs per block to within 2" to 3" of soil surface. Secure mulch to surface by stretching twine between pegs in criss-cross pattern on each block. Secure twine around each peg with 2 or more tight turns. Drive pegs flush with soil. Driving stakes into ground tightens the twine.
2. Mulch netting	Hay or straw	Staple the light-weight paper, jute, wood fiber, or plastic nettings to soil surface according to manufacturer's recommendations. Should be biodegradable. Most products are not suitable for foot traffic.
3. Wood cellulose fiber	Hay or straw	Apply with hydroseeder immediately after mulching. Use 500 lbs. wood fiber per acre. Some products contain an adhesive material ("tackifier"), possibly advantageous.
4. Mulch anchoring tool	Hay or straw	Apply mulch and pull a mulch anchoring tool (blunt, straight discs) over mulch as near to the contour as possible. Mulch material should be "tucked" into soil surface about 3".
5. Tackifier	Hay or straw	Mix and apply polymeric and gum tackifiers according to manufacturer's instructions. Avoid application during rain. A 24-hour curing period and a soil temperature higher than 45 ⁰ Fahrenheit are required.

STANDARD AND SPECIFICATIONS FOR PROTECTING VEGETATION DURING CONSTRUCTION



Definition

The protection of trees, shrubs, ground cover and other vegetation from damage by construction equipment.

Purpose

To preserve existing vegetation determined to be important for soil erosion control, water quality protection, shade, screening, buffers, wildlife habitat, wetland protection, and other values.

Condition Where Practice Applies

On planned construction sites where valued vegetation exists and needs to be preserved.

Design Criteria

1. Planning Considerations

A. Inventory:

- 1) Property boundaries, topography, vegetation and soils information should be gathered. Identify potentially high erosion areas, areas with tree windthrow potential, etc. A vegetative cover type map should be made on a copy of a topographic map which shows other natural and manmade features. Vegetation that is desirable to preserve because of its value for screening, shade, critical erosion control, endangered species, aesthetics, etc., should be identified and marked on the map.
- 2) Based upon this data, general statements should be prepared about the present condition, potential problem areas, and unique features of the property.

B. Planning:

- 1) After engineering plans (plot maps) are prepared, another field review should take place and recommendations made for the vegetation to be saved. Minor adjustments in location of roads, dwellings, and utilities may be needed. Construction on steep slopes, erodible soils, wetlands, and streams should be avoided. Clearing limits should be delineated (See Section 2).
- 2) Areas to be seeded and planted should be identified. Remaining vegetation should blend with their surroundings and/or provide special function such as a filter strip, buffer zone, or screen.
- 3) Trees and shrubs of special seasonal interest, such as flowering dogwood, red maple, striped maple, serviceberry, or shadbush, and valuable potential shade trees should be identified and marked for special protective treatment as appropriate.
- 4) Trees to be cut should be marked on the plans. If timber can be removed for salable products, a forester should be consulted for marketing advice.
- 5) Trees that may become a hazard to people, personal property, or utilities should be removed. These include trees that are weak-wooded, disease-prone, subject to windthrow, or those that have severely damaged root systems.
- 6) The vigor of remaining trees may be improved by a selective thinning. A forester should be consulted for implementing this practice.

2. Measures to Protect Vegetation

- A. Limit soil placement over existing tree and shrub roots to a maximum of 3 inches. Soils with loamy texture and good structure should be used.
- B. Use retaining walls and terraces to protect roots of trees and shrubs when grades are lowered. Lowered grades should start no closer than the dripline of the tree. For narrow-canopied trees and shrubs, the stem diameter in inches is converted to feet and doubled, such that a 10 inch tree should be protected to 20 feet.

- C. Trenching across tree root systems should be the same minimum distance from the trunk, as in "B". Tunnels under root systems for underground utilities should start 18 inches or deeper below the normal ground surface. Tree roots which must be severed should be cut clean. Backfill material that will be in contact with the roots should be topsoil or a prepared planting soil mixture.
- D. Construct sturdy fences, or barriers, of wood, steel, or other protective material around valuable vegetation for protection from construction equipment. Place barriers far enough away from trees, but not less than the specifications in "B", so that tall equipment such as backhoes and dump trucks do not contact tree branches.
- E. Construction limits should be identified and clearly marked to exclude equipment.
- F. Avoid spills of oil/gas and other contaminants.
- G. Obstructive and broken branches should be pruned properly. The branch collar on all branches whether living or dead should not be damaged. The 3 or 4 cut method should be used on all branches larger than two inches at the cut. First cut about one-third the way through the underside of the limb (about 6-12 inches from the tree trunk). Then (approximately an inch further out) make a second cut through the limb from the upper side. When the branch is removed, there is no splintering of the main tree trunk. Remove the stub. If the branch is larger than 5-6 inches in diameter, use the four cut system. Cuts 1 and 2 remain the same and cut 3 should be from the underside of the limb, on the outside of the branch collar. Cut 4 should be from the top and in alignment with the 3rd cut. Cut 3 should be 1/4 to 1/3 the way through the limb. This will prevent the bark from peeling down the trunk. Do not paint the cut surface.
- H. Penalties for damage to valuable trees, shrubs, and herbaceous plants should be clearly spelled out in the contract.

STRUCTURAL MEASURES FOR EROSION AND SEDIMENT CONTROL

General

Uncontrolled runoff and excess erosion often occurs in urban developments, particularly during the construction stage. This erosion forms rills and gullies; washes out roads; scours cut and fill areas; fills road ditches, storm drains, and streams; and does other damage that is costly to the developers and damaging to land and water users below. Careful inclusion of proven conservation practices in the development plan can prevent or alleviate much of this damage and should be a part of every development plan.

These practices will usually be a combination of vegetative and structural measures. They may be temporary and serve only during the construction stage or they may be permanent in nature and become a part of the completed development. Permanent structural practices should be installed as early as possible in the construction stage. This section deals with the more common structural measures that may be used. Adequate designs, plans, and specification should be prepared for the measures to be used. A number of measures and specifications are included throughout this section. The designer shall determine those elements to be installed to control erosion (Section 2) and follow the criteria included in these standards and specifications.

Introduction

Structural erosion and sediment control practices have been classified as either temporary or permanent, according to how they are used. Temporary structural practices are used during construction to prevent offsite sedimentation. The length of time that temporary practices are functional varies from project to project, since the sediment control strategy may change as construction activity progresses. Permanent structural practices are used to convey surface water runoff to a safe outlet. Permanent structural practices will remain in place and continue to function after the completion of construction.

Regardless of whether the practices are temporary or permanent, runoff control measures should be the first items constructed when grading begins, and be completely functional before downslope land disturbance takes place. Earthen structures such as diversions, dikes, and swales should be stabilized before being considered functional. Only after the runoff control structures are operational and sediment control measures are in place, should clearing and grading on the rest of the construction site begin.

While clearing and grading the site, it is important to

minimize the amount of sediment that is produced. In general, it is advantageous to clear only as much area as is necessary to accommodate construction needs. Grade and stabilize large sites in stages whenever possible. Limiting the amount of disturbed area limits the amount of sediment that is generated, thus decreasing the amount of maintenance required on sediment control measures.

Sediment generated during the construction of cut and fill slopes can also be minimized through design and grading techniques. When designing either a cut or fill slope, factors to consider include slope length and steepness, soil type, and upslope drainage area. In general, it is important to leave soil surfaces on disturbed slopes in a roughened condition and to construct a water diversion practice at the top of slopes. Rough soil surfaces do not erode as readily as smooth soil surfaces.

Although design and grading techniques can reduce soil erosion, they cannot eliminate it entirely. Therefore, practices must be installed to prevent offsite sedimentation.

Even though the specific conditions of each site determine what measures are necessary to control erosion and sedimentation, some general principles apply to the selection and placement of sediment control measures.

1. Prevent clean water from becoming turbid, by diverting runoff from upslope areas away from disturbed areas. Earth dikes, temporary swales, perimeter dike/swales, or diversions that outlet in stable areas can be used in this capacity.
2. Remove sediment from turbid water before the water leaves the site. The method of sediment removal depends upon how the water drains from the site. Concentrated flow must be diverted to a trapping device so that suspended sediment can be deposited. Dikes or swales that outlet into traps or basins can accomplish this. A storm drain system may be used to convey concentrated sediment laden water only if the system empties into a trap or basin. Otherwise, all storm drain inlets must be protected so that sediment laden water cannot enter the drainage system before being treated to remove the sediment.
3. Surface runoff draining in sheet flow must be controlled and treated before the water leaves the site. Straw bale dikes, silt fences, or vegetative buffer strips can be used to treat sheet flow.

All practices designed and implemented must be properly maintained in order to remain functional. Sediment accumulated in basins and traps must be removed and disposed of in a manner that stabilizes them on the construction site.

Other factors should be observed during construction in order to make erosion and sediment control measures more effective in pollution control.

These are:

1. Sprinkle or apply dust suppressors. Keep dust down to a tolerable limit on construction sites and haul roads.
2. Use temporary bridges or culverts where fording of streams is objectionable. Avoid borrow areas where pollution from this operation is inevitable.

3. Protect streams from chemicals, fuel, lubricants, sewage, or other pollutants.
4. Avoid disposal of fill in floodplains or drainage ways. This reduces the capacity of these areas to pass flood flows.
5. Do not locate sanitary facilities over, or adjacent to, waterways, wells, or springs.
6. Locate storage yards and stockpiles where erosion and sediment hazards are slight. Where this is not possible, apply necessary erosion control practices.

STANDARD AND SPECIFICATIONS FOR SILT FENCE



2. Maximum drainage area for overland flow to a silt fence shall not exceed ¼ acre per 100 feet of fence, with maximum ponding depth of 1.5 feet behind the fence; and
3. Erosion would occur in the form of sheet erosion; and
4. There is no concentration of water flowing to the barrier.

Definition

A temporary barrier of geotextile fabric installed on the contours across a slope used to intercept sediment laden runoff from small drainage areas of disturbed soil.

Purpose

The purpose of a silt fence is to reduce runoff velocity and effect deposition of transported sediment load. Limits imposed by ultraviolet stability of the fabric will dictate the maximum period the silt fence may be used (approximately one year).

Conditions Where Practice Applies

A silt fence may be used subject to the following conditions:

1. Maximum allowable slope lengths contributing runoff to a silt fence placed on a slope are:

Slope Steepness	Maximum Length (ft.)
2:1	25
3:1	50
4:1	75
5:1 or flatter	100

Design Criteria

Design computations are not required for installations of 1 month or less. Longer installation periods should be designed for expected runoff. All silt fences shall be placed as close to the areas as possible, but at least 10 feet from the toe of a slope to allow for maintenance and roll down. The area beyond the fence must be undisturbed or stabilized.

Sensitive areas to be protected by silt fence may need to be reinforced by using heavy wire fencing for added support to prevent collapse.

Where ends of filter cloth come together, they shall be overlapped, folded and stapled to prevent sediment bypass. A detail of the silt fence shall be shown on the plan. See Figure 5A.8 on page 5A.21 for details.

Criteria for Silt Fence Materials

1. Silt Fence Fabric: The fabric shall meet the following specifications unless otherwise approved by the appropriate erosion and sediment control plan approval authority. Such approval shall not constitute statewide acceptance.

Fabric Properties	Minimum Acceptable Value	Test Method
Grab Tensile Strength (lbs)	90	ASTM D1682
Elongation at Failure (%)	50	ASTM D1682

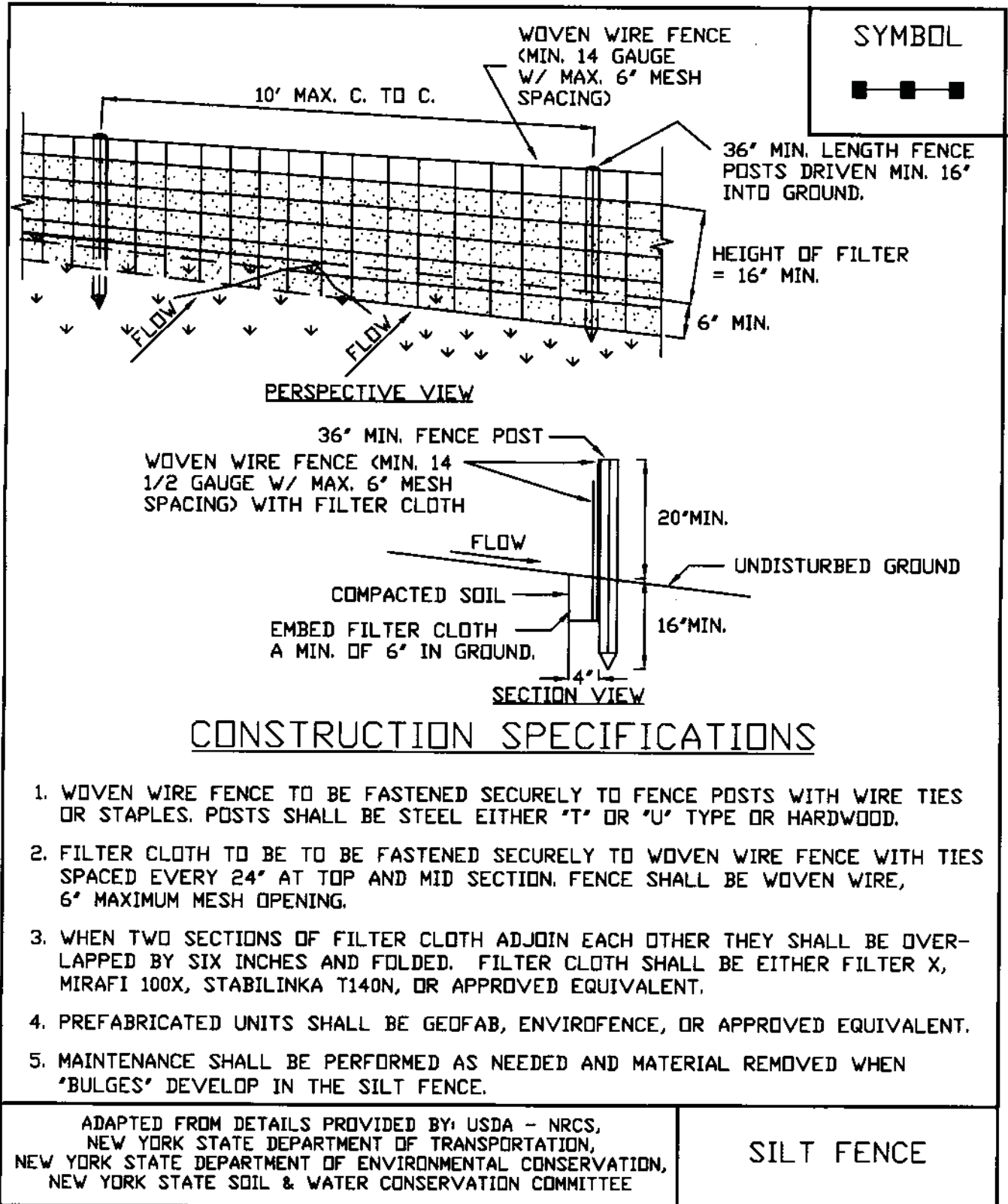
Mullen Burst Strength (PSI)	190	ASTM D3786
Puncture Strength (lbs)	40	ASTM D751 (modified)
Slurry Flow Rate (gal/min/sf)	0.3	
Equivalent Opening Size	40-80	US Std Sieve CW-02215
Ultraviolet Radiation Stability (%)	90	ASTM G-26

2. Fence Posts (for fabricated units): The length shall be a minimum of 36 inches long. Wood posts will be of sound quality hardwood with a minimum cross sectional area of 3.0 square inches. Steel posts will be standard T and U section weighing not less than 1.00 pound per linear foot.

3. Wire Fence (for fabricated units): Wire fencing shall be a minimum 14 gage with a maximum 6 in. mesh opening, or as approved.

4. Prefabricated Units: Envirofence, Geofab, or approved equal, may be used in lieu of the above method providing the unit is installed per details shown in Figure 5A.8.

Figure 5A.8
Silt Fence



STANDARD AND SPECIFICATIONS FOR CHECK DAM



Definition

Small barriers or dams constructed of stone, bagged sand or gravel, or other durable material across a drainage way.

Purpose

To reduce erosion in a drainage channel by restricting the velocity of flow in the channel.

Condition Where Practice Applies

This practice is used as a temporary or emergency measure to limit erosion by reducing velocities in small open channels that are degrading or subject to erosion and where permanent stabilization is impractical due to short period of usefulness and time constraints of construction.

Design Criteria

Drainage Area: Maximum drainage area above the check dam shall not exceed two (2) acres.

Height: Not greater than 2 feet. Center shall be maintained 9 inches lower than abutments at natural ground elevation.

Side Slopes: Shall be 2:1 or flatter.

Spacing: The check dams shall be spaced as necessary in the channel so that the crest of the downstream dam is at the

elevation of the toe of the upstream dam. This spacing is equal to the height of the check dam divided by the channel slope.

Therefore:

$$S = h/s$$

Where:

S = spacing interval (ft.)

h = height of check dam (ft.)

s = channel slope (ft./ft.)

Example:

For a channel with a 4% slope and 2 ft. high stone check dams, they are spaced as follows:

$$S = \frac{2 \text{ ft.}}{.04 \text{ ft./ft.}} = 50 \text{ ft.}$$

Stone size: Use a well graded stone matrix 2 to 9 inches in size (NYS – DOT Light Stone Fill meets these requirements).

The overflow of the check dams will be stabilized to resist erosion that might be caused by the check dam. See Figure 5A.9 on page 5A.24 for details.

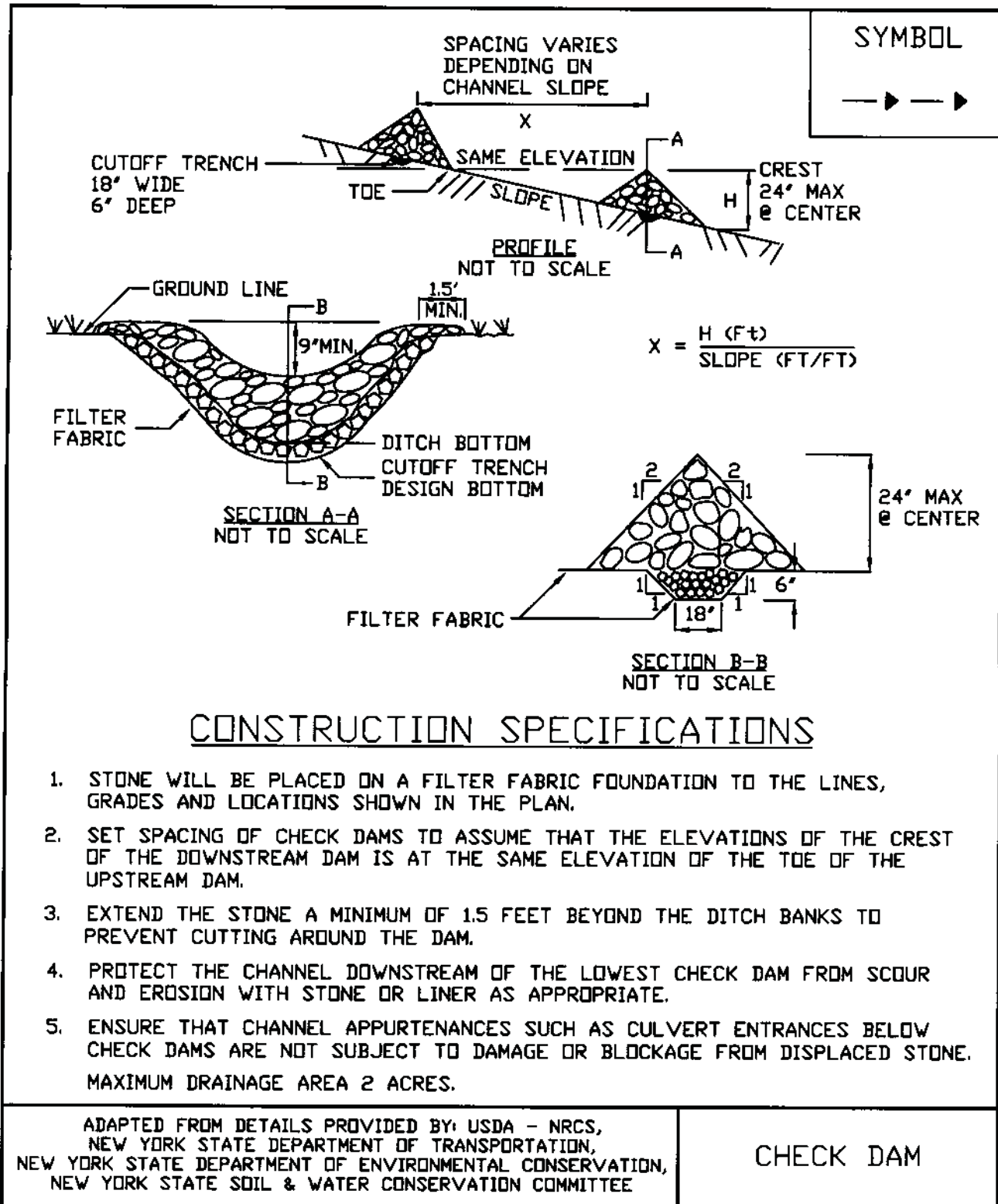
Check dams should be anchored in the channel by a cutoff trench 1.5 ft. wide and 0.5 ft. deep and lined with filter fabric to prevent soil migration.

