North Ferry Street Pump Relocation

123 North Ferry Street
Schenectady, Schenectady County, NY
Environmental Review Record

Prepared by Tetra Tech Inc.
1999 Harrison Street, Suite 500
Oakland, CA 94612

New York State Homes and Community Renewal
Governor's Office of Storm Recovery
38-40 State Street
Albany, NY 12207

November 17, 2018

North Ferry Street Pump Station Relocation Project
Environmental Review Record

November 17, 2018

Project Name:	North Ferry Street Pump Station Relocation Project
Project Location:	123 North Ferry Street, Schenectady, Schenectady County, NY
Federal Agency:	US Department of Housing and Urban Development
Responsible Entity:	New York State Homes and Community Renewal
Responsible Agency's Certifying Officer:	Lori A. Shirley, Governor's Office of Storm Recovery, Certifying Officer
Project Sponsor:	City of Schenectady
Primary Contact:	Gary McCarthy Mayor (518) 382-5000 gmccarthy@schenectadyny.gov
Project NEPA Classification:	24 CFR 58.36 (Environmental Assessment)

Environmental Finding:	**X** Finding of No Significant Impact - The project will not result in a significant impact on the quality of the human environment.
	☐Finding of Significant Impact - The project may significantly affect the quality of the human environment.
Certification	The undersigned hereby certifies that New York State Homes and Community Renewal has conducted an environmental review of the project identified above and prepared the attached environmental review record in compliance with all applicable provisions of the National Environmental Policy Act of 1969, as amended (42 USC Sec. 4321 et seq.) and its implementing regulations at 24 CFR Part 58.
Signature	 Lori A. Shirley

Environmental Assessment Prepared By:	Consultant: **Tetra Tech, Inc.** Address: 1999 Harrison Street, Suite 500 Address: Oakland, CA 94612

CERTIFICATION OF NEPA CLASSIFICATION

It is the finding of the New York State Housing Trust Fund Corporation that the activity(ies) proposed in its 2015 NYS CDBG-DR project, North Ferry Street Pump Station Replacement project is:

Check the applicable classification.

☐ Exempt as defined in 24 CFR 58.34 (a).

☐ Categorically Excluded as defined in 24 CFR 58.35(b).

☐ Categorically Excluded as defined in 24 CFR 58.35(a) and no activities are affected by federal environmental statues and executive orders [i.e., exempt under 58.34(a)(12)].

☐ Categorically Excluded as defined in 24 CFR 58.35(a) and some activities are affected by federal environmental statues and executive orders.

☒ "Other" neither exempt (24 CFR 58.34(a)) nor categorically excluded (24 CFR 58.35).

☒ Part or all of the project is located in an area identified as a floodplain or wetland. For projects located in a floodplain or wetland, evidence of compliance with Executive Orders 11988 and/or 11990 is required.

For activities excluding those classified as "Other", attached is the appropriate Classification Checklist (Exhibit 2-4) that identifies each activity and the corresponding citation.

Lori A Shirley

Signature of Certifying Officer

November 17, 2018
Date

Lori A. Shirley
Director, Bureau of Environmental Review and Assessment
Governor's Office of Storm Recovery

CERTIFICATION OF SEQRA CLASSIFICATION

It is the finding of the New York State Housing Trust Fund Corporation that the activity(ies) proposed in its 2105 NYS CDBG-DR project, North Ferry Street Pump Station Replacement project constitute a:

Check the applicable classification:

- ☐ Type I Action (6NYCRR Section 617.4)
- ☒ Type II Action (6NYCRR Section 617.5)
- ☐ Unlisted Action (not Type I or Type II Action)

Check if applicable:

- ☐ Environmental Impact Statement (EIS) Prepared
  - ☐ Draft EIS
  - ☐ Final EIS

Lori A Shirley

Signature of Certifying Officer

November 17, 2018
Date

Lori A. Shirley
Director, Bureau of Environmental Review and Assessment
Governor's Office of Storm Recovery

Description of the Proposed Project [24 CFR 50.12 & 58.32; 40 CFR 1508.25]**:**

The City of Schenectady, Schenectady County, New York proposes to construct a new pump station to replace the existing North Ferry Street Pump Station located at 123 North Ferry Street (**Figure 1**). The new pump station would connect to existing sewer infrastructure.

The existing North Ferry Street Pump Station, built in 1913, is located on the southern shore of the Mohawk River at the end of North Ferry Street in the historic Stockade District (**Figure 2**). The site is adjacent to the Mohawk River, which is classified as an NWI wetland L1UBHh (lacustrine, limnetic, unconsolidated bottom, permanently flooded, diked/impounded). The site is within the 100-year floodplain and is located over the Schenectady-Niskayuna Sole Source Aquifer. Land use surrounding the pump station site is primarily residential, parkland, and commercial.

The ground floor elevation [225 feet above sea level (ASL)] is below the 100-year flood elevation and is prone to flooding from the Mohawk River. Flooding of the Mohawk River and its tributaries after Hurricane Irene and Tropical Storm Lee caused destruction throughout the City of Schenectady. The city drinking water and wastewater facilities experienced flooding and power failures. The North and South Ferry Street Pump Stations, critical components of the city's sewer system, were severely impacted by floodwaters. The control and electrical systems were inundated and the control panels did not operate for almost 24 hours due to power failure.

The proposed project design was a result of a feasibility study, a public outreach and participation program and close collaboration with the New York State Historic Preservation Office (SHPO). Archeology surveys were completed to ensure the preservation of archeology features below the ground surface of the proposed site. The results of the survey were documented and provided to SHPO.

The proposed Project site is located just to the south of the existing facility (**Figure 3**). This location would share access and parking currently used for the existing pump station and Riverside Park. The permanent entrance and driveway to the pump station would be off of North Ferry Street (See **Figures 4a and 4b**).

The Project will include the construction of an improved wastewater pump station. The new pump station will withstand flooding and continue to operate in future storm events improving the reliability and resiliency of the City of Schenectady's wastewater facilities. The Project site would allow for the reconnection of the gravity influent lines for the sewersheds served by the existing pump station.

The proposed pump station is being designed with additional controls which would enable the City to convey flows through the existing interceptor sewer along Front Street which would allow for maximum flexibility for the long-term operations and maintenance of the system. Parking and access would remain unchanged from the existing facility.

This project, when integrated with other system improvements, will serve to reduce flooding and improve street drainage throughout the City thereby providing protection to City residences and businesses.

The proposed project includes building and landscape architect designs matched to the character of the historic neighborhood. The proposed pump station has been uniquely coupled to final station layout because of existing site constraints and infrastructure interface requirements, which impact both building and site layouts, and project constructability. The most critical site constraint is accommodating access to the final finished floor elevation of the pump station. Interconnection of the new pump station to the gravity lines serving the existing North Ferry Street Pump Station, drainage and neighborhood aesthetics were a driving factors in the final design.

The proposed project has been designed to accommodate the flood elevation and maintain the character of Riverfront Overlook and bike path along the river.

The Project would disturb less than 0.5 acres of land. Construction of the Project could require dewatering during excavation. The construction of the wet well would require excavation to approximately 31 feet below the existing surface (See **Figures 4a and 4b**).

Natural gas service would be extended to the pump station site for connection to gas-fired heating equipment within the building. Two separate independent sources of electrical power would be provided to the pump station. The primary source would be commercial power from either a utility substation or transmission grid. The standby power source would be from an on-site, diesel-fueled, engine generator connected to the utility distribution grid. The diesel generator would have an integral double-contained, 2500-gallon AST, above-ground fuel tank.

No land acquisition is anticipated.

Once the new pump station is operational the City plans to remove the existing North Street Pump Station from service and repurpose the historic building.

Statement of Purpose and Need for the Proposal [40 CFR 1508.9(b)]:

In June 2013, Governor Andrew Cuomo set out to centralize recovery and rebuilding efforts in impacted areas of New York State. Although Schenectady County was not affected by Hurricane Sandy, this storm was the catalyst for the allocation of disaster relief funds under the Community Development Block Grant – Disaster Recovery (CDBG-DR) award. These funds are being used to assist not only counties that were devastated by Hurricane Sandy, but also counties like Schenectady County that were severely impacted by Hurricane Irene and Tropical Storm Lee in 2011. The Governor's Office of Storm Recovery (GOSR) was established to administer the award funds, address communities' most urgent needs, and encourage the identification of innovative and enduring solutions to strengthen the State's infrastructure and critical systems. Operating under the umbrella of New York State Homes and Community Renewal (HCR), GOSR uses approximately $3.8 billion in flexible funding made available by the US Department of Housing and Urban Development's (HUD's) CDBG-DR program to concentrate aid to four

main areas: housing recovery, small business, community reconstruction, and infrastructure. Paired with additional federal funding that was awarded to other State agencies, the CDBG-DR program is enabling homeowners, small businesses and entire communities to build back and better prepare for future extreme weather events.

During the 2011 flooding caused by Hurricane Irene, the pump station, including its electrical systems, control systems, and emergency generator suffered water damage. The facility did not operate for approximately 24 hours.

The Proposed Project would improve septic and wastewater infrastructure to reduce flood damage and risk of pollution. The proposed project would increase reliability and the resiliency of the City of Schenectady's wastewater facilities. Should the pump station fail during a flood, the City would not be able to pump wastewater and raw sewage would be released to the neighborhood and Mohawk River, in violation of the State Pollution Discharge Elimination System (SPDES) discharge permit. The proposed project would help to avoid such a situation.

The proposed project is consistent with the objectives outlined in the City of Schenectady Comprehensive Plan 2020. Objectives in the plan include providing well-maintained 21st century municipal infrastructure with safe waste management, developing a plan to address flooding issues citywide, and protecting and promoting historic resources.

In addition to providing storm resiliency, the proposed project will bring the pumping station into to compliance with New York State Department of Environmental Conservation (NYSDEC) sanitary sewer overflow (SSO) discharge requirements. The City of Schenectady has entered an Order on Consent to eliminate an existing SSO which discharges into the Mohawk River, approximately 3,375 linear feet downstream of the pump station at the east end of the historic stockade district. As part of a City-Wide Wastewater Master Plan, the City has determined that the existing function and performance of the North Ferry Street Pump Station must be re-defined and upgraded in order to beset meet the City's needs and obligations under the Order on Consent.

Existing Conditions and Trends [24 CFR 58.40(a)]:
Schenectady was first settled in 1661 when the area was part of the Dutch colony of New Netherland. It was chartered as a city in 1798. Population growth in the City of Schenectady is lower than the New York State average. Between 1990 and 2010, the City of Schenectady experienced slow growth (less than 1.0%). During the same period, the State of New York experienced a 7.7% increase in population. Between 2000 and 2010, the City of Schenectady had a 1.4% increase in the number of households. There is an increasing number of small households which indicate a trend toward more single person and single parent households.

The City of Schenectady's sanitary sewer system covers virtually the entire city with the exception of a few residential homes that utilize individual septic systems at the outer edges of the Woodlawn neighborhood. The City's sewer treatment plant was completed in 1973. It is located along the Mohawk River, near the City's border with the Town of Niskayuna and was impacted by Hurricane Irene. The North Ferry Street Pump Station is a critical component of the

City's sewer system. Schenectady's wastewater system, including the North Ferry Street Pump Station were inundated including the control and electrical systems as well as the emergency generator.

The City has entered into an Order on Consent to eliminate an existing sewer overflow which discharges into the Mohawk River. As part of a City-Wide Wastewater Master Plan, in addition, to addressing the flooding problem, the City has determined the existing function and performance of the North Ferry Street Pump Station must be upgraded in order to best meet the City's needs and obligations under the Order on Consent.

Standard Conditions for All Projects

Any change to the approved scope of work will require re-evaluation by the Certifying Officer for compliance with NEPA and other laws and Executive Orders.

This review does not address all federal, state and local requirements. Acceptance of federal funding requires the recipient to comply with all federal state and local laws. Failure to obtain all appropriate federal, state and local environmental permits and clearances may jeopardize federal funding.

Funding Information

Estimated Total HUD Funded Amount:
$3,149,999

Estimated Total Project Cost (HUD and non-HUD funds) [24 CFR 58.32(d)]**:**
$6,399,999

Figure 1 – Site Location Map

Figure 2 – Project Area Map

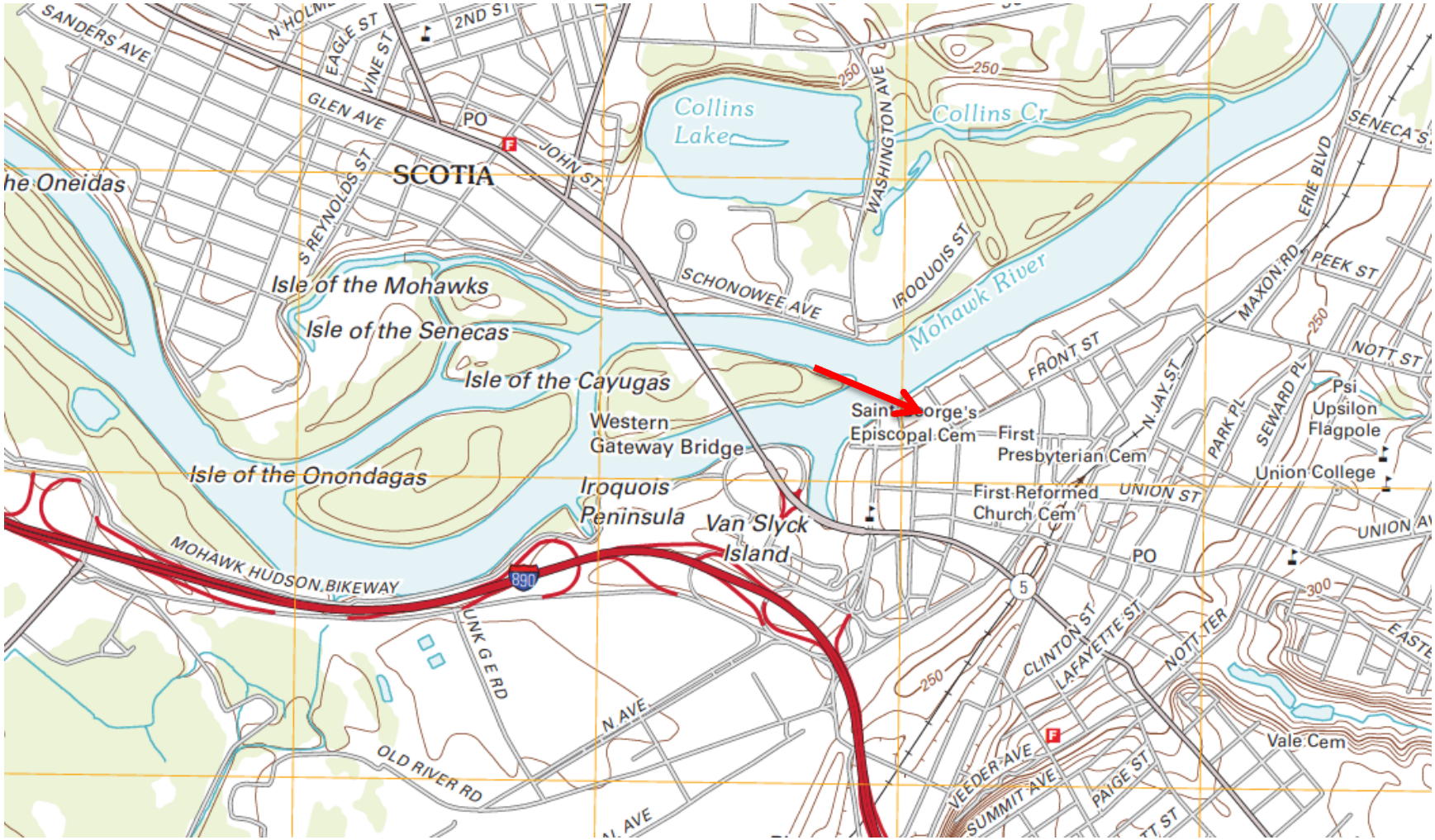


Figure 3 – Topographic Map

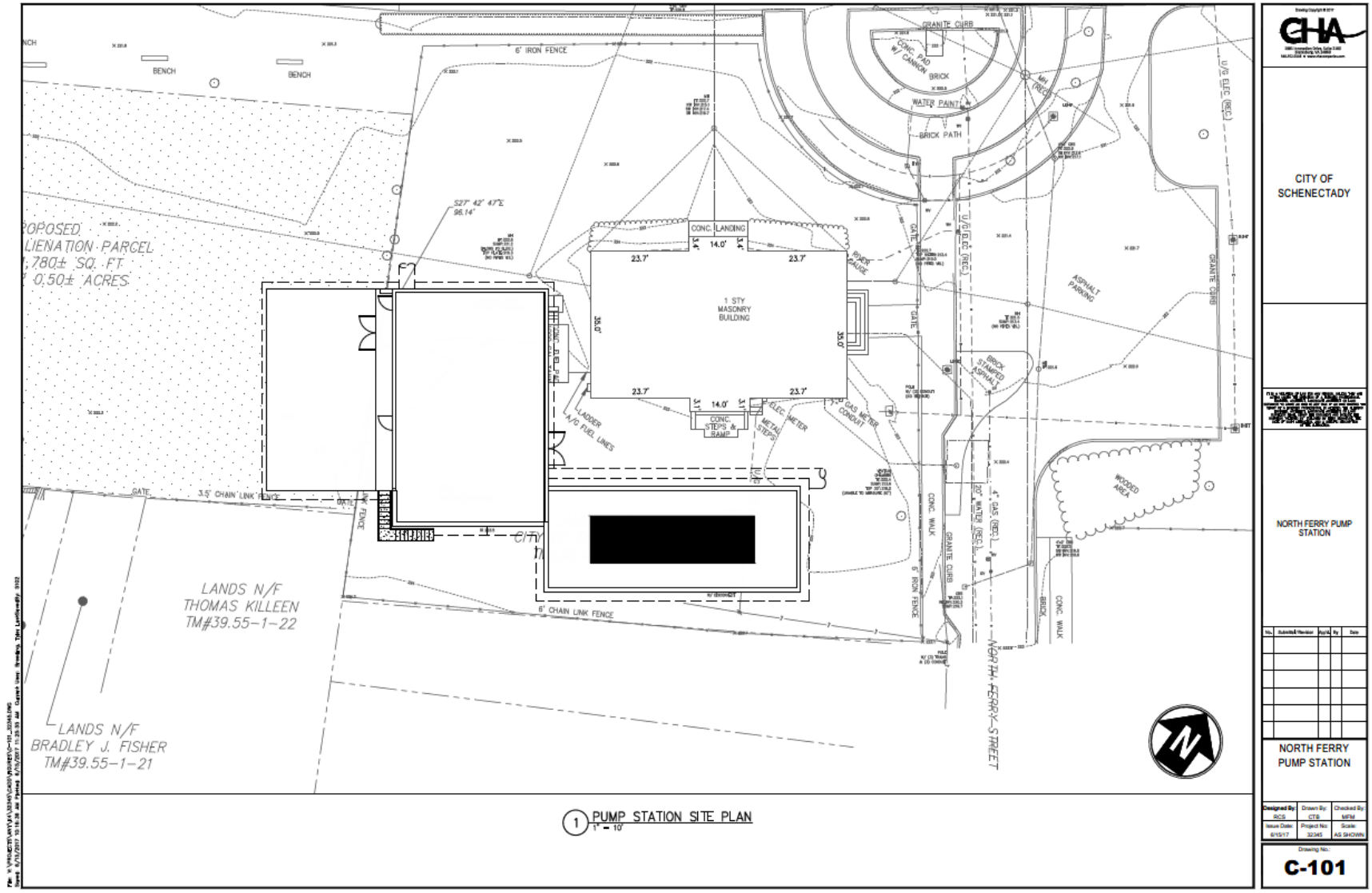


Figure 4a: Proposed Site Plan

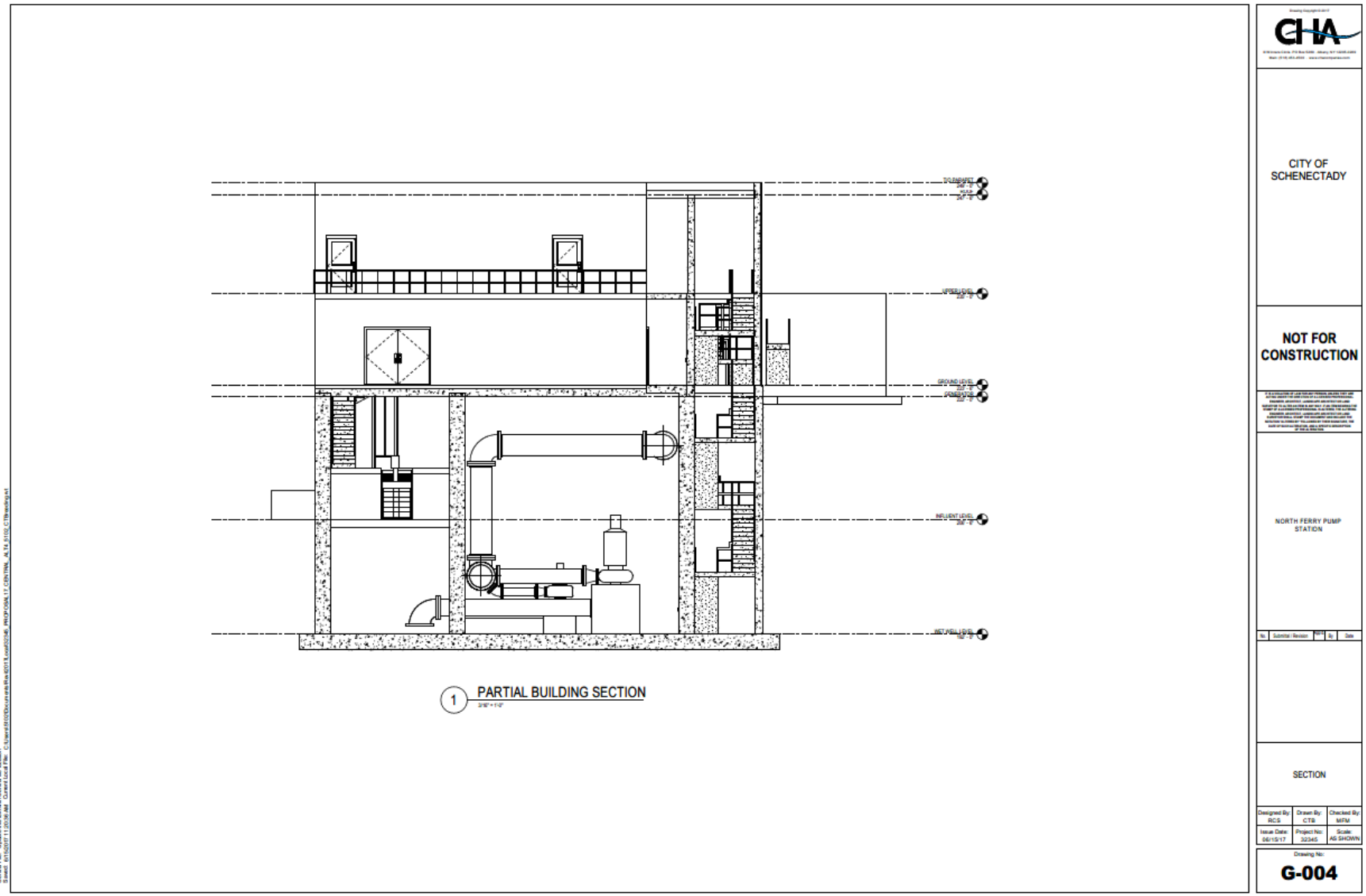


Figure 4b. Proposed Elevation Plan. Side View

Compliance with 24 CFR 58.5 and 58.6 Laws and Authorities

Record below the compliance or conformance determinations for each statute, executive order, or regulation. Provide credible, traceable, and supportive source documentation for each authority. Where applicable, complete the necessary reviews or consultations and obtain or note applicable permits of approvals. Clearly note citations, dates/names/titles of contacts, and page references. Attach additional documentation as appropriate.

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 58.6		
Airport Hazards 24 CFR Part 51 Subpart D	Yes ☐ No ☒	Based on HUD guidance in Fact Sheet #D1, the National Plan of Integrated Airport Systems (NPIAS) was reviewed for civilian, commercial service airports near the Project site, as projects within 2,500 feet of a civil airport require consultation with the appropriate civil airport operator. There are no civilian, public-use airports within 2,500 feet of the Project site. There are no military airports are within 15,000 feet of the Project site. **Source: 3, 4**
Coastal Barrier Resources Coastal Barrier Resources Act, as amended by the Coastal Barrier Improvement Act of 1990 [16 USC 3501]	Yes ☐ No ☒	The Project site is not in a Coastal Barrier Resources Area as defined by the state's Coastal Zone Management Program. **Source: 5**
Flood Insurance Flood Disaster Protection Act of 1973 and National Flood Insurance Reform Act of 1994 [42 USC 4001-4128 and 42 USC 5154a]	Yes ☒ No ☐	The Project site is located within the 100-year Special Flood Hazard Area (SFHA) Zone A, as shown on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Community Panel Number 36093C0154D, dated January 8, 2014. (See **Appendix B**). All insurable

		structures will require flood insurance.
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 58.5		
Clean Air Clean Air Act, as amended, particularly section 176(c) & (d); 40 CFR Parts 6, 51, 93	Yes ☐ No ☒	Schenectady County is not within the most recent Nonattainment Areas for Criteria Pollutants as defined by the EPA's Green Book for Nonattainment Areas for Criteria Pollutants. The Proposed Project involves the design, permitting, and construction of a new pump station on a property adjacent to the existing pump station. The proposed emergency generator is subject to the stationary Reciprocating Internal Combustion Engine (RICE) Maximum Achievable Control Technology (MACT) regulations at 40 CFR 63 ZZZZ that govern emission limits and compliance requirements for existing and new stationary RICE. Any new compression ignition generator must comply with 40 CFR 60, Subpart IIII, and any new spark ignition generator must comply with 40 CFR 60, Subpart JJJJ. Compliance will be demonstrated by purchasing a generator certified to the limits in these regulations. As the emergency generator does not require a New York State Department of Environmental Conservation (NYSDEC) permit or registration, is not located at a major source of hazardous air pollutant emissions, and is not intended for use in demand response programs, the proposed Project will not exceed conformity thresholds, does not require notification, and will likely not result in direct or indirect adverse impacts to air quality. Therefore, the conformity determination requirements do not apply to the proposed Project. Construction activities as a result of the Proposed Project may result in temporary

		increases in emissions from on-site equipment, construction-related vehicles and non-road engines, and fugitive dust. Air quality impacts will be short term and localized during construction. Implementation of standard best management practices (BMPs) will control dust and other emissions during construction. No significant adverse impacts to air quality are anticipated. Air quality impacts will be short term and localized during construction, so no significant adverse impacts to air quality are anticipated. **Source: 6, 7**
Coastal Zone Management Coastal Zone Management Act, sections 307(c) & (d)	Yes ☐ No ☒	The Project site is not in a coastal zone as defined by the state's Coastal Zone Management Program or a Local Waterfront Revitalization Program. **Source: 5**
Contamination and Toxic Substances 24 CFR Part 50.3(i) & 58.5(i)(2)	Yes ☒ No ☐	The project site is not listed on a U.S. Environmental Protection Agency (EPA) Superfund National Priorities or CERCLA List, or equivalent State list, is not located within 3,000 feet of a toxic or solid waste landfill site, and is not known or suspected to be contaminated by toxic chemicals or radioactive materials. (See **Appendix A**) No underground storage tanks (USTs) are present on the property. A search of the NYSDEC Bulk Storage Program Database identified two nearest sites with USTs just over 1000 feet to the southeast and to the south. Both sites were listed as having closed/removed Fuel oil #2 storage tanks (See **Appendix A**). No new populations will reside at the proposed pump station. The Project will not expose new populations

		to hazards associated with contamination or toxic materials. A search of the NYSDEC Remedial Site Database, containing records of the sites being addressed under one of DER's remedial programs (State Superfund, Brownfield Cleanup, Environmental Restoration and Voluntary Cleanup, the Registry of Inactive Hazardous Waste Disposal Sites, and Institutional and Engineering Controls), identified several sites within one mile of the Project site (See **Appendix A**). The Project site was not identified in NYSDEC Remedial Site Database. The nearest remedial site is Sav-Mor Cleaners (Site Code: 447051), a State Superfund Program located approximately 1,400 feet south of the Site. It's classified as Code P. Code P sites may have contamination that makes it eligible for consideration for placement on the Registry of Inactive Hazardous Waste Disposal. The Project will not result in the exposure of people or sensitive environmental resources to the facilities identified in these databases. **Asbestos-Containing Material (ACM), Lead-Based Paint (LBP), and Polychlorinated Biphenyls (PCBs)** The existing pump station fire is historic and would not be demolished but repurposed. Eventual use of the existing pump station has not been determined and is not part of this environmental report. The existing pump station may have ACM, LBP, or PCBs. An assessment of the existing building would be conducted before construction activities. **Radon**

		According to the EPA, the Project site is in Radon Zone 2, where the predicted average indoor radon screening level is between 2 and 4 picoCuries per liter (pCi/L). Radon testing would be completed to determine if mitigation is necessary. **Source: 8, 9, 10**
Endangered Species Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402	Yes ☐ No ☒	There is one federally listed threatened or endangered species, northern long-eared bat (NLEB), known to occur in Schenectady County. On July 1, 2018, GOSR consulted with the US Fish and Wildlife Service (USFWS) on the Proposed Project. Project activities include the removal of five trees. The Project site is not within five miles of NLEB hibernacula or known maternity colonies. As such, GOSR determines that this project may affect but is not likely to adversely affect the NLEB and would not jeopardize the continued existence of ESA species or destroy or adversely modify their critical habitat. In response to a June 1, 2017 New York Natural Heritage Program (NYNHP) inquiry regarding potential rare or state-listed animals or plants near the Project site, the NYNHP stated that there are no records of concern for rare or state-listed animals or plants, or significant natural communities at the Project site. The NHP stated that there was a documented bald eagle nest within 2/3 miles of the project site. The project will not GOSR requested concurrence from USFWS within 30 days of the consultation, adding that USFWS's concurrence would be presumed if no response was received. As of this date, no response has been received, and concurrence is presumed. No impact to endangered or threatened

		species is anticipated from the Project. (See **Appendix C**)
Explosive and Flammable Hazards 24 CFR Part 51 Subpart C	Yes ☐ No ☒	HUD-assisted projects must be located at an Acceptable Separation Distance (ASD) from stationary hazardous operations that store, handle or process chemicals or petrochemicals of an explosive or flammable nature. These tanks include: • Aboveground storage tanks (ASTs) that store flammable or explosive gasses (such as propane) within a 1,000-foot radius of the Project site; • ASTs exceeding 100 gallons that store flammable or explosive liquids within a 1,000-foot radius of the Project site; or • ASTs that exceed 20,000 gallons and are within 1 mile of the site. The Project includes an emergency generator with an integral double walled 2,500-gallon diesel fuel tank. While the tank would be within the ASD of the residences to the south, the generator/fuel tank would be housed within a concrete walled enclosure as a mitigation measure. The Project would not introduce new hazards, new housing, or new sensitive public use at the site that could expose the public to explosive or flammable hazards.
Farmlands Protection Farmland Protection Policy Act of 1981, particularly sections 1504(b) and 1541; 7 CFR Part 658	Yes ☐ No ☒	The Proposed Project would not cause disturbance to Prime, Unique, or Statewide Important Farmland and would not involve the conversion of farmland to non-agricultural use. Therefore, the proposed project would not violate the Farmland Protection Policy Act. **Source: 11**
Floodplain Management Executive Order 11988,	Yes ☒ No ☐	The Project site is located within the 100-year SFHA Zone A, as shown on the FEMA

particularly section 2(a); 24 CFR Part 55		FIRM Community Panel Number 36093C0154D, dated January 8, 2014. (See **Appendix B**). An Early Notice of Proposed Activity in a 100-Year Floodplain was published in *The Daily Gazette* on October 16, 2018. An 8-step floodplain analysis has been performed in compliance with Executive Order 11988 in accordance with HUD regulations at 24 CFR 55.20 to determine the potential effect that the Project will have on the 100-year floodplain. (See **Appendix B**). The Project site is an area previously disturbed by the construction and eventual demolition of a residential or commercial building between 1840 and 1915. The site was made level with construction debris and modern fill. The direct and indirect impacts associated with the proposed action within the floodplain would be limited to approximately 0.14 acre of new impermeable surface due to the new facility structure. The limited area of disturbance would not adversely affect the natural and beneficial values of the floodplain or lives and property. The new building would be a flood resistant structure. The existing pump station has been flooded in the past and was out of service for approximately 24 hours due to flooding from Hurricane Irene. The new pump station would be designed to withstand flooding of the interior up to an elevation of 235 feet (10 feet higher than the elevation of the existing pump station). Therefore, the Proposed Project would have a beneficial impact on floodplain management.
Historic Preservation National Historic Preservation	Yes ☐ No ☒	The Project Site is within both the Mohawk Valley Heritage Corridor and the Schenectady Heritage Area. The Project Site

Act of 1966, particularly sections 106 and 110; 36 CFR Part 800; Tribal notification for new ground disturbance.		is within the Stockade Historic District and the Enlarged Erie Barge Canal Nominated by NPS (2014). On November 14, 2016, GOSR requested consultation with the SHPO on the Project, including two potential locations. In a November 23, 2017 response, the SHPO recommended a Phase I Archaeological Survey be conducted for either of the sites ultimately chose. In addition, the SHPO stated that they preferred that the new pump station be located behind the existing historic facility, so it would not interfere with that building's historic character. Consultation with the Delaware Tribe of Indians, Mohawk Nation, St Regis Mohawk Tribe, and the Stockbridge-Munsee Community Band of the Mohicans was initiated on November 23, 2016. On December 14, 2016, the Delaware Tribe also requested a Phase I survey be conducted for the project site. No other responses were received. At the request of SHPO and the Delaware Tribe, a Phase I survey report of the area to the west of the existing facility was completed on June 21, 2017. A layer of historical fill was found that contained late nineteenth- to early twentieth-century domestic refuse. No archeological sites were identified (see **Appendix D**). Design consideration s and public input resulted in the selection of a new potential location for the proposed pump station adjacent to, and just to the south, of the existing pump stations. On October 31, 2017 letter GOSR requested SHPO consultation on the proposed new location. On November 8, 2017, the SHPO responded that a Phase I Archaeological

		Survey should be conducted for any areas subject to ground disturbance which had not been previously surveyed. A Phase I survey report of the area adjacent to the existing facility was completed in January 2018. The survey identified one historic archaeological resource (Van Eps Site). Avoidance of the resource not being possible a Phase II Archaeological Survey was recommended. A combined Phase I and Phase II survey report on the Van Eps Site was completed on July 30, 2018. The survey found four features which were excavated; a well, a backyard refuse deposit, a cistern, and water pump. A majority of the artifacts came from early 1900s depositions of fill. The report found that the Van Eps Site does not retain integrity nor does it contribute the National Register-listed Stockade Historic District. The Van Eps Site was recommended as not eligible for the NRHP. In a letter dated August 7, 2018, the SHPO concurred with the report and determined that the Van Eps Historic Archaeological Site is not eligible for the National Register of Historic Places. (See **Appendix D**) No response to the survey reports was received from the Delaware Tribe.
Noise Abatement and Control Noise Control Act of 1972, as amended by the Quiet Communities Act of 1978; 24 CFR Part 51 Subpart B	Yes ☐ No ☒	The Proposed Project involves the design, permitting, and construction of a new pump station on a property adjacent to the existing pump station. The Proposed Project is not a noise sensitive use, and furthermore, the policies of 24 CFR 51.101(a)(3) do not apply to any action or emergency assistance under disaster assistance provisions or appropriations which are provided to save lives and protect public health and safety.

		Construction of the Proposed Project would temporarily increase noise levels at nearby residences. These increases would be mitigated by implementing the Construction Impacts Conditions for Approval (see below under Mitigation Measures and Conditions), including outfitting of equipment with mufflers, and compliance with local noise ordinances including time-of-day work limitations. Following these temporary construction activities, noise levels would return to pre-construction levels and would not result in any significant increase in ambient noise levels.
Sole Source Aquifers Safe Drinking Water Act of 1974, as amended, particularly section 1424(e); 40 CFR Part 149	Yes ☐ No ☒	The Project area is within the bounds of the Schenectady-Niskayuna sole source aquifer. Consultation with the EPA was initiated on May 4, 2018. On May 15, 2018, the EPA concurred that the Project satisfies the requirements of the Safe Drinking Water Act and would not pose a significant threat to the Schenectady-Niskayuna SSA. (See **Appendix E**, Sole Source Aquifers)
Wetlands Protection Executive Order 11990, particularly sections 2 and 5	Yes ☐ No ☒	The site is not in a wetland. The site is adjacent to the Mohawk River, which is classified as an NWI wetland L1UBHh (lacustrine, limnetic, unconsolidated bottom, permanently flooded, diked/impounded). The proposed project is not located within 300 feet of a NYSDEC tidal wetland or 100 feet of a NYSDEC freshwater wetland. The Proposed Project would be conducted in compliance with Executive Order 11990. (See **Appendix F**)
Wild and Scenic Rivers Wild and Scenic Rivers Act of 1968, particularly section 7(b) and (c)	Yes ☐ No ☒	There are no state or federally designated wild and scenic rivers within Schenectady County, as designated by the U.S. Department of the Interior. There are no National Wild and Scenic Rivers in Schenectady County as designated by the

		National Wild and Scenic Rivers System. **Source: 12**
Environmental Justice Executive Order 12898	Yes ☐ No ☒	The Project site is not within a potential Environmental Justice (EJ) area, although there is one to the south and east of the project site, as defined by NYSDEC based on data from the 2010 U.S. Census (See **Appendix A**). The proposed Project will follow local ordinances, so no adverse impacts on the surrounding community are anticipated. The Project will not raise EJ issues and will have no potential for new or continued disproportionately high and adverse human health and environmental effects on minority or low-income populations.

Environmental Assessment Factors [24 CFR 58.40; Ref. 40 CFR 1508.8 &1508.27] Recorded below is the qualitative and quantitative significance of the effects of the proposal on the character, features and resources of the project area. Each factor has been evaluated and documented, as appropriate and in proportion to its relevance to the proposed action. Verifiable source documentation has been provided and described in support of each determination, as appropriate. Credible, traceable and supportive source documentation for each authority has been provided. Where applicable, the necessary reviews or consultations have been completed and applicable permits or approvals have been obtained or noted. Citations, dates/names/titles of contacts, and page references are clear. Additional documentation is attached, as appropriate. **All conditions, attenuation or mitigation measures have been clearly identified.**

Impact Codes: Use an impact code from the following list to make the determination of impact for each factor.
(1) Minor beneficial impact
(2) No impact anticipated
(3) Minor Adverse Impact – May require mitigation
(4) Significant or potentially significant impact requiring avoidance or modification which may require an Environmental Impact Statement

Environmental Assessment Factor	Impact Code	Impact Evaluation
LAND DEVELOPMENT		
Conformance with Plans / Compatible Land Use and Zoning / Scale and Urban Design	2	The proposed project would be consistent with the objectives outlined in the City of Schenectady Comprehensive Plan 2020. Objectives in the plan include providing well-maintained 21st century municipal infrastructure with safe waste management, developing a plan to address flooding issues citywide, and protecting and promoting historic resources (Schenectady Undated). The Proposed Project would maintain current land use and would therefore be compatible with existing land use. The Proposed Project would not result in the creation of new jobs and/or an increase in the number of employees at the pump station building, and therefore would not have an urbanizing effect. **Source: 13**
Soil Suitability/ Slope/ Erosion/ Drainage/ Storm Water Runoff	2	The proposed site would be adjacent to the site of the current pump station building; unsuitable soils are not anticipated. If unsuitable soils have caused structural problems for the existing on-site building, this would generally be addressed during the local permitting process. The proposed activities would not change the slope of the existing site.

Environmental Assessment Factor	Impact Code	Impact Evaluation
		During construction, best management practices would be used to avoid soil erosion. Five trees will need to be cleared for the construction of the proposed building. The site is adjacent to the Mohawk River, which is classified as an NWI wetland L1UBHh (lacustrine, limnetic, unconsolidated bottom, permanently flooded, diked/impounded). The proposed project is not located within 300 feet of a NYSDEC tidal wetland or 100 feet of a NYSDEC freshwater wetland. Stormwater protection measures would consider stormwater management. Construction and operation of the storm water control system and all Project construction will be in accordance with Section 402 of the Clean Water Act that requires authorization by a National Pollutant Discharge Elimination System (NPDES) permit or by a state permit program. New York's State Pollutant Discharge Elimination System (SPDES) is a NPDES-approved program. Coverage under the NYSDEC GP-15-002 permit would be obtained prior to the commencement of construction activity.
Hazards and Nuisances including Site Safety and Noise	2	The Proposed Project does not include any demolition of structures. Impacts such as fugitive dust would be addressed under existing regulations governing construction activity in New York State, Schenectady County, and local municipalities. According to the EPA, Schenectady County is located in Radon Zone 2, where the predicted average indoor radon screening level is between two and four picocuries per liter (pCi/L). Radon testing would be completed to determine if mitigation is necessary. The Project will generate noise during construction that will be minimized through compliance with local noise ordinances, including time-of-day work limitations. Exterior construction activities will take place during normal working hours and will employ commonly accepted engineering and administrative controls that will minimize noise impacts to neighbors.
Energy Consumption	2	The project site is adequately serviced with existing utilities. The Proposed Project would utilize energy consumption, including the use of fossil fuels, for use of construction equipment and the shipment of materials required for construction activities. However, the proposed project would not increase long-term energy consumption. The new pump station building would be more energy-efficient than the current station, due to incorporation of energy efficient

Environmental Assessment Factor	Impact Code	Impact Evaluation
		building materials and practices, resulting in a beneficial effect.
SOCIOECONOMIC		
Employment and Income Patterns	2	The Proposed Project would create temporary construction jobs. However, these jobs would not significantly increase employment opportunities or impact income patterns as the construction duration is expected to be less than 13 months. The proposed project would not result in the creation of new permanent jobs and/or result in an increase in the number of employees at the new pump station building and therefore would not impact employment and income patterns.
Demographic Character Changes, Displacement	2	The Proposed Project would not result in the creation of new jobs and/or result in an increase in the number of employees at the new pump station building and therefore would not alter the demographic characteristics of the surrounding community. The proposed project would not directly or indirectly displace people, businesses, institutions, or community facilities as it would occur on a site adjacent to the existing pump station building.
COMMUNITY FACILITIES AND SERVICES		
Educational and Cultural Facilities	2	Because the Project involves no changes in population, there would be no impact on demand for educational or cultural facilities.
Commercial Facilities	2	Because the Project involves no changes in population, there would be no impact on demand for commercial facilities.
Health Care and Social Services	2	Because the Project involves no changes in population, there would be no impact on demand for health care and social services.
Solid Waste Disposal / Recycling	2	Construction of the proposed building would result in the generation of waste, primarily paved asphalt, soil and packed gravel. The amount of solid waste generated from construction would not significantly increase short-term generation of municipal solid waste and would not increase long-term generation of municipal solid waste as the total acreage that would be disturbed to construct the proposed building would be 0.5 acres. All waste would be hauled off-site by the selected contractor and would be handled in accordance with the State's solid and

Environmental Assessment Factor	Impact Code	Impact Evaluation
		hazardous waste rules.
Waste Water / Sanitary Sewers	2	The Proposed Project is the construction of a new pump station building to be located adjacent to the existing pump station building. The new pump station would connect to the infrastructure at the current site.
Water Supply	2	The proposed project would not result in the creation of new jobs and/or result in an increase in the number of employees at the new pump station building and therefore would not increase demand on the water supply. The site of the existing building is serviced by public water and the capacity of the existing system is adequate to serve the proposed project.
Public Safety - Police, Fire and Emergency Medical	2	Because the Project involves no change in population, there would be no impact on demand for police, fire, or emergency medical services.
Parks, Open Space and Recreation	3	The Project location is in an area designated as public park. The taking of the parkland was authorized by the City of Schenectady per compliance with the Order on Consent regarding the function and performance of the North Ferry Street pump station. Because the Project involves no change in population, there would be no impact on demand for parks, open space, or other recreational facilities.
Transportation and Accessibility	2	Because the Project involves no change in population, there would be no impact on use of transportation infrastructure.
NATURAL FEATURES		
Unique Natural Features, Water Resources	2	There are no NYSDEC Unique Natural Features or Water Resources within the vicinity of the project site.
Vegetation, Wildlife	2	There is one federally listed threatened or endangered species, northern long-eared bat (NLEB), known to occur in Schenectady County (see **Appendix C**). On July 1, 2018, GOSR consulted with the US Fish and Wildlife Service (USFWS) on the Proposed Project. Project activities include the removal of five trees. The Project site is not within five miles of NLEB hibernacula or known maternity colonies. As such, GOSR determines that this project may affect but is not likely to adversely affect the NLEB and would not jeopardize the continued existence of ESA species or destroy or adversely modify their critical habitat.

Environmental Assessment Factor	Impact Code	Impact Evaluation
		GOSR requested concurrence from USFWS within 30 days of the consultation, adding that USFWS's concurrence would be presumed if no response was received. As of this date, no response has been received, and concurrence is presumed. No impact to endangered or threatened species is anticipated from the Project. (See **Appendix C**)
Other Factors	2	No additional factors would be impacted by the project, and no additional impacts would occur.

Additional Studies Performed:
Barton& Loguidice. North Ferry Street Sewage Pump Station Flood Mitigation Improvements. Completed for the City of Schenectady. Feasibility Study. March 2012. Revised October 2012.

Field Inspection (Date and completed by)**:**

List of Sources, Agencies and Persons Consulted [40 CFR 1508.9(b)]:
1. New York State. 2013. State of New York Action Plan for Community Development Block Grant Program Disaster Recovery (Action Plan, issued April 25, 2013, amended July 3, 2013) New York State. 2013.

2. New York Rising Community Reconstruction Program (NYRCRP). 2014. New York Rising Community Reconstruction Plan for the City of Schenectady and Town of Rotterdam. March 2014.

3. Federal Aviation Administration (FAA). http://www.faa.gov/airports/environmental/airport_noise/noise_exposure_maps/

4. FAA Runway Protection Zones. http://www.faa.gov/documentLibrary/media/Advisory_Circular/150-5300-13A-chg1-interactive.pdf and http://www.faa.gov/airports/runway_safety/diagrams/

5. New York State Department of Environmental Conservation (NYSDEC), Coastal Management. http://www.dec.ny.gov/lands/86541.html and http://www.dec.ny.gov/lands/86552.html

6. United States Environmental Protection Agency. Green Book Nonattainment Areas. Internet Website: https://www3.epa.gov/airquality/greenbk/ancl.html.

7. U.S. Environmental Protection Agency. 2016. Stationary Internal Combustion Engines. Internet Website: https://www3.epa.gov/ttn/atw/icengines/. Last updated on Wednesday, February 24, 2016.

8. New York State Department of Environmental Conservation Bulk Storage Database Search. Internet Website: http://www.dec.ny.gov/cfmx/extapps/derexternal/index.cfm?pageid=4.

