

TOWN OF WEST SENECA

APPLICATION FOR SITE PLAN REVIEW APPROVAL

TO BE COMPLETED BY APPLICANT

DATE 5/1/15

FILE # SPR2015-012

PROJECT NAME PROPOSED WAREHOUSE

PROJECT LOCATION (Include address and distance to nearest intersection)
3254 CLINTON STREET/ 0 NORTH STREET

APPLICANT CLINTON STREET COMMERCE PARK

PH/FAX 716-883-0280

ADDRESS 2790 CLINTON STREET

PROPERTY OWNER _____

PH/FAX _____

ADDRESS _____

ENGINEER/ ARCHITECT WM. SCHUTT & ASSOCIATES, P.C.

PH/FAX 716-683-5961

ADDRESS 37 CENTRAL AVENUE, LANCASTER, NY 14086

SBL # 124.19-1-10

PROJECT DESCRIPTION (Include all uses and any required construction)

PROPOSED CONSTRUCTION OF 10,000 SF WAREHOUSE WITH PARKING, DRIVEWAY, UTILITIES INCLUDING STORMWATER MGMT, LANDSCAPING

SIZE OF LOT (acres) Total 10.2 ac, ACREAGE TO BE REZONED _____

0.98 ac development area

ADJACENT ROAD NAMES AND AMOUNT OF FRONTAGE ON EACH
CLINTON STREET - 954 LF

NORTH STREET (PAPER STREET) - 222 LF

EXISTING ZONING M1 PROPOSED ZONING _____

EXISTING USE(S) ON PROPERTY COMMERCIAL

PROPOSED USE(S) ON PROPERTY COMMERCIAL

EXISTING USE(S) AND ZONING ON ALL PROPERTY WITHIN 500 FEET

COMMERCIAL, RESIDENTIAL

PUBLIC SEWER YES X NO _____

PUBLIC WATER YES X NO _____

VARIANCES AND OTHER APPROVALS OR PERMITS REQUIRED

SITE VARIANCE FOR USE OF PERMEABLE STONE SURFACE, APPROVAL FROM ECWA AND

ECSD#1

APPLICATIONS WILL NOT BE ACCEPTED WITHOUT COMPLETION OF ALL REQUIREMENTS LISTED HEREIN

TO BE COMPLETED BY THE TOWN OF WEST SENECA

DATE RECEIVED 05/04/2015 BY [Signature]

PLANNING BOARD MEETING DATE 06/11/2015

TOWN BOARD MEETING DATE _____

TOWN BOARD RESOLUTION DATE _____

NON - REFUNDABLE FILING FEE (Payable to the Town Clerk): \$ 850.00

617.20
Appendix B
Short Environmental Assessment Form

Instructions for Completing

Part 1 - Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 - Project and Sponsor Information							
Name of Action or Project: Clinton Street Commerce Park - Proposed Warehouse/Storage Facility							
Project Location (describe, and attach a location map): 3254 Clinton Street/0 North Street, West Seneca NY							
Brief Description of Proposed Action: Clinton Street Commerce Park is proposing to construct a 10,000 square foot warehouse/storage facility with parking area, located at 3254 Clinton St./0 North Street in Town of West Seneca. . The project site encompasses four (4) properties with frontages along Clinton Street and North Street (a paper street). 3254 Clinton St was a former lumber yard and existing buildings have been demolished. The parcels on North Avenue are currently vacant with a grass/woods surface. The parcels that are proposed for development are currently zoned M-1. Construction of the 10,000 square foot warehouse will be completed as a single phase and includes all necessary infrastructure (i.e. sanitary sewer lateral, domestic water service line and storm sewer system), associated parking area and landscaping. (see Attachment 1 - Site plan and Attachment 2 - Project Location Map). The warehouse is proposed with 10 parking spaces. The total acreage of the four parcels is 10.2+/- acres. The disturbance area associated with proposed construction of the warehouse/parking and related utilities is 0.98 Acres.							
Name of Applicant or Sponsor: Clinton Street Commerce Park		Telephone: 716-883-0280					
		E-Mail:					
Address: 2790 Clinton Street							
City/PO: West Seneca		State: New York	Zip Code: 14224				
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.			<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">NO</td> <td style="text-align: center;">YES</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table>	NO	YES	<input checked="" type="checkbox"/>	<input type="checkbox"/>
NO	YES						
<input checked="" type="checkbox"/>	<input type="checkbox"/>						
2. Does the proposed action require a permit, approval or funding from any other governmental Agency? If Yes, list agency(s) name and permit or approval: ECWA DESIGN APPROVAL, WEST SENECA SEWER DISTRICT APPROVAL			<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">NO</td> <td style="text-align: center;">YES</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table>	NO	YES	<input type="checkbox"/>	<input checked="" type="checkbox"/>
NO	YES						
<input type="checkbox"/>	<input checked="" type="checkbox"/>						
3.a. Total acreage of the site of the proposed action?		+/-10.2 acres					
b. Total acreage to be physically disturbed?		+/-0.98 acres					
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor?		+/-10.2 acres					
4. Check all land uses that occur on, adjoining and near the proposed action.							
<input type="checkbox"/> Urban <input type="checkbox"/> Rural (non-agriculture) <input type="checkbox"/> Industrial <input checked="" type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential (suburban) <input checked="" type="checkbox"/> Forest <input type="checkbox"/> Agriculture <input type="checkbox"/> Aquatic <input type="checkbox"/> Other (specify): _____ <input type="checkbox"/> Parkland							

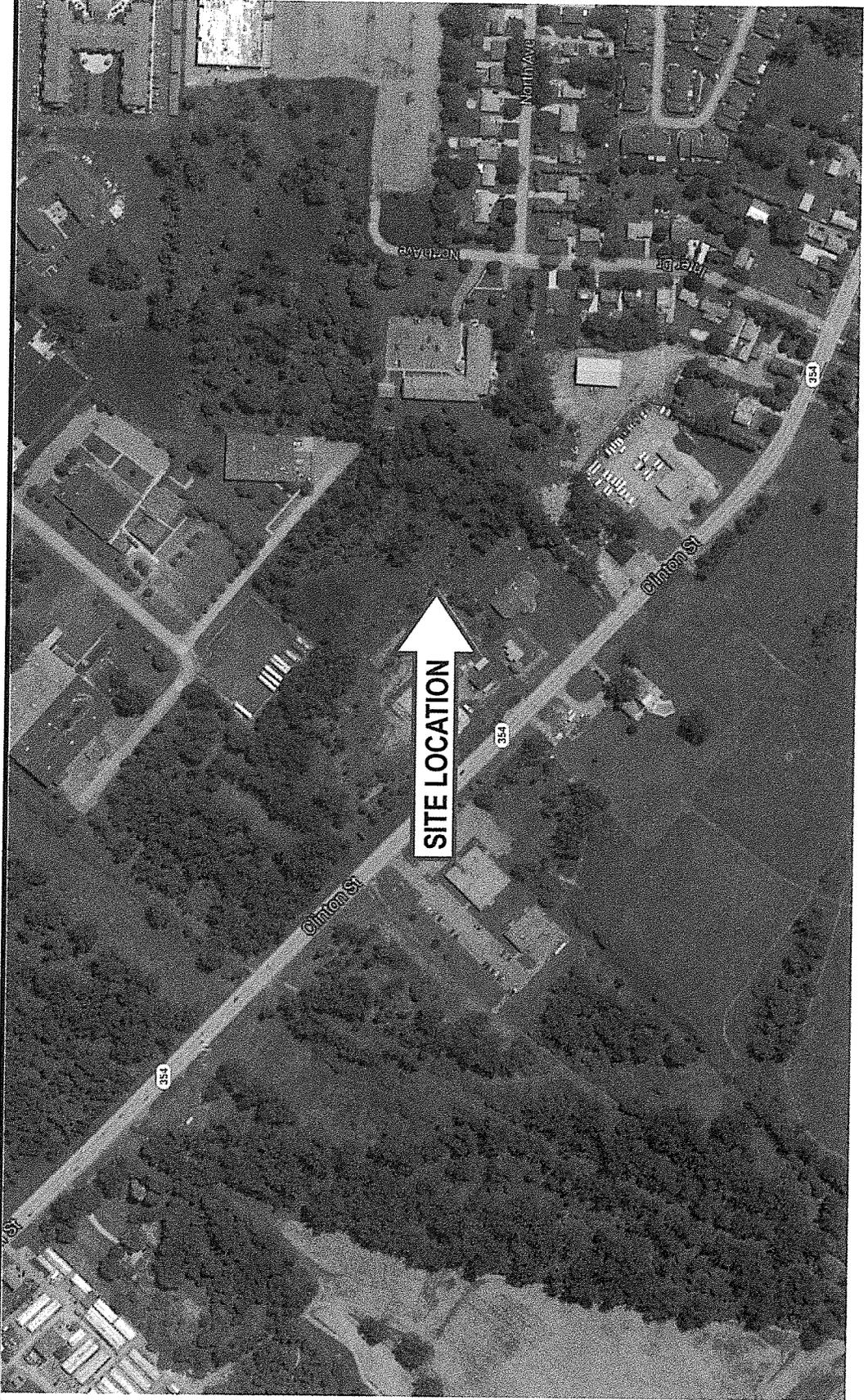
18. Does the proposed action include construction or other activities that result in the impoundment of water or other liquids (e.g. retention pond, waste lagoon, dam)? If Yes, explain purpose and size: _____	NO	YES
_____	<input checked="" type="checkbox"/>	<input type="checkbox"/>
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility? If Yes, describe: _____	NO	YES
_____	<input checked="" type="checkbox"/>	<input type="checkbox"/>
20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste? If Yes, describe: _____	NO	YES
_____	<input checked="" type="checkbox"/>	<input type="checkbox"/>
I AFFIRM THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE		
Applicant/sponsor name: <u>ROBYN CIERNIAK, AGENT FOR OWNER</u> Date: <u>4/30/15</u>		
Signature: <u>Robyn Cierniak</u>		

Part 2 - Impact Assessment. The Lead Agency is responsible for the completion of Part 2. Answer all of the following questions in Part 2 using the information contained in Part 1 and other materials submitted by the project sponsor or otherwise available to the reviewer. When answering the questions the reviewer should be guided by the concept "Have my responses been reasonable considering the scale and context of the proposed action?"

	No, or small impact may occur	Moderate to large impact may occur
1. Will the proposed action create a material conflict with an adopted land use plan or zoning regulations?	<input type="checkbox"/>	<input type="checkbox"/>
2. Will the proposed action result in a change in the use or intensity of use of land?	<input type="checkbox"/>	<input type="checkbox"/>
3. Will the proposed action impair the character or quality of the existing community?	<input type="checkbox"/>	<input type="checkbox"/>
4. Will the proposed action have an impact on the environmental characteristics that caused the establishment of a Critical Environmental Area (CEA)?	<input type="checkbox"/>	<input type="checkbox"/>
5. Will the proposed action result in an adverse change in the existing level of traffic or affect existing infrastructure for mass transit, biking or walkway?	<input type="checkbox"/>	<input type="checkbox"/>
6. Will the proposed action cause an increase in the use of energy and it fails to incorporate reasonably available energy conservation or renewable energy opportunities?	<input type="checkbox"/>	<input type="checkbox"/>
7. Will the proposed action impact existing:		
a. public / private water supplies?	<input type="checkbox"/>	<input type="checkbox"/>
b. public / private wastewater treatment utilities?	<input type="checkbox"/>	<input type="checkbox"/>
8. Will the proposed action impair the character or quality of important historic, archaeological, architectural or aesthetic resources?	<input type="checkbox"/>	<input type="checkbox"/>
9. Will the proposed action result in an adverse change to natural resources (e.g., wetlands, waterbodies, groundwater, air quality, flora and fauna)?	<input type="checkbox"/>	<input type="checkbox"/>

ATTACHMENT 2
PROJECT LOCATION MAP

Proposed 10,000 Square Foot Building
3254 Clinton Street
(T) West Seneca — Erie County, New York



ATTACHMENT 3

**PHASE I CULTURAL RESOURCE INVESTIGATION
REPORT DATED APRIL 2015**



New York Branch
2390 Clinton Street
Buffalo, NY 14227
Tel: (716) 821-1650
Fax: (716) 821-1607

Alabama Branch
2301 Paul Bryant Drive
Tuscaloosa, AL 35401
Tel: (205) 556-3096
Fax: (205) 556-1144

Tennessee Branch
91 Tillman Street
Memphis, TN 38111
Tel: (901) 454-4733
Fax: (901) 454-4736

Corporate Headquarters
P.O. Box 20884
Tuscaloosa, AL 35402
Tel: (205) 248-8767
Fax: (205) 248-8739

**PHASE I CULTURAL RESOURCES INVESTIGATION
FOR THE PROPOSED DEVELOPMENT
OF 10 ACRES AT 3254 CLINTON STREET
TOWN OF WEST SENECA, ERIE COUNTY,
NEW YORK**

**New York State Office of Parks, Recreation,
and Historic Preservation #15 PR01706**

Prepared for:

**Mr. William Bauer
Edbauer Construction
2790 Clinton Street
West Seneca, New York 14224**

Prepared by:

**PANAMERICAN CONSULTANTS, INC.
2390 Clinton Street
Buffalo, New York 14227-1735
(716) 821-1650**

April 2015

**PHASE IAB CULTURAL RESOURCES INVESTIGATION
FOR THE PROPOSED DEVELOPMENT
OF 10 ACRES AT 3254 CLINTON STREET
TOWN OF WEST SENECA, ERIE COUNTY, NEW YORK**

**New York State Office of Parks, Recreation, and Historic Preservation
#15PR01706**

Prepared for:

**Mr. William Bauer
Edbauer Construction
2790 Clinton Street
West Seneca, New York 14224**

Prepared by:

**Robert J. Hanley, M.A., RPA, Principal Investigator
Mark A. Steinback, M.A., Senior Historian
Edwin W. Button, M.A., Field Director
Michael A. Cinquino, Ph.D., RPA, Project Director**

**PANAMERICAN CONSULTANTS, INC.
Buffalo Branch Office
2390 Clinton Street
Buffalo, NY 14227
(716) 821-1650**

April 2015

Management Summary

SHPO Project Review Number: 15PR01706

Involved State and Federal Agencies:

Phase of Survey: Phase IAB

Location Information:

Location: 3254 Clinton Street

Minor Civil Division: Town of West Seneca (MCD 0295)

County: Erie

Survey Area (Metric & English):

Total acreage: 10.2 acres (4 hectares)

USGS 7.5 Minute Quadrangle Map: Buffalo SE, New York—Erie Co. (1965)

Archaeological Survey Overview

Number & Interval of Shovel Test Pits (STP): 57 STPs (45 STPs at 15 m [50 ft]; 4 STPs at 3 m [10 ft]; 4 STPs at 1 m [3.3ft] intervals as well as 4 discretionally placed STPs)

Results of Archaeological Survey

Number & name of historic sites identified: 0

Number & name of Precontact sites identified: 0 (one isolated find)

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

Results of Architectural Survey

Number of structures within project area: 0

Number of buildings/structures/cemeteries adjacent to project area: 4 modern commercial structures.

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

Report Author(s): R. Hanley, M. Steinback, E. Button, M. Cinquino

Date of Report: April 2015

Table of Contents

Management Summary.....	ii
List of Figures	iv
List of Photographs	v
1.0 Introduction	1
1.1 Project Description	1
1.2 Environmental Setting	1
2.0 Historical and Archival Review.....	5
2.1 Prehistoric Period	5
2.2 Historic Period	11
2.3 Documentary Research.....	17
2.3.1 Historical Map Analysis	17
2.3.2 Site File and Archival Review	20
3.0 Field Investigation	22
3.1 Methodology.....	22
3.2 Laboratory Analysis.....	23
3.3 Results of the Field Investigation	23
3.4 Conclusions and Recommendations.....	26
4.0 References.....	27
Appendices	
Appendix A: Photographs	
Appendix B: Shovel Test Log	

List of Figures and Tables

FIGURE	PAGE
1 General location of the project area in the Town of West Seneca, Erie County, New York.....	2
2 Approximate location of the project area depicted on a recent aerial photograph	3
3 Soils within and adjacent to the project area.....	4
4 Land purchases and Haudenosaunee reservations in Western New York, ca. 1804	13
5 Approximate location of the project area within the Buffalo Creek reservation in 1804	14
6 Approximate location of the project area (red square) in 1866	18
7 Approximate location of the project area (red square) in 1880	18
8 Approximate location of the project area (red square) in 1909	19
9 Approximate location of the project area (lots 25 and 26) in 1938.....	19
10 The Gardenville Lumber & Supply Company at 3254 Clinton Street in 1951	20
11 Location of photographs in the project area	24
12 Location of shovel tests, standing water, and disturbances in the project area	25
TABLE	
1 Soils within and adjacent to the project area.....	3
2 Archaeological sites within one mile of the project area	21

List of Photographs

PHOTOGRAPH		PAGE
1	Project area at 3254 Clinton Street, facing eastwards from outside the west corner of the APE	A-1
2	Concrete and cinderblock rubble remains of four former buildings demolished within the disturbed five-acre portion of the project, facing northwest from Clinton Street.....	A-1
3	Buried concrete slab exposed within the west limits of the disturbed portion of the project area, facing southeast.....	A-2
4	Concrete and cinderblock rubble remains of four former buildings demolished within the disturbed five-acre portion of the project, facing southeast.....	A-2
5	North extent of the project is covered in brush and trees, with extensive wet area covered in phragmites, facing northeast	A-3
6	Recent cleared east portion of the project area, facing east from STP 7.1.....	A-3
7	Wet area covered in phragmites totaling approximately one acre on the north side of the disturbed five-acre lot, facing northwest	A-4
8	Wet area covered in phragmites totaling approximately one acre, facing southwest from northeast edge at STP 4.2	A-4
9	Base of elevated scrub/woodland (right) and phragmites-covered wet area (left), in north portion of the APE facing northwards	A-5
10	Brush and trees covering slightly elevated north portion of the project area, facing north from STP 9.3	A-5
11	Recent cleared east portion of the project area, facing west from STP 9.3	A-6
12	Standing water covers portions of the east limits of the project area, facing west	A-6
13	Cleared northeast portion of the project, facing southwest towards Gregor's Garden Grove Banquet House (outside the APE)	A-7
14	Broad shallow ditch or excavated area within north limits of the project, adjacent to a paved drive outside the APE, facing east from STP 2.2	A-7

1.0 Introduction

1.1 PROJECT DESCRIPTION

Panamerican Consultants, Inc. was contracted by Edbauer Construction, West Seneca, New York, to conduct a Phase IAB cultural resources investigation for the proposed development of approximately 10 acres at 3254 Clinton Street, Town of West Seneca, Erie County, New York (Figures 1 and 2). Edbauer Construction plans to develop or sell portions of the project area. The total Area of Potential Effect (APE) is approximately 10.2 acres.