Maintenance

The check dams should be inspected after each runoff event. Correct all damage immediately. If significant erosion has occurred between structures, a liner of stone or other suitable material should be installed in that portion of the channel.

Remove sediment accumulated behind the dam as needed to allow channel to drain through the stone check dam and prevent large flows from carrying sediment over the dam. Replace stones as needed to maintain the design cross section of the structures.

**Figure 5A.9
Check Dam**



STANDARD AND SPECIFICATIONS FOR STORM DRAIN INLET PROTECTION



Definition

A temporary, somewhat permeable barrier, installed around inlets in the form of a fence, berm or excavation around an opening, trapping water and thereby reducing the sediment content of sediment laden water by settling.

Purpose

To prevent heavily sediment laden water from entering a storm drain system through inlets.

Conditions Where Practice Applies

This practice shall be used where the drainage area to an inlet is disturbed, it is not possible to temporarily divert the storm drain outfall into a trapping device, and watertight blocking of inlets is not advisable. **It is not to be used in place of sediment trapping devices.** This may be used in conjunction with storm drain diversion to help prevent siltation of pipes installed with low slope angle.

Types of Storm Drain Inlet Practices

There are four (4) specific types of storm drain inlet protection practices that vary according to their function, location, drainage area, and availability of materials:

- I. Excavated Drop Inlet Protection
- II. Fabric Drop Inlet Protection
- III. Stone & Block Drop Inlet Protection
- IV. Curb Drop Inlet Protection

Design Criteria

Drainage Area – The drainage area for storm drain inlets shall not exceed one acre. The crest elevations of these practices shall provide storage and minimize bypass flow.

Type I – Excavated Drop Inlet Protection

See details for Excavated Drop Inlet Protection in Figure 5A.11 on page 5A.29.

Limit the drainage area to the inlet device to 1 acre. Excavated side slopes shall be no steeper than 2:1. The minimum depth shall be 1 foot and the maximum depth 2 feet as measured from the crest of the inlet structure. Shape the excavated basin to fit conditions with the longest dimension oriented toward the longest inflow area to provide maximum trap efficiency. The capacity of the excavated basin should be established to contain 900 cubic feet per acre of disturbed area. Weep holes, protected by fabric and stone, should be provided for draining the temporary pool.

Inspect and clean the excavated basin after every storm. Sediment should be removed when 50 percent of the storage volume is achieved. This material should be incorporated into the site in a stabilized manner.

Type II – Fabric Drop Inlet Protection

See Figure 5A.12 for details on Filter Fabric Drop Inlet Protection on page 5A.30.

Limit the drainage area to 1 acre per inlet device. Land area slope immediately surrounding this device should not exceed 1 percent. The maximum height of the fabric above the inlet crest shall not exceed 1.5 feet unless reinforced.

The top of the barrier should be maintained to allow overflow to drop into the drop inlet and not bypass the inlet to unprotected lower areas. Support stakes for fabric shall be a minimum of 3 feet long, spaced a maximum 3 feet apart. They should be driven close to the inlet so any overflow drops into the inlet and not on the unprotected soil. Improved performance and sediment storage volume can be obtained by excavating the area.

Inspect the fabric barrier after each rain event and make repairs as needed. Remove sediment from the pool area as

necessary with care not to undercut or damage the filter fabric. Upon stabilization of the drainage area, remove all materials and unstable sediment and dispose of properly. Bring the adjacent area of the drop inlet to grade, smooth and compact and stabilize in the appropriate manner to the site.

If straw bales are used in lieu of filter fabric, they should be placed tight with the cut edge adhering to the ground at least 3 inches below the elevation of the drop inlet. Two anchor stakes per bale shall be driven flush to bale surface. Straw bales will be replaced every 4 months until the area is stabilized.

Type III – Stone and Block Drop Inlet Protection

See Figure 5A.13 for details on Stone and Block Drop Inlet Protection on page 5A.31.

Limit the drainage area to 1 acre at the drop inlet. The stone barrier should have a minimum height of 1 foot and a maximum height of 2 feet. Do not use mortar. The height should be limited to prevent excess ponding and bypass flow.

Recess the first course of blocks at least 2 inches below the crest opening of the storm drain for lateral support. Subsequent courses can be supported laterally if needed by placing a 2x4 inch wood stud through the block openings perpendicular to the course. The bottom row should have a few blocks oriented so flow can drain through the block to dewater the basin area.

The stone should be placed just below the top of the blocks on slopes of 2:1 or flatter. Place hardware cloth of wire mesh with ½ inch openings over all block openings to hold stone in place.

As an optional design, the concrete blocks may be omitted and the entire structure constructed of stone, ringing the outlet (“doughnut”). The stone should be kept at a 3:1 slope toward the inlet to keep it from being washed into the inlet.

A level area 1 foot wide and four inches below the crest will further prevent wash. Stone on the slope toward the inlet should be at least 3 inches in size for stability and 1 inch or smaller away from the inlet to control flow rate. The elevation of the top of the stone crest must be maintained 6 inches lower than the ground elevation down slope from the inlet to ensure that all storm flows pass over the stone into the storm drain and not past the structure. Temporary diking should be used as necessary to prevent bypass flow.

The barrier should be inspected after each rain event and repairs made where needed. Remove sediment as necessary to provide for accurate storage volume for subsequent rains. Upon stabilization of contributing drainage area, remove all materials and any unstable soil and dispose of properly.

Bring the disturbed area to proper grade, smooth, compact and stabilized in a manner appropriate to the site.

Type IV – Curb Drop Inlet Protection

See Figure 5A. 14 for details on Curb Drop Inlet Protection on page 5A.32.

The drainage area should be limited to 1 acre at the drop inlet. The wire mesh must be of sufficient strength to support the filter fabric and stone with the water fully impounded against it. Stone is to be 2 inches in size and clean. The filter fabric must be of a type approved for this purpose with an equivalent opening size (EOS) of 40-85. The protective structure will be constructed to extend beyond the inlet 2 feet in both directions. Assure that storm flow does not bypass the inlet by installing temporary dikes (such as sand bags) directing flow into the inlet. Make sure that the overflow weir is stable. Traffic safety shall be integrated with the use of this practice.

The structure should be inspected after every storm event. Any sediment should be removed and disposed of on the site. Any stone missing should be replaced. Check materials for proper anchorage and secure as necessary.

**Figure 5A.11
Excavated Drop Inlet Protection**

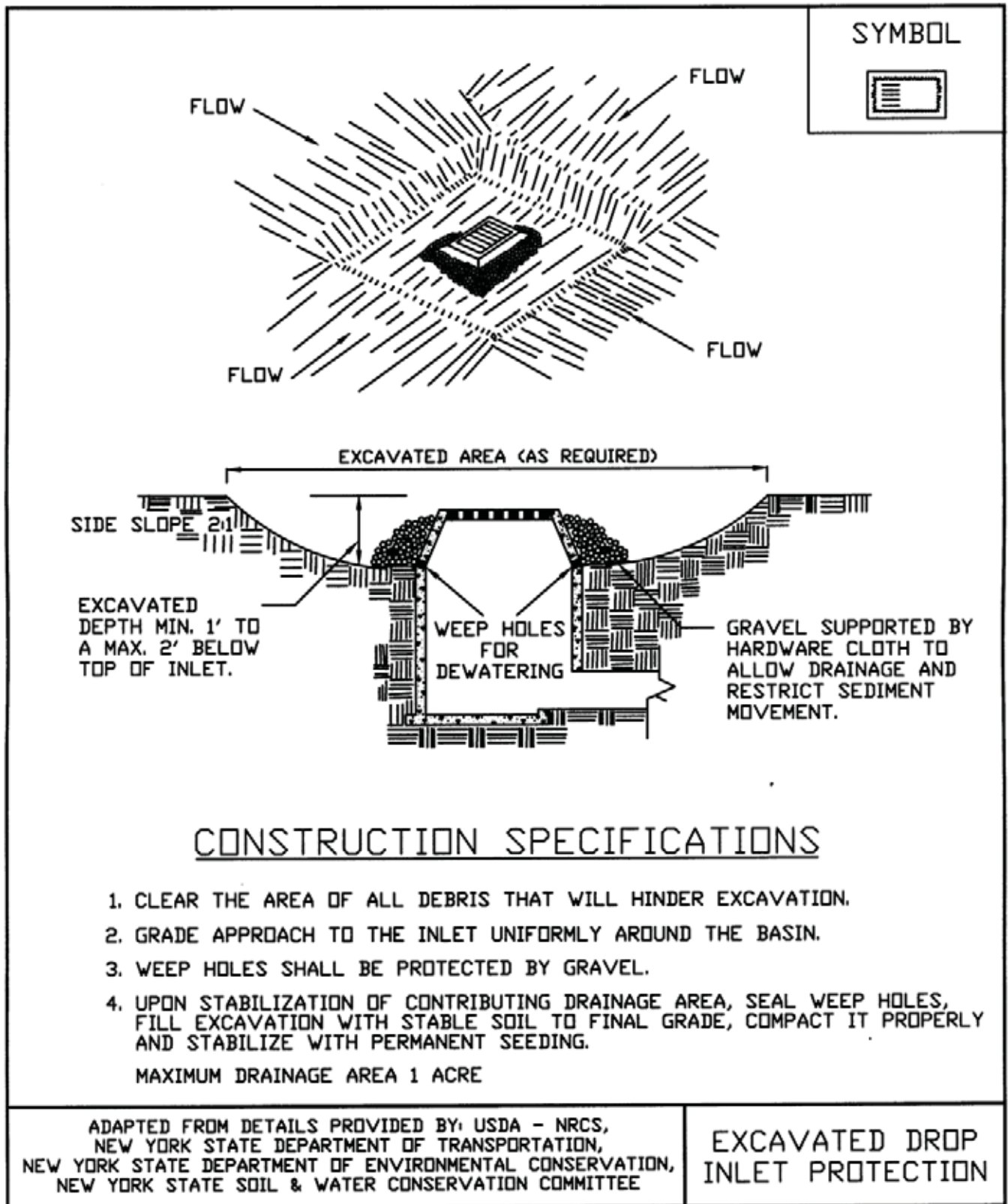


Figure 5A.12
Filter Fabric Drop Inlet Protection

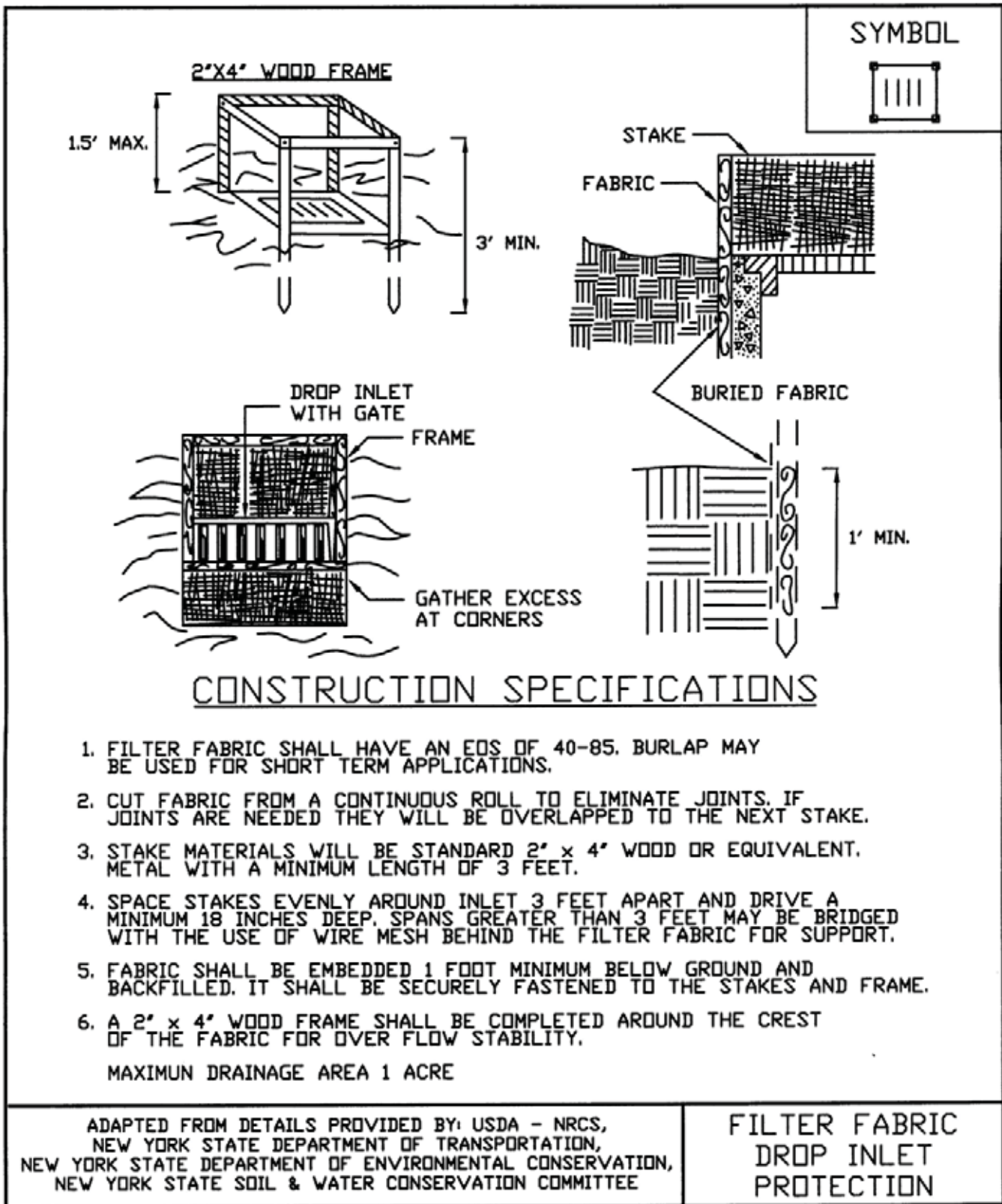


Figure 5A.13
Stone & Block Drop Inlet Protection

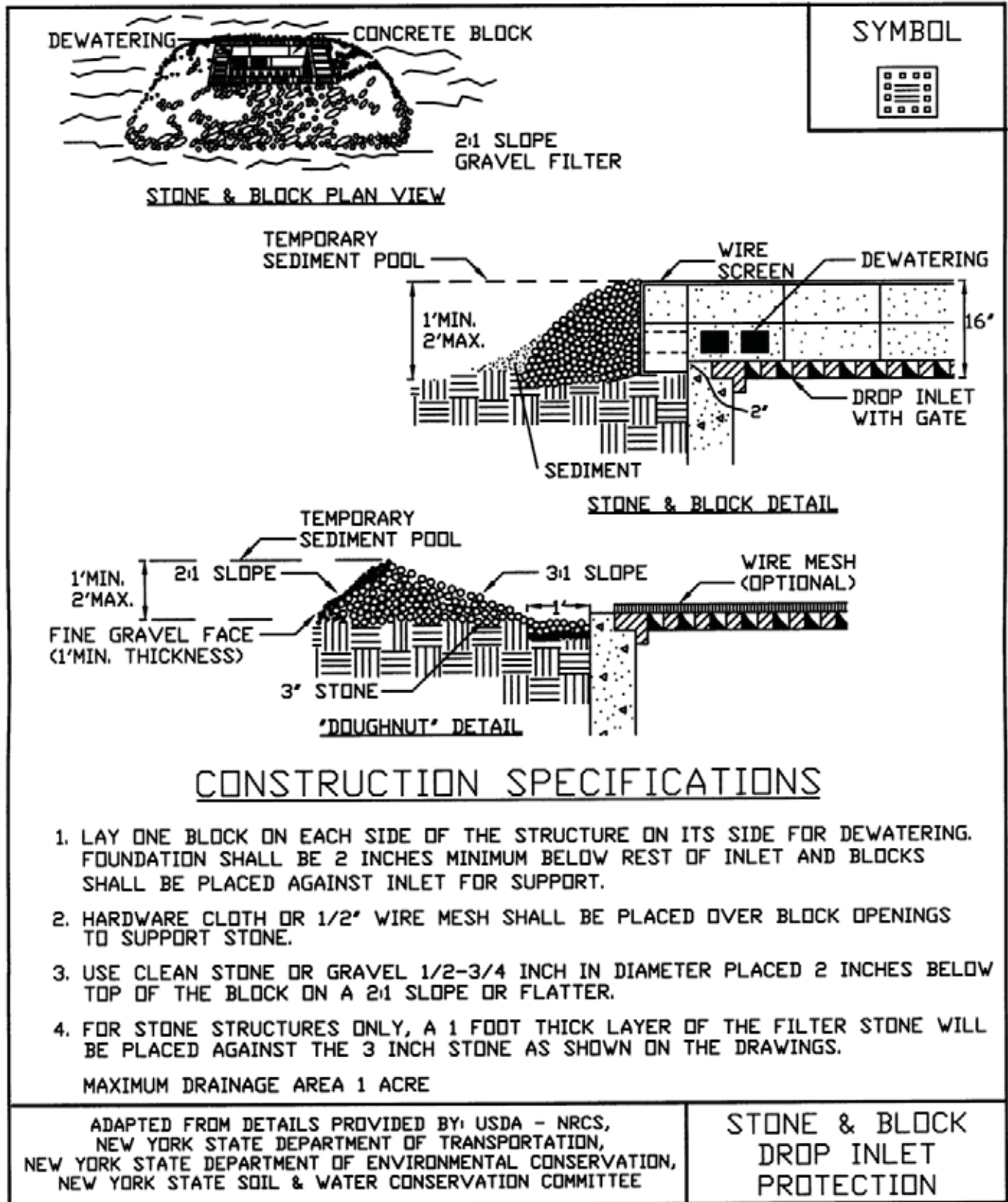
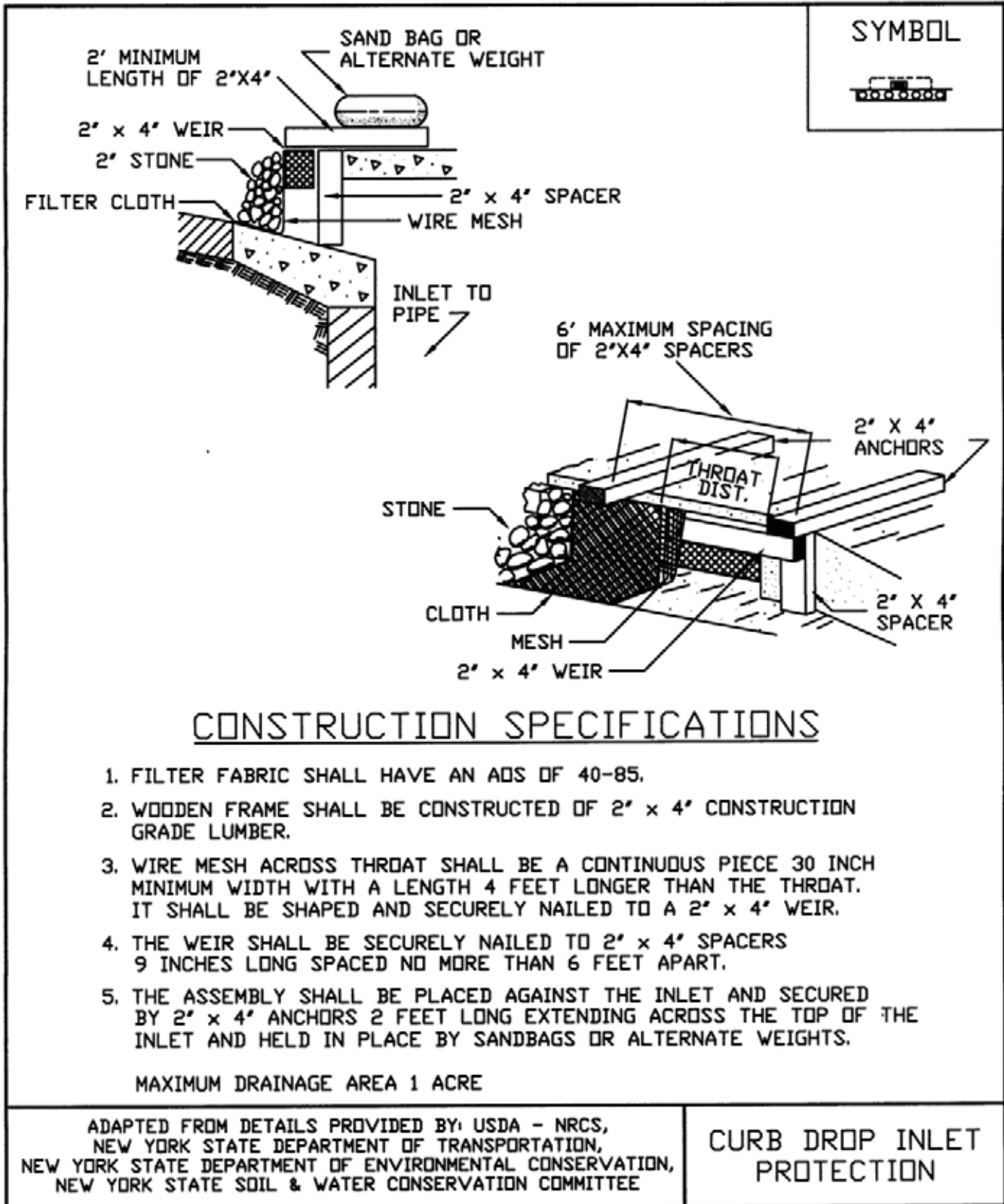


Figure 5A.14
Curb Drop Inlet Protection



STANDARD AND SPECIFICATIONS FOR STABILIZED CONSTRUCTION ENTRANCE



Definition

A stabilized pad of aggregate underlain with geotextile located at any point where traffic will be entering or leaving a construction site to or from a public right-of-way, street, alley, sidewalk, or parking area.