9. New York State Department of Environmental Conservation Environmental Site Remediation Database Search. Internet Website: http://www.dec.ny.gov/cfmx/extapps/derexternal/index.cfm?pageid=3.

10. United States Department of Housing and Urban Development. Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing (2012 Edition). Internet Website: http://portal.hud.gov/hudportal/HUD?src=/program_offices/healthy_homes/lbp/hudguidelines.

11. United States Department of Agriculture. Natural Resources Conservation Service. Internet Website: http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx.

12. National Park Service (NPS). 2011. Nationwide Rivers Inventory. Available at http://www.nps.gov/ncrc/programs/rtca/nri/index.html. Accessed October 10, 2018.

13. City of Schenectady (Schenectady). Undated. City of Schenectady Comprehensive Plan 2020. Reinventing the City of Invention.

14. CDM Smith. Engineers Report. Sanitary Sewer Overflow Mitigation Plan. City of Schenectady, NY. April 2015.

15. CHA. North Ferry Street Pump Station Project. Advisory Committee Workshop. November 29, 2016.

16. CHA. North Ferry Street Pump Station Project. Advisory Committee Workshop No. 3. January 30, 2017.

17. NYSDEC Letter Agreement to Order on Consent. To Paul J. LaFond, Commission of General Services, City of Schenectady. From Stephen Repsher, Assistant Regional Attorney. October 25, 2017.

18. NYSDEC Order on Consent (R4-2012-1218-117). In the Matter of Violations of the Environmental Conservation Law Article 17 and Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6 NYCRR). By City of Schenectady Respondent. May 15, 2014.

List of Appendices

Appendix A Figures

Appendix B Floodplains

Appendix C USFWS, NYSDEC, and NYNHP Correspondence

Appendix D SHPO and Tribal Correspondence

Appendix E Sole Source Aquifer

Appendix F Wetlands

List of Permits Obtained or Required:

- NYSDEC SPDES Permit for Construction
- City of Schenectady Building Permit

List of Other Approvals Obtained or Required:

- State Environmental Quality Review Act (SEQRA) Type II evaluation.

List of Environmental Inspections Required:

- Asbestos, Lead Based paint, and PCBs in existing facility before any renovation
- Radon testing will be required to determine if further mitigation is necessary.

Public Outreach [24 CFR 50.23 & 58.43]**:**
On November 17, 2018, a combined Notice of Finding of No Significant Impact and Intent to Request Release of Funds was published in *The Daily Gazette.* Any individual, group, or agency may submit written comments on the Environmental Review Record to:

Lori A. Shirley, GOSR, HCR
38-40 State Street
Albany, NY 12207
(518) 474-0755
NYSCDBG_DR_ER@nyshcr.org

Cumulative Impact Analysis [24 CFR 58.32]**:**
The Project is not expected to trigger cumulative impacts, including the degradation of important natural resources, socioeconomic resources, human health, recreation, quality of life issues, and cultural and historic resources. The Project is not of a scale large enough to contribute significantly to cumulative impacts. The Project is a replacement of existing services. It will create positive impacts, as it will provide the services resilient to flooding from future storm events.

Alternatives [24 CFR 58.40(e); 40 CFR 1508.9]

Proposed Project. As fully described in this Environmental Assessment, the Project will involve constructing a replacement sewer pump station adjacent to the existing pump station on North Ferry Street in the City of Schenectady, New York.

Alternatives. Due to the alignment of the existing sewer main, the range of locations for the replacement pump station was limited to locations along the sewer main. One location

considered was to the east of the existing pump station across North Ferry Street. The other locations were to the west behind the existing pump station.

No Action Alternative [24 CFR 58.40(e)]:
In the absence of the Proposed Project (the No Action Alternative), the existing pump station would remain vulnerable to damage during flooding events, potentially leading to more service interruptions. Additionally, the pumping station would remain out of compliance with NYSDEC SSO discharge requirements and in violation of Consent Order R44-2012-1218-117.

Summary of Findings and Conclusions:

The Proposed Project would involve construction of a new pump station building, which would be designed to withstand flooding of the interior up to an elevation of 235 feet. The new building would be constructed near the existing building. No adverse environmental impacts are expected to occur. The Project will comply with all relevant regulations listed in 24 CFR subparts 58.5 and 58.6.

Mitigation Measures and Conditions [40 CFR 1505.2(c)]

GOSR has summarized below all mitigation measures adopted by the Responsible Entity to reduce, avoid, or eliminate adverse environmental impacts and to avoid non-compliance or non-conformance with the above-listed authorities and factors. These measures or conditions must be incorporated into project contracts, development agreements, and other relevant documents. The staff responsible for implementing and monitoring mitigation measures should be clearly identified in the mitigation plan.

Law, Authority, or Factor	Mitigation Measure
Clean Air Act	All Project activities will comply with applicable federal, state, and local laws and regulations regarding construction emissions, including but not limited to NYCRR, NYSDEC Air Quality Management Plan, and the New York SIP. All necessary measures will be used to minimize fugitive dust emissions during construction activities. The preferred method for dust suppression is water sprinkling.
Clean Air Act	The proposed emergency generator is subject to the stationary RICE MACT regulations at 40 CFR 63 ZZZZ that govern emission limits and compliance requirements for existing and new stationary RICE. Any new compression ignition generator must comply with 40 CFR 60, Subpart IIII, and any new spark ignition

Law, Authority, or Factor	Mitigation Measure
	generator must comply with 40 CFR 60, Subpart JJJJ. Compliance will be demonstrated by purchasing generators certified to the limits in these regulations.
Contamination and Toxic Substances	If radon testing shows levels high enough that mitigation is necessary, a radon barrier system will be considered to prevent radon gas penetration into the new pump station structure.
Contamination and Toxic Substances	All Project-related solid waste generated during demolition and construction will be managed and transported in accordance with the NYS solid and hazardous waste rules.
Conformance with NYS Department of Environmental Conservation State Pollution Discharge Elimination System General Permit for Stormwater Discharges from Construction Activity GP-0-15-002	A stormwater management system will be designed in compliance with the requirements of the NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity GP-0-15-002 to address the stormwater from the Project site. BMPs, such as silt fence and erosion prevention, will be implemented, if required by permits or agency discretion.

Determination:

☒ **Finding of No Significant Impact** [24 CFR 58.40(g)(1); 40 CFR 1508.27]
The project will not result in a significant impact on the quality of the human environment.

☐ **Finding of Significant Impact** [24 CFR 58.40(g)(2); 40 CFR 1508.27]
The project may significantly affect the quality of the human environment.

Preparer Signature: _____ Date: November 17, 2018

Name/Title/Organization: Cliff Jarman, Senior Environmental Scientist. Tetra Tech, Inc.

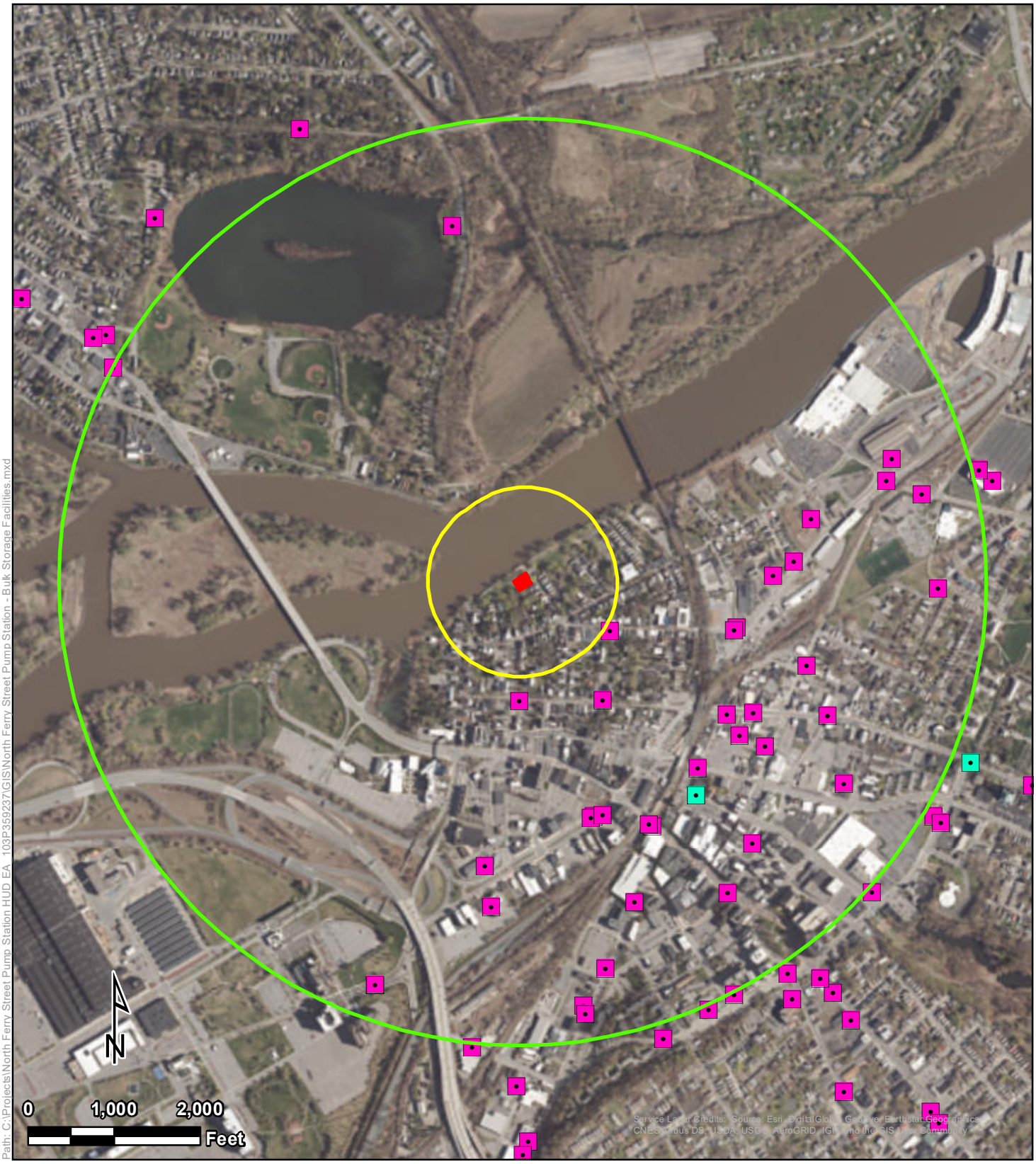
_____

Certifying Officer Signature: _____ Date: November 17, 2018

Name/Title: Lori A. Shirley, Director, Bureau of Environmental Review and Assessment, Governor's Office of Storm Recovery

This original, signed document and related supporting material must be retained on file by the Responsible Entity in an Environmental Review Record (ERR) for the activity/project (ref: 24 CFR Part 58.38) and in accordance with recordkeeping requirements for the HUD program(s).

Appendix A – Figures



Path: C:\Projects\North Ferry Street Pump Station HUD EA_103P359237\GIS\North Ferry Street Pump Station - Bulk Storage Facilities.mxd

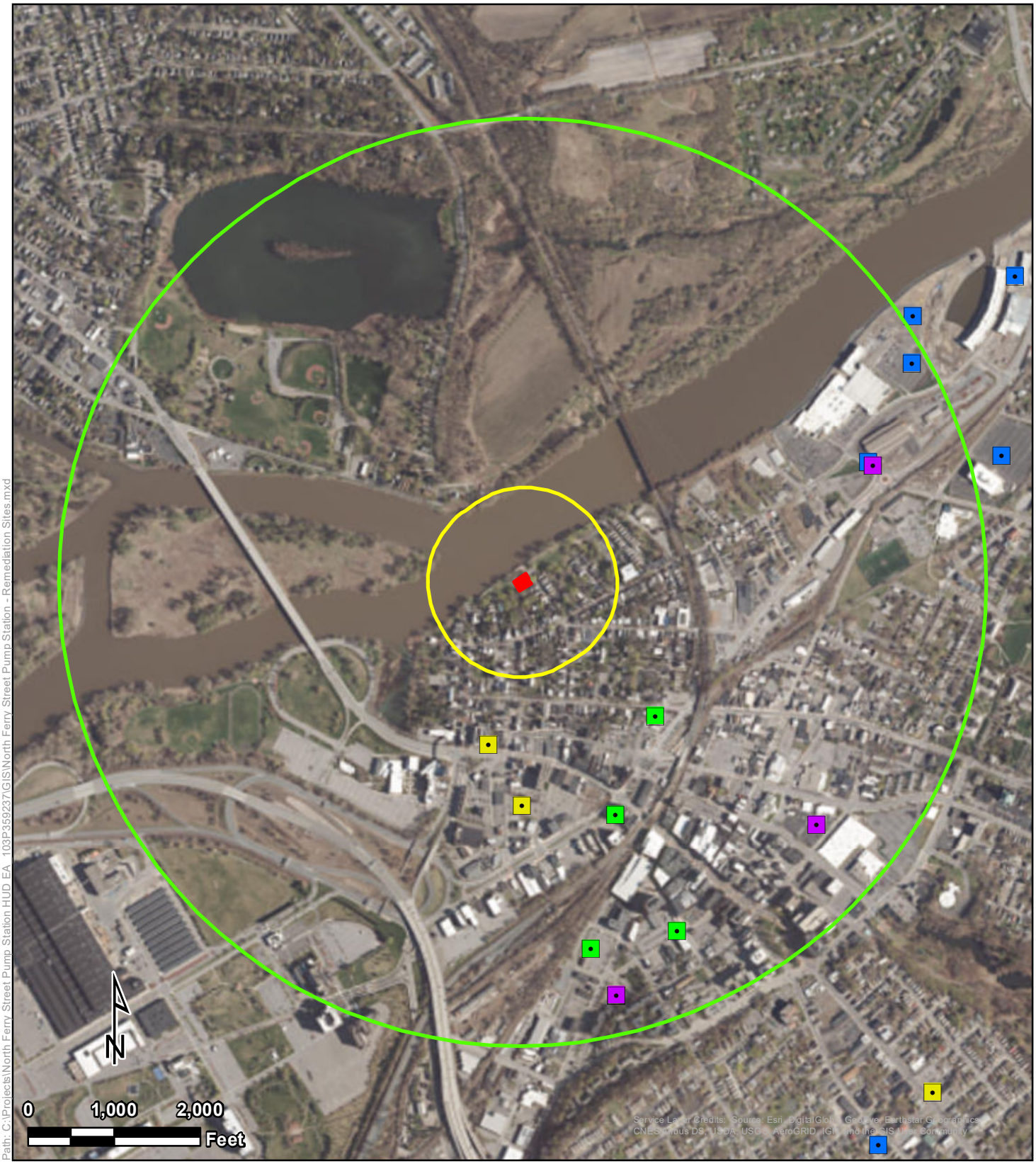
Legend

- Chemical Bulk Storage
- Petroleum Bulk Storage
- Major Oil Storage Facility
- Project Area
- 1,000-Foot Project Site Buffer
- One Mile Project Site Buffer

Bulk Storage Facilities

123 North Ferry Street
City of Schenectady,
Schenectady County, New York

Tetra Tech, Inc



Path: C:\Projects\North Ferry Street Pump Station HUD EA_103P365237\GIS\North Ferry Street Pump Station - Remediation Sites.mxd

Legend

- Brownfield Cleanup Program
- Environmental Restoration Program
- State Superfund Program
- Voluntary Cleanup Program
- Project Area
- 1,000-Foot Project Site Buffer
- One Mile Project Site Buffer

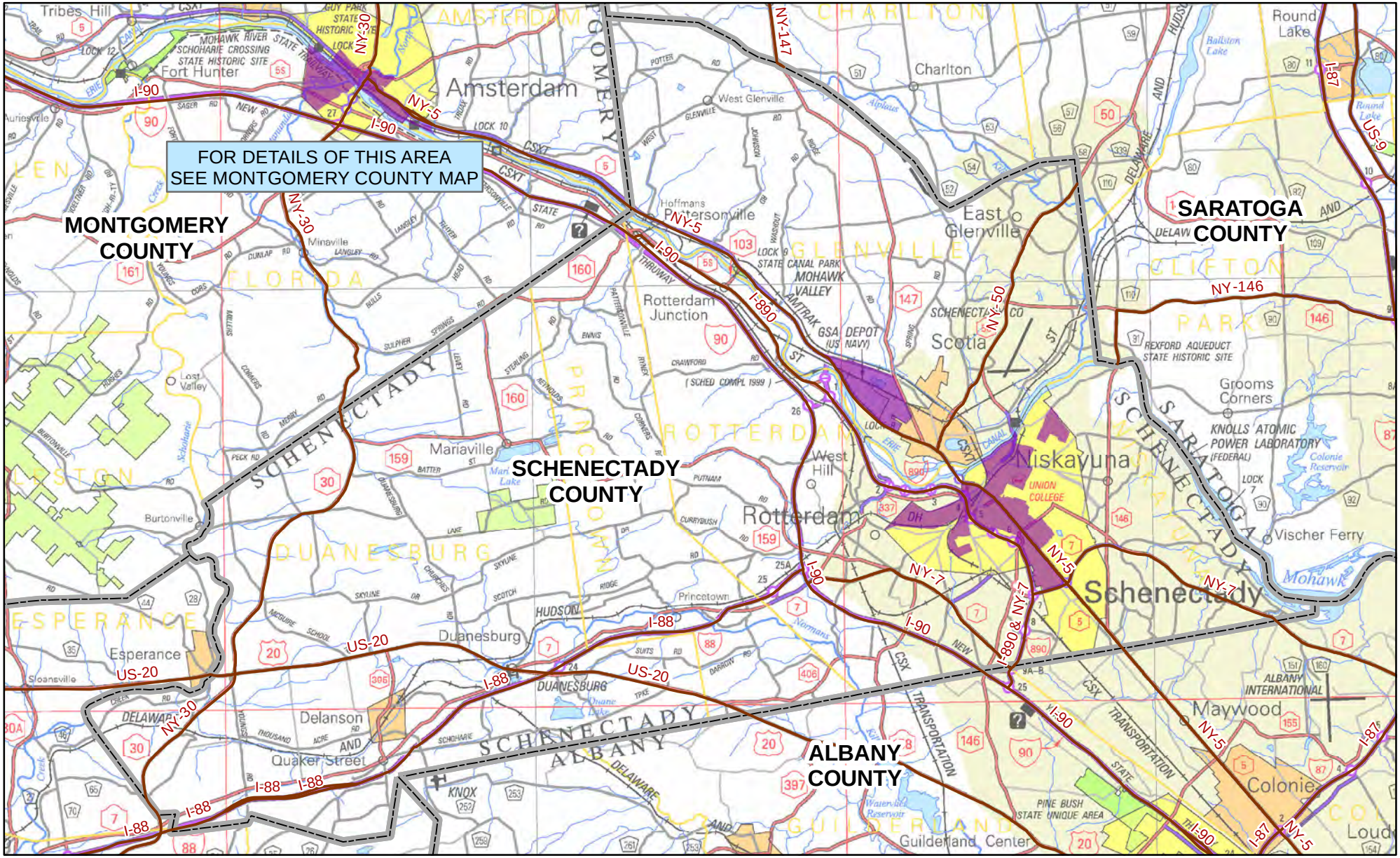
Remediation Sites

123 North Ferry Street
City of Schenectady,
Schenectady County, New York

Tetra Tech, Inc

Potential Environmental Justice Areas in Schenectady County, New York

Click on any Potential EJ Area outlined in blue for a detailed map



N

This computer representation has been compiled from supplied data or information that has not been verified by EPA or NYSDEC. The data is offered here as a general representation only and is not to be used for commercial purposes without verification by an independent professional qualified to verify such data or information.

Neither EPA nor NYSDEC guarantee the accuracy, completeness, or timeliness of the information shown and shall not be liable for any loss or injury resulting from reliance.

Data Source for Potential Environmental Justice Areas:
U.S. Census Bureau, 2000 U.S. Census

Legend

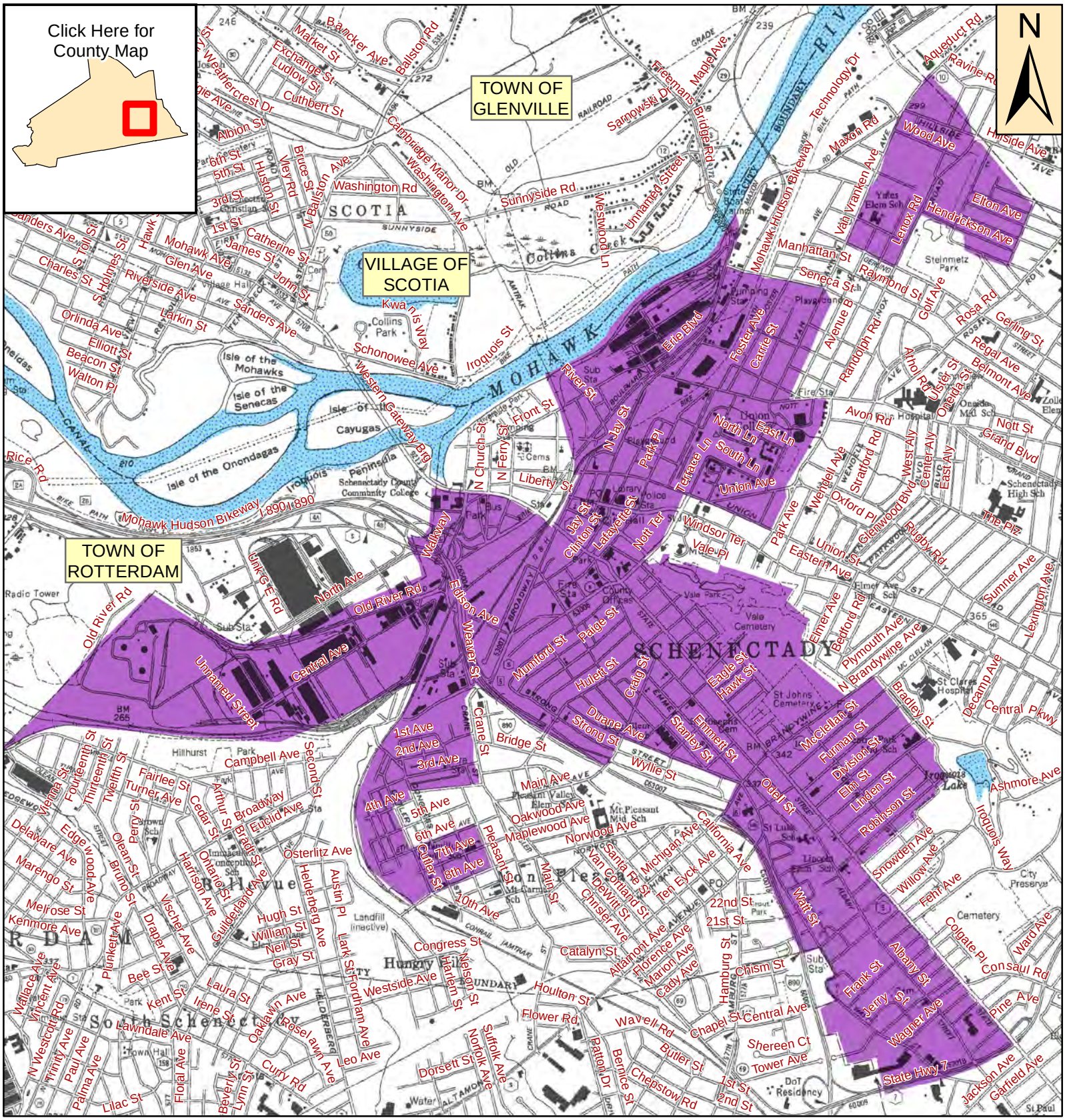
Potential EJ Area

County Boundary

Miles
0 1 2 3 4 5
SCALE:1:175,000

For questions about this map contact:
New York State Department of Environmental Conservation
Office of Environmental Justice
625 Broadway, 14th Floor
Albany, New York 12233-1500
(518) 402-8556
ej@gw.dec.state.ny.us

Potential Environmental Justice Areas in the City of Schenectady
Schenectady County, New York



This computer representation has been compiled from supplied data or information that has not been verified by EPA or NYSDEC. The data is offered here as a general representation only and is not to be used for commercial purposes without verification by an independent professional qualified to verify such data or information.

Neither EPA nor NYSDEC guarantee the accuracy, completeness, or timeliness of the information shown and shall not be liable for any loss or injury resulting from reliance.

Data Source for Potential Environmental Justice Areas:
U.S. Census Bureau, 2000 U.S. Census

For questions about this map contact:
New York State Department of Environmental Conservation
Office of Environmental Justice
625 Broadway, 14th Floor
Albany, New York 12233-1500
(518) 402-8556
ej@gw.dec.state.ny.us

Appendix B – Floodplains

Path: C:\Projects\North Ferry Street Pump Station HUD EA 103P359237\GIS\North Ferry Street Pump Station - Flood Zones.mxd

Flood Zones

123 North Ferry Street
City of Schenectady,
Schenectady County, New York

Legend

Project Area

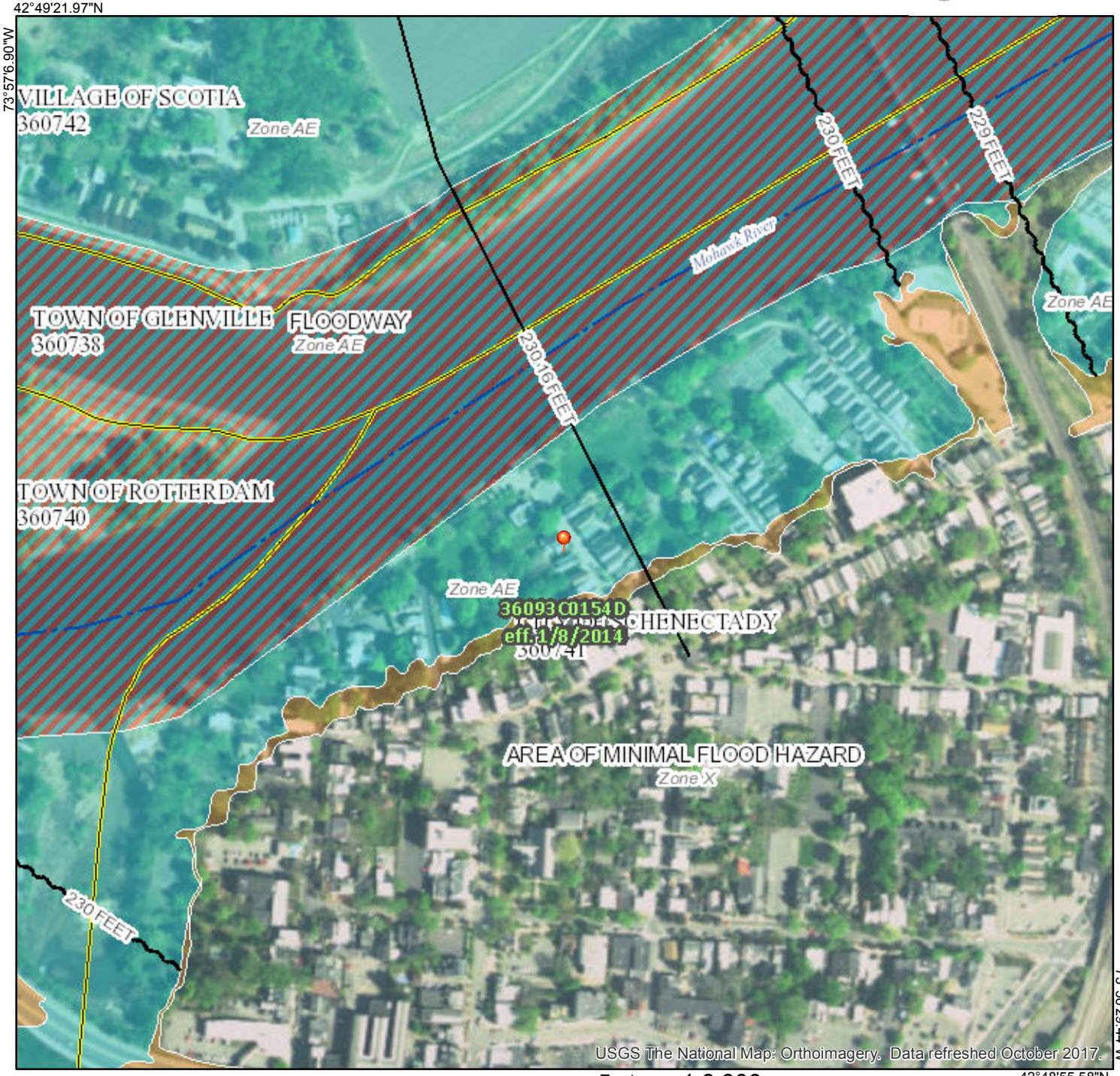
Flood Zones

- Zone AE- within the 1% annual chance flood
- Zone AE- floodway
- Zone X-within the 0.2% annual chance of flood
- Zone X- areas determined to be outside

Tetra Tech, Inc

National Flood Hazard Layer FIRMette

FEMA



0 250 500 1,000 1,500 2,000 Feet

1:6,000

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
- Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 10/7/2018 at 8:52:46 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

SUMMARY OF THE 8-STEP FLOODPLAIN ANALYSIS FOR NORTH FERRY STREET PUMP RELOCATION CITY OF SCHENECTADY, SCHENECTADY COUNTY, NEW YORK

Governor's Office of Storm Recovery
U.S. Department of Housing and Urban Development Community Development Block Grant – Disaster Recovery

Below is a summary of the analysis conducted in accordance with 24 CFR Part 55 (Floodplain Management and Protection of Wetlands) and Executive Orders 11988 (Floodplain Management).

The Project entails the construction of a new wastewater pump station just to the south of the existing pump station at 123 North Ferry Street in Schenectady (**Figure 1**). The new pump station would withstand flooding and continue to operate in future storm events improving the reliability and resiliency of the City of Schenectady's wastewater facilities. The Project site would allow for the reconnection of the gravity influent lines for the sewersheds served by the existing pump station. The Project would disturb less than 0.5 acres of land. Construction of the Project could require dewatering during excavation. The construction of the wet well would require excavation to approximately 31 feet below the existing surface. Existing utilities will be used for the new facility. A diesel generator, with an integral double-contained, 2500-gallon above-ground fuel tank would provide emergency power. Once the new pump station is operational the City plans to remove the existing North Street Pump Station from service and repurpose the historic building.

Step 1: Determine if the proposed action is in a 100-year floodplain.

All of the project site is within the 100-year SFHA Zone A, as shown on the FEMA FIRM Community Panel Number 36093C0154D, dated January 8, 2014. The Project site covers approximately 0.5 acres within the 100-year floodplain. (See the attached **Figure 2**.)

Step 2: Notify the public of the intent to locate the proposed action in a floodplain.

An early public notice of proposed activity within the 100-year floodplain was published by the Governor's Office of Storm Recovery on October 16, 2018 (see attached **Early Notice and Public Explanation of a Proposed Activity in a 100-Year Floodplain**). The notice requested comments from the public concerning floodplain and natural resource impacts of the proposed action. The notice also indicated that the proposed action would be evaluated for potential direct and indirect impacts associated with floodplain development and, where practicable, would be designed or modified to minimize potential adverse impacts to lives, property, and natural values within the floodplain. The notice was published in the October 16, 2018, Daily Gazette and posted at http://www.stormrecovery.ny.gov/environmental_docs. The required 15-day period was conducted to allow for public comments, and comments were accepted either electronically or via written correspondence. No comments on floodplains were received.

Step 3: Identify and evaluate practicable alternatives to locating the proposed action in a floodplain.

The existing North Ferry Street Pump Station is a critical component of the city's sewer system.

It is located over the sewer mains that run along the Mohawk River. The ground floor elevation of the existing facility [225 feet above sea level (ASL)] is below the 100-year flood elevation and is prone to flooding. Flooding of the Mohawk River and its tributaries after Hurricane Irene and Tropical Storm Lee inundated the existing facilities control and electrical systems and the control panels did not operate for almost 24 hours due to power failure.

Alternatives to the proposed action considered:

Other Locations

Due to the alignment of the existing sewer main, the range of locations for the replacement pump station was limited to locations along the sewer main. Two other locations were considered. One location considered was to the east of the existing pump station across North Ferry Street. The other locations were to the west behind the existing pump station. All of these locations are in the 100-year floodplain. The impacts to the floodplain in these other locations would be the same or greater depending on the amount of disturbance to extend the utilities and add new access and parking surfaces.

The proposed project location and design are a result of a feasibility study, a public outreach and participation program and collaboration with the New York State Historic Preservation Office (SHPO). The proposed project has been designed to accommodate the flood elevation and maintain the character of Riverfront Overlook and bike path along the river. In addition to providing storm resiliency, the proposed project will bring the pumping station into to compliance with New York State Department of Environmental Conservation (NYSDEC) sanitary sewer overflow (SSO) discharge requirements.

No Action Alternative

Not undertaking the Project would not be consistent with the objectives outlined in the City of Schenectady Comprehensive Plan 2020. Objectives in the plan include providing well-maintained 21st century municipal infrastructure with safe waste management and developing a plan to address flooding issues citywide. In the absence of the Proposed Project (the No Action Alternative), the existing pump station would remain vulnerable to damage during flooding events, potentially leading to more service interruptions. The City would not increase the resiliency of a key component of the infrastructure it needs to function during emergency situations. Without the project, the communities' wastewater system would continue to be vulnerable to flood damage. Additionally, the pumping station would remain out of compliance with NYSDEC SSO discharge requirements.

Step 4: Identify and describe the proposed action's direct and indirect effects associated with occupying or modifying the floodplain.

The new North Ferry Street Pump Station site would be in a previously disturbed area and would not disturb the nearby floodway. The floodplain area on the project was previously disturbed by the construction of a residential or commercial building between 1840 and 1915. The private building and parcel was sold to the city utility and was soon demolished after the construction of the 1913 pump house on the parcel to the north. The old private parcel site was made level with construction debris and modern fill. The old private building parcel has remained vacant since the demolition.

The primary temporary disturbance of the floodplain would be the 0.5 acres associated with the construction of the new facility. The existing facility's access and parking surfaces will be used

for the new facility (**Figures 3a and 3b**). The direct and indirect impacts associated with the development within the floodplain would be limited to approximately 0.14 acres of new impermeable surface due to the new facility structure. The limited area of disturbance would not adversely affect the natural and beneficial values of the floodplain or lives and property.

When complete, this project will mitigate the incapacitation of the facility and allow it to remain operational during storm events so that this critical wastewater facility can provide continuous service to the residents of the City of Schenectady during emergencies.

Step 5: Identify methods to minimize the potential adverse impacts within a floodplain and to restore and preserve the natural and beneficial values.

The short-term impacts during construction would be mitigated by best management practices for debris, dust, and erosion control during construction activities. Best management practices during construction would ensure that disturbance of the 100-year floodplain by equipment, site runoff, sedimentation, or other construction activities would be minimized. All construction equipment will be stored outside of the 100 year floodplain.

The floodplain area has previously been disturbed by the structures of the residences and existing Pump Facility in the past. There would be a limited increase in the existing impermeable surface. No long-term effects to the natural and beneficial values of the floodplain are anticipated as a result of this limited increase from the Project.

Step 6: Reevaluate the proposed action to determine if it is still practicable given its floodplain effects.

The construction of the new facility would not adversely affect the natural and beneficial floodplain values or lives and property. There would be beneficial impacts due to the improved operation of the wastewater system for the community, particularly with the respect to the beneficial increase in the community's resiliency. As a result, the proposed action is still practicable. The presence of existing infrastructure make it impractical to locate the pump station outside of the 100 year floodplain.

The No Action Alternative would not be practicable because without the Project, the facility is vulnerable to future flood damage which could compromise the facility's ability to provide services during storm events.

Step 7: If the only practicable alternative is locating in a floodplain, publish a final public notice.

It has been determined that there is no practicable alternative to locating the project in the floodplain. This is due to the location of the alignment of the existing sewer main and the proximity to the utilities and infrastructure at the existing pump station site.

A combined Finding of No Significant Impact/final public notice was published by the Governor's Office of Storm Recovery on November 17, 2018XX in accordance with 24 CFR Part 55. The final notice details the reasons why the project must be located in the floodplain, a list of alternatives considered, and all mitigation measures taken to minimize adverse impacts and preserve natural and beneficial floodplain values.

All comments received during the comment period will be responded to and fully addressed prior to funds being committed to the proposed project, in compliance with Executive Order 11988 or 24 CFR Part 55.

Step 8: The proposed action can be implemented after the above steps have been completed.

Implementation of the proposed action may require additional local and state permits, which could place additional design modifications or mitigation requirements on the Project.

Appendix C – USFWS, NYSDEC, and NYNHP Correspondence

Governor's Office of
Storm Recovery

ANDREW M. CUOMO
Governor

Via Electronic Mail

July 1, 2018

Robyn A. Niver
Endangered Species Biologist USFWS
New York Field Office
Cortland, NY 13045

Re: Section 7 Project Review - ESA/MBTA/BGEPA Consultation for the North Ferry Pump Station Relocation Project, Schenectady, Schenectady County, New York

Dear Ms. Niver:

The Governor's Office of Storm Recovery (GOSR), acting under the auspices of New York State Homes and Community Renewal's (HCR) Housing Trust Fund Corporation (HTFC), on behalf of the Department of Housing & Urban Development (HUD), is conducting an environmental review under HUD's environmental review regulations (24 CFR Part 58) and New York State's Environmental Quality Review Act (SEQRA) for the North Ferry Pump Station Relocation Project, Schenectady, Schenectady County, New York (see **Figures 1** and **2**).

The purpose of this letter is to provide the U.S. Fish and Wildlife Service – New York Field Office (USFWS) notice of the proposed project and to document compliance with Section 7 of the Endangered Species Act (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.), as well as the Migratory Bird Treaty Act of 1918 (MBTA) (40 Stat. 755, as amended; 16 U.S.C. 703-712), and the Bald and Golden Eagle Protection Act of 1940 (BGEPA) (54 Stat. 240, as amended; 16 U.S.C. 668-668c).

Program Overview: Flooding of the Mohawk River and its tributaries after Hurricane Irene and Tropical Storm Lee caused destruction throughout the City of Schenectady. The city drinking water and wastewater facilities experienced flooding and power failures. The North and South Ferry Street Pump Stations, critical components of the city's sewer system, were severely impacted by floodwaters. The control and electrical systems were inundated and the control panels did not operate for almost 24 hours due to power failure. The purpose of this project is to construct and improved wastewater pump station at the North Ferry Street site that will withstand flooding and continue to operate in future storm events. The City's project will increase the reliability and resiliency of the City of Schenectady's wastewater facilities.

Area of Potential Effect: The proposed Project site would disturb less than 0.5 acres of land and is adjacent to the existing pump station site at 123 North Ferry Street on the south side of the Mohawk River in the City of Schenectady (**Figure 2**).

Proposed Project Description: The Project would include the construction of an improved wastewater pump station that would withstand flooding and continue to operate in future storm events. The proposed

Project site would allow for the reconnection of the gravity influent lines for the sewersheds served by the existing pump station. Parking and access would remain unchanged from the existing facility.
The Project would disturb less than 0.5 acres of land. Construction of the Project could require dewatering during excavation. The construction of the wet well would require excavation to approximately 31 feet below the existing surface (See **Figures 3a and 3b**).
Construction activities would involve digging/earthwork, dewatering, new foundations, and connections to existing sewer lines. The Project would disturb less than 0.5 acres of land. The construction of the wet well foundations would require excavation to approximately 31 feet below the existing surface (See **Figures 3a and 3b**).

Wetlands: See the attached wetland map, **Figure 4**.
The Project Area is not located within an National Wetlands Inventory (NWI) wetland area. The closest NWI wetland is the Mohawk River, which is classified as a lacustrine, deep water, unconsolidated bottom, permanently flooded wetland. The Mohawk River is approximately 120 feet northwest of the northern Project Area boundary. The Project would not damage the function and beneficial values of this wetland. The Project Area is not within New York State Department of Environmental Conservation (NYSDEC) wetlands or the 300-foot buffer of NYSDEC wetlands.

ESA, Migratory Bird Treaty Act, And Bald and Golden Eagle Protection Act Species:
The New York State Natural Heritage Program (NYSNHP) database search completed on June 1, 2018, had no records of rare or state-listed animals or plants, or significant natural communities at the project site or in its immediate vicinity. There is a documented bald eagle (*Haliaeetus leucocephalus*) nest within 2/3 mile (3,520 feet) of the Project site. (See attached **New York Natural Heritage Program Review**.)

The USFWS, New York Ecological Services Field Office was contacted through the Information, Planning, and Conservation System (IPaC) on May 31, 2018, regarding the potential presence of species under the jurisdiction of the USFWS within the project area. The attached Official Species List identifies one threatened species in the project area: the threatened northern long-eared bat (NLEB, *Myotis septentrionalis*). No critical habits have been idendifited at this location. The IPaC review also indicated that there are several migratory birds of concern that could potentially be affected by the proposed project. Below is a determination of potential effects of the project on each of threatened and endangered species.

Northern Long-eared Bat (NLEB):
Ulster County is within the White-Nose Syndrome Zone. The NLEB, listed as federally threatened, is a temperate, insectivorous bat whose life cycle can be coarsely divided into two primary phases - reproduction and hibernation. NLEB hibernate in caves or mines during winter and then emerge in early spring, with males dispersing and remaining solitary until mating season at the end of the summer, and pregnant females forming maternity colonies in which to rear young. No caves or mines occur near the project site. Summer habitat of the NLEB generally includes upland and riparian forest within heavily forested landscapes. The NLEB is sensitive to fragmentation and urbanization, and requires interior forest for both foraging and breeding. Roost trees are usually in intact forest, close to the core and away from large clearings, roads, or other sharp edges. Neither of the two sites that comprise the project area are within five miles of NLEB hibernacula or known maternity colonies (see the attached **Figure 5**). The Project involves the removal of five trees (see the attached **Tree Removal Plan**).

Due to the potential for active season tree removal, GOSR determines that this project **may affect the NLEB, but that any resulting incidental take of the NLEB is not prohibited by the final 4(d) rule** (**Attachment 5).** The activities associated with the proposed project will not:

- disturb hibernating NLEBs or in a known hibernaculum;
- alter the entrance or interior environment of a known hibernaculum;

- remove any trees within 0.25 miles of a known hibernaculum at any time of year; or
- cut or destroy known occupied maternity roost trees, or any other trees within a 150-foot radius from a maternity roost tree, during the pup season (June 1 through July 31).

The NLEB 4(d) Rule Streamlined Consultation Form is **attached**.

Migratory Bird Treaty Act and Bald and Golden Eagle Protection Act:
Although the IPaC review indicated that the bald eagle is not a bird of conservation concern for this area, it warrants attention because of the Bald and Golden Eagle Protection Act or for potential susceptibilities in offshore areas to certain types of development or activities. As with other migratory birds, foraging bald eagles may temporarily avoid the area during construction due to noise and disturbance. The NYNHP database search identified a bald eagle nest within 3,520 feet of the Project Area. **If USFWS has documentation of the presence of the bald eagle in this area, GOSR requests that this documentation be provided to GOSR for review.**

Summary and Compliance
The proposed project would not jeopardize the continued existence of ESA species or destroy or adversely modify their critical habitat. On this basis, GOSR has determined that the proposed action **may affect but is not likely to adversely affect** NLEB or migratory birds. We request your concurrence with this determination. Additionally, we request to be alerted if USFWS becomes aware of a Bald or Golden Eagle nest within 660 feet of the project site.
Project implementation is conditioned upon issuance of applicable federal and state permits and would be constructed in accordance with federal and state permit conditions. The proposed project would not have a significant impact on ESA species or adversely modify any critical habitat. Conservation measures would be employed to avoid impacts to the NLEB, including a tree survey prior to any Project-related disturbance and clearly demarcating trees to be protected compared with those to be cut if any are identified in the survey.
If you have questions or require additional information regarding this request, please contact me at 518-474-0755 or by email at Lori.Shirley@nyshcr.org. Thank you for your time and consideration.