The purpose of the Phase I investigation is to identify archaeologically sensitive areas, cultural areas, and structures 50 years of age and older that may be affected by the proposed project and to locate all cultural resources in the APE (New York Archaeological Council [NYAC] 1994:1). The

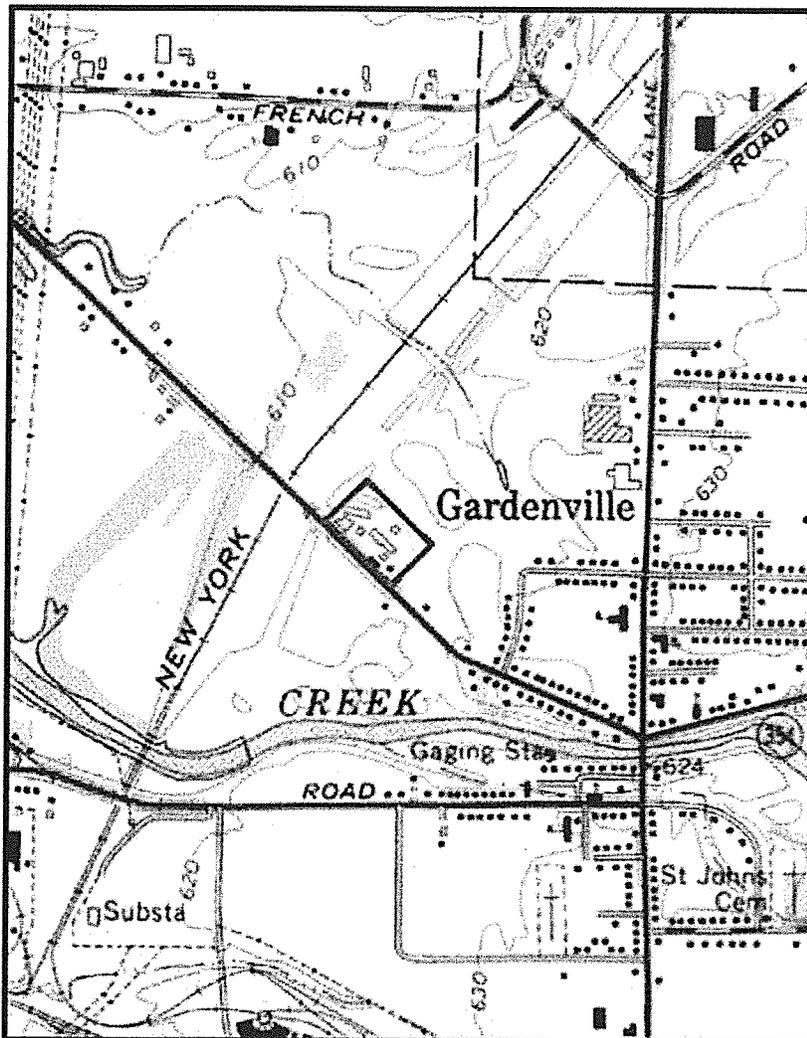


Figure 1. General location of the project area in the Town of West Seneca, Erie County, New York (United States Geological Survey [USGS], Buffalo SE, 1965).

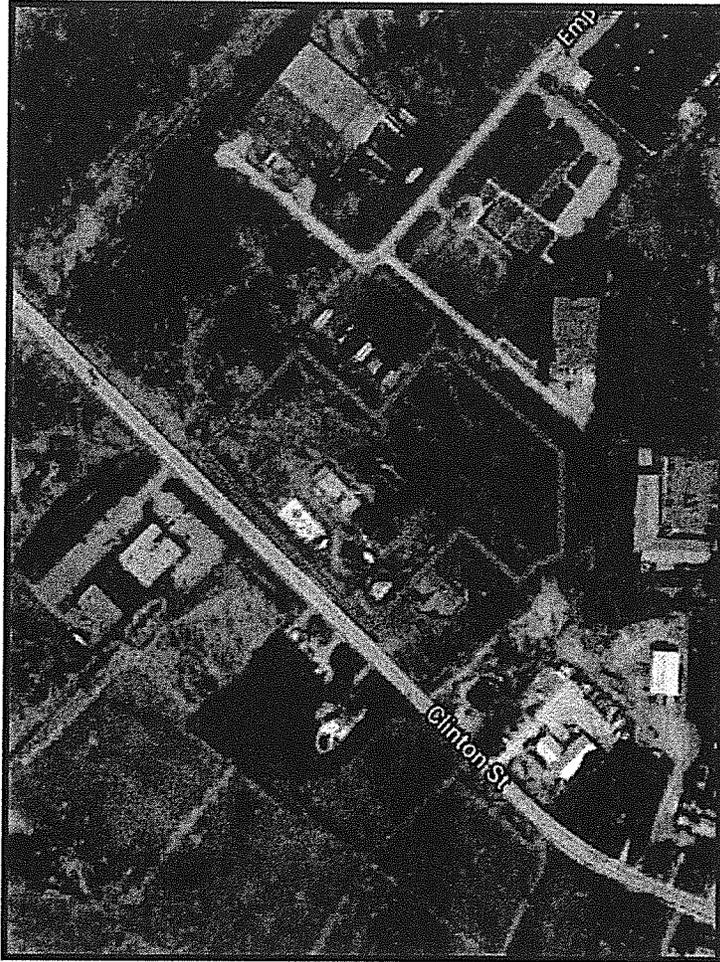


Figure 2. Approximate location of the project area depicted on a recent aerial photograph, Town of West Seneca, Erie County, New York (Google Maps 2015).

cultural resources investigation included archival and historical map research, a site file and literature search, an intensive walkover reconnaissance, photographic documentation of field conditions, and shovel testing throughout the APE. Photographs of the field investigation are presented in Appendix A.

The cultural resource investigation was conducted in compliance with the National Environmental Policy Act, the National Historic Preservation Act, the State Historic Preservation Act, the New York State Environmental Quality Review Act, and all relevant state and federal legislation. The investigation was also conducted according to the New York Archaeological Council's Standards for Archaeological Investigations and New York State Historic Preservation Office (NYSHPO) Guidelines.

Fieldwork was conducted on April 14, 2015. Mr. Robert J. Hanley, M.A., RPA, served as principal investigator, Mr. Mark A. Steinback, M.A., was project historian, and Mr. Edwin W. Button, M.A., conducted the field investigation. Dr. Michael A. Cinquino, RPA, served as project director.

1.2 ENVIRONMENTAL SETTING

Topography. The project area is situated in the Erie-Ontario Lake Plain, one of the two physiographic provinces covered by Erie County (the Allegheny Plateau is the other). The area surrounding the project area has a topography formed from glacial lake beds, where elevations increase slowly and, in general, there is little relief (Owens et al. 1986:2). Elevations within the project area range between 610 and 620 feet (186 and 189 meters) above mean sea level and increase gradually from southwest to northeast (see Figure 1).

Geology. In general, bedrock beneath the project area is an extensive band of shales and limestones that make up the Hamilton Group, formed in bands oriented east-west during the Devonian period (410 to 360 million years ago). Relatively flat, the bedrock underlying the northern part of Erie County tilts to the southwest at "approximately 50 feet a mile" (Owens et al. 1986:2-4).

Soils. In general, soils within the project area are classified as part of the Niagara-Canandaigua-Cosad association (Owens et al. 1986: General Soil Map). This area is dominated by deep soils formed in glacial lake sediments. These soils are predominantly nearly level, deep, medium textured, and somewhat poorly to very poorly drained. Four soils were identified within the current project area: Getzville silt loam (Ge), Hamlin silt loam (Hm), Galen very fine sandy loam (GaB), and Wayland silt loam (Wd) (Owens et al. 1986:Sheet 50). These soils are described in more detail in Table 1 and presented in Figure 3.

Drainage. The project area is approximately 1,400 ft (427 m) north of Buffalo Creek. Buffalo Creek flows westerly to Buffalo Harbor and Lake Erie. A small intermittent stream is located approximately 1,000 ft (305 m) northeast of the project area. The stream flows northwesterly into a former oxbow of Buffalo Creek (see Figure 1). Street, highway, and railroad construction in proximity to the project area has likely disrupted natural drainage patterns (see Figure 2).

Table 1. Soils within and adjacent to the project area.

Name	Soil Horizon Depth inches (cm)	Color	Texture	Slope %	Drainage	Land Form
Getzville silt loam (Ge)	0-8 (0-20) 8-19 (20-48) 19-24 (48-61) 24-60 (61-152)	DK GR BR LT BR GR LT BR GR DK BR	Silt loam Silty clay loam Silt loam Fine sand	0-3	Poorly and very poorly	Lowland lake plains
Hamlin silt loam (Hm)	0-8 (0-20) 8-10 (20-25) 10-42 (25-107) 42-65 (107-165)	V DK GR BR DK GR BR BR DK GR BR	Silt loam Silt loam Silt loam Silt loam	0-3	Well	Flood plains / lowland lake plains
Galen very fine sandy loam (GaB)	0-8 (0-20) 8-24 (20-61) 24-36 (61-91) 36-60 (91-152)	V DK BR DK GR BR BR - DK BR GR BR	Sandy loam Loamy fine sand Loamy fine sand Fine sand to very fine sand	3-8	Moderately well	Deltas on lake plains
Wayland silt loam (Wd)	0-9 (0-23) 9-28 (23-71) 28-45 (71-114) 45-55 (114-140)	V DK GR BR DK GR DK GR DK GR - DK GR BR	Silt loam Silt loam Silt loam Silt loam / very fine sand	0-3	Poorly and very poorly	Flood plains

Color: BR = brown, DK = dark, GR = gray, LT = light, V = very

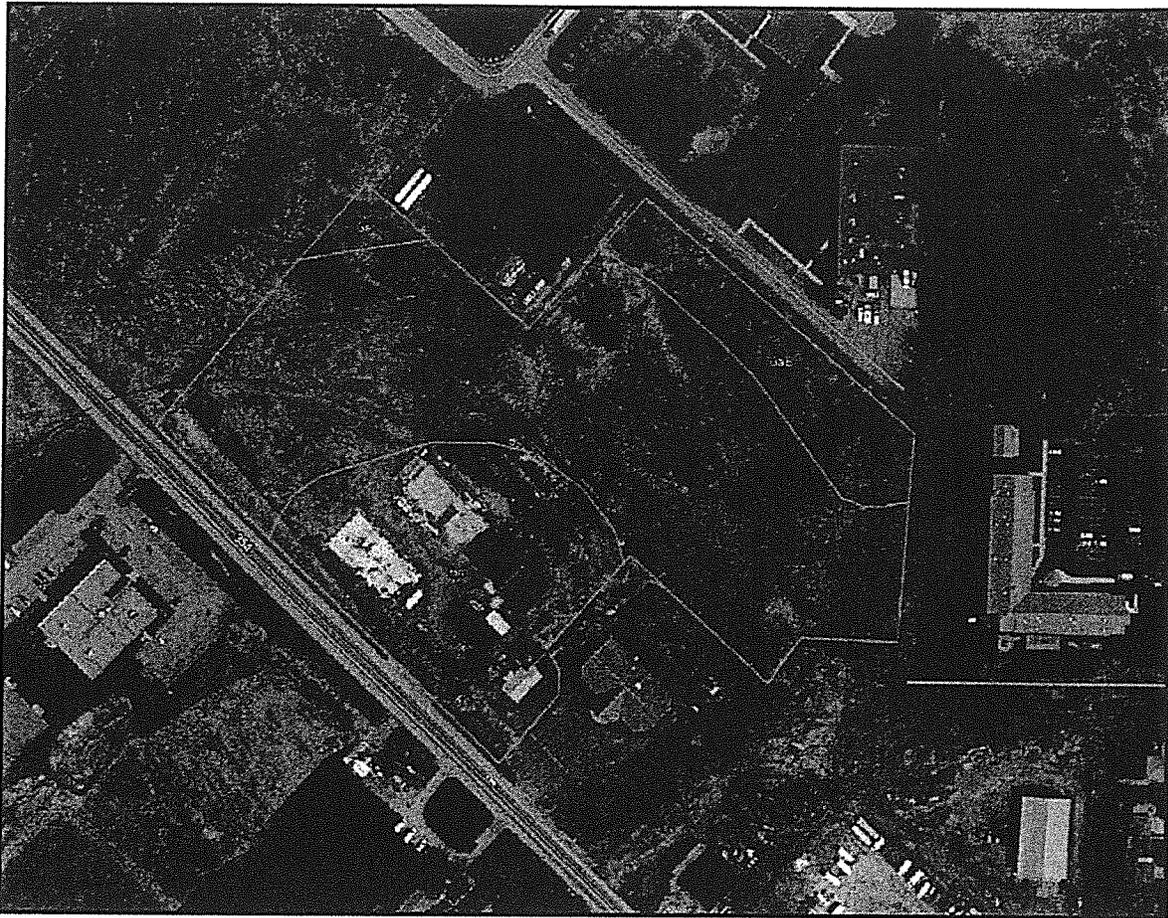


Figure 3. Soils within and adjacent to the project area (NRCS 2015).

Forest Zone and Vegetation. At the time of pioneer settlement in the early nineteenth century, the natural landscape consisted of Beech-Maple forest in which a beech-maple-biome dominated much of the somewhat poorly drained Erie Lake plain (Miller 1973:15). Well-drained areas would have supported greater numbers of oak, hickory, pine and chestnut species. The project area lies within the Elm-Red Maple-Northern Hardwood forest zone (de Laubenfels 1966:92). This zone reflects recent conditions where poorly drained areas are widespread, the natural forest has been removed, and better drained areas have been utilized for agriculture. The prevalence of elm and red maple is due to recent conditions where poorly drained areas have been created by human activities, better drained areas have been utilized for agriculture, and the natural forest has been removed (de Laubenfels 1966:95). Vegetation within the northeastern portion of the project area includes brush and scattered saplings. Vegetation throughout the remainder of the area was cleared of vegetation with a brush-hog or previously cleared prior to development (Appendix A: Photographs).

Man-made Features and Alterations. Approximately six acres of the project area have been severely disturbed by former industrial use. A railroad spur formerly ended at concrete structure which has been demolished and removed. Topsoil has been stripped and or mixed with crushed stone. An open basement of a former house also remains in the southeast portion of the project area. Section 3 includes additional

2.0 Historical and Archival Review

2.2.1 Prehistoric Period. The three major cultural traditions manifested in western New York State during the prehistoric era were the Paleo-Indian, Archaic, and Woodland. Cultural evolution of the area can be summarized as a gradual increase in social complexity, punctuated by several important cultural and/or technological innovations. The earliest people were nomadic big-game hunters (12,000 to 8000 BC); changing environmental conditions required an adaptation of the economy, resulting in a shift to the efficient exploitation of temperate forest resources by Archaic hunter-gatherers. In many areas of eastern North America, the Archaic (8000 to 1500 BC) is followed by a Transitional period (1500 to 1000 BC) that bridges the Archaic and the subsequent Woodland period. The Woodland tradition (1000 BC to AD 1600) is marked by the introduction of pottery, agriculture, and burial mounds, and resulted in a plethora of new and very different social and economic adaptations (Ritchie 1980).

After about 1000 BC, external influences began to have an increasingly greater effect as the area was occupied by groups that later formed the Erie and Neutral confederacies. Culturally, they shared much with groups in southern Ontario, Canada. The introduction of corn horticulture ca. AD 1000 encouraged population growth, village life, and warfare in western New York. The tribes which eventually formed the Haudenosaunee or Iroquois Confederacy evolved from antecedents in the central sub-area between the Genesee River and the Tug Hill Plateau. Prior to the time of European contact, Seneca hunting territory comprised an area extending from Lake Ontario to the headwaters of the smaller Finger Lakes and from the Genesee River to Cayuga Lake. There was very little interaction between these groups and those of the western New York area until the seventeenth century (Tuck 1978; Tooker 1978; White 1961, 1978a). After AD 1600, the Seneca expanded the range of their trading activities into the traditional areas of other Iroquoian groups. Thus, by the mid-seventeenth century, the Haudenosaunee emerged as a politically, militarily, and economically united confederacy with sole access to both the land and resources surrounding the lower Great Lakes (Abler and Tooker 1978; White 1978b; Trigger 1978).