Purpose

The purpose of stabilized construction entrance is to reduce or eliminate the tracking of sediment onto public rights-of-way or streets.

Conditions Where Practice Applies

A stabilized construction entrance shall be used at all points of construction ingress and egress.

Design Criteria

See Figure 5A.35 on page 5A.76 for details.

Aggregate Size: Use a matrix of 1-4 inch stone, or reclaimed or recycled concrete equivalent.

Thickness: Not less than six (6) inches.

Width: 12-foot minimum but not less than the full width of points where ingress or egress occurs. 24-foot minimum if there is only one access to the site.

Length: As required, but not less than 50 feet (except on a single residence lot where a 30 foot minimum would apply).

Geotextile: To be placed over the entire area to be covered with aggregate. Filter cloth will not be required on a single-family residence lot. Piping of surface water under entrance shall be provided as required. If piping is impossible, a mountable berm with 5:1 slopes will be permitted.

Criteria for Geotextile

The geotextile shall be woven or nonwoven fabric consisting only of continuous chain polymeric filaments or yarns of polyester. The fabric shall be inert to commonly encountered chemicals, hydro-carbons, mildew, rot resistant, and conform to the fabric properties as shown:

Fabric Properties ³	Light Duty ¹	Heavy Duty ²	Test Method
	Roads Grade Subgrade	Haul Roads Rough Graded	
Grab Tensile Strength (lbs)	200	220	ASTM D1682
Elongation at Failure (%)	50	60	ASTM D1682
Mullen Brust Strength (lbs)	190	430	ASTM D3786
Puncture Strength (lbs)	40	125	ASTM D751 modified
Equivalent Opening Size	40-80	40-80	US Std Sieve CW-02215
Aggregate Depth	6	10	--

¹Light Duty Road: Area sites that have been graded to subgrade and where most travel would be single axle vehicles and an occasional multi-axle truck. Acceptable materials are Trevira Spunbond 1115, Mirafi 100X, Typar 3401, or equivalent.

²Heavy Duty Road: Area sites with only rough grading, and where most travel would be multi-axle vehicles. Acceptable materials are Trevira Spunbond 1135, Mirafi 600X, or equivalent.

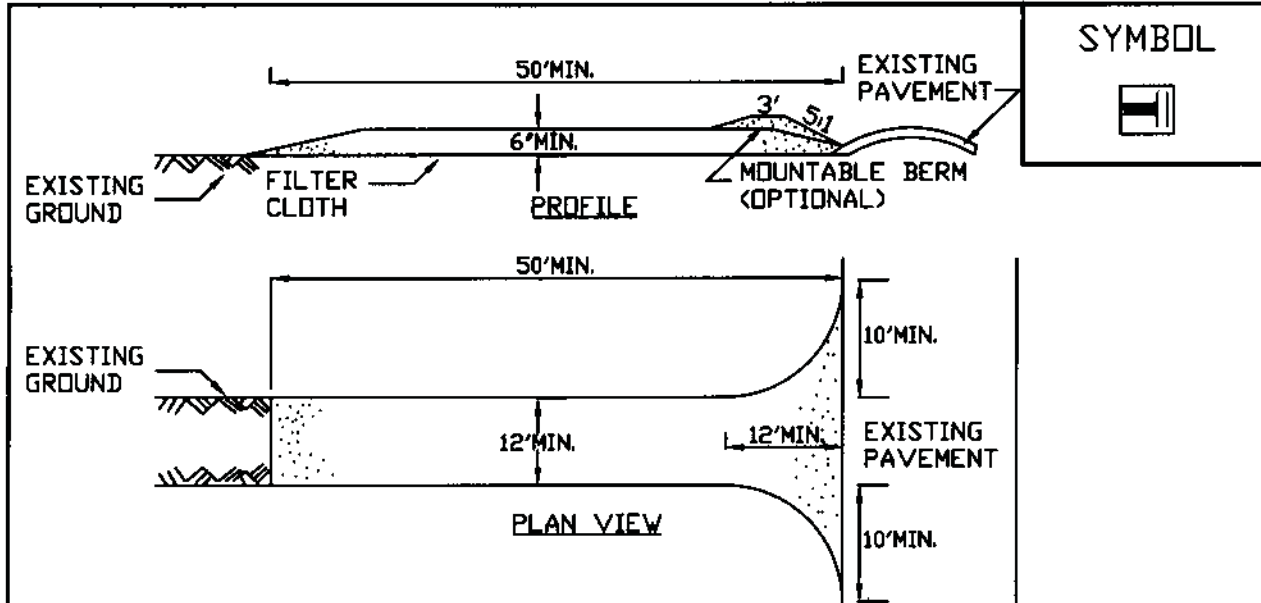
³Fabrics not meeting these specifications may be used only when design procedure and supporting documentation are supplied to determine aggregate depth and fabric strength.

Maintenance

The entrance shall be maintained in a condition which will prevent tracking of sediment onto public rights-of-way or streets. This may require periodic top dressing with additional aggregate. All sediment spilled, dropped, or washed onto public rights-of-way must be removed immediately.

When necessary, wheels must be cleaned to remove sediment prior to entrance onto public rights-of-way. When washing is required, it shall be done on an area stabilized with aggregate, which drains into an approved sediment-trapping device. All sediment shall be prevented from entering storm drains, ditches, or watercourses.

**Figure 5A.35
Stabilized Construction Entrance**



CONSTRUCTION SPECIFICATIONS

1. STONE SIZE - USE 1-4 INCH STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
5. GEOTEXTILE - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY, ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACTED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

ADAPTED FROM DETAILS PROVIDED BY: USDA - NRCS,
NEW YORK STATE DEPARTMENT OF TRANSPORTATION,
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION,
NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

**STABILIZED
CONSTRUCTION
ENTRANCE**

STANDARD AND SPECIFICATIONS FOR DUST CONTROL



Definition

The control of dust resulting from land-disturbing activities.

Purpose

To prevent surface and air movement of dust from disturbed soil surfaces that may cause off-site damage, health hazards, and traffic safety problems.

Conditions Where Practice Applies

On construction roads, access points, and other disturbed areas subject to surface dust movement and dust blowing where off-site damage may occur if dust is not controlled.

Design Criteria

Construction operations should be scheduled to minimize the amount of area disturbed at one time. Buffer areas of vegetation should be left where practical. Temporary or permanent stabilization measures shall be installed. No specific design criteria is given; see construction specifications below for common methods of dust control.

Water quality must be considered when materials are selected for dust control. Where there is a potential for the material to wash off to a stream, ingredient information must be provided to the local permitting authority.

Construction Specifications

A. Non-driving Areas – These areas use products and materials applied or placed on soil surfaces to prevent airborne migration of soil particles.

Vegetative Cover – For disturbed areas not subject to traffic, vegetation provides the most practical method of dust control (see Section 3).

Mulch (including gravel mulch) – Mulch offers a fast effective means of controlling dust. This can also include rolled erosion control blankets.

Spray adhesives – These are products generally composed of polymers in a liquid or solid form that are mixed with water to form an emulsion that is sprayed on the soil surface with typical hydroseeding equipment. The mixing ratios and application rates will be in accordance with the manufacturer's recommendations for the specific soils on the site. In no case should the application of these adhesives be made on wet soils or if there is a probability of precipitation within 48 hours of its proposed use. Material Safety Data Sheets will be provided to all applicators and others working with the material.

B. Driving Areas – These areas utilize water, polymer emulsions, and barriers to prevent dust movement from the traffic surface into the air.

Sprinkling – The site may be sprayed with water until the surface is wet. This is especially effective on haul roads and access routes.

Polymer Additives – These polymers are mixed with water and applied to the driving surface by a water truck with a gravity feed drip bar, spray bar or automated distributor truck. The mixing ratios and application rates will be in accordance with the manufacturer's recommendations. Incorporation of the emulsion into the soil will be done to the appropriate depth based on expected traffic. Compaction after incorporation will be by vibratory roller to a minimum of 95%. The prepared surface shall be moist and no application of the polymer will be made if there is a probability of precipitation within 48 hours of its proposed use. Material Safety Data Sheets will be provided to all applicators working with the material.

Barriers – Woven geotextiles can be placed on the driving surface to effectively reduce dust throw and particle migration on haul roads. Stone can also be used for construction roads for effective dust control.

Windbreak – A silt fence or similar barrier can control air currents at intervals equal to ten times the barrier height. Preserve existing wind barrier vegetation as much as practical.

All Stormwater Pollution Prevention Plans must contain the NYS DEC issued “Conditions for Use” and “Application Instructions” for any polymers used on the site. This information can be obtained from the NYS DEC website.

Maintenance

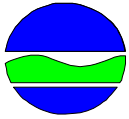
Maintain dust control measures through dry weather periods until all disturbed areas are stabilized.

Storm Water Pollution Prevention Plan

APPENDIX D

**NOI
NOT
PROJECT CORRESPONDENCE**

NOTICE OF INTENT



New York State Department of Environmental Conservation
Division of Water
625 Broadway, 4th Floor
Albany, New York 12233-3505

NYR
(for DEC use only)

Stormwater Discharges Associated with Construction Activity Under State Pollutant Discharge Elimination System (SPDES) General Permit # GP-0-10-001
All sections must be completed unless otherwise noted. Failure to complete all items may result in this form being returned to you, thereby delaying your coverage under this General Permit. Applicants must read and understand the conditions of the permit and prepare a Stormwater Pollution Prevention Plan prior to submitting this NOI. Applicants are responsible for identifying and obtaining other DEC permits that may be required.

- IMPORTANT -
RETURN THIS FORM TO THE ADDRESS ABOVE
OWNER/OPERATOR MUST SIGN FORM

Owner/Operator Information

Owner/Operator (Company Name/Private Owner Name/Municipality Name)

Owner/Operator Contact Person Last Name (NOT CONSULTANT)

Owner/Operator Contact Person First Name

Owner/Operator Mailing Address

City

State Zip -

Phone (Owner/Operator) - - Fax (Owner/Operator) - -

Email (Owner/Operator)

FED TAX ID - (not required for individuals)

3. Select the predominant land use for both pre and post development conditions.
SELECT ONLY ONE CHOICE FOR EACH

**Pre-Development
Existing Land Use**

- FOREST
- PASTURE/OPEN LAND
- CULTIVATED LAND
- SINGLE FAMILY HOME
- SINGLE FAMILY SUBDIVISION
- TOWN HOME RESIDENTIAL
- MULTIFAMILY RESIDENTIAL
- INSTITUTIONAL/SCHOOL
- INDUSTRIAL
- COMMERCIAL
- ROAD/HIGHWAY
- RECREATIONAL/SPORTS FIELD
- BIKE PATH/TRAIL
- LINEAR UTILITY
- PARKING LOT
- OTHER

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

**Post-Development
Future Land Use**

- SINGLE FAMILY HOME
- SINGLE FAMILY SUBDIVISION
- TOWN HOME RESIDENTIAL
- MULTIFAMILY RESIDENTIAL
- INSTITUTIONAL/SCHOOL
- INDUSTRIAL
- COMMERCIAL
- MUNICIPAL
- ROAD/HIGHWAY
- RECREATIONAL/SPORTS FIELD
- BIKE PATH/TRAIL
- LINEAR UTILITY (water, sewer, gas, etc.)
- PARKING LOT
- CLEARING/GRADING ONLY
- DEMOLITION, NO REDEVELOPMENT
- OTHER

Number of Lots

--	--	--

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

4. Will future use of this site be an agricultural property as defined by the NYS Agriculture and Markets Law ? Yes No

5. Is this a project which does not require coverage under the General Permit (e.g. Project done under an Individual SPDES Permit, or department approved remediation)? Yes No

6. Is this property owned by a state authority, state agency or local government? Yes No

7. In accordance with the larger common plan of development or sale, enter the total project site acreage, the acreage to be disturbed and the future impervious area (acreage) within the disturbed area. Round to the nearest tenth of an acre.

Total Site Acreage	Acreage To Be Disturbed	Existing Impervious Area Within Disturbed	Future Impervious Area Within Disturbed																				
<table border="1" style="display: inline-table; width: 60px; height: 25px;"> <tr> <td></td><td></td><td></td><td></td><td></td> </tr> </table>						<table border="1" style="display: inline-table; width: 60px; height: 25px;"> <tr> <td></td><td></td><td></td><td></td><td></td> </tr> </table>						<table border="1" style="display: inline-table; width: 60px; height: 25px;"> <tr> <td></td><td></td><td></td><td></td><td></td> </tr> </table>						<table border="1" style="display: inline-table; width: 60px; height: 25px;"> <tr> <td></td><td></td><td></td><td></td><td></td> </tr> </table>					

8. Do you plan to disturb more than 5 acres of soil at any one time? Yes No

9. Indicate the percentage of each Hydrologic Soil Group (HSG) at the site.

<p>A</p> <table border="1" style="display: inline-table; width: 40px; height: 25px;"> <tr> <td></td><td></td><td></td> </tr> </table> <p>%</p>				<p>B</p> <table border="1" style="display: inline-table; width: 40px; height: 25px;"> <tr> <td></td><td></td><td></td> </tr> </table> <p>%</p>				<p>C</p> <table border="1" style="display: inline-table; width: 40px; height: 25px;"> <tr> <td></td><td></td><td></td> </tr> </table> <p>%</p>				<p>D</p> <table border="1" style="display: inline-table; width: 40px; height: 25px;"> <tr> <td></td><td></td><td></td> </tr> </table> <p>%</p>			

30. Provide the total water quality volume required and the total provided for the site.

WQv Required
 . acre-feet

WQv Provided
 . acre-feet

31. Provide the following Unified Stormwater Sizing Criteria for the site.

Total Channel Protection Storage Volume (CPv) - Extended detention of post-developed 1 year, 24 hour storm event

CPv Required
 . acre-feet

CPv Provided
 . acre-feet

31a. The need to provide for channel protection has been waived because:

- Site discharges directly to fourth order stream or larger

Total Overbank Flood Control Criteria (Qp) - Peak discharge rate for the 10 year storm

Pre-Development
 . CFS

Post-development
 . CFS

Total Extreme Flood Control Criteria (Qf) - Peak discharge rate for the 100 year storm

Pre-Development
 . CFS

Post-development
 . CFS

31b. The need to provide for flood control has been waived because:

- Site discharges directly to fourth order stream or larger
- Downstream analysis reveals that flood control is not required

IMPORTANT: For questions 31 and 32, impervious area should be calculated considering the project site and all offsite areas that drain to the post-construction stormwater management practice(s). (Total Drainage Area = Project Site + Offsite areas)

32. Pre-Construction Impervious Area - As a percent of the Total Drainage Area enter the percentage of the existing impervious areas before construction begins.

 %

33. Post-Construction Impervious Area - As a percent of the Total Drainage Area, enter the percentage of the future impervious areas that will be created/remain on the site after completion of construction.

 %

34. Indicate the total number of post-construction stormwater management practices to be installed/constructed.

35. Provide the total number of stormwater discharge points from the site. (include discharges to either surface waters or to separate storm sewer systems)



**New York State Department of Environmental Conservation
Division of Water
625 Broadway, 4th Floor
Albany, New York 12233-3505**

(NOTE: Submit completed form to address above)

**NOTICE OF TERMINATION for Storm Water Discharges Authorized
under the SPDES General Permit for Construction Activity**

Please indicate your permit identification number: NYR ____ ____ ____ ____ ____

I. Owner or Operator Information

1. Owner/Operator Name:

2. Street Address:

3. City/State/Zip:

4. Contact Person:

4a. Telephone:

5. Contact Person E-Mail:

II. Project Site Information

5. Project/Site Name:

6. Street Address:

7. City/Zip:

8. County:

III. Reason for Termination

9a. All disturbed areas have achieved final stabilization in accordance with the general permit and SWPPP.
*Date final stabilization completed (month/year): _____

9b. Permit coverage has been transferred to new owner/operator. Indicate new owner/operator's permit identification number: NYR ____ ____ ____ ____ ____
(Note: Permit coverage can not be terminated by owner identified in I.1. above until new owner/operator obtains coverage under the general permit)

9c. Other (Explain on Page 2)

IV. Final Site Information:

10a. Did this construction activity require the development of a SWPPP that includes post-construction stormwater management practices? yes no (If no, go to question 10f.)

10b. Have all post-construction stormwater management practices included in the final SWPPP been constructed?
 yes no (If no, explain on Page 2)

10c. Identify the entity responsible for long-term operation and maintenance of practice(s)?

**NOTICE OF TERMINATION for Storm Water Discharges Authorized under the
SPDES General Permit for Construction Activity - continued**

10d. Has the entity responsible for long-term operation and maintenance been given a copy of the operation and maintenance plan required by the general permit? yes no

10e. Indicate the method used to ensure long-term operation and maintenance of the post-construction stormwater management practice(s):

- Post-construction stormwater management practice(s) and any right-of-way(s) needed to maintain practice(s) have been deeded to the municipality.
- Executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s).
- For post-construction stormwater management practices that are privately owned, the deed of record has been modified to include a deed covenant that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan.
- For post-construction stormwater management practices that are owned by a public or private institution (e.g. school, college, university), or government agency or authority, policy and procedures are in place that ensures operation and maintenance of the practice(s) in accordance with the operation and maintenance plan.

10f. Provide the total area of impervious surface (i.e. roof, pavement, concrete, gravel, etc.) constructed within the disturbance area? _____ (acres)

11. Is this project subject to the requirements of a regulated, traditional land use control MS4? yes no
(If Yes, complete section VI - "MS4 Acceptance" statement)

V. Additional Information/Explanation:
(Use this section to answer questions 9c. and 10b., if applicable)

VI. MS4 Acceptance - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative (Note: Not required when 9b. is checked -transfer of coverage)

I have determined that it is acceptable for the owner or operator of the construction project identified in question 5 to submit the Notice of Termination at this time.

Printed Name:

Title/Position:

Signature:

Date:

**NOTICE OF TERMINATION for Storm Water Discharges Authorized under the
SPDES General Permit for Construction Activity - continued**

VII. Qualified Inspector Certification - Final Stabilization:

I hereby certify that all disturbed areas have achieved final stabilization as defined in the current version of the general permit, and that all temporary, structural erosion and sediment control measures have been removed. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:

Title/Position:

Signature:

Date:

VIII. Qualified Inspector Certification - Post-construction Stormwater Management Practice(s):

I hereby certify that all post-construction stormwater management practices have been constructed in conformance with the SWPPP. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:

Title/Position:

Signature:

Date:

IX. Owner or Operator Certification

I hereby certify that this document was prepared by me or under my direction or supervision. My determination, based upon my inquiry of the person(s) who managed the construction activity, or those persons directly responsible for gathering the information, is that the information provided in this document is true, accurate and complete. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:

Title/Position:

Signature:

Date:

(NYS DEC Notice of Termination - January 2010)

Storm Water Pollution Prevention Plan

APPENDIX E

CONTRACTOR CERTIFICATIONS INSPECTION FORMS

CONTRACTOR CERTIFICATION STATEMENT

In accordance with SPDES GENERAL PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES, Permit Number GP-0-10-001, Part III. A 6.,

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

Project Title: _____

Elements of the SWPPP for which the undersigned is responsible:

Title: _____

Name of Contracting Company: _____

Address: _____

Phone: _____ Fax: _____

Authorized Representative of Contracting Company (Print)

Name of Trained Contractor*: _____ ID #: _____

Signature _____ Date _____
Name of Trained Contractor*: _____ ID #: _____

Signature _____ Date _____

*As required by GP-0-10-001 (Part III.A.6)

APPENDIX H

STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM FOR CONSTRUCTION ACTIVITIES CONSTRUCTION SITE LOG BOOK

Table of Contents

- I. Pre-Construction Meeting Documents
 - a. Preamble to Site Assessment and Inspections
 - b. Operator's Certification
 - c. Qualified Professional's Credentials & Certification
 - d. Pre-Construction Site Assessment Checklist

- II. Construction Duration Inspections
 - a. Directions
 - b. Modification to the SWPPP

- III. Monthly Summary Reports

- IV. Monitoring, Reporting, and Three-Month Status Reports
 - a. Operator's Compliance Response Form

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

I. PRE-CONSTRUCTION MEETING DOCUMENTS

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

a. Preamble to Site Assessment and Inspections

The Following Information To Be Read By All Person's Involved in The Construction of Stormwater Related Activities:

The Operator agrees to have a qualified professional¹ conduct an assessment of the site prior to the commencement of construction² and certify in this inspection report that the appropriate erosion and sediment controls described in the SWPPP have been adequately installed or implemented to ensure overall preparedness of the site for the commencement of construction.