Sincerely,

Lori A. Shirley
Director, Bureau of Environmental Review and Assessment
Governor's Office of Storm Recovery
NYS Homes and Community Renewal

Attachments:
Figure 1 - Project Overview
Figure 2 - Project Area
Figure 3a and 3b - Site Plans
Figure 4 - Freshwater Wetlands
Figure 5 - Northern Long-eared Bat Hibernacula
New York Natural Heritage Program Review
Official Species List
Tree Clearing Plan
NLEB 4(d) Rule Streamlined Consultation Form

Project Overview

Legend

Project Area

123 North Ferry Street
City of Schenectady,
Schenectady County, New York

Tetra Tech, Inc

Figure 1

Path: C:\Projects\North Ferry Street Pump Station HUD EA_103P359237\GIS\North Ferry Street Pump Station - Project Area.mxd

Project Area

Legend

Project Area

123 North Ferry Street
City of Schenectady,
Schenectady County, New York

Tetra Tech, Inc

Figure 2

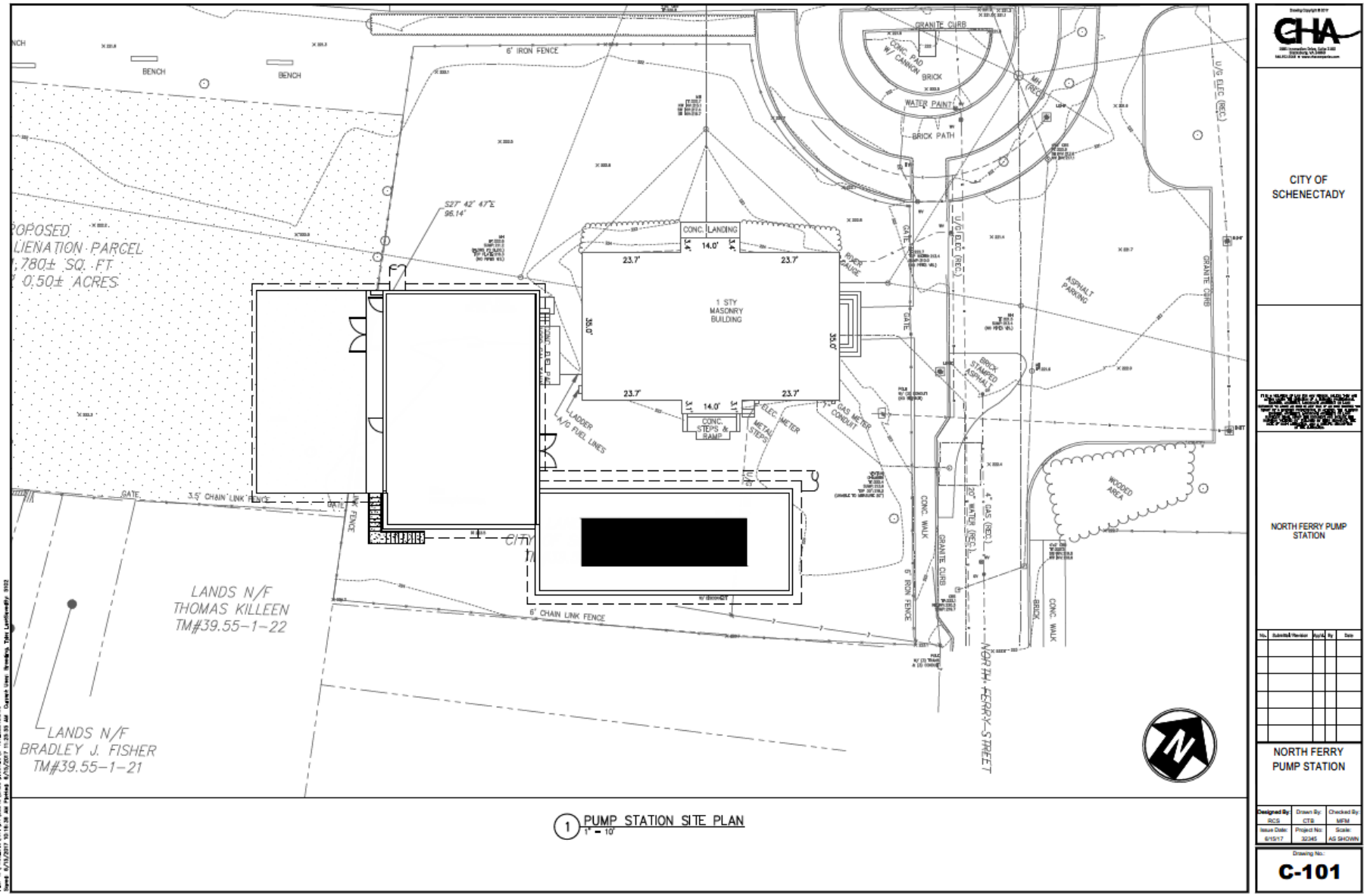
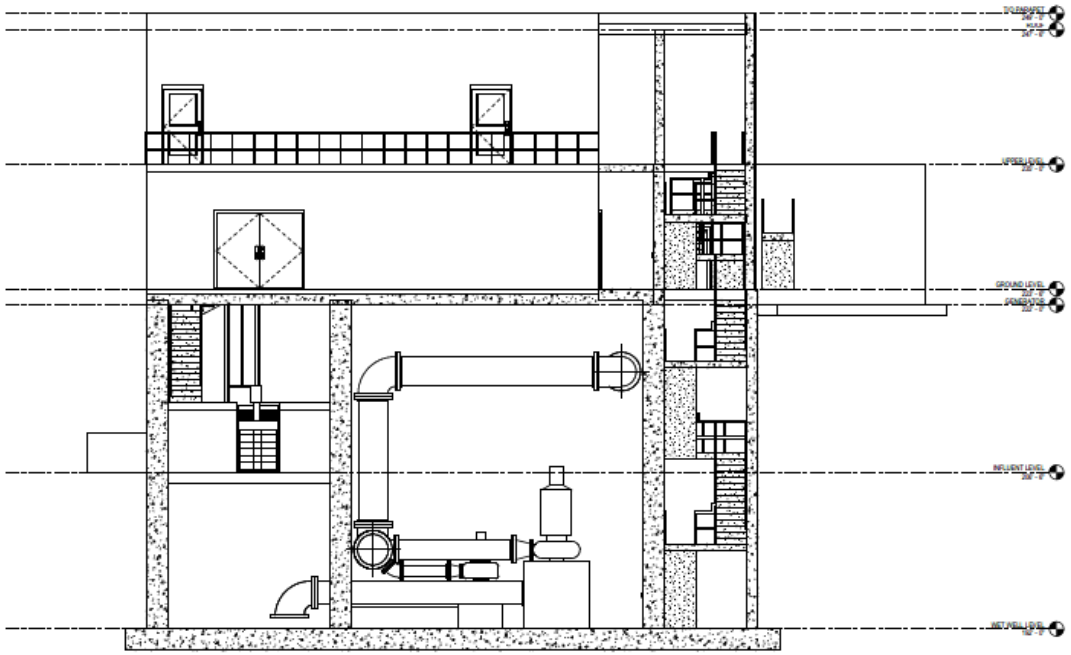


Figure 3a: Proposed Site Plan



1 PARTIAL BUILDING SECTION

CITY OF SCHENECTADY

NOT FOR CONSTRUCTION

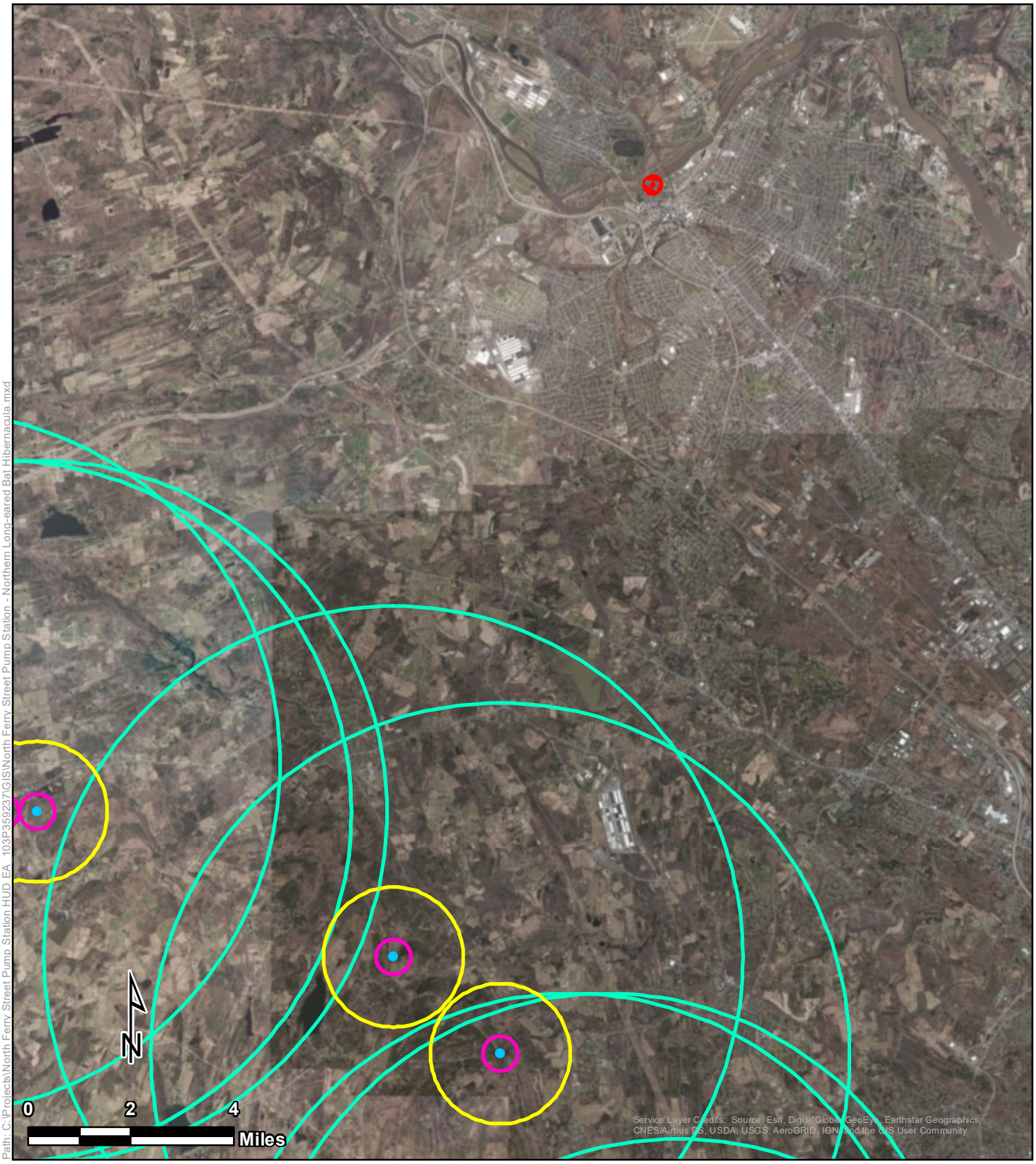
NORTH FERRY PUMP STATION

SECTION

Designed By: RCS | Drawn By: CTB | Checked By: MFM
Issue Date: 04/15/17 | Project No.: 32345 | Scale: AS SHOWN

Drawing No:
G-004

Figure 3b. Proposed Elevation Plan. Side View



Path: C:\Projects\North Ferry Street Pump Station HUD EA_103P365923\GIS\North Ferry Street Pump Station - Northern Long-eared Bat Hibernacula.mxd

Legend

- NLEB Hibernacula
- Project Area
- NLEB Hibernacula 0.25 Mile Buffer
- NLEB Hibernacula 1 Mile Buffer
- NLEB Hibernacula 5 Mile Buffer

Northern Long-eared Bat Hibernacula

123 North Ferry Street
City of Schenectady,
Schenectady County, New York

Tetra Tech, Inc

Figure 5

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Fish and Wildlife, New York Natural Heritage Program
625 Broadway, Fifth Floor, Albany, NY 12233-4757
P: (518) 402-8935 | F: (518) 402-8925
www.dec.ny.gov

June 1, 2018

Alicia Shultz
Governor's Office of Storm Recovery
38-40 State Street
Albany, NY 12207

Re: North Ferry Pump Station Relocation Project
County: Schenectady Town/City: City Of Schenectady

Dear Ms. Shultz:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the above project.

We have no records of rare or state-listed animals or plants, or significant natural communities directly at the project site.

Within 2/3 mile of the project site is a documented nest of **bald eagle** (*Haliaeetus leucocephalus*, state-listed as Threatened). Please consult with the NYSDEC Region 4 Office for any considerations for your project: For information about any permit considerations, contact the Permits staff at dep.r4@dec.ny.gov, 518-357-2456. For information about potential impacts of your project on this species, and how to avoid, minimize, or mitigate any impacts, contact the Region 4 Wildlife staff at 518-357-2355.

For most sites, comprehensive field surveys have not been conducted. We cannot provide a definitive statement on the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other resources may be required to fully assess impacts on biological resources.

For information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the NYS DEC Region 4 Office, Division of Environmental Permits, as described above.

Sincerely,

Nicholas Conrad
Information Resources Coordinator
New York Natural Heritage Program

606

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385
Phone: (607) 753-9334 Fax: (607) 753-9699
http://www.fws.gov/northeast/nyfo/es/section7.htm

In Reply Refer To: May 31, 2018
Consultation Code: 05E1NY00-2018-SLI-2215
Event Code: 05E1NY00-2018-E-06805
Project Name: North Ferry Street Pump Station Replacement

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 *et seq.*). This list can also be used to determine whether listed species may be present for projects without federal agency involvement. New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list.

Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the ESA, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC site at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list. If listed, proposed, or candidate species were identified as potentially occurring in the project area, coordination with our office is encouraged. Information on the steps involved with assessing potential impacts from projects can be found at: http://www.fws.gov/northeast/nyfo/es/section7.htm

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/

eagle_guidance.html). Additionally, wind energy projects should follow the Services wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the ESA. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385
(607) 753-9334

Project Summary

Consultation Code: 05E1NY00-2018-SLI-2215

Event Code: 05E1NY00-2018-E-06805

Project Name: North Ferry Street Pump Station Replacement

Project Type: WASTEWATER FACILITY

Project Description: The City of Schenectady, Schenectady County, New York proposes to construct a new pump station to replace the existing North Ferry Street Pump Station located at 123 North Ferry Street. The new pump station would connect to existing sewer infrastructure. The new pump station would withstand flooding and continue to operate in future storm events improving the reliability and resiliency of the City of Schenectady's wastewater facilities. The Project site would allow for the reconnection of the gravity influent lines for the sewersheds served by the existing pump station.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/42.81923316119513N73.94717584518534W

Counties: Schenectady, NY

Endangered Species Act Species

There is a total of 1 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

CHA
III Winners Circle, PO Box 5269
Albany, NY 12205-0269
518.453.4500 • www.chacompanies.com

GRIFFITH DARDANELLI ARCHITECTS, PC

Stracher Roth Gilmore Architects

CITY OF SCHENECTADY · INCORPORATED 1798 ·

NOT FOR CONSTRUCTION

NORTH FERRY STREET
SEWAGE PUMP
STATION FLOOD
MITIGATION
IMPROVEMENTS

No.	Submittal / Revision	App'd.	By	Date
B	DEC CONSTRUCTION DOCUMENT REVIEW	RCS	CTB	03/01/18
A	REVIEW SUBMITTAL	MFM	CTB	12/29/17

TREE REMOVALS
PLAN

Designed By:	Drawn By:	Checked By:
RCS	SHW	RCS
Issue Date:	Project No:	Scale:
08/10/2017	32345	AS SHOWN

Drawing No.:

C-010

0 20 40
Scale in feet

Northern Long-Eared Bat 4(d) Rule Streamlined Consultation Form

Federal agencies should use this form for the optional streamlined consultation framework for the northern long-eared bat (NLEB). This framework allows federal agencies to rely upon the U.S. Fish and Wildlife Service's (USFWS) January 5, 2016, intra-Service Programmatic Biological Opinion (BO) on the final 4(d) rule for the NLEB for section 7(a)(2) compliance by: (1) notifying the USFWS that an action agency will use the streamlined framework; (2) describing the project with sufficient detail to support the required determination; and (3) enabling the USFWS to track effects and determine if reinitiation of consultation is required per 50 CFR 402.16.

This form is not necessary if an agency determines that a proposed action will have no effect to the NLEB or if the USFWS has concurred in writing with an agency's determination that a proposed action may affect, but is not likely to adversely affect the NLEB (i.e., the standard informal consultation process). Actions that may cause prohibited incidental take require separate formal consultation. Providing this information does not address section 7(a)(2) compliance for any other listed species.

Information to Determine 4(d) Rule Compliance:	**YES**	**NO**
1. Does the project occur wholly outside of the WNS Zone[1]?	☐	☒
2. Have you contacted the appropriate agency[2] to determine if your project is near known hibernacula or maternity roost trees?	☒	☐
3. Could the project disturb hibernating NLEBs in a known hibernaculum?	☐	☒
4. Could the project alter the entrance or interior environment of a known hibernaculum?	☐	☒
5. Does the project remove any trees within 0.25 miles of a known hibernaculum at any time of year?	☐	☒
6. Would the project cut or destroy known occupied maternity roost trees, or any other trees within a 150-foot radius from the maternity roost tree from June 1 through July 31.	☐	☒

You are eligible to use this form if you have answered yes to question #1 **or** yes to question #2 **and** no to questions 3, 4, 5 and 6. The remainder of the form will be used by the USFWS to track our assumptions in the BO.

Agency and Applicant[3] (Name, Email, Phone No.): City of Schenectady, 105 Jay Street, Schenectady, New York 12305. Contact: Gary McCarthy, Mayor, Email: gmccarthy@schenectadyNY.gov, Phone: 518-382-5000.

Project Name: North Ferry Pump Station Relocation Project

Project Location (include coordinates if known): The proposed Project site is less than 0.5 acres adjacent to the existing pump station site at 123 North Ferry Street on the south side of the Mohawk River in the City of Schenectady, Schenectady County, New York (see **Figure 2**).

Basic Project Description (provide narrative below or attach additional information):
The Project would include the construction of an improved wastewater pump station that would withstand flooding and continue to operate in future storm events. The proposed Project site would

[1] http://www.fws.gov/midwest/endangered/mammals/nleb/pdf/WNSZone.pdf
[2] See http://www.fws.gov/midwest/endangered/mammals/nleb/nhisites.html
[3] If applicable - only needed for federal actions with applicants (e.g., for a permit, etc.) who are party to the consultation.

allow for the reconnection of the gravity influent lines for the sewersheds served by the existing pump station. Parking and access would remain unchanged from the existing facility.

The Project would disturb less than 0.5 acres of land. Construction of the Project could require dewatering during excavation. The construction of the wet well would require excavation to approximately 31 feet below the existing surface (See Figures 3a and 3b).

Construction activities would involve digging/earthwork, dewatering, new foundations, and connections to existing sewer lines. The Project would disturb less than 0.5 acres of land. The construction of the wet well foundations would require excavation to approximately 31 feet below the existing surface (See attached **Figures 4a and 4b**).

General Project Information	**YES**	**NO**
Does the project occur within 0.25 miles of a known hibernaculum?	☐	☒
Does the project occur within 150 feet of a known maternity roost tree?	☐	☒
Does the project include forest conversion[4]? (if yes, report acreage below)	☐	☒
Estimated total acres of forest conversion		
If known, estimated acres[5] of forest conversion from April 1 to October 31		
If known, estimated acres of forest conversion from June 1 to July 31[6]		
Does the project include timber harvest? (if yes, report acreage below)	☐	☒
Estimated total acres of timber harvest		
If known, estimated acres of timber harvest from April 1 to October 31		
If known, estimated acres of timber harvest from June 1 to July 31		
Does the project include prescribed fire? (if yes, report acreage below)	☐	☒
Estimated total acres of prescribed fire		
If known, estimated acres of prescribed fire from April 1 to October 31		
If known, estimated acres of prescribed fire from June 1 to July 31		
Does the project install new wind turbines? (if yes, report capacity in MW below)	☐	☒
Estimated wind capacity (MW)		

Agency Determination:

By signing this form, the action agency determines that this project may affect the NLEB, but that any resulting incidental take of the NLEB is not prohibited by the final 4(d) rule.

If the USFWS does not respond within 30 days from submittal of this form, the action agency may presume that its determination is informed by the best available information and that its project responsibilities under 7(a)(2) with respect to the NLEB are fulfilled through the USFWS January 5, 2016, Programmatic BO. The action agency will update this determination annually for multi-year activities.

The action agency understands that the USFWS presumes that all activities are implemented as described herein. The action agency will promptly report any departures from the described activities to the appropriate USFWS Field Office. The action agency will provide the appropriate USFWS Field

[4] Any activity that temporarily or permanently removes suitable forested habitat, including, but not limited to, tree removal from development, energy production and transmission, mining, agriculture, etc. (see page 48 of the BO).
[5] If the project removes less than 10 trees and the acreage is unknown, report the acreage as less than 0.1 acre.
[6] If the activity includes tree clearing in June and July, also include those acreage in April to October.

Office with the results of any surveys conducted for the NLEB. Involved parties will promptly notify the appropriate USFWS Field Office upon finding a dead, injured, or sick NLEB.

Signature: _____ Date Submitted: June 5, 2018_

Alicia Shultz
Senior Environmental Scientist
Governor's Office of Storm Recovery
NYS Homes and Community Renewal

Appendix D – SHPO and THPO Correspondence

NEW YORK STATE OF OPPORTUNITY. | Parks, Recreation, and Historic Preservation

ANDREW M. CUOMO
Governor

ROSE HARVEY
Commissioner

August 07, 2018

Ms. Mary Barthelme
Governor's Office of Storm Recovery
99 Washington Ave
Suite 1224
Albany, NY 12260

Re: GOSR
GOSR-North Ferry Street Pump Station, Schenectady
North Ferry Street, Schenectady, NY 12305
16PR07821

Dear Ms. Barthelme:

Thank you for requesting the comments of the State Historic Preservation Office (SHPO). We have reviewed the Phase II Archaeological Survey in accordance with Section 106 of the National Historic Preservation Act of 1966.

Based upon this review, it is the opinion of the New York SHPO that the Van Eps Historic Archaeological Site (09340.001832) is not eligible for the National Register of Historic Places.

If you have any questions or concerns I can be reached at 518-268-2160 or dan.bagrow@parks.ny.gov.

Sincerely,

Daniel A. Bagrow
Scientist (Archaeology)

cc: Alicia Schultz, NYSHCR
Kristopher Mierisch, Tectonic Engineering

Tectonic

PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.

North Ferry St

Pump Station Relocation Project
Phase I/Phase II Archaeological Survey
16PR07821

North Ferry Street, City of Schenectady
Schenectady County, New York

Submitted To:

Governor's Office of Storm Recovery (GOSR)

Bureau of Env Review and Assessment
Governor's Office of Storm Recovery
NY Homes and Community Renewal

38-40 State Street
Albany, NY 12207

Submitted By:

Tectonic Engineering and Surveying Consultants, PC

70 Pleasant Hill Road, PO Box 37
Mountainville, NY 10953
tectonicengineering.com

Our Story

For the past 30 years, Tectonic has delivered quality professional services in a timely and cost effective manner by pooling its talented staff into project teams that think, act, and perform as one integral unit. By carefully listening and collaborating with its clients, the firm is able to identify the key issues and assure stakeholder objectives are met in the final deliverables. Through innovating and adopting technological advances, the firm is able to generate unique solutions to improve our nation's deteriorating infrastructure and build safe sustainable communities.

As the world evolves, and its challenges grow more complex, Tectonic continues to innovate and provide the practical solutions and exceptional customer service its clients have trusted since its founding.

www.TectonicEngineering.com

Tectonic
MOUNTAINVILLE, NY (CORPORATE OFFICE)
70 Pleasant Hill Road, PO Box 37
Mountainville, NY, 10953
Phone: 845-534-5959
Fax: 845-534-59993

Tectonic

PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.

Governor's Office of Storm Recovery
NY Rising Community Reconstruction Program
38-40 State Street, 408N Hampton Plaza
Albany, New York 12207

Attn: Alicia Shultz
Via email (Alicia.Shultz@nyshcr.org)

July 30, 2018

RE: WO 7463.23
PHASE I/PHASE II ARCHAEOLGICAL SURVEY
NORTH FERRY STREET PUMP STATION RELOCATION
NY RISING COMMUNITY RECONSTRUCTION PROGRAM
CITY OF SCHENECTADY,
SCHENECTADY COUNTY, NEW YORK
16PR07821

Dear Ms. Shultz,

Tectonic Engineering & Surveying's (Tectonic) subcontractor, Christine Davis Consultants, Inc. (CDC), has completed a combined Phase I/Phase II Archaeological Survey for the above referenced site. As part of the environmental review process, the New York SHPO required a cultural resource survey of the subject property. This report presents the findings of a combined Phase I/Phase II Archeological Survey conducted on behalf of the City of Schenectady (Subrecipient) for the North Ferry Street Pump Station Relocation Project in the City of Schenectady, Schenectady County, New York. The Governor's Office of Storm Recovery (GOSR), operating under auspices of New York State Homes and Community Renewal's Housing Trust Fund Corporation, is the Responsible Entity for direct administration of the U.S. Dept. of Housing & Urban Development (HUD) Community Development Block Grant – Disaster Recovery (CDBG-DR) funds. The Project is part of the New York Rising Community Reconstruction Program and is receiving funding for the construction of two additional buildings within the existing pump station parcel. The parcel is located within the National Register listed Stockade Historic District, and contains the National Register listed North Ferry Street Pump Station.

The Phase I Archaeological Survey included archival research, a reconnaissance survey, and Phase I archaeological and subsurface testing in order to evaluate the subject properties potential to contain significant cultural resources. The Phase I survey identified the Van Eps historic site, in the form of two brick-lined shaft features and a backyard sheet refuse deposit. A Phase II site investigation, including supplemental background research and intensive site excavation was then undertaken to evaluate the Van Eps Historic Site for National Register eligibility. The Van Eps Site was found to correspond to the remains of backyard features associated with a mid-late 19th century dwelling. The field work determined that the Van Eps Site shaft features were

Corporate Office

70 Pleasant Hill Road, PO Box 37 | Mountainville, NY 10953
845.534.5959 Tel | 845.534.5999 Fax

tectonicengineering.com
Equal Opportunity Employer

cleaned out and filled with stone and/or early 20th century fill, and therefore lacked useful, in-situ archaeological data. No further archaeological work is recommended for the North Ferry Street Pump Station project.. This work was performed in accordance with Secretary of the Interior's *Standards and Guidelines for Archaeology and Historic Preservation* and the *Standards for Cultural Resource Investigations and the Curation of Archaeological Collections in New York State* published by the New York State Office of Parks, Recreation and Historic Preservation (OPRHP) in 2005.

Attached please find the following documentation:

1.) Combined Phase I/II Archaeological Survey Report for the North Ferry Street Pump Station Relocation project

Feel free to contact the undersigned if you have any questions.

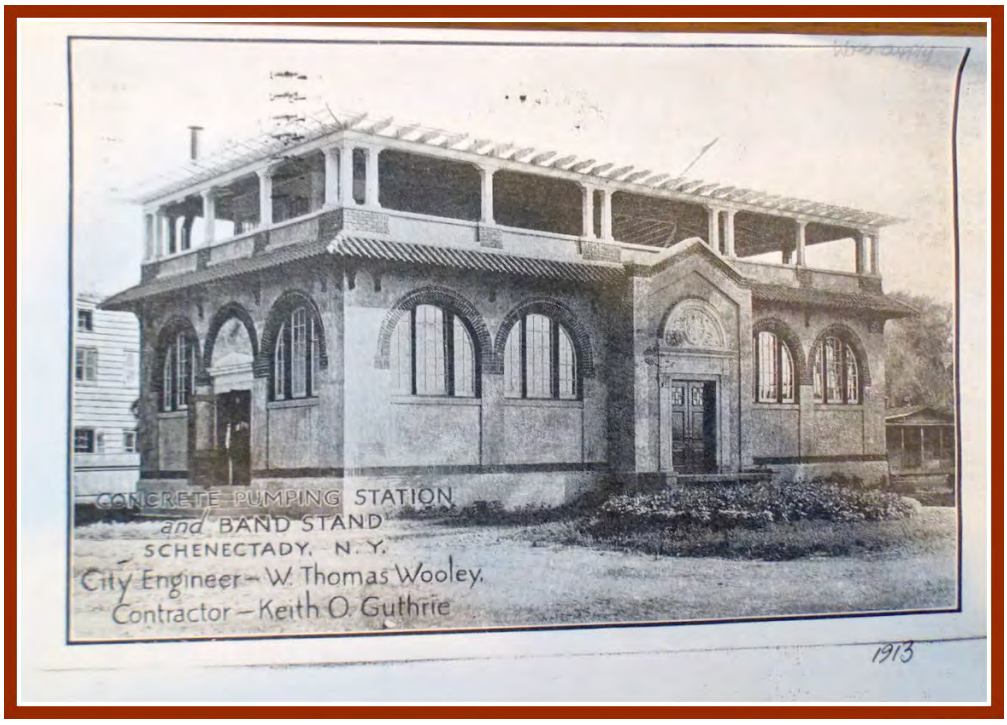
Sincerely,
TECTONIC ENGINEERING AND SURVEYING CONSULTANTS P.C.

Kristofer Mierisch, RPA
Senior Environmental Analyst / CRM Specialist

PHASE II ARCHAEOLOGICAL SURVEY: VAN EPS SITE (09340.001832)

NORTH FERRY STREET PUMP STATION RELOCATION CITY OF SCHENECTADY, SCHENECTADY COUNTY, NEW YORK

16PR07821



A Cultural Resource Management Report Prepared by:

CHRISTINE DAVIS CONSULTANTS, INC.
&
TECTONIC ENGINEERING & SURVEYING CONSULTANTS P.C.

July 2018

CHRISTINE DAVIS CONSULTANTS, INC.
560 Penn Street, Verona, Pennsylvania 15147
Phone: 412/826-0443 Fax: 412/826-0458

PHASE II ARCHAEOLOGICAL SURVEY:
VAN EPS SITE (09340.001832)

NORTH FERRY STREET PUMP STATION RELOCATION
CITY OF SCHENECTADY, SCHENECTADY COUNTY,
NEW YORK

16PR07821

BY:

CHRISTINE E. DAVIS
Principal Investigator

For final submission to:

Lori Shirley, Director; Bureau of Environmental Review and Assessment
Governor's Office of Storm Recovery; New York Homes and Community Renewal
38-40 State Street; Albany, New York 12207

MANAGEMENT SUMMARY

State Historic Preservation Office (SHPO) Project Review Number: 16PR07821

Agency:
Governor's Office of Storm Recovery (GOSR)

Phase of Survey:
Phase II Archaeological Survey

Location Information:

Location:	City of Schenectady
Minor Civil Division:	Schenectady
County:	Schenectady

Survey Area:

Length:	134 ft (4.8 m)
Width:	136 ft (41.4 m)
Depth:	8.2 ft (250 cm)
# of Acres Surveyed:	.38 ac

USGS 7.5 Minute Quadrangle Map:
Schenectady, NY 1954 PR 1980

Archaeological Survey Overview:

Number and Interval of Shovel Tests:	6 at 15 m (50 ft) intervals
Number and Size of Units:	1 1x1m (3 ft 3 in x 3 ft 3 in)
Width of Plowed Strips:	68 ft x 22 ft (20.7 m x 6.7 m)
Surface Survey Transect Interval:	n/a

Results of Archaeological Survey:

Number and Name of Prehistoric Sites Identified:	0
Number and Name of Historic Sites Identified:	1- Van Eps Site
Number and Name of Sites Recommended for Phase II/Avoidance:	1- Van Eps Site

Results of Architectural Survey:

Number of Buildings/Structures/Cemeteries within Project Area:	1
Number of Buildings/ Structures/ Cemeteries Adjacent to Project Area:	n/a
Number of Previously Determined NR Listed or Eligible Buildings/ Structures/Cemeteries/ Districts:	Stockade Historic District and Pumping Station
Number of Identified Eligible Buildings/Structures/Cemeteries/ Districts:	n/a

Report Authors
Christine E. Davis

Date of Report
July 2018

TABLE OF CONTENTS

FIGURES

PHOTOGRAPHS

PHOTOGRAPHS (CONTINUED)

TABLES

1.0 INTRODUCTION

Historic and cultural resources are protected under Federal law through Section 106 of the National Historic Preservation Act of 1966, as amended, and implementing regulation 36 CFR 800 as revised in January of 2001; the Archaeological and Historic Preservation Act of 1974; Section 101(b)(4) of the National Environmental Policy Act of 1969; Executive Orders 11593 and 12362; 18 CFR Part 380.14; 23 CFR 771, as amended, August 28, 1987; 36 CFR 60; the guidelines developed by the Advisory Council on Historic Preservation (ACHP) published November, 26, 1980; and the amended procedures for the Protection of Historic and Cultural Properties, as set forth in 36 CFR 800.

The regulations developed under Section 106 of the National Historic Preservation Act require that prior to approval of federal funding, agencies should consider the impact of a project on any district, site, building, structure, or object that is included on, or eligible for inclusion on, the National Register of Historic Places (NRHP), and the ACHP must be given an opportunity to comment on such an undertaking. The Historic and Archeological Data Preservation Act directs federal agencies to preserve historic and archeological data that would otherwise be lost as a result of a federal action. A project is considered to have an adverse effect on such sensitive resources if it changes the quality of cultural characteristics that render them eligible for listing on the NRHP.

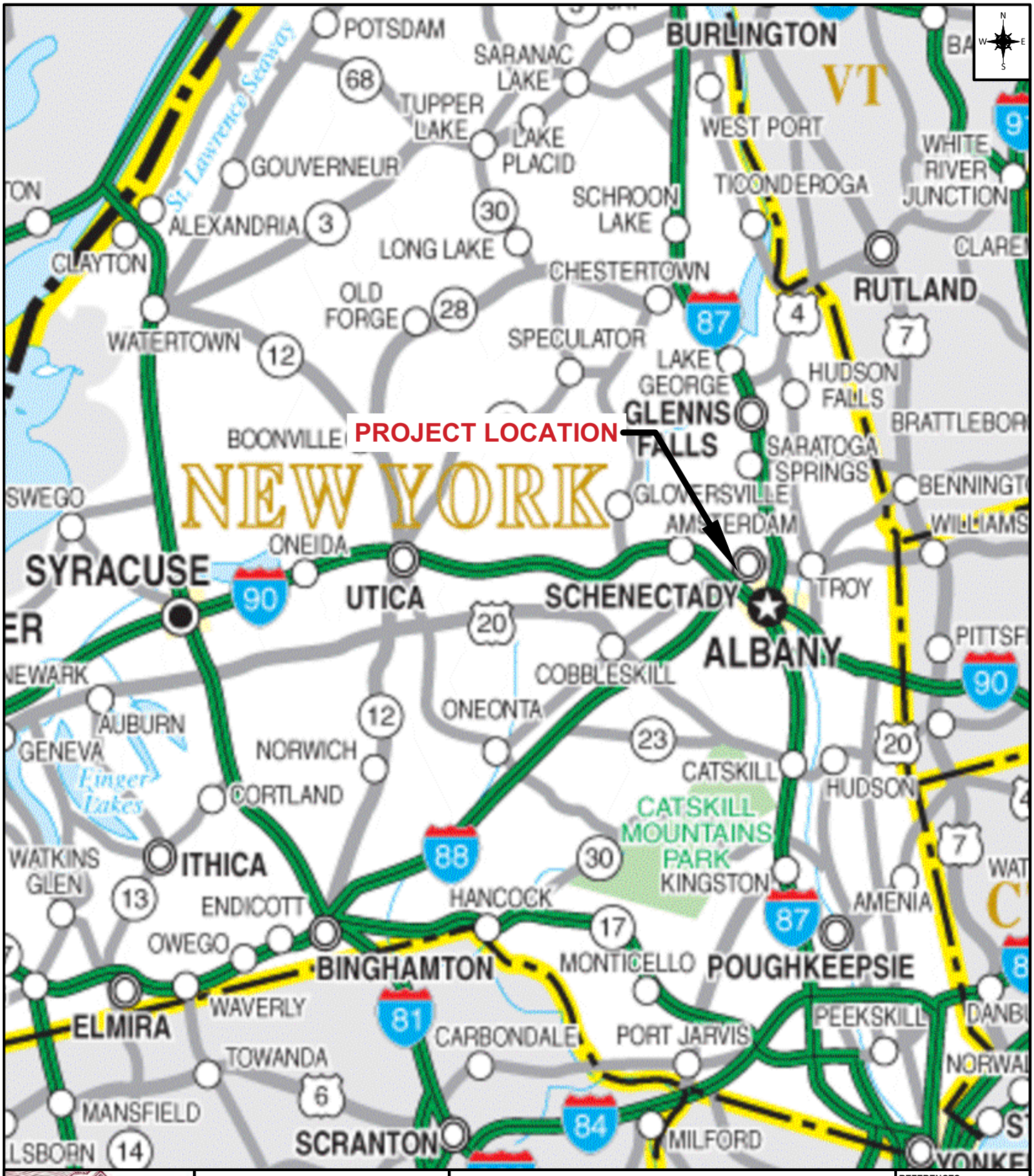
Historic properties of national, state, and local significance may be nominated to the NRHP following an evaluation in accordance with an established set of criteria. The evaluation process is conducted at the state level by the New York State Historic Preservation Officer (SHPO) and at the federal level by the NRHP staff of the Department of the Interior. The National Park Service administers the NRHP and has established four criteria for the evaluation of the potential significance of historic and archeological properties. These criteria are described in Title 36, Part 60 of the Code of Federal Regulations and are summarized as follows:

- Criterion A: A property is associated with historically significant events that have made a significant contribution to the broad patterns of our history. To meet this criterion, a historic property needs to have existed at the time of the important event and be associated in a significant way with the event.
- Criterion B: A property is associated with the lives of persons significant in our past.
- Criterion C: A property that embodies the distinctive characteristics of a type, period, or method of construction, or that represents the work of a master, or that possesses high artistic values, or that represents a significant and distinguishable entity whose components may lack individual distinction.
- Criterion D: A property that has yielded, or may be likely to yield, information important in prehistory or history.

Archaeological studies are completed under Section 106 of the National Historic Preservation Act of 1966 as amended; the National Environmental Policy Act of 1969; the Archaeological and Historic Preservation Act of 1974; and the regulations of the ACHP 36 CFR 63 and 36 CFR 800. This technical scope of work was developed in accordance with the *Standards for Cultural Resource Investigations and the Curation of Archaeological Collections in New York State* published by the New York State Office of Parks, Recreation and Historic Preservation (OPRHP) in 2005.

1.1 PROPOSED UNDERTAKING

Christine Davis Consultants, Inc. (CDC) was retained by Tectonic Engineering & Surveying Consultants P.C. (Tectonic) of Mountainville, New York to conduct cultural resource management surveys for the North Ferry Street Pump Station Relocation project located in the City of Schenectady, Schenectady County, New York (Figures 1 and 2). As of October 2017, the design plans for the proposed undertaking have not been finalized; however, tentative plans include the construction of two other buildings within the existing parcel. The agency for the project is the Governor's Office of Storm Recovery (GOSR).



Christine Davis Consultants
Archaeology and History
Cider Mill of Pittsburgh
560 Penn Street
Verona, PA 15147
www.ChristineDavisConsultants.com
412-826-0443

0 25 50

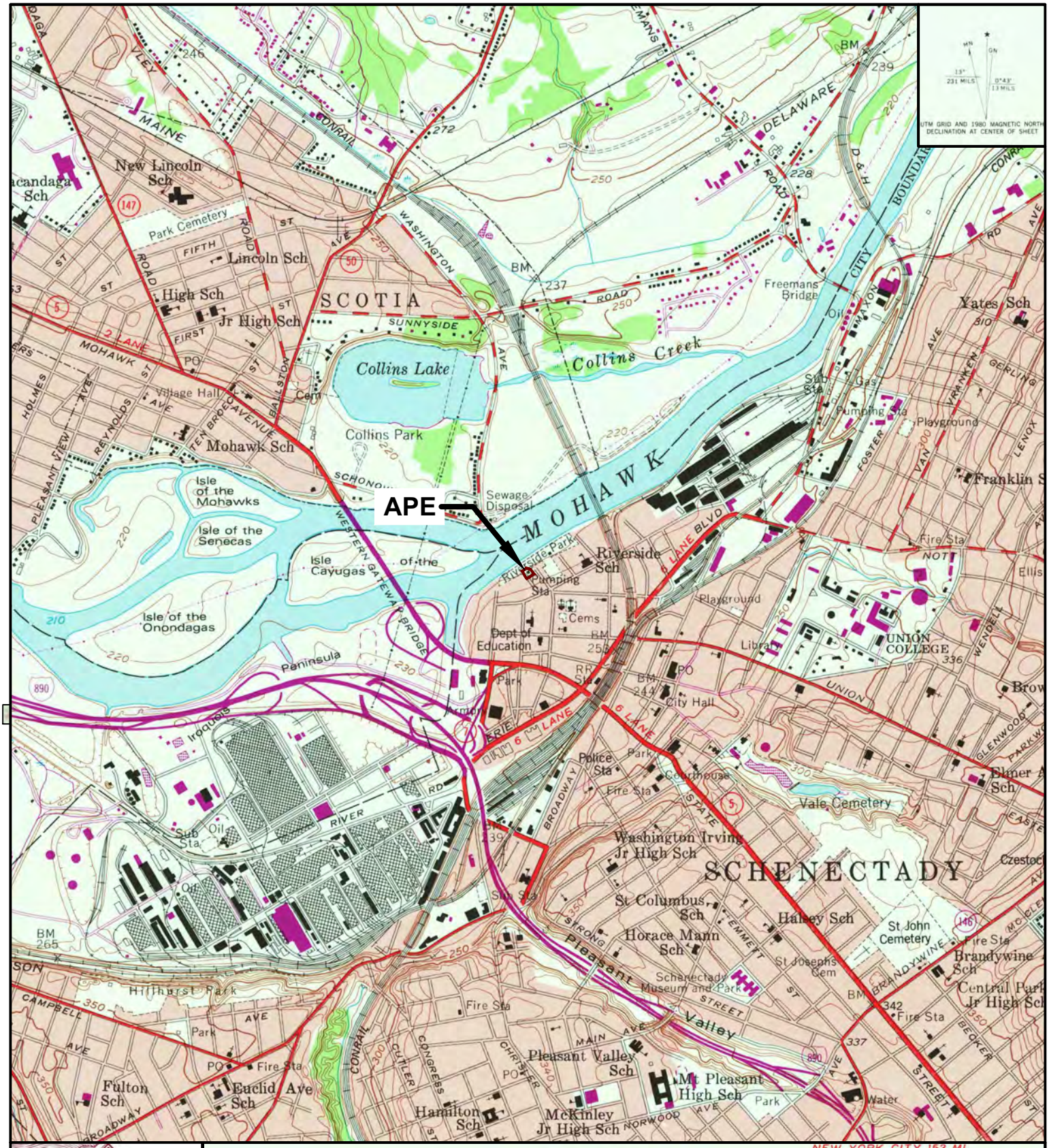
1 INCH = 25 MILES

REFERENCES:
TRIPmedia Group, Inc.
New York State Map

Project Location
NORTH FERRY STREET PUMP STATION RELOCATION
16PR07821
City of Schenectady, Schenectady County, New York

PROJECT NO.
17-065

FIGURE 1



SCALE 1:24 000

1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

Christine Davis Consultants
Archaeology and History
Cider Mill of Pittsburgh
560 Penn Street
Verona, PA 15147
www.ChristineDavisConsultants.com
412-826-0443

REFERENCES:

GOVERNOR'S OFFICE OF STORM RECOVERY
Project Location Map 10-31-17
USGS 7.5 MINUTE QUADRANGLE
Schenectady, NY 1954, Photorevised 1980

NEW YORK
QUADRANGLE LOCATION

Area of Potential Effect (APE)
NORTH FERRY STREET PUMP STATION RELOCATION
16PR07821
City of Schenectady, Schenectady County, New York

PROJECT NO.
17-065

FIGURE 2

1.2 AREA OF POTENTIAL EFFECT (APE)

The area of potential effect (APE) consists of a total of approximately 1,550 square (sq) meters (m) (16,681 sq feet (ft) or .38 acres (ac)) located within the City of Schenectady. The APE is generally located south of the Mohawk River and west of North Ferry Street (see Figure 2). The area is topographically situated in a floodplain environment associated with the Mohawk River. The APE is characterized by an urban setting.

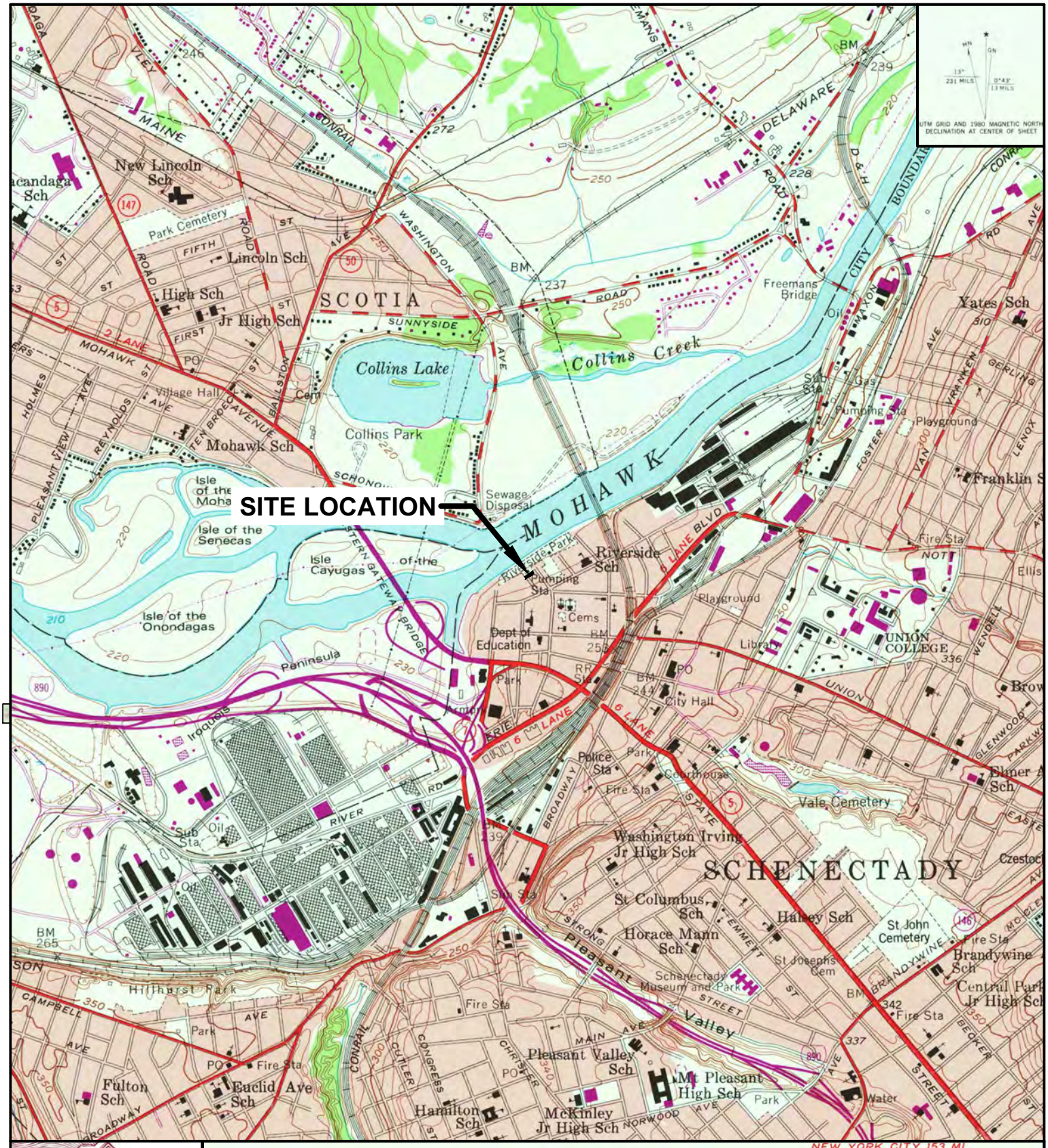
1.3 AGENCY COORDINATION

In a letter dated October 31, 2017, GOSR submitted updated information about the project to the OPRHP. In a letter dated November 8, 2017, OPRHP responded and recommended the completion of a Phase I Archaeological Survey for any areas that will be subjected to ground disturbance which have not been previously surveyed. In addition, the OPRHP stated that the above ground buildings are acceptable to their office (Appendix II).

2.0 PHASE I SUMMARY

The **Van Eps Site** is located on the floodplain of the Mohawk River at an elevation of 221 ft asl and encompasses approximately 327 sq m (2,575 sq ft or 0.08 ac) (Photo 1). At the close of the Phase I Archaeological testing, the site consisted of two brick-lined shafts (Features 1 and 3) and a backyard sheet refuse deposit (Feature 2) (Figures 3 and 4). A total of 359 historic artifacts were found on the surface of the features, the concentrated sheet refuse deposit, and the general backyard area within the boundaries of the former lot at 127 North Ferry Street. Feature 1 was recorded as an unusual shield-shaped brick-lined shaft measuring 152 cm (5 ft) by 157 cm (5 ft 2 in) identified within Trench 1. It is located within the boundary of an outbuilding depicted on historic mapping at this location between as early as 1889 and 1914. (Please note the 1889 historic map was the earliest available map that clearly depicted building locations.) Feature 2 was recorded as backyard sheet refuse measuring 243 cm (8 ft) by 152 cm (5 ft). The feature was identified by a concentration of historic artifacts and bricks within Stripped Area 1 (Photo 2). Feature 2 was found within the same historic outbuilding as Feature 1; however, Feature 2 was located within the part of the building that had been extended by 1894. Feature 3 was recorded as a circular-shaped brick-lined shaft measuring 183 cm (6 ft) by 183 cm (6 ft) identified within Trench 2. This feature is located adjacent to the outside of the southern wall of the historic outbuilding where Features 1 and 2 were identified. Each feature was fully exposed and measured; however, none of the features were excavated.