Paleo-Indian Period (ca. 12,000-8000 BC). Hunter-gatherer bands of the Paleo-Indian culture were the first humans in New York State after the last glacial retreat approximately 14,000 years ago. At this time, Lake Ontario and the St. Lawrence River were locked in ice, and the current project area would have been underneath an ice sheet, not an ideal environment for occupation. It is possible, however, that the environmental fluctuations that occurred during this early period were conducive to periodic forays by the Paleo-Indian groups into the region when conditions were suitable. As the climate gradually became more temperate, these forays may have become more extended. Prior to 10,000 years ago, the ice had not retreated very far north of the lake and the Lake Ontario basin was still somewhat inhospitable (Engelbrecht et al. 1993:10; Fitting 1975:27-28).

Technologically, the Paleo-Indian period has been associated with the fluted Clovis point industry. These points are generally large (2.5 to 10 cm [1 to 4 in] in length) with a flute on each face that facilitated hafting (Funk and Schambach 1964; Snow 1980). Several fluted points have been recovered along Cattaraugus Creek in Erie County well south of the Town of West Seneca (Ritchie 1980:4). Other items in the Paleo-Indian tool kit included leaf-shape and ovate bifacial knives, end scrapers, often equipped with graving spurs, and unifacial side scrapers, knives and retouched flakes. Drills, awls, and graters are also diagnostic Paleo-Indian tools. The artifacts are all fashioned from one type of high-grade chert, possibly from middle-formation Onondaga materials from western New York (Ritchie 1980:26). This supports the hypothesis that Paleo-Indians were mobile and possibly traveled along the margins of former glacial Lake Iroquois.

Adapted to the tundra, Paleo-Indians utilized a nomadic settlement system in which their movement followed that of game. The archaeological record suggests that Paleo-Indian subsistence strategies emphasized hunting big-game species. These species, many of which are extinct, included mastodon, mammoth, caribou, and moose-elk, along with a variety of smaller game (Funk 1972:11; Ritchie 1980; Salwen 1975). Few tool associations have been made with aquatic resources remains. However, it is difficult to imagine these people not utilizing such a diverse and abundantly available food source once water conditions allowed.

During the seasonal peaks of resources, larger populations occupied strategically located large camps. During periods of low resource potential, the population dispersed, occupying small camp sites and rockshelters on a temporary basis. A band-level social organization is attributed to Paleo-Indian groups, with each band consisting of 25 or 30 people. These bands were initially "free wandering communities that moved frequently and without restriction, their direction, persistence and territory covered being controlled mainly by game movements and the abundance of other wild food resources" (Snow 1980:150). As climatic conditions allowed more permanent occupation of an area, this wandering became more restrictive and bands settled into loose territories.

Ritchie and Funk (1973:333) have classified Paleo-Indian sites into two main categories: quarry workshops and camps. These categories are further subdivided into large, recurrently occupied camps, small special-purpose camps, and caves or rockshelter sites. Chert quarrying and the preliminary stages of tool production were carried out at the tool workshops (Gramly and Funk 1990:13). Located near the margin of extinct glacial lakes, many Paleo-Indian sites in the Northeast are located on elevated areas "where good drainage, meaning a dry living floor, was an important consideration" (Funk 1978:18). These hills or rises also served as loci for monitoring the migratory patterns of game species. No Paleo-Indian resources have been recovered from the Town of West Seneca, despite evidence of megafauna (e.g., mastodon, mammoth) habitation in areas around Lake Erie and the Niagara River (Ritchie 1980). This general Paleo-Indian adaptive pattern overlapped the beginning of the subsequent Archaic period, leading some to refer to the earlier periods of the Archaic as a transitional stage.

Archaic Period (ca. 8000-1500 BC). The Archaic period is differentiated from the Paleo-Indian period by a functional shift in lithic technology, an apparent increase in population, changes in the subsistence strategy, and a less nomadic settlement system (Funk 1978; Tuck 1978). These changes reflect an adaptation to an improved climate and a more diversified biome (Funk 1972:10). In addition, a few technological changes, such as the production of ground and polished stone tools, serve to identify the Archaic period (Funk 1972; Kraft 1986). The Early Archaic tool kit consisted of Hardaway, Dalton, Palmer corner-notched, Kirk corner-notched, and bifurcate base points which frequently had serrated edges (Funk 1993). People of the Early Archaic also used end scrapers, side scrapers, spokeshaves, drills, gravers, choppers, hammers, and anvil stones. In addition to an improved climate and more diversified biome, a few technological changes, such as the production of ground and polished stone tools, serve to identify the Middle Archaic period (6000-4000 BC) (Funk 1991; Kraft 1986). The bannerstone, probably used as an atlatl weight, and the bell pestle were Middle Archaic innovations (Griffin 1967).

People began to develop woodworking tools during the Middle Archaic period, using coarse-grained stones and river cobbles as their raw materials (Kraft 1986). The territorial "settling in" process begun during the Early Archaic continued into the Middle Archaic, stimulating a process of group isolation. Sites from these periods cluster along major rivers and marshy, swampy land as well as lowlands.

The Late Archaic is seen as the flowering of preceramic culture in the Northeast (Snow 1980; Mason 1981). The period begins about 6,000 years ago and continues to the advent of pottery around 1500 BC. During this period prehistoric cultures "fully adjusted to the humid Temperate Continental climate which, with its oak-chestnut-deer-turkey biome, persisted to the present day" (Ritchie and Funk 1973). The increased carrying capacity of this relatively richer and more diverse biome provided a subsistence base which was much broader than that of previous periods and is reflected by an increase in the number, size, and kinds of sites documented in the archaeological record. Food resources consisted of large game (deer and bears), small game, fish, shellfish, waterfowl, birds, insects, vegetables and fruits. This diversity not only allowed for greater procurement efficiency, it also provided a cushion against seasonal failures of any single resource. The general increase in numbers of milling and fishing tools suggests a shift away from red meat as a preferred resource (Ritchie 1980; Ritchie and Funk 1973).

In New York, two contemporaneous Late Archaic cultural traditions predominate: the Narrow Point tradition, generally restricted to western and central New York, and the Laurentian tradition, evident throughout all of New York. The Narrow Point tradition is recognized as the Lamoka phase. Most Lamoka sites are small, open camp sites, although large near-permanent base camps have also been identified (Ritchie 1980; Ritchie and Funk 1973). As with other Archaic peoples, Lamoka groups relied on hunting, fishing, and gathering. Deer and turkey were the preferred game, while in the floral group, acorns and hickory nuts were impressively evident. However, the primary orientation of the culture was toward aquatic resources caught mostly with nets.

In contrast to the Lamoka, the Laurentian tradition is characterized by a primary reliance on hunting. This tradition, which is associated with the Lake Forest Archaic of eastern New York, Vermont, and New Hampshire (Snow 1980), is represented in this area by the Brewerton phase (3000-1720 BC). While some base camps are known for the Brewerton phase, the majority of sites are small, temporary hinterland camps on streams, marshes, and springs. The emphasis on hunting is reflected by assemblages having large proportions of points and hunting gear. Fishing gear and nutting stones are also present, but not in the quantities known from Lamoka sites. Toward the end of the Archaic period, sunflowers, chenopodium, and pigweed became an increasingly important component of the subsistence strategy and steatite or soapstone vessels were introduced (Ritchie and Funk 1973:87).

Brewerton and Lamoka peoples occupied similar environments, and contact between the two groups is evident in central New York. Brewerton mortuary customs were somewhat more complex than Lamoka, although neither group featured regular cemetery areas. Grave goods were confined to utilitarian objects and there is no hint of the mortuary ceremonialism of the following Early Woodland period (Ritchie 1980). Numerous beveled adzes characteristic of the Lamoka phase have been recovered from the area between Buffalo and Cazenovia creeks in Erie County, but not from the project area (Ritchie 1980:44).

Late in the Archaic period (ca. 1500-1000 BC), a burial/ceremonial complex developed and the ceramics were introduced. The shift to pottery appears to have been preceded by the adoption of steatite or soapstone pots which made cooking and food preparation easier (Ritchie and Funk 1973:87; Funk 1993:198). Few Archaic period sites have been excavated in Western New York (Engelbrecht et al. 1993:15).

Woodland Period (1000 BC-AD 1600). The definitive characteristic of the Woodland period in New York State is the adoption of pottery technology, a development that occurred at different

times from one location to another (Feder 1984:101-102; Sears 1948; Snow 1980:262; Hoffman 1998). While the previous hunting and gathering economy continued as a means of subsistence during Woodland times, Native groups became more dependent on domesticated plants for food. Agriculture brought with it a score of new problems that required new adaptations and every aspect of Native culture was transformed. With agriculture came settled village life, a general increase in population, technological changes, warfare, and a litany of social and political changes. Early and Middle Woodland sites often contain exotic and numerous trade goods within burials, which suggest the existence of widespread exchange or trade networks.

The Early Woodland period (1000-100 BC) is marked by several cultural phases in New York State, including the Orient, Meadowood, Middlesex, and Bushkill phases. Some of these phases, such as Meadowood, are better understood than others, while some may not be very important in some local sequences. Meadowood sites are found throughout the Northeast, and particularly New York. Settlements appear to be year-round, primarily located near large bodies of water, such as the Niagara River. The Riverhaven complex, located along the Niagara River on the eastern part of Grand Island, represents one of the most important and well-studied Meadowood phase assemblages (particularly Riverhaven 2) in the Northeast. Riverhaven 2 appears to have been intensively and repeatedly occupied from late autumn to early spring. Several of the Riverhaven sites are located on high knolls adjacent to former marshes (Engelbrecht et al. 1993:22-23).

The Middle Woodland period (100 BC-AD 1000) shows continued long-distance exchange, although perhaps with varying strength at different times. In central and western New York, a sequence of occupation sites shows evidence of a long, Middle Woodland cultural tradition referred to as Point Peninsula (Ritchie 1980). In western New York, the Middle Woodland period is poorly understood in comparison to the Early Woodland. Point Peninsula ceramics were recovered at the Martin site on Grand Island and at the Lewiston Mound along the Niagara River (Engelbrecht et al. 1993:25-26).

In Ritchie's chronological framework, the end of the Middle Woodland, which he argued came around AD 1000, occurred when people in New York adopted the suite of characteristics he associated with the Late Woodland: primarily agriculture based on maize, beans, and squash; Owasco-style pottery; and house structures resembling historical Haudenosaunee longhouses. Ritchie believed people adopted these innovations relatively rapidly between AD 1000 and AD 1100. Recent studies, however, have demonstrated that none of these developments occurred at AD 1000, nor did they happen together at any other single time (Hart 1999, 2000, 2011; Hart et al. 2003; Hart and Brumbach 2003; Prezzano 1988; Schulenberg 2002). Moreover, this research has altered how events during the Middle Woodland are interpreted. The direct dating of maize using accelerator mass spectrometry (AMS), for example, has demonstrated that people in southern Ontario and central New York were growing the crop before AD 700 (Crawford et al. 1997:114-115; Hart et al. 2003: 634). Meanwhile, Hart et al. (2003:624-625) and Schulenberg (2002:160-164) have obtained AMS dates from charred residue on the interiors of Owasco vessels that indicate people were manufacturing those pots as early as the seventh century AD (see also Hart and Brumbach 2003:743-744). Beyond this, Hart has demonstrated that people did not construct longhouses in central New York before the beginning of the thirteenth century AD and that they did not likely grow beans until an even later date (Hart 1999, 2000, 2011).

The Late Woodland, in Ritchie's scheme for the Northeast, was the period between AD 1000 and the time at which Native people traded for or otherwise obtained European goods, the precise timing of which varied throughout the region. In the 1930s, Ritchie (1937[1936]) proposed dividing

the Late Woodland into two shorter periods: the Owasco and Iroquois (see also Ritchie 1944). At the time, he believed Iroquoian groups migrated to the New York State area and replaced the Algonquian Owasco people already living there (see Tuck 1971:11-14). Although, since the 1950s, researchers have generally accepted that Iroquoian speakers did not immigrate to the Northeast at the beginning of the Late Woodland, the distinction between Owasco and Iroquois periods has remained. Also, with the development of radiocarbon dating, the two have acquired distinct temporal boundaries, with the Owasco lasting from AD 1000 to 1300, and the Iroquois spanning the years thereafter (Hart and Brumbach 2003:747). In terms of material culture, the primary differences between the two entities are related to ceramic vessel form and decoration.

Although, as outlined above, some of the cultural developments Ritchie associated with the Late Woodland did not occur between AD 1000 and 1100, some—particularly those related to the development of an agricultural system based on maize, beans, and squash—did happen in the succeeding years. In fact, several developments appear to cluster around AD 1200 to 1300: the earliest evidence for longhouses and multiple household villages is from the thirteenth century AD and people added beans to their diets around AD 1300 (Hart and Brumbach 2003: 744-746; Hart 2011). In addition, Snow (2000:30) notes that groups in Central New York began surrounding their settlements with defensive palisades after AD 1200. During the later years of the Iroquois period, people in some areas began clustering their villages within the territories occupied by historically known Native nations (Snow 2000:46-51). Likely in part because of the large amounts of wood consumed during the construction and maintenance of these settlements, as well as that needed for firewood, inhabitants periodically relocated their villages roughly every 10 to 20 years (Engelbrecht 2003:101-103). In several cases, researchers have reconstructed parts of the resulting sequences of settlements and produced detailed data concerning local culture change and the effects thereon of contact with Europeans (e.g., White 1961). However, as suggested by the results of Engelbrecht's (2004) recent work comparing late prehistoric Jefferson County ceramics with those of other Iroquoian groups indicates, there are many questions regarding New York State's Woodland inhabitants that remain unanswered.

In western New York, the Owasco tradition does not occur in a pristine state. Instead, the prehistoric cultures of western New York developed under heavy influence from the southern Ontario Princess Point complex. Princess Point subsistence generally consisted of hunting, fishing, gathering, and, after about 500, maize horticulture. This represents the first occurrence of maize horticulture in northeastern North America. The corn was of the Northern Flint variety (*Zea mays*) with eight rows of kernels, probably related to a variety cultivated by the Hopewell cultures of Ohio and Illinois (Noble 1975). Sites are generally located on relatively flat, exposed areas near, and not much above, water. Low riverine areas were occupied during the late spring and summer, whereas winter and spring occupations were in hilly areas away from the flood plain and free of seasonal inundation (Stothers 1977). Corn horticulture was not solely equated with village life. Evidence has been found which also associates horticulture with Princess Point riverine camps (Noble 1975; Winter 1971).

The horticultural complex of corn, beans and squash, called the Three Sisters by the Haudenosaunee in later times, are found together in some of the earliest Late Woodland sites (Ritchie and Funk 1973; Hart et al. 2003), indicating the importance of these plants for at least some early garden systems and subsistence strategies. However, the frequency with which these crops were grown together is poorly understood (Fritz 1990; Smith 1992; Kuhn and Funk 2000). The common perception is that a heavy reliance on corn horticulture was supplemented by growing beans and squash, with declining roles for hunting, fishing and gathering. Primary animal prey most likely included one or more of deer, fish, and shellfish, based on faunal evidence, site

locations, and the prevalence of netsinkers and other fishing technology at some sites (Cleland 1982; Ritchie 1980; Ritchie and Funk 1973).

The Princess Point complex shared many cultural traits with the Owasco to the east. Pottery was manufactured using the paddle and anvil technique as opposed to the coil or fillet method used prior to this time. Most tools were made from Onondaga chert; points were trianguloid, similar to Levanna points. Some antler points and bone awls have also been recovered. Because of its similarity to the Owasco, these cultures have been referred to as Ontario "Owasco" (Stothers 1977). The Martin site, an important site where fishing was an essential method of food procurement, is located along the Niagara River shore, at the southern end of Grand Island. Another important fishing site is the Portage site in Lewiston.

In western New York, White (1963) hypothesizes that the introduction of horticulture led to changes in the settlement system. According to White (1963:4), "When the production of the food resources was controlled by the group through planting, then the limits on the amount of food set by natural seasonal replenishment were overcome." Near the beginning of the period (ca. 1100), groups lived in semi-sedentary villages, occupation was seasonal, and the villages were periodically moved. Around 1570, these same groups were living, year-round, in semi-permanent sedentary villages. Like the later Huron (Sykes 1980), these groups moved their villages every 15 to 20 years in response to changing environmental conditions. While the impetus for village movement most often cited is soil exhaustion (Sykes 1980; White 1960, 1961, 1963), other factors such as game depletion, fire wood depletion, refuse accumulation, and chronic warfare may also have been contributing factors. Game depletion, in particular, may have been a strong motivation for movement, since deer provided a resource for both food and clothing (Gramly 1977).

Contact Period. Prior to the arrival of Europeans into the Niagara Frontier, three Iroquoian groups occupied the region—the Neutral, the Wenro, and the Erie. A fourth Iroquoian group, the Seneca, inhabited the areas well east of Buffalo, but would assert their power in the region's affairs beginning in the seventeenth century (White 1978a, 1978b; Abler and Tooker 1978). Located in the Niagara Peninsula of Ontario and in the western portion of what is now Niagara County and the northwestern portion of Erie County, the Neutral earned their name from their location between the Huron to the north and the Haudenosaunee to the east, and their efforts to remain non-aligned during the incessant warfare between those two groups. The Wenro occupied areas in eastern Niagara and Orleans counties, east of the Neutral near Batavia. The Kahquahs (presumably part of the Neuter or Neutral nation) were reported to have a village at the mouth of Eighteenmile Creek during the middle of the seventeenth century. The Erie occupied parts of Erie, Chautauqua, and Cattaraugus counties south of Buffalo Creek to Sandusky, Ohio (Parker 1922:493).