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

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

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

Prior to filing the Notice of Termination or the end of permit term, the Operator shall have a qualified professional perform a final site inspection. The qualified professional shall certify that the site has undergone final stabilization³ using either vegetative or structural stabilization methods and that all temporary erosion and sediment controls (such as silt fencing) not needed for long-term erosion control have been removed. In addition, the Operator must identify and certify that all permanent structures described in the SWPPP have been constructed and provide the owner(s) with an operation and maintenance plan that ensures the structure(s) continuously functions as designed.

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

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

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

b. Operators Certification

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

Name (please print): _____

Title _____ **Date:** _____

Address: _____

Phone: _____ **Email:** _____

Signature: _____

c. Qualified Professional's Credentials & Certification

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

Name (please print): _____

Title _____ **Date:** _____

Address: _____

Phone: _____ **Email:** _____

Signature: _____

d. Pre-construction Site Assessment Checklist

(NOTE: Provide comments below as necessary)

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

Yes No NA

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

2. Resource Protection

Yes No NA

- Are construction limits clearly flagged or fenced?
- Important trees and associated rooting zones, on-site septic system absorption fields, existing vegetated areas suitable for filter strips, especially in perimeter areas, have been flagged for protection.
- Creek crossings installed prior to land-disturbing activity, including clearing and blasting.

3. Surface Water Protection

Yes No NA

- Clean stormwater runoff has been diverted from areas to be disturbed.
- Bodies of water located either on site or in the vicinity of the site have been identified and protected.
- Appropriate practices to protect on-site or downstream surface water are installed.
- Are clearing and grading operations divided into areas <5 acres?

4. Stabilized Construction Entrance

Yes No NA

- A temporary construction entrance to capture mud and debris from construction vehicles before they enter the public highway has been installed.
- Other access areas (entrances, construction routes, equipment parking areas) are stabilized immediately as work takes place with gravel or other cover.
- Sediment tracked onto public streets is removed or cleaned on a regular basis.

5. Perimeter Sediment Controls

Yes No NA

- Silt fence material and installation comply with the standard drawing and specifications.
- Silt fences are installed at appropriate spacing intervals
- Sediment/detention basin was installed as first land disturbing activity.
- Sediment traps and barriers are installed.

6. Pollution Prevention for Waste and Hazardous Materials

Yes No NA

- The Operator or designated representative has been assigned to implement the spill prevention avoidance and response plan.
- The plan is contained in the SWPPP on page _____
- Appropriate materials to control spills are onsite. Where? _____

II. CONSTRUCTION DURATION INSPECTIONS

a. Directions:

Inspection Forms will be filled out during the entire construction phase of the project.

Required Elements:

- (1) On a site map, indicate the extent of all disturbed site areas and drainage pathways. Indicate site areas that are expected to undergo initial disturbance or significant site work within the next 14-day period;
- (2) Indicate on a site map all areas of the site that have undergone temporary or permanent stabilization;
- (3) Indicate all disturbed site areas that have not undergone active site work during the previous 14-day period;
- (4) Inspect all sediment control practices and record the approximate degree of sediment accumulation as a percentage of sediment storage volume (for example, 10 percent, 20 percent, 50 percent);
- (5) Inspect all erosion and sediment control practices and record all maintenance requirements such as verifying the integrity of barrier or diversion systems (earthen berms or silt fencing) and containment systems (sediment basins and sediment traps). Identify any evidence of rill or gully erosion occurring on slopes and any loss of stabilizing vegetation or seeding/mulching. Document any excessive deposition of sediment or ponding water along barrier or diversion systems. Record the depth of sediment within containment structures, any erosion near outlet and overflow structures, and verify the ability of rock filters around perforated riser pipes to pass water; and
- (6) Immediately report to the Operator any deficiencies that are identified with the implementation of the SWPPP.

SITE PLAN/SKETCH

Inspector (print name)

Date of Inspection

Qualified Professional (print name)

Qualified Professional Signature

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

Maintaining Water Quality

Yes No NA

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

Housekeeping

1. General Site Conditions

Yes No NA

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

2. Temporary Stream Crossing

Yes No NA

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

Runoff Control Practices

1. Excavation Dewatering

Yes No NA

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

2. Level Spreader

Yes No NA

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

3. Interceptor Dikes and Swales

Yes No NA

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

4. Stone Check Dam

Yes No NA

- Is channel stable? (flow is not eroding soil underneath or around the structure).
- Check is in good condition (rocks in place and no permanent pools behind the structure).
- Has accumulated sediment been removed?.

5. Rock Outlet Protection

Yes No NA

- Installed per plan.
- Installed concurrently with pipe installation.

Soil Stabilization

1. Topsoil and Spoil Stockpiles

Yes No NA

- Stockpiles are stabilized with vegetation and/or mulch.
- Sediment control is installed at the toe of the slope.

2. Revegetation

Yes No NA

- Temporary seedings and mulch have been applied to idle areas.
- 4 inches minimum of topsoil has been applied under permanent seedings

Sediment Control Practices

1. Stabilized Construction Entrance

Yes No NA

- Stone is clean enough to effectively remove mud from vehicles.
- Installed per standards and specifications?
- Does all traffic use the stabilized entrance to enter and leave site?
- Is adequate drainage provided to prevent ponding at entrance?

2. Silt Fence

Yes No NA

- Installed on Contour, 10 feet from toe of slope (not across conveyance channels).
 - Joints constructed by wrapping the two ends together for continuous support.
 - Fabric buried 6 inches minimum.
 - Posts are stable, fabric is tight and without rips or frayed areas.
- Sediment accumulation is ___% of design capacity.

Sediment Control Practices (continued)

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

Yes No NA

- Installed concrete blocks lengthwise so open ends face outward, not upward.
 - Placed wire screen between No. 3 crushed stone and concrete blocks.
 - Drainage area is 1acre or less.
 - Excavated area is 900 cubic feet.
 - Excavated side slopes should be 2:1.
 - 2" x 4" frame is constructed and structurally sound.
 - Posts 3-foot maximum spacing between posts.
 - Fabric is embedded 1 to 1.5 feet below ground and secured to frame/posts with staples at max 8-inch spacing.
 - Posts are stable, fabric is tight and without rips or frayed areas.
- Sediment accumulation ___% of design capacity.

4. Temporary Sediment Trap

Yes No NA

- Outlet structure is constructed per the approved plan or drawing.
 - Geotextile fabric has been placed beneath rock fill.
- Sediment accumulation is ___% of design capacity.

5. Temporary Sediment Basin

Yes No NA

- Basin and outlet structure constructed per the approved plan.
 - Basin side slopes are stabilized with seed/mulch.
 - Drainage structure flushed and basin surface restored upon removal of sediment basin facility.
- Sediment accumulation is ___% of design capacity.

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

Storm Water Pollution Prevention Plan

APPENDIX F

**SPDES GENERAL PERMIT
GP-0-10-001**



NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SPDES GENERAL PERMIT
FOR STORMWATER DISCHARGES

from

CONSTRUCTION ACTIVITY

Permit No. GP-0-10-001

Issued Pursuant to Article 17, Titles 7, 8 and Article 70
of the Environmental Conservation Law

Effective Date: January 29, 2010

Expiration Date: January 28, 2015

William R. Adriance
Chief Permit Administrator

William R. Adriance
Authorized Signature

January 28, 2010
Date

Address: NYS DEC
Div. Environmental Permits
625 Broadway, 4th Floor
Albany, N.Y. 12233-1750

PREFACE

Pursuant to Section 402 of the Clean Water Act (“CWA”), stormwater *discharges* from certain *construction activities* are unlawful unless they are authorized by a *National Pollutant Discharge Elimination System (“NPDES”)* permit or by a state permit program. New York’s *State Pollutant Discharge Elimination System (“SPDES”)* is a NPDES-approved program with permits issued in accordance with the *Environmental Conservation Law (“ECL”)*.

This general permit (“permit”) is issued pursuant to Article 17, Titles 7, 8 and Article 70 of the ECL. An *owner or operator* may obtain coverage under this permit by submitting a Notice of Intent (“NOI”) to the Department. Copies of this permit and the NOI for New York are available by calling (518) 402-8109 or at any New York State Department of Environmental Conservation (“the Department”) regional office (see Appendix G). They are also available on the Department’s website at:

<http://www.dec.ny.gov/>

An *owner or operator* of a *construction activity* that is eligible for coverage under this permit must obtain coverage prior to the *commencement of construction activity*. Activities that fit the definition of “*construction activity*”, as defined under 40 CFR 122.26(b)(14)(x), (15)(i), and (15)(ii), constitute construction of a point source and therefore, pursuant to Article 17-0505 of the ECL, the *owner or operator* must have coverage under a SPDES permit prior to *commencing construction activity*. They cannot wait until there is an actual *discharge* from the construction site to obtain permit coverage.

***Note: The italicized words/phrases within this permit are defined in Appendix A.**

**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SPDES GENERAL PERMIT FOR STORMWATER DISCHARGES**

FROM CONSTRUCTION ACTIVITIES

TABLE OF CONTENTS

Part I. PERMIT COVERAGE AND LIMITATIONS 5
 A. Permit Application 5
 B. Maintaining Water Quality 5
 C. Eligibility Under This General Permit 5
 D. Activities Which Are Ineligible for Coverage Under This General Permit 6
Part II. OBTAINING PERMIT COVERAGE 7
 A. Notice of Intent (NOI) Submittal 7
 B. Permit Authorization 8
 C. General Requirements For Owners or Operators With Permit Coverage 9
 D. Permit Coverage for Discharges Authorized Under GP-0-08-001 11
 E. Change of Owner or Operator 11
Part III. STORMWATER POLLUTION PREVENTION PLAN (SWPPP) 11
 A. General SWPPP Requirements 11
 B. Required SWPPP Contents 14
 C. Required SWPPP Components by Project Type 18
Part IV. INSPECTION AND MAINTENANCE REQUIREMENTS 18
 A. General Construction Site Inspection and Maintenance Requirements 18
 B. Owner or Operator Maintenance Inspection Requirements 18
 C. Qualified Inspector Inspection Requirements 19
Part V. TERMINATION OF PERMIT COVERAGE 22
 A. Termination of Permit Coverage 22
Part VI. REPORTING AND RETENTION OF RECORDS 24
 A. Record Retention 24
 B. Addresses 24
Part VII. STANDARD PERMIT CONDITIONS 24
 A. Duty to Comply 24
 B. Continuation of the Expired General Permit 25
 C. Enforcement 25
 D. Need to Halt or Reduce Activity Not a Defense 25
 E. Duty to Mitigate 25
 F. Duty to Provide Information 25
 G. Other Information 25
 H. Signatory Requirements 26
 I. Property Rights 27
 J. Severability 27
 K. Denial of Coverage Under This Permit 28
 L. Proper Operation and Maintenance 28
 M. Inspection and Entry 28
 N. Permit Actions 29
 O. Definitions 29

P. Re-Opener Clause.....	29
Q. Penalties for Falsification of Forms and Reports.....	29
R. Other Permits.....	29
APPENDIX A.....	30
APPENDIX B.....	35
APPENDIX C.....	37
APPENDIX D.....	42
APPENDIX E.....	43
APPENDIX F.....	45

Part I. PERMIT COVERAGE AND LIMITATIONS

A. Permit Application - This permit authorizes stormwater *discharges* to *surface waters of the State* from the following *construction activities* identified within 40 CFR Parts 122.26(b)(14)(x), 122.26(b)(15)(i) and 122.26(b)(15)(ii), provided all of the eligibility provisions of this permit are met:

1. *Construction activities* involving soil disturbances of one (1) or more acres; including disturbances of less than one acre that are part of a *larger common plan of development or sale* that will ultimately disturb one or more acres of land; excluding *routine maintenance activity* that is performed to maintain the original line and grade, hydraulic capacity or original purpose of a facility;
2. *Construction activities* involving soil disturbances of less than one (1) acre where the Department has determined that a *SPDES* permit is required for stormwater *discharges* based on the potential for contribution to a violation of a *water quality standard* or for significant contribution of *pollutants* to *surface waters of the State*.
3. *Construction activities* located in the watershed(s) identified in Appendix D that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land.

B. Maintaining Water Quality - It shall be a violation of this permit and the *ECL* for any *discharge* to either cause or contribute to a violation of *water quality standards* as contained in Parts 700 through 705 of Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York, such as:

1. There shall be no increase in turbidity that will cause a substantial visible contrast to natural conditions;
2. There shall be no increase in suspended, colloidal or settleable solids that will cause deposition or impair the waters for their best usages; and
3. There shall be no residue from oil and floating substances, nor visible oil film, nor globules of grease.

C. Eligibility Under This General Permit

1. This permit may authorize all *discharges* of stormwater from *construction activity* to *surface waters of the State* and *groundwaters* except for ineligible *discharges* identified under subparagraph D. of this Part.
2. Except for non-stormwater *discharges* explicitly listed in the next paragraph, this permit only authorizes stormwater discharges from *construction activities*.

(Part I. C)

3. Notwithstanding paragraphs C.1 and C.2 above, the following non-stormwater *discharges* may be authorized by this permit: discharges from fire fighting activities; fire hydrant flushings; waters to which cleansers or other components have not been added that are used to wash vehicles or control dust in accordance with the SWPPP, routine external building washdown which does not use detergents; pavement washwaters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used; air conditioning condensate; uncontaminated groundwater or spring water; uncontaminated discharges from construction site de-watering operations; and foundation or footing drains where flows are not contaminated with process materials such as solvents. For those entities required to obtain coverage under this permit, and who discharge as noted in this paragraph, and with the exception of flows from fire fighting activities, these discharges must be identified in the SWPPP. Under all circumstances, the *owner or operator* must still comply with water quality standards in Part I.B.

D. Activities Which Are Ineligible for Coverage Under This General Permit - All of the following are **not** authorized by this permit:

1. *Discharges* after *construction activities* have been completed and the site has undergone *final stabilization*;
2. *Discharges* that are mixed with sources of non-stormwater other than those expressly authorized under subsection C.3. of this Part and identified in the SWPPP required by this permit;
3. *Discharges* that are required to obtain an individual SPDES permit or another SPDES general permit pursuant to Part VII, subparagraph K of this permit;
4. *Discharges* from *construction activities* that adversely affect a listed, or proposed to be listed, endangered or threatened species, or its critical habitat;
5. *Discharges* which either cause or contribute to a violation of *water quality standards* adopted pursuant to the *ECL* and its accompanying regulations;
6. *Construction activities* for residential, commercial and institutional projects that:
 - a. are tributary to waters of the state classified as AA or AA-s; and

(Part I. D. 6)

- b. disturb one or more acres of land with no existing impervious cover and where the Soil Slope Phase is identified as an E or F on the USDA Soil Survey for the County in which the disturbance will occur.
7. *Construction activities* for linear transportation projects and linear utility projects that:
 - a. are tributary to waters of the state classified as AA or AA-s; and
 - b. disturb two or more acres of land with no existing impervious cover and where the Soil Slope Phase is identified as an E or F on the USDA Soil Survey for the County in which the disturbance will occur.
8. *Construction activities* that adversely affect a property that is listed or is eligible for listing on the State or National Register of Historic Places (Note: includes Archeological sites), unless there are written agreements in place with the NYS Office of Parks, Recreation and Historic Preservation (OPRHP) or other governmental agencies to mitigate the effects, or there are local land use approvals evidencing the same.

Part II. OBTAINING PERMIT COVERAGE

A. Notice of Intent (NOI) Submittal

1. An *owner or operator* of a *construction activity* that is not subject to the requirements of a *regulated, traditional land use control MS4* must first develop a SWPPP in accordance with all applicable requirements of this permit and then submit a completed NOI form to the address below in order to be authorized to *discharge* under this permit. The NOI form shall be one which is associated with this permit, signed in accordance with Part VII.H. of this permit.

**NOTICE OF INTENT
NYS DEC, Bureau of Water Permits
625 Broadway, 4th Floor
Albany, New York 12233-3505**

2. An *owner or operator* of a *construction activity* that is subject to the requirements of a *regulated, traditional land use control MS4* must first develop a SWPPP in accordance with all applicable requirements of this permit and then have its SWPPP reviewed and accepted by the *MS4* prior to submitting the NOI to the Department. The *owner or operator* shall have the “MS4 SWPPP Acceptance” form signed by the principal executive officer or ranking elected official from the *regulated, traditional land use control MS4*, or by a duly authorized representative of that person, and then submit that form along with the NOI to the address referenced under “Notice of Intent (NOI) Submittal”.

(Part II. A.2)

This requirement does not apply to an *owner or operator* that is obtaining permit coverage in accordance with the requirements in Part II.E. (Change of Owner or Operator).

3. The *owner or operator* shall have the SWPPP preparer sign the “SWPPP Preparer Certification” statement on the NOI prior to submitting the form to the Department.
4. As of the date the NOI is submitted to the Department, the *owner or operator* shall make the NOI and SWPPP available for review and copying in accordance with the requirements in Part VII.F. of this permit.

B. Permit Authorization

1. An *owner or operator* shall not *commence construction activity* until their authorization to *discharge* under this permit goes into effect.
2. Authorization to *discharge* under this permit will be effective when the *owner or operator* has satisfied all of the following criteria:
 - a. project review pursuant to the State Environmental Quality Review Act (SEQRA) have been satisfied, when SEQRA is applicable,
 - b. where required, all necessary Department permits subject to the *Uniform Procedures Act (UPA)* (see 6 NYCRR Part 621) have been obtained, unless otherwise notified by the Department pursuant to 6 NYCRR 621.3(a)(4). *Owners or operators of construction activities* that are required to obtain *UPA* permits must submit a preliminary SWPPP to the appropriate DEC Regional Office in Appendix F at the time all other necessary *UPA* permit applications are submitted. The preliminary SWPPP must include sufficient information to demonstrate that the *construction activity* qualifies for authorization under this permit,
 - c. the final SWPPP has been prepared, and
 - d. an NOI has been submitted to the Department in accordance with the requirements of this permit.
3. An *owner or operator* that has satisfied the requirements of Part II.B.2 above will be authorized to *discharge* stormwater from their *construction activity* in accordance with the following schedule:

(Part II. B. 3)

- a. For *construction activities* that are not subject to the requirements of a *regulated, traditional land use control MS4*:
 - i. Five (5) business days from the date the Department receives a complete NOI for *construction activities* with a SWPPP that has been prepared in conformance with the technical standards referenced in Parts III.B.1, 2 and/or 3, or
 - ii. Sixty (60) business days from the date the Department receives a complete NOI for *construction activities* with a SWPPP that has not been prepared in conformance with the technical standards referenced in Parts III.B.1, 2 or 3.
- b. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4*:
 - i. Five (5) business days from the date the Department receives a complete NOI and signed “MS4 SWPPP Acceptance” form,
4. The Department may suspend or deny an *owner’s or operator’s* coverage under this permit if the Department determines that the SWPPP does not meet the permit requirements.
5. Coverage under this permit authorizes stormwater *discharges* from only those areas of disturbance that are identified in the NOI. If an *owner or operator* wishes to have stormwater *discharges* from future or additional areas of disturbance authorized, they must submit a new NOI that addresses that phase of the development, unless otherwise notified by the Department.

C. General Requirements For Owners or Operators With Permit Coverage

1. The *owner or operator* shall ensure that the provisions of the SWPPP are implemented from the *commencement of construction activity* until all areas of disturbance have achieved *final stabilization* and the Notice of Termination (NOT) has been submitted to the Department in accordance with Part V. of this permit. This includes any changes made to the SWPPP pursuant to Part III.A.4.
2. The *owner or operator* shall maintain a copy of the General Permit (GP-0-10-001), NOI, *NOI Acknowledgment Letter*, SWPPP, MS4 SWPPP Acceptance form and inspection reports at the construction site until all disturbed areas have achieved *final stabilization* and the NOT has been submitted to the Department.

(Part II. C. 2)

The documents must be maintained in a secure location, such as a job trailer, on-site construction office, or mailbox with lock. The secure location must be accessible during normal business hours to an individual performing a compliance inspection.