Photo 1: Van Eps Site, Looking Northeast



SCALE 1:24 000

1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

Christine Davis Consultants
Archaeology and History
Cider Mill of Pittsburgh
560 Penn Street
Verona, PA 15147
www.ChristineDavisConsultants.com
412-826-0443

REFERENCES:

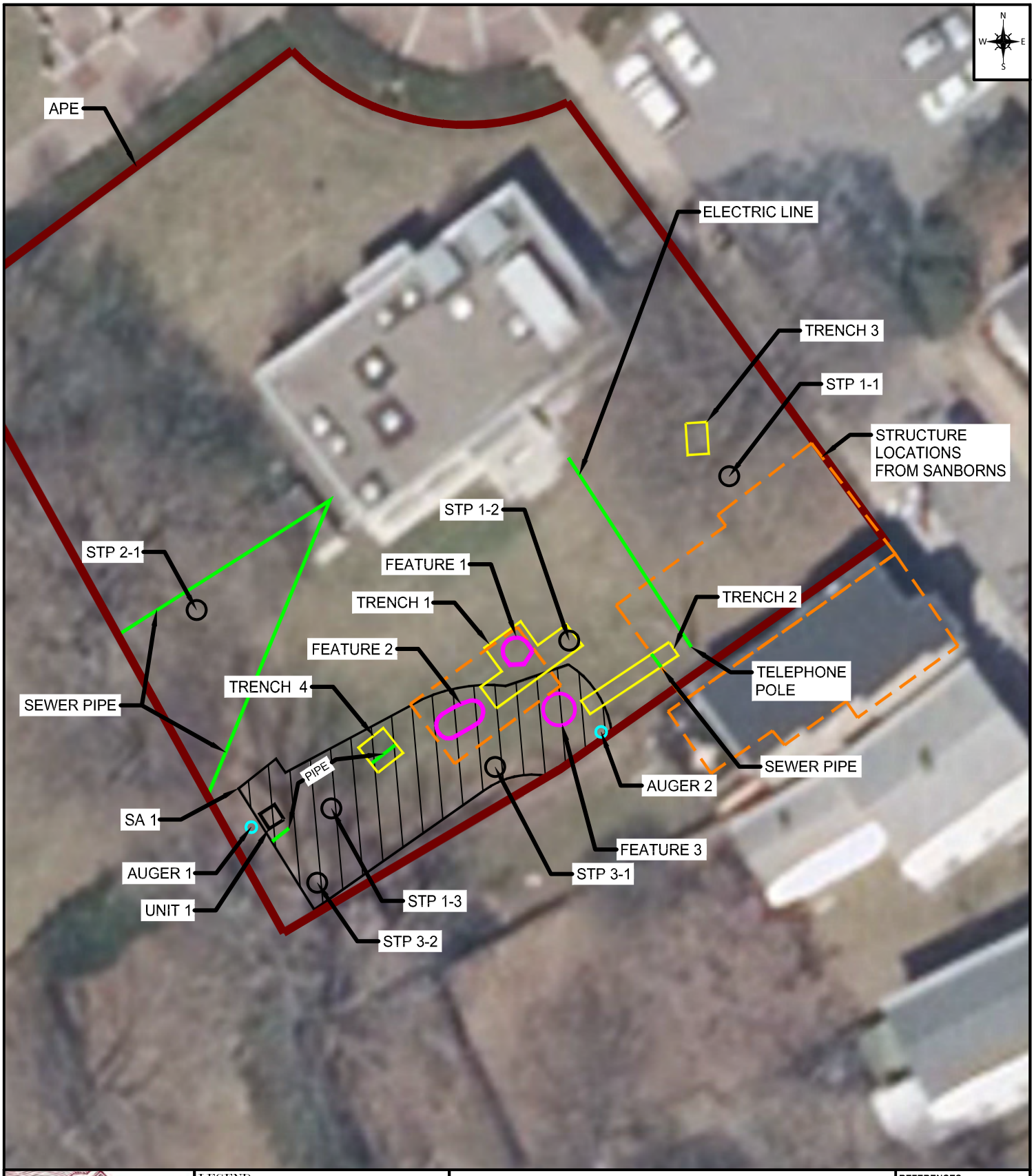
GOVERNOR'S OFFICE OF STORM RECOVERY
Project Location Map 10-31-17
USGS 7.5 MINUTE QUADRANGLE
Schenectady, NY 1954, Photorevised 1980

NEW YORK
QUADRANGLE LOCATION

Site Location
NORTH FERRY STREET PUMP STATION RELOCATION
16PR07821
City of Schenectady, Schenectady County, New York

PROJECT NO.
17-065

FIGURE 3



Christine Davis Consultants
Archaeology and History
Cider Mill of Pittsburgh
560 Penn Street
Verona, PA 15147
www.ChristineDavisConsultants.com
412-826-0443

LEGEND
- APE
- 1894 SANBORN STRUCTURES
- UTILITY
- FEATURE
- TRENCH
- STRIPPED AREA
- UNIT
- STP
- AUGER PROBE

0 25 50

1 INCH = 25 FEET

REFERENCES:
GOVERNOR'S OFFICE OF STORM RECOVERY
Project Location Map 10-31-17
NYSDOP
Orthoimagery
SANBORN MAPPING
1889, 1894, 1900, 1914, 1930

Phase I Testing
North Ferry Street Pump Station Relocation
16PR07821
City of Schenectady, Schenectady County, New York

PROJECT NO.
17-065

FIGURE 4

Photo 2: Features 1 and 3, Looking North

3.0 PHASE II ARCHAEOLOGICAL SURVEY: VAN EPS SITE (09340.001832)

3.1 METHODOLOGY

The purpose of the Phase II Survey is to determine whether this site retains archaeological integrity and is eligible for the NRHP. The goal of the Phase II Archaeological Survey is as follows:

1. Define site boundaries
2. Determine the distribution of artifacts and cultural features
3. Recover data relating to artifact frequency and type
4. Evaluate site integrity
5. Establish site chronology
6. Analyze the site within local and regional contexts

Define Site Boundaries, Distribution of Artifacts, and Features

The Phase II Archaeological Survey will be initiated with supplemental background research including information from previous local and regional surveys and recorded sites in Schenectady County. In order to develop predictions relating to site size and function, research on similar regional sites will be conducted and the cultural history expanded. Archival research including materials in the Recorder of Deeds office, Recorder of Wills, and Tax Assessment Office will be necessary to determine the land-use history, ownership, and other data used to assess significance.

All identified features will be included on the project mapping. Documentation will begin with drawing and photographing features in plan view prior to excavation. Two hand excavated blocks will be used to cross-section each shaft, test the sediments within the shaft, and to look for associated features and/or activity areas. The areas outside the boundaries of the shaft will be excavated to a depth of 10 centimeters (cm) within sterile subsoil. The shaft will be excavated to the base of the feature in accordance with OSHA safety standards. If it is necessary to physically deconstruct a portion of the shaft to reach the maximum depth based on the size of the block excavation, this effort will be fully documented (drawings and photographs). Mechanical equipment will assist as necessary and appropriate. The plan view drawing will be revised to reflect any changes following excavation. For flotation purposes, controlled volume samples will be taken from each feature and from each stratigraphic level, if appropriate. Flotation samples will be used to recover floral and other micro remains.

Identify Site Chronology

Diagnostic artifacts represent one of the most important tools in determining the date of construction dates for the buildings. Historic artifacts recovered from cross sections of the shafts and builders' trenches, if present, will be analyzed to determine site chronology.

Recover Data Relating to Artifact Frequency and Data

All artifacts collected during the survey will be cleaned, numbered, cataloged, and individually prepared for permanent storage in archival containers. Detailed field catalogs will be generated. If collected, standard flotation techniques will be used to recover faunal, botanical and other artifacts from feature fill. Technological and morphological attribute analyses will be completed for all artifacts.

Artifacts will be identified and tabulated according to material, functional type, and frequency. Ceramic and glass artifacts will be defined according to form, function, color, date and maker. Function will be defined based on published articles, books, catalogs, and professional papers. Technological changes in ceramic and glass production will serve as chronological markers for dating and determining typology. Ceramic form will be established by artifact attributes and vessel

reconstruction when possible. Leather, shell and other specialized objects will be analyzed according to functional type, if collected. Botanical and faunal analyses will be conducted by professional subconsultants. A minimum number of vessels (MNV), minimum number of individuals (MNI) or minimum number of units (MNI) will be calculated.

Mapping

All field information generated during the survey will be mapped using a Trimble Catalyst Satellite Receiver with sub-centimeter accuracy and the results plotted on site location maps using 2018 AutoCAD Map 3D.

3.2 PHASE II FIELD SURVEY RESULTS: VAN EPS SITE

3.2.1 Supplemental Background Research

The **Van Eps Site** is located within the former lot at 2 Ferry Street/127 North Ferry Street and is associated with a dwelling/inn/saloon/rental unit that stood on the property between ca. 1840 and ca. 1915. The land-use history revealed that this site was occupied as early as ca. 1840 when the lot was purchased by Cornelius Van Eps from James Fuller and his wife (Deed Book 55:250) (Appendix III). The Van Eps' lived and operated an inn/saloon at this location between 1840 to 1871. In 1871, the Van Eps' sold the property to The Schenectady Water Company who subsequently built the original pump station on the adjacent parcel closer to the Mohawk River. The Water Company sold the property to the City of Schenectady in 1885. The Water Company and the City used the property as a rental unit until ca. 1915 when it was demolished soon after the construction of the new pump house in 1913. Between 1871 and ca. 1915, the unit was occupied by short-term renters who rarely stayed more than a few years (Appendix IV). Ca. 1888, the address changed from 2 Ferry Street to 127 North Ferry Street (Biggs 1841; Bradt 1862; Boyd 1864; U. S. Federal Census 1840; 1855; 1865; 1875; 1876; 1880; J. & W. H. Riggs 1886; 1895; 1899; 1900; 1902; 1903; 1907; 1909; 1915; 1916; 1917; 1918; 1920; 1925).

Van Eps (ca. 1840 to 1871)

In 1855, Cornelius Van Eps, 52, was living at this location with his wife, Helen, 47, and their four children, Lawrence, 29, Samuel, 21, Rachel, 17, and Harrison 15. The frame dwelling was worth $640. Cornelius was listed as an inn keeper. His son Lawrence was working as a laborer while Samuel worked with pianos. The family was also living with Ellen Tiller (likely their widowed daughter), 25, and her two young children, Cornelius V., 2, and Giles, 10 months old. Ellen worked as a seamstress and was listed as living with a boarder named John Van Huysen, 34, a tinsmith. Over the next 10 years, their home increased in value to $1400 and only Rachel and William remain in the home with their parents, along with Giles Tiller, their grandson. Cornelius is listed as operating a saloon. In 1871, the Van Eps sold the property to The Schenectady Water Company for $2400 (Deed Book 55:250). The water company also owned the adjacent parcel to the north and were in the process of, or had already, constructed the original pump house that stood at this location between 1871 and 1913 when it was replaced. The deed does not discuss the transfer of any specific buildings but it does have one item of interest. It states that deed is being transferred "excepting any and all claims now and against the state of New York for damages done to the premises by the erection or enlargements of the state dam and aqueduct. The dam and aqueduct were not located in the general vicinity so the reason for the inclusion of this statement could not be verified.

The Schenectady Water Company/City of Schenectady (1871 to present)

Following the transfer of the dwelling to the water company, the property was used as a rental unit with a number of different occupants, most of them staying only a few years. The dwelling was demolished ca. 1915 during the construction of the existing pump station and has remained vacant since that time (Sanborn 1914; 1930).

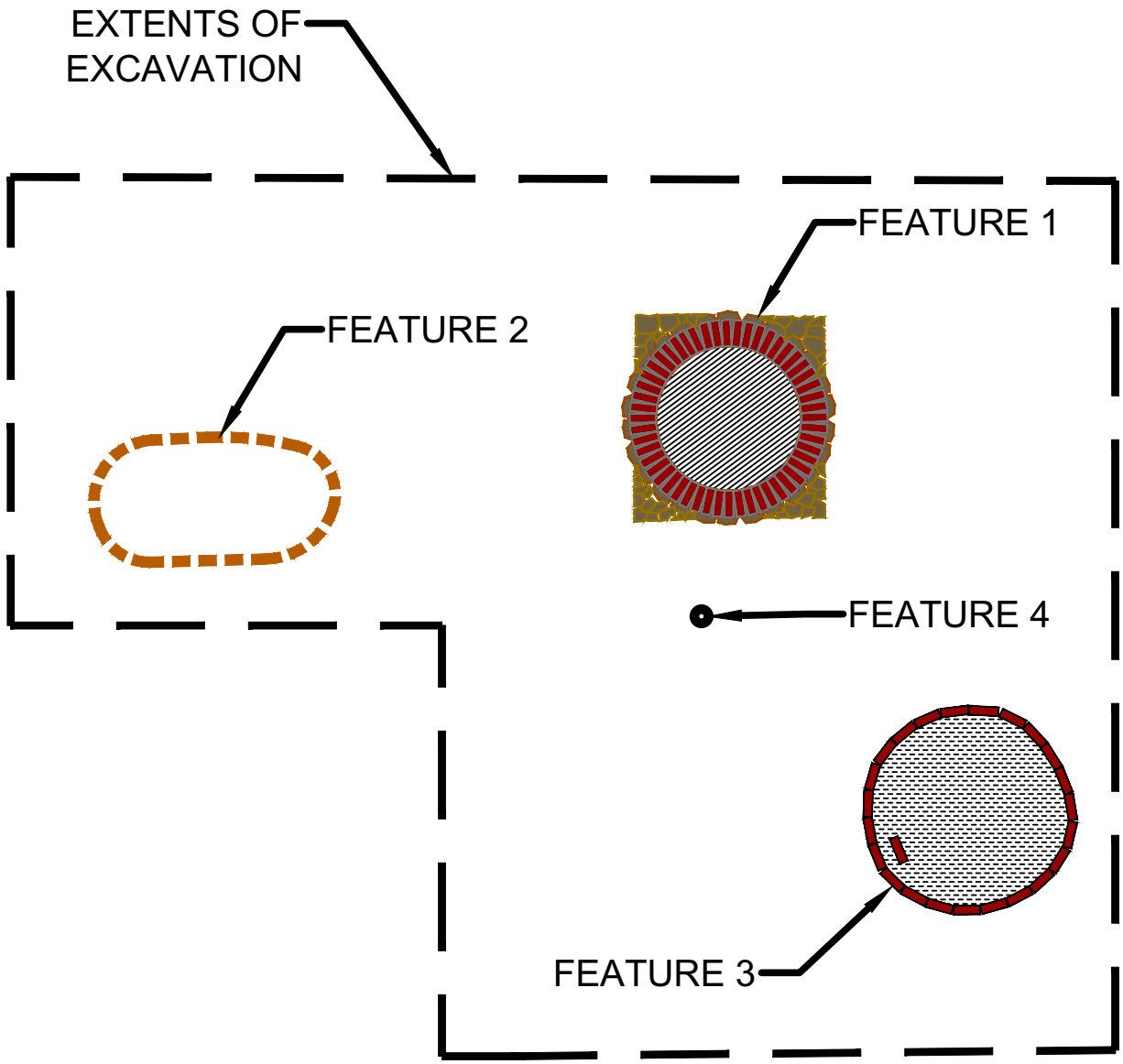
2.2.2 Phase I and II Artifact Analysis

At the close of the Phase I and II Archaeological Surveys, the Van Eps Site (ca. 1840 to ca. 1915) was determined to be a historic archaeological site represented by four backyard features of a dwelling/inn/saloon/rental unit that stood on the front (east side) of this lot during that time period. Though ownership of the general area could be traced back to as early as 1816, it appears as though the Van Eps were the first family to build a house and live at this location. The family lived and operated an inn and later a saloon at this location and remained here until ca. 1871 when the property was sold to The Schenectady Water Company who then used the property as a rental unit. From that time until ca. 1915, when the property was demolished, the property was occupied by a series of boarders, most staying only a few years.

Artifacts Type Distribution

The four features include: a well (Feature 1), a backyard sheet refuse deposit (Feature 2), a cistern (Feature 3), and a water pump (Feature 4). Features 1 to 3 were found during the Phase I Survey and Feature 4 was found during the Phase II Survey (Figure 5). The area where the residential/inn was once located could not be explored due to the presence of active electrical line. In addition to the artifacts in the features, unprovenienced historic artifacts were found in the backyard area. A total of 2,069 artifacts (minimum number of vessels (MNV)=1,015) were recovered from three positive STPs, one positive 1 x 1 m units, two trenches, four features, one stripped area, and the back-dirt pile. The artifact inventory included:

Van Eps Site		
ceramic	**#**	**MNV**
bone	**1**	**0.048**
button	1	0.048
bone/ metal	**2**	**0.097**
utensil	2	0.097
brick	**7**	**0.338**
brick fragments	7	0.338
celluloid	**3**	**0.145**
comb	3	0.145
ceramic	**656**	**31.706**
bisque	3	0.145
earthenware	28	1.353
hotel	2	0.097
ironstone	411	19.865
porcelain	100	4.833
redware	28	1.353
stoneware	41	1.982
yellow ware	43	2.078
clay	**8**	**0.387**
marble	1	0.048
pipe	1	0.048



Christine Davis Consultants
Archaeology and History
Cider Mill of Pittsburgh
560 Penn Street
Verona, PA 15147
www.ChristineDavisConsultants.com
412-826-0443

0 4 8

1 INCH = 4 FEET

REFERENCES:

Phase II Feature Overview
North Ferry Street Pump Station Relocation
16PR07821
City of Schenectady, Schenectady County, New York

PROJECT NO.
17-065

FIGURE 5

pipe, stem	6	0.290
cork	**13**	**0.628**
cork	13	0.628
ethnobotanical	**4**	**0.193**
coconut	4	0.193
faunal	**120**	**5.800**
calcine bone	2	0.097
mammal	118	5.703
glass	**711**	**34.364**
bottle	181	8.748
bottle, beer	17	0.822
bottle, bitters	1	0.048
bottle, cleaning	3	0.145
bottle, condiment	28	1.353
bottle, flavoring	8	0.387
bottle, hair tonic	1	0.048
bottle, ink	4	0.193
bottle, liquor	3	0.145
bottle, medicine	58	2.803
bottle, milk	1	0.048
Bottle, preserves	2	0.097
bottle, sauce	2	0.097
bottle, soda water	50	2.417
bottle, water	1	0.048
bowl/lid, chicken	3	0.145
cup	1	0.048
decorative art	3	0.145
dish	4	0.193
flask	34	1.643
goblet	3	0.145
hurricane	26	1.257
jar	56	2.707
jar, jelly	3	0.145
jar, medicine	1	0.048
lamp base	2	0.097
lid	3	0.145
mug	1	0.048
stopper	1	0.048
tumbler	5	0.242
window	159	7.685
vial	1	0.048

unidentifiable vessel fragments	45	2.175
glass/ metal	**5**	**0.242**
bottle, perfume	1	0.048
bottle, soda water	1	0.048
jars with lid	3	0.145
graphite	**2**	**0.097**
unknown	2	0.097
leather	**4**	**0.193**
gasket	1	0.048
unknown	3	0.145
metal	**276**	**13.340**
banding	2	0.097
barrel binding	2	0.097
bolt, eyelet	1	0.048
boot scraper	2	0.097
bowl	6	0.290
chain	1	0.048
coin	1	0.048
container	8	0.387
corrugated	1	0.048
coupling	1	0.048
decorative art	3	0.145
disc	1	0.048
drawer pull	1	0.048
end cap	1	0.048
finishing edge	22	1.063
gasket	1	0.048
handle	3	0.145
hardware	1	0.048
hinge	3	0.145
lamp burner	1	0.048
lid	4	0.193
nails, round	55	2.658
nails, square	55	2.658
nails, unidentifiable	13	0.628
nut, hex	1	0.048
oil can	2	0.097
plate	1	0.048
pump	1	0.048
railroad spike	1	0.048
ring	5	0.242
screws	4	0.193

shovel	2	0.097
spikes	3	0.145
spoon	1	0.048
spring	1	0.048
stopper	5	0.242
tin can	4	0.193
tube	2	0.097
turn key	1	0.048
unidentifiable	46	2.223
utensil	2	0.097
washer	1	0.048
water spout	1	0.048
wire	3	0.145
multiple	**43**	**2.078**
clinker	4	0.193
handle	1	0.048
shoe, heel	3	0.145
shoes	33	1.595
stopper	2	0.097
shell	**174**	**8.410**
mussel	173	8.362
oyster	1	0.048
stone	**12**	**0.580**
mill stone	2	0.097
roof slate	6	0.290
tile	4	0.193
textile	**7**	**0.338**
felt cloth	4	0.193
rope	3	0.145
wood	**17**	**0.822**
barrel	1	0.048
chair, leg	1	0.048
chair, spindle	1	0.048
disc	1	0.048
furniture	2	0.097
handle	2	0.097
handle, shovel	3	0.145
pipe	3	0.145
tool	1	0.048
unknown	2	0.097
wood/ metal	**4**	**0.193**
handle	2	0.097

handle, broom	2	0.097
Total	**2069**	**100.000**

Pattern Analysis

To compare and contrast the pattern of artifacts recovered, all identifiable artifacts were analyzed according to specific categories and groups using total MNV recovered. (Please note: items from within the Kitchen: Food category, including coconut fragments (n=4), calcine bone (n=2), mammal bone (n=118), oyster shell (n=1), and mussel shell (n=173), were not included because faunal analysis was not completed; therefore, an MNV was not determined.) Within the Van Eps Site, an MNV of 990 vessels were identified and are divided into the following pattern and function:

Van Eps Site		
Pattern and Function	**MNV**	**%**
Activity	**42**	**4.24**
Cleaning	5	0.51
Gardening	13	1.31
Toys	18	1.82
Writing	6	0.61
Architecture	**179**	**18.08**
Electrical	2	0.20
Hardware	25	2.53
Miscellaneous Building Materials	5	0.51
Nails, Spikes, Etc.	122	12.32
Roofing Material	5	0.51
Window Glass	20	2.02
Clothing	**29**	**2.93**
Buttons	1	0.10
Shoes	27	2.73
Textile	1	0.10
Features	**19**	**1.92**
Outbuilding	16	1.62
Well	3	0.30
Furnishings	**28**	**2.83**
Decorative Arts	12	1.21
Furniture	6	0.61
Lighting	10	1.01
Kitchen	**514**	**51.92**
Bottle: Alcoholic Beverage	31	3.13
Bottle: Closure	21	2.12
Bottle: Food, Flavoring, Condiments	31	3.13
Bottle: Non-Alcoholic Beverage	34	3.43
Bottle: Other	70	7.07
Drinking: Pitcher, Mug, Tumbler, Goblet	7	0.71
Drinking: Tea, Coffee	43	4.34

Food Preparation and Storage	43	4.34
Serving	16	1.62
Tableware	211	21.31
Utensils	7	0.71
Personal	**74**	**7.47**
Coins and Keys	2	0.20
Combs	3	0.30
Hygiene (Chamber Pots)	2	0.20
Other	1	0.10
Perfume/Cologne	1	0.10
Pharmaceutical	57	5.76
Tobacco	8	0.81
Other	**105**	**10.61**
Ceramic	28	2.83
Glass	22	2.22
Leather	3	0.30
Metal	45	4.55
Other	4	0.40
Wood	3	0.30
Total	**990**	**100.00**

The majority of artifacts were located within the Kitchen category (MNV=514; 51.92 percent) and tableware led the category with a total of 211 vessels. The second most frequent category was Architecture (MNV=179;18.08 percent).

3.2.3 Features and Activity Areas

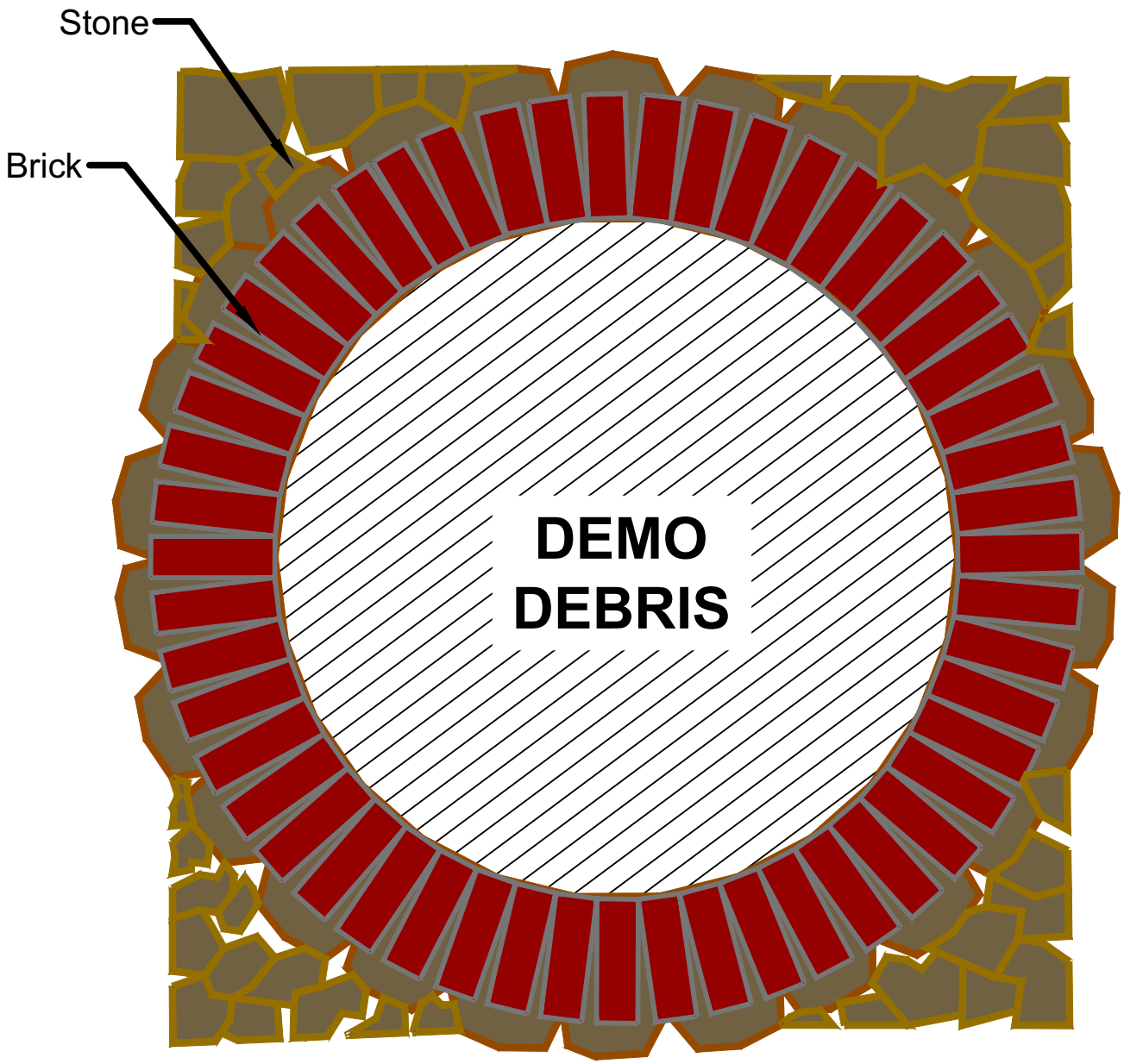
Four features were found in association with the Van Eps Site: a well (Feature 1), a backyard sheet refuse deposit (Feature 2), a cistern (Feature 3), and a water pump (Feature 4). A total of 1,751 historic artifacts were found in the four features (Appendix V). Features 1 and 3 were fully re-exposed and excavated during the Phase II Survey; Feature 2 was fully excavated in the Phase I Survey; Feature 4 was discovered and excavated during the Phase II Survey.

Feature 1: Well

Feature 1 was recorded during the Phase I Survey as a "shield-shaped" cut stone well shaft measuring 182 cm (6 ft) by 168 cm (5 ft 6 in) identified within Trench 1 (Photos 3 and 4; Figures 6 and 7; see Figure 5). When the feature was re-exposed during the Phase II Survey, it was determined to be circular. Feature 1 is located within the boundary of an outbuilding depicted on historic mapping at this location between as early as 1889 and 1914 but it is unclear how the feature related with this outbuilding, if at all. (Please note the 1889 historic map was the earliest available map that clearly depicted building locations.)

Feature 1 was encountered 2 ft below datum and was constructed from cut stone slabs. The top of the feature was outlined in a single circular course of red brick surrounded by cut stone slabs that formed a square. The interior of the shaft was lined with mortared cut stone. The profile for

FEATURE 1



Christine Davis Consultants
Archaeology and History
Cider Mill of Pittsburgh
560 Penn Street
Verona, PA 15147
www.ChristineDavisConsultants.com
412-826-0443

0 1 2

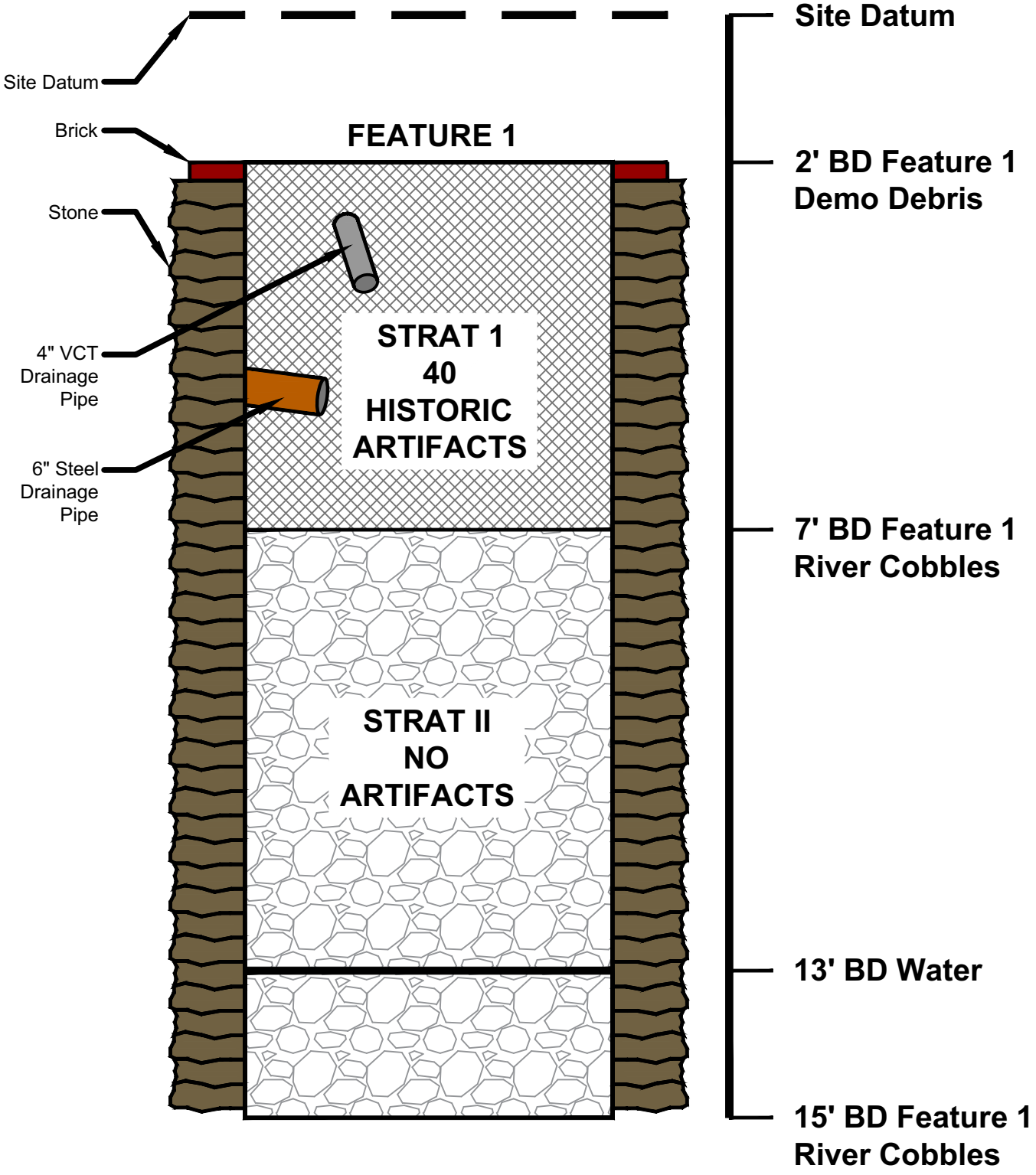
1 INCH = 1 FOOT

REFERENCES:

Feature 1 Plan
North Ferry Street Pump Station Relocation
16PR07821
City of Schenectady, Schenectady County, New York

PROJECT NO.
17-065

FIGURE 6



Christine Davis Consultants
Archaeology and History
Cider Mill of Pittsburgh
560 Penn Street
Verona, PA 15147
www.ChristineDavisConsultants.com
412-826-0443

0 1 2

1 INCH = 2 FEET

REFERENCES:

Feature 1 Profile
North Ferry Street Pump Station Relocation
16PR07821
City of Schenectady, Schenectady County, New York

PROJECT NO.
17-065

FIGURE 7

Photo 3: Feature 1, Plan View, Looking Northwest


Photo 4: Feature 1, Profile, Looking Northwest

Feature 1 consisted of very rocky, ashy demolition fill containing bricks, stone, and minimal artifactual material. This feature contained two strata: Stratum I contained approximately 5 feet of demolition debris and all the artifacts that were recovered from the feature; Stratum II was purposefully and densely filled with approximately 6 feet of river cobbles and contained no artifacts. Two intrusive pipes entered the feature approximately 3 ft below datum and represented a modern drainage. The pipe located on the northern side of the well was a 4-inch ceramic pipe and the pipe located along the western side of the well was a 6-inch steel pipe. The demolition fill was underlain by river cobbles which were encountered at approximately 7 ft below datum and continued to a depth of 15 ft below datum. Water was encountered at 13 ft below datum.

A total of 40 artifacts were recovered from Feature 1, Stratum I. No artifacts were found in Stratum II. These artifacts have a ceramic mean date of 1850 and a terminus post quem (TPQ) date of 1867; however, the artifacts do not appear to be in situ but rather were part of demolition debris that was used to cap the well. It appears as though the shaft was thoroughly cleaned, then river cobbles were emplaced in the bottom of the well to function as a yard drain feature along with the two pipes.

A total of 40 historic artifacts were recovered from Feature 1, including:

Feature 1		
Artifact Types	**#**	**%**
ceramic	**15**	**37.5**
ironstone	14	35
porcelain	1	2.5
glass	**9**	**22.5**
bottle	3	7.5
bottle, soda water	1	2.5
flask	2	5
window	2	5
unidentifiable vessel fragments	1	2.5
metal	**16**	**40**
chain	1	2.5
nails, square	12	30
nut, hex	1	2.5
unidentifiable	2	5
Total	**40**	**100**

Ceramics. A total of 15 ceramics fragments (MNV=7) were recovered. While no ceramic forms could be determined, 3 fragments were decorated. Two ironstone fragments were gilded and molded. One ironstone fragment was decorated with flow blue (Photo 5). There were no marker's marks on any ceramic fragments from Feature 1.

Glass. Identifiable glass artifacts included bottles (n=4; MNV=3), flasks (n=1; MNV=1), and window glass (n=2; MNV=1). Only one bottle contained a mark: G W/ REGISTERED/GEO WELLER/ SCHENECTADY/NY. This bottle has a date range of 1867 through the 1890s.

Metal. Identifiable metal artifacts included a chain (n=1), a hex nut (n=1), and square nails (n=12). Square nails have a date range spanning 1791 to 1886.

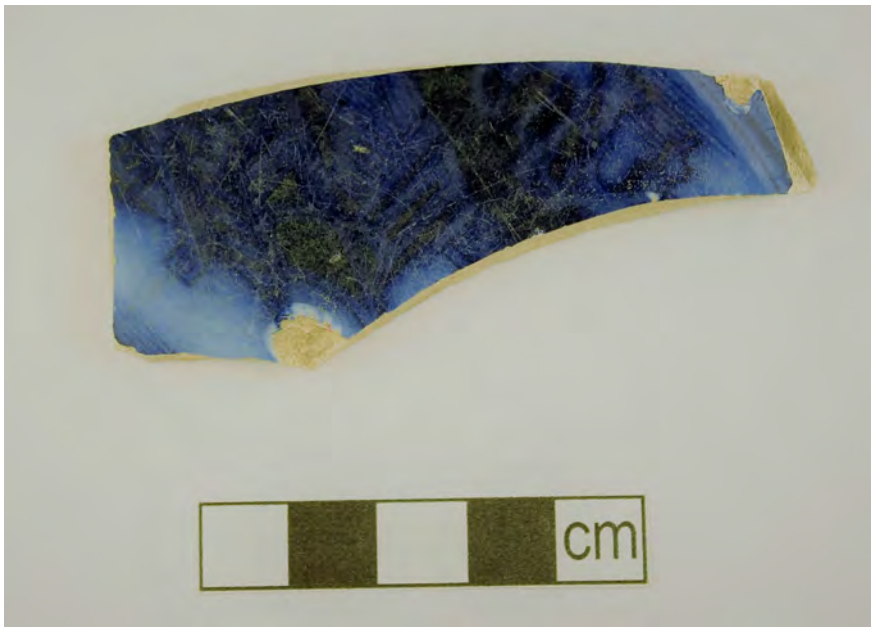


Photo 5: Feature 1, Flow Blue Ironstone Fragment

Feature 2: Backyard Sheet Refuse

Feature 2 was recorded as backyard sheet refuse deposit measuring 243 cm (8 ft) by 152 cm (5 ft). The feature was identified by a concentration of historic artifacts and bricks within Stripped Area 1 (Photo 6; see Figure 5). Feature 2 was found within the same historic outbuilding as Feature 1; however, Feature 2 was located within the part of the building that had been extended by 1894. The soil profile for Feature 2 consisted of historic fill and ash. A total of 114 artifacts were recovered from the feature.

Photo 6: Feature 2, Plan View, Looking Northeast (Note: Millstone Fragment)

A total of 114 historic artifacts were recovered from the surface of Feature 2, including:

Feature 2		
Artifact Types	**#**	**%**
brick	**2**	**1.75**
brick fragments	2	1.75
celluloid	**1**	**0.88**
comb	1	0.88
ceramic	**47**	**41.23**
earthenware	5	4.39
ironstone	14	12.28
porcelain	2	1.75
redware	1	0.88
stoneware	10	8.77
yellow ware	15	13.16
clay	**1**	**0.88**
pipe, stem	1	0.88
composite	**1**	**0.88**
shoe, heel	1	0.88
faunal	**5**	**4.39**
mammal	5	4.39
glass	**36**	**31.58**
bottle	17	14.91
bottle, ink	1	0.88
bottle, medicine	3	2.63
hurricane	5	4.39
window	3	2.63
unidentifiable vessel fragments	7	6.14
glass/ metal	**1**	**0.88**
bottle, soda with Hutchinson stopper	1	0.88
metal	**9**	**7.89**
handle	1	0.88
nails, square	5	4.39
ring	1	0.88
spoon	1	0.88
unidentifiable	1	0.88
shell	**6**	**5.26**
mussel	6	5.26
stone	**4**	**3.51**
millstone	**2**	**1.75**
roof slate	2	1.75
wood/metal	**1**	**0.88**
handle	1	0.88
Total	**114**	**100.00**

Ceramics. A total of 47 ceramic fragments (MNV=19) were recovered. Of these, six ceramic forms could be determined and include:

Feature 2		
Forms	**#**	**MNV**
ceramic	**35**	**13**
chamber pot	5	1
crocks	10	6
flower pot	1	1
saucer	2	2
teacup	4	2
teapot	13	1
Total	**35**	**13**

Decorated ceramic artifacts included Rockingham yellow ware (n=15; MNV=2), gilded and banded porcelain (n=2; MNV=2), molded ironstone (n=7; MNV=3), and majolica earthenware (n=5; MNV=1) fragments. Ceramic forms included a Rockingham teapot, a gilded and banded porcelain tea cup and saucer, a molded ironstone chamber pot, a redware flower pot, an ironstone teacup and saucer, and six stoneware crocks. Two partial maker's marks were noted; however, the items could not be dated.

Clay. A single clay pipe stem was recovered. The pipe stem had no diagnostic markings.

Glass. Identifiable glass artifacts included bottles (n=17; MNV=7), ink bottles (n=1; MNV=1), medicine bottles (n=3; MNV=3), a hurricane lighting shade (n=5; MNV=1), and window glass (n=3; MNV=1). Three bottles contained marks (Photo 7); however, only one could be dated:

Table 1
Feature 2: Glass Maker's Marks

Quantity	Material Type	MNV/MNI/MNU	Glass Form	Additional Information	Marks	Location	First Date	Late Date
1	glass/ metal	1	bottle, soda water	Hutchinson stopper	[MYNDERSE BRO'S/ SCHENECTADY / N. Y.]	Schenectady, NY		
1	glass	1	bottle, medicine		[MADE BY/ DEAN FOSTER & CO/ BOSTON]	Boston, MA	1874	1911
1	glass	1	bottle, medicine	Dr. Hand's Remedies for Children	[DR. D. B. HAND/ SCRANTON]	Scranton, PA	1885	

Photo 7: Feature 2, Dr. Hand's Medicine Bottle and Mynderse Bro's Soda Bottle

Metal. Identifiable metal artifacts included a handle (n=1), square nails (n=5), a ring (n=1), and a spoon (n=1). In addition, a single metal and wood utensil handle was recovered. Square nails have a date range spanning 1791 to 1886.

Other. A total of 19 other artifacts were recovered from the site. These Items included two millstone fragments (Photo 8), a celluloid comb, the heel of a shoe, faunal remains (n=5), mussel shell (n=6), roof slate (n=2), and two brick fragments. Celluloid has a date range from 1870 through 1930.

Photo 8: Feature 2, Millstone Fragments

Feature 3: Cistern

Feature 3 was recorded during the Phase I Survey as a circular-shaped brick-lined shaft measuring 183 cm (6 ft) by 183 cm (6 ft) (Figures 8 and 9; see Figure 5; Photos 9 and 10). This feature is located south of the southern wall of the historic outbuilding where Features 1 and 2 were identified.

Feature 3 was encountered 2 ft below datum and was constructed from brick and lined with mortar. The mortar was approximately an eighth of an inch thick on the sides and over a half an inch across the bottom of the feature. The feature contained three strata. The profile for Feature 3 consisted of approximately 6 inches of brown silty loam fill containing artifactual material (Stratum I) over 4 ft of brown ashy fill containing artifactual material (Stratum II). Water retained within the cistern by the mortar lining was encountered at approximately 5 ft 10 inches below datum. The ashy fill was underlain by a dark brown demolition fill deposit containing artifacts and extending to a depth of 10 ft 4 in below datum (Stratum III).

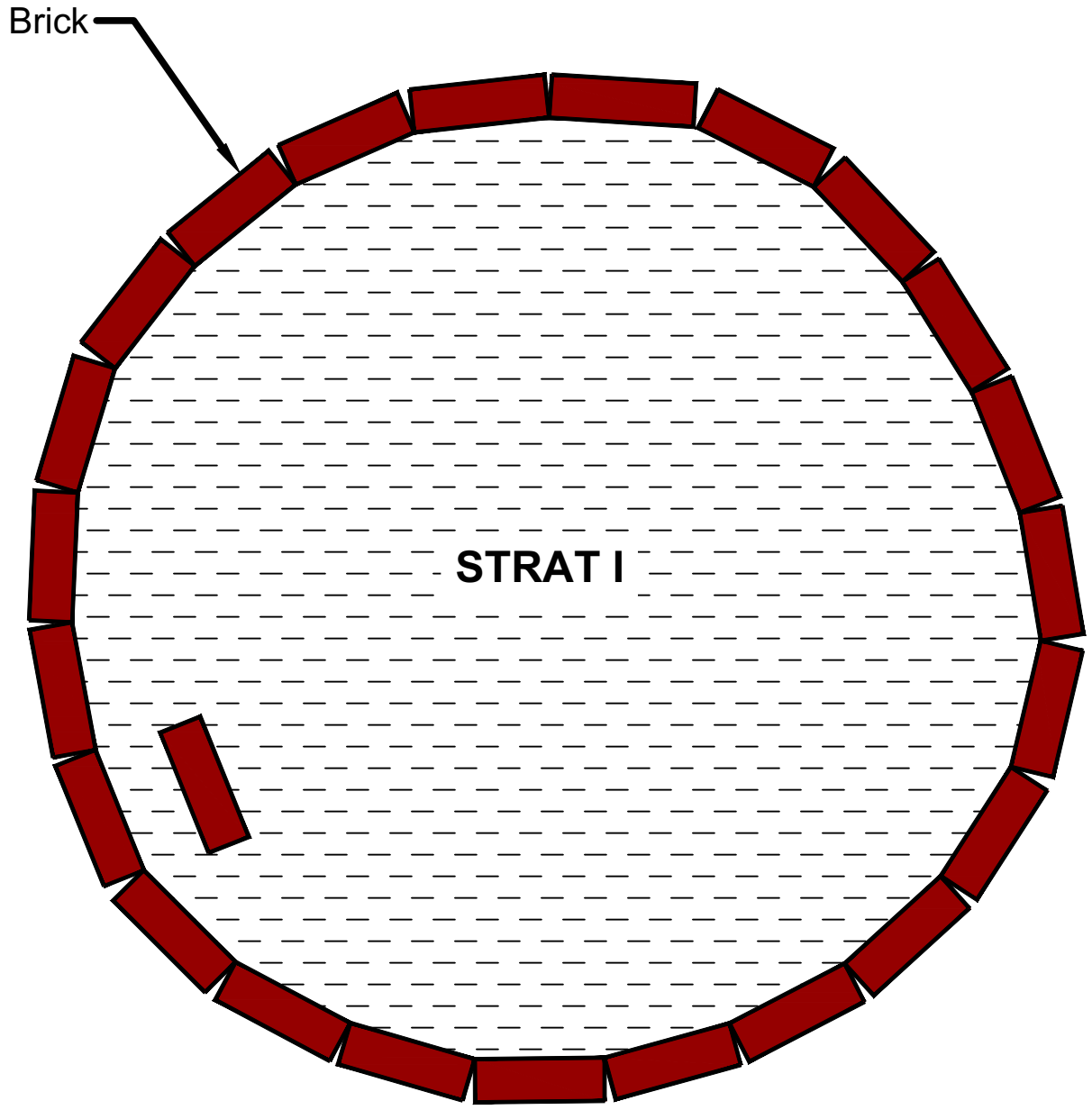
A total of 1,168 artifacts were recovered from the feature, including 139 artifacts from the Stratum I, 380 artifacts from Stratum II, and 649 artifacts from Stratum III. Stratum I had a ceramic mean date of 1883 and a TPQ of 1892. Stratum II had a ceramic mean date of 1924 and a TPQ of 1913. Stratum III had a ceramic mean date of 1909 and a TPQ of 1908. The artifacts from all three stats within Feature 3 have a ceramic TPQ date of 1913. Stratum 1 appears to be random fill materials. The dates of the other strata indicate that the cistern was cleaned and filled in roughly around the time the associated dwelling/rental unit was demolished in ca. 1915.