The traditional homeland of the Seneca was the area between the Genesee River and Seneca Lake (Engelbrecht 2003; White 1978a:407-409, 1978b:412-413). Unlike their major competitors, the Haudenosaunee were surrounded on all sides by sedentary agricultural groups and, therefore, had no direct access to the fur resources of the interior of the continent. The Huron Confederacy geographically straddled the major transportation networks and was able to exploit their hunter-gatherer neighbors' need for agricultural commodities by trading corn and other products for furs, thereby securing the advantage of access to the vast supplies of the interior. The Haudenosaunee wars of the mid-seventeenth century were aimed at eliminating the Huron and other agricultural groups as middlemen to obtain direct access to fur supplies (White 1971; Hunt 1940).

The Seneca were adamant in protecting their position as suppliers of pelts, and as the supply of animal skins diminished within their territory, they expanded into the traditional areas of other Iroquoian groups. Ultimately, Seneca expansion displaced these groups from their lands in the Niagara Frontier. Beginning in 1638 with the Wenro, and in rapid succession, the dispersals (i.e., extermination and assimilation) began. After the Seneca had secured the resources of the Niagara Frontier, large-scale concerted attacks by the Haudenosaunee were directed against the Huron Confederacy (dispersed by 1649), the Petun (dispersed by 1650), the Neutral Confederacy (dispersed by 1651) and, finally, the Erie Confederacy (dispersed by 1655). Thus, by the mid-seventeenth century, the Haudenosaunee or Iroquois of New York emerged as a politically, militarily, and economically united confederacy with sole access to both the land and resources surrounding the lower Great Lakes (Abler and Tooker 1978:505-507; White 1978b:414-416; Trigger 1978:354-356).

The general vicinity within and around the City of Buffalo was occupied during prehistoric times. The location of the city, near the confluence of Buffalo Creek and Little Buffalo Creek as well as Lake Erie, would be considered highly sensitive if it were a non-urban setting. Prehistoric material was recovered from both sides of the Commercial Slip and the former alignment of Little Buffalo Creek. The material indicates a prehistoric occupation of the site from 4000 BC to about AD 1500 (OPRHP #02940.023650). This occupation may have been continuous or periodic based on seasonal variations of the relative wetness of the area. The area may have served as a node in the prehistoric/protohistoric Great Lakes trade network (Schieppati et al. 2004; Smith et al. 2007).

2.2.2 Historic Period. The French were the first Europeans to penetrate the valley of the Niagara River and explore the shores of Lake Erie. As early as the 1620s, Jesuit missionaries and French traders were establishing contacts with the local Native groups. However, these visits to the region were infrequent until the 1660s. By the 1650s, large-scale, concerted attacks by the Haudenosaunee against their rivals in western New York had reduced the project area to a sparsely settled hinterland of the Seneca, subject to hunting and resource procurement (White 1978a:407, 409; Trigger 1978:349-351, 354-355).

For almost all of the seventeenth and eighteenth centuries European activities in the Niagara Frontier involved limited religious, commercial, and military endeavors. Joseph de la Roche Daillon, a Recollét (Franciscan) missionary, lived among the Neutrals for three months in 1626 and Jesuit priests St. Jean de Brébeuf and Pierre Joseph Marie Chaumonot visited the Neutrals in 1640-1641. More than 30 years later, these visits were followed by reconnoitering and trade expeditions by the French under the direction of René-Robert Cavalier, Sieur de La Salle in 1678-1679. La Salle's men constructed a ship called *Le Griffon* along the Niagara River, which became the first sail vessel to ply the waters of the Lake Erie (Trigger 1978:349-352; Abler and Tooker 1978:505-507; Smith 1884:I:35-36). The early settlement efforts by French were focused on the mouth of the river along Lake Ontario at what are now Fort Niagara and the Village of Lewiston.

The first Euro-American settlement at what is now Buffalo did not occur until Daniel-Marie (or Chabert) de Joncaire de Clausonne established a temporary trading settlement near Buffalo Creek in the mid-1750s (referred to as "Rivière aux Chevaux" [River of Horses]). The Haudenosaunee referred to the creek and the vicinity as Tehosororon and Tiyoosyowa (or Dosyowa), "place that abounds with basswoods" (Houghton 1920:64-65). Joncaire's short-lived occupation at Rivière aux Chevaux was a bead in the string of military and trading installations the French had established by the middle of the eighteenth century that extended from Fort Niagara at Lake Ontario along the southern shore of Lake Erie to Presque Isle (present-day Erie,

Pennsylvania) into the Ohio valley (Abler and Tooker 1978:505-507; Tooker 1978:431-432; Kelleran 1960:8-10).

The French were driven from the area by the British during the French and Indian War, with most of the action occurring around Niagara Falls and at Fort Niagara (Smith 1884:I:45, 426-427). After the French defeat and their loss of North American colonies, some of the western Seneca, remaining loyal to the French, joined Pontiac's uprising (1763-1766), and harried British-American settlers along the frontier. On September 14, 1763, a party of Seneca stormed a wagon train and its military escorts near Devil's Hole (now a New York State Park near Niagara University), as part of a coordinated strategy of Native American uprising. The marauders killed more than 90 people and tossed their bodies and goods into the gorge. With the general cessation of hostilities in western New York in 1764, the Seneca were compelled to cede to the British a four-mile swath of land along both sides of the Niagara River. In addition, the Seneca reputedly gave all the islands in the Niagara River to Sir William Johnson either as a gift for assistance in negotiating peace between the Seneca and the British or as reparations for the Devil's Hole massacre. Johnson turned the islands over to the King of England (Abler and Tooker 1978:507; Tooker 1978:434; Arcara 2002:35-41).

During the American Revolution, both the British and Americans enlisted the aid of individual Haudenosaunee nations in their battles within the frontier. Although the Confederacy itself maintained an official policy of neutrality, several of the nations allied with Great Britain and several with the Americans. As part of Britain's strategy to cripple the frontier economy by disrupting agricultural activities, the British incited their Haudenosaunee allies to raid isolated American farming communities. In 1779, Major General John Sullivan led a punitive assault into the heart of Haudenosaunee country in an effort to halt the attacks against American settlers. Adopting "scorched-earth tactics," Patriot forces burned many of the Haudenosaunee out of their central New York villages, who then sought refuge at Fort Niagara (Abler and Tooker 1978:507-508; Ellis et al. 1967:115-117; Smith 1884:I:50-52). Still controlled by the British, Fort Niagara served as the center for Loyalist activities in frontier New York. By 1780, some Haudenosaunee subsequently settled along Buffalo Creek, which would later be incorporated into the Buffalo Creek Reservation (Lankes 1964; Houghton 1920). The British and their Loyalist allies were expelled from the new United States after the Treaty of Paris (1783) ended the Revolutionary War, and many of them settled on the west bank of the Niagara River in what was then called Upper Canada. Despite the end of hostilities in 1783, the British refused to vacate Fort Niagara until 1796 (as a result of Jay's Treaty). The Haudenosaunee, abandoned in the United States by their British allies after the Treaty of Paris, were forced to make peace as separate nations with the Americans. In 1794, a treaty was signed at Canandaigua between the United States government and the Six Nations (Pickering or Canandaigua Treaty) that defined the boundaries of Seneca lands and the reservations to the other Haudenosaunee nations (Abler and Tooker 1978:508-512; Hutchins 2004; Goldman 1983:27-31).

The period following the end of the Revolution was marked by a series of convoluted transactions among New York, Massachusetts, the Haudenosaunee, and land speculators, which resulted in the division of ownership of the former Haudenosaunee lands in western New York. Native American title to the land in western New York was largely extinguished with the Treaty of Big Tree (present-day Geneseo, New York) in 1797, although several areas were reserved for the Haudenosaunee to use and live on, including reservations at Buffalo Creek, Allegany, Cattaraugus, and Tonawanda (Figure 4). Lying on both sides of Buffalo Creek, the Buffalo reservation consisted of 130 square miles and extended east from Lake Erie. William Street in the Town of Cheektowaga was the reservation's approximate northern boundary. Except for a

one-mile swath along the east side of the Niagara River, which New York State reserved for itself (the so-called "Mile Strip"), Western New York, including the present Erie County, was acquired by a consortium of Dutch investors referred to as the Holland Land Company in 1792-1793 (Ellis et al. 1967:152-156; Abler and Tooker 1978: 507-512; Goldman 1983:27-31; Smith 1884:I:74-75, 489, 524; Houghton 1920; Quinn 1991:14-15; Silsby 1961; see Figure 4). The current project area was located within the west-central portion of the Buffalo Creek Reservation.

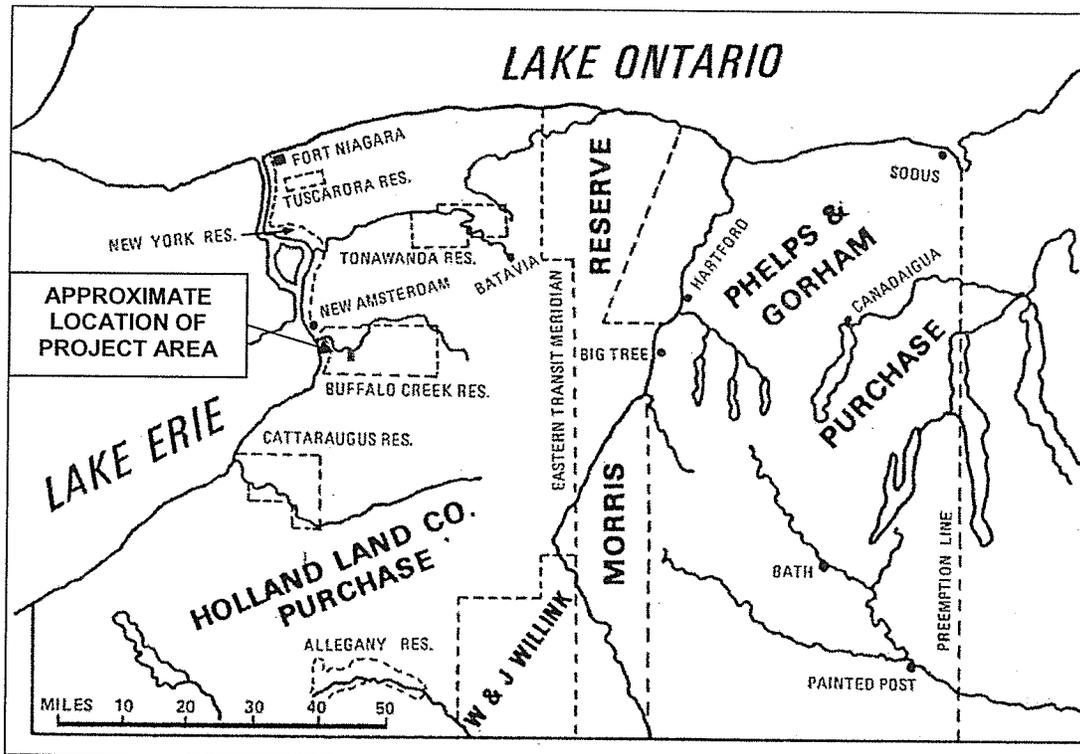


Figure 4. Land purchases and Haudenosaunee reservations in Western New York, ca. 1804 (Chazanof 1970:23).

Augustus Porter, pioneer of Western New York and Robert Morris's surveyor, reported that in the spring of 1795 "all that part of the state of New York, lying west of 'Phelps and Gorhams's Indian Purchase,' was still occupied by the Indians, their title to it not being yet extinguished. There was of course no road leading from Buffalo eastward, except an Indian Trail, and no settlement whatever on that trail" (Turner 1974 [1850]:372). Porter observed that four people lived in Buffalo at that time: Captain William Johnston, a British interpreter, and his family; Martin Middaugh, a Dutch cooper, and his son-in-law, Ezekiel Lane; and Cornelius Winne or Winney, an Indian trader (Turner 1974 [1850]:372; Smith 1884:I:73). In June 1796, Joseph Landon, a surveyor on his way to Ohio, although he later settled in Buffalo in 1806, reported that except for three or four structures at what is now the City of Buffalo the area was a wilderness (Landon 1904 [ca. 1863]).

As a precursor to the settlement of the area, Theophilus Cazenove, American agent for the Dutch investors, contracted Joseph Ellicott in July 1797 to survey the company's land in western New York and divide it into townships. The process began in the spring of the following year. The future City of Buffalo was sited and laid out by Ellicott, who called the village on Buffalo Creek New Amsterdam and named the streets after his Dutch patrons and local Indian tribes. However, the

increasing number of local residents resisted the Dutch appellations and referred to the village as "Buffaloe" (Smith 1884:II:26-27, 30-31; White 1898:I:140). In 1798, Augustus Porter surveyed the Buffalo Creek reservation boundary, and James Smedley surveyed a portion of Buffalo Creek (Lankes 1962:20).

In 1802, all land west of the Genesee River was incorporated into Genesee County, and all land west of Ellicott's east transit, including the project area, was subsumed under the Town of Batavia. Two years later, the Town of Batavia was divided into the towns of Batavia, Willink, Erie, and Chautauqua. Separated by Ellicott's west transit (present-day Transit Road), the towns of Erie and Willink stretched from Lake Ontario to the Pennsylvania border. The project area was nominally within the Town of Erie (Beers 1880:7-8; Ellicott and Ellicott 1804; Figure 5).



Figure 5. Approximate location of the project area within the Buffalo Creek reservation in 1804 (Ellicott and Ellicott 1804).

In 1808, the community at New Amsterdam (referred to by its inhabitants as Buffalo) became the seat of the new county of Niagara. The new Niagara County comprised what are now Erie and Niagara counties, and contained three towns—Cambria, Clarence, and Willink. Two years later, the Town of Buffalo was created from the Town of Clarence, with New Amsterdam (now called Buffalo, as well) remaining as the county seat. The Town of Buffalo comprised all the land west of Ellicott's west transit (i.e., present-day Transit Road), while the village of Buffalo was concentrated along the high ground north of Buffalo Creek. In April 1813, the State Legislature passed an act formally incorporating Buffalo as a village, but as a result of the strife engendered by the War of 1812, the village was not officially chartered until April 1816 (Johnson 1876:184; Houghton 1920:64; White 1898:I:14-15; Smith 1884:II:41, 77-78). The project area was within the Buffalo Creek reservation, which divided the towns of Willink and Clarence (Beers 1880:20; Figure 7 in Section 2.3.1).

The region's growth was stunted by the War of 1812 as western New York served as one of the primary theaters of that conflict and areas near the border with Upper Canada (the current province of Ontario) were ravaged by attacks and counter-attacks. Most of the battles were north or west of the project area. In December 1813, British forces captured Fort Niagara and burned Lewiston, Manchester (present-day Niagara Falls), Black Rock, and Buffalo, which had a population of approximately 500 at that time. The devastation was substantial, leaving the territory largely depopulated (Smith 1884:I:63-74, 126, 399, II:63-74, 573). Many residents trickled back to the smoldering ruins of the village, as the area remained an active part of the Niagara theater (Johnson 1876:264).

The area in general received a tremendous economic boost when one terminus of the Erie Canal was located at the Village of Buffalo. Begun in 1817, the Erie Canal linked Buffalo and Lake Erie with New York City when it opened October 26, 1825. Erie County was created from Niagara County in 1821. Outside the Buffalo municipal limits, the project area remained Seneca land as part of the Buffalo Creek reservation until 1842. Between 1835 and 1842, the Seneca sold this property to the Ogden Land Company and relocated to reservations to the south (Reinstein 1972:4; Weller 1972:3-4; Eberle and Grande 1987:79; Lankes 1964:24-25).

The Ogden Land Company then sold 5,000 acres of the former reservation to about 800 German immigrants for \$10.50 an acre. Called the "Community of True Inspiration," or Ebenezers, the Germans occupied the fertile farmlands between Cayuga and Cazenovia creeks, including the project area (Weller 1972:3). At that time, this area of the Buffalo Creek reservation was known as "Indian Church." There were many Native American cabins, sawmills, and other buildings in this area, as part of the land had already been cleared and cultivated. Beginning in 1842, the Ebenezers created a self-sufficient community engaged in farming, lumbering, and rural industrial activities. The earliest Germans occupied some of the Native American cabins until new houses could be built (Lankes 1966:50). Clearing the thick forest, they erected farmsteads along what is now Clinton Street between present-day Union and Transit roads and established the hamlets of Lower Ebenezer (now Ebenezer), Middle Ebenezer (present-day Gardenville), Upper Ebenezer (now Blossom in the Town of Elma) and New Ebenezer. The project area is situated west of the hamlet of Middle Ebenezer/Gardenville (Reinstein 1972:4; Weller 1972:3-4; Eberle and Grande 1987:79; Lankes 1964:24-25).

The area north of the reservation not in the City of Buffalo was part of the Town of Amherst. The Town of Cheektowaga was created from the Town of Amherst in March 1839, seven years after Buffalo was incorporated as a city. The Town of Cheektowaga was named after the Seneca designation for the place of the crab apple tree (Smith 1884 I:491; Beers 1880:21). As a result of social and cultural tensions between local farmers and the Ebenezers, the New York State legislature created the Town of Seneca on October 16, 1851, later renamed West Seneca, from lands within the towns of Cheektowaga and Hamburg. By the 1860s, the growth of the City of Buffalo and the concomitant "worldly" temptations brought to the area by the economic vibrancy of the Erie Canal prompted the ascetic Ebenezers to sell their land in West Seneca and move to Iowa. The last group of Ebenezers vacated this area by 1864 (Weller 1972; White 1898:I:376-377; Eberle and Grande 1987:79).