3. The *owner or operator* of a *construction activity* shall not disturb greater than five (5) acres of soil at any one time without prior written authorization from the Department or, in areas under the jurisdiction of a *regulated, traditional land use control MS4*, the MS4 (provided the MS4 is not the *owner or operator* of the construction activity). At a minimum, the *owner or operator* must comply with the following requirements in order to be authorized to disturb greater than five (5) acres of soil at any one time:
 - a. The *owner or operator* shall have a *qualified inspector* conduct **at least** two (2) site inspections in accordance with Part IV.C. every seven (7) calendar days, for as long as greater than five (5) acres of soil remain disturbed. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.
 - b. In areas where soil disturbance activity has been temporarily or permanently ceased, temporary and/or permanent soil stabilization measures shall be installed and/or implemented within seven (7) days from the date the soil disturbance activity ceased. The soil stabilization measures selected shall be in conformance with the most current version of the technical standard, New York State Standards and Specifications for Erosion and Sediment Control.
 - c. The *owner or operator* shall prepare a phasing plan that defines maximum disturbed area per phase and shows required cuts and fills.
 - d. The *owner or operator* shall install any additional site specific practices needed to protect water quality.
 - e. The *owner or operator* shall include the requirements above in their SWPPP.
4. The Department may suspend or revoke an *owner's or operator's* coverage under this permit at any time if the Department determines that the SWPPP does not meet the permit requirements.

(Part II. C)

5. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4*, the *owner or operator* shall notify the *MS4* in writing of any planned amendments or modifications to the post-construction stormwater management practice component of the SWPPP required by Part III.A. 4. and 5. of this permit. Unless otherwise notified by the *MS4*, the *owner or operator* shall have the SWPPP amendments or modifications reviewed and accepted by the *MS4* prior to commencing construction of the post-construction stormwater management practice.

D. Permit Coverage for Discharges Authorized Under GP-0-08-001

1. Upon renewal of SPDES General Permit for Stormwater Discharges from Construction Activity (Permit No. GP-0-08-001), an *owner or operator* of *construction activity* with coverage under GP-0-08-001, as of the effective date of GP-0-10-001, shall be authorized to *discharge* in accordance with GP-0-10-001 unless otherwise notified by the Department.

E. Change of Owner or Operator

1. When property ownership changes or when there is a change in operational control over the construction plans and specifications, the original *owner or operator* must notify the new *owner or operator*, in writing, of the requirement to obtain permit coverage by submitting a NOI with the Department. Once the new *owner or operator* obtains permit coverage, the original *owner or operator* shall then submit a completed NOT with the name and permit identification number of the new *owner or operator* to the Department at the address in Part II.A.1.. If the original *owner or operator* maintains ownership of a portion of the *construction activity* and will disturb soil, they must maintain their coverage under the permit.

Permit coverage for the new *owner or operator* will be effective as of the date the Department receives a complete NOI, provided the original *owner or operator* was not subject to a sixty (60) business day authorization period that has not expired as of the date the Department receives the NOI from the new *owner or operator*.

Part III. STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

A. General SWPPP Requirements

1. The SWPPP shall be prepared prior to the submittal of the NOI. The NOI shall be submitted to the Department prior to the *commencement of construction activity*.

(Part III. A)

2. The SWPPP shall describe the erosion and sediment control practices and where required, post-construction stormwater management practices that will be used and/or constructed to reduce the pollutants in stormwater discharges and to assure compliance with the terms and conditions of this permit. In addition, the SWPPP shall identify potential sources of pollution which may reasonably be expected to affect the quality of stormwater *discharges*.
3. All SWPPPs that require the post-construction stormwater management practice component shall be prepared by a *qualified professional* that is knowledgeable in the principles and practices of stormwater management and treatment.
4. The *owner or operator* must keep the SWPPP current so that it at all times accurately documents the erosion and sediment controls practices that are being used or will be used during construction, and all post-construction stormwater management practices that will be constructed on the site. At a minimum, the *owner or operator* shall amend the SWPPP:
 - a. whenever the current provisions prove to be ineffective in minimizing pollutants in stormwater *discharges* from the site;
 - b. whenever there is a change in design, construction, or operation at the construction site that has or could have an effect on the discharge of pollutants; and
 - c. to address issues or deficiencies identified during an inspection by the *qualified inspector*, the Department or other regulatory authority.
5. The Department may notify the *owner or operator* at any time that the SWPPP does not meet one or more of the minimum requirements of this permit. The notification shall be in writing and identify the provisions of the SWPPP that require modification. Within fourteen (14) calendar days of such notification, or as otherwise indicated by the Department, the *owner or operator* shall make the required changes to the SWPPP and submit written notification to the Department that the changes have been made. If the *owner or operator* does not respond to the Department's comments in the specified time frame, the Department may suspend the *owner's or operator's* coverage under this permit.
6. Prior to the *commencement of construction activity*, the *owner or operator* must identify the contractor(s) and subcontractor(s) that will be responsible for installing, constructing, repairing, replacing, inspecting and maintaining the erosion and sediment control practices included in the SWPPP; and the contractor(s) and subcontractor(s) that will be responsible for constructing the post-construction stormwater management practices included in the SWPPP.

(Part III. A. 6)

The *owner or operator* shall have each of the contractors and subcontractors identify at least one person from their company that will be responsible for implementation of the SWPPP. This person shall be known as the *trained contractor*. The *owner or operator* shall ensure that at least one *trained contractor* is on site on a daily basis when soil disturbance activities are being performed.

The *owner or operator* shall have each of the contractors and subcontractors identified above sign a copy of the following certification statement below before they commence any *construction activity*:

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

In addition to providing the certification statement above, the certification page must also identify the specific elements of the SWPPP that each contractor and subcontractor will be responsible for and include the name and title of the person providing the signature; the name and title of the *trained contractor* responsible for SWPPP implementation; the name, address and telephone number of the contracting firm; the address (or other identifying description) of the site; and the date the certification statement is signed. The *owner or operator* shall attach the certification statement(s) to the copy of the SWPPP that is maintained at the construction site. If new or additional contractors are hired to implement measures identified in the SWPPP after construction has commenced, they must also sign the certification statement and provide the information listed above.

7. For projects where the Department requests a copy of the SWPPP or inspection reports, the *owner or operator* shall submit the documents in both electronic (PDF only) and paper format within five (5) business days, unless otherwise notified by the Department.
8. The SWPPP must include documentation supporting the determination of permit eligibility with regard to Part I.D.8. (Historic Places or Archeological Resource). At a minimum, the supporting documentation shall include the following:

(Part III. A. 8)

- a. Information on whether the stormwater discharge or *construction activities* would have an effect on a property (historic or archeological resource) that is listed or eligible for listing on the State or National Register of Historic Places;
- b. Results of historic resources screening determinations conducted. Information regarding the location of historic places listed, or eligible for listing, on the State or National Registers of Historic Places and and areas of archeological sensitivity that may indicate the need for a survey can be obtained online by viewing the New York State Office of Parks, Recreation and Historic Places (OPRHP) online resources located on their web site at: <http://nysparks.state.ny.us/shpo/online-tools/> (using The Geographic Information System for Archeology and National Register). OPRHP can also be contacted at: NYS OPRHP, State Historic Preservation Office, Peebles Island Resources Center, P.O. Box 189, Waterford, NY 12188-0189, phone: 518-237-8643;
- c. A description of measures necessary to avoid or minimize adverse impacts on places listed, or eligible for listing, on the State or National Register of Historic Places. If the *owner or operator* fails to describe and implement such measures, the stormwater *discharge* is ineligible for coverage under this permit; and
- d. Where adverse effects may occur, any written agreements in place with OPRHP or other governmental agency to mitigate those effects, or local land use approvals evidencing the same.

B. Required SWPPP Contents

1. Erosion and sediment control component - All SWPPPs prepared pursuant to this permit shall include erosion and sediment control practices designed in conformance with the most current version of the technical standard, New York State Standards and Specifications for Erosion and Sediment Control. Where erosion and sediment control practices are not designed in conformance with this technical standard, the *owner or operator* must demonstrate equivalence to the technical standard. At a minimum, the erosion and sediment control component of the SWPPP shall include the following:
 - a. Background information about the scope of the project, including the location, type and size of project;

(Part III. B. 1)

- b. A site map/construction drawing(s) for the project, including a general location map. At a minimum, the site map shall show the total site area; all improvements; areas of disturbance; areas that will not be disturbed; existing vegetation; on-site and adjacent off-site surface water(s), wetlands and drainage patterns that could be affected by the construction activity; existing and final slopes; locations of different soil types with boundaries; material, waste, borrow or equipment storage areas located on adjacent properties; and location(s) of the stormwater discharge(s);
- c. A description of the soil(s) present at the site, including an identification of the Hydrologic Soil Group (HSG);
- d. A construction phasing plan and sequence of operations describing the intended order of construction activities, including clearing and grubbing, excavation and grading, utility and infrastructure installation and any other activity at the site that results in soil disturbance;
- e. A description of the minimum erosion and sediment control practices to be installed or implemented for each construction activity that will result in soil disturbance. Include a schedule that identifies the timing of initial placement or implementation of each erosion and sediment control practice and the minimum time frames that each practice should remain in place or be implemented;
- f. A temporary and permanent soil stabilization plan that meets the requirements of the most current version of the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, for each stage of the project, including initial land clearing and grubbing to project completion and achievement of final stabilization;
- g. A site map/construction drawing(s) showing the specific location(s), size(s), and length(s) of each erosion and sediment control practice;
- h. The dimensions, material specifications, installation details, and operation and maintenance requirements for all erosion and sediment control practices. Include the location and sizing of any temporary sediment basins and structural practices that will be used to divert flows from exposed soils;

(Part III. B. 1)

- i. A maintenance inspection schedule for the contractor(s) identified in Part III.A.6., to ensure continuous and effective operation of the erosion and sediment control practices. The maintenance inspection schedule shall be in accordance with the requirements in the most current version of the technical standard, New York State Standards and Specifications for Erosion and Sediment Control;
 - j. A description of the pollution prevention measures that will be used to control litter, construction chemicals and construction debris from becoming a pollutant source in the stormwater *discharges*;
 - k. A description and location of any stormwater *discharges* associated with industrial activity other than construction at the site, including, but not limited to, stormwater *discharges* from asphalt plants and concrete plants located on the construction site; and
 - l. Identification of any elements of the design that are not in conformance with the requirements in the most current version of the technical standard, New York State Standards and Specifications for Erosion and Sediment Control. Include the reason for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is equivalent to the technical standards.
2. Post-construction stormwater management practice component - All construction projects identified in Table 2 of Appendix B as needing post-construction stormwater management practices shall prepare a SWPPP that includes practices designed in conformance with the most current version of the technical standard, New York State Stormwater Management Design Manual (“Design Manual”). If the Design Manual is revised during the term of this permit, an *owner or operator* must begin using the revised version of the Design Manual to prepare their SWPPP six (6) months from the final revision date of the Design Manual.

Where post-construction stormwater management practices are not designed in conformance with this technical standard, the *owner or operator* must demonstrate equivalence to the technical standard.

At a minimum, the post-construction stormwater management practice component of the SWPPP shall include the following:

- a. Identification of all post-construction stormwater management practices to be constructed as part of the project;

(Part III. B. 2)

- b. A site map/construction drawing(s) showing the specific location and size of each post-construction stormwater management practice;
 - c. The dimensions, material specifications and installation details for each post-construction stormwater management practice;
 - d. Identification of any elements of the design that are not in conformance with the Design Manual. Include the reason for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is equivalent to the technical standards;
 - e. A hydrologic and hydraulic analysis for all structural components of the stormwater management control system;
 - f. A detailed summary (including calculations) of the sizing criteria that was used to design all post-construction stormwater management practices. At a minimum, the summary shall address the required design criteria from the applicable chapter of the Design Manual; including the identification of and justification for any deviations from the Design Manual, and identification of any design criteria that are not required based on the design criteria or waiver criteria included in the Design Manual; and
 - g. An operations and maintenance plan that includes inspection and maintenance schedules and actions to ensure continuous and effective operation of each post-construction stormwater management practice. The plan shall identify the entity that will be responsible for the long term operation and maintenance of each practice.
3. Enhanced Phosphorus Removal Standards - All construction projects identified in Table 2 of Appendix B that are located in the watersheds identified in Appendix C shall prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the Enhanced Phosphorus Removal Standards included in the Design Manual. At a minimum, the post-construction stormwater management practice component of the SWPPP shall include items 2.a - 2.g. above.

(Part III. C)

C. Required SWPPP Components by Project Type - Unless otherwise notified by the Department, *owners or operators of construction activities* identified in Table 1 of Appendix B are required to prepare a SWPPP that only includes erosion and sediment control practices designed in conformance with Part III.B.1. *Owners or operators* of the *construction activities* identified in Table 2 of Appendix B shall prepare a SWPPP that also includes post-construction stormwater management practices designed in conformance with Part III.B.2 or 3.

Part IV. INSPECTION AND MAINTENANCE REQUIREMENTS

A. General Construction Site Inspection and Maintenance Requirements

1. The *owner or operator* must ensure that all erosion and sediment control practices and all post-construction stormwater management practices identified in the SWPPP are maintained in effective operating condition at all times.
2. The terms of this permit shall not be construed to prohibit the State of New York from exercising any authority pursuant to the ECL, common law or federal law, or prohibit New York State from taking any measures, whether civil or criminal, to prevent violations of the laws of the State of New York, or protect the public health and safety and/or the environment.

B. Owner or Operator Maintenance Inspection Requirements

1. The *owner or operator* shall inspect, in accordance with the requirements in the most current version of the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, the erosion and sediment controls identified in the SWPPP to ensure that they are being maintained in effective operating condition at all times.
2. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and temporary stabilization measures have been applied to all disturbed areas, the *owner or operator* can stop conducting the maintenance inspections. The *owner or operator* shall begin conducting the maintenance inspections in accordance with Part IV.B.1. as soon as soil disturbance activities resume.
3. For construction sites where soil disturbance activities have been shut down with partial project completion, the *owner or operator* can stop conducting the maintenance inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational.

(Part IV. C)

C. Qualified Inspector Inspection Requirements - The *owner or operator* shall have a *qualified inspector* conduct site inspections in conformance with the following requirements:

[Note: The *trained contractor* identified in Part III.A.6. **cannot** conduct the *qualified inspector* site inspections unless they meet the *qualified inspector* qualifications included in Appendix A. In order to perform these inspections, the *trained contractor* would have to be a:

- Licensed Professional Engineer,
- Certified Professional in Erosion and Sediment Control (CPESC),
- Registered Landscape Architect, or
- Someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity].

1. A *qualified inspector* shall conduct site inspections for all *construction activities* identified in Tables 1 and 2 of Appendix B, with the exception of:

- a. the construction of a single family residential subdivision with 25% or less impervious cover at total site build-out that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E;
- b. the construction of a single family home that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E;
- c. construction on agricultural property that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres; and
- d. construction activities located in the watersheds identified in Appendix D that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land.

2. Unless otherwise notified by the Department, the *qualified inspector* shall conduct site inspections in accordance with the following timetable:

- a. For construction sites where soil disturbance activities are on-going, the *qualified inspector* shall conduct a site inspection at least once every seven (7) calendar days.

(Part IV. C. 2)

- b. For construction sites where soil disturbance activities are on-going and the *owner or operator* has received authorization in accordance with Part II.C.3 to disturb greater than five (5) acres of soil at any one time, the *qualified inspector* shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.
- c. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and temporary stabilization measures have been applied to all disturbed areas, the *qualified inspector* shall conduct a site inspection at least once every thirty (30) calendar days. The *owner or operator* shall notify the Regional Office stormwater contact person (see contact information in Appendix F) or, in areas under the jurisdiction of a *regulated, traditional land use control MS4*, the MS4 (provided the MS4 is not the *owner or operator* of the construction activity) in writing prior to reducing the frequency of inspections.
- d. For construction sites where soil disturbance activities have been shut down with partial project completion, the *qualified inspector* can stop conducting inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational. The *owner or operator* shall notify the Regional Office stormwater contact person (see contact information in Appendix F) or, in areas under the jurisdiction of a *regulated, traditional land use control MS4*, the MS4 (provided the MS4 is not the *owner or operator* of the construction activity). in writing prior to the shutdown. If soil disturbance activities are not resumed within 2 years from the date of shutdown, the *owner or operator* shall have the *qualified inspector* perform a final inspection and certify that all disturbed areas have achieved *final stabilization*, and all temporary, structural erosion and sediment control measures have been removed; and that all post-construction stormwater management practices have been constructed in conformance with the SWPPP by signing the “Final Stabilization” and “Post-Construction Stormwater Management Practice” certification statements on the NOT. The *owner or operator* shall then submit the completed NOT form to the address in Part II.A.1..

(Part IV. C. 3)

3. At a minimum, the *qualified inspector* shall inspect all erosion and sediment control practices to ensure integrity and effectiveness, all post-construction stormwater management practices under construction to ensure that they are constructed in conformance with the SWPPP, all areas of disturbance that have not achieved *final stabilization*, all points of discharge to natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the construction site, and all points of discharge from the construction site.
4. The *qualified inspector* shall prepare an inspection report subsequent to each and every inspection. At a minimum, the inspection report shall include and/or address the following:
 - a. Date and time of inspection;
 - b. Name and title of person(s) performing inspection;
 - c. A description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection;
 - d. A description of the condition of the runoff at all points of discharge from the construction site. This shall include identification of any *discharges* of sediment from the construction site. Include *discharges* from conveyance systems (i.e. pipes, culverts, ditches, etc.) and overland flow;
 - e. A description of the condition of all natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the construction site which receive runoff from disturbed areas. This shall include identification of any *discharges* of sediment to the surface waterbody;
 - f. Identification of all erosion and sediment control practices that need repair or maintenance;
 - g. Identification of all erosion and sediment control practices that were not installed properly or are not functioning as designed and need to be reinstalled or replaced;
 - h. Description and sketch of areas that are disturbed at the time of the inspection and areas that have been stabilized (temporary and/or final) since the last inspection;

(Part IV. C 4)

- i. Current phase of construction of all post-construction stormwater management practices and identification of all construction that is not in conformance with the SWPPP and technical standards;
 - j. Corrective action(s) that must be taken to install, repair, replace or maintain erosion and sediment control practices; and to correct deficiencies identified with the construction of the post-construction stormwater management practice(s); and
 - k. Digital photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report being maintained onsite within seven (7) calendar days of the date of the inspection. The *qualified inspector* shall also take digital photographs, with date stamp, that clearly show the condition of the practice(s) after the corrective action has been completed. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report that documents the completion of the corrective action work within seven (7) calendar days of that inspection.
5. Within one business day of the completion of an inspection, the *qualified inspector* shall notify the *owner or operator* and appropriate contractor or subcontractor identified in Part III.A.6. of any corrective actions that need to be taken. The contractor or subcontractor shall begin implementing the corrective actions within one business day of this notification and shall complete the corrective actions in a reasonable time frame.
 6. All inspection reports shall be signed by the *qualified inspector*. Pursuant to Part II.C.2., the inspection reports shall be maintained on site with the SWPPP.

Part V. TERMINATION OF PERMIT COVERAGE

A. Termination of Permit Coverage

1. An *owner or operator* that is eligible to terminate coverage under this permit must submit a completed NOT form to the address in Part II.A.1. The NOT form shall be one which is associated with this general permit, signed in accordance with Part VII.H.
2. An *owner or operator* may terminate coverage when one or more the following conditions have been met:

(Part V. A. 2)

- a. Total project completion - All construction activity identified in the SWPPP has been completed; and all areas of disturbance have achieved *final stabilization*; and all temporary, structural erosion and sediment control measures have been removed; and all post-construction stormwater management practices have been constructed in conformance with the SWPPP and are operational;
 - b. Planned shutdown with partial project completion - All soil disturbance activities have ceased; and all areas disturbed as of the project shutdown date have achieved *final stabilization*; and all temporary, structural erosion and sediment control measures have been removed; and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational;
 - c. A new *owner or operator* has obtained coverage under this permit in accordance with Part II.E.
3. For *construction activities* meeting subdivision 2a. or 2b. of this Part, the *owner or operator* shall have the *qualified inspector* perform a final site inspection prior to submitting the NOT. The *qualified inspector* shall, by signing the “Final Stabilization” and “Post-Construction Stormwater Management Practice” certification statements on the NOT, certify that all disturbed areas have achieved *final stabilization*; and all temporary, structural erosion and sediment control measures have been removed; and that all post-construction stormwater management practices have been constructed in conformance with the SWPPP.
 4. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4* and meet subdivision 2a. or 2b. of this Part, the *owner or operator* shall also have the MS4 sign the “MS4 Acceptance” statement on the NOT. The *owner or operator* shall have the principal executive officer, ranking elected official, or duly authorized representative from the *regulated, traditional land use control MS4*, sign the “MS4 Acceptance” statement. The MS4 official, by signing this statement, has determined that it is acceptable for the *owner or operator* to submit the NOT in accordance with the requirements of this Part. The MS4 can make this determination by performing a final site inspection themselves or by accepting the *qualified inspector’s* final site inspection certification(s) required in Part V.3.
 5. For *construction activities* that require post-construction stormwater management practices and meet subdivision 2a. of this Part, the *owner or operator* must, prior to submitting the NOT, ensure one of the following:

(Part V. A. 5)

- a. the post-construction stormwater management practice(s) and any right-of-way(s) needed to maintain such practice(s) have been deeded to the municipality in which the practice(s) is located,
- b. an executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s),
- c. for post-construction stormwater management practices that are privately owned, the *owner or operator* has modified their deed of record to include a deed covenant that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan,
- d. for post-construction stormwater management practices that are owned by a public or private institution (e.g. school, college, university), or government agency or authority, the *owner or operator* has policy and procedures in place that ensures operation and maintenance of the practices in accordance with the operation and maintenance plan.