Summary of Feature 3 Ceramic Mean and TPQ Dates

Feature #	Strat/Level	Quantity	Mean Date (Artifacts)	MNV	Mean Date (Vessels)	TPQ
3	I	1	1883	1	1883	1892
3	II	2	1924	2	1924	1913
3	III	4	1909	3	1909	1908

Photo 9: Feature 3, Plan View, Looking East


Photo 10: Feature 3, Profile, Looking Southeast



Christine Davis Consultants
Archaeology and History
Cider Mill of Pittsburgh
560 Penn Street
Verona, PA 15147
www.ChristineDavisConsultants.com
412-826-0443

0 1 2

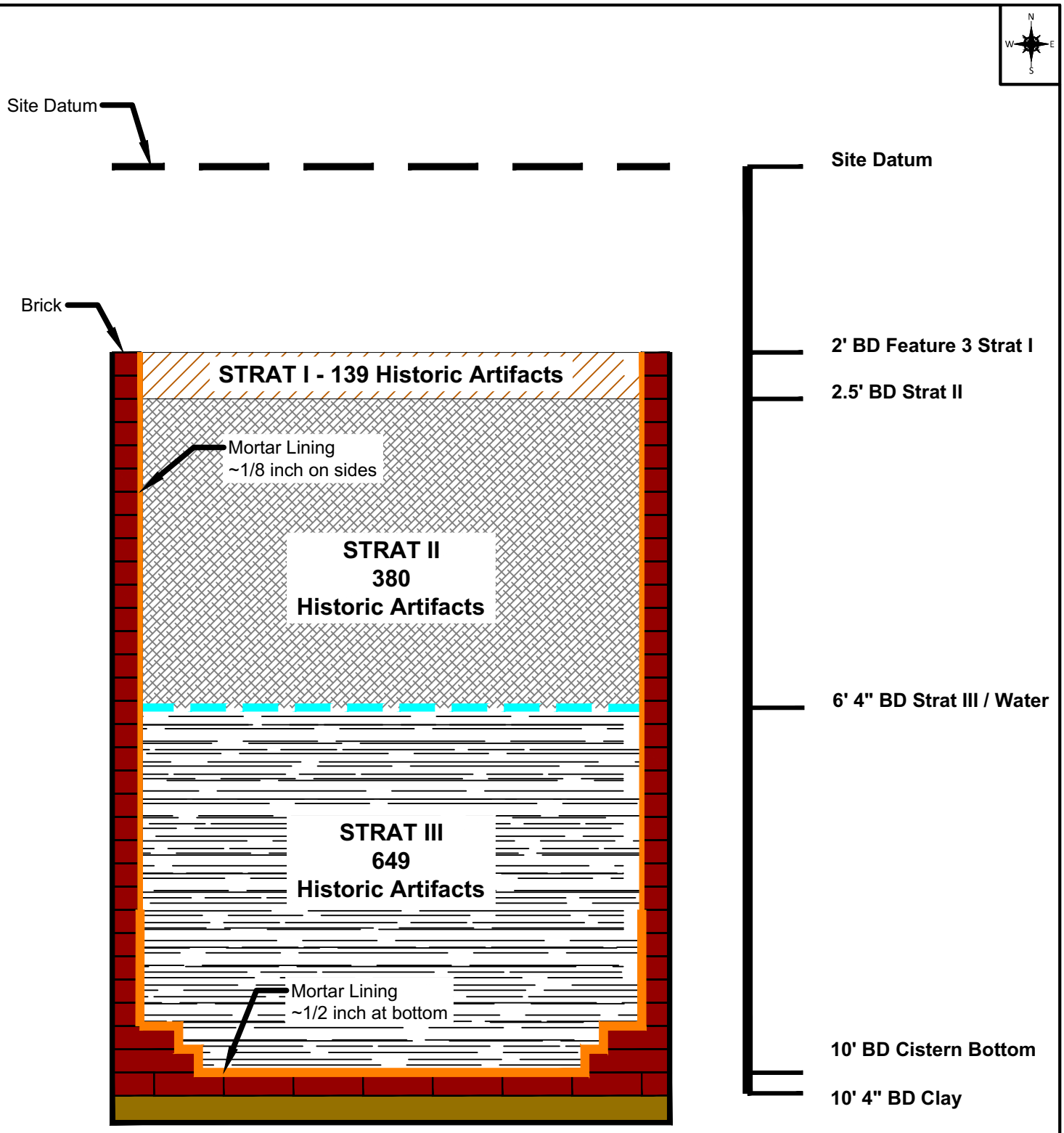
1 INCH = 1 FOOT

REFERENCES:

Feature 3 Plan
North Ferry Street Pump Station Relocation
16PR07821
City of Schenectady, Schenectady County, New York

PROJECT NO.
17-065

FIGURE 8



Christine Davis Consultants
Archaeology and History
Cider Mill of Pittsburgh
560 Penn Street
Verona, PA 15147
www.ChristineDavisConsultants.com
412-826-0443

0 1.5 3

1 INCH = 1.5 FEET

REFERENCES:

Feature 3 Profile
North Ferry Street Pump Station Relocation
16PR07821
City of Schenectady, Schenectady County, New York

PROJECT NO.
17-065

FIGURE 9

A total of 1,168 historic artifacts were recovered from Feature 3, including:

Feature 3		
Artifact Types	**#**	**%**
bone	**1**	**0.086**
button	1	0.086
celluloid	**2**	**0.171**
comb	2	0.171
ceramic	**341**	**29.195**
earthenware	17	1.455
hotel	2	0.171
ironstone	206	17.637
porcelain	70	5.993
redware	16	1.370
stoneware	16	1.370
yellow ware	14	1.199
clay	**3**	**0.257**
marble	1	0.086
pipe	1	0.086
pipe, stem	1	0.086
cork	**11**	**0.942**
cork	11	0.942
ethnobotanical	**4**	**0.342**
coconut	4	0.342
faunal	**68**	**5.822**
calcine bone	1	0.086
mammal	67	5.736
glass	**408**	**34.932**
bottle	83	7.106
bottle, beer	17	1.455
bottle, cleaning	1	0.086
bottle, condiment	22	1.884
bottle, hair tonic	1	0.086
bottle, liquor	3	0.257
bottle, medicine	33	2.825
bottle, milk	1	0.086
bottle, preserves	2	0.171
bottle, soda water	18	1.541
bottle, water	1	0.086
cup	1	0.086
decorative art	1	0.086
flask	23	1.969
hurricane	14	1.199

jar	38	3.253
jar, jelly	2	0.171
jar, medicine	1	0.086
lid	2	0.171
mug	1	0.086
tumbler	3	0.257
window	115	9.846
vial	1	0.086
unidentifiable vessel fragments	24	2.055
glass/ metal	**2**	**0.171**
bottle, perfume	1	0.086
jar, lid	1	0.086
leather	**4**	**0.342**
gasket	1	0.086
unknown	3	0.257
metal	**171**	**14.640**
banding	2	0.171
barrel binding	2	0.171
boot scraper	2	0.171
bowl	6	0.514
coin	1	0.086
decorative art	3	0.257
disc	1	0.086
drawer pull	1	0.086
gasket	1	0.086
handle	1	0.086
hardware	1	0.086
hinge	3	0.257
lid	3	0.257
nails, round	52	4.452
nails, square	22	1.884
nails, unidentifiable	10	0.856
oil can	2	0.171
plate	1	0.086
pump	1	0.086
ring	4	0.342
screws	3	0.257
shovel	2	0.171
spikes	1	0.086
tin can	4	0.342
tube	2	0.171
unidentifiable	36	3.082
utensil	1	0.086

utensil, handle	1	0.086
washer	1	0.086
water spout	1	0.086
multiple	**34**	**2.911**
handle	1	0.086
shoes	33	2.825
shell	**90**	**7.705**
mussel	89	7.620
oyster	1	0.086
stone	**4**	**0.342**
tile	4	0.342
textile	**7**	**0.599**
felt cloth	4	0.342
rope	3	0.257
wood	**17**	**1.455**
barrel	1	0.086
chair, leg	1	0.086
chair, spindle	1	0.086
disc	1	0.086
furniture	2	0.171
handle	2	0.171
handle, shovel	3	0.257
pipe	3	0.257
tool	1	0.086
unknown	2	0.171
wood/ metal	**1**	**0.086**
handle	1	0.086
Total	**1168**	**100.000**

Ceramics. A total of 341 ceramic fragments (MNV=180) were recovered (Photos 11 to 13). A total of 29 ceramic forms could be determined and include:

Feature 3		
Forms	**#**	**MNV**
ceramic	**173**	**95**
bottle	2	1
bowl	14	8
creamer	12	3
crocks	12	4
cruet	2	2
cup plate	3	2
dish, salt	1	1

electrical component	2	2
figurine	4	1
flower pot	12	6
lid	5	4
pig	1	1
pipe	1	1
pitcher	1	1
plate	26	13
saucer	25	11
serving dish	2	1
teacup	19	12
teacup, child's	1	1
teacup, handle	1	1
toy, cup	2	2
toy, doll	4	2
toy, doll arm	1	1
toy, lid	1	1
toy, plate	1	1
toy, saucer	4	3
twiffler	7	6
valet	4	1
vase	3	2
Total	**173**	**95**

Photo 11: Feature 3, Molded Ironstone Lid (Strat I) and Decal/Molded/Gilded Ironstone Pitcher (Strat III)

Photo 12: Feature 3, Strat III, Molded and Transfer Printed Ironstone Plate Marked "COLONIAL POTTERY/STORE ENGLAND"

Photo 13: Feature 3, Strat III, Molded and Hand Painted Earthenware Bowl

A total of 99 ceramic vessels had some form of decoration. Decorated ceramic artifacts included:

Feature 3		
Decoration and Paste	**#**	**MNV**
ceramic	**164**	**99**
earthenware	**14**	**6**
gilded	1	1
hand painted/molded	1	1
majolica	3	1
molded	9	3
ironstone	**79**	**50**
banded/gilded	3	1
decal	5	1
decal/gilded	1	1
decal/gilded/hand painted/molded	3	1
decal/gilded/molded	13	7
decal/molded	6	4
feather edge	1	1
gilded/molded	3	3
molded	13	11
molded transfer print	8	3
transfer print	23	17
porcelain	**54**	**34**
banded/gilded	1	1
banded/gilded/molded	5	5
banded/molded	1	1
decal	2	2
decal/gilded/hand painted/molded	2	2
decal/gilded/molded	1	1
decal/molded	5	3
gilded/hand painted/molded	4	1
gilded/molded	2	2
hand painted	9	4
molded	21	11
transfer print	1	1
redware	**4**	**4**
molded	4	4
stoneware	**2**	**1**
banded	2	1
yellow ware	**11**	**4**
molded/Rockingham	10	3
Rockingham	1	1
Total	**164**	**99**

A total of 8 maker's marks were noted within Feature 3 and were able to be dated, including:

Table 2
Feature 3: Ceramic Maker's Marks

Strat/Level	Quantity	MNV/MNI/MNU	Paste	Ceramic Style	Ceramic Form	Additional Information	Marks	First Date	Late Date
I	1	1	earthenware				{GLASGOW…CHINA/ WARRANTED]	1882	1884
II	1	1	ironstone		cup plate	Onondaga Pottery Co	[EXCELSIOR/ IRONSTONE CHINA/ O.P. CO]	1871	1956
II	1	1	ironstone		saucer	W.S. George Pottery Co	[W. S. GEOR(GE)/ &10 C]	1913	1955
III	2	1	ironstone	molded/ transfer print	plate		[COLNIAL POTTRY/ STORE ENGLAND]	1890	1925
III	1	1	ironstone		dish, salt		[ROYAL IRONSTONE CHINA/ ALFRED MEAKIN,/ ENGLAND]	1875	1974
III	3	1	ironstone		plate		[TRADEMARK/ SEMIPORCELAIN/ …ODOC & SONS/ ENGLAND	1896	
III	1	1	ironstone		plate		[TRADEMARK/ ROYAL SEMIPORCELAIN/ JOHN MADDOCK & SONS/ ENGLAND]	1880	1906
III	1	1	ironstone				[JOHNSON BROS/ ENGLAND]	1883	

Clay. A total of 2 clay pipe stems and one clay marble were recovered (Photo 14).

Photo 14: Feature 3, Strat III, Clay Pipe Marked "GEE…"

Glass. Identifiable glass artifacts consisted of 21 forms and included:

Feature 3		
Artifact Types	**#**	**MNV**
glass	**384**	**157**
bottle	83	29
bottle, beer	17	8
bottle, cleaning	1	1
bottle, condiment	22	18
bottle, hair tonic	1	1
bottle, liquor	3	2
bottle, medicine	33	30
bottle, milk	1	1
bottle, preserves	2	2
bottle, soda water	18	9
bottle, water	1	1
cup	1	1
decorative art	1	1
flask	23	13
hurricane	14	5
jar	38	16
jar, jelly	2	1
jar, medicine	1	1
lid	2	2
mug	1	1
tumbler	3	2
window	115	10
vial	1	1
Total	**384**	**157**

A total of 43 bottles contained marks (Photo 15); however, only 12 could be dated:

Table 3
Feature 3: Glass Maker's Marks

Strat/Level	Quantity	MNV/MNI/MNU	Glass Form	Marks	Location	First Date	Late Date
I	1	1	bottle, beer	[C. S. & CO LD/ 2182]	St Helens England	1892	1913
I	1	1	bottle	[15 K]			
I	1	1	bottle, medicine	[WYCKOFF & COS/ UNION/ BLUEING]			

I	1	1	bottle, soda water	[MYNDERSE & AINSWORTH/ SCHENECTADY/ NY/ TRADE MARK/ REGISTERED]	Schenectady, New York	1880	
I	15	6	bottle, soda water	[G W/ REGISTERED/ GEO WELLER/ SCHENECTADY/ NY]	Schenectady, New York	1867	1890s
I	1	1	bottle, soda water	[NY/ Q]	New York		
I	1	1	bottle, medicine	[…NS]			
II	5	1	bottle, beer	[…BREWING CO/ TRADE/ MARK/TROY, NY/ REGISTERED	Troy, New York		
II	5	1	bottle	[TROY NY/ REGISTERED/ 13 OZ]	Troy, New York		
II	15	5	flask	[…UGHU GIN] [...NTED/ FLASK] [FULL PINT]			
II	4	1	bottle	[TRADE/ MARK]			
II	1	1	bottle, medicine	[LARKIN CO/ BUFFALO]	Buffalo, New York		
II	1	1	bottle, hair tonic	[ED. PINAUD/ PARIS]	Paris, France		
III	3	3	bottle, medicine	[BROMO-SELTZER/ EMERSON/ DRUG CO./ BALTIMORE MD]	Baltimore, Maryland		
III	5	2	bottle, beer	[S]			
III	1	1	bottle, beer	[IROQUOIS]	Buffalo, New York	1890	
III	1	1	bottle	[EXCELSIOR/ BOTTLING WORKS/ SCHENECTADY NY/ THIS BOTTLE/ NOT TO BE SOLD]	Schenectady, New York		
III	1	1	bottle, water	[SARATOGA/ LINCOLN SPRING CO/ THIS BOTTLE NOT TO BE SOLD]	Saratoga, New York		
III	2	1	bottle, beer	[AB/ CO]			
III	1	1	flask	[UNION MADE/ WE SHEILDS &…/ CINCINNATI	Cincinnati, Ohio		
III	1	1	jar, medicine	[GWC CO}			
III	11	8	bottle, medicine	[BEAVER OIL]		1907	
III	2	2	bottle, medicine	[JOHN PHELPS PHARMACIST/ PHELPS/ RHEUMATIC/ ELIXER/SCRANTON, PA]	Scranton, Pennsylvania		
III	2	2	bottle, medicine	[DR S. PITCHER'S/ GASTORIA]		1868	1900
III	1	1	bottle, medicine	[EMPIRE STATE DRUG CO./ LABORATORIES/ BUFFALO NY]	Buffalo, New York		
III	1	1	jar	[J105/ MASON'S/ PATENT/ NOV. 30/ 1858/ CLYDE NY]	Clyde, New York		
III	1	1	bottle, beer	[QUANDT/ BREWERY/ TROY NY/ REGISTERED]	Troy, New York		
III	1	1	flask	[WARRENTED FLASK]			
III	1	1	flask	[FULL MEASUREMENT]			
III	1	1	bottle, medicine	[FELLOWS & CO/ CHEMIST/ ST JOHN NB]	St John, New Brunswick	1880	

III	3	3	bottle, condiment	[CHARLES GULDEN/ NEW YORK]	New York	1880s	
III	1	1	bottle, condiment	[JOSEPH CAMPBELL/ COMPANY/ CAMDEN/ NJ USA]	Camden, New Jersey	1879	
III	1	1	bottle, preserves	[CRUIKSHANK BRO & CO ALLEGHENY, PA]	Allegheny, Pennsylvania		
III	1	1	bottle, preserves	[CURTICS BROS CO/ PRESERVERS/ ROCESTER NY]	Rochester, New York		
III	3	2	bottle, liquor	[GUARANTEED/ FULL 1/2 PINT/ H HEILBRONNER & CO/ WHOLESALE/ LIQUOR DEALERS/ SCHENECTADY NY]	Schenectady, New York		
III	1	1	bottle, condiment	[5 OZ/ CHARLES GULDEN PATENTED DECEMBER 25, 1894]			1894
III	3	1	bottle, condiment	[10 OZ/ CHARLES GULDEN PATENTED DECEMBER 25, 1894]			1894
III	1	1	bottle	[REGISTERED/ SCOTT'S BOTTLING WORKS/ SCHENECTADY NY]	Schenectady, New York	1890	1900
III	1	1	bottle, soda water	[JOHN MYNDERSE/ REGISTERED/ SCHENECTADY NY]	Schenectady, New York		
III	1	1	flask	[U]			
III	1	1	jar	[62/ ...N US/ ...22 1908/ US]		1908	
III	2	1	bottle	horseshoe with star			
III	1	1	bottle, condiment	[164]			
III	1	1	bottle, milk	[PRODUCER & CONSUMER CO./ MILK & CREAM/ EMPIRE C4 PAT AUC 1301]			
III	2	1	bottle, condiment	[LG CO 190]			

Photo 15: Feature 3, Strat I, Cannington, Shaw & Co Beer Bottle Marked "C. S. & CO LD/2182"

Metal. Identifiable metal artifacts included:

Feature 3		
Artifact Types	**#**	**MNV**
metal	**135**	**111**
banding	2	1
barrel binding	2	1
boot scraper	2	1
bowl	6	1
coin	1	1
decorative art	3	3
decorative disc	1	1
drawer pull	1	
gasket	1	1
handle	1	1
hardware	1	1
hinge	3	3
lid	3	3
nails, round	52	41
nails, square	22	22
nails, unidentifiable	10	10
oil can?	2	1
plate	1	1
pump	1	1
ring	4	4
screws	3	3
shovel	2	1
spikes	1	1
tin can	4	3
tube	2	1
utensil	1	1
utensil, handle	1	1
washer	1	1
water spout	1	1
Total	**135**	**111**

Datable metal artifacts included tin cans (1868 to 1930s), square nails (1791 to 1886), and round nails (1887 to present).

Other. A total of 19 other artifacts were recovered from the site. These Items included bottle corks (n=11), shoes (n=33), faunal remains (n=68), calcined bone (n=1), mussel shell (n=89), oyster shell (n=1), a sandstone tile (n=1), three lengths of rope, felt cloth (n=4), a bone button (n=), and celluloid combs (n=2) (see Photo 10).

Feature 4: Water Pump

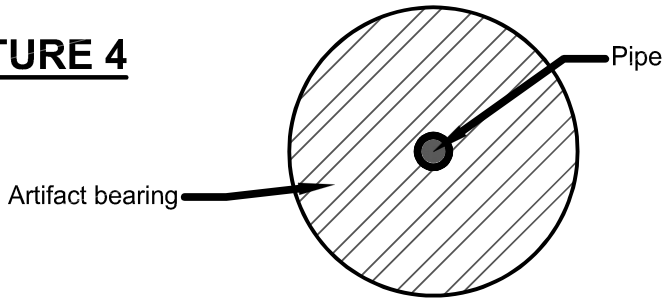
Feature 4 represents a vertical water pump and pipe. Feature 4 was located between the well and cistern at approximately 3 ft 6 in below datum (Figure 10; see Figure 4; Photos 16 and 17). The soil profile for Feature 4 consisted of historic fill and slag, mixed with artifacts and clay.

A total of 429 artifacts were recovered from the feature. These artifacts have a ceramic mean date of 1903 and a TPQ date of 1906, indicating that the pump was placed here in the early 1900s.

A total of 429 historic artifacts were recovered from Feature 4, including:

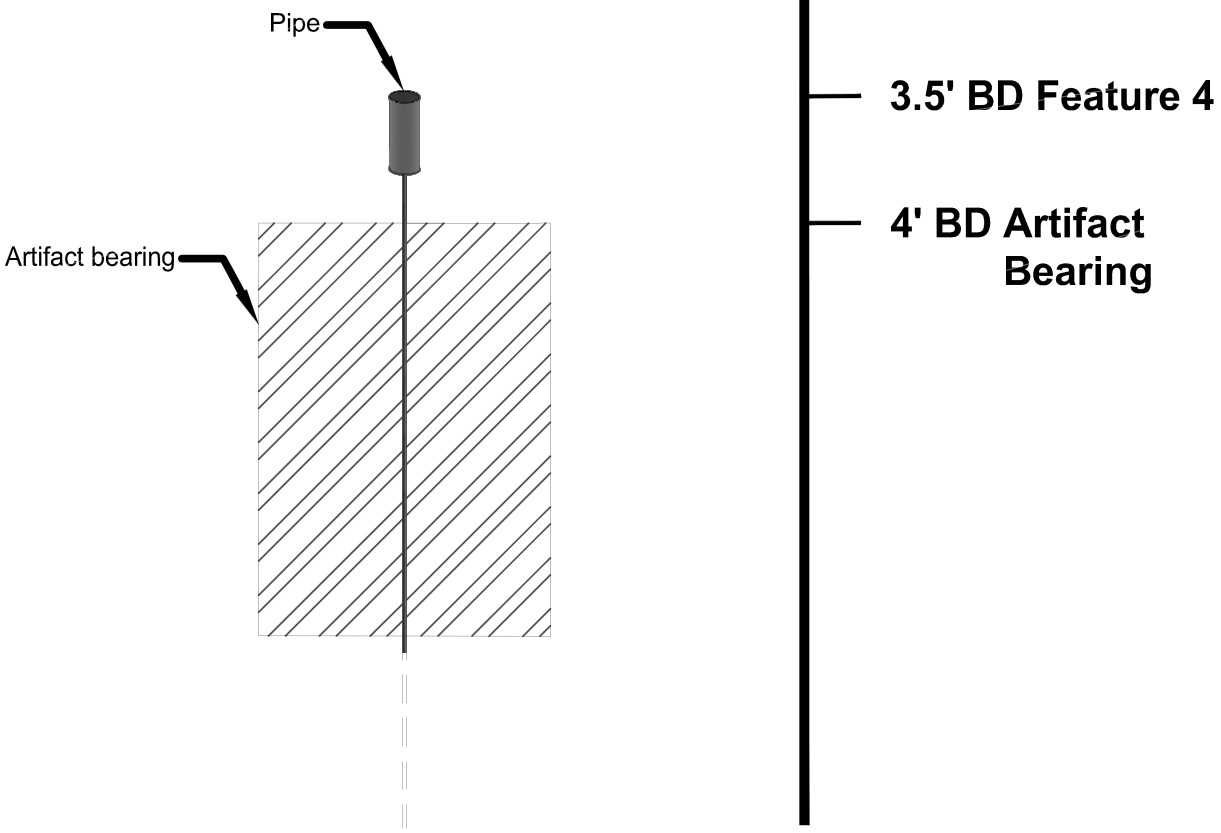
Feature 4		
Artifact Types	**#**	**%**
bone/ metal	**2**	**0.47**
handle, utensil	2	0.47
ceramic	**99**	**23.08**
ironstone	69	16.08
porcelain	13	3.03
redware	7	1.63
stoneware	2	0.47
yellow ware	8	1.86
clay	**2**	**0.47**
pipe, stem	2	0.47
cork	**2**	**0.47**
corks	**2**	**0.47**
faunal	**18**	**4.20**
mammal	18	4.20
glass	**194**	**45.22**
bottle	72	16.39
bottle, cleaning	2	0.47
bottle, condiment	6	1.40
bottle, flavoring	8	1.86
bottle, ink	3	0.70
bottle, medicine	19	4.43
bottle, sauce	2	0.47
bottle, soda water	16	4.13
bowl/lid, chicken	3	0.70
decorative art	2	0.47
dish	3	0.70
flask	7	1.63
goblet	3	0.70
hurricane	7	1.63
jar	14	3.26

FEATURE 4



PLAN VIEW

PROFILE



Christine Davis Consultants
Archaeology and History
Cider Mill of Pittsburgh
560 Penn Street
Verona, PA 15147
www.ChristineDavisConsultants.com
412-826-0443

0 2 4

1 INCH = 2 FEET

REFERENCES:

Feature 4 Plan and Profile
North Ferry Street Pump Station Relocation
16PR07821
City of Schenectady, Schenectady County, New York

PROJECT NO.
17-065

FIGURE 10

Photo 16: Feature 4, Plan View, Looking Northeast

Photo 17: Feature 4, Profile, Looking Southwest

jar, jelly	1	0.23
lamp base	2	0.47
lid	1	0.23
stopper	1	0.23
tumbler	2	0.47
window	19	4.43
unidentifiable vessel fragments	1	0.23
glass/ metal	**2**	**0.47**
jars with lid	2	0.47
metal	**46**	**10.72**
container	8	1.86
corrugated	1	0.23
coupling	1	0.23
finishing edge	22	5.13
handle	1	0.23
lamp, burner	1	0.23
lid	1	0.23
nails, square	3	0.70
spikes	1	0.23
spring	1	0.23
unidentifiable	4	0.93
wire	2	0.47
multiple	**3**	**0.70**
shoe, heel	2	0.47
stopper	1	0.23
shell	**58**	**13.52**
mussel	58	13.52
slate	**1**	**0.23**
roof	1	0.23
wood/metal	**2**	**0.47**
handle, broom	2	0.47
Total	**429**	**100.00**

Ceramics. A total of 99 ceramic fragments, representing an MNV of 49, were recovered. A total of 15 ceramic forms could be determined and include:

Feature 4		
Forms	**#**	**MNV**
ceramic	**74**	**42**
bottle	2	1

bowl	1	1
chamber pot	5	1
coffee cup	8	14
decorative art	1	1
flower pot	6	3
flower pot saucer	1	1
lid	5	3
pedestal	1	1
plate	18	6
plate, child's	2	1
saucer	4	2
serving dish	6	1
teacup	12	5
toy, doll	2	1
Total	**74**	**42**

A total of 16 ceramic vessels were had some form of decoration (Photos 18 and 19). Decorated ceramic artifacts included Rockingham yellow ware (n=6; MNV=2), carinated ironstone (n=1; MNV=1); decaled porcelain and ironstone (n=4; MNV=2), decaled and gilded porcelain and ironstone (n=8; MNV=3); flow blue ironstone (n=1; MNV=1), hand painted porcelain (n=1; MNV=1), molded ironstone and porcelain (n=16; MNV=5), and molded and transfer print ironstone (n=3; MNV=1). A total of 5 maker's marks were noted within Feature 4 and were able to be dated, including:

Table 4
Feature 4: Ceramic Maker's Marks

Feature #	Quantity	MNV/MNI/MNU	Paste	Ceramic Style	Ceramic Form	Additional Information	Marks	First Date	Late Date
4	3	1	ironstone	decal	saucer		[GLASLOW IRONSTONE CHINA/ WARRENTED]	1882	
4	1	1	ironstone		saucer		[ROYAL IRONSTONE CHINA/ ALFRED MEAKIN/ ENGLAND]	1891	1897
4	2	1	ironstone		plate		[…ALCOCK & CO/ ENGLAND]	1891	1900
4	8	1	ironstone		plate	East Liverpool	[C. C. THOMPSON & CO]	1890	1938
4	2	1	ironstone				[TRADEMARK/ ROYAL SEMI-PORCELAIN/ JOHN MADDOCK & SONS/ ENGLAND]	1880	1906

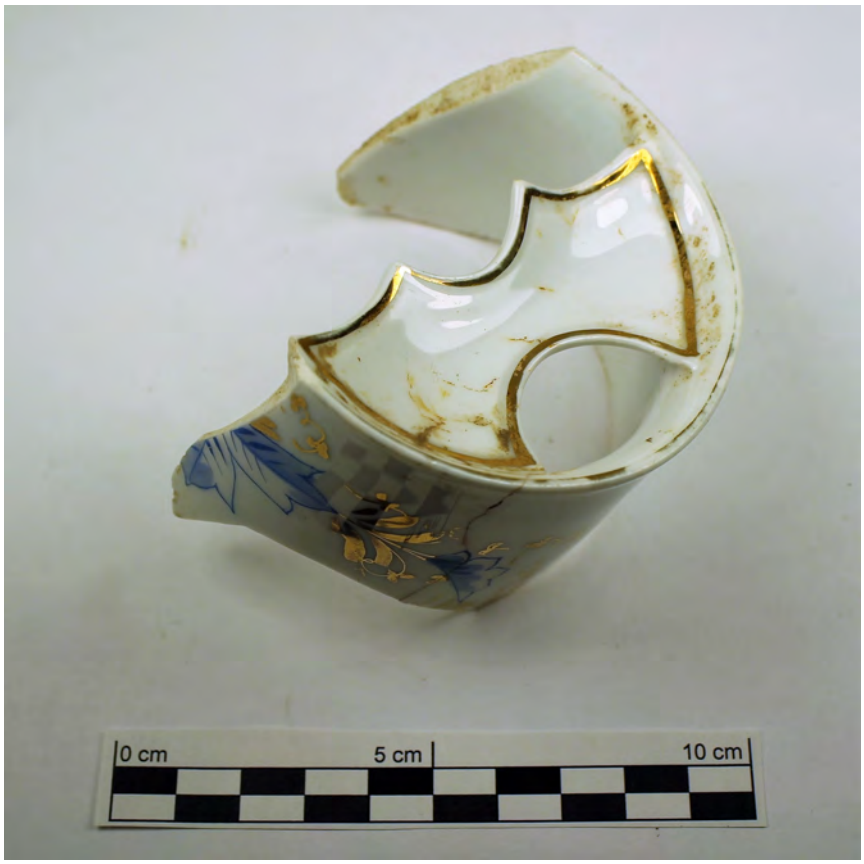


Photo 18: Feature 4, Decal and Gilded Porcelain "Moustache Cup" Tea Cup

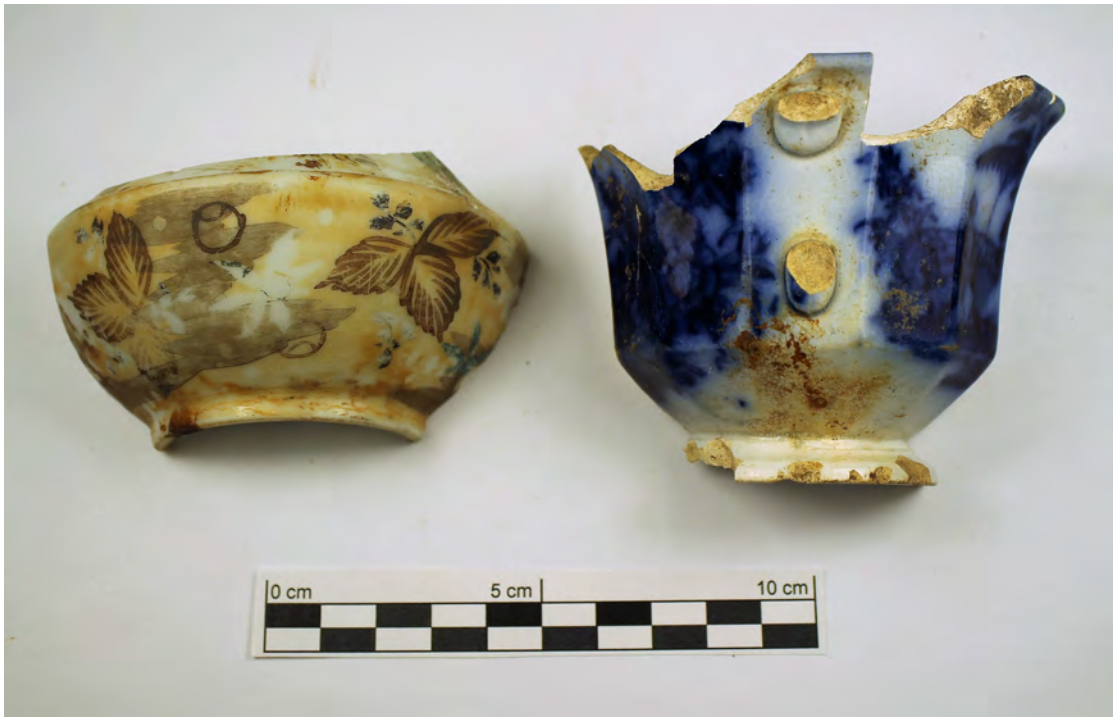


Photo 19: Feature 4, Decal Porcelain Decorative Art and Flow Blue Ironstone Tea Cup

Clay. A total of 2 clay pipe stems were recovered. One pipe stem had was embossed with the marking "PETER DORNI."

Glass. Identifiable glass artifacts consisted of 21 forms and included:

Feature 4		
Artifact Types	**#**	**MNV**
glass	**193**	**83**
bottle	72	23
bottle, cleaning	2	2
bottle, condiment	6	3
bottle, flavoring	8	4
bottle, ink	3	3
bottle, medicine	19	15
bottle, sauce	2	2
bottle, soda water	16	11
bowl/lid, chicken	3	1
decorative art	2	1
dish	3	2
flask	7	4
goblet	3	2
hurricane	7	1
Jar	14	3
jar, jelly	1	1
lamp base	2	1
lid	1	1
stopper	1	1
tumbler	2	1
window	19	1
Total	**193**	**83**

A total of 23 bottles contained marks; however, only nine could be dated:

Table 5
Feature 4: Glass Maker's Marks

Quantity	MNV/MNI/MNU	Glass Form	Marks	Location	First Date	Late Date
8	5	bottle, soda water	[TRADEMARK/ G W/ REGISTERED/ GEO WELLER/ SCHENECTADY/ NY]	Schenectady, New York	1867	1890s
1	1	bottle, soda water	[G W/ GEO WELLER/ SCHENECTADY/ NY]	Schenectady, New York	1864	

1	1	bottle	[E SON &...]			
1	1	bottle, medicine	[SIMMONS/ LIVER/ REGULATOR/ MACON GA/ PHILADELPHIA/ J. H. ZEILIN & CO]	Philadelphia, Pennsylvania		
1	1	bottle, cleaning	[SAWYERS/ CRYSTAL/ BLUING]			
1	1	bottle, medicine	[HOOD'S/ SARSA/PARILLA/ APOTHECARIES/CI HOOD & CO/ LOWELL MASS]	Lowell, Massachusetts	1876	
1	1	bottle, cleaning	[WYCKOFF & COS/ UNION/ BLUING]			
9	2	jar	[PATENT/ NOV 30/ 1858] [NOV…/ 18…]			
1	1	bottle	[1]			
1	1	bottle, soda water	[MYNDERSE/ SCH(ENECTADY)]	Schenectady, New York		
1	1	bottle	[…ECTADY/ NY]	Schenectady, New York		
1	1	bottle	[J25D/ S]			
13	3	bottle	[EXCELSIOR/ BOTTLING WORKS/ SCHENECTADY NY/ THIS BOTTLE/ NOT TO/ BE SOLD/ CLYDE GLASS WORKS CLYDE NY] [SB & GCL]	Schenectady, New York		
4	1	bottle	[…NG/ …WORKS/ SCHENECTADY NY]	Schenectady, New York		
8	4	bottle, flavoring	[WALTER M EWAN/ ALBANY NY/ FRUIT/ FLAVORS]	Albany, New York		
1	1	bottle, medicine	[WILLIAM'S & CO]			
1	1	bottle, medicine	[HOOD'S]		1876	
1	1	bottle, soda water	[H. HEILBRONNER/ 92/ STATE ST/ SCHENECTADY NY/ THIS BOTTLE/ IS NEVER SOLD]	Schenectady, New York		
1	1	bottle, medicine	[PAIN KILLING/ MAGIC OIL/ IT WORKS/ LIKE / A CHARM]	Lawrence, Massachusetts	1874	1935
1	1	bottle, medicine	[DR. J.R. MILLER'S…]			
5	2	bottle, condiment	[LEA & ERRINS/ WORCHESTERSHIRE]	New York	1876	
1	1	bottle, condiment	[HEINZ/ BROS & CO/ 12]	Pittsburgh, Pennsylvania	1886	1895
5	3	bottle, soda water	[G W/ GEO WELLER/ SCHENECTADY/ NY/ JOHN MATTHEWS/ NEW YORK/ PAT/ OCT 11/ 1864]	Schenectady, New York	1864	
2	1	bottle, medicine	[(BIGE)LOW/ INDIAN SAG WA]		1906	
2	1	bottle	[TROY NY/ …TO BE/…SOLD]	Troy, New York		
2	1	flask	[…SNER & CO./ NY/ …12, 78	New York		

Metal. Identifiable metal artifacts included a container (n=8), a fragment of corrugated metal (n=1), a coupling (n=1), fragments of a finishing edge (n=22), a handle (n=1), a wick burner from a lamp (n=1), a lid (n=1), square nails (n=3), a spike (n=1), a spring (n=1), and wire fragments (n=2). In addition, a single metal and bone utensil handle, a wood and metal broom handle (n=2; MNV=2), and the top of a glass jar with a metal lid were recovered. Square nails have a date range spanning 1791 to 1886.

Other. A total of 19 other artifacts were recovered from the site. These Items included bottle corks (n=2), the heel of a shoe (n=2), faunal remains (n=18), mussel shell (n=58), roof slate (n=1), and a multi material bottle stopper (n=1) (see Photo 10). The stopper has a beginning date of 1864 when the stopper design was patented by John Matthews.

3.2.4 Site Boundaries

The boundaries of Van Eps Site were formed by use of historic mapping at this location. The Van Eps Site is located on the floodplain of the Mohawk River at an elevation of 221 ft asl and encompasses approximately 327 sq m (2,575 sq ft or 0.08 ac).

3.2.5 Site Stratigraphy and Chronology

The Van Eps Site is associated with backyard features of a dwelling that stood on this lot between ca. 1840 and ca. 1915. The Van Eps family lived in the dwelling and operated an inn/saloon there from ca. 1840 to ca. 1871. After that, the property was occupied by a series of short-term boarders until the dwelling was demolished ca. 1915. The artifact bearing stratum in the well (Feature 1, Stratum I) was determined to be a deposition of random fill. The backyard deposit (Feature 2) had a TPQ of 1885 based on two datable artifacts. There were no datable ceramics in Feature 2. The mean ceramic dates and TPQs for the cistern (Feature 3) indicate that it was thoroughly cleaned out near the end of the occupation of the dwelling and contained depositions of fill from the early 1900s. The well pump (Feature 4) appears to have been placed there in the early 1900s.

Provenience	Quantity	Mean Date (Artifacts)	MNV/MNI/MNU	Mean Date (Vessels)	TPQ
Feature 1, Stratum I	1	1850	1	1850	1867
Feature 2 (no datable ceramics)	0	0	0	0	1885
Feature 3, Stratum I	1	1883	1	1883	1892
Feature 3, Stratum II	2	1924	2	1924	1913
Feature 3, Stratum III	4	1909	3	1909	1908
Feature 4	14	1903	5	1890	1906

3.2.6 Determination of Eligibility

The Van Eps Site (09340.001832) represents the archaeological remains of backyard features associated with a dwelling that stood on the property between ca, 1840 and ca. 1915. The Van Eps lived in the dwelling and operated an inn/saloon there from ca. 1850 to 1871. At that time the site was purchased by The Schenectady Water Company and soon after the City of Schenectady and they both used the property as a rental unit until ca. 1915 when the dwelling was demolished. The Van Eps Site includes four features, a well, cistern, backyard deposit, and a water pump, and associated artifacts. Additional testing efforts in high probability areas to locate additional subsurface features, including privies, walkways, and depressions, proved to be unsuccessful. The area where the dwelling was located was disturbed by utilities and an active electric line.

An analysis of the features and artifacts was not successful in recovering useful evidence relating to material culture, dietary household consumption, or subsistence patterns of a mid to late nineteenth century dwelling. Further, it was determined that the majority of the artifacts came from early 1900s depositions of fill. None of the artifacts could be directly related to the occupants of the dwelling or its early function as an inn/saloon.

The Van Eps Site was evaluated for the NRHP under Criterion D. Based on the results of the Phase I/II Survey, the Van Eps Site lacks integrity. Both shaft features were cleaned out before being filled with stone and/or fill. The well (Feature 1) was capped with a random deposition of fill while the cistern (Feature 3) contained depositions from the early 1900s roughly around the time the associated dwelling/rental unit was demolished in ca. 1915. The Van Eps Site is being recommended as not eligible NRHP because it does not contain the potential to yield important new data to the field of historic archaeology. In addition, the site does not contribute to the National Register-listed Stockade Historic District, which dates to 1661.

4.0 CONCLUSIONS

The proposed undertaking is known as the North Ferry Street Pump Station Relocation project located in the City of Schenectady, Schenectady County, New York. The project will involve the construction of two new buildings within the parcel that contains the existing pump house and a vacant lot, formerly known as 127 North Ferry Street. CDC was retained by Tectonic to perform cultural resource investigations for this project. The sponsoring agency for this project is GOSR.

The APE involves approximately 1,550 sq m (16,681 sq ft or .38 ac). The area is topographically situated in a floodplain environment associated with the Mohawk River characterized by an urban setting. The Phase I Archaeological Survey was conducted for this project in November of 2017. The majority of the APE, including 1,311 sq m (14,106 sq ft or .32 ac), was not tested due to disturbances caused by the construction and demolition of the original pump house and a residential building as well as the construction of the existing pump house, associated utility corridors, and general grading activities. The area amenable for Phase IB subsurface testing encompassed approximately 239 sq m (2,575 sq ft or .06 ac). All testable sections within these areas were examined through the excavation of six sequentially numbered STPs, one 1 x 1 m units, four mechanically excavated trenches and one stripped area. As a result of the Phase IB Archaeological Survey, one historic archaeological resource was identified within the APE: Van Eps Site (09340.001832). At the close of the Phase I Survey, the site contained three intact features, including two brick-lined shafts and a backyard sheet refuse deposit with associated artifacts.

A Phase II Archaeological Survey was recommended to determine if the Van Eps Site retains integrity and should be considered as eligible for the NRHP under Criterion D and also to determine if the site would contribute to the National Register-listed Stockade Historic District within which it is located. The Phase II Survey was conducted in the summer of 2018. A total of four features were excavated, including a well (Feature 1), a backyard refuse deposit (Feature 2), a cistern (Feature 3), and water pimp (Feature 4). A total of 2,069 artifacts (MNV=1,015) were found; however, the majority of the artifacts came from early 1900s depositions of fill. The Van Eps site does not retain integrity nor does it contribute the National Register-listed Stockade Historic District. The Van Eps Site is being recommended as not eligible for the NRHP.

5.0 REFERENCES

Biggs, A. W. H.
1841-2 *Containing the names, occupation and place of residence of all heads of families, firms, and those doing business in the City, in correct alphabetical arrangement. Also, much other useful matter.* A.W.H. Biggs, New York. http://www.schenectadyhistory.org/citydirectories/1841/index. Accessed January 3, 2018.

Boyd, Andrew
1864-65 *Business Directory and Gazetteer of Schenectady County and an Appendix of Valuable Information*. Young and Graham, New York. http://www.schenectadyhistory.org/citydirectories/index. Accessed January 3, 2018.

Bradt, Henry
1862 *Schenectady City and County Directory for 1862-3 Containing the Names of Residents and a List of City and County Officers Together with Valuable Miscellaneous Matter*. Young and Graham, New York. http://www.schenectadyhistory.org/citydirectories/index.html. Accessed January 3, 2018.

Fagan, L.
1856 *Map of Schenectady County, New York.* L. Fagan, New York.

Hartgen Archaeological Associates, Inc.
2001 *Phase IA Literature Review and Archaeological Sensitivity Assessment for the North Ferry Street Pump House and Riverwalk Project, City of Schenectady, Schenectady County, New York.* Report prepared for Governor's Office of Storm Recovery.
2002 *Phase IB Archaeological Field Investigations for the North Ferry Street Pump House and Riverwalk Project, City of Schenectady, Schenectady County, New York.* Report prepared for Governor's Office of Storm Recovery.

J. & W. H. Riggs, printer
1886 Schenectady Directory and City Register. http://www.schenectadyhistory.org/citydirectories/. Accessed June 14, 2018.
1895 Schenectady Directory and City Register. http://www.schenectadyhistory.org/citydirectories/. Accessed June 14, 2018.
1899 Schenectady Directory and City Register. http://www.schenectadyhistory.org/citydirectories/. Accessed June 14, 2018.
1900 Schenectady Directory and City Register. http://www.schenectadyhistory.org/citydirectories/. Accessed June 14, 2018.
1902 Schenectady Directory and City Register. http://www.schenectadyhistory.org/citydirectories/. Accessed June 14, 2018.
1903 Schenectady Directory and City Register. http://www.schenectadyhistory.org/citydirectories/. Accessed June 14, 2018.
1907 Schenectady Directory and City Register. http://www.schenectadyhistory.org/citydirectories/. Accessed June 14, 2018.
1909 Schenectady Directory and City Register. http://www.schenectadyhistory.org/citydirectories/. Accessed June 14, 2018.
1915 Schenectady Directory and City Register. http://www.schenectadyhistory.org/citydirectories/. Accessed June 14, 2018.
1916 Schenectady Directory and City Register. http://www.schenectadyhistory.org/citydirectories/. Accessed June 14, 2018.
1917 Schenectady Directory and City Register. http://www.schenectadyhistory.org/citydirectories/. Accessed June 14, 2018.

J. & W. H. Riggs, printer (continued)
1918 Schenectady Directory and City Register. http://www.schenectadyhistory.org/citydirectories/. Accessed June 14, 2018.
1920 Schenectady Directory and City Register. http://www.schenectadyhistory.org/citydirectories/. Accessed June 14, 2018.
1925 Schenectady Directory and City Register. http://www.schenectadyhistory.org/citydirectories/. Accessed June 14, 2018.

Morine, Christopher
2017 *Phase I Archaeological Survey Proposed Relocation of North Ferry Street Pump Station, City of Schenectady, Schenectady County, New York.* Report prepared for Governor's Office of Storm Recovery.

Natural Resources Conservation Service
2018 The Web Soil Survey. http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx. Accessed January 8, 2018.

New York State Archaeological Council
2000 *Cultural Resource Standards Handbook-Guidance for Understanding and Applying the New York State Standards for Cultural Resource Investigations.*
2005 *Standards for Cultural Resource Investigations and the Curation of Archaeological Collections in New York State.*

Peasron Street Book 3 9a;19b; 9c; 20a; 20b; 20c; 21a; 21b; 21c; 22.