There is no record that the Ebenezers had a post office; mail was simply addressed to "Ebenezer, near Buffalo, N.Y." The first post office in West Seneca was opened in 1852, located on Ridge Road, near the New York Central Railroad (in the present-day City of Lackawanna). Other communities in the town soon opened post offices: West Seneca Centre (starting in 1853),

Reserve (1857), Ebenezer (1863), Gardenville (1865), East Seneca (1876), Winchester (1890), and Victory Hill (1903) (Lankes 1968:8-14).

Much of the Town of West Seneca remained farmland during the nineteenth century as agricultural activities consisted mainly of wheat cultivation, dairying, cheese-making, and potato cultivation, with little market gardening. Many farms utilized fruit trees to supplement their incomes. Ancillary agricultural businesses included canning, fruit-drying, and vinegar-making industries (Dunn 1972:9-10, 38). During the middle part of the nineteenth century, the project area was farmland located north of Clinton Street west of the village of Middle Ebenezer / Gardenville (Geil 1855; Stone and Stewart 1866; Beers 1880).

The arrival of the railroad during the late nineteenth century facilitated the economic transformation of parts of West Seneca from rural farmsteads into more heavily populated industrial areas, especially near the City of Buffalo where the New York Central erected its railroad yards. The Buffalo & Washington Railway was constructed south of the project area between 1865 and the end of 1867, when it reached East Aurora; round trips were run in the morning and the late afternoon. Renamed the Buffalo, New York & Philadelphia Railroad, the line was extended to Olean by July 1872 and Emporium, Pennsylvania by January 1, 1873. One of the goals of the investors was for the line to reach the coal fields of northern Pennsylvania (Dunn 2000:42-44; see Figure 1). It was reorganized at the Western New York & Pennsylvania in 1887, and acquired secondary connections to Rochester and Pittsburgh as well as dockage in Buffalo. The company was acquired or leased by the Pennsylvania Railroad in 1900 (Dunn 2000:153, 162-163). At the beginning of the twentieth century the project area was part of land owned by the Terminal Railway of Buffalo, which was part of the New York Central system. Chartered in 1895, the Terminal Railway erected the Gardenville Branch, which helped ease rail congestion into Buffalo by allowing trains to not only bypass the city and connect to the Lake Shore & Michigan Southern line at Lackawanna, but to connect to the New York Central's Gardenville Yards. The line merged into New York Central in 1914. The line later passed into Conrail in 1976 and was largely removed by 1995. Remaining portions passed to the Norfolk Southern line in 1998 (Dunn 2000: 171, 215).

Contributing to this growth was the creation of several electric railways which ran through West Seneca to the City of Buffalo. These railways included the Buffalo, Gardenville & Ebenezer Railway in 1896 and the Buffalo Hamburg & Aurora Railway in 1899 (Lankes 1968:25-30; Weller 1972:5-6). The Buffalo, Gardenville & Ebenezer Railway ran along Indian Church Road to Union Road. Water from Charles Schoepflin's Furniture Factory provided the power to run the electric generator. A steam engine was later used when the line expanded. A third line, which ran between Orchard Park and Buffalo, ultimately merged with the Buffalo, Gardenville & Ebenezer line to form the Buffalo Southern Railway in 1904. These lines operated until ca. 1937, when gasoline-powered buses and cars replaced the trolley (Lankes 1968:25-30; Weller 1972:5-6; Dunn 2000:182, 187).

At the close of the nineteenth century, West Seneca underwent a period of infrastructure improvements, including the widening and paving of streets and roadways, and the erection of bridges. Around the turn of the century, other public services began to improve living conditions in the town: gas lines and water mains were laid starting in 1893, and electric street lights were installed ca. 1911 (Weller 1972:4-5).

In the twentieth century, the town experienced considerable growth as the steel industry took root south of the Buffalo city limits. The prevalence of rail lines in western West Seneca and the

breakwall constructed by the federal government in the 1890s, created an excellent environment for industry. In 1900, the Lackawanna Iron and Steel Company (of Scranton, Pennsylvania) erected a plant in the section of West Seneca then known as Limestone Hill. In 1903, the plant began operation with the first of two blast furnaces; the mill was started in October. Growth and expansion of the company was rapid enough that in 1909 the community surrounding the plant was incorporated as the City of Lackawanna (Weller 1971:2-3; see also Lankes 1968:55). The Bethlehem Steel Company acquired the plant in 1922, and other small plants, such as the Kalman Steel Company, in 1931, and the Seneca Iron and Steel Company, in 1932. In addition to these, Bethlehem Steel owned and operated the South Buffalo Railway and a canal opening from Lake Erie "which is used by its six ore freighters and by other ships which have business with the plant" (Weller 1971:3, 7, 1972:6; Lankes 1968:55-56).

After World War II, West Seneca became increasingly suburban with the establishment of residential developments and commercial outlets, such as South Gate Plaza on Union Road. Improvements in transportation have resulted in an increase in commercial enterprises along Union Road (New York Route 277), with a slight decrease in population as people moved farther from the City of Buffalo and the "inner ring" suburbs. The Town of West Seneca had a population of 47,066 in 1994 (Weller 1972:7-8). Today, Indian Church and Mineral Springs roads are busy thoroughfares with a mix of mostly residential and commercial enterprises. The population of the Town of West Seneca decreased from 45,920 in 2000 to 44,711 in 2010.

2.3 DOCUMENTARY RESEARCH

2.3.1 Historical Map Analysis. Six historical maps were consulted for the project area (Geil 1855; an 1856 map of the Ebenezer properties [Eberle and Grande 1987]; Stone and Stewart 1866; Beers 1880; The Century Map Company 1909; Niagara Frontier Planning Board 1938). Two historic USGS topographic maps also were reviewed (USGS 1901 and 1948), as well as two aerial photographs (Erie County Department of Public Works [ECDPW] 1927, 1951).

The 1855 map does not detail any lots or landowners west of the village of Middle Ebenezer. Although structures were depicted along what is now Clinton Street, none were in the current project area (Geil 1855). Located within the lands of the Ebenezer Society in 1856 in the Town of Cheektowaga (Eberle and Grande 1987:79), the project area was situated within lots 25 and 26 immediately west of the village of Middle Ebenezer. This map also does not show structures or landowners for the project area. By 1866, the Town of West Seneca had been formed, and the project area north of Clinton Street had been subdivided into lots. No buildings or landowners were shown within or adjacent to the project area (Figure 6).

The 1880 Beers map (Figure 7) also does not delineate any structures within lots 25 and 26, however, the map does reveal that these lots were part of the extensive holdings of property of "C. Dactsch." A close-up map of the Village of Gardenville from the same atlas noted the landowner's name as "C. Deutsch (Beers 1880).

The 1909 Century Map Company map (Figure 8) detailed the project area as part of the Buffalo Terminal Railroad property with the line constructed west of the project area. No structures were rendered in or immediately adjacent to the project area. The 1927 aerial showed (ECDPW 1927) the constructed railway and a portion of the project area along Clinton Street possibly cleared of vegetation, but the resolution of the aerial was insufficient to make an accurate assessment. The 1938 map (Figure 9) delineated the railroad west of the project area and showed portions of Lots

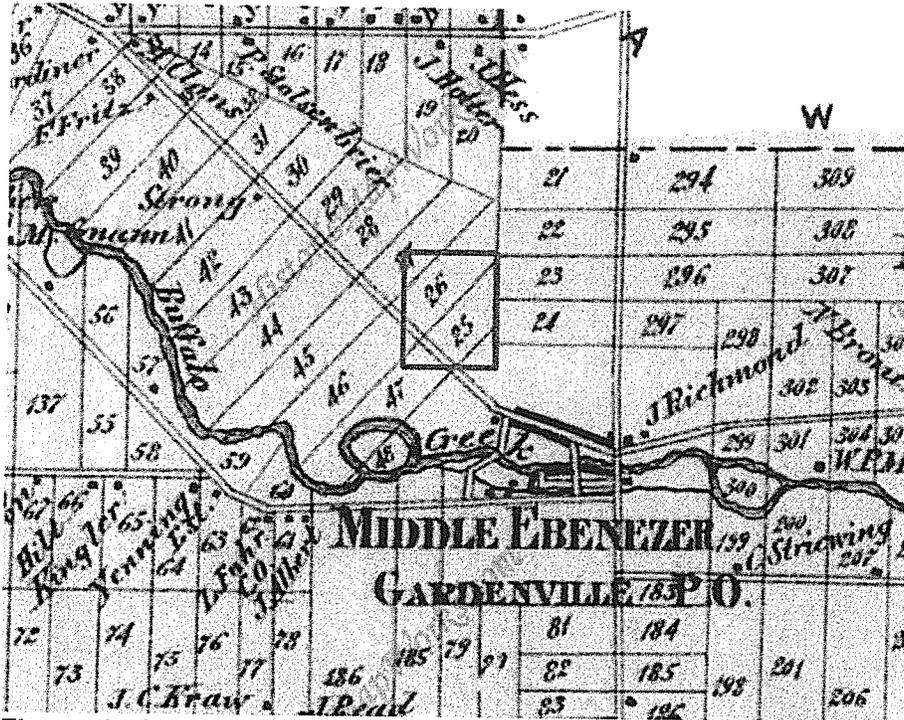


Figure 6. Approximate location of the project area (red square) in 1866 (Stone and Stewart 1866).

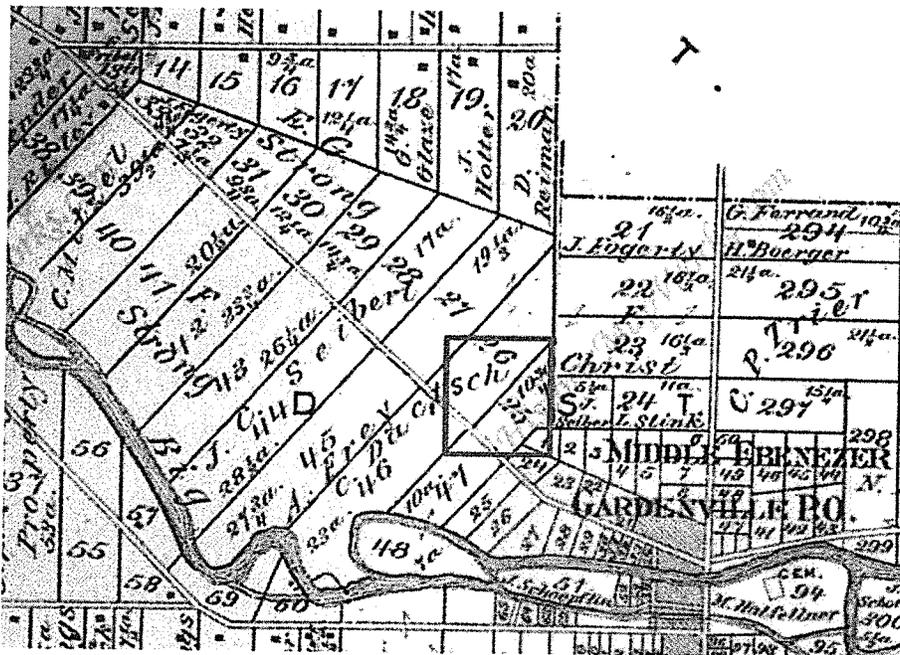


Figure 7. Approximate location of the project area (red square) in 1880 (Beers 1880).

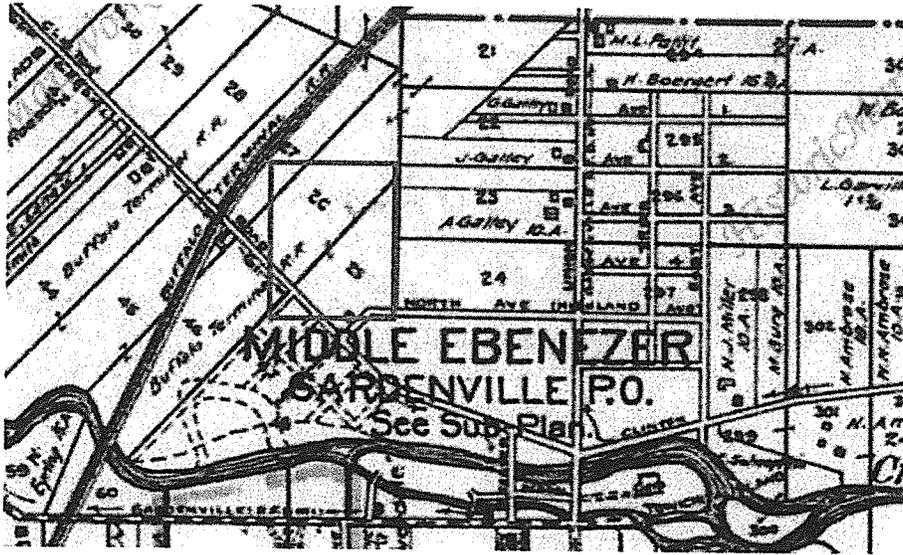


Figure 8. Approximate location of the project area (red square) in 1909 (*The Century Map Company 1909*).

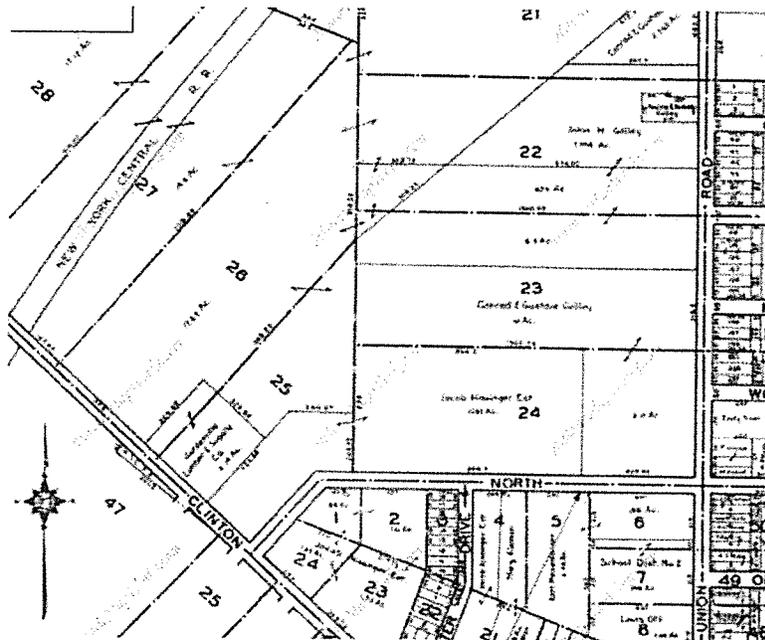


Figure 9. Approximate location of the project area (lots 25 and 26) in 1938 (*Niagara Frontier Planning Board 1938*).

25 and 26 as part of the Gardenville Lumber & Supply Company. It appears as if the remainder of the project area was owned by the New York Central Railroad.

The 1948 USGS topographic map and the 1951 aerial photograph (ECDPW 1951) revealed an industrial complex north of Clinton Street and east of the New York Central Railroad tracks (Figure 10). The Gardenville Lumber & Supply Company appears to have had several dispersed structures along the road as well as a rail spur that connected with the mainline of tracks to the west. The area north of the rail spurs appears to have been largely vacant. The lumber yard was in existence at least through the late 1970s.

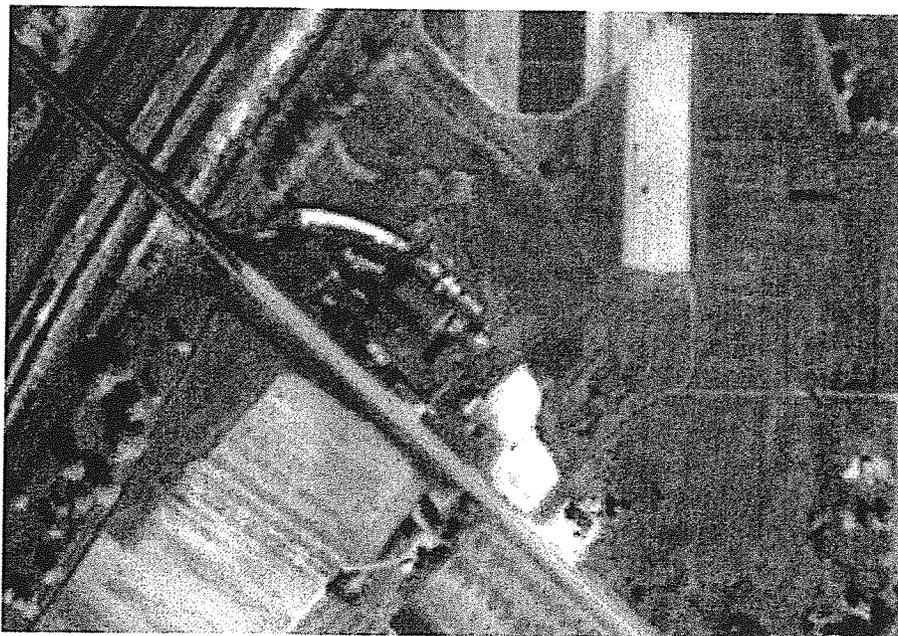


Figure 10. The Gardenville Lumber & Supply Company at 3254 Clinton Street in 1951 (ECDPW 1951).

2.3.2 Site File and Archival Review. A review of the New York State Office of Parks, Recreation and Historic Preservation (OPRHP) archaeological site and historic structures files through the online Cultural Resources Information System (CRIS) identified 18 precontact archaeological sites within one mile (1.6 kilometers) of the project area (Table 2). No sites are located within or immediately adjacent to the APE. None of the sites is historic. Early archaeological surveys by Squier (1851), Beauchamp (1900), Benedict (19010; Houghton (1909), and Parker (1922) also were consulted. Later archaeological investigations by Ritchie (1980) and Ritchie and Funk (1973) do not report the presence of archaeological sites in the project area.