Part VI. REPORTING AND RETENTION OF RECORDS

A. Record Retention - The *owner or operator* shall retain a copy of the NOI, NOI Acknowledgment Letter, SWPPP, MS4 SWPPP Acceptance form and any inspection reports that were prepared in conjunction with this permit for a period of at least five (5) years from the date that the site achieves *final stabilization*. This period may be extended by the Department, in its sole discretion, at any time upon written notification.

B. Addresses - With the exception of the NOI, NOT, and MS4 SWPPP Acceptance form (which must be submitted to the address referenced in Part II.A.1), all written correspondence requested by the Department, including individual permit applications, shall be sent to the address of the appropriate Department Regional Office listed in Appendix F.

Part VII. STANDARD PERMIT CONDITIONS

A. Duty to Comply - The *owner or operator* must comply with all conditions of this permit. All contractors and subcontractors associated with the project must comply with the terms of the SWPPP. Any non-compliance with this permit constitutes a violation of the Clean Water Act (CWA) and the ECL and is grounds for an enforcement action against the *owner or operator* and/or the contractor/subcontractor; permit revocation, suspension or modification; or denial of a permit renewal application. Upon a finding of significant non-compliance with this permit or the applicable SWPPP, the Department may order an immediate stop to all *construction activity* at the site until the non-compliance is remedied.

(Part VII. A)

The stop work order shall be in writing, shall describe the non-compliance in detail, and shall be sent to the *owner or operator*.

B. Continuation of the Expired General Permit - This permit expires five (5) years from the effective date. However, coverage may be obtained under the expired general permit, which will continue in force and effect, until a new general permit is issued. Unless otherwise notified by the Department in writing, an *owner or operator* seeking authorization under the new general permit must submit a new NOI in accordance with the terms of such new general permit.

C. Enforcement - Failure of the *owner or operator*, its contractors, subcontractors, agents and/or assigns to strictly adhere to any of the permit requirements contained herein shall constitute a violation of this permit. There are substantial criminal, civil, and administrative penalties associated with violating the provisions of this permit. Fines of up to \$37,500 per day for each violation and imprisonment for up to fifteen (15) years may be assessed depending upon the nature and degree of the offense.

D. Need to Halt or Reduce Activity Not a Defense - It shall not be a defense for an *owner or operator* in an enforcement action that it would have been necessary to halt or reduce the *construction activity* in order to maintain compliance with the conditions of this permit.

E. Duty to Mitigate - The *owner or operator* and its contractors and subcontractors shall take all reasonable steps to minimize or prevent any *discharge* in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

F. Duty to Provide Information - The *owner or operator* shall make available to the Department for review and copying or furnish to the Department within five (5) business days of receipt of a Department request for such information, any information requested for the purpose of determining compliance with this permit. This can include, but is not limited to, the NOI, NOI Acknowledgment Letter, SWPPP, MS4 SWPPP Acceptance form, executed maintenance agreement, and inspection reports. Failure to provide information requested by the Department within the request timeframe shall be a violation of this permit.

The NOI, SWPPP and inspection reports required by this permit are public documents that the *owner or operator* must make available for review and copying by any person within five (5) business days of the *owner or operator* receiving a written request by any such person to review the NOI, SWPPP or inspection reports. Copying of documents will be done at the requester's expense.

G. Other Information - When the *owner or operator* becomes aware that they failed to submit any relevant facts, or submitted incorrect information in the NOI or in any other report, or have made substantive revisions to the SWPPP (e.g. the scope of the project changes significantly, the type of post-construction stormwater management practice(s)

(Part VII. G)

changes, there is a reduction in the sizing of the post-construction stormwater management practice, or there is an increase in the disturbance area or impervious area), which were not reflected in the original NOI submitted to the Department, they shall promptly submit such facts or information to the Department. Failure of the *owner or operator* to correct or supplement any relevant facts within five (5) business days of becoming aware of the deficiency shall constitute a violation of this permit.

H. Signatory Requirements

1. All NOIs and NOTs shall be signed as follows:

- a. For a corporation these forms shall be signed by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:
 - i. a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or
 - ii. the manager of one or more manufacturing, production or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;
- b. For a partnership or sole proprietorship these forms shall be signed by a general partner or the proprietor, respectively; or
- c. For a municipality, State, Federal, or other public agency these forms shall be signed by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:
 - i. the chief executive officer of the agency, or

(Part VII. H. 1. c)

- ii. a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).
2. The SWPPP and other information requested by the Department shall be signed by a person described in Part VII.H.1. or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - a. The authorization is made in writing by a person described in Part VII.H.1.;
 - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position) and,
 - c. The written authorization shall include the name, title and signature of the authorized representative and be attached to the SWPPP.
3. All inspection reports shall be signed by the *qualified inspector* that performs the inspection.
4. The MS4 SWPPP Acceptance form shall be signed by the principal executive officer or ranking elected official from the *regulated, traditional land use control MS4*, or by a duly authorized representative of that person.

It shall constitute a permit violation if an incorrect and/or improper signatory authorizes any required forms, SWPPP and/or inspection reports.

I. Property Rights - The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations. *Owners or operators* must obtain any applicable conveyances, easements, licenses and/or access to real property prior to *commencing construction activity*.

J. Severability - The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

(Part VII. K)

K. Denial of Coverage Under This Permit

1. At its sole discretion, the Department may require any *owner or operator* authorized by this permit to apply for and/or obtain either an individual SPDES permit or another SPDES general permit. When the Department requires any discharger authorized by a general permit to apply for an individual SPDES permit, it shall notify the discharger in writing that a permit application is required. This notice shall include a brief statement of the reasons for this decision, an application form, a statement setting a time frame for the *owner or operator* to file the application for an individual SPDES permit, and a deadline, not sooner than 180 days from *owner or operator* receipt of the notification letter, whereby the authorization to discharge under this general permit shall be terminated. Applications must be submitted to the appropriate Regional Office. The Department may grant additional time upon demonstration, to the satisfaction of the Regional Water Engineer, that additional time to apply for an alternative authorization is necessary or where the Department has not provided a permit determination in accordance with Part 621 of this Title.
2. Any *owner or operator* authorized by this permit may request to be excluded from the coverage under this permit by applying for an individual permit or another general permit. In such cases, the *owner or operator* shall submit an individual application or an alternative general permit application in accordance with the requirements of this general permit, 40 CFR 122.26(c)(1)(ii) and 6 NYCRR Part 621, with reasons supporting the request, to the Department at the address for the appropriate Department Office (see addresses in Appendix F). The request may be granted by issuance of an individual permit or another general permit at the discretion of the Department.
3. When an individual SPDES permit is issued to a discharger authorized to discharge under a general SPDES permit for the same discharge(s), the general permit authorization for outfalls authorized under the individual SPDES permit is automatically terminated on the effective date of the individual permit unless termination is earlier in accordance with 6 NYCRR Part 750.

L. Proper Operation and Maintenance - The *owner or operator* shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the *owner or operator* to achieve compliance with the conditions of this permit and with the requirements of the SWPPP.

M. Inspection and Entry - The *owner or operator* shall allow the Department or an authorized representative of EPA, the State, or, in the case of a construction site which discharges through an *MS4*, an authorized representative of the *MS4* receiving the discharge, upon the presentation of credentials and other documents as may be required by law, to:

(Part VII. M)

1. Enter upon the *owner's or operator's* premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit;
2. Have access to and copy at reasonable times, any records that must be kept under the conditions of this permit; and
3. Inspect at reasonable times any facilities or equipment (including monitoring and control equipment).

N. Permit Actions - At the Department's sole discretion, this permit may, at any time, be modified, suspended, revoked, or renewed. The filing of a request by the *owner or operator* for a permit modification, revocation and reissuance, termination, a notification of planned changes or anticipated noncompliance does not limit, diminish and/or stay compliance with any terms of this permit.

O. Definitions - Definitions of key terms are included in Appendix A of this permit.

P. Re-Opener Clause

1. If there is evidence indicating potential or realized impacts on water quality due to any stormwater discharge associated with *construction activity* covered by this permit, the *owner or operator* of such discharge may be required to obtain an individual permit or alternative general permit in accordance with Part VII.K. of this permit or the permit may be modified to include different limitations and/or requirements.
2. Permit modification, suspension or revocation will be conducted in accordance with 6 NYCRR Part 621, 6 NYCRR 750-1.18, and 6 NYCRR 750-1.20.

Q. Penalties for Falsification of Forms and Reports – Article 17 of the ECL provides for a civil penalty of \$37,500 per day per violation of this permit. Articles 175 and 210 of the New York State Penal Law provide for a criminal penalty of a fine and/or imprisonment for falsifying forms and reports required by this permit.

R. Other Permits – Nothing in this permit relieves the *owner or operator* from a requirement to obtain any other permits required by law.

APPENDIX A

Definitions

Alter Hydrology from Pre to Post-Development Conditions - means the post-development peak flow rate(s) has increased by more than 5% of the pre-developed condition for the design storm of interest (e.g. 10 yr and 100 yr).

Combined Sewer - means a sewer that is designed to collect and convey both “sewage” and “stormwater”.

Commence (Commencement of) Construction Activities - means the initial disturbance of soils associated with clearing, grading or excavation activities; or other construction related activities that disturb or expose soils such as demolition, stockpiling of fill material, and the initial installation of erosion and sediment control practices required in the SWPPP. See definition for “Construction Activity(ies)” also.

Construction Activity(ies) - means any clearing, grading, excavation, filling, demolition or stockpiling activities that result in soil disturbance. Clearing activities can include, but are not limited to, logging equipment operation, the cutting and skidding of trees, stump removal and/or brush root removal. Construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility.

Direct Discharge (to a specific surface waterbody) - means that runoff flows from a construction site by overland flow and the first point of discharge is the specific surface waterbody, or runoff flows from a construction site to a separate storm sewer system and the first point of discharge from the separate storm sewer system is the specific surface waterbody.

Discharge(s) - means any addition of any pollutant to waters of the State through an outlet or point source.

Environmental Conservation Law (ECL) - means chapter 43-B of the Consolidated Laws of the State of New York, entitled the Environmental Conservation Law.

Final Stabilization - means that all soil disturbance activities have ceased and a uniform, perennial vegetative cover with a density of eighty (80) percent over the entire pervious surface has been established; or other equivalent stabilization measures, such as permanent landscape mulches, rock rip-rap or washed/crushed stone have been applied on all disturbed areas that are not covered by permanent structures, concrete or pavement.

General SPDES permit - means a SPDES permit issued pursuant to 6 NYCRR Part 750-1.21 authorizing a category of discharges.

Groundwater - means waters in the saturated zone. The saturated zone is a subsurface zone in

which all the interstices are filled with water under pressure greater than that of the atmosphere. Although the zone may contain gas-filled interstices or interstices filled with fluids other than water, it is still considered saturated.

Impervious Area (Cover) - means all impermeable surfaces that cannot effectively infiltrate rainfall. This includes paved, concrete and gravel surfaces (i.e. parking lots, driveways, roads, runways and sidewalks); building rooftops and miscellaneous impermeable structures such as patios, pools, and sheds.

Larger Common Plan of Development or Sale - means a contiguous area where multiple separate and distinct construction activities are occurring, or will occur, under one plan. The term “plan” in “larger common plan of development or sale” is broadly defined as any announcement or piece of documentation (including a sign, public notice or hearing, marketing plan, advertisement, drawing, permit application, State Environmental Quality Review Act (SEQRA) application, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating that construction activities may occur on a specific plot.

For discrete construction projects that are located within a larger common plan of development or sale that are at least 1/4 mile apart, each project can be treated as a separate plan of development or sale provided any interconnecting road, pipeline or utility project that is part of the same “common plan” is not concurrently being disturbed.

Municipal Separate Storm Sewer (MS4) - a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

- i. Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to surface waters of the State;
- ii. Designed or used for collecting or conveying stormwater;
- iii. Which is not a *combined sewer*; and
- iv. Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

National Pollutant Discharge Elimination System (NPDES) - means the national system for the issuance of wastewater and stormwater permits under the Federal Water Pollution Control Act (Clean Water Act).

NOI Acknowledgment Letter - means the letter that the Department sends to an owner or operator to acknowledge the Department’s receipt and acceptance of a complete Notice of Intent. This letter documents the owner’s or operator’s authorization to discharge in accordance with the general permit for stormwater discharges from construction activity.

Owner or Operator - means the person, persons or legal entity which owns or leases the property on which the construction activity is occurring; and/or an entity that has operational control over the construction plans and specifications, including the ability to make modifications to the plans and specifications.

Pollutant - means dredged spoil, filter backwash, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand and industrial, municipal, agricultural waste and ballast discharged into water; which may cause or might reasonably be expected to cause pollution of the waters of the state in contravention of the standards or guidance values adopted as provided in Parts 700 et seq of this Title.

Qualified Inspector - means a person that is knowledgeable in the principles and practices of erosion and sediment control, such as a licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, or other Department endorsed individual(s).

It can also mean someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided that person has training in the principles and practices of erosion and sediment control. Training in the principles and practices of erosion and sediment control means that the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect has received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect shall receive four (4) hours of training every three (3) years.

It can also mean a person that meets the *Qualified Professional* qualifications in addition to the *Qualified Inspector* qualifications.

Note: Inspections of any post-construction stormwater management practices that include structural components, such as a dam for an impoundment, shall be performed by a licensed Professional Engineer.

Qualified Professional - means a person that is knowledgeable in the principles and practices of stormwater management and treatment, such as a licensed Professional Engineer, Registered Landscape Architect or other Department endorsed individual(s). Individuals preparing SWPPPs that require the post-construction stormwater management practice component must have an understanding of the principles of hydrology, water quality management practice design, water quantity control design, and, in many cases, the principles of hydraulics in order to prepare a SWPPP that conforms to the Department's technical standard. All components of the SWPPP that involve the practice of engineering, as defined by the NYS Education Law (see Article 145), shall be prepared by, or under the direct supervision of, a professional engineer licensed to practice in the State of New York.

Regulated, Traditional Land Use Control MS4 - means a city, town or village with land use control authority that is required to gain coverage under New York State DEC's SPDES General Permit For Stormwater Discharges from Municipal Separate Stormwater Sewer Systems (MS4s).

Routine Maintenance Activity - means construction activity that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility, including, but not limited to:

- Re-grading of gravel roads or parking lots,
- Stream bank restoration projects (does not include the placement of spoil material),
- Cleaning and shaping of existing roadside ditches and culverts that maintains the approximate original line and grade, and hydraulic capacity of the ditch,
- Cleaning and shaping of existing roadside ditches that does not maintain the approximate original grade, hydraulic capacity and purpose of the ditch if the changes to the line and grade, hydraulic capacity or purpose of the ditch are installed to improve water quality and quantity controls (e.g. installing grass lined ditch),
- Placement of aggregate shoulder backing that makes the transition between the road shoulder and the ditch or embankment,
- Full depth milling and filling of existing asphalt pavements, replacement of concrete pavement slabs, and similar work that does not expose soil or disturb the bottom six (6) inches of subbase material,
- Long-term use of equipment storage areas at or near highway maintenance facilities,
- Removal of sediment from the edge of the highway to restore a previously existing sheet-flow drainage connection from the highway surface to the highway ditch or embankment,
- Existing use of Canal Corp owned upland disposal sites for the canal, and
- Replacement of curbs, gutters, sidewalks and guide rail posts.

State Pollutant Discharge Elimination System (SPDES) - means the system established pursuant to Article 17 of the ECL and 6 NYCRR Part 750 for issuance of permits authorizing discharges to the waters of the state.

Surface Waters of the State - shall be construed to include lakes, bays, sounds, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Atlantic ocean within the territorial seas of the state of New York and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters that do not combine or effect a junction with natural surface or underground waters), which are wholly or partially within or bordering the state or within its jurisdiction. Waters of the state are further defined in 6 NYCRR Parts 800 to 941.

Temporary Stabilization - means that exposed soil has been covered with material(s) as set forth in the technical standard, New York Standards and Specifications for Erosion and Sediment Control, to prevent the exposed soil from eroding. The materials can include, but are not limited to, mulch, seed and mulch, and erosion control mats (e.g. jute twisted yarn, excelsior wood fiber mats).

Total Maximum Daily Loads (TMDLs) - A TMDL is the sum of the allowable loads of a single pollutant from all contributing point and nonpoint sources. It is a calculation of the maximum amount of a pollutant that a waterbody can receive on a daily basis and still meet water quality standards, and an allocation of that amount to the pollutant's sources. A TMDL stipulates wasteload allocations (WLAs) for point source discharges, load allocations (LAs) for nonpoint sources, and a margin of safety (MOS).

Trained Contractor - means an employee from the contracting (construction) company, identified in Part III.A.6., that has received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the *trained contractor* shall receive four (4) hours of training every three (3) years.

It can also mean an employee from the contracting (construction) company, identified in Part III.A.6., that meets the *qualified inspector* qualifications (e.g. licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, or someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity).

The *trained contractor* will be responsible for the day to day implementation of the SWPPP.

Uniform Procedures Act (UPA) Permit - means a permit required under 6 NYCRR Part 621 of the Environmental Conservation Law (ECL), Article 70.

Water Quality Standard - means such measures of purity or quality for any waters in relation to their reasonable and necessary use as promulgated in 6 NYCRR Part 700 et seq.

APPENDIX B

Required SWPPP Components by Project Type

Table 1
CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP
THAT ONLY INCLUDES EROSION AND SEDIMENT CONTROLS

<p>The following construction activities that involve soil disturbances of one (1) or more acres of land, but less than five (5) acres:</p> <ul style="list-style-type: none">• Single family home <u>not</u> located in one of the watersheds listed in Appendix C and <u>not directly discharging</u> to one of the 303(d) segments listed in Appendix E• Single family residential subdivisions with 25% or less impervious cover at total site build-out and <u>not</u> located in one of the watersheds listed in Appendix C and <u>not</u> directly discharging to one of the 303(d) segments listed in Appendix E• Construction of a barn or other agricultural building, silo, stock yard or pen.
<p>The following construction activities that involve soil disturbances of one (1) or more acres of land:</p> <ul style="list-style-type: none">• Installation of underground, linear utilities; such as gas lines, fiber-optic cable, cable TV, electric, telephone, sewer mains, and water mains• Environmental enhancement projects, such as wetland mitigation projects, stormwater retrofits and stream restoration projects• Bike paths and trails• Sidewalk construction projects that are not part of a road/ highway construction or reconstruction project• Slope stabilization projects• Slope flattening that changes the grade of the site, but does not significantly change the runoff characteristics• Spoil areas that will be covered with vegetation• Land clearing and grading for the purposes of creating vegetated open space (i.e. recreational parks, lawns, meadows, fields), excluding projects that <i>alter hydrology from pre to post development</i> conditions• Athletic fields (natural grass) that do not include the construction or reconstruction of <i>impervious area</i> <u>and</u> do not <i>alter hydrology from pre to post development</i> conditions• Demolition project where vegetation will be established and no redevelopment is planned• Overhead electric transmission line project that does not include the construction of permanent access roads or parking areas surfaced with <i>impervious cover</i>• Structural practices as identified in Table II in the “Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State”, excluding projects that involve soil disturbances of less than five acres and construction activities that include the construction or reconstruction of impervious area
<p>The following construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land:</p> <ul style="list-style-type: none">• All construction activities located in the watersheds identified in Appendix D that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land.

Table 2
CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP
THAT INCLUDES POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Single family home located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family residential subdivisions located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family residential subdivisions that involve soil disturbances of between one (1) and five (5) acres of land with greater than 25% impervious cover at total site build-out
- Single family residential subdivisions that involve soil disturbances of five (5) or more acres of land, and single family residential subdivisions that involve soil disturbances of less than five (5) acres that are part of a larger common plan of development or sale that will ultimately disturb five or more acres of land
- Multi-family residential developments; includes townhomes, condominiums, senior housing complexes, apartment complexes, and mobile home parks
- Airports
- Amusement parks
- Campgrounds
- Cemeteries that include the construction or reconstruction of impervious area (>5% of disturbed area) or *alter the hydrology from pre to post development* conditions
- Commercial developments
- Churches and other places of worship
- Construction of a barn or other agricultural building(e.g. silo) and structural practices as identified in Table II in the “Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State” that include the construction or reconstruction of *impervious area*, excluding projects that involve soil disturbances of less than five acres.
- Golf courses
- Institutional, includes hospitals, prisons, schools and colleges
- Industrial facilities, includes industrial parks
- Landfills
- Municipal facilities; includes highway garages, transfer stations, office buildings, POTW’s and water treatment plants
- Office complexes
- Sports complexes
- Racetracks, includes racetracks with earthen (dirt) surface
- Road construction or reconstruction
- Parking lot construction or reconstruction
- Athletic fields (natural grass) that include the construction or reconstruction of impervious area (>5% of disturbed area) or *alter the hydrology from pre to post development* conditions
- Athletic fields with artificial turf
- Permanent access roads, parking areas, substations, compressor stations and well drilling pads, surfaced with *impervious cover*, and constructed as part of an over-head electric transmission line project, wind-power project, cell tower project, oil or gas well drilling project or other linear utility project
- All other construction activities that include the construction or reconstruction of *impervious area* and alter the hydrology from pre to post development conditions, and are not listed in Table 1

APPENDIX C

Watersheds Where Enhanced Phosphorus Removal Standards Are Required

Watersheds where *owners or operators* of construction activities identified in Table 2 of Appendix B must prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the Enhanced Phosphorus Removal Standards included in the technical standard, New York State Stormwater Management Design Manual (“Design Manual”).