Sanborn Map Company
1884 *Insurance Maps of Schenectady, Schenectady, New York.* New York, Sanborn Map Company. www.edrnet.com/sanborn. Accessed January 4, 2018.
1889 *Insurance Maps of Schenectady, Schenectady, New York.* New York, Sanborn Map Company. www.edrnet.com/sanborn. Accessed January 4, 2018.
1894 *Insurance Maps of Schenectady, Schenectady, New York.* New York, Sanborn Map Company. www.edrnet.com/sanborn. Accessed January 4, 2018.
1900 *Insurance Maps of Schenectady, Schenectady, New York.* New York, Sanborn Map Company. www.edrnet.com/sanborn. Accessed January 4, 2018.
1914 *Insurance Maps of Schenectady, Schenectady, New York.* New York, Sanborn Map Company. www.edrnet.com/sanborn. Accessed January 4, 2018.
1930 *Insurance Maps of Schenectady, Schenectady, New York.* New York, Sanborn Map Company. www.edrnet.com/sanborn. Accessed January 4, 2018.
1951 *Insurance Maps of Schenectady, Schenectady, New York.* New York, Sanborn Map Company. www.edrnet.com/sanborn. Accessed January 4, 2018.
1995 *Insurance Maps of Schenectady, Schenectady, New York.* New York, Sanborn Map Company. www.edrnet.com/sanborn. Accessed January 4, 2018.

Schenectady County Deed Book C:1; 55:250; 79:416.

Schenectady Historical Society
2018 Schenectady Historical Society Research Files.

United States Federal Census
1840 Federal Census for City of Schenectady, Schenectady County, New York.
1855 Federal Census for City of Schenectady, Schenectady County, New York.
1865 Federal Census for City of Schenectady, Schenectady County, New York.
1875 Federal Census for City of Schenectady, Schenectady County, New York.
1880 Federal Census for City of Schenectady, Schenectady County, New York.

Westover, Myron F., editor
1931 *Schenectady Past and Present.* Shenandoah Publishing House, Inc., Strasburg, Virginia. http://www.ancestry.com. Accessed June 14, 2018.

APPENDIX I
PHOTOGRAPH DIRCETION KEY

Christine Davis Consultants
Archaeology and History
Cider Mill of Pittsburgh
560 Penn Street
Verona, PA 15147
www.ChristineDavisConsultants.com
412-826-0443

0 1 2

1 INCH = 1 FOOT

REFERENCES:

Photo Direction Key
North Ferry Street Pump Station Relocation
16PR07821
City of Schenectady, Schenectady County, New York

PROJECT NO.
17-065

APPENDIX II
AGENCY COORESPONDENCE

NEW YORK STATE OF OPPORTUNITY. | **Parks, Recreation, and Historic Preservation**

ANDREW M. CUOMO
Governor

ROSE HARVEY
Commissioner

REVISED July 11, 2017

Mary Barthelme
Governor's Office of Storm Recovery
99 Washington Ave, Suite 1224
Albany, NY 12231

Re: HTF/ GOSR/ CDBG-DR/ HUD/ NY Rising Program
North Ferry Street Pump Station Relocation
119 North Ferry St, Schenectady/ Schenectady County
16PR07821

Dear Ms. Barthelme:

Thank you for requesting the comments of the New York State Historic Preservation Office (SHPO). We have reviewed the materials submitted June 7, 2017 in accordance with Title 54, Section 306108 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/ Cultural resources.

Based on this review, the SHPO has the following comments:

1. Three locations have been proposed for the new pump station: southwest of the existing, immediately southeast of the existing pump station & northeast of the house at 125 N. Ferry, and northeast of the existing. The southwest alternative has been archaeologically surveyed and OPRHP has no further archaeological concerns with this alternative but the southeast alternative and northeast alternative have not yet been tested. If those alternatives are still potential locations then a Phase 1 Archaeological Survey is recommended for those locations. If you have any questions about the archaeological recommendations please contact Daniel Bagrow at 518-268-2160 or dan.bagrow@parks.ny.gov.

2. Any new above-ground structure in Riverside Park will adversely impact the Historic District and the listed Pump House building. The SHPO looks forward to working with you to resolve the potential adverse effects.

If I can be of further assistance, contact me at (518) 268-2187 or Larry.moss@parks.ny.gov

Sincerely,

LMoss

Larry K Moss, Historic Preservation Technical Specialist
CC: Alicia Shultz

NEW YORK STATE OF OPPORTUNITY | **Parks, Recreation, and Historic Preservation**

ANDREW M. CUOMO
Governor

ROSE HARVEY
Commissioner

November 8, 2017

Mary Barthelme
Governor's Office of Storm Recovery
99 Washington Ave, Suite 1224
Albany, NY 12231

Re: HTF/ GOSR/ HUD CDBG-DR/ NY Rising Program
North Ferry Street Pump Station Relocation
119 North Ferry St, Schenectady/ Schenectady County
16PR07821

Dear Ms. Barthelme:

Thank you for continuing to request the comments of the New York State Historic Preservation Office (SHPO). We have reviewed the materials submitted Nov. 1, 2017 in accordance with Title 54, Section 306108 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/ Cultural resources.

Based on this review, the SHPO has the following comments:
1. The above-ground buildings are acceptable to this office.
2. The SHPO continues to recommend a Phase 1 Archaeological Survey for any areas that will be subjected to ground disturbance which have not been previously surveyed.

Please contact Daniel Bagrow at 518-268-2160 or dan.bagrow@parks.ny.gov with any questions.

If I can be of further assistance, contact me at (518) 268-2187 Larry.moss@parks.ny.gov

Sincerely,

LMoss

Larry K Moss, Historic Preservation Technical Specialist

CC: Alicia Shultz

APPENDIX III
SUMMARY OF CENSUS RESEARCH FROM THE VAN EPS SITE (09340.001832)

Census Date	Name	Listed Age	Relation	Occupation
1850 (federal)	Van Eps, Cornelius	30-39		
	Unnamed Male	under 5		
	Unnamed Male	5-9		
	Unnamed Male	10-14		
	Unnamed Male	20-29		Two employed in Manufacture/Trade
	Unnamed Female	under 5		
	Unnamed Female	5-9		
	Unnamed Female	5-9		
	Unnamed Female	10-14		
	Unnamed Female	20-29		
	Unnamed Female	30-39		
1855 (federal)	Van Eps, Cornelius	52		Inn Keeper
	Van Eps, Helen	47	wife	
	Van Eps, Lawrence	29	son	Laborer
	Van Eps, Samuel	21	son	Piano …..(?)
	Van Eps, Rachel	17	daughter	
	Van Eps, Harrison	15	son	
	Tiller, Ellen	25	(none given-presumed daughter)	Widowed, Tailoress
	Tiller, Cornelius	2	son	
	Tiller, Giles	10 mo.	son	
	Van Huyson, John	34	boarder (with Ellen)	Tin Smith
1865 (federal)	Van Eps, Cornelius	62		Saloon
	Van Eps, Helen	59		
	Van Eps, Rachel	27		
	Van Eps, Wm. H.	25		Machinist
	Tiller, Giles	10		Grandson
(1871-property sold to The Schenectady Water Company)				
1875 (federal)	Marharver, Phillip	50	head	Shoemaker
	Marharver, Mary	44	wife	
	Marharver, Rachel	24	daughter	
	Marharver, Charles	22	son	Common Laborer
	Marharver, Mary	16	daughter	
	Marharver, Hannah	14	daughter	
	Marharver, Louisa	1	daughter	
1880 (federal)	Marharver, Phillip	55	husband	Laborer
	Marharver, Mary	50	wife	
	Marharver, Mary	21	daughter	

	Anthony, Wm. J. Anthony, Rachel Anthony, Louisa	32 27 6	husband wife daughter	Laborer
1886 (city)	Whitmyre, John Whitmyre, Henry		 boards	Broommaker Broommaker
(ca. 1888 address changes from 2 Ferry Street to 127 North Ferry Street				
1888 (city)	Gowe, Mrs. Clara Gowe, Madison V.		house boarder	 Cigar maker
1895 (city)	Schiller, Thomas		house	Blacksmith
1899 (city)	Allen, William		boards	Teamster
1900 (city)	Berrell, Cornelius Mayns, Lewis		boards boards	Edison Works Laborer
1902 (city)	Rother, W. P. Rother, L. L.		house house	
1903 (city)	Carroll, Mrs. Mary Carroll, Kittie		widow, house house	
1905 (city)	Schell, Ed		house	
1907 (city)	Coates, Harry L.		boards	Fireman
1909 (city)	Pierce, Orrin		house	Teamster
1915 (city)	Pierce, Owen W. Pierce, Emma Pierce, Elsie Anthony, Sarah E. Anthony, Mildred N. Anthony, Mrs. Elizabeth	39 31 13 53 22		Driver Shop 69 SE Be...(illegible) Nurse

APPENDIX IV
SUMMARY OF DEED RESEARCH FROM THE VAN EPS SITE (09340.001832)

Date	Grantor	Grantee	Acreage	Sale Price	Deed Liber:Page
3/24/1816		Alexander Van Eps			C:1
3/20/1840	James Fuller and wife	Cornelius Van Eps			
02/18/1871	Cornelius and Helen Van Eps	The Schnectedy Water Company		$2,400	55:250
11/27/1885	The Schnectedy Water Company	City of Schnectedy			79:416

APPENDIX V
PHASE I ARTIFACT INVENTORY

Provenience	Feature #	Strat/Level	Quantity	Material Type	MNV/MNI/MNU	Quantity Discard	Decoration Color	Material Color	Paste	Ceramic Style	Ceramic Form	Glass Form	Other Artifact Types	Additional Information	Marks	Diameter (inches)	First Date	Late Date
STP 1-2		0-18 cn	2	shell	1								mussel					
STP 1-2		0-18 cn	1	metal	1								nails, square	large				
STP 1-2		0-18 cn	1	metal	1								nails, square					
STP 1-2		0-18 cn	1	ceramic	1			red	redware									
STP 1-2		50-100	1	metal	1								bolt, eyelet					
STP 1-2		50-100	2	shell	1								mussel					
STP 1-2		50-100	1	graphite	1													
STP 1-2		50-100	1	glass	1			aqua				window						
STP 1-2		50-100	1	glass	1			aqua										
STP 1-2		50-100	1	glass	1			olive				bottle						
STP 1-2		50-100	2	glass	1			aqua				jar			[D 8]			
STP 1-2		50-100	1	ceramic	1			buff	stoneware									
STP 1-2		50-100	1	ceramic	1			buff	stoneware							7		
STP 1-2		50-100	1	ceramic	1		green	white	earthenware	transfer print								
STP 1-2		50-100	1	ceramic	1		blue	white	ironstone	flow blue							1840	1860
STP 1-2		50-100	1	ceramic	1			white	ironstone									
STP 1-2		50-100	1	ceramic	1			white	ironstone	molded								
STP 1-2		50-100	1	ceramic	1			white	ironstone						[ROYAL.../ T & R.../ EN(GLAND)]			
STP 1-2		50-100	1	ceramic	1		grey	white	ironstone	transfer print					PARIS WHITE & IRONSTONE CHINA/ WALLEY]		1845	1856
STP 1-2		50-100	1	ceramic	1			white	porcelain									
STP 1-2		50-100	1	ceramic	1			white	porcelain		toy, plate					2.5		
STP 1-3		90-100	1	shell	1								mussel					
STP 1-3		90-100	5	faunal	1								mammal	cow? horse?				
STP 3-1		40-85 c	3	multiple	3								clinker					
STP 3-1		40-85 c	3	faunal									mammal					
STP 3-1		40-85 c	1	graphite	1													
STP 3-1		40-85 c	4	metal	4								nails, square					
STP 3-1		40-85 c	1	metal	1								nails, square	large				
STP 3-1		40-85 c	1	metal	1								nails, unidentifiable					
STP 3-1		40-85 c	1	metal	1								screws					
STP 3-1		40-85 c	7	ceramic	2			white	ironstone									
STP 3-1		40-85 c	2	ceramic	1		blue	buff	stoneware									
STP 3-1		40-85 c	1	ceramic	1		blue	white	ironstone	transfer print								
STP 3-1		40-85 c	1	ceramic	1			white	ironstone		saucer				[(IRONSTON)E CHINA/ ...P. CO.]	6		
STP 3-1		40-85 c	13	glass	1			aqua				window						
STP 3-1		40-85 c	1	glass	1			aqua				bottle						
STP 3-1		40-85 c	1	glass	1			clear				bottle						
STP 3-1		40-85 c	1	glass	1			clear				flask		Reed Glass Company, Rochester, NY	"R" inside inverted triangle		1899	1956
STP 3-1		40-85 c	1	glass	1			clear				bottle, medicine						
STP 3-1		85-105	3	ceramic	1			white	bisque									
STP 3-1		85-105	2	faunal	1								mammal					
STP 3-1		85-105	1	glass	1			aqua				window						
STP 3-1		105-12	3	brick	1			red					brick fragments					
STP 3-2		< 60 cm	1	metal	1								spikes					
STP 3-2		< 60 cm	1	multiple	1								clinker					
STP 3-2		< 60 cm	2	metal	2								unidentifiable					

Provenience	Feature #	Strat/Level	Quantity	Material Type	MNV/MNI/MNU	Quantity Discard	Decoration Color	Material Color	Paste	Ceramic Style	Ceramic Form	Glass Form	Other Artifact Types	Additional Information	Marks	Diameter (inches)	First Date	Late Date
STP 3-2		< 60 cm	3	faunal	1								mammal					
STP 3-2		< 60 cm	1	ceramic	1			white	ironstone									
Unit 1		60-70 c	4	ceramic	1		blue/ brown	buff	yellow ware	mocha	bowl			seaweed pattern			1827	1910
Unit 1		60-70 c	1	ceramic	1		blue	white	ironstone	transfer print								
Unit 1		60-70 c	4	ceramic	1			white	ironstone									
Unit 1		60-70 c	1	ceramic	1			buff	stoneware									
Unit 1		60-70 c	1	ceramic	1			red	redware									
Unit 1		60-70 c	1	glass	1			aqua				window						
Unit 1		60-70 c	1	stone	1			grey					roof slate					
Unit 1		60-70 c	2	metal	2								nails, unidentifiable					
Unit 1		60-70 c	6	faunal	2								mammal					
Unit 1		70-80 c	4	metal	4								nails, square					
Unit 1		70-80 c	3	faunal	1								mammal					
Unit 1		70-80 c	1	glass	1			aqua				window						
Unit 1		70-80 c	1	shell	1								mussel					
Unit 1		70-80 c	1	brick	1			red					brick fragments					
Unit 1		70-80 c	1	ceramic	1			buff	stoneware									
Unit 1		70-80 c	1	clay	1			white					pipe, stem					
Unit 1		70-80 c	1	ceramic	1			white	ironstone		lid							
Unit 1		70-80 c	3	ceramic	1			white	ironstone									
Unit 1		70-80 c	1	ceramic	1		blue	white	ironstone	transfer print								
Unit 1		80-90 c	1	faunal	1								mammal					
Unit 1		80-90 c	1	faunal	1								calcine bone					
Unit 1		80-90 c	1	metal	1								unidentifiable					
Unit 1		80-90 c	1	metal	1								nails, square					
Unit 1		80-90 c	5	ceramic	4		blue	white	ironstone	transfer print								
Unit 1		80-90 c	1	ceramic	1			white	ironstone									
Unit 1		80-90 c	1	clay	1			white					pipe, stem					
Unit 1		80-90 c	1	glass	1			clear				window						
Unit 1		80-90 c	2	glass	1			aqua				window						
Unit 1		80-90 c	2	glass	1			clear										
Unit 1		90-100	1	faunal	1								mammal					
Unit 1		90-100	1	glass	1			clear										
Unit 1		90-100	1	ceramic	1			white	ironstone									
Unit 1		90-100	1	ceramic	1			white	ironstone	molded								
Unit 1		90-100	4	ceramic	4		blue	white	ironstone	transfer print								
Unit 1		100-110	1	faunal	1								mammal					
Unit 1		100-110	1	metal	1								nails, square					
Unit 1		100-110	1	ceramic	1		brown	white	ironstone	transfer print								
Unit 1		100-110	1	ceramic	1		blue	white	ironstone	feather edge								
Trench 1		70-100	1	shell	1								mussel					
Trench 1		70-100	1	ceramic	1		blue	white	ironstone	transfer print								
Trench 1		70-100	1	ceramic	1		brown	buff	yellow ware	mocha								
Trench 1		70-100	1	ceramic	1			white	ironstone	molded								
Trench 1		70-100	1	ceramic	1			white	porcelain		teacup							
Trench 1		70-100	6	ceramic	1			white	ironstone									
Trench 1		70-100	1	glass	1			blue				dish		molded				
Trench 1		70-100	3	glass	1			aqua										
Trench 1		70-100	1	glass	1			opaque white										
Trench 1		70-100	4	glass	1			clear										
Trench 1		70-100	1	stone	1			grey					roof slate					

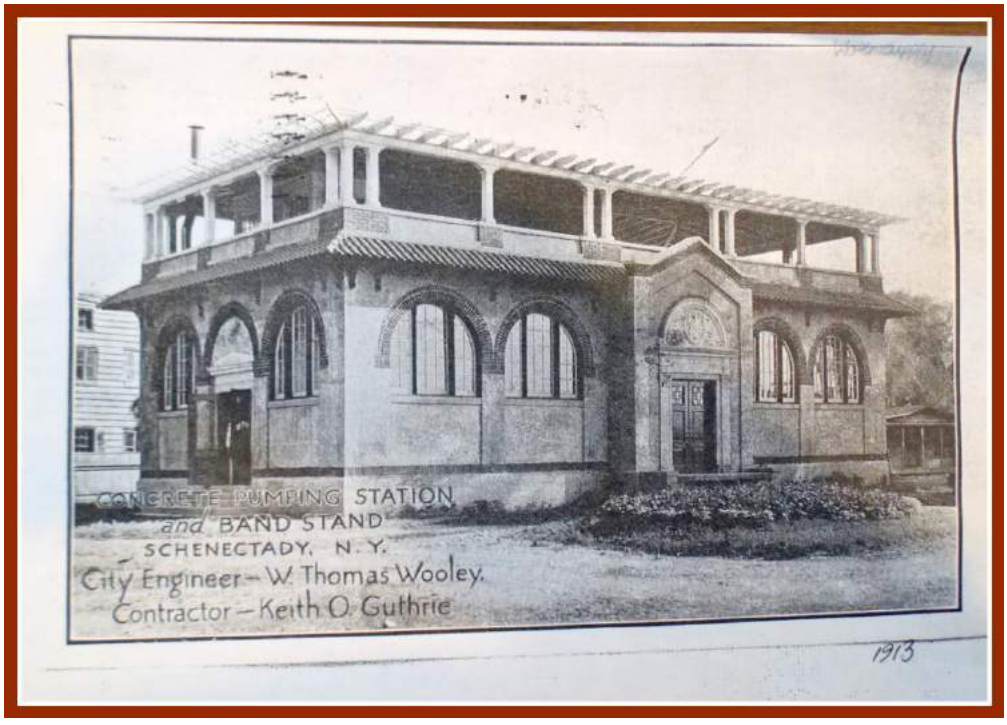
Provenience	Feature #	Strat/Level	Quantity	Material Type	MNV/MNi/MNU	Quantity Discard	Decoration Color	Material Color	Paste	Ceramic Style	Ceramic Form	Glass Form	Other Artifact Types	Additional Information	Marks	Diameter (inches)	First Date	Late Date
Trench 1		70-100	3	metal	3								nails, round					
Trench 1		70-100	1	metal	1								wire					
Trench 1		152 cm	1	shell	1								mussel					
Trench 1		152 cm	1	faunal	1								mammal	cow? horse?				
Trench 1	1	surface	1	ceramic	1		blue	white	ironstone	flow blue							1840	1860
Trench 1	1	surface	1	glass	1			aqua										
Trench 1	1	surface	5	metal	5								nails, square	large				
Trench 1	1	surface	4	metal	4								nails, square					
Trench 1	1	surface	1	metal	1								chain					
Trench 2		50-100	4	ceramic	1			white	ironstone									
Trench 2		50-100	2	ceramic	1			white	ironstone	molded								
Trench 2		50-100	2	ceramic	1			white	ironstone	molded	bowl							
Trench 2		50-100	1	ceramic	1			white	porcelain									
Trench 2		50-100	4	ceramic	3		blue	white	ironstone	transfer print								
Trench 2		50-100	1	ceramic	1		gold	white	porcelain	banded/ gilded	teacup				[GERMANY]			
Trench 2		50-100	1	ceramic	1			buff	stoneware									
Trench 2		50-100	1	shell	1								mussel					
Trench 2		50-100	1	metal	1								end cap					
Trench 2		155-23	1	brick	1		red						brick fragments					
SA 1		surface	2	faunal	1								mammal					
SA 1		surface	1	glass	1			aqua				bottle						
SA 1		surface	1	glass	1			aqua				jar						
SA 1		surface	1	ceramic	1		green	white	ironstone	feather edge								
SA 1		surface	2	ceramic	1			buff	stoneware		bottle			from Schenectady	[GEO WELLER]		1860	
SA 1		surface	1	ceramic	1			white	ironstone	molded								
SA 1		surface	1	ceramic	1			white	ironstone						[...ATER/ IRONSTONE/ RICHARD ALCOC.../ BURSLEM ENGLAND]		1870	1882
SA 1		surface	1	ceramic	1		blue	white	ironstone	transfer print								
SA 1		surface	1	ceramic	1			white	ironstone									
SA 1		surface	1	glass	1			opaque white				jar		molded				
SA 1		surface	1	ceramic	1		blue	white	earthenware	transfer print								
SA 1	2		13	ceramic	1		brown	buff	yellow ware	Rockingham	teapot							
SA 1	2		1	metal	1								nails, square	large				
SA 1	2		1	glass	1			clear										
SA 1	2		5	faunal	1								mammal					
SA 1	2		6	shell	4								mussel					
SA 1	2		1	wood/ metal	1								handle	untensil? knife?				
SA 1	2		1	metal	1								handle	untensil? knife?				
SA 1	2		3	metal	3								nails, square					
SA 1	2		1	metal	1								nails, square	large				
SA 1	2		1	celluloid	1								comb					
SA 1	2		2	stone	1								roof slate					
SA 1	2		1	multiple	1								shoe, heel					
SA 1	2		1	metal	1								unidentifiable					
SA 1	2		1	metal	1								ring			2		
SA 1	2		2	brick	1			red					brick fragments					
SA 1	2		1	clay	1			white					pipe, stem					
SA 1	2		1	ceramic	1			red	redware		flower pot							
SA 1	2		6	ceramic	5			buff	stoneware		crocks							
SA 1	2		2	ceramic	1		brown	buff	yellow ware	Rockingham								

Provenience	Feature #	Strat/Level	Quantity	Material Type	MNV/MNI/MNU	Quantity Discard	Decoration Color	Material Color	Paste	Ceramic Style	Ceramic Form	Glass Form	Other Artifact Types	Additional Information	Marks	Diameter (inches)	First Date	Late Date
SA 1	2		4	ceramic	1			buff	stoneware		crocks				[N. A. WHIT.../ UTICA N. Y.]	9		
SA 1	2		1	ceramic	1		gold	white	porcelain	banded/ gilded	teacup							
SA 1	2		1	ceramic	1		gold	white	porcelain	banded/ gilded	saucer					6		
SA 1	2		1	ceramic	1			white	ironstone		saucer							
SA 1	2		5	ceramic	1			white	ironstone	molded	chamber pot			partial mark		7		
SA 1	2		2	ceramic	2			white	ironstone	molded						10		
SA 1	2		3	ceramic	2			white	ironstone									
SA 1	2		3	ceramic	1			white	ironstone		teacup							
SA 1	2		1	glass/ metal	1			aqua				bottle, soda water		hutchinson stopper	[MYNDERSE BRO'S/ SCHENECTADY / N. Y.]			
SA 1	2		1	glass	1			aqua				bottle, medicine			[MADE BY/ DEAN FOSTER & CO/ BOSTON]		1874	1911
SA 1	2		1	glass	1			aqua				bottle, medicine		Dr. Hand's Remedies for Children, teething and colic	[DR. D. B. HAND/ SCRANTON]		1885	1960
SA 1	2		1	glass	1			aqua				bottle, medicine			[B 21]			
SA 1	2		1	glass	1			aqua				bottle, ink						
SA 1	2		3	glass	1			aqua				window						
SA 1	2		7	glass	1			aqua				bottle						
SA 1	2		1	glass	1			aqua				bottle						
SA 1	2		3	glass	1			aqua				bottle						
SA 1	2		6	glass	4			clear				bottle						
SA 1	2		1	glass	1			clear						pressed				
SA 1	2		5	glass	1			clear				hurricane						
SA 1	2		5	glass	1			opaque blue										
SA 1	2		1	metal	1								spoon					
SA 1	2		5	ceramic	1		multi	white	earthenware	majolica								
SA 1	2		2	stone	1								millstone					
SA 1	3	I	1	glass	1			olive				bottle, beer		Cannington, Shaw & Co. LT St. Helens, England	[C. S. & CO LD/ 2182]		1892	1913
SA 1	3	I	2	glass	1			olive				bottle						
SA 1	3	I	1	glass	1			aqua				bottle						
SA 1	3	I	1	metal	1								ring			2.5		
SA 1	3	I	1	metal	1								plate					
SA 1	3	I	2	ceramic	1			buff	stoneware		bottle							
SA 1	3	I	2	ceramic	1			buff	stoneware		crocks							
SA 1	3	I	2	ceramic	1			white	ironstone	molded	lid					3		
SA 1	3	I	1	ceramic	1			white	ironstone		teacup							
SA 1	3	I	1	ceramic	1			white	ironstone		twiffler					8		
SA 1	3	I	2	ceramic	1			white	ironstone		saucer					6		
SA 1	3	I	1	ceramic	1			white	ironstone	molded								
SA 1	3	I	1	ceramic	1		multi	white	ironstone	decal/ gilded/ molded	pitcher							
SA 1	3	I	1	ceramic	1		blue	white	ironstone	transfer print								
SA 1	3	I	1	glass	1			opaque white				decorative art		molded				

PHASE I ARCHAEOLOGICAL AND GEOMORPHOLOGICAL SURVEY

NORTH FERRY STREET PUMP STATION RELOCATION CITY OF SCHENECTADY, SCHENECTADY COUNTY, NEW YORK

16PR07821



A Cultural Resource Management Report Prepared for:

TECTONIC ENGINEERING & SURVEYING CONSULTANTS P.C.

January 2018

CHRISTINE DAVIS CONSULTANTS, INC.
560 Penn Street, Verona, Pennsylvania 15147
Phone: 412/826-0443 Fax: 412/826-0458

PHASE I ARCHAEOLOGICAL AND GEOMORPHOLOGICAL SURVEY

NORTH FERRY STREET PUMP STATION RELOCATION CITY OF SCHENECTADY, SCHENECTADY COUNTY, NEW YORK

16PR07821

BY:

CHRISTINE E. DAVIS
Principal Investigator

For final submission to:

Lori Shirley, Director; Bureau of Environmental Review and Assessment
Governor's Office of Storm Recovery; New York Homes and Community Renewal
38-40 State Street; Albany, New York 12207

MANAGEMENT SUMMARY

State Historic Preservation Office (SHPO) Project Review Number: 16PR07821

Agency:
Governor's Office of Storm Recovery (GOSR)

Phase of Survey:
Phase IB Archaeological and Geomorphological Survey

Location Information:

Location:	City of Schenectady
Minor Civil Division:	Schenectady
County:	Schenectady

Survey Area:

Length:	134 ft (4.8 m)
Width:	136 ft (41.4 m)
Depth:	8.2 ft (250 cm)
# of Acres Surveyed:	.38 ac

USGS 7.5 Minute Quadrangle Map:
Schenectady, NY 1954 PR 1980

Archaeological Survey Overview:

Number and Interval of Shovel Tests:	6 at 15 m (50 ft) intervals
Number and Size of Units:	1 1x1m (3 ft 3 in x 3 ft 3 in)
Width of Plowed Strips:	68 ft x 22 ft (20.7 m x 6.7 m)
Surface Survey Transect Interval:	n/a

Results of Archaeological Survey:

Number and Name of Prehistoric Sites Identified:	0
Number and Name of Historic Sites Identified:	1- Van Eps Site
Number and Name of Sites Recommended for Phase II/Avoidance:	1- Van Eps Site

Results of Architectural Survey:

Number of Buildings/ Structures/ Cemeteries within Project Area:	1
Number of Buildings/ Structures/ Cemeteries Adjacent to Project Area:	n/a
Number of Previously Determined NR Listed or Eligible Buildings/ Structures/Cemeteries/ Districts:	Stockade Historic District and Pumping Station
Number of Identified Eligible Buildings/ Structures/ Cemeteries/ Districts:	n/a

Report Authors
Christine E. Davis

Date of Report
January 2018

TABLE OF CONTENTS

FIGURES

PHOTOGRAPHS

PHOTOGRAPHS (CONTINUED)

TABLES

1.0 INTRODUCTION

Historic and cultural resources are protected under Federal law through Section 106 of the National Historic Preservation Act of 1966, as amended, and implementing regulation 36 CFR 800 as revised in January of 2001; the Archaeological and Historic Preservation Act of 1974; Section 101(b)(4) of the National Environmental Policy Act of 1969; Executive Orders 11593 and 12362; 18 CFR Part 380.14; 23 CFR 771, as amended, August 28, 1987; 36 CFR 60; the guidelines developed by the Advisory Council on Historic Preservation (ACHP) published November, 26, 1980; and the amended procedures for the Protection of Historic and Cultural Properties, as set forth in 36 CFR 800.

The regulations developed under Section 106 of the National Historic Preservation Act require that prior to approval of federal funding, agencies should consider the impact of a project on any district, site, building, structure, or object that is included on, or eligible for inclusion on, the National Register of Historic Places (NRHP), and the ACHP must be given an opportunity to comment on such an undertaking. The Historic and Archeological Data Preservation Act directs Federal agencies to preserve historic and archeological data that would otherwise be lost as a result of a Federal action. A project is considered to have an adverse effect on such sensitive resources if it changes the quality of cultural characteristics that render them eligible for listing on the NRHP.

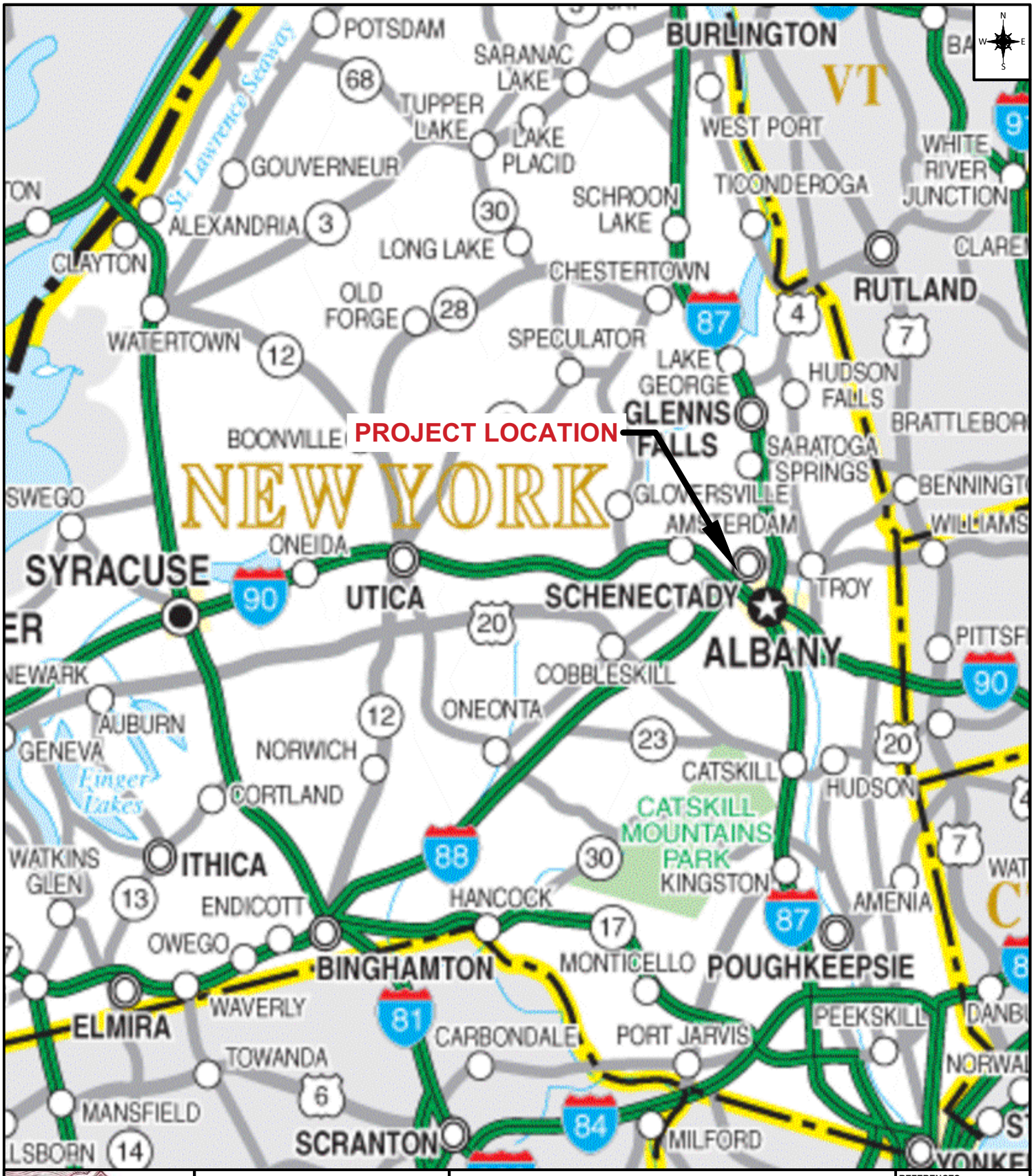
Historic properties of national, state and local significance may be nominated to the NRHP following an evaluation in accordance with an established set of criteria. The evaluation process is conducted at the state level by the New York State Historic Preservation Officer (SHPO) and at the federal level by the NRHP staff of the Department of the Interior. The National Park Service administers the National Register and has established four criteria for the evaluation of the potential significance of historic and archeological properties. These criteria are described in Title 36, Part 60 of the Code of Federal Regulations and are summarized as follows:

- Criterion A: A property is associated with historically significant events that have made a significant contribution to the broad patterns of our history. To meet this criterion, a historic property needs to have existed at the time of the important event and be associated in a significant way with the event.
- Criterion B: A property is associated with the lives of persons significant in our past.
- Criterion C: A property that embodies the distinctive characteristics of a type, period, or method of construction, or that represents the work of a master, or that possesses high artistic values, or that represents a significant and distinguishable entity whose components may lack individual distinction.
- Criterion D: A property that has yielded, or may be likely to yield, information important in prehistory or history.

Archaeological studies are completed under Section 106 of the National Historic Preservation Act of 1966 as amended; the National Environmental Policy Act of 1969; the Archaeological and Historic Preservation Act of 1974; and the regulations of the ACHP 36 CFR 63 and 36 CFR 800. This technical scope of work was developed in accordance with the *Standards for Cultural Resource Investigations and the Curation of Archaeological Collections in New York State* published by the New York State Office of Parks, Recreation and Historic Preservation (OPRHP) in 2005.

1.1 PROPOSED UNDERTAKING

Christine Davis Consultants, Inc. (CDC) was retained by Tectonic Engineering & Surveying Consultants P.C. (Tectonic) of Mountainville, New York to conduct cultural resource management surveys for the North Ferry Street Pump Station Relocation project located in the City of Schenectady, Schenectady County, New York (Figures 1 and 2). As of October 2017, the design plans for the proposed undertaking have not been finalized; however, tentative plans include the construction of two other buildings within the existing parcel. The agency for the project is the Governor's Office of Storm Recovery (GOSR).



Christine Davis Consultants
Archaeology and History
Cider Mill of Pittsburgh
560 Penn Street
Verona, PA 15147
www.ChristineDavisConsultants.com
412-826-0443

0 25 50

1 INCH = 25 MILES

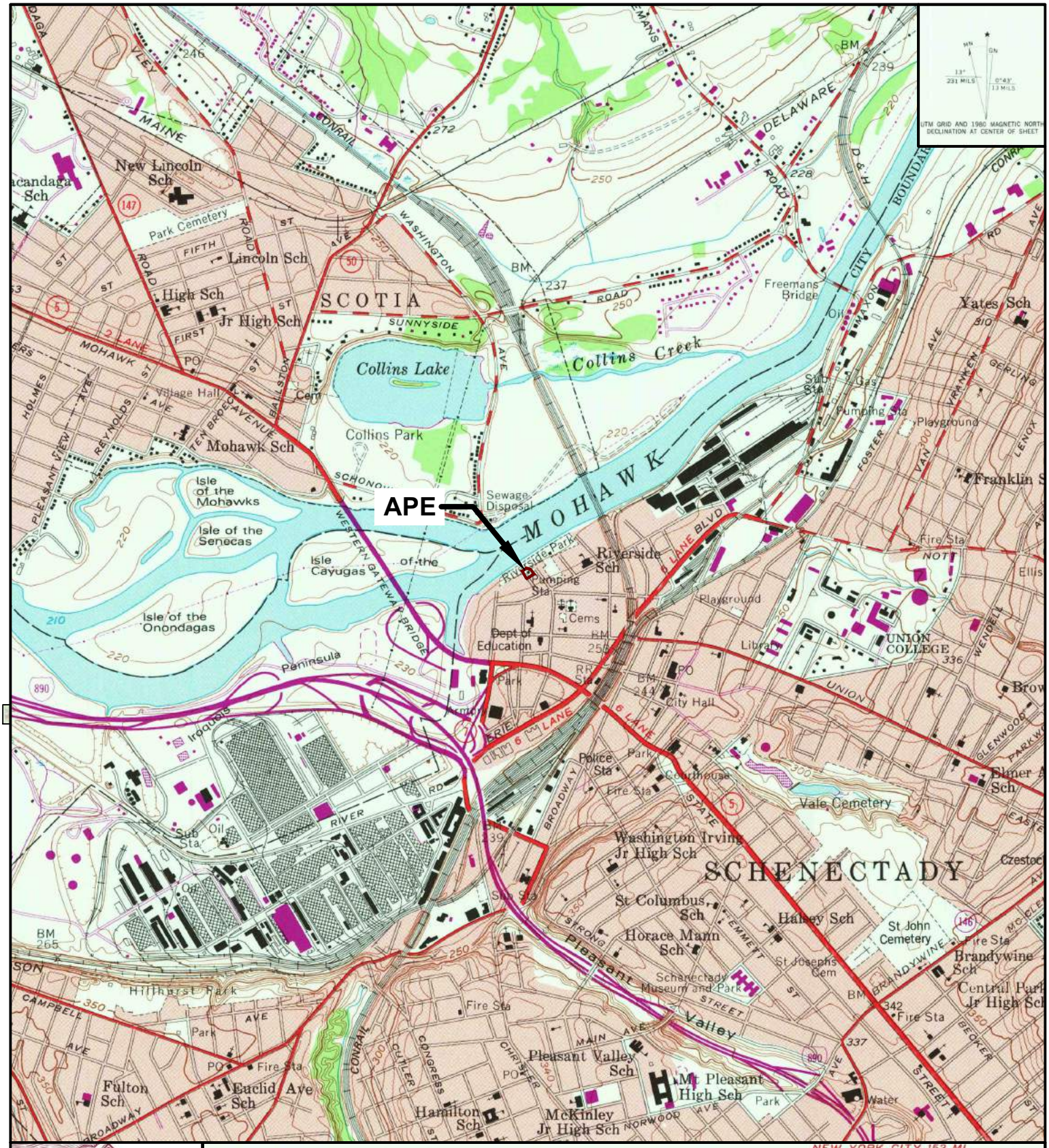
REFERENCES:

TRIPmedia Group, Inc.
New York State Map

Project Location
NORTH FERRY STREET PUMP STATION RELOCATION
16PR07821
City of Schenectady, Schenectady County, New York

PROJECT NO.
17-065

FIGURE 1



Christine Davis Consultants
Archaeology and History
Cider Mill of Pittsburgh
560 Penn Street
Verona, PA 15147
www.ChristineDavisConsultants.com
412-826-0443

REFERENCES:

GOVERNOR'S OFFICE OF STORM RECOVERY
Project Location Map 10-31-17
USGS 7.5 MINUTE QUADRANGLE
Schenectady, NY 1954, Photorevised 1980

NEW YORK
QUADRANGLE LOCATION

Area of Potential Effect (APE)
NORTH FERRY STREET PUMP STATION RELOCATION
16PR07821
City of Schenectady, Schenectady County, New York

PROJECT NO.
17-065

FIGURE 2

1.2 AREA OF POTENTIAL EFFECT (APE)

The area of potential effect (APE) consists of a total of approximately 1,550 square (sq) meters (m) (16,681 sq feet (ft) or .38 acres (ac)) located within the City of Schenectady. The APE is generally located south of the Mohawk River and west of North Ferry Street (Figure 3). The area is topographically situated in a floodplain environment associated with the Mohawk River. The APE is characterized by an urban setting.

1.3 AGENCY COORDINATION

In a letter dated October 31, 2017, GOSR submitted updated information about the project to the OPRHP. In a letter dated November 8, 2017, OPRHP responded and recommended the completion of a Phase I Archaeological Survey for any areas that will be subjected to ground disturbance which have not been previously surveyed. In addition, the OPRHP stated that the above ground buildings are acceptable to their office (Appendix II).

Christine Davis Consultants
Archaeology and History
Cider Mill of Pittsburgh
560 Penn Street
Verona, PA 15147
www.ChristineDavisConsultants.com
412-826-0443

LEGEND

- APE
- SITE BOUNDARY
- 1894 SANBORN STRUCTURES

0 30 60

1 INCH = 30 FEET

REFERENCES:

GOVERNOR'S OFFICE OF STORM RECOVERY
Project Location Map 10-31-17
NYSDOP
Orthoimagery
SANBORN MAPPING
1889, 1894, 1900, 1914, 1930

Project Mapping
North Ferry Street Pump Station Relocation
16PR07821
City of Schenectady, Schenectady County, New York

PROJECT NO.
17-065

FIGURE 3

2.0 BACKGROUND RESEARCH

2.1 SOILS

Soils in the project area include Cut and Fill Lands (Cu) (NRCS 2018); however, the location of the project area along the southern bank of the Mohawk River suggests that alluvial soils may be present within the project area. A geomorphological survey was conducted to determine if these soils are present.

Cut and Fill Lands (Cu) consists of areas that have been disturbed by the removal or addition of soil and sediment. The alluvial Hamlin, Teel, and Wayland soils are the most likely soil units to have been altered in this portion of the Mohawk River valley. This soil association consists of somewhat excessively drained soils located on slopes ranging from 0 to 15 percent. Cut and Fill Lands have a moderately low to high available water capacity and a depth of approximately 36 to 72 inches to the water table. A representative soil profile these soils consists of a gravelly loam horizon over a very gravelly loam horizon (Table 1).

Table 1
Project Area Soils

Name	Soil Horizon Depth	Texture, Inclusions	Slope %	Drainage	Landforms
Cut and Fill (Cu)	0-4 inches 4-70 inches	GrLo Very GrLo	0-15	Somewhat excessively drained	Depressions

2.2 SUMMARY OF BACKGROUND RESEARCH

A new location for the North Ferry Street Pump Station has been explored since as early as 2001 and three cultural resource management surveys have been completed on areas within and adjacent to the current APE. Reports associated with these surveys have included adequate precontact and historic contexts (Hartgen Archaeological Associates, Inc. (HAA) 2001; HAA 2002; Morine 2017). In addition, no new archaeological sites have been documented within a one-mile radius of the project area since the completion of the most recent report in 2017 (Morine 2017).

No previously recorded archaeological sites have been documented within the APE; however, a total of 30 previously recorded archaeological sites are located within a one-mile radius of the APE. Only one previously recorded archaeological site is located within close proximity to the APE: Riverside Park Site (USN 9340.000079). The Riverside Park Site was recorded as a precontact archaeological site in 1996. Precontact lithics were recovered from 27 to 33 inches (69 to 84 cm) bgs. The NRHP eligibility of the site is considered to be undetermined.

As mentioned, a total of three previous cultural resource surveys have been conducted within and/or immediately adjacent to the boundaries of the project area. A Phase IA Literature Review and Archeological Sensitivity Assessment was completed in 2001 for the North Ferry Street Pump House and Riverwalk Project (HAA 2001). As a result of the Phase IA Survey, a Phase IB Survey was recommended and subsequently conducted in 2002. Although four house foundations and late eighteenth century to nineteenth century household debris was recovered, no archaeological sites were recorded and no further work was recommended for the North Ferry Street Pump Station project. The Phase IA Survey encompassed lands within the current APE; however, areas where below ground testing was conducted for this project are located outside of the current APE (HAA 2002). The Riverwalk portion of that project was constructed; however, plans for the pump house were not. New plans were proposed for an area southwest of the current APE and the third previously conducted cultural resource survey was completed in that area. As a result of that survey, titled the Proposed Relocation of North Ferry Street Pump Station Project, no archaeological sites were recorded and no further work was recommended (Morine 2017).

Two previously documented historic resources are located within the project area: Pumping Station (USN 09340.001640) and the Stockade Historic District (Boundary Increase) (USN 09340.001403). The pump station was listed on the National Register in April of 1973 and also contributes to the National Register-listed Stockade Historic District (Boundary Increase) which was added to the register in April of 1973.