Previous surveys. No previous surveys have been conducted for the project area. Numerous (approximately 23) surveys have been conducted within approximately one mile of the project area. The nearest investigation was conducted for the 160 Empire Drive Development contiguous to the current project area on the west (Peltier and Harrington 2008). This investigation recovered 39 prehistoric lithics from four loci. A Phase II investigation was conducted for the materials, but it was determined that the artifacts were recovered from a fill context.

Table 2. Archaeological sites within one mile of the project area.

OPRHP Site #	Additional Site #	Distance to APE (ft/m)	Time Period	Site Type
02925.000078	K P/L #6	2,400 (732)	Unidentified precontact	Camp
02925.000077	K P/L #5	2,000 (610)	Late Woodland	Camp
02925.000075	K P/L #3	3,800 (1,158)	Unidentified precontact	Lithic scatter
02925.000059	NC-939-2; UB 1816	4,200 (1,280)	Unidentified precontact	Lithic scatter
02925.000058	NC-939-1; UB 1815	4,000 (1,219)	Unidentified precontact	Lithic scatter
02925.000406	Canisius	2,500 (762)	Early to Late Woodland	Camp
	Mund; UB 603; NYSM 1705; Buf 7-4	4,600 (1,402)	Unidentified precontact	Lithic scatter
	Buffalo O-3; UB 503; Benedict 1086	3,500 (1,067)	Unidentified precontact	Lithic scatter
	Buffalo O-6; UB 505; Benedict 2642	200 (61)	Unidentified precontact	No information
	Buffalo O-7; UB 506; Benedict no #	5,000 (1,524)	Unidentified precontact	No information
	Freight Branch Railroad; UB 286; NYSM 3186?	700 (213)	Unidentified precontact	Stray find
	Lehde Nursery; UB 254	4,300 (1,311)	Unidentified precontact	Lithic Scatter
	Buffalo V-1; UB 530; NYSM 3178; Benedict no #	1,200 (366)	Unidentified precontact	No information
	Buffalo O-9; UB 215; NYSM 3186?	1,400 (427)	Unidentified precontact	Stray find
	Buffalo O-4; UB 504; Benedict 1084	1,600 (488)	Archaic	Lithic scatter
	NYSM 3179; ACP Erie-10	3,300 (1,006)	Late Woodland	Earthwork
	Jack Berry's Town; UB 215; Benedict 1086; ACP Erie-17	2,500 (1,067)	Late Woodland	Possible village (1780-1840)
	NYSM 6605	3,000 (914)	Late Woodland	Possible village

Register listings. No building or archaeological site within or immediately adjacent to the project area is listed on either the State or National Registers of Historic Places.

3.0 Field Investigation

3.1 METHODOLOGY

Cultural resource investigations are designed to provide a complete examination of proposed impact areas in order to identify and assess any known or unknown cultural resources. These resources include prehistoric and historic archaeological sites as well as standing structures or other above-ground features. The field survey includes an intensive surface and subsurface examination (e.g., shovel testing) of the proposed impact areas and photographic documentation of the project site and vicinity. All APE are included in the investigation.

A walkover reconnaissance survey is conducted across the project area to identify testable locations, cultural features, surface visibility, soil disturbance, wet or poorly drained areas, as well as archaeologically sensitive areas that would require a more intensive investigation. A surface inspection is utilized as a primary investigative method in agricultural fields when ground surface visibility is not obscured by vegetation (e.g., plowed agricultural fields) or standing water. Surface inspections are systematic, with transects typically spaced 3 to 5 m (9 to 15 ft) apart. Artifacts identified during a surface inspection are collected with their proveniences noted on field maps, in the field director's daily log, and on each artifact bag. When sites are identified, shovel tests are excavated, as appropriate, to delineate site boundaries and to sample potential subsurface deposits of cultural materials. If an artifact recovered during a surface inspection appears to be an isolated find, a minimum of four shovel tests are excavated in cardinal directions around the locus (i.e., find-spot). If no additional artifacts are recovered from the shovel tests, the locus is treated as an isolated find and no further work is typically considered necessary.

Subsurface testing is conducted across all nonagricultural areas as well as in agricultural areas where vegetation obscures surface visibility. It is also utilized to sample the stratigraphy of areas that have been systematically surface inspected. Typically, shovel tests are excavated at a standard 15-m (50-ft) interval throughout the APE. Shovel tests pits (STPs) are excavated at closer intervals (e.g., 7.5 m [25 ft]) when surface features (e.g., a foundation or depression) are identified or when an area is determined to be archaeologically sensitive due to its geographical setting (e.g., the presence of map-documented structures, previously identified sites, or well-drained land near a potable water source). Shovel test intervals may be increased in areas that are not visibly disturbed but consistently yield disturbed soils. The intervals are returned to the standard 15 m (50 ft) distance when the soil stratigraphy appears to be undisturbed. Areas of severe disturbance, standing water, and slope greater than 15 percent are visually inspected, photographically documented, and delineated on field maps but not shovel tested. STPs average a minimum of 40 cm (16 in) in diameter and are excavated to at least 10 cm (4 in) below the potentially artifact-bearing soils (e.g., A-horizon [topsoil]). Shovel tests are excavated up to a depth of one meter (three feet) below the ground surface in areas that may contain deeply buried archaeological deposits (e.g., a flood plain). Excavation is terminated if an impasse such as rock or gravel fill is encountered or when water fills the test pit. All soils are matched to Munsell® color charts, and sieved through ¼-inch hardware cloth screens. All shovel tests are backfilled to natural contour upon completion. Additional STPs are excavated around positive shovel tests, as required, to help define site boundaries, artifact concentrations, and sample potential archaeological sites.

Artifacts encountered during the survey are collected and placed in plastic or paper bags, and labeled with pertinent provenience information. Modern materials, such as plastic and container glass, are noted on field forms but not collected. Modern materials, such as coal, red brick fragments, and miscellaneous nail fragments, also are noted but not collected unless they can be clearly identified as

historic or are found in association with historic period artifacts. If deemed appropriate, such materials are weighed and/or counted. All field information collected from the shovel tests is recorded on STP forms, including the STP number, location, stratigraphic data, natural or man-made disturbances in the area, and the presence or absence of cultural materials (Appendix B). All of the STP locations are recorded on a project map and included in the report. The field director maintains a daily log and photographs environmental conditions, man-made disturbances, as well as any cultural features.

3.2 LABORATORY ANALYSIS

Artifacts recovered during fieldwork are analyzed under the supervision of the laboratory director. Cultural materials recovered from excavated shovel tests and surface collections are placed in plastic or paper bags, as noted, with all provenance information recorded on the bag with a waterproof marker. If necessary, these bags are assigned numbers and a list of artifact bags with associated proveniences is developed. Procedures elaborated in 36 CFR Part 79 (Curation of Federally-Owned and Administered Archaeological Collections) and NYAC Standards and Curation of Archaeological Collections in New York regarding the processing of recovered artifacts is followed. General archaeological procedures of cleaning and storage are followed, with the provenience information kept with artifacts at all times. Diagnostic artifacts are photographed or digitally scanned when considered appropriate by the principal investigator or requested by the client. The artifacts are stored in a secure, climate-controlled environment at the Panamerican Consultants, Inc., Buffalo Branch Office for processing and analysis. With landowner consent, disposition of artifacts for permanent curation is coordinated with the client.

3.3 RESULTS OF THE FIELD INVESTIGATION

The Phase I field investigation included a pedestrian survey of the project area, photographic documentation of site conditions and visible disturbances (Figure 11 and Appendix A: Photographs 1 through 14), and subsurface shovel testing (Figure 12 and Appendix B: Shovel Test Log) within potentially undisturbed portions of the APE. As previously stated, the project area totals approximately 10 acres (4 ha). The western half (five acres) adjacent to Clinton Street is considered significantly disturbed due to grading and filling associated with a former railroad siding which at one time had three concrete-block buildings and two framed buildings (estimated mid twentieth century structures) associated with it; all of which have been recently removed. At the time of the investigation, three large concrete rubble piles associated with the former buildings were present along with exposed concrete slabs and stacks of concrete construction barriers (see Appendix A: Photographs 1 through 4). Four shovel tests (STPs 13.1, 13.2, 14.1, and 15.1) were placed within the disturbed area to determine if any potentially undisturbed soils were present under the fill. A compact matrix of cinders, crushed stone, and concrete was found within the tests, which terminated at impasses typically at 21 cm (8.3 in).

The east portion of the project area (totaling five acres) is undeveloped (see Appendix A: Photographs 5 and 6). The northern portion of this area (approximately three acres [1.2 ha]) consists equally of a low-lying wet area covered in phragmites to the west (see Appendix A: Photographs 7 and 8) and a slightly elevated rise covered in brush and woods to the east (see Appendix A: Photographs 9 and 10). The remaining 2 acres (0.8 ha) to the south have been recently cleared of brush and trees (see Appendix A: Photographs 6 and 11). Standing water – possibly area runoff from higher surfaces outside the north and east boundaries of the project, was ubiquitous in this portion of the project (see Appendix A: Photograph 12).

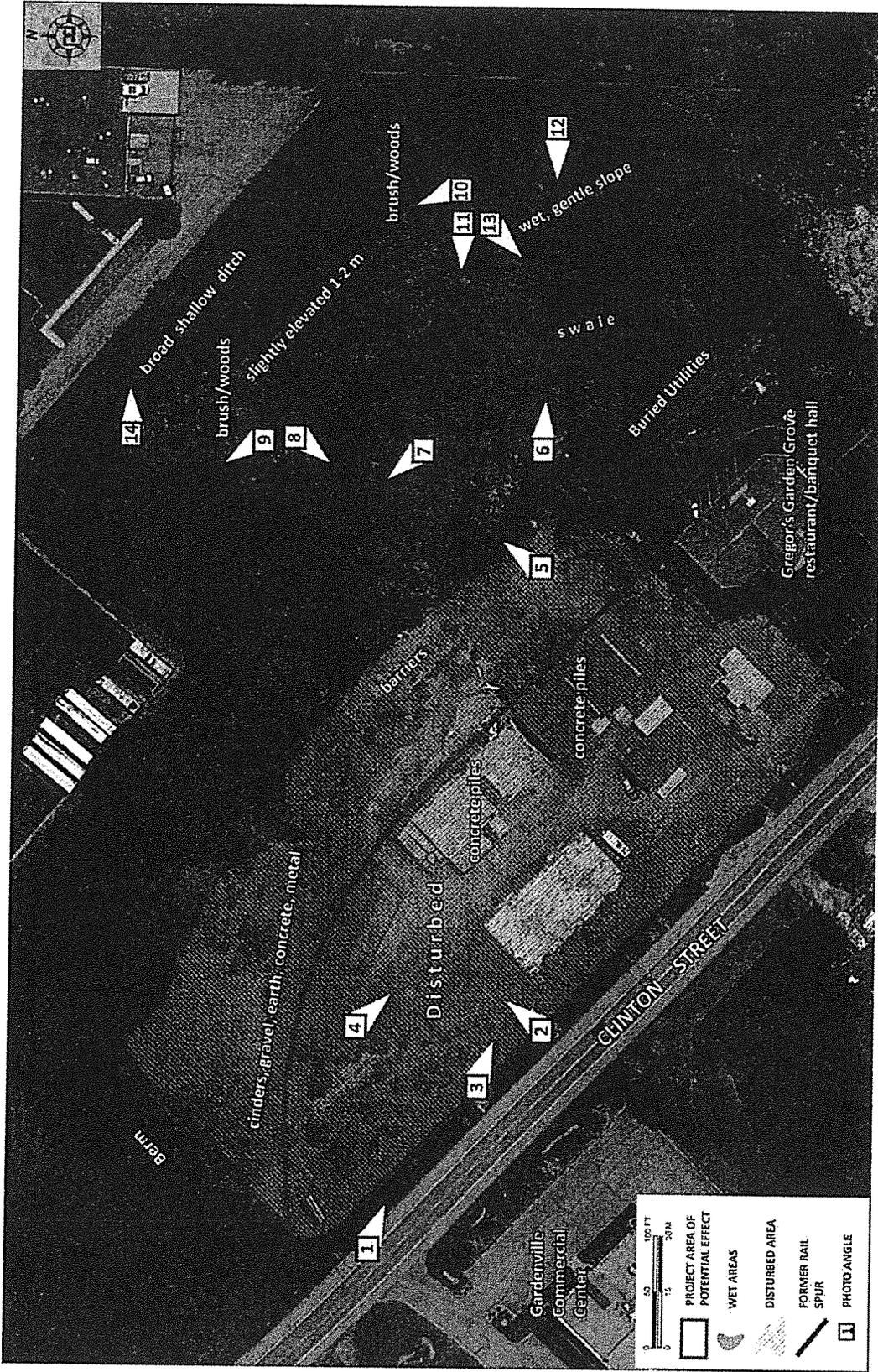


Figure 11. Location of photographs in the project area (aerial source: NYSGIS Clearinghouse 2013).

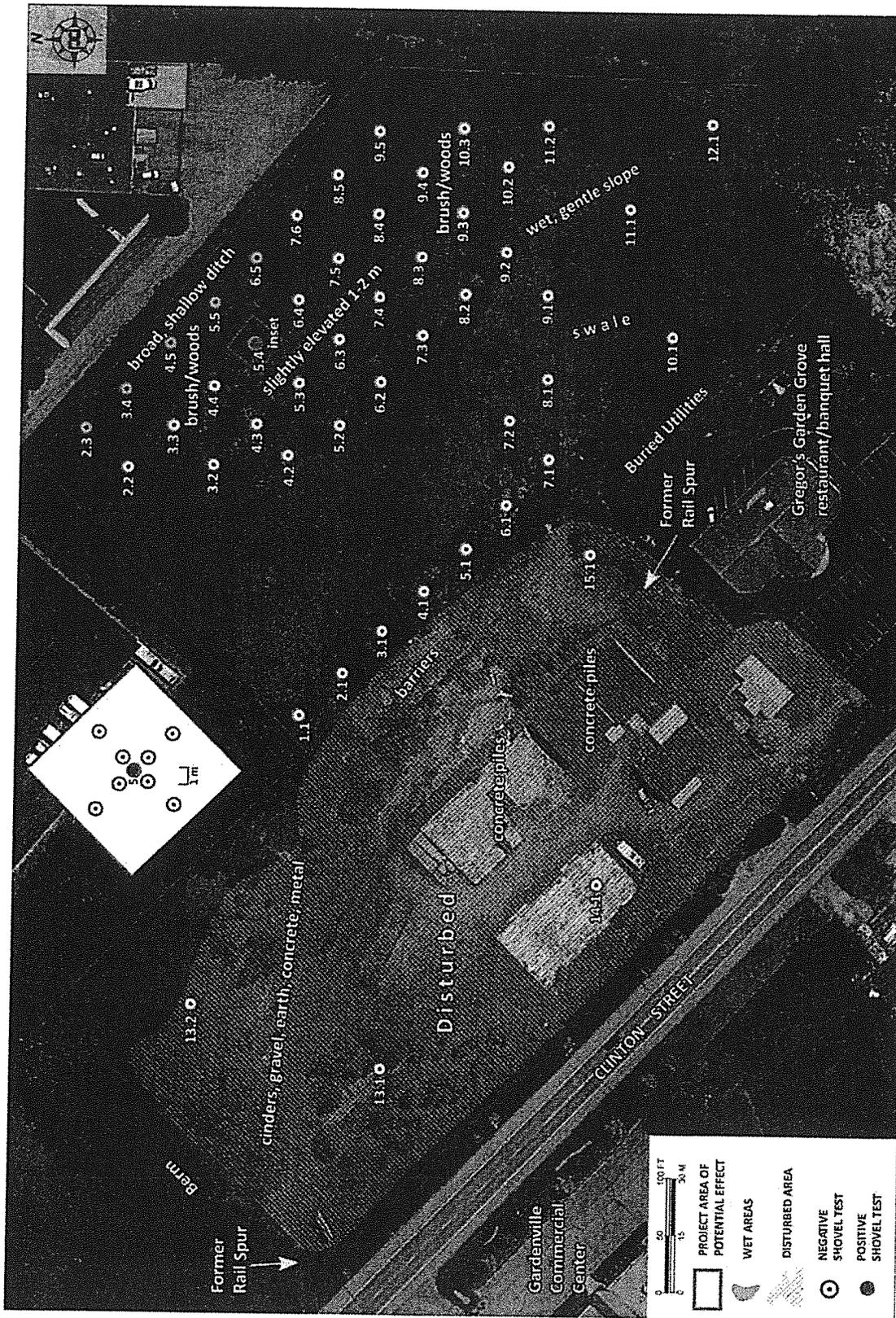


Figure 12. Location of shovel tests, standing water and disturbances in the project area (aerial source: NYSGIS Clearinghouse 2013).

Areas of the project where potentially undisturbed soils were present were shovel tested at the standard 50-ft (15-m) interval. Areas where standing water was encountered were documented and excluded from testing. A total 57 shovel tests were dug during the Phase IB field investigation (see Figure 12; Appendix B: Shovel Test Log). Of the total, 45 were dug on a 15-m (50-ft) test grid within the undisturbed east portion of the project area (four discretionary tests were dug within the disturbed portion of the project to document the extent of the disturbance reported above). Within the 45 tests, Stratum 1 (A-horizon) was typically dark gray or dark grayish brown sandy or silty loam, averaging 29 cm (11.4 in) depth. Stratum 2 (B-horizon) varied slightly, typically light brownish gray or yellowish brown silty or sandy loam, and in lesser frequency a mottling of the two, dug to an averaged terminal depth of 40 cm (15.7 in). Water filled the pits of seven shovel tests between 13 and 25 cm (5.1 and 9.8 in) deep, with these tests typically located at the beginning of Transects 1 through 11 (see Figure 12).