- Entire New York City Watershed located east of the Hudson River - Figure 1
- Onondaga Lake Watershed - Figure 2
- Greenwood Lake Watershed -Figure 3
- Oscawana Lake Watershed – Figure 4

Figure 1 - New York City Watershed East of the Hudson

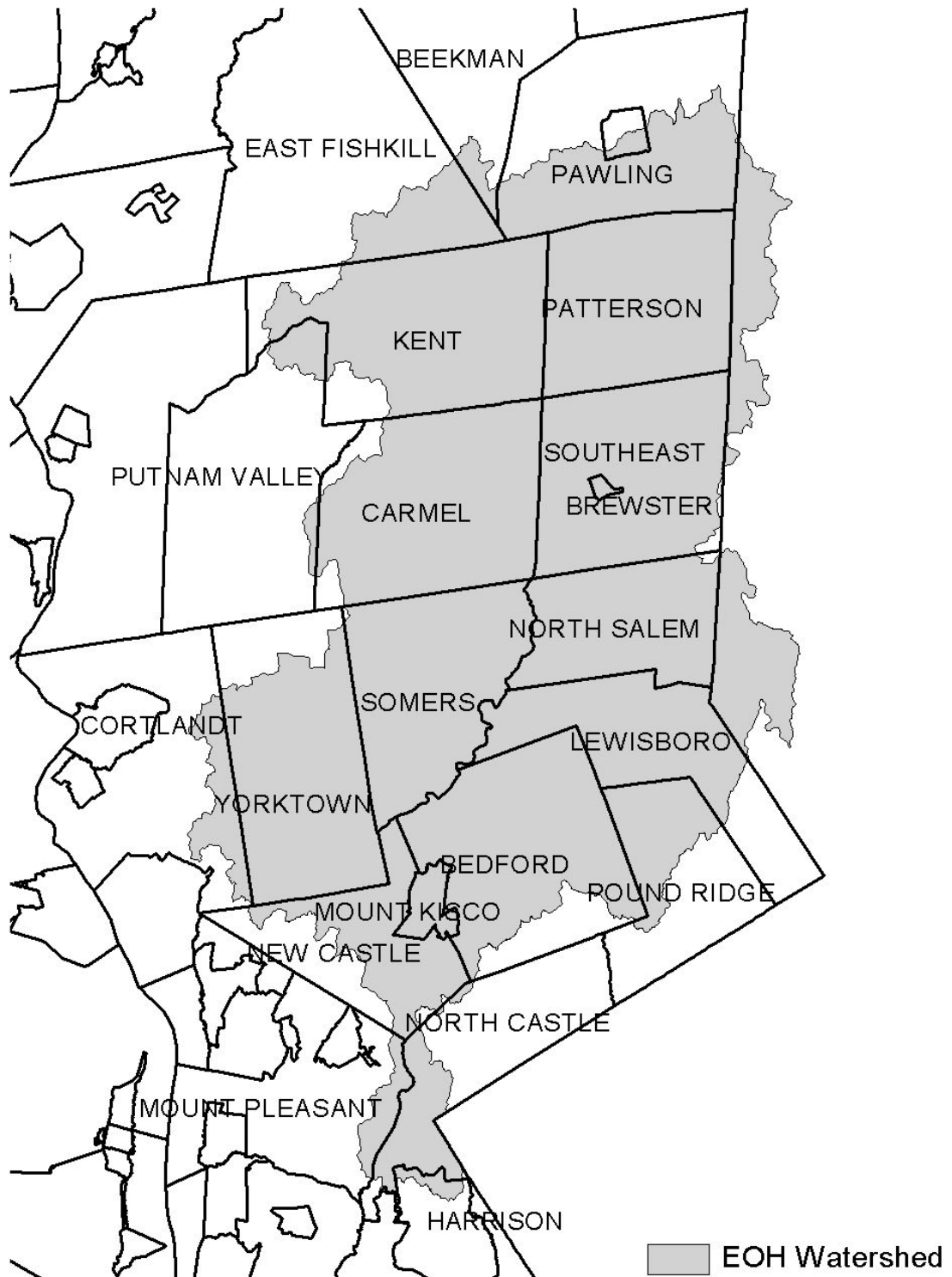


Figure 2 - Onondaga Lake Watershed



Figure 3 - Greenwood Lake Watershed

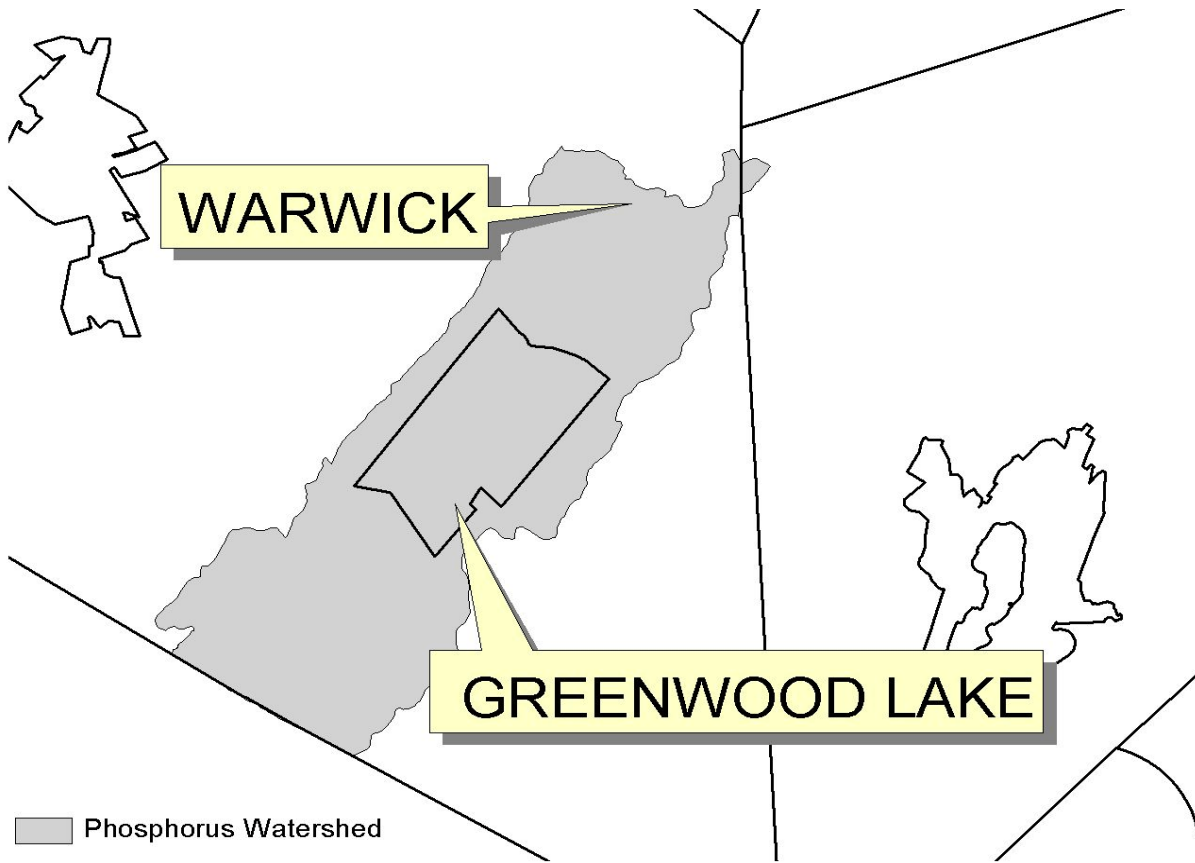
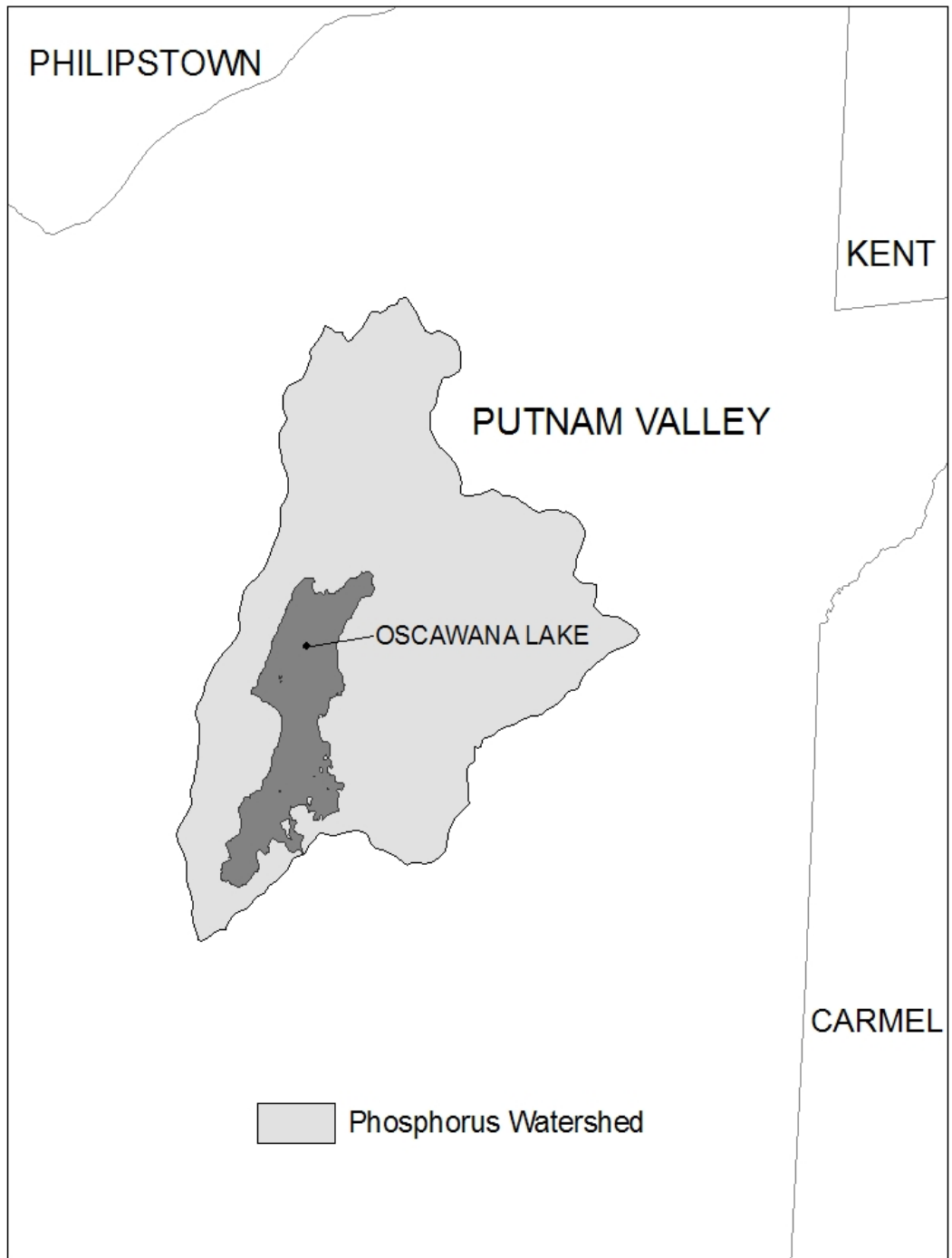


Figure 4 - Oscawana Lake Watershed



APPENDIX D

Watersheds where *owners or operators* of construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land must obtain coverage under this permit.

Entire New York City Watershed that is located east of the Hudson River - See Figure 1 in Appendix C

APPENDIX E

List of 303(d) segments impaired by pollutants related to construction activity (e.g. silt, sediment or nutrients). *Owners or operators* of single family home and single family residential subdivision construction activities that involve soil disturbances of one or more acres of land, but less than 5 acres, and *directly discharge* to one of the listed segments below shall prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the most current version of the technical standard, New York State Stormwater Management Design Manual (“Design Manual”).

COUNTY	WATERBODY	COUNTY	WATERBODY
Albany	Ann Lee (Shakers) Pond, Stump Pond	Monroe	Genesee River, Lower, Main Stem
Albany	Basic Creek Reservoir	Monroe	Genesee River, Middle, Main Stem
Bronx	Van Cortlandt Lake	Monroe	Black Creek, Lower, and minor tribs
Broome	Whitney Point Lake/Reservoir	Monroe	Buck Pond
Broome	Beaver Lake	Monroe	Long Pond
Broome	White Birch Lake	Monroe	Cranberry Pond
Chautauqua	Chautauqua Lake, North	Monroe	Mill Creek and tribs
Chautauqua	Chautauqua Lake, South	Monroe	Shipbuilders Creek and tribs
Chautauqua	Bear Lake	Monroe	Minor tribs to Irondequoit Bay
Chautauqua	Chadakoin River and tribs	Monroe	Thomas Creek/White Brook and tribs
Chautauqua	Lower Cassadaga Lake	Nassau	Glen Cove Creek, Lower, and tribs
Chautauqua	Middle Cassadaga Lake	Nassau	LI Tribs (fresh) to East Bay
Chautauqua	Findley Lake	Nassau	East Meadow Brook, Upper, and tribs
Clinton	Great Chazy River, Lower, Main Stem	Nassau	Hempstead Bay
Columbia	Kinderhook Lake	Nassau	Hempstead Lake
Columbia	Robinson Pond	Nassau	Grant Park Pond
Dutchess	Hillside Lake	Niagara	Bergholtz Creek and tribs
Dutchess	Wappinger Lakes	Oneida	Ballou, Nail Creeks
Dutchess	Fall Kill and tribs	Onondaga	Ley Creek and tribs
Dutchess	Rudd Pond	Onondaga	Onondaga Creek, Lower and tribs
Erie	Rush Creek and tribs	Onondaga	Onondaga creek, Middle and tribs
Erie	Ellicott Creek, Lower, and tribs	Onondaga	Onondaga Creek, Upper, and minor tribs
Erie	Beeman Creek and tribs	Onondaga	Harbor Brook, Lower, and tribs
Erie	Murder Creek, Lower, and tribs	Onondaga	Ninemile Creek, Lower, and tribs
Erie	South Branch Smoke Cr, Lower, and tribs	Onondaga	Minor tribs to Onondaga Lake
Erie	Little Sister Creek, Lower, and tribs	Ontario	Honeoye Lake
Essex	Lake George (primary county listed as Warren)	Ontario	Hemlock Lake Outlet and minor tribs
Genesee	Black Creek, Upper, and minor tribs	Ontario	Great Brook and minor tribs
Genesee	Tonawanda Creek, Middle, Main Stem	Oswego	Lake Neatahwanta
Genesee	Tonawanda Creek, Upper, and minor tribs	Putnam	Oscawana Lake
Genesee	Little Tonawanda Creek, Lower, and tribs	Putnam	Lake Carmel
Genesee	Oak Orchard Creek, Upper, and tribs	Queens	Jamaica Bay, Eastern, and tribs (Queens)
Genesee	Bowen Brook and tribs	Queens	Bergen Basin
Genesee	Bigelow Creek and tribs	Queens	Shellbank Basin
Greene	Schoharie Reservoir	Rensselaer	Snyders Lake
Greene	Sleepy Hollow Lake	Richmond	Grasmere, Arbutus and Wolfes Lakes
Herkimer	Steele Creek tribs	Saratoga	Dwaas Kill and tribs
Kings	Hendrix Creek	Saratoga	Tribs to Lake Lonely
Lewis	Mill Creek/South Branch and tribs	Saratoga	Lake Lonely
Livingston	Conesus Lake	Saratoga	Schuyler Creek and tribs
Livingston	Jaycox Creek and tribs	Schenectady	Collins Lake
Livingston	Mill Creek and minor tribs		

APPENDIX E

List of 303(d) segments impaired by pollutants related to construction activity, cont'd.

COUNTY	WATERBODY	COUNTY	WATERBODY
Schoharie	Engleville Pond		
Schoharie	Summit Lake		
St. Lawrence	Black Lake Outlet/Black Lake		
Steuben	Lake Salubria		
Steuben	Smith Pond		
Suffolk	Millers Pond		
Suffolk	Mattituck (Marratooka) Pond		
Suffolk	Tidal tribs to West Moriches Bay		
Suffolk	Canaan Lake		
Suffolk	Lake Ronkonkoma		
Tompkins	Cayuga Lake, Southern End		
Tompkins	Owasco Inlet, Upper, and tribs		
Ulster	Ashokan Reservoir		
Ulster	Esopus Creek, Upper, and minor tribs		
Warren	Lake George		
Warren	Tribs to L.George, Village of L George		
Warren	Huddle/Finkle Brooks and tribs		
Warren	Indian Brook and tribs		
Warren	Hague Brook and tribs		
Washington	Tribs to L.George, East Shore of Lake George		
Washington	Cossayuna Lake		
Wayne	Port Bay		
Wayne	Marbletown Creek and tribs		
Westchester	Peach Lake		
Westchester	Mamaroneck River, Lower		
Westchester	Mamaroneck River, Upper, and minor tribs		
Westchester	Sheldrake River and tribs		
Westchester	Blind Brook, Lower		
Westchester	Blind Brook, Upper, and tribs		
Westchester	Lake Lincolndale		
Westchester	Lake Meahaugh		
Wyoming	Java Lake		
Wyoming	Silver Lake		

Note: The list above identifies those waters from the final New York State “2008 Section 303(d) List of Impaired Waters Requiring a TMDL/Other Strategy”, dated May 26, 2008, that are impaired by silt, sediment or nutrients.

APPENDIX F

LIST OF NYS DEC REGIONAL OFFICES

<u>Region</u>	<u>COVERING THE FOLLOWING COUNTIES:</u>	<u>DIVISION OF ENVIRONMENTAL PERMITS (DEP) PERMIT ADMINISTRATORS</u>	<u>DIVISION OF WATER (DOW) WATER (SPDES) PROGRAM</u>
1	NASSAU AND SUFFOLK	50 CIRCLE ROAD STONY BROOK, NY 11790 TEL. (631) 444-0365	50 CIRCLE ROAD STONY BROOK, NY 11790-3409 TEL. (631) 444-0405
2	BRONX, KINGS, NEW YORK, QUEENS AND RICHMOND	1 HUNTERS POINT PLAZA, 47-40 21ST ST. LONG ISLAND CITY, NY 11101-5407 TEL. (718) 482-4997	1 HUNTERS POINT PLAZA, 47-40 21ST ST. LONG ISLAND CITY, NY 11101-5407 TEL. (718) 482-4933
3	DUTCHESS, ORANGE, PUTNAM, ROCKLAND, SULLIVAN, ULSTER AND WESTCHESTER	21 SOUTH PUTT CORNERS ROAD NEW PALTZ, NY 12561-1696 TEL. (845) 256-3059	100 HILLSIDE AVENUE, SUITE 1W WHITE PLAINS, NY 10603 TEL. (914) 428 - 2505
4	ALBANY, COLUMBIA, DELAWARE, GREENE, MONTGOMERY, OTSEGO, RENSSELAER, SCHENECTADY AND SCHOHARIE	1150 NORTH WESTCOTT ROAD SCHENECTADY, NY 12306-2014 TEL. (518) 357-2069	1130 NORTH WESTCOTT ROAD SCHENECTADY, NY 12306-2014 TEL. (518) 357-2045
5	CLINTON, ESSEX, FRANKLIN, FULTON, HAMILTON, SARATOGA, WARREN AND WASHINGTON	1115 STATE ROUTE 86, PO BOX 296 RAY BROOK, NY 12977-0296 TEL. (518) 897-1234	232 GOLF COURSE ROAD, PO BOX 220 WARRENSBURG, NY 12885-0220 TEL. (518) 623-1200
6	HERKIMER, JEFFERSON, LEWIS, ONEIDA AND ST. LAWRENCE	STATE OFFICE BUILDING 317 WASHINGTON STREET WATERTOWN, NY 13601-3787 TEL. (315) 785-2245	STATE OFFICE BUILDING 207 GENESEE STREET UTICA, NY 13501-2885 TEL. (315) 793-2554
7	BROOME, CAYUGA, CHENANGO, CORTLAND, MADISON, ONONDAGA, OSWEGO, TIOGA AND TOMPKINS	615 ERIE BLVD. WEST SYRACUSE, NY 13204-2400 TEL. (315) 426-7438	615 ERIE BLVD. WEST SYRACUSE, NY 13204-2400 TEL. (315) 426-7500
8	CHEMUNG, GENESEE, LIVINGSTON, MONROE, ONTARIO, ORLEANS, SCHUYLER, SENECA, STEUBEN, WAYNE AND YATES	6274 EAST AVON-LIMA ROAD AVON, NY 14414-9519 TEL. (585) 226-2466	6274 EAST AVON-LIMA RD. AVON, NY 14414-9519 TEL. (585) 226-2466
9	ALLEGANY, CATTARAUGUS, CHAUTAUQUA, ERIE, NIAGARA AND WYOMING	270 MICHIGAN AVENUE BUFFALO, NY 14203-2999 TEL. (716) 851-7165	270 MICHIGAN AVE. BUFFALO, NY 14203-2999 TEL. (716) 851-7070

Storm Water Pollution Prevention Plan

APPENDIX G

CALCULATIONS

Storm Water Pollution Prevention Plan

APPENDIX H

MAINTENANCE CHECKLIST

Storm Water Pollution Prevention Plan

APPENDIX I

CONTRACT PLANS

APPENDIX F

DGEIS Executive Summary

**Draft Generic Environmental Impact Statement
Niagara County Shovel Ready Site**

EXECUTIVE SUMMARY

The proposed action involves the rezoning and environmental assessment of approximately 152 acres of land situated north of Lockport Road, in the Town of Cambria, Niagara County, New York (Map 1 – Regional Setting), to achieve pre-approved, shovel ready certification for the subject property under the Build Now-NY Program initiative. The objective is to qualify the property under the high technology-manufacturing site development profile, as set forth under this program. Shovel ready certification is an ongoing component of the Build Now-NY program that gives official recognition to sites that have completed intensive state and local government review necessary to accelerate future investment and development, and are prepared to offer businesses the opportunity to break ground on a new facility in a greatly expedited process.