2.2 LAND USE HISTORY

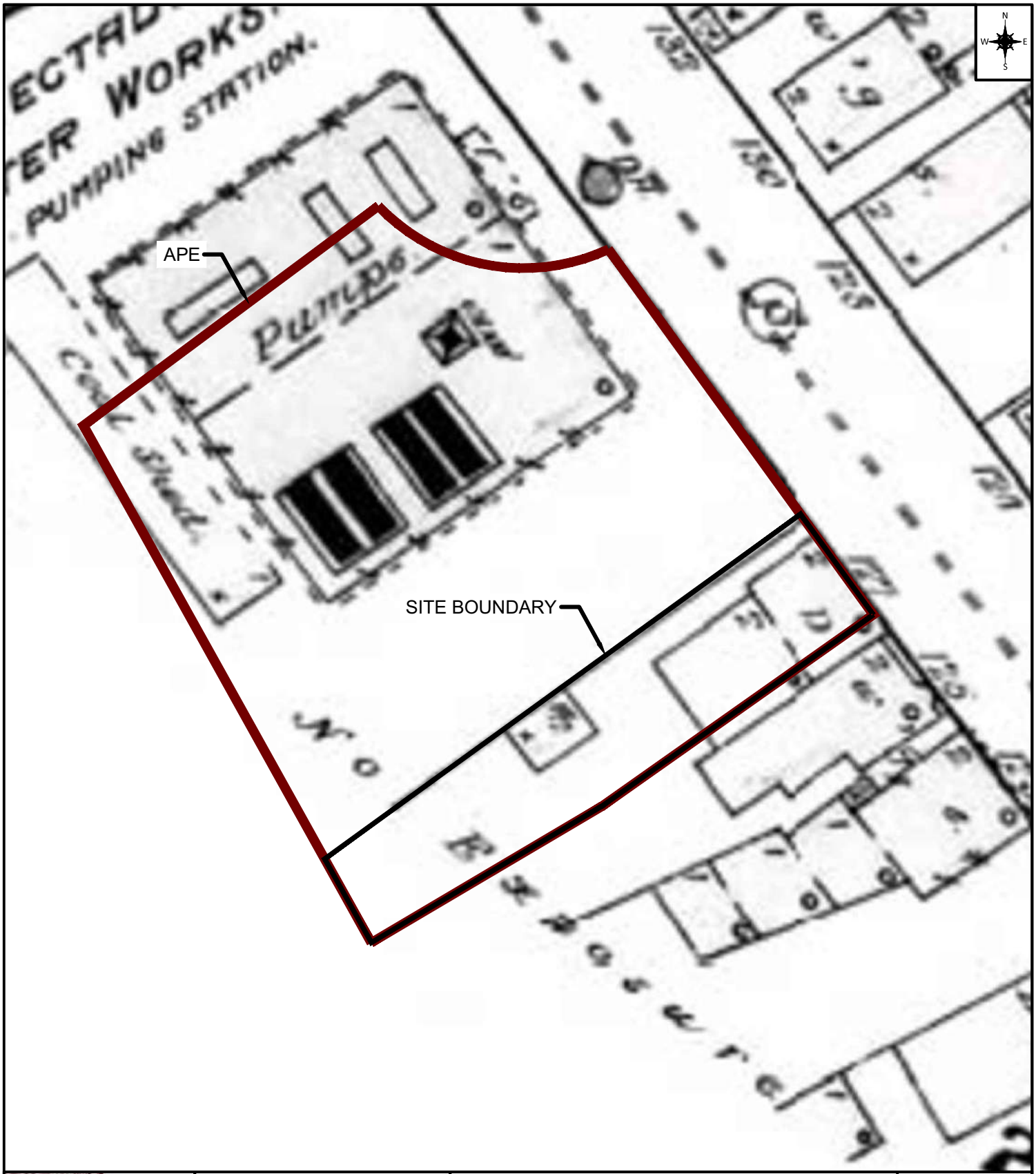
The sequence of archival maps, deeds, street books, and other basic historical research relating specifically to the current APE were evaluated. Background research for this project was conducted using information from CDC's library, the New York State Office of Parks, Recreation and Historic Preservation (OPRHP) Cultural Resource Information System (CRIS), the Grems-Doolittle Library of the Schenectady County Historical Society, and other online resources. Important archival maps included the series of Sanborn Fire Insurance Maps (1884, 1889, 1894, 1900, 1914, 1930, 1951, 1988, 1989, 1990, 1992, 1993, 1994, 1995, and 1999) and various historic mapping (Fagan 1856; Schenectady Historical Society Research Files 2018; Pearson Street Book 3) (Figures 4 through 6).

Today, the APE includes one tax parcel (39.55-1-38.2) roughly bound by Riverside Park to the north, North Ferry Street to the east, 125 Ferry Street to the south, and the parcel boundary to the west (Photos 1 through 3). Currently, one standing building, the pump station, is located within the parcel. The pump station is individually listed on the National Register and is also a contributing element of the National Register-listed Stockade Historic District. The pump station was constructed in 1913 to replace the original pump station which was constructed in 1871. Historically, this tax parcel was at least two distinct parcels: the pump station parcel and a lot formerly designated as 127 North Ferry Street. The lot at 127 North Ferry Street, which measured 26 feet by 136 feet, was occupied by a residential dwelling from ca. 1840 to ca. 1930 when all the buildings on this lot were demolished. It was incorporated into the pump station parcel in 1871 but appears to have been used as a residential rental unit until it was demolished.

Photo 1: APE Indicating Existing Pump Station, Looking South

Photo 2: APE, Looking East (125 North Ferry Street in the Background is Outside the APE)

Photo 3: APE along the West Side of the Pump Station, Looking Northwest towards the Mohawk River



Christine Davis Consultants
Archaeology and History
Cider Mill of Pittsburgh
560 Penn Street
Verona, PA 15147
www.ChristineDavisConsultants.com
412-826-0443

LEGEND

- APE
- SITE BOUNDARY

0 30 60

1 INCH = 30 FEET

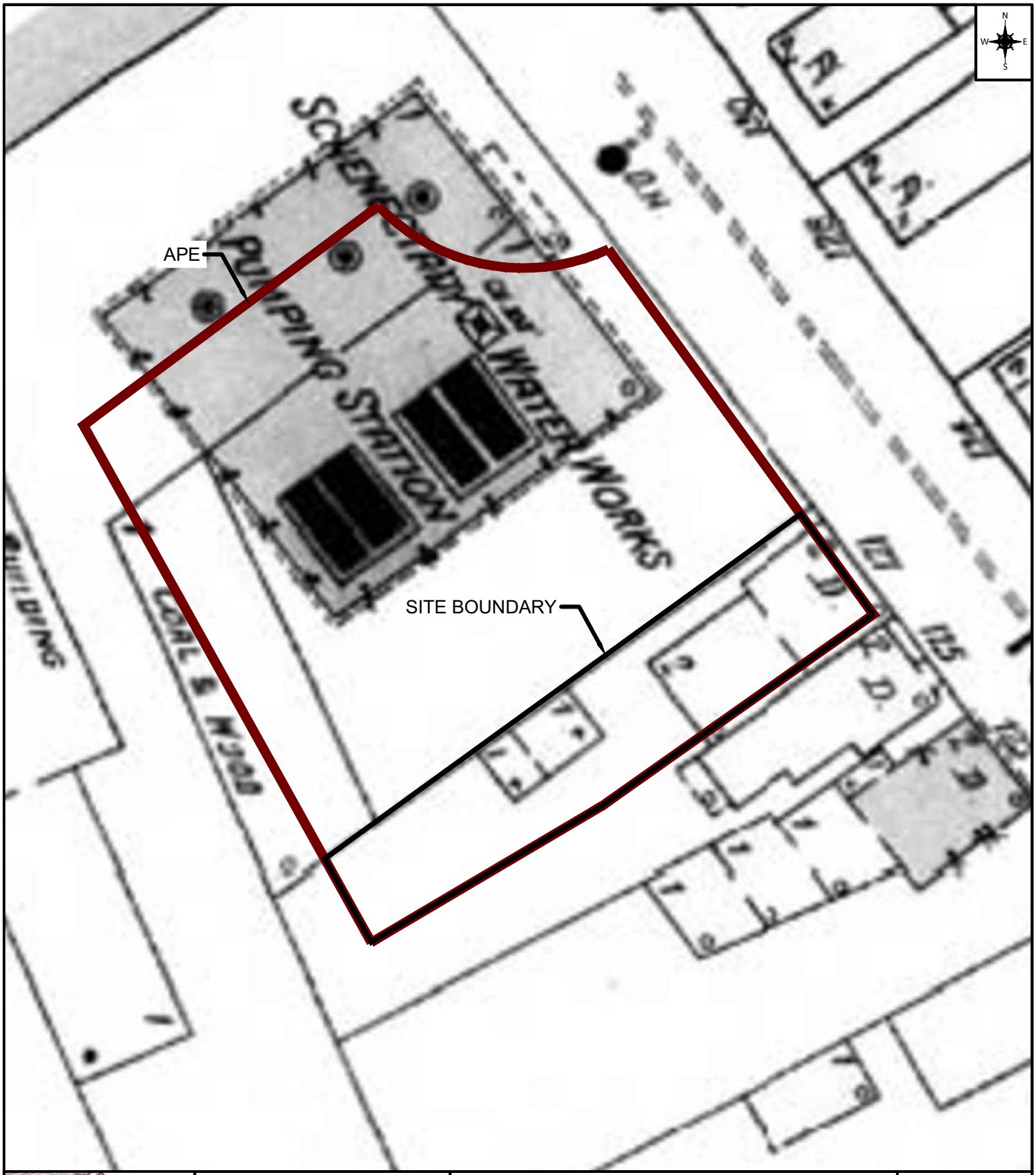
REFERENCES:

GOVERNOR'S OFFICE OF STORM RECOVERY
Project Location Map 10-31-17
NYSDOP
Orthoimagery
SANBORN MAPPING
1889, 1894, 1900, 1914, 1930

1889 Sanborn
North Ferry Street Pump Station Relocation
16PR07821
City of Schenectady, Schenectady County, New York

PROJECT NO.
17-065

FIGURE 4



Christine Davis Consultants
Archaeology and History
Cider Mill of Pittsburgh
560 Penn Street
Verona, PA 15147
www.ChristineDavisConsultants.com
412-826-0443

LEGEND

- APE
- SITE BOUNDARY

0 30 60

1 INCH = 30 FEET

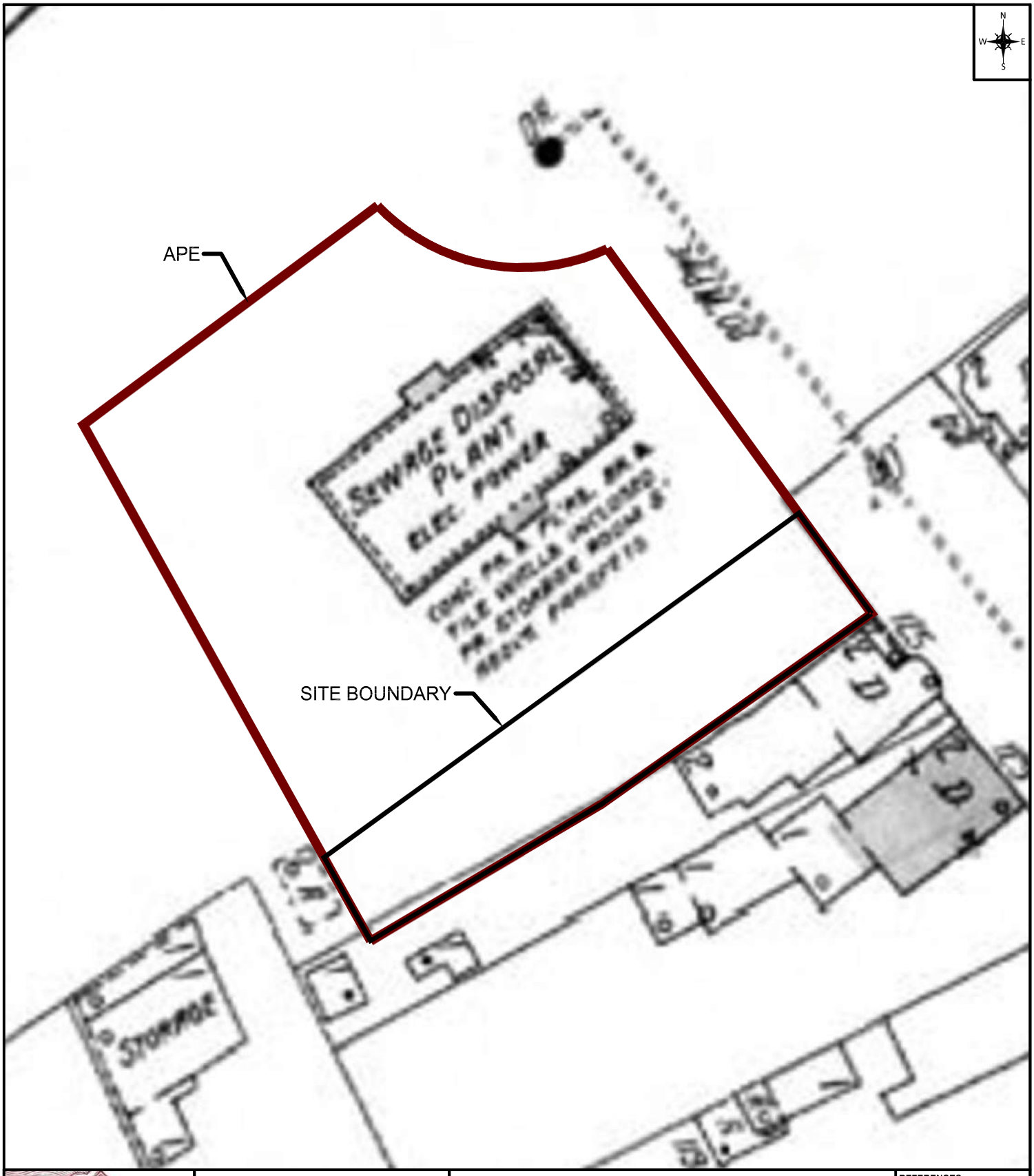
REFERENCES:

GOVERNOR'S OFFICE OF STORM RECOVERY
Project Location Map 10-31-17
NYSDOP
Orthoimagery
SANBORN MAPPING
1889, 1894, 1900, 1914, 1930

1894 Sanborn
North Ferry Street Pump Station Relocation
16PR07821
City of Schenectady, Schenectady County, New York

PROJECT NO.
17-065

FIGURE 5



Christine Davis Consultants
Archaeology and History
Cider Mill of Pittsburgh
560 Penn Street
Verona, PA 15147
www.ChristineDavisConsultants.com
412-826-0443

LEGEND

- APE
- SITE BOUNDARY

0 30 60

1 INCH = 30 FEET

REFERENCES:

GOVERNOR'S OFFICE OF STORM RECOVERY
Project Location Map 10-31-17
NYSDOP
Orthoimagery
SANBORN MAPPING
1889, 1894, 1900, 1914, 1930

1930 Sanborn
North Ferry Street Pump Station Relocation
16PR07821
City of Schenectady, Schenectady County, New York

PROJECT NO.
17-065

FIGURE 6

Pump Station Lot

The Schenectady Water Company built the original pump station at this location in 1871. The original pump station measured approximately 82 feet by 82 feet. There is no known map of early below-ground utilities associated with the function of the building. By 1889, there was a frame coal shed outbuilding immediately adjacent to the west side of the pump station, which was replaced by 1894 with a new coal and wood shed outbuilding in a new location but also to the west. In 1913, the original pump station and outbuilding were demolished and replaced with the existing pump station and a new frame outbuilding located along the western edge of the parcel. The new pump station measures approximately 60 feet by 32 feet and, while it is smaller than the original building, it is located within the same general footprint. A 1916 Bureau of Engineers map depicts multiple below ground lines; two extend to the north, one to the east and northeast, and one to the east and south (HAA 2001). The outbuilding was demolished by 1930. Also in 1913, Riverside Park was built between the pump station and Mohawk River. Riverside Park is outside of the APE (Sanborn 1889; 1894; 1900; 1914; 1930).

127 North Ferry Street Lot

The City of Schenectady was founded in 1661. The APE is located just northeast of the 1703 boundary of the original fort and later is encompassed within the 1776 boundary of the fort. Until ca. 1770, the APE was part of pasture lands owned by Adam S. Vrooman. Ferry Street was one of the original streets in the city. North Ferry Street was extended north from Front Street to the Mohawk River in 1785 when Vrooman, sold some of his pasture lands for the purpose of creating the road. Around the turn of the nineteenth century, lands in the project area were bought and sold multiple times and it is difficult to discern the exact parcel boundaries. A deed from 1816 refers to a cellar wall and barn of Alexander Van Eps in the general area of the APE (Pearson Street Book 3) and, prior to 1840, James Fuller and his wife owned this parcel and they may have constructed a house upon it. On March 20, 1840, the Fuller's sold the property at 127 North Ferry Street to Cornelius Van Eps. A building appears in the general area on mapping as early as 1856 (Fagan 1856). On February 18, 1871, Cornelius and his wife, Helen, sold the property to The Schenectady Water Company (Deed Book 55:250).

The first clearly legible historic map is dated 1889 when the property was owned by the water company and they appear to have been using it as a residential rental property. At that time, a two-story frame dwelling was located on the property along with a frame outbuilding behind the house to the west. The frame outbuilding measured approximately 16 feet by 12 feet and was located approximately 18 feet west of the house. By 1894, the outbuilding was extended approximately 7 feet to the west. By 1914, the outbuilding had been demolished. The house was demolished by 1930 but likely earlier and the lot has remained empty since that time (Sanborn 1889; 1894; 1900; 1914; 1930).

3.0 SENSITIVITY ASSESSMENT

3.1 PRECONTACT ARCHEOLOGICAL SITE SENSITIVITY ASSESSMENT

The precontact probability assessment for this parcel was included in the Phase IA Literature Survey report completed in 2001 as follows:

> Based on the project's vicinity to the Mohawk River and to previously recorded sites, the precontact archaeological sensitivity of the project area is high. Intact precontact archaeological sites are not likely to be located near the surface, but relatively intact buried topsoil levels followed by silty subsoil have been identified close to the project area at depths of 23 inches (58 cm). Reconnaissance conducted for the 15 inch Mohawk River Interceptor Sewer identified a deposit of precontact lithics in the subsoil level from 27 to 33 inches (69 to 84 cm) below ground surface, located only 20 ft (61 m) from the eastern edge of the North Ferry Street Pump House project area.
>
> The archaeological sensitivity of the project area may be reduced because of previous disturbances from buried water and sewer utilities….The historic maps make It clear, however, that the Mohawk River bank in the project area has not been extensively built out into the river…Despite the previous disturbance of buried utilities and the 1871 pump house, precontact sites are still highly likely to remain [HAA 2001].

A Phase IB Archaeological Survey is recommended to determine if precontact archaeological sites are present within the APE.

3.2 HISTORIC ARCHAEOLOGICAL SITE SENSITIVIY ASSESSMENT

Based on the land-use history, it has been determined that the APE has a high potential for containing significant historic archaeological sites. The parcel is located within the Stockade Historic District. The City of Schenectady was founded in 1661. Until ca. 1770, the APE was used as pasture lands by Adam S. Vrooman. The APE is located just northeast of the 1703 boundary of the original fort and later is encompassed within the 1776 boundary of the fort. The street books reference a stone wall and barn in the general vicinity of the APE in 1816 (PSB3:22). In addition, there is a high probability of finding historic features relating with the residential use of the southern portion of this lot. A dwelling was located at 127 North Ferry Street from ca. 1840 to ca. 1930. The lot was absorbed into to the pump station parcel in 1871 but continued to function as a dwelling until ca. 1930 when it was demolished. **A Phase IB Archaeological Survey is recommended to determine if historic archaeological sites are present within the APE.**

4.0 DISTURBANCES

The majority of the pump station parcel has been previously impacted by building and demolition activities associated with buildings currently and formerly present within the parcel. The original pump house, constructed in 1871, was larger than the existing building and had various utility lines leading to it. That building was demolished and replaced with the current building in 1913 along with updated utilities. Other disturbances include the construction of Riverside Park, associated utility corridors, and general grading activities (Figure 7; Photos 4 and 5). Within the 127 North Ferry Street parcel, the construction and demolition of the residence and outbuilding formerly located on the lot caused disturbance as well as the construction of utility lines through the parcel.

Photo 4: North Ferry Street Pump Station, Looking North

Photo 5: Former Location of Residence at 127 North Ferry Street, Looking East

Christine Davis Consultants
Archaeology and History
Cider Mill of Pittsburgh
560 Penn Street
Verona, PA 15147
www.ChristineDavisConsultants.com
412-826-0443

LEGEND

- APE
- PREVIOUSLY TESTED
- DISTURBED
- TESTED

0 30 60

1 INCH = 30 FEET

REFERENCES:

GOVERNOR'S OFFICE OF STORM RECOVERY
Project Location Map 10-31-17
NYSDOP
Orthoimagery
SANBORN MAPPING
1889, 1894, 1900, 1914, 1930

Tested, Previously Tested and Disturbed Areas
North Ferry Street Pump Station Relocation
16PR07821
City of Schenectady, Schenectady County, New York

PROJECT NO.
17-065

FIGURE 7

5.0 PHASE I FIELD SURVEY

5.1 GEOMORPHOLOGICAL RESULTS

A total of two auger probes were excavated within the APE to identify the representative soil and sediment profiles present south of the Mohawk River. A wide T0 floodplain zone comprises a majority of the APE. A narrow T00 floodplain consisting of recent alluvium (inundated during the Phase IA survey) existed along the margins of the Mohawk River to the north of the APE. Both landforms have been affected by cut and fill land development activities.

The auger probes excavated on the T0 floodplain zones of the Mohawk River revealed truncated soil horizon development on sandy and silty stream channel and flood deposits buried beneath modern and historic fill. Much of the APE is known to have been previously impacted by cut and fill episodes associated with the construction of a pump station and utility lines. The auger probes were excavated in areas hypothesized to be either intact or only partially disturbed. Buried A and Bw soil horizons were identified in both of the auger probes. These buried soil horizons indicate past periods of relative landform stability. The potential for encountering intact buried cultural material is higher in these locations. Archaeological testing on the intact portions of this landform is recommended to extend to the top of the sandy C horizon located beneath the Bw horizon. These massive, sandy and silty C horizons represent sterile, partially altered, alluvial parent material.

Archaeological testing can be accomplished by the hand excavation of 1 x 1 m test units or potentially shovel test probes (STPs) within areas where the fill deposits have been mechanically removed. Excavations should extend to depths of approximately 165 to 190 cm (65 to 74.8 in) bgs. The geomorphological report is presented in its entirety in Appendix III.

5.2 FIELD METHODOLOGY

The Phase I field methodology conforms to the approach developed by the New York Archaeological Council (NYAC) (2005). Field work began with a systematic ground surface inspection of the APE for the purpose of defining any surface evidence of archaeological sites such as foundations or other extant features; of detecting any variability in topographic and soil maps; and finally to note any impact to the archaeological integrity of the APE.

Based on the results of the geomorphological survey, in potentially undisturbed areas of less than 15 percent slopes where ground surface visibility was not adequate for surface collection, the hand excavation of .5-by-.5 m (1.6 ft x 1.6 ft) STPs will be conducted at 15 m (50 ft) intervals. STPs will be excavated to undisturbed soil levels. Units measuring 1 x 1 m (3 ft 3 in x 3 ft 3 in) will be used in areas where sterile soils could not be reached by STP. Once sterile subsoil is reached, a minimum of an additional 10 cm (3.9 in) of subsoil will be excavated to confirm the natural stratigraphy of the horizon. Auger probes were conducted as part of the geomorphological survey to verify soil profiles in areas of potentially disturbed soil horizons.

In addition, fieldwork will involve four mechanically excavated archaeological trenches and one stripped area within the vicinity of outbuildings and backyard areas based on historic mapping. Each trench will be excavated to a minimum depth of 10 cm below the deepest cultural component, the water table, gravel or Pleistocene levels.

All subsurface units will be numbered sequentially, and soil profiles will be cleaned and documented by a pedological description. All hand-excavated soils will be screened through quarter-inch hardware mesh and returned to original ground surface condition.

5.3 FIELD SURVEY RESULTS

The Phase I field survey was conducted in November in 2017. The APE involves approximately 1,550 sq m (16,681 sq ft or .38 ac). The APE was designated as having a moderate to high probability for the discovery of precontact and historic archaeological sites based on background research and the sensitivity assessment. The APE was tested through the hand excavation of six STPs, one 1 x 1 m units, four mechanically excavated trenches, and one stripped area. One historic archaeological site was recorded within the APE: Van Eps Site.

Pump Station Area

Description: The Pump Station Area encompasses the entire APE or approximately 1,550 sq m (16,681 sq ft or .38 ac) (see Figure 7; Photos 6 and 7). Approximately 239 sq m (2,575 sq ft or .06 ac) were amenable for subsurface Phase I testing; the remaining 1,311 sq m (14,106 sq ft or .32 ac) did not require testing due to the presence of the existing Pump Station and other disturbances noted in *Section 4.0 Disturbances* of this report. It is topographically situated in a floodplain environment associated with the Mohawk River and is bound by the limits of the APE. The area is characterized by sparse deciduous trees and lawn grass environments. Elevations range from 219 to 222 ft above sea level (asl).

Methodology: Field methodology consisted of the hand-excavation of STPs at 15 m intervals, 1 x 1 m units, mechanically excavated trenches, and stripped areas.

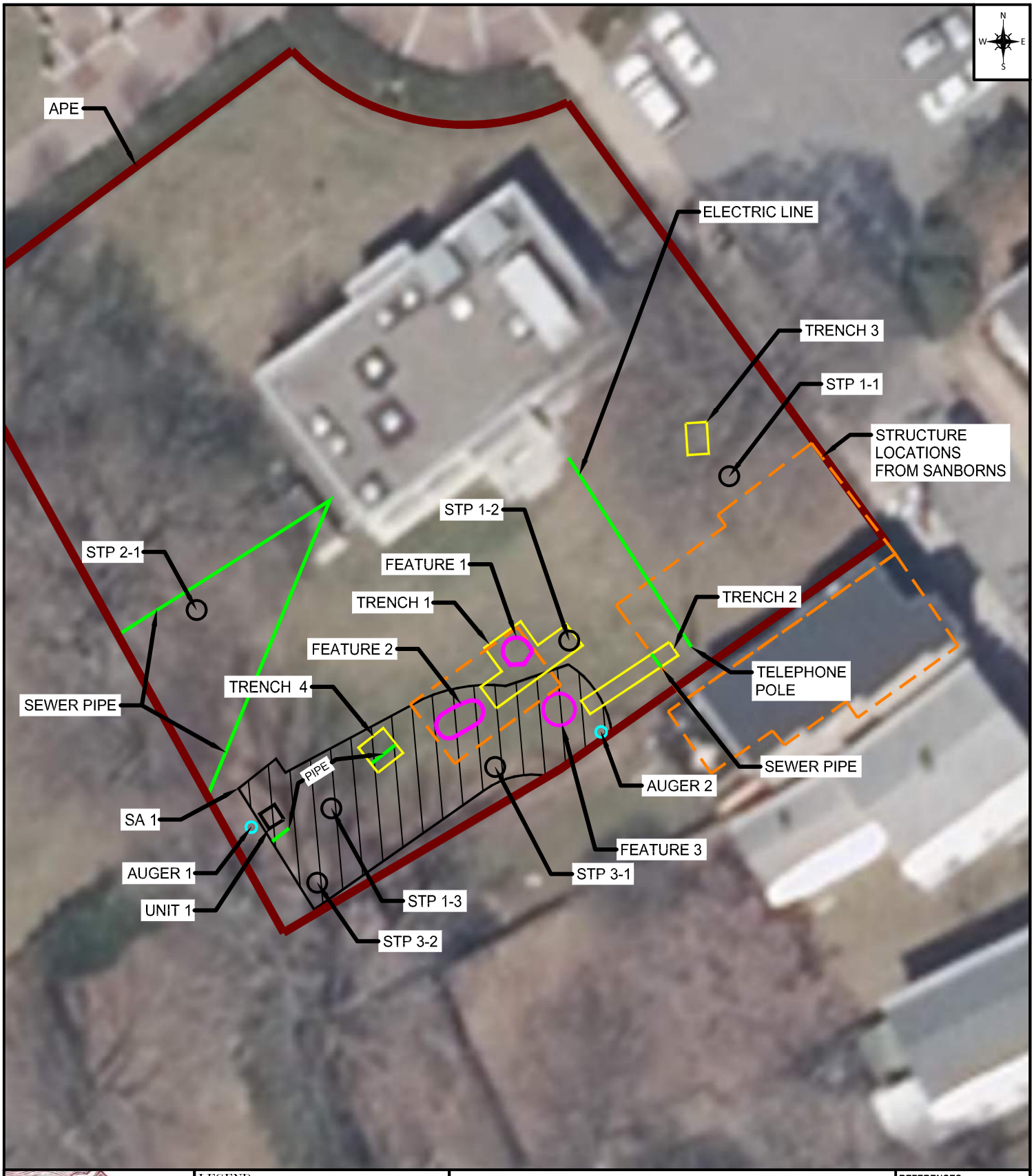
Results: Initially, a series of 4 STPs were hand-excavated at 15 m intervals along 2 parallel transects and two trenches were mechanically excavated (Figure 8). Two of the STPs (STP 1-2 and 1-3) were positive for historic artifacts. The two trenches were placed in areas where a nineteenth century outbuilding (Trench 1) and residence (Trench 2) were identified on historic mapping. When a shield-shaped brick-lined shaft was identified in Trench 1, it was expanded to further expose the feature. Trench 2 was placed in the location of the historic residence; however, that test was disturbed by the presence of an active water line and an active electric line that were not marked as part of the Dig Safely New York 811 call. No evidence of the residence was identified.

When it was discovered that the project area had the potential for a high level of preservation for historic features, additional Phase I testing was recommended and subsequently conducted. Additional testing included two STPs, two mechanically excavated trenches, a 1 x1 m unit, and the mechanical excavation of a stripped area measuring 68 ft x 22 ft (20.7 m x 6.7 m) in the backyard area of the former residence to look for additional features (see Figure 8). As a result of the additional testing, two additional features were identified: a second brick-lined shaft and a sheet refuse deposit. In addition to the features, the 2 STPs (STPs 3-1 and 3-2), the 1 x 1 m unit (Unit 1), and the stripped area were positive for historic artifacts. The two additional trenches (Trench 3 and 4) were negative; Trench 4 was disturbed by a utility line. Based on the results of the Phase I Survey, one historic archaeological site was identified within the APE: **Van Eps Site** (Figure 9). No evidence of a precontact archaeological site was identified.

Soil profiles consisted of 17 to 40 cm of dark brown silt loam over compact black ashy fill. The compact black ashy fill was over a dark brown silt loam buried A horizon. The buried A horizon was over a dark yellow brown silt loam Bw horizon. Soil profiles terminated in dark yellowish brown loamy sand C horizon at 174 cm bgs. In some profiles, the black ashy fill horizon was not present. Representative soil profiles are presented in Appendix IV. STP records are presented in their entirety in Appendix V.

Photo 6: Trench 1, Looking Northeast

Photo 7: Stripped Area 1, Looking Southwest



Christine Davis Consultants
Archaeology and History
Cider Mill of Pittsburgh
560 Penn Street
Verona, PA 15147
www.ChristineDavisConsultants.com
412-826-0443

LEGEND
- APE
- 1894 SANBORN STRUCTURES
- UTILITY
- FEATURE
- TRENCH
- STRIPPED AREA
- UNIT
- STP
- AUGER PROBE

0 25 50

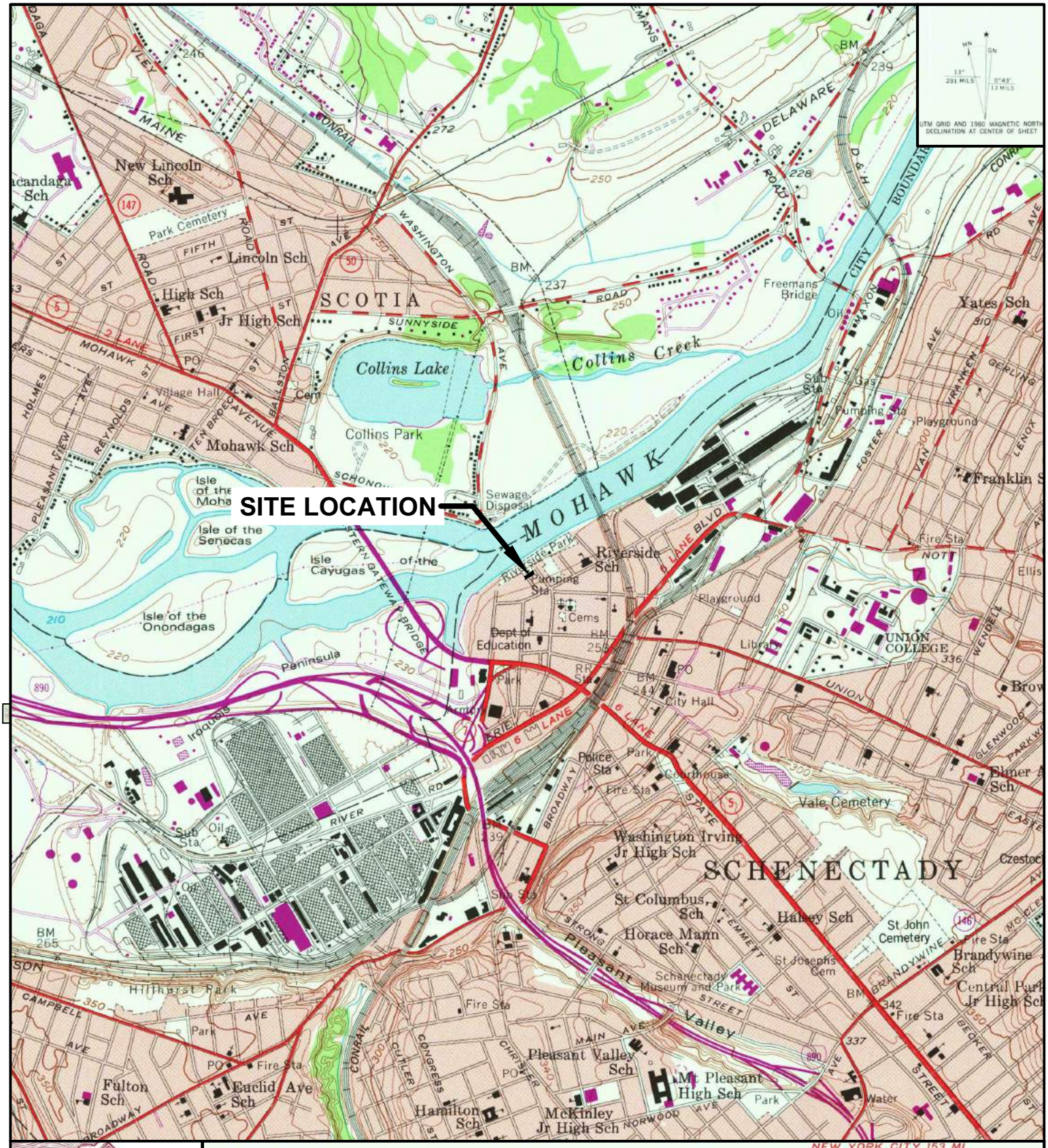
1 INCH = 25 FEET

REFERENCES:
GOVERNOR'S OFFICE OF STORM RECOVERY
Project Location Map 10-31-17
NYSDOP
Orthoimagery
SANBORN MAPPING
1889, 1894, 1900, 1914, 1930

Phase I Testing
North Ferry Street Pump Station Relocation
16PR07821
City of Schenectady, Schenectady County, New York

PROJECT NO.
17-065

FIGURE 8



Christine Davis Consultants
Archaeology and History
Cider Mill of Pittsburgh
560 Penn Street
Verona, PA 15147
www.ChristineDavisConsultants.com
412-826-0443

REFERENCES:

GOVERNOR'S OFFICE OF STORM RECOVERY
Project Location Map 10-31-17
USGS 7.5 MINUTE QUADRANGLE
Schenectady, NY 1954, Photorevised 1980

Site Location
NORTH FERRY STREET PUMP STATION RELOCATION
16PR07821
City of Schenectady, Schenectady County, New York

PROJECT NO.
17-065

FIGURE 9

Van Eps Site

The Van Eps Site is located within the former lot at 127 North Ferry Street and is likely associated with a dwelling that stood on the property between ca. 1840 and ca. 1930 (Photo 8). The site is located on the floodplain of the Mohawk River at an elevation of 221 ft asl and encompasses approximately 327 sq m (2,575 sq ft or .08 ac). The land-use history revealed that this site appeared to be occupied as early as ca. 1840 when the property was purchased by Cornelius Van Eps from James Fuller and his wife (Deed Book 55:250). At that time, the street numbers on this side of Ferry Street were positive and began with 2. A comparison of early city directories and the federal census records reveals some ambiguous information; however, it appears as though 127 North Ferry Street was originally numbered 2 Ferry Street and that the Van Eps operated a saloon from this location and also lived here (Biggs 1841; Bradt 1862; Boyd 1864; U. S. Federal Census 1840; 1855; 1865; 1875; 1876; 1880).

In 1855, Cornelius Van Eps, 52, was living at this location with his wife, Helen, 47, and their four children, Lawrence, 29, Samuel, 21, Rachel, 17, and Harrison 15. The frame dwelling was worth $640. Cornelius was listed as an inn keeper. His son Lawrence was working as a laborer while Samuel worked with pianos. The family was also living with Ellen Tiller (likely their widowed daughter), 25, and her two young children, Cornelius V., 2, and Giles, 10 months old. Ellen worked as a seamstress and was listed as living with a boarder named John Van Huysen, 34, a tinsmith. Over the next 10 years, their home increased in value to $1400 and only Rachel and William remain in the home with their parents, along with GilesTiller, their grandson. Cornelius is listed as operating a saloon. In 1871, the Van Eps sold the property to The Schenectady Water Company for $2400 (Deed Book 55:250). The water company owned the adjacent parcel to the north and were in the process of, or had already, constructed the original pump house that stood at this location between 1871 and 1913. The deed does not discuss the transfer of any specific buildings but it does have one item of interest. It states that deed is being transferred “excepting any and all claims now and against the state of New York for damages done to the premises by the erection or enlargements of the state dam and aqueduct.” The dam and aqueduct were not located in the general vicinity so the reason for the inclusion of this statement could not be verified.

Following the transfer of the dwelling to the water company, the property appears to have continued to be used as a residential rental unit with a number of different occupants. It is very likely that the dwelling was demolished ca. 1913-1914 during the construction of the existing pump station. Listing in the city directories seem to end at 1914 and no additional information could be found on the census records. However, the demolition could only be verified by its presence on the 1914 map and absence on the 1930 map (Sanborn 1914; 1930).

Photo 8: Van Eps Site, Looking Northeast

Feature Discussion

Three features were found in association with the Van Eps Site: two brick-lined shafts (Features 1 and 3) and a backyard sheet refuse deposit (Feature 2). A total of 359 historic artifacts were found on the surface of the features, the concentrated sheet refuse deposit, and the general backyard area within the boundaries of the former lot at 127 North Ferry Street. Each feature was fully exposed and measured; however, none of the features were excavated.

Feature 1 was recorded as an unusual shield-shaped brick-lined shaft measuring 152 cm (5 ft) by 157 cm (5 ft 2 in) identified within Trench 1 (Photo 9). It is located within the boundary of an outbuilding depicted on historic mapping at this location between as early as 1889 and 1914. (Please note the 1889 historic map was the earliest available map that clearly depicted building locations.) A total of 12 historic artifacts were recovered from the surface of Feature 1, including:

Feature 1		
Artifact Types	**#**	**%**
ceramic	**1**	**8.33**
ironstone	1	8.33
glass	**1**	**8.33**
unidentifiable vessel fragments	**1**	**8.33**
metal	**10**	**83.33**
chain	1	8.33
nails, square	9	75.00
Total	**12**	**100.00**

The ironstone fragment was flow blue decorated and 5 of the 9 square nails large.

Photo 9: Feature 1, Looking Southwest

Feature 2 was recorded as backyard sheet refuse measuring 243 cm (8 ft) by 152 cm (5 ft). The feature was identified by a concentration of historic artifacts and bricks within Stripped Area 1 (Photo 10). Feature 2 was found within the same historic outbuilding as Feature 1; however, Feature 2 was located within the part of the building that had been extended by 1894. A total of 114 historic artifacts were recovered from the surface of Feature 2, including:

Feature 2		
Artifact Types	**#**	**%**
brick	**2**	**1.75**
brick fragments	2	1.75
celluloid	**1**	**0.88**
comb	1	0.88
ceramic	**47**	**41.23**
earthenware	5	4.39
ironstone	14	12.28
porcelain	2	1.75
redware	1	0.88
stoneware	10	8.77
yellow ware	15	13.16
clay	**1**	**0.88**
pipe, stem	1	0.88
faunal	**5**	**4.39**
mammal	5	4.39
glass	**36**	**31.58**
bottle	17	14.91
bottle, ink	1	0.88
bottle, medicine	3	2.63
hurricane	5	4.39
window	3	2.63
unidentifiable vessel fragments	7	6.14
glass/ metal	**1**	**0.88**
bottle, soda with Hutchinson stopper	1	0.88
metal	**9**	**7.89**
handle	1	0.88
nails, square	5	4.39
ring	1	0.88
spoon	1	0.88
unidentifiable	1	0.88
shell	**6**	**5.26**
mussel	6	5.26
stone	**4**	**3.51**
mill stone	**2**	**1.75**
roof slate	2	1.75
various	**1**	**0.88**

shoe, heel	1	0.88
wood/metal	**1**	**0.88**
handle	1	0.88
Total	**114**	**100.00**

Decorated ceramic artifacts included Rockingham yellow ware (n=15; MNV=2), gilded and banded porcelain (n=2; MNV=2), molded ironstone (n=7; MNV=3), and majolica earthenware (n=5; MNV=1) fragments. Ceramic forms included a Rockingham teapot, a gilded and banded porcelain tea cup and saucer, a molded ironstone chamber pot, a redware flower pot, an ironstone tea cup and saucer, and six stoneware crocks.

Two mill stone fragments were also recovered from the surface of Feature 2, as well as a pipe stem, a celluloid comb, and the heel of a shoe (see Photo 10).

Photo 10: Feature 2, Looking Northeast (Note: Mill Stone Fragments)

Feature 3 was recorded as a circular-shaped brick-lined shaft measuring 183 cm (6 ft) by 183 cm (6 ft) identified within Trench 2 (Photo 11). This feature is located adjacent to the outside of the southern wall of the historic outbuilding where Features 1 and 2 were identified. A total of 20 historic artifacts were recovered from the surface of Feature 3, including:

Feature 3		
Artifact Types	**#**	**%**
ceramic	**13**	**65**
ironstone	9	45
stoneware	4	20
glass	**5**	**25**
bottle	4	20
decorative art	1	5

metal	**2**	**10**
plate, square	1	5
ring	1	5
Total	**20**	**100**

Decorated ceramic artifacts included molded ironstone (n=3; MNV=2), transfer print ironstone (n=1; MNV=1), and decal/molded/gilded ironstone (n=1; MNV=1) fragments. Ceramic forms included a stoneware bottle; a stoneware crock; a molded ironstone lid, twiffler, and saucer; and a decal/ molded/gilded pitcher.

Photo 11: Feature 3, Looking North

Artifact Discussion

A total of 359 historic artifacts were recovered from four STPs, one 1 x 1 m unit, the stripped area, two trenches, and the surface of three features from within the site area. The Phase I Artifact Inventory is included in Appendix VI and included:

Van Eps Site		
Artifact Types	**#**	**%**
brick	**7**	**1.95**
brick fragments	7	1.95
celluloid	**1**	**0.28**
comb	1	0.28
ceramic	**151**	**42.06**
bisque	3	0.84
earthenware	9	2.51

ironstone	86	23.96
porcelain	7	1.95
redware	3	0.84
stoneware	23	6.41
yellow ware	20	5.57
clay	**3**	**0.84**
pipe, stem	3	0.84
faunal	**34**	**9.47**
calcine	1	0.28
mammal	33	9.19
glass	**85**	**23.68**
bottle	24	6.69
Bottle, beer	1	0.28
bottle, ink	1	0.28
bottle, medicine	4	1.11
decorative art	1	0.28
dish	1	0.28
flask	1	0.28
hurricane	5	1.39
jar	4	1.11
window	23	6.41
unidentifiable vessel fragments	20	5.57
glass/ metal	**1**	**0.28**
bottle, soda with Hutchinson stopper	1	0.28
graphite	**2**	**0.56**
unidentifiable	2	0.56
metal	**48**	**13.37**
bolt, eyelet	1	0.28
chain	1	0.28
end cap	1	0.28
handle	1	0.28
nails, round	3	0.84
nails, square	27	7.52
nails, unidentifiable	3	0.84
plate, square	1	0.28
ring	2	0.56
screw	1	0.28
spike	1	0.28
spoon	1	0.28
unidentifiable	4	1.11
wire	1	0.28
shell	**15**	**4.18**

mussel	15	4.18
stone	**6**	**1.67**
mill stone	2	0.56
roof slate	4	1.11
various	**5**	**1.39**
clinker	4	1.11
shoe, heel	1	0.28
wood/metal	**1**	**0.28**
handle	1	0.28
Total	**359**	**100.00**

Ceramic artifacts made up 42 percent (n=151) of the artifact assemblage making it the most frequent artifact type recovered. Sixty (MNV=29) of the artifacts had identifiable ceramic forms, including:

Van Eps Site		
ceramic form	**#**	**MNV**
bottle	4	2
bowl	6	2
chamber pot	5	1
crocks	12	7
flower pot	1	1
lid	3	2
molded	1	1
pitcher	1	1
plate, toy	1	1
saucer	5	4
tea cup	7	5
tea pot	13	1
twiffler	1	1
Total	**60**	**29**

Just under half (n=73; 48.3 percent) of the ceramic artifact assemblage contained decorations ranging from simple white molded ironstone to colorful majolica earthenware and Rockingham yellow ware (Photos 12 through 14). Ceramic decorations included:

Van Eps Site		
ceramic	**#**	**MNV**
banded/ gilded	3	3
decal/ molded/ gilded	1	1
feather edge	2	2
flow blue	2	2

majolica	5	1
mocha	5	2
molded	17	10
Rockingham	15	2
transfer print	23	21
Total	**73**	**44**

Photo 12: Flow Blue Ironstone Fragment from Feature 1

Photo 13: Maker's Mark, Transfer Print and Molded Ironstone Fragments from Stripped Area 1

Photo 14: Molded Ironstone Lid and Decal/Molded/Gilded Ironstone Pitcher from Feature 3

Datable ceramic objects on the site included flow blue decoration, seaweed patterned decoration on a mocha bowl, and an impressed mark on a stoneware bottle, as well as printed maker's marks (Photos 15 and 16). Ceramic dates range from 1827 to 1910 (Table 2).

Table 2
Datable Ceramic Objects

Provenience	Quantity	MNV	Paste	Ceramic Style	Ceramic Form	Additional Information	Marks	First Date	Late Date
STP 1-2	1	1	ironstone	flow blue				1840	1860
STP 1-2	1	1	ironstone	transfer print			PARIS WHITE & IRONSTONE CHINA/ WALLEY]	1845	1856
Unit 1	4	1	yellow ware	mocha	bowl	seaweed pattern		1827	1910
Trench 1, F-1	1	1	ironstone	flow blue				1840	1860
SA 1	2	1	stoneware		bottle	from Schenectady	[GEO WELLER]	1860	
SA 1	1	1	ironstone				[…ATER/ IRONSTONE/ RICHARD ALCOC…/ BURSLEM ENGLAND]	1870	1882

Photo 15: Seaweed Patterned Mocha Bowl from Unit 1

Photo 16: Stoneware Bottle from Stripped Area 1

The second most frequent artifact type recovered from the site is glass (n=86; 23.7 percent. Sixty-five (MNV=35) of the artifacts had identifiable glass forms, including (Photo 17):

Van Eps Site		
glass form	**#**	**MNV**
bottle	24	13
bottle, beer	1	1
bottle, ink	1	1
bottle, medicine	4	4
decorative art	1	1
dish	1	1
flask	1	1
hurricane	5	1
jar	3	2
window	23	8
glass/ metal	**1**	**1**
bottle, soda with Hutchinson stopper	1	1
Total	**65**	**35**

Photo 17: Dr Hand's Medicine Bottle and Mynderse Bro's Soda Bottle from Feature 2

Datable glass objects on the site included marks on a flask, a medicine bottle, and a beer bottle (Photo 18). Glass dates range from 1885 to 1956 (Table 3)

.