No historic artifacts were found within the project area. A few modern undecorated plate fragments were found on the surface within the southeast portion of the project area, which are most confidently associated with Gregor's Garden Grove Banquet Room situated adjacent (outside the project area) to the southern limits of the project area (see Appendix A: Photograph 13).

One pre-contact lithic artifact was found—a flake fragment created from local Onondaga chert—within the north portion of the project area in STP 5.4, Stratum 1. A total of eight close-interval shovel test radials were dug in cardinal directions at 1-m and 3-m (3.3-ft and 9.8-ft) intervals centered on the positive test. No additional cultural materials were found. As a note, some large (5 cm [2 in]), blocky crushed chert (clearly non-cultural) was found within the radials, and in some of the other tests dug within proximity of the west boundary of the project. This area appeared disturbed as a result of previous grading or ditching—it was located adjacent to a paved drive outside the limits of the project (see Appendix A: Photograph 14).

3.4 CONCLUSIONS AND RECOMMENDATIONS

No cultural resources were identified within the 10-acre project area at 3254 Clinton Street in the Town of West Seneca. Reviews of historic documents and the archaeological site and historic structures files recorded in the online CRIS found no sites located within or immediately adjacent to the APE. A review of historical maps found no indication of map-documented structures prior to the middle half of the twentieth century.

More than half (approximately six acres) of the project area have been severely disturbed by industrial use associated with operations of the former Gardenville Lumber & Supply Company from the middle of the twentieth century to the late 1970s. No intact evidence remains of the former structures along the road or the rail spur that connected with the line of tracks to the west.

One precontact lithic flake fragment (Onondaga chert) was found in the north part of the project area but additional close-interval testing around the find-spot found no additional artifacts or other evidence of cultural activity. The flake fragment is therefore considered an isolated/stray find and not indicative of the presence of an archaeological site.

No cultural resources listed or eligible for listing in the State or National Registers of Historic Places are present and, therefore, none will be impacted by the project. No further cultural investigations are recommended

4.0 References

- Abler, Thomas S., and Elisabeth Tooker
1978 Seneca. In *Northeast*, edited by Bruce G. Trigger, pp. 505-517. Handbook of North American Indians, vol. 15, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.
- Arcara, Richard J.
2002 *Decision and Order 93-CV-688A: The Seneca Nation of Indians, the Tonawanda Band of Seneca Indians, and the United States of America v. the State of New York; et al.* United States District Court, Western District of New York, Buffalo.
- Beauchamp, William M.
1900 *Aboriginal Occupation of New York*. New York State Museum Bulletin Vol. 7, No. 32. Albany.
- Beers, Frederick W.
1880 *Illustrated Historical Atlas of Erie County, New York*. F.W. Beers Company, New York.
- Benedict, A.L.
1901 Unpublished Field Notes. Department of Anthropology, State University of New York at Buffalo.
- Century Map Company, The
1909 *New Century Atlas Erie County New York*. The Century Map Company, Philadelphia.
- Chazanof, William
1970 *Joseph Ellicott and the Holland Land Company: The Opening of Western New York*. Syracuse University Press, Syracuse.
- Cleland, Charles E.
1982 The Inland Shore Fishery of the Northern Great Lakes: Its Development and Importance in Prehistory. *American Antiquity* 47:761-784.
- Crawford, G.W., D.G. Smith, and V.E. Bowyer
1997 Dating the Entry of Corn (*Zea mays*) into the Lower Great Lakes Region. *American Antiquity* 62:112-119.
- de Laubenfels, David J.
1966 Vegetation. In *Geography of New York State*, edited by John H. Thompson, pp. 90-103. Syracuse University Press, Syracuse, New York.
- Dunn, Edward T.
2000 *A History of Railroads in Western New York*. Second Edition. Canisius College Press, Buffalo.
- Dunn, Walter S., Jr. (ed)
1972 *History of Erie County, 1870-1970*. The Buffalo and Erie County Historical Society, Buffalo.

- Eberle, Scott, and Joseph A. Grande
1987 *Second Looks: A History of Buffalo and Erie County*. The Donning Company, Norfolk, VA.
- Ellis, David M., James A. Frost, Harold C. Syrett, and Harry J. Carmen
1967 *A History of New York State*. Cornell University Press, Ithaca, NY.
- Ellicott, Joseph, and Benjamin Ellicott
1804 *Map of Morris's Purchase or West Geneseo, in the State of New York. . . Holland Land Company*. No Publisher. Electronic document,
<http://www.davidrumsey.com/maps718.html>, accessed February 20, 2014.
- Engelbrecht, William E.
2003 *Iroquoia: The Development of a Native World*. The Iroquois and Their Neighbors series. Syracuse University Press, NY.

2004 "Northern New York Revisited." In *A Passion for the Past: Papers in Honour of James F. Pendergast*, James V. Wright and Jean-Luc Pilon, eds., 125-144. Mercury Series, Archaeological Paper 164. Canadian Museum of Civilization, Gatineau, Quebec.
- Engelbrecht, William, Eric Hansen, James Hartner, Elaine Herold, and John D. Holland
1993 *Prehistory of Western New York*. The Archaeological Survey, Department of Anthropology, State University of New York at Buffalo and The Frederick M. Houghton Chapter, New York State Archaeological Association, Buffalo.
- Erie County Department of Public Works (ECDPW)
1927 Aerial Photographs. Division of Highways, Erie County Department of Public Works, Buffalo. Electronic document, http://www.erie.gov/depts/community/highways_aerial.asp, accessed April 20, 2015.

1951 Aerial Photographs. Division of Highways, Erie County Department of Public Works, Buffalo. Electronic document, http://www.erie.gov/depts/community/highways_aerial.asp, accessed April 20, 2015.
- Feder, Kenneth L.
1984 Pots, Plants, and People: The Late Woodland Period in Connecticut. *Archaeological Society of Connecticut Bulletin* 47:99-111.
- Fitting, James E.
1975 Climatic Change and Cultural Frontiers in Eastern North America. *Michigan Archaeologist* 21:25-39.
- Fritz, Gayle
1990 Multiple Pathways to Farming in Precontact Eastern North America. *Journal of World Prehistory* 4:387-435.
- Funk, Robert E.
1972 Early Man in the Northeast and the Late Glacial Environment. *Man in the Northeast* 4:7-42.

1978 Post-Pleistocene Adaptations. In *Northeast*, edited by Bruce G. Trigger, pp. 16-27. Handbook of North American Indians, vol. 15, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

- 1991 The Middle Archaic in New York. *Journal of Middle Atlantic Archaeology* 7:7-8.
- 1993 *Archaeological Investigations in the Upper Susquehanna Valley, New York State, Volume 1*. Persimmon Press, Buffalo.
- Funk, Robert E., and Frank F. Schambach
1964 Probable Plano Points in New York State. *Pennsylvania Archaeologist* 34:90-93.
- Geil, Samuel
1855 *Erie County and City of Buffalo*. Gillette and Mathews, Philadelphia.
- Goldman, Mark
1983 *High Hopes; The Rise and Decline of Buffalo, New York*. State University of New York Press, Albany.
- Gramly, Richard M.
1977 Deerskins and Hunting Territories: Competition for a Scarce Resource in the Northeast. *American Antiquity* 42:601.
- Gramly, Richard M., and Robert E. Funk
1990 What is Known and Not Known About the Human Occupation of the Northeastern United States Until 10,000 B.P. *Archaeology of Eastern North America* 18:5-32.
- Griffin, James B.
1967 Eastern North American Archaeology: A Summary. *Science* 156:175-191.
- Hart, John P.
1999 "Dating Roundtop's Domesticates: Implications for Northeast Late Prehistory." In *Current Northeast Paleoethnobotany*, John P. Hart, ed., 47-68. New York State Museum Bulletin 494. State Education Department, Albany.
- 2000 New Dates from Classic New York Sites: Just How Old are Those Longhouses? *Northeast Anthropology* 60:1-22.
- 2011 The Death of Owasco-Redux. In *Current Research in New York Archaeology: A.D. 700-1300*, edited by Christina B. Rieth and John P. Hart, pp. 95-107. New York State Museum Record 2. New York State Education Department, Albany. Electronic document, <http://www.nysm.nysed.gov/publications/record/>, accessed February 4, 2014.
- Hart, John P., and Hetty Jo Brumbach
2003 The Death of Owasco. *American Antiquity* 68(4):737-752.
- Hart, John P., Robert G. Thompson, and Hetty Jo Brumbach
2003 Phytolith Evidence for Early Maize (*Zea Mays*) in the Northern Finger Lakes Region of New York. *American Antiquity* 68(4):619-640.
- Hoffman, Curtiss
1998 Pottery and Steatite in the Northeast: A Reconsideration of Origins. *Northeast Anthropology* 56:43-68.

- Houghton, Frederick W.
1909 Indian Occupancy of the Niagara Frontier and Indian Village, Camp, and Burial Sites in the Niagara Frontier. *Bulletin of the Buffalo Society of Natural Sciences* 9(3):261-375.
- 1920 The History of the Buffalo Creek Reservation. *Publications of the Buffalo Historical Society*, Vol. XXIV, edited by Frank H. Severance, pp. 3-183. Buffalo Historical Society.
- Hunt, George T.
1940 *The Wars of the Iroquois: A Study in Inter-tribal Trade Relations*. University of Wisconsin Press. Madison.
- Hutchins, Francis G.
2004 *The Iroquois, New York and Federal Tribal Policy*. Oneida Indian Land Claim Information Site, Madison County, New York, Wampsville, NY (no longer available online).
- Johnson, Crisfield
1876 *Centennial History of Erie County, New York*. Printing House of Mathews & Warren, Buffalo.
- Kelleran, Ann
1960 Old Fort Niagara. *Adventures in Western New York History*, vol. I (1). Buffalo and Erie County Historical Society, Buffalo.
- Kraft, Herbert
1986 *The Lenape: Archaeology, History, and Ethnology*. The New Jersey Historical Society, Newark.
- Kuhn, Robert D., and Robert E. Funk
2000 Boning up on the Mohawk: An Overview of Mohawk Faunal Assemblages and Subsistence Patterns. *Archaeology of Eastern North America* 28:29-62.
- Landon, Joseph
1904 [ca. 1863] Notes of Joseph Landon. *Buffalo Historical Society Publications*. Buffalo Historical Society, Buffalo. Rpt: New York State Historical Literature Site, Cornell University, Ithaca, NY. Electronic document, <http://ebooks.library.cornell.edu/cgi/t/text/text-idx?c=nys;idno=nys374>, accessed April 14, 2015.
- Lankes, Frank J.
1962 *An Outline of West Seneca History*. West Seneca Historical Society, West Seneca, NY.
- 1964 *The Senecas on Buffalo Creek Reservation*. West Seneca Historical Society, West Seneca, NY.
- 1966 *Reservation Supplement*. West Seneca Historical Society, West Seneca, NY.
- 1968 *Just for Old Times Sake*. West Seneca Historical Society, West Seneca, NY.
- Mason, Ronald J.
1981 *Great Lakes Archaeology*. Academic Press, New York.

- Miller, N.G.
1973 *Late Glacial and Early Post Glacial Vegetation Change in Southwestern New York State*. New York State Museum and Science Service, Bulletin 420, Albany.
- Natural Resources Conservation Service (NRCS)
2015 Custom Soil Resource Report for Erie County, New York. Web Soil Survey, National Cooperative Soil Survey. National Resources Conservation Services, U.S. Department of Agriculture Electronic database, <http://websoilsurvey.nrcs.usda.gov>, accessed April 17, 2015.
- New York Archaeological Council (NYAC)
1994 *Standards for Cultural Resource Investigations and the Curation of Archaeological Collections*. New York Archaeological Council, Albany. On file, Panamerican Consultants, Inc., Buffalo, NY.
- NYS GIS Clearinghouse
2013 Orthoimagery via New York State Geographic Information System Clearinghouse. New York State Office of Cyber Security and Critical Infrastructure Coordination, Albany. Electronic database, <http://www.nysgis.state.ny.us/gateway/mg>, accessed April 2015.
- Noble, William C.
1975 Corn and the Development of Village Life in Southern Ontario. *Ontario Archaeology* 5:37-46.
- Owens, Donald W., Willie L. Pittman, John P. Wulforst, and Willis E. Hanna
1986 *Soil Survey of Erie County, New York*. United States Department of Agriculture, Soil Conservation Service in cooperation with the Cornell University Agricultural Experiment Station. U.S. Government Printing Office, Washington, D.C.
- Quinn, Thomas J.
1991 *The Western New York State Mile Reservation; A Short History*. Thomas J. Quinn, Niagara Falls, NY. Typed Ms, on file Historian's Office, Panamerican Consultants, Inc., Buffalo.
- Parker, Arthur C.
1922 *The Archaeological History of New York*. New York State Museum Bulletin Nos. 235-238. Albany.
- Peltier, Robert J., and Todd Harrington
2008 *Phase I Cultural Resources Investigation for the 160 Empire Drive Development and Phase II Archaeological Investigation at the Empire Drive Site, Town of West Seneca, Erie County, New York*. Commonwealth Cultural Resources Group, Inc., Buffalo.
- Prezzano, Susan C.
1988 Spatial Analysis of Post Mold Patterns at the Sackett Site, Ontario County, New York. *Man in the Northeast* 35:27-45.
- Reinstein, Julia Boyer
1972 *A History of the Town of Cheektowaga*. Buffalo and Erie County Historical Society, Buffalo.

- Ritchie, William A.
 1937 [1936] *A Prehistoric Fortified Village Site at Canandaigua, Ontario County, New York*. Researches and Transactions of the New York State Archaeological Association, Lewis H. Morgan Chapter, Vol. VIII, No. 2. Lewis H. Morgan Chapter, Rochester, NY. Reprinted from: Research Records of the Rochester Museum of Arts and Sciences, No. 3. Rochester Museum of Arts and Sciences.
- 1944 *The Pre-Iroquoian Occupations of New York State*. Rochester Museum Memoir No. 1. Rochester Museum of Arts and Sciences, Rochester, NY.
- 1980 *The Archaeology of New York State*. Revised Ed. Harbor Hill Books, Harrison, NY.
- Ritchie, William A., and Robert E. Funk
 1973 *Aboriginal Settlement Patterns in the Northeast*. New York State Museum and Science Service Memoir No. 20. Albany.
- Salwen, Bert
 1975 Post Glacial Environments and Cultural Change in the Hudson River Basin. *Man in the Northeast* 10:43-70.
- Schieppati, Frank J., Mark A. Steinback, Rebecca J. Emans, Michele H. Hayward, Michael A. Cinquino, and Karen S. Niemel
 2004 *Phase II/III Cultural Resources Investigation and Data Recovery The Erie Canal Harbor Project, City of Buffalo, Erie County, New York*. 3 vols. Panamerican Consultants, Inc., Buffalo Branch, Buffalo.
- Schulenberg, Janet K.
 2002 New Dates for Owasco Pots. In *Northeast Subsistence Settlement Change AD 700-1300*, edited by John P. Hart and Christina Rieth, pp. 153-165. New York State Museum Bulletin 496. State Education Department, Albany.
- Sears, William H.
 1948 What is the Archaic? *American Antiquity* 14(2):122-124.
- Silsby, Robert W.
 1961 The Holland Land Company in Western New York. *Adventures in Western New York History*, vol. VIII. Buffalo and Erie County Historical Society, Buffalo.
- Smith, Bruce D.
 1992 Prehistoric Plant Husbandry in Eastern North America. In *The Origins of Agriculture*, edited by C.W. Cowan and P.J. Watson, pp. 101-119. Smithsonian Institution Press, Washington, D.C.
- Smith, Donald A., Frank J. Schieppati, John Holland, Rebecca Emans, Mark A. Steinback, and Michael A. Cinquino
 2007 *Phase III Cultural Resources Investigation of the Prehistoric Component (A02940.023650) within the Erie Canal Harbor Archaeological District (A02940.004623), City of Buffalo, Erie County, New York*. Panamerican Consultants, Inc., Buffalo Branch, Buffalo. Prepared for Parsons Brinckerhoff Quade & Douglas, Inc., Buffalo, and the Empire State Development Corporation.

- Smith, H(enry) Perry
1884 *History of Buffalo and Erie County*. 2 vols. D. Mason & Co., Syracuse, New York.
- Snow, Dean R.
1980 *The Archaeology of New England*. Academic Press, New York.

2000 *The Iroquois*. Blackwell, Cambridge, MA. Original 1994.
- Squier, Ephraim G.
1851 *Antiquities of the State of New York*. Geo. H. Derby and Co., Buffalo.
- Stone and Stewart
1866 *New Topographical Atlas of Erie County, New York*. Stone and Stewart, Publishers, Philadelphia.
- Stothers, David M.
1977 The Princess Point Complex. *National Museum of Canada, Archaeological Survey of Canada Paper No. 58*.
- Sykes, Clark M.
1980 Swidden Horticulture and Iroquois Settlement. *Archaeology of Eastern North America* 8:45-52.
- Tooker, Elisabeth
1978 The League of the Iroquois: Its History, Politics, and Ritual. In *Northeast*, edited by Bruce G. Trigger, pp. 418-441. Handbook of North American Indians, vol. 15, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.
- Trigger, Bruce G.
1978 Early Iroquois Contacts with Europeans. In *Northeast*, pp. 344-356. Handbook of North American Indians, vol. 15, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.
- Tuck, James A.
1971 *Onondaga Iroquois Prehistory: A Study in Settlement Archaeology*. Syracuse University Press, Syracuse.