The proposed action includes rezoning of the approximately 152 - acre subject property from A-R (Agricultural Residential) and B-2 (General Business) to P-D (Planned Development). Rezoning approval comes from the Town of Cambria Town Board (with a recommendation from the Town Planning Board). The P-D zoning will enable flexibility for the potential development of high technology commercial and manufacturing uses, along with associated parking and site amenities.

The project site consists of approximately 152 acres of land located on the north side of Lockport Road, west of Campbell Blvd. (SR 270) and east of Comstock Road. The project area is comprised of five separate properties, as shown on Map 2 – Site Location. Based on information from the Niagara County Real Estate Assessor’s Office, the property is comprised of seven tax parcels identified as follows (a survey of the project site is included in Appendix A):

<u>Parcel No.</u>	<u>Tax Parcel No.</u>	<u>Size (acres)</u>	<u>Ownership</u>
1	121.00 - 1 - 23.111	56.6	Donald Walck
2	121.00 - 2 - 50.11	37.7	Joseph Ohol
3	121.00 - 2 - 19.111	28.5	George & John Wasik
4	121.00 - 2 - 47	27.7	Joseph Ohol
5	Part of 121.00 - 2 - 48.111	<u>1.5</u>	George & John Wasik
Total		152.0	

Parcel 1 has 2,560 linear feet of frontage along Lockport Road; the remaining properties are situated north and northeast of this parcel (with no roadway frontage).

The project site is comprised primarily of open lands that have been actively used for agriculture, with limited areas of woodland; no structures exist on the site. The land is nearly level with an intermittent drainage channel that flows in a southwesterly direction toward Lockport Road, extending through parcels 1 and 2.

Draft Generic Environmental Impact Statement Niagara County Shovel Ready Site

The proposed action involves the rezoning of lands situated north of Lockport Road, in the Town of Cambria, for future development. The intent is to develop these lands with high technology uses to create a shovel-ready location for economic development, as recommended in the Town of Cambria Comprehensive Plan, to provide employment opportunities for the Town and surrounding region, and offer increased tax revenues to support local community services.

Future site development would involve development on the 56.6-acre property that fronts along Lockport Road (Parcel 1) and 95.4-acre site located to the north (Parcels 2, 3, 4 and 5). Parcel 1 offers approximately 47 acres of developable area. Development on the northerly parcels could involve the use of Parcels 2, 3 and 4, with an estimated developable area of approximately 85 acres. The preferred concept for future development would involve Parcels 3 and 4, with an agreement for the purchase of development rights from Parcel 2 (Parcel 5 would remain undeveloped). Allowing for the purchase of development rights for Parcel 2 would enable the continuance of farming on these lands, with increased development density on Parcels 3 and 4 (see Map 3 – PD Zoning Plan and Map 4 – Preferred Concept Plan). This concept for future development would reduce the need for expanded infrastructure (paved surfaces and utilities), preserve open space and allow for continued agricultural uses on a portion of the property.

Environmental Quality Review of the Project Pursuant to SEQRA

Pursuant to Article 6 of the New York State Environmental Conservation Law (6 NYCRR, Part 617), the New York State Environmental Quality Review Act (SEQRA) provides a process for governmental and other agencies to consider potential significant adverse environmental impacts during the initial stages of funding, permitting or approving proposed actions. By incorporating a systematic, interdisciplinary approach to environmental review in the early stages of the process, impacts can be identified and projects or actions can be modified, as needed, to avoid or minimize potential adverse impacts to the environment. All discretionary actions or approvals by state, regional or local agencies to approve, fund or directly undertake an act that may affect the environment are subject to review under SEQRA. It is the intent of SEQRA that protection and enhancement of the environment and community resources be balanced with social and economic factors as part of the decision-making process.

The Town of Cambria Town Board was designated as the SEQR Lead Agency for the proposed action, as this Board has the primary jurisdiction over the rezoning review and approval for the proposed project. Through the coordinated review process, other Involved and Interested Agencies were provided the opportunity to provide comments on the proposed action and concur with this designation.

Based on the determination of the Lead Agency, the Niagara County Shovel Ready Project was the subject of a Generic Environmental Impact Statement (GEIS). The GEIS affords the opportunity to evaluate a broad range of anticipated impacts and ensures that related actions will not be segmented in order to avoid the required analysis of future development actions on the project site. The GEIS allows the Lead Agency to establish thresholds for future environmental review that may arise in the future, as outlined in the Findings Statement.

Draft Generic Environmental Impact Statement Niagara County Shovel Ready Site

The conceptual plans that were developed for the Niagara County Shovel Ready project site illustrate the possible organization of potential land uses and the magnitude for future use of the site. The final form of site development and the time period for future development will depend on market demand and cannot be determined at this time. Therefore, a generic assessment of future site development is an appropriate mechanism for evaluating the potential impacts of this action.

Pursuant to the requirements of SEQRA, GEIS and the conceptual development plan for the proposed action were subject to review and comment by these Involved and Interested agencies and the public. Opportunities for future agency and public involvement included the publication of notifications related to the project, a public scoping session, a public comment period for the GEIS, a public hearing, a public consideration period following the completion of the Final Generic Environmental Impact Statement (FGEIS) and preparation of the Statement of Findings by the Lead Agency and other Involved Agencies (if they so desire).

Potential Adverse Environmental Impacts

The identified environmental impacts associated with the proposed development of the Project Site are summarized as follows, and are discussed in detail in Section 4 of this DGEIS.

- Land and Soils

The subject property is primarily comprised of active and fallow farmland. Temporary impacts, such as erosion, dust, runoff and/or sedimentation may occur during construction, but measures will be in place to minimize these impacts. Through the use of appropriate mitigation for future site development, no significant, long-term negative impacts to land or soils are anticipated. At full build out, approximately 86 acres of land will be committed to building and parking.

- Water Resources

To limit potential impacts to groundwater resources, stormwater will be managed, as required, by the NYSDEC. New infrastructure will be constructed to better manage water resources (new public water and sewer lines and area-wide stormwater management system). Wetlands that exist on the subject property will be avoided; buildings will be located away from these resources. Under these conditions, no significant negative impacts to water resources are anticipated.

- Ecological Resources (Vegetation and Wildlife)

The subject property contains a mix of ground cover and two isolated areas of woodlands that contain freshwater wetlands. No rare, threatened or endangered species were identified on the site; the site is not a significant habitat. As future site development will be limited to areas that have been cleared of natural vegetation (farm fields), identified wetlands and woodlands will be avoided, and there are not species of concern identified on the site, no significant adverse impacts to vegetation or wildlife are anticipated. A copy of the Threatened and Endangered Species Study is included in Appendix C; the Wetlands Delineation Study is found in Appendix D).

- Floodplains

No portion of the subject project site falls within the boundaries of a 100-year floodplain. Therefore, the proposed action will not have significant adverse impacts on floodplain resources.

Draft Generic Environmental Impact Statement

Niagara County Shovel Ready Site

- Stormwater Management

At present, stormwater on the project site follows the topography, draining from northeast to southwest. Future site development will alter drainage patterns; impervious surfaces will increase the rate and volume of stormwater runoff. During construction, exposed soils may be subject to erosion. Future site development will require a permit for stormwater management activities and the preparation of a Stormwater Pollution Prevention Plan (SWPPP) to manage runoff at pre-development levels and to capture pollutants conveyed in stormwater during and after site development (quantity and quality controls). The design and construction of stormwater detention basins and improvements, as required, to highway culverts along Lockport Road will mitigate potential impacts. A stormwater engineering documentation is included in Appendix H.

- Climate and Air Quality

The site is proposed to be developed with high technology uses, which are not “smoke stack” industries, and limited air emissions are expected. The NYSDEC regulates air emissions, and any and all discharges to the atmosphere would be required to be in full compliance with State and Federal air quality permitting standards. Projected traffic volumes, even at full build-out, would not be large enough to result in significant air quality impacts. Therefore, no significant negative impacts to climate or air quality are anticipated.

- Socioeconomics

The proposed action is expected to result in long-term beneficial socioeconomic impacts for the Town and region. The conversion of the property to high technology use will generate short-term construction jobs and long-term employment opportunities. Future site development will also generate increased tax revenues for the Town, County, school district and State.

- Land Use and Zoning

The proposed action is located within the area identified for future commercial and industrial development in the Town’s Comprehensive Plan. The site will be rezoned Planned Development to provide greater flexibility of future use; design standards (setbacks, landscaping, building height, lighting, parking, signage, etc.) will be included to mitigate potential adverse impacts from site development. Therefore, impacts to land use and open space are not anticipated.

- Agricultural Resources

The proposed action could potentially impact approximately 103.5 acres of farmland. This loss is not significant in terms of the agricultural industry in the area, the extent of valuable farmland in the Town and the Town’s desire for increased development in certain areas (as supported by their Comprehensive Plan). Future site development would not be incompatible with surrounding agricultural uses and would not infringe on active farmlands in the adjacent area. Targeting non-residential uses in the vicinity of farms is a good strategy for farmland protection. The proposed action also offers the opportunity to arrange site development in a manner that allows for increased development density on Parcels 3 and 4. This would enable the continued use and protection of Parcel 2 for farming. Therefore, no significant adverse impacts to agricultural resources are anticipated.

- Transportation

A Traffic Impact Study was conducted to assess potential transportation impacts. Future site development will increase traffic on local roadways. The traffic analysis showed that the roadway

Draft Generic Environmental Impact Statement Niagara County Shovel Ready Site

system and accompanying intersections in the project area are operating at a Level of Service C or better. An assessment of full build-out found that existing conditions would degrade. Proposed driveway location and separation was found to meet or exceed all requirements for sight and braking distances. There were no signal timing or phasing improvements recommended for local intersections. With proper mitigation and roadway improvements, as well as the establishment of proper thresholds, there would be no significant adverse impacts on the local transportation system. The Traffic Impact Study is included in Appendix I.

- Historic and Cultural Facilities

At the request of the NYS Office of Parks, Recreation and Historic Preservation, cultural resource assessments were to be performed on Parcels 1, 3 and 4. The studies for Parcels 1 and 4 found no historic or prehistoric artifacts or evidence of native habitation on these sites. An additional study on Parcel 3 will be undertaken once the current crop of winter wheat is harvested. It is expected that Parcel 3 will also be found to contain no archaeological artifacts. As with other parcels on the property, soils have been disturbed by agricultural activities for a number of years. Based on the findings to date, the proposed action is not anticipated to result in adverse impacts to historic or cultural resources.

- Community Facilities

No significant adverse impacts are anticipated. Future site development will be restricted to high technology uses (no residential), with no direct impacts to schools, parks or recreational programs. According to local emergency service providers, they have the capacity and capability to accommodate development on the subject property. All new construction must comply with NYS Building Codes. Under these conditions, the proposed action is not anticipated to result in adverse impacts to community facilities.

- Visual Resources

Future development of the subject property will change the visual character of the site, with views of three-dimensional structures replacing those of open fields and generally level farmland. Views of the structures on the site would be available from certain vantage points. Vegetation and distance from the site will help to mitigate some views. Development in the vicinity of the site (along Lockport Road) is commercial in nature; single family residences are found along nearby roadways, with the closest being approximately one-half mile away. The proposed zoning will include design standards to help mitigate visual impacts, including height, building design and site lighting restrictions. Under these conditions, the proposed action is not anticipated to adversely impact the character of the surrounding area.

- Noise and Odors

There will be short-term noise impacts due to construction of the roadway and infrastructure. Long-term noise levels would be consistent with surrounding development. Allowed uses under the new zoning are not likely to produce odors and the Town regulates noise. Therefore, no significant negative impacts associated with noise or odors are anticipated.

- Public Utilities and Infrastructure

A new water line has been installed along Lockport Road that has the capacity to service future site development with public water supply. Sanitary sewer service would have to be extended to the site. The Niagara County Wastewater Treatment Plant has the capacity to accommodate future flow from

Draft Generic Environmental Impact Statement Niagara County Shovel Ready Site

the project, and the existence of a 21-inch interceptor west of the site would allow for the management of greater wastewater flow from future site development. A Map, Plan and Report were prepared for the proposed sewer line extension along Lockport Road, which would be constructed by the Town when warranted. A sewer line extension to service Parcels 3 and 4 would have to be constructed by the developers of these lands at such time that site development is proposed. Electrical service is available in the area to support future development; a natural gas line is also situated proximate to the site. Therefore, the proposed action is not expected to result in adverse environmental impacts.

- **Energy Utilization**

The proposed action will result in a long-term increase in the use of energy resources, including electricity and natural gas. Buildings that would be constructed on the project site would utilize energy efficient systems and be constructed of energy efficient building materials, in accordance with the New York State Energy Code and Building Code. The project is not expected to have a significant adverse impact on energy resources.

Various measures will be taken to avoid, minimize and/or mitigate potentially significant adverse environmental impacts to the maximum extent practicable. SEQR requires a lead agency to balance the social, economic and environmental impacts of a proposed project.

Unavoidable Adverse Environmental Impacts

During the development of any project, regardless of the magnitude, certain adverse impacts on the environment will result despite of all of the measures that are put in place to mitigate such impacts. SEQRA contemplates the balancing of these impacts against social, economic and other relevant considerations (6 NYCRR 617.1.d). The unavoidable impacts anticipated as a result of the development of the proposed action are summarized in this section.

Unavoidable short-term impacts are related to the construction phases of the proposed action. These impacts are temporary, localized and relative minor in nature. Short-term impacts would cease upon completion of the project development activities. These include:

- Increased traffic levels due to the movement of construction workers and off-site construction equipment;
- Increases in noise levels in the immediate vicinity of the project site;
- The creation of fugitive dust due to soil disturbance and truck movement; and
- Minute, localized increases in air emissions from construction equipment.

Certain long-term environmental impacts will result from the construction and operation of buildings on the project site. These would include:

- Traffic volumes in the vicinity of the site will increase as a result of site development, as well as normal growth in the surrounding area. Lockport Road (CR 6) is a very busy and heavily traveled east-west route in Niagara County. With proper mitigation, this roadway, and other surrounding

Draft Generic Environmental Impact Statement Niagara County Shovel Ready Site

roads, will have the capacity to handle the additional traffic that will result from future site development. However, overall traffic will increase.

- The removal of 86 acres of farmland is another impact associated with the future, long-term development of the project site. A large portion of the project site is presently used to raise crops and the use of this acreage would forever be changed. The removal of these lands from active farming will not adversely impact the agricultural industry in the area. Agriculture is still a relatively strong industry in the Town of Cambria, with 9,470 acres of farmlands that would remain in active use (the 86 acres represents 9 percent of the land currently being farmed in the Town). Under the Preferred Development Plan alternative, approximately 15.3 acres of farmland that could otherwise be developed would remain available for farming use.
- The loss of approximately 86 acres of existing open space/undeveloped land is an associated impact of future, long-term site development. This may result in a slight reduction of wildlife habitat in the area. Wherever possible, existing open space will be preserved on the property, including 20 acres of woodland and wetland areas, that will be avoided. Where natural buffers of existing vegetation do not exist, and in the vicinity of proposed structures, landscaping will be used to fill the void and supplement remaining natural habitat.
- Future site development will permanently change the visual character of the site. Views from certain areas will change, with three-dimensional structures replacing level farmland. Site lighting will also be introduced into an area that is currently dark at night. Structures would be designed to blend with their surrounding environment to the greatest extent possible and measures would be implemented to reduce or eliminate glare from the site, including the use of dark sky compliant lighting fixtures, to help reduce these potential impacts.
- The long-term development of the subject property will result in an increase in energy usage. Structures on the site will require a long-term commitment of electric and natural gas services for heating, cooling and lighting. In addition, there will be a permanent commitment of building materials for on-site structures, paved surfaces and infrastructure. The unavoidable commitment of public water from the Niagara County system, as well as increases in wastewater that must be processed at County facilities. The solid waste generated on-site must also be handled and disposed of locally.
- Site development will require a commitment of economic resources for the cost of construction materials, labor and equipment. Fuel will also be required for the construction and long-term operation and maintenance of structures on the site.

Cumulative and Growth Inducing Impacts

When considering the potential adverse environmental impacts of an action, the Lead Agency must consider reasonably-related cumulative impacts, including other simultaneous or subsequent actions that are included in any long-range plan that the proposed action is a part of, any actions that may result from the development of the proposed project, and actions that are dependent on the development of the proposed action. Cumulative impacts (impacts from two or more related actions) are the potential impacts of a proposed action taken in conjunction with other active or anticipated development in the surrounding vicinity, where the total impacts may potentially result in impacts that are greater than what is anticipated from any one project alone.

Draft Generic Environmental Impact Statement Niagara County Shovel Ready Site

An analysis of cumulative impacts is generally required in a DGEIS when it is expected that multiple projects within the area may result in a greater cumulative impact. The project area is rural and, at this time, there are no other projects proposed or currently under development in the vicinity of the subject property that should be taken into consideration as part of this environmental assessment. Therefore, no cumulative impacts are anticipated from the proposed action and any further analysis is unwarranted.

SEQR requires the analysis of growth inducing impacts. Development on the Niagara County Shovel Ready project site will result in the creation of employment opportunities for residents in the Town of Cambria and surrounding region, including construction-related jobs. Site development is reasonably expected to result in some secondary growth in the form of residential development in response to the availability of employment and the desire to locate in closer proximity to the workplace. Expected increases in population and residential development would likely impact enrollment in the local school district and create elevated demand for emergency services. It is conceivable that increased employment opportunities could stimulate population in-migration. However, it is not expected that any population increases would off-set recent population losses experienced in the region. Any population increases are also likely to be distributed across the area, not just within the Town of Cambria, minimizing localized impacts. Future site development may also generate a demand for new or expanded support businesses and service providers in the surrounding area to accommodate the needs of on-site workers. In addition, the project will result in a direct increase in the tax base in the Town.

Project Alternatives

For the purposes of this DGEIS, the following alternatives were analyzed:

1. Alternative 1 (No Action alternative)
The No Action alternative represents a required component of an EIS, and consists of the properties remaining as they are now. This current condition includes the Walck property (Parcel 1) continuing as active farmland and the Ohol and Wasik properties (Parcels 2, 3 and 4) being farmed and / or remaining in a fallow state.
2. Alternative 2 (As of right development – existing zoning)
This alternative is being evaluated because the action involves the rezoning of these properties, which changes how these properties could be developed. Under the current zoning Parcel 1 is zoned General Business (B-2) and the back properties (Parcels 2, 3, 4 and 5) are zoned Agricultural and Residence (A-R). This alternative presumes that the properties will be developed (not remain as is) under the current zoning requirements.
3. Alternative 3 (Maximizing development of the site under the proposed zoning)
This alternative involves creating a scenario of developing the site under the proposed zoning to the maximum of its potential. This is not a straight forward exercise since the PUD Zoning is a zoning that is created through the rezoning process. For this alternative, we have just schematically illustrated a layout that develops the areas of the site that are not constrained by environmental restrictions.
4. Alternative 4 (proposed preferred development pattern)

**Draft Generic Environmental Impact Statement
Niagara County Shovel Ready Site**

This alternative is the result of balancing the Goals and Objectives of the Town and project against the potential environmental impacts. This preferred development is based on the “Development Profile for High Technology Manufacturing Sites” of the State’s Build Now-New York Program. It is in conformance with the Town’s Comprehensive Plan and we believe minimizes the potential environmental impacts of the project.