1978 Regional Cultural Development, 3000 to 300 B.C. In *Northeast*, edited by B.G. Trigger, pp. 28-43. Handbook of North American Indians, vol. 15, W.C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.
- Turner, Orsamus
1974 [1850] *Pioneer History of the Holland Purchase of Western New York*. Geo. H. Derby and Co., Buffalo. Rpt edition: James Brunner, Geneseo, NY.
- USGS (U.S. Geological Survey)
1901 Buffalo, 15 Minute Quadrangle Map. U.S. Geological Survey, Washington, D.C. On file, Historic USGS Maps of New England & New York. University of New Hampshire, Dimond Library, Documents Department & Data Center, Durham. Electronic document, <http://docs.unh.edu/nhtopos/Buffalo.htm>, accessed April 16, 2015.

- 1948 Buffalo, 15 Minute Quadrangle Map. U.S. Geological Survey, Washington, D.C. On file, Historic USGS Maps of New England & New York. University of New Hampshire, Dimond Library, Documents Department & Data Center, Durham. Electronic document, <http://docs.unh.edu/nhtopos/Buffalo.htm>, accessed April 16, 2015.
- 1965 *Buffalo SE Quadrangle New York–Ontario*. 7.5-Minute Series (Topographic). USGS, Washington, D.C.
- Weller, Ethelyn
- 1971 *A History of the City of Lackawanna*. Buffalo and Erie County Historical Society, Buffalo.
- 1972 *A History of the Town of West Seneca*. Buffalo and Erie County Historical Society, Buffalo.
- White, Marian E.
- 1960 Niagara Frontier Iroquois village movements. *Eastern States Archaeological Federation Bulletin* 19:16.
- 1961 Iroquois Culture History in the Niagara Frontier Area of New York State. *Anthropological Papers*, No. 16. Museum of Anthropology, University of Michigan.
- 1963 Settlement Pattern Change and the Development of Horticulture in the New York-Ontario Area. *Pennsylvania Archaeologist* 33:1-12.
- 1971 Ethnic Identification and Iroquois Groups in Western New York and Ontario. *Ethnohistory* 18:19-38.
- 1978a Neutral and Wenro. In *Northeast*, edited by Bruce G. Trigger, pp. 407-411. Handbook of North American Indians, vol. 15, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.
- 1978b Erie. In *Northeast*, edited by Bruce G. Trigger, pp. 412-417. Handbook of North American Indians, vol. 15, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.
- White, Truman C. (Editor)
- 1898 *Our County and its People; a Descriptive Work on Erie County, New York*. 2 vols. Boston History Company, Boston.
- Winter, Joseph
- 1971 A Summary of Owasco and Iroquois Maize Remains. *Pennsylvania Archaeologist* 41(3):1-11.

Appendix A
PHOTOGRAPHS



Photograph 1. Project area at 3254 Clinton Street, facing eastwards from outside the west corner of the APE (Panamerican 2015).



Photograph 2. Concrete and cinderblock rubble remains of four former buildings demolished within the disturbed five-acre portion of the project, facing northwest from Clinton Street (Panamerican 2015).



Photograph 3. Buried concrete slab exposed within the west limits of the disturbed portion of the project area, facing southeast (*Panamerican 2015*).



Photograph 4. Concrete and cinderblock rubble remains of four former buildings demolished within the disturbed five-acre portion of the project, facing southeast (*Panamerican 2015*).



Photograph 5. North extent of the project is covered in brush and trees, with extensive wet area covered in phragmites, facing northeast (*Panamerican 2015*).



Photograph 6. Recent cleared east portion of the project area, facing east from STP 7.1 (*Panamerican 2015*).



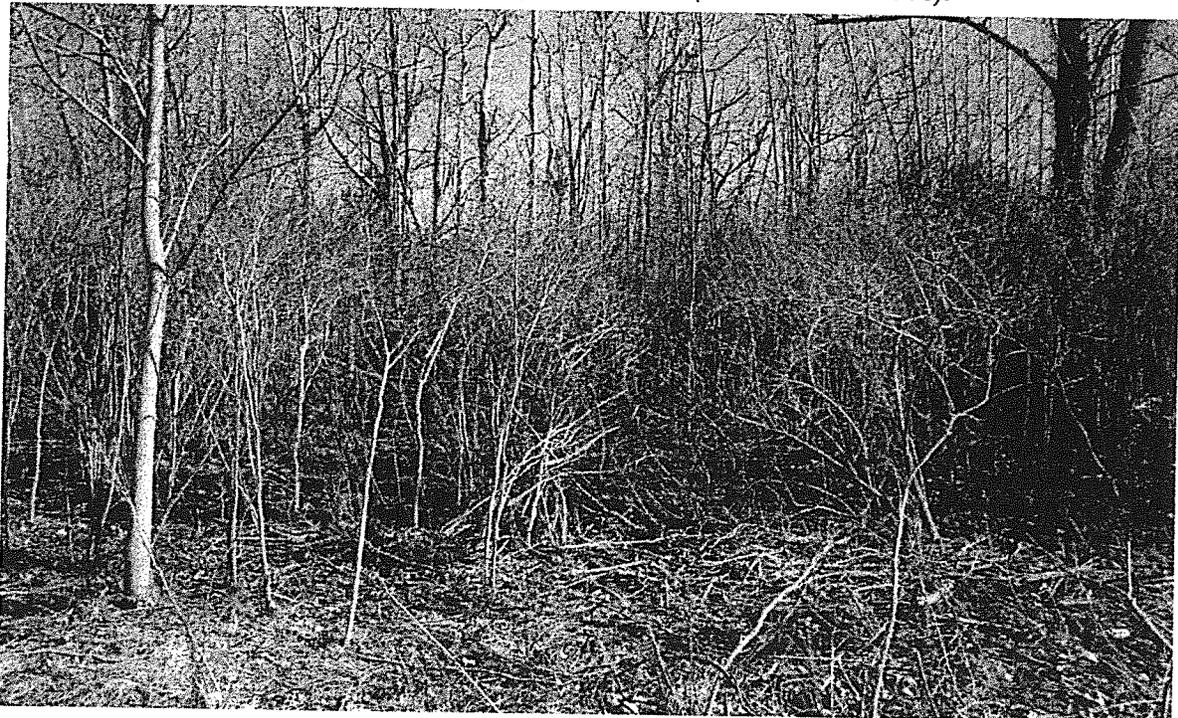
Photograph 7. Wet area covered in phragmites totaling approximately one acre on the north side of the disturbed five-acre lot, facing northwest (*Panamerican 2015*).



Photograph 8. Wet area covered in phragmites totaling approximately one acre, facing southwest from northeast edge at STP 4.2 (*Panamerican 2015*).



Photograph 9. Base of elevated scrub/woodland (right), and phragmites-covered wet area (left), in north portion of the APE facing northwards (*Panamerican 2015*).



Photograph 10. Brush and trees covering slightly elevated north portion of the project area, facing north from STP 9.3 (*Panamerican 2015*).



Photograph 11. Recent cleared east portion of the project area, facing west from STP 9.3 (Panamerican 2015).



Photograph 12. Standing water covers portions of the east limits of the project area, facing west (Panamerican 2015).



Photograph 13. Cleared northeast portion of the project, facing southwest towards Gregor's Garden Grove Banquet House (outside the APE) (Panamerican 2015).



Photograph 14. Broad shallow ditch or excavated area within north limits of the project, adjacent to a paved drive outside the APE, facing east from STP 2.2 (Panamerican 2015).

Appendix B
SHOVEL TEST LOG

Shovel Test Log for Edbauer Construction 3254 Clinton Street

Transect/ STP	Stratum	Depth (cm)	Munsell	Soil Color	Soil Description	Comments
1.1	1	0-13	10YR 3/1	V DK GR	SI LO	NCM; water at 13cm
2.1	1	0-36	10YR 3/1	V DK GR	SA LO	brick; drain pipe; nail
2.1	2	36-46	10YR 6/2 10YR 5/6	LT BR GR YL BR	SA LO	NCM
2.2	1	0-38	10YR 4/2	DK GR BR	SA LO	NCM
2.2	2	38-49	10YR 6/2 10YR 6/8	LT BR GR BR YL	LO SA	NCM
2.3	1	0-14	10YR 5/2	GR BR	SA LO	NCM
2.3	2	14-25	10YR 6/2 10YR 5/6	LT BR GR YL BR	LO SA	NCM
3.1	1	0-35	10YR 3/2	V DK GR BR	SA LO	NCM
3.1	2	35-45	10YR 5/2 10YR 5/3	GR BR BR	SA CL	NCM
3.2	1	0-37	10YR 4/1	DK GR	SI SA	NCM
3.2	2	37-47	10YR 5/4	YL BR	SA LO	NCM
3.3	1	0-18	10YR 4/1	DK GR	SA SA	NCM; root impasse at 18cm
3.4	1	0-22	10YR 4/2	DK GR BR	SA LO	NCM; water filled pit at 18cm
4.1	1	0-30	10YR 4/1	DK GR	SI LO	NCM
4.1	2	30-40	10YR 3/1	V DK GR	SI CL	NCM
4.2	1	0-20	10YR 4/1	DK GR	SI LO	NCM
4.2	2	20-34	10YR 4/3	BR	SI CL	NCM
4.3	1	0-29	10YR 4/1	DK GR	SI LO	NCM
4.3	2	29-41	10YR 5/4	YL BR	SI CL	NCM
4.4	1	0-17	10YR 4/3	BR	SI LO	NCM
4.4	2	17-30	10YR 4/4	DK YL BR	SI LO	NCM
5.1	1	0-28	10YR 4/2	DK GR BR	CL LO	NCM
5.1	2	28-40	10YR 5/6	YL BR	CL LO	NCM
5.2	1	0-30	10YR 4/2	DK GR BR	CL LO	NCM
5.2	2	30-40	10YR 5/6	YL BR	SA CL LO	NCM
5.3	1	0-29	10YR 4/2	DK GR BR	SA LO	NCM
5.3	2	29-39	10YR 6/2 10YR 6/8	LT BR GR BR YL	SA LO	NCM
5.4	1	0-33	10YR 4/2	DK GR BR	SA LO	flake
5.4	2	33-43	10YR 6/2 10YR 6/8	LT BR GR BR YL	LO SA	NCM
5.5	1	0-15	10YR 5/2	GR BR	SI LO	NCM
5.5	2	15-30	10YR 5/1 10YR 6/6	GR BR YL	SA SI	NCM
5.4+1mN	1	0-30	10YR 4/2	DK GR BR	SA LO	NCM
5.4+1mN	2	30-40	10YR 6/2 10YR 6/8	LT BR GR BR YL	SA LO	NCM
5.4+3mN	1	0-29	10YR 4/2	DK GR BR	SA LO	NCM
5.4+3mN	2	29-34	10YR 6/2 10YR 6/8	LT BR GR BR YL	SA LO	NCM; root impasse at 34cm
5.4+1mS	1	0-31	10YR 4/2	DK GR BR	SA LO	NCM
5.4+1mS	2	31-41	10YR 6/2 10YR 6/8	LT BR GR BR YL	SA LO	NCM
5.4+3mS	1	0-28	10YR 4/2	DK GR BR	SA LO	NCM
5.4+3mS	2	28-38	10YR 6/2 10YR 6/8	LT BR GR BR YL	SA LO	NCM
5.4+1mE	1	0-27	10YR 4/2	DK GR BR	SA LO	NCM
5.4+1mE	2	27-38	10YR 6/2 10YR 6/8	LT BR GR BR YL	SA LO	NCM
5.4+3mE	1	0-27	10YR 4/2	DK GR BR	SA LO	NCM
5.4+3mE	2	27-37	10YR 6/2 10YR 6/8	LT BR GR BR YL	SA LO	NCM
5.4+1mW	1	0-32	10YR 4/2	DK GR BR	SA LO	NCM

Shovel Test Log for Edbauer Construction 3254 Clinton Street

Transect/ STP	Stratum	Depth (cm)	Munsell	Soil Color	Soil Description	Comments
5.4+1mW	2	32-42	10YR 6/2 10YR 6/8	LT BR GR BR YL	SA LO	NCM
5.4+3mW	1	0-29	10YR 4/2	DK GR BR	SA LO	NCM
5.4+3mW	2	29-39	10YR 6/2 10YR 6/8	LT BR GR BR YL	SA LO	NCM
6.1	1	0-15	10YR 4/2	DK GR BR	SI LO	NCM; water at 15cm
6.2	1	0-34	10YR 4/2	DK GR BR	SI LO	NCM
6.2	2	34-46	10YR 6/2 10YR 6/8	LT BR GR BR YL	SA LO	NCM
6.3	1	0-25	10YR 4/2	DK GR BR	SA LO	NCM
6.3	2	25-36	10YR 6/2 10YR 6/8	LT BR GR BR YL	SA LO	NCM
6.4	1	0-22	10YR 4/2	DK GR BR	SI LO	NCM
6.4	2	22-34	10YR 6/2 10YR 6/8	LT BR GR BR YL	SA LO	NCM
6.5	1	0-18	10YR 4/2	DK GR BR	SI LO	NCM; filling with water
7.1	1	0-28	10YR 4/2	DK GR BR	SI LO	NCM; filling with water
7.1	2	28-40	10YR 5/1 10YR 5/8	GR YL BR	SI LO	NCM
7.2	1	0-26	10YR 4/2	DK GR BR	SI LO	NCM
7.2	2	26-36	10YR 5/1 10YR 5/8	GR YL BR	SI LO	NCM
7.3	1	0-32	10YR 4/2	DK GR BR	SI LO	NCM
7.3	2	32-43	10YR 5/1 10YR 5/8	GR YL BR	SI LO	NCM
7.4	1	0-34	10YR 4/2	DK GR BR	SA LO	NCM
7.4	2	34-46	10YR 6/2 10YR 6/8	LT BR GR BR YL	SA	NCM
7.5	1	0-30	10YR 4/2	DK GR BR	SA LO	NCM
7.5	2	30-41	10YR 6/2 10YR 6/8	LT BR GR BR YL	SA	NCM
7.6	1	0-28	10YR 4/2	DK GR BR	SA LO	NCM; root impasse at 28cm
8.1	1	0-23	10YR 5/1	GR	SI CL	NCM
8.1	2	23-40	10YR 5/8	YL BR	SI LO	NCM
8.2	1	0-17	10YR 4/2	DK GR BR	SI CL	NCM
8.2	2	17-38	10YR 5/8	YL BR	SI LO	NCM
8.3	1	0-20	10YR 4/2	DK GR BR	SI LO	NCM
8.3	2	20-40	10YR 5/6	YL BR	SI SA	NCM
8.4	1	0-25	10YR 4/3	BR	SI LO	NCM
8.4	2	25-40	10YR 6/6	BR YL	SI SA	NCM
8.5	1	0-24	10YR 4/2	DK GR BR	SI LO	NCM
8.5	2	24-40	10YR 6/2	LT BR GR	SI SA	NCM
9.1	1	0-40	10YR 3/2	V DK GR BR	CL LO	NCM
9.1	2	40-50	10YR 6/2 10YR 5/6	LT BR GR YL BR	CL	NCM
9.2	1	0-38	7.5YR 5/8 10YR 4/2	STRONG BR DK GR BR	SA CL LO	NCM
9.2	2	38-49	7.5YR 5/8	STRONG BR	CL SA	NCM
9.3	1	0-36	10YR 3/2	V DK GR BR	SA CL LO	NCM
9.3	2	36-40	7.5YR 5/8	STRONG BR	CL SA	NCM
9.4	1	0-35	10YR 4/2	DK GR BR	SA CL LO	NCM
9.4	2	35-45	7.5YR 5/8	STRONG BR	LO SA	NCM
9.5	1	0-33	10YR 4/2	DK GR BR	SA CL LO	NCM
9.5	2	33-44	10YR 5/8	YL BR	SA CL	NCM
10.1	1	0-50	10YR 3/2 10YR 5/6	V DK GR BR YL BR	CL LO	NCM; disturbed
10.2	1	0-40	10YR 3/2	V DK GR BR	CL LO	NCM
10.2	2	40-50	10YR 5/4	YL BR	CL LO	NCM

Shovel Test Log for Edbauer Construction 3254 Clinton Street

Transect/ STP	Stratum	Depth (cm)	Munsell	Soil Color	Soil Description	Comments
10.3	1	0-24	10YR 4/2	DK GR BR	CL LO	NCM
10.3	2	24-38	10YR 5/6	YL BR	CL SA	NCM
11.1	1	0-27	10YR 4/2	DK GR BR	SI LO	NCM
11.1	2	27-39	10YR 6/2 10YR 6/8	LT BR GR BR YL	SI LO	NCM
11.2	1	0-15	10YR 4/2	DK GR BR	SI LO	NCM; water at 15cm
11.3	1	0-25	10YR 4/2	DK GR BR	SI LO	NCM; water at 25cm
12.1	1	0-38	10YR 3/2	V DK GR BR	CL LO	NCM
12.1	2	38-48	10YR 6/6	BR YL	CL SA	NCM
13.1	1	0-10	10YR 7/3	V PALE BR	SI LO	concrete; gravel
13.1	2	10-33	10YR 3/1	V DK GR	SI LO	gravel; cinders; compacted cinders impasse
13.2	1	0-12	10YR 4/1	DK GR	SI LO	concrete; gravel; brick; degraded concrete impasse
14.1	1	0-15	10YR 4/1	DK GR	SI LO	concrete; gravel fill; degraded concrete impasse at 15cm
15.1	1	0-22	10YR 4/1	DK GR	SI LO	concrete; gravel; terminated on buried concrete

ATTACHMENT 4

**FEMA FIRMETTE
FM 3602620001B**