Table 3
Datable Glass Objects

Provenience	Quantity	MNV	Glass Form	Additional Information	Marks	First Date	Late Date
STP 3-1	1	1	flask	Reed Glass Company, Rochester, NY	"R" inside inverted triangle	1899	1956
F-2	1	1	bottle, medicine	Dr. Hand's Remedies for Children	[DR. D. B. HAND/ SCRANTON]	1885	
F-3	1	1	bottle, beer	Cannington, Shaw & Co. LT St. Helens, England	[C. S. & CO LD/ 2182]	1892	1913

Photo 18: Canninton, Shaw & Co Beer Bottle from Feature 3

Other items recovered from the site include a clay pipe stem, a celluloid comb, two mill stone fragments, a shoe heel, a spoon, and two utensil handles (Photos 19 and 20).

Photo 19: Pipe Stem from Unit 1

Photo 20: Mill Stone from Feature 2

6.0 SUMMARY

6.1 CONCLUSIONS

The proposed undertaking involves the North Ferry Street Pump Station Relocation project located in the City of Schenectady, Schenectady County, New York. CDC was retained by Tectonic to perform cultural resource investigations for this project. The sponsoring agency for this project is GOSR.

The Phase I Archaeological Survey was conducted for this project in November of 2017. The project will involve the construction of two other buildings within the existing parcel and includes approximately 1,550 sq m (16,681 sq ft or .38 ac). The area is topographically situated in a floodplain environment associated with the Mohawk River characterized by an urban setting.

The majority of the APE, including 1,311 sq m (14,106 sq ft or .32 ac), was not tested due to disturbances caused by the construction and demolition of the original pump house and a residential building as well as the construction of the existing pump house, associated utility corridors, and general grading activities. The area amenable for Phase IB subsurface testing encompassed approximately 239 sq m (2,575 sq ft or .06 ac). All testable sections within these areas were examined through the excavation of six sequentially numbered STPs, one 1 x 1 m units, four mechanically excavated trenches and one stripped area. As a result of the Phase IB Archaeological Survey, one historic archaeological resource was identified within the APE: Van Eps Site.

6.2 RECOMMENDATIONS

During the Phase IB Archaeological Survey, one historic archaeological resource was identified within the APE: Van Eps Site. The Van Eps Site contains three intact features, including a shield-shaped brick-lined shaft, a circular-shaped brick-lined shaft, and a backyard sheet refuse deposit, with associated artifacts. The features were exposed during the Phase I Survey but not excavated. The site is located with the National Register-listed Stockade Historic District, which dates to 1661. In addition, a saloon/residence was located on this parcel between ca. 1840 to ca. 1930. A Phase II Archaeological investigation is recommended to determine if the site retains integrity and is eligible for the National Register.

Avoidance is the preferred alternative, if possible. If avoidance is not possible, then a Phase II Archaeological Survey is recommended for the potentially eligible site according to the methodology presented in *Section 6.3 Phase II Methodology*.

6.3 PHASE II METHODOLOGY

The purpose of the Phase II Survey is to determine whether this site retains archaeological integrity and is eligible for the National Register. The goal of the Phase II Archaeological Survey is as follows:

1. Define site boundaries
2. Determine the distribution of artifacts and cultural features
3. Recover data relating to artifact frequency and type
4. Evaluate site integrity
5. Establish site chronology
6. Analyze the site within local and regional contexts

Define Site Boundaries, Distribution of Artifacts, and Features

The Phase II Archaeological Survey will be initiated with supplemental background research including information from previous local and regional surveys and recorded sites in Schenectady County. In order to develop predictions relating to site size and function, research on similar regional sites will be

conducted and the cultural history expanded. Archival research including materials in the Recorder of Deeds office, Recorder of Wills, and Tax Assessment Office will be necessary to determine the land-use history, ownership, and other data used to assess significance.

All identified features will be included on the project mapping. Documentation will begin with drawing and photographing features in plan view prior to excavation. Two hand excavated blocks will be used to cross-section each shaft, test the sediments within the shaft, and to look for associated features and/or activity areas. The areas outside the boundaries of the shaft will be excavated to a depth of 10 centimeters (cm) within sterile subsoil. The shaft will be excavated to the base of the feature in accordance with OSHA safety standards. If it is necessary to physically deconstruct a portion of the shaft to reach the maximum depth based on the size of the block excavation, this effort will be fully documented (drawings and photographs). Mechanical equipment will assist as necessary and appropriate. The plan view drawing will be revised to reflect any changes following excavation. For flotation purposes, controlled volume samples will be taken from each feature and from each stratigraphic level, if present. Flotation samples will be used to recover floral and other micro remains.

Identify Site Chronology

Diagnostic artifacts represent one of the most important tools in determining the date of construction dates for the buildings. Historic artifacts recovered from cross sections of the shafts and builders' trenches, if present, will be analyzed to determine site chronology.

Recover Data Relating to Artifact Frequency and Data

All artifacts collected during the survey will be cleaned, numbered, cataloged, and individually prepared for permanent storage in archival containers. Detailed field catalogs will be generated. Standard flotation techniques will be used to recover faunal, botanical and other artifacts from feature fill. Technological and morphological attribute analyses will be completed for all artifacts.

Artifacts will be identified and tabulated according to material, functional type, and frequency. Ceramic and glass artifacts will be defined according to form, function, color, date and maker. Function will be defined based on published articles, books, catalogs, and professional papers. Technological changes in ceramic and glass production will serve as chronological markers for dating and determining typology. Ceramic form will be established by artifact attributes and vessel reconstruction when possible. Leather, shell and other specialized objects will be analyzed according to functional type. Botanical and faunal analyses will be conducted by professional subconsultants. A minimum number of vessels (MNV), minimum number of individuals (MNI) or minimum number of units (MNI) will be calculated.

Mapping

All field information generated during the survey will be mapped using a Trimble Catalyst Satellite Receiver with sub-centimeter accuracy and the results plotted on site location maps using 2018 AutoCAD Map 3D.

7.0 REFERENCES

Biggs, A. W. H.
1841-2 *Containing the names, occupation and place of residence of all heads of families, firms, and those doing business in the City, in correct alphabetical arrangement. Also, much other useful matter.* A.W.H. Biggs, New York. Electronic document. http://www.schenectadyhistory.org/citydirectories/1841/index.html January 3, 2018.

Boyd, Andrew
1864-65 *Business Directory and Gazetteer of Schenectady County and an Appendix of Valuable Information*. Young and Graham, New York. Electronic document http://www.schenectadyhistory.org/citydirectories/index.html accessed January 3, 2018.

Bradt, Henry
1862 *Schenectady City and County Directory for 1862-3 Containing the Names of Residents and a List of City and County Officers Together with Valuable Miscellaneous Matter*. Young and Graham, New York. Electronic document http://www.schenectadyhistory.org/citydirectories/index.html accessed January 3, 2018.

Fagan, L.
1856 *Map of Schenectady County, New York.* L. Fagan, New York.

Hartgen Archaeological Associates, Inc.
2001 *Phase IA Literature Review and Archaeological Sensitivity Assessment for the North Ferry Street Pump House and Riverwalk Project, City of Schenectady, Schenectady County, New York.* Report prepared for Governor's Office of Storm Recovery.

Hartgen Archaeological Associates, Inc.
2002 *Phase IB Archaeological Field Investigations for the North Ferry Street Pump House and Riverwalk Project, City of Schenectady, Schenectady County, New York*. Report prepared for Governor's Office of Storm Recovery.

Morine, Christopher
2017 *Phase I Archaeological Survey Proposed Relocation of North Ferry Street Pump Station, City of Schenectady, Schenectady County, New York.* Report prepared for Governor's Office of Storm Recovery.

Natural Resources Conservation Service
2018 The Web Soil Survey. <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx> (accessed on January 8, 2018).

New York State Archaeological Council
2000 *Cultural Resource Standards Handbook-Guidance for Understanding and Applying the New York State Standards for Cultural Resource Investigations.*
2005 *Standards for Cultural Resource Investigations and the Curation of Archaeological Collections in New York State.*

Peasron Street Book 3 9a;19b; 9c; 20a; 20b; 20c; 21a; 21b; 21c; 22.

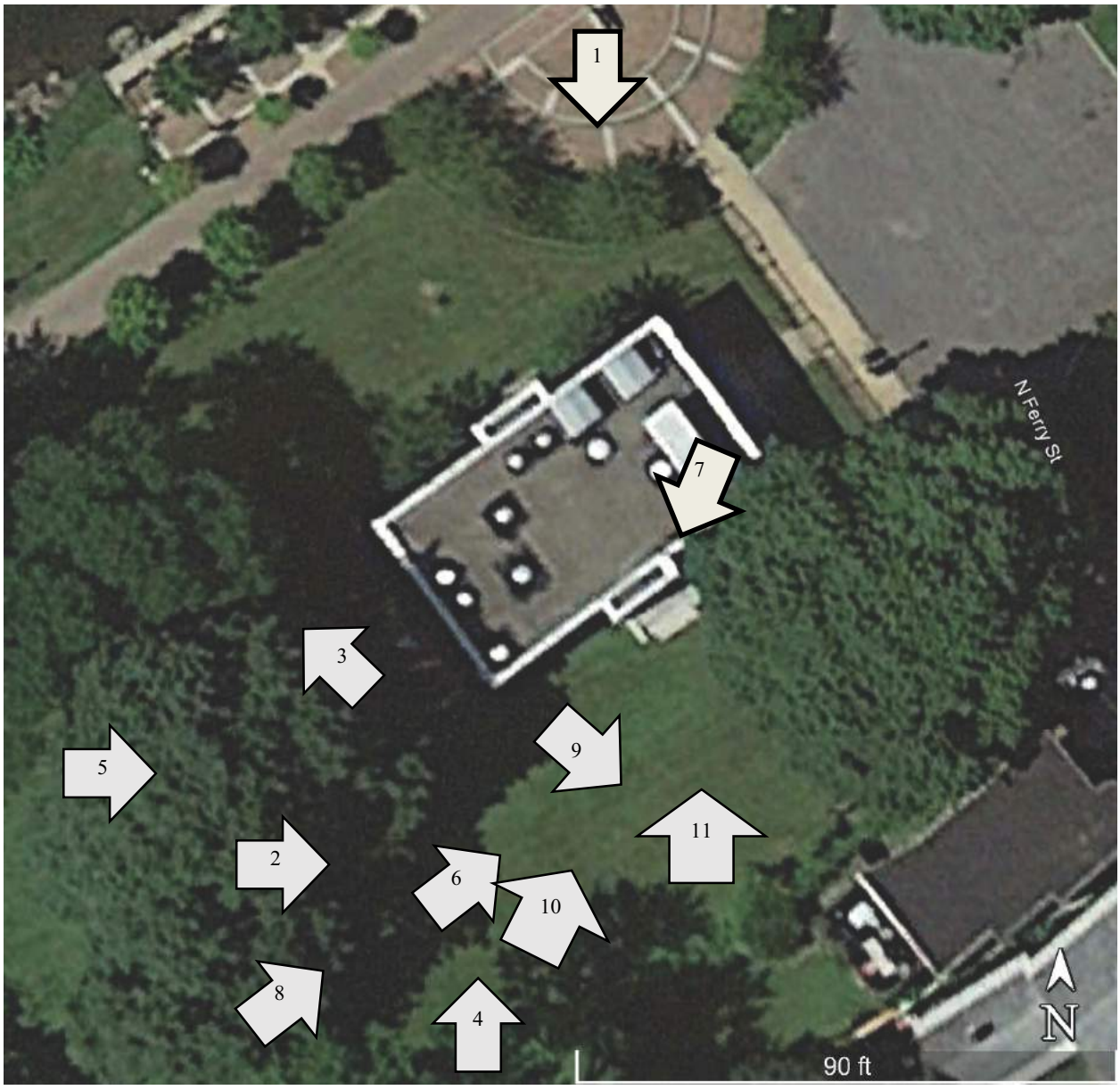
Sanborn Map Company
1884 *Insurance Maps of Schenectady, Schenectady, New York.* New York, Sanborn Map Company. Accessed electronically January 4, 2018. www.edrnet.com/sanborn.
1889 *Insurance Maps of Schenectady, Schenectady, New York.* New York, Sanborn Map Company. Accessed electronically January 4, 2018. www.edrnet.com/sanborn.
1894 *Insurance Maps of Schenectady, Schenectady, New York.* New York, Sanborn Map Company. Accessed electronically January 4, 2018. www.edrnet.com/sanborn.
1900 *Insurance Maps of Schenectady, Schenectady, New York.* New York, Sanborn Map Company. Accessed electronically January 4, 2018. www.edrnet.com/sanborn.
1914 *Insurance Maps of Schenectady, Schenectady, New York.* New York, Sanborn Map Company. Accessed electronically January 4, 2018. www.edrnet.com/sanborn.
1930 *Insurance Maps of Schenectady, Schenectady, New York.* New York, Sanborn Map Company. Accessed electronically January 4, 2018. www.edrnet.com/sanborn.
1951 *Insurance Maps of Schenectady, Schenectady, New York.* New York, Sanborn Map Company. Accessed electronically January 4, 2018. www.edrnet.com/sanborn.
1988 *Insurance Maps of Schenectady, Schenectady, New York.* New York, Sanborn Map Company. Accessed electronically January 4, 2018. www.edrnet.com/sanborn.
1989 *Insurance Maps of Schenectady, Schenectady, New York.* New York, Sanborn Map Company. Accessed electronically January 4, 2018. www.edrnet.com/sanborn.
1990 *Insurance Maps of Schenectady, Schenectady, New York.* New York, Sanborn Map Company. Accessed electronically January 4, 2018. www.edrnet.com/sanborn.
1992 *Insurance Maps of Schenectady, Schenectady, New York.* New York, Sanborn Map Company. Accessed electronically January 4, 2018. www.edrnet.com/sanborn.
1993 *Insurance Maps of Schenectady, Schenectady, New York.* New York, Sanborn Map Company. Accessed electronically January 4, 2018. www.edrnet.com/sanborn.
1994 *Insurance Maps of Schenectady, Schenectady, New York.* New York, Sanborn Map Company. Accessed electronically January 4, 2018. www.edrnet.com/sanborn.
1995 *Insurance Maps of Schenectady, Schenectady, New York.* New York, Sanborn Map Company. Accessed electronically January 4, 2018. www.edrnet.com/sanborn.
1999 *Insurance Maps of Schenectady, Schenectady, New York.* New York, Sanborn Map Company. Accessed electronically January 4, 2018. www.edrnet.com/sanborn.

Schenectady County Deed Book 55:250.

Schenectady Historical Society
2018 Schenectady Historical Society Research Files.

United States Federal Census
1840 Federal Census for City of Schenectady, Schenectady County, New York.
1855 Federal Census for City of Schenectady, Schenectady County, New York.
1865 Federal Census for City of Schenectady, Schenectady County, New York.
1875 Federal Census for City of Schenectady, Schenectady County, New York.
1876 Federal Census for City of Schenectady, Schenectady County, New York.
1880 Federal Census for City of Schenectady, Schenectady County, New York.

APPENDIX I
PHOTOGRAPH DIRCETION KEY



(Google 2018)

APPENDIX II
AGENCY COORESPONDENCE

NEW YORK STATE OF OPPORTUNITY. | Parks, Recreation, and Historic Preservation

ANDREW M. CUOMO
Governor

ROSE HARVEY
Commissioner

November 8, 2017

Mary Barthelme
Governor's Office of Storm Recovery
99 Washington Ave, Suite 1224
Albany, NY 12231

Re: HTF/ GOSR/ HUD CDBG-DR/ NY Rising Program
North Ferry Street Pump Station Relocation
119 North Ferry St, Schenectady/ Schenectady County
16PR07821

Dear Ms. Barthelme:

Thank you for continuing to request the comments of the New York State Historic Preservation Office (SHPO). We have reviewed the materials submitted Nov. 1, 2017 in accordance with Title 54, Section 306108 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/ Cultural resources.

Based on this review, the SHPO has the following comments:
1. The above-ground buildings are acceptable to this office.
2. The SHPO continues to recommend a Phase 1 Archaeological Survey for any areas that will be subjected to ground disturbance which have not been previously surveyed.

Please contact Daniel Bagrow at 518-268-2160 or dan.bagrow@parks.ny.gov with any questions.

If I can be of further assistance, contact me at (518) 268-2187 Larry.moss@parks.ny.gov

Sincerely,

L Moss

Larry K Moss, Historic Preservation Technical Specialist

CC: Alicia Shultz

APPENDIX III
GEOMORPHOLOGICAL REPORT

CHRISTINE DAVIS CONSULTANTS, INC.
560 Penn Street, Verona, Pennsylvania 15147
Phone: 412/826-0443 Fax: 412/826-0458

PHASE IA GEOMORPHOLOGICAL SURVEY

NORTH FERRY STREET PUMP STATION RELOCATION

SCHENECTADY, SCHENECTADY COUNTY, NEW YORK

BY:

JOSHUA M. PFARR
Principal Investigator/Geomorphologist
Christine Davis Consultants, Inc.

ABSTRACT

A Phase IA Geomorphological Survey was conducted for the proposed North Ferry Street Pump Station Relocation project in the City of Schenectady, Schenectady County, New York. Christine Davis Consultants, Inc. (CDC) was retained by Tectonic Engineering & Surveying Consultants, P.C. to perform cultural resource investigations for this project which include geomorphology evaluation. The sponsoring agency for this project is the Governor's Office of Storm Recovery (GOSR).

The area of potential effect (APE) consists of approximately 1,550 square (sq) meters (m) (16,681 sq ft or .38 acres (ac)). It is topographically situated within floodplain settings associated with the Mohawk River within the Hudson-Mohawk Lowlands Section of the Ridge and Valley physiographic province.

The field survey was conducted in December of 2017. Geomorphological field methodology involved the evaluation of soils and sediments within hand excavated auger probes. The excavation of auger probes revealed intact soils located on the T0 floodplain of the Mohawk River.

Based on the results of the Phase IA Geomorphological Survey, 1 x 1 m unit testing on the T0 floodplain extending through any A and Bw horizons to the depth of the C horizon sands will be sufficient for a Phase I Archaeological Survey.

TABLE OF CONTENTS

FIGURES

PHOTOGRAPHS

1.0 INTRODUCTION

1.1 PROPOSED UNDERTAKING

The proposed undertaking involves the North Ferry Street Pump Station Relocation project in the City of Schenectady, Schenectady County, New York. Christine Davis Consultants, Inc. (CDC) was retained by Tectonic Engineering and Surveying Consultants, P.C. to perform cultural resource investigations for this project. The sponsoring agency for this project is the Governor's Office of Storm Recovery (GOSR).

1.2 AREA OF POTENTIAL EFFECT (APE)

The proposed project includes portions of the floodplain zones associated with the Mohawk River. The APE for this project encompasses a total size of 1,550 square (sq) meters (m) (16,681 sq ft or .38 acres (ac)). The APE includes the areas where potential ground surface impacts will occur as part of the proposed undertaking. The APE is generally located south of the Mohawk River and west of North Ferry Street (Figures 1 and 2).

The Mohawk River generally flows south and east towards its confluence with the Hudson River approximately 22 kilometers (km) (13.7 miles (mi)) away. The landforms within the APE along the south bank of the Mohawk River include T00 and T0 floodplain zones located at a nominal elevation of 65.5 to 70.1 m (215 to 230 ft) above sea level (asl).

1.3 PURPOSE OF INVESTIGATION

The objectives of the geomorphological survey are to determine the relative age of the landforms and soils within the APE and to determine the maximum depth of excavation required for the recovery of cultural material during the Phase I Archaeological Survey. The floodplain zones of the Mohawk River and their associated soils will be the focus of the study.

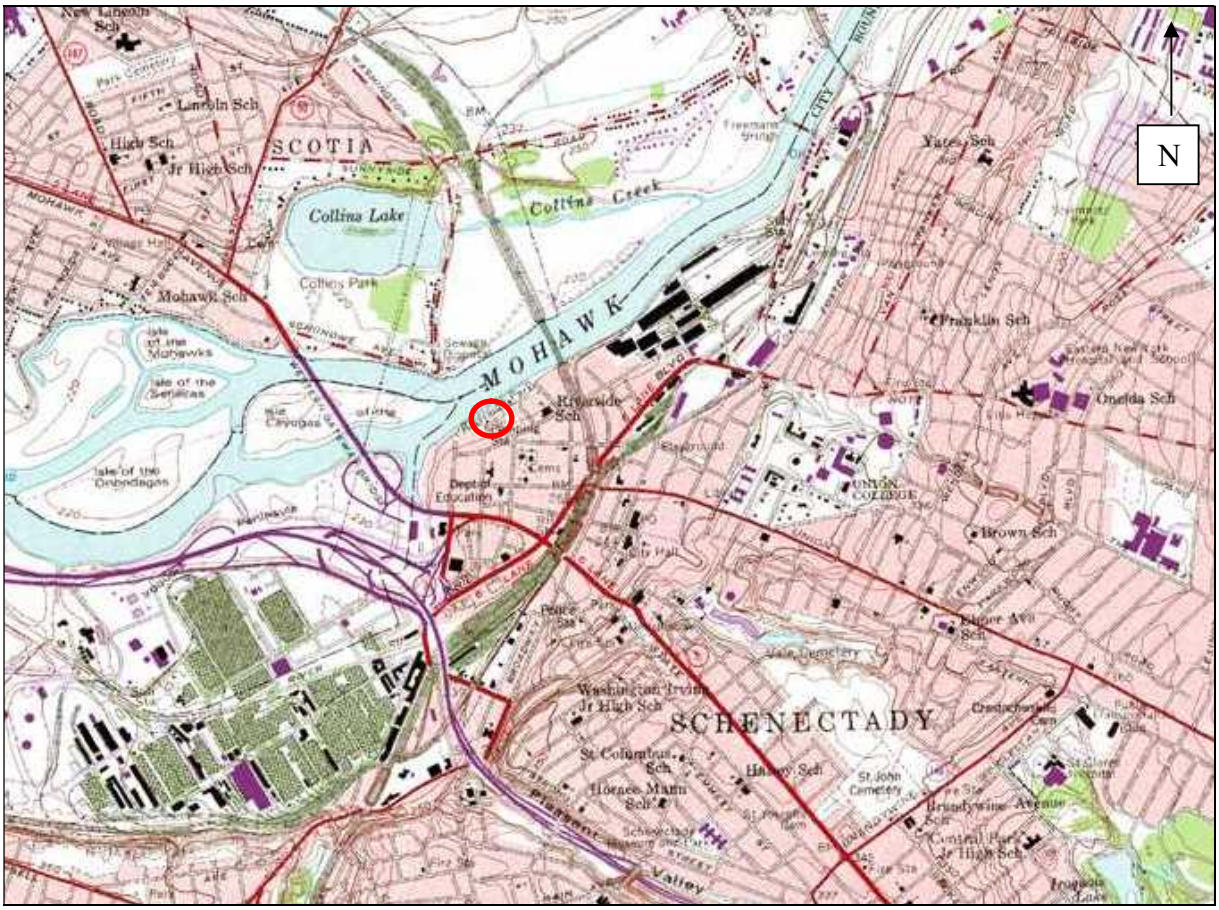


FIGURE 1: PROJECT LOCATION, SCHENECTADY, NY 7.5' USGS MAP

FIGURE 2: AREA OF POTENTIAL EFFECT (NRCS 2018)

2.0 ENVIRONMENTAL BACKGROUND

2.1 BEDROCK GEOLOGY AND PHYSIOGRAPHY

The bedrock of Schenectady County is composed of sedimentary rock formations of Middle and Upper Ordivician age such as the Utica and Canajoharie shales comprising the Lorraine, Trenton, and Black River Groups (USGS 2018). These mudstones, siltstones, shales, and sandstones have been greatly altered by the advance and retreat of continental ice sheets of the late Pleistocene Epoch. The retreat of the glaciers of this period has resulted in the deposition of glacial till and outwash gravels over the ground surface of the region (NYSM 2018; USFWS 2018; Van Diver 1985).

The Phase IA study area is situated in the Hudson-Mohawk Lowlands section of the Ridge and Valley physiographic province. Elevations in the vicinity of the APE range from approximately 84.6 to 90.6 m (215 to 230 ft) asl.

2.2 CLIMATE

The climate in Schenectady County is humid continental. These conditions include long, cold winters and warm to occasionally hot summers. Precipitation is adequate and well distributed. The total annual precipitation averages between 88.9 & 96.5 centimeters (cm) (35 & 38 inches (in)) of which approximately 50% falls from May through September (USDA 1978).

2.3 SOILS

Soils in the project area are identified as Cut and Fill Land (Cu) association general soil unit (Figure 3). This soil association consists of areas that have been disturbed by the removal or addition of soil and sediment. The alluvial Hamlin, Teel, and Wayland soils are the most likely soil units to have been altered in this portion of the Mohawk River valley (USDA 1978).

FIGURE 3: SOIL MAP OF THE APE (NRCS 2018)

3.0 GEOMORPHOLOGICAL FIELD SURVEY

3.1 FIELD METHODOLOGY

A total of two auger probes were excavated within the APE to identify the representative soil and sediment profiles present south of the Mohawk River. A wide T0 floodplain zone comprises a majority of the APE (Photos 1 to 4). A narrow T00 floodplain consisting of recent alluvium (inundated during the Phase IA survey) existed along the margins of the Mohawk River to the north of the APE (Photo 5). Both landforms have been affected by cut and fill land development activities.

3.2 FIELD SURVEY RESULTS

The first and second auger probes (AP 1 & AP 2) were placed on the T0 floodplain to the south and east, respectively, of the existing pump station at a height of approximately 2 m (6.6 ft) above the active stream channel (Figure 4). The profile of AP 1 included a 40 cm (15.7 in) thick layer of very dark grayish brown gravelly and sandy silt fill. The surface fill was underlain by 30 cm (11.8 in) of a black, ashy fill. A partially intact 55 cm (21.7 in) thick dark grayish brown silt loam Ab horizon with a moderate, subrounded, blocky structure was identified at 70 cm (27.6 in) below ground surface (bgs). Below the buried A horizon was a 40 cm (15.7 in) thick dark yellowish brown silty clay loam Bw horizon with a moderate, subrounded, blocky structure. The Bw horizon was underlain by a 25 cm thick dark yellowish brown, massive, fine sand C1 horizon. A second C horizon followed, comprised of 70 cm (27.6 in) of massive fine sandy to loamy silt. AP 1 terminated at a third C horizon comprised of coarse sand and the water table, located at a depth of 250 cm (98.4 in) bgs.

The soil and sediment profile of auger probe 2 (AP 2) included a 105 cm (41.3 in) thick layer of grayish brown to black historic fill silt, sand, and gravel at the surface. Beneath the fill was a 35 cm (13.8 in) thick dark grayish brown silt loam Ab horizon with a weak, subrounded, blocky structure. The Ab was underlain by a 50 cm (19.7 in) thick brown to dark yellowish brown silt loam to silty clay loam Bw horizon with a moderate, subrounded, blocky structure. The Bw horizon was underlain by a 25 cm (9.8 in) thick dark yellowish brown, massive, loamy sand C1 horizon. AP 2 terminated in a dark yellowish brown, massive, sandy silt C2 horizon at a depth of 215 cm (84.6 in) bgs.

Figure 5 contains representative soil and sediment profiles for auger probe within the APE.

PHOTO 1: APE LOOKING NORTH TOWARD MOHAWK RIVER

PHOTO 2: APE AND EXISTING PUMP STATION LOOKING NORTHEAST

PHOTO 3: APE SOUTHEAST OF EXISTING PUMP STATION LOOKING SOUTHWEST

PHOTO 4: APE AND EXISTING PUMP STATION LOOKING EAST

PHOTO 5: MOHAWK RIVER LOOKING NORTHWEST

FIGURE 4: AUGER PROBE LOCATIONS

Soil & Sediment Profile: AP 1	Depth, Horizon, and Munsell Color
Description	
Very Dark Grayish Brown Gravelly & Sandy Fill	0-40 cm Fill 10YR 3/2
Black, Ashy Fill	40-70 cm Fill 10YR 2/1
Dark Grayish Brown Silt Loam	70-125 cm Ab Horizon 10YR 4/2
Dark Yellowish Brown Silty Clay Loam	125-165 cm Bw Horizon 10YR 4/6
Dark Yellowish Brown Fine Sand	165-180 cm C1 Horizon 10YR 4/4
Dark Yellowish Brown Sandy Silt to Loamy Silt	180-250 cm C2 Horizon 10YR 4/4
Sand & Water Table	250+ cm C3 Horizon

Soil & Sediment Profile: AP 2	Depth, Horizon, and Munsell Color
Description	
Dark Grayish Brown to Black Silt, Sand, and Gravel Fill	0-105 cm Fill 10YR 4/2
Dark Grayish Brown Silt Loam	105-140 cm Ab Horizon 10YR 4/2
Brown to Dark Yellowish Brown Silty Clay Loam	140-190 cm Bw Horizon 10YR 4/3 to 4/6
Dark Yellowish Brown Loamy Sand	190-215 cm C1 Horizon 10YR 4/4
Dark Yellowish Brown Sandy Silt	215+ cm C2 Horizon 10YR 4/4

FIGURE 5: REPRESENTATIVE SOIL AND SEDIMENT PROFILES

4.0 CONCLUSIONS AND RECOMMENDATIONS

The Phase IA Geomorphological field survey was conducted for the North Ferry Pump Station Relocation project in December of 2017. Field methodology involved the hand excavation of two auger probes in alluvial environments across an APE of approximately 1,550 sq m (16,681 sq ft or .38 ac). The geomorphological survey involved the T0 floodplain zone of the Mohawk River.

The auger probes excavated on the T0 floodplain zones of the Mohawk River revealed truncated soil horizon development on sandy and silty stream channel and flood deposits buried beneath modern and historic fill. Much of the APE is known to have been previously impacted by cut and fill episodes associated with the construction of a pump station and utility lines. The auger probes were excavated in areas hypothesized to be either intact or only partially disturbed. Buried A and Bw soil horizons were identified in both of the auger probes. These buried soil horizons indicate past periods of relative landform stability. The potential for encountering intact buried cultural material is higher in these locations. Archaeological testing on the intact portions of this landform is recommended to extend to the top of the sandy C horizon located beneath the Bw horizon. These massive, sandy and silty C horizons represent sterile, partially altered, alluvial parent material.

Archaeological testing can be accomplished by the hand excavation of 1 x 1 m test units or potentially shovel test probes within areas where the fill deposits have been mechanically removed. Excavations should extend to depths of approximately 165 to 190 cm (65 to 74.8 in) bgs.

5.0 REFERENCES

Natural Resources Conservation Service
2018 The Web Soil Survey http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx (accessed on January 23, 2018).

New York State Museum
2018 Geology-Geographic Information System http://www.nysm.nysed.gov/research-collections/geology/gis (accessed on January 23, 2018)

United States Department of Agriculture, Soil Conservation Service
1978 *Soil Survey of Montgomery and Schenectady Counties, New York.* Prepared in cooperation with Cornell University Agricultural Experiment.

United States Fish and Wildlife Service
2018 *Geomorphic Provinces and Sections of the New York Bight Watershed*. National Conservation Training Center https://nctc.fws.gov/pubs5/web_link/text/geolsect.htm (accessed on January 23, 2018).

United States Geological Survey
2018 Mineral Resources Online Spatial Data http://mrdata.usgs.gov/geology/state/sgmc-unit.php?unit=NYTRba;3 (accessed on January 23, 2018).

Van Diver, Bradford B.
1985 *Roadside Geology of New York*. Mountain Press Publishing Company, Missoula.

APPENDIX IV
SOIL PROFILES

Soil & Sediment Profile: STP 3-1	Depth, Horizon, and Munsell Color
Description	
Very Dark Grayish Brown Gravelly & Sandy Fill	0-40 cm Fill 10YR 3/2 No Cultural Material
Black, Ashy Fill	40-85 cm Fill 10YR 2/1 Historic Artifacts
Dark Grayish Brown Silt Loam	85-105 cm Ab Horizon 10YR 4/2 Historic Artifacts
Dark Yellowish Brown Silty Clay Loam	105-200+ cm Bw Horizon 10YR 4/6 Historic Artifacts

Soil & Sediment Profile: Unit 1	Depth, Horizon, and Munsell Color
Description	
Dark Grayish Brown to Black Silt, Sand, and Gravel Fill	0-50 cm Fill 10YR 4/2 No Cultural Material
Dark Grayish Brown Silt Loam	50-110 cm Ab Horizon 10YR 4/2 Historic Artifacts
Dark Yellowish Brown Silty Clay Loam	110-164 cm Bw Horizon 10YR 4/6 No Cultural Material
Dark Yellowish Brown Loamy Sand	164-174+ cm C1 Horizon 10YR 4/4

APPENDIX V
SHOVEL TEST RECORDS

NORTH FERRY STREET PUMP STATION RELOCATION, SCHENECTADY COUNTY, NY			
SHOVEL TEST RECORDS: Pump Station Area			
Test	**Depth-cm**	**Soil Profile Description**	**Artifact Summary**
STP 1-1	0-50	Medium Brown Sandy Gravel	NCM
	50	Root Impasse	NCM
STP 1-2	0-18	Dark Greyish Brown to Black Silt, Sand, and Gravel Fill	Historic Artifacts
	18-45	Dark Grayish Brown Silt Loam	NCM
	45-103	Dark Yellowish Brown Silty Clay Loam	Historic Artifacts
STP 1-3	0-18	Very Dark Grayish Brown Gravelly and Sandy Fill	NCM
	18-90	Black Ashy Fill	NCM
	90-100	Dark Greyish Brown Silt Loam	Historic Artifacts
STP 2-1	0-10	Dark Greyish Brown to Black Silt, Sand, and Gravel Fill	NCM
	10+	Utility Impasse	NCM
STP 3-1	0-40	Very Dark Grayish Brown Gravelly and Sandy Fill	NCM
	40-85	Black Ashy Fill	Historic Artifacts
	85-105	Dark Greyish Brown Silt Loam	Historic Artifacts
	105-200+	Dark Yellowish Brown Silty Clay Loam	Historic Artifacts
STP 3-2	0-40	Very Dark Grayish Brown Gravelly and Sandy Fill	NCM
	40-75	Black Ashy Fill	Historic Artifacts
		Dark Greyish Brown Silt Loam	NCM
		Dark Yellowish Brown Silty Clay Loam	NCM
Unit 1	0-50	Dark Greyish Brown to Black Silt, Sand, and Gravel Fill	NCM
	50-110	Dark Grayish Brown Silt Loam	Historic Artifacts
	110-164	Dark Yellowish Brown Silty Clay Loam	NCM
	164-174+	Dark Yellowish Brown Loamy Sand	NCM

APPENDIX VI
PHASE I ARTIFACT INVENTORY

Provenience	Feature #	Level	Quantity	Material Type	MNV/MNI/MNU	Quantity Discard	Decoration Color	Material Color	Paste	Ceramic Style	Ceramic Form	Glass Form	Other Artifact Types	Additional Information	Marks	Diameter (inches)	First Date	Late Date
STP 1-2		0-18 cm	2	shell	1								mussel					
STP 1-2		0-18 cm	1	metal	1								nails, square	large				
STP 1-2		0-18 cm	1	metal	1								nails, square					
STP 1-2		0-18 cm	1	ceramic	1			red	redware									
STP 1-2		50-100 cm	1	metal	1								bolt, eyelet					
STP 1-2		50-100 cm	2	shell	1								mussel					
STP 1-2		50-100 cm	1	graphite	1													
STP 1-2		50-100 cm	1	glass	1			aqua				window						
STP 1-2		50-100 cm	1	glass	1			aqua										
STP 1-2		50-100 cm	1	glass	1			olive				bottle						
STP 1-2		50-100 cm	2	glass	1			aqua				jar			[D 8]			
STP 1-2		50-100 cm	1	ceramic	1			buff	stoneware									
STP 1-2		50-100 cm	1	ceramic	1			buff	stoneware							7		
STP 1-2		50-100 cm	1	ceramic	1		green	white	earthenware	transfer print								
STP 1-2		50-100 cm	1	ceramic	1		blue	white	ironstone	flow blue							1840	1860
STP 1-2		50-100 cm	1	ceramic	1			white	ironstone									
STP 1-2		50-100 cm	1	ceramic	1			white	ironstone	molded								
STP 1-2		50-100 cm	1	ceramic	1			white	ironstone						[ROYAL.../ T & R.../ EN(GLAND)]			
STP 1-2		50-100 cm	1	ceramic	1		grey	white	ironstone	transfer print					PARIS WHITE & IRONSTONE CHINA/ WALLEY]		1845	1856
STP 1-2		50-100 cm	1	ceramic	1			white	porcelain									
STP 1-2		50-100 cm	1	ceramic	1			white	porcelain		plate, toy					2.5		
STP 1-3		90-100 cm	1	shell	1								mussel					
STP 1-3		90-100 cm	5	faunal	1								mammal	cow? horse?				
STP 3-1		40-85 cm	3	various	3								clinker					
STP 3-1		40-85 cm	3	faunal									mammal					
STP 3-1		40-85 cm	1	graphite														
STP 3-1		40-85 cm	4	metal	4								nails, square					
STP 3-1		40-85 cm	1	metal	1								nails, square	large				
STP 3-1		40-85 cm	1	metal	1								nails, unidentifiable					
STP 3-1		40-85 cm	1	metal	1								screw					
STP 3-1		40-85 cm	7	ceramic	2			white	ironstone									
STP 3-1		40-85 cm	2	ceramic	1		blue	buff	stoneware									
STP 3-1		40-85 cm	1	ceramic	1		blue	white	ironstone	transfer print								
STP 3-1		40-85 cm	1	ceramic	1			white	ironstone		saucer				[(IRONSTON)E CHINA/ ...P. CO.]	6		
STP 3-1		40-85 cm	13	glass	1			aqua				window						
STP 3-1		40-85 cm	1	glass	1			aqua				bottle						
STP 3-1		40-85 cm	1	glass	1			clear				bottle						
STP 3-1		40-85 cm	1	glass	1			clear				flask		Reed Glass Company	"R" inside inverted triangle		1899	1956
STP 3-1		40-85 cm	1	glass	1			clear				bottle, medicine						
STP 3-1		85-105 cm	3	ceramic	1			white	bisque									
STP 3-1		85-105 cm	2	faunal	1								mammal					
STP 3-1		85-105 cm	1	glass	1			aqua				window						
STP 3-1		105-125 cm	3	brick	1			red					brick fragments					
STP 3-2		< 60 cm	1	metal	1								spike					
STP 3-2		< 60 cm	1	various	1								clinker					
STP 3-2		< 60 cm	2	metal	2								unidentifiable					
STP 3-2		< 60 cm	3	faunal	1								mammal					
STP 3-2		< 60 cm	1	ceramic	1			white	ironstone									
Unit 1		60-70 cm	4	ceramic	1		blue/ brown	buff	yellow ware	mocha	bowl			seaweed pattern			1827	1910
Unit 1		60-70 cm	1	ceramic	1		blue	white	ironstone	transfer print								
Unit 1		60-70 cm	4	ceramic	1			white	ironstone									
Unit 1		60-70 cm	1	ceramic	1			buff	stoneware									
Unit 1		60-70 cm	1	ceramic	1			red	redware									
Unit 1		60-70 cm	1	glass	1			aqua				window						
Unit 1		60-70 cm	1	stone	1			grey					roof slate					

Provenience	Feature #	Level	Quantity	Material Type	MNV/MNI/MNU	Quantity Discard	Decoration Color	Material Color	Paste	Ceramic Style	Ceramic Form	Glass Form	Other Artifact Types	Additional Information	Marks	Diameter (inches)	First Date	Late Date
Unit 1		60-70 cm	2	metal	2								nails, unidentifiable					
Unit 1		60-70 cm	6	faunal	2								mammal					
Unit 1		70-80 cm	4	metal	4								nails, square					
Unit 1		70-80 cm	3	faunal	1								mammal					
Unit 1		70-80 cm	1	glass	1			aqua				window						
Unit 1		70-80 cm	1	shell	1								mussel					
Unit 1		70-80 cm	1	brick	1			red						brick fragments				
Unit 1		70-80 cm	1	ceramic	1			buff	stoneware									
Unit 1		70-80 cm	1	clay	1			white					pipe, stem					
Unit 1		70-80 cm	1	ceramic	1			white	ironstone		lid							
Unit 1		70-80 cm	3	ceramic	1			white	ironstone									
Unit 1		70-80 cm	1	ceramic	1		blue	white	ironstone	transfer print								
Unit 1		80-90 cm	1	faunal	1								mammal					
Unit 1		80-90 cm	1	faunal	1								calcine					
Unit 1		80-90 cm	1	metal	1								unidentifiable					
Unit 1		80-90 cm	1	metal	1								nails, square					
Unit 1		80-90 cm	5	ceramic	4		blue	white	ironstone	transfer print								
Unit 1		80-90 cm	1	ceramic	1			white	ironstone									
Unit 1		80-90 cm	1	clay	1			white					pipe, stem					
Unit 1		80-90 cm	1	glass	1			clear				window						
Unit 1		80-90 cm	2	glass	1			aqua				window						
Unit 1		80-90 cm	2	glass	1			clear										
Unit 1		90-100 cm	1	faunal	1								mammal					
Unit 1		90-100 cm	1	glass	1			clear										
Unit 1		90-100 cm	1	ceramic	1			white	ironstone									
Unit 1		90-100 cm	1	ceramic	1			white	ironstone	molded								
Unit 1		90-100 cm	4	ceramic	4		blue	white	ironstone	transfer print								
Unit 1		100-110 cm	1	faunal	1								mammal					
Unit 1		100-110 cm	1	metal	1								nails, square					
Unit 1		100-110 cm	1	ceramic	1		brown	white	ironstone	transfer print								
Unit 1		100-110 cm	1	ceramic	1		blue	white	ironstone	feather edge								
Trench 1		70-100 cm	1	shell	1								mussel					
Trench 1		70-100 cm	1	ceramic	1		blue	white	ironstone	transfer print								
Trench 1		70-100 cm	1	ceramic	1		brown	buff	yellow ware	mocha								
Trench 1		70-100 cm	1	ceramic	1			white	ironstone		molded							
Trench 1		70-100 cm	1	ceramic	1			white	porcelain		tea cup							
Trench 1		70-100 cm	6	ceramic	1			white	ironstone									
Trench 1		70-100 cm	1	glass	1			blue				dish		molded				
Trench 1		70-100 cm	3	glass	1			aqua										
Trench 1		70-100 cm	1	glass	1			opaque white										
Trench 1		70-100 cm	4	glass	1			clear										
Trench 1		70-100 cm	1	stone	1			grey					roof slate					
Trench 1		70-100 cm	3	metal	3								nails, round					
Trench 1		70-100 cm	1	metal	1								wire					
Trench 1		152 cm	1	shell	1								mussel					
Trench 1		152 cm	1	faunal	1								mammal	cow? horse?				
Trench 1	1	surface	1	ceramic	1		blue	white	ironstone	flow blue							1840	1860
Trench 1	1	surface	1	glass	1			aqua										
Trench 1	1	surface	5	metal	5								nails, square	large				
Trench 1	1	surface	4	metal	4								nails, square					
Trench 1	1	surface	1	metal	1								chain					
Trench 2		50-100 cm	4	ceramic	1			white	ironstone									
Trench 2		50-100 cm	2	ceramic	1			white	ironstone	molded								
Trench 2		50-100 cm	2	ceramic	1			white	ironstone	molded	bowl							
Trench 2		50-100 cm	1	ceramic	1			white	porcelain									

Provenience	Feature #	Level	Quantity	Material Type	MNV/MNI/MNU	Quantity Discard	Decoration Color	Material Color	Paste	Ceramic Style	Ceramic Form	Glass Form	Other Artifact Types	Additional Information	Marks	Diameter (inches)	First Date	Late Date
Trench 2		50-100 cm	4	ceramic	3		blue	white	ironstone	transfer print								
Trench 2		50-100 cm	1	ceramic	1		gold	white	porcelain	banded, gilded	tea cup				[GERMANY]			
Trench 2		50-100 cm	1	ceramic	1			buff	stoneware									
Trench 2		50-100 cm	1	shell	1								mussel					
Trench 2		50-100 cm	1	metal	1								end cap					
Trench 2		155-232 cm	1	brick	1		red						brick fragments					
SA 1		surface	2	faunal	1								mammal					
SA 1		surface	1	glass	1			aqua				bottle						
SA 1		surface	1	glass	1			aqua				jar						
SA 1		surface	1	ceramic	1		green	white	ironstone	feather edge								
SA 1		surface	2	ceramic	1			buff	stoneware		bottle			from Schenectady	[GEO WELLER]		1860	
SA 1		surface	1	ceramic	1			white	ironstone	molded								
SA 1		surface	1	ceramic	1			white	ironstone						[...ATER/ IRONSTONE/ RICHARD ALCOC.../ BURSLEM ENGLAND]		1870	1882
SA 1		surface	1	ceramic	1		blue	white	ironstone	transfer print								
SA 1		surface	1	ceramic	1			white	ironstone									
SA 1		surface	1	glass	1			opaque white				jar		molded				
SA 1		surface	1	ceramic	1		blue	white	earthenware	transfer print								
SA 1	2	surface	13	ceramic	1		brown	buff	yellow ware	Rockingham	tea pot							
SA 1	2	surface	1	metal	1								nails, square	large				
SA 1	2	surface	1	glass	1			clear										
SA 1	2	surface	5	faunal	1								mammal					
SA 1	2	surface	6	shell	4								mussel					
SA 1	2	surface	1	wood/metal	1								handle	untensil? knife?				
SA 1	2	surface	1	metal	1								handle	untensil? knife?				
SA 1	2	surface	3	metal	3								nails, square					
SA 1	2	surface	1	metal	1								nails, square	large				
SA 1	2	surface	1	celluloid	1								comb					
SA 1	2	surface	2	stone	1								roof slate					
SA 1	2	surface	1	various	1								shoe, heel					
SA 1	2	surface	1	metal	1								unidentifiable					
SA 1	2	surface	1	metal	1								ring			2		
SA 1	2	surface	2	brick	1			red					brick fragments					
SA 1	2	surface	1	clay	1			white					pipe, stem					
SA 1	2	surface	1	ceramic	1			red	redware		flower pot							
SA 1	2	surface	6	ceramic	5			buff	stoneware		crocks							
SA 1	2	surface	2	ceramic	1		brown	buff	yellow ware	Rockingham								
SA 1	2	surface	4	ceramic	1			buff	stoneware		crocks				[N. A. WHIT.../ UTICA N. Y.]	9		
SA 1	2	surface	1	ceramic	1		gold	white	porcelain	gilded/ banded	tea cup							
SA 1	2	surface	1	ceramic	1		gold	white	porcelain	gilded/ banded	saucer					6		
SA 1	2	surface	1	ceramic	1			white	ironstone		saucer				partial mark	7		
SA 1	2	surface	5	ceramic	1			white	ironstone	molded	chamber pot					10		
SA 1	2	surface	2	ceramic	2			white	ironstone	molded								
SA 1	2	surface	3	ceramic	2			white	ironstone									
SA 1	2	surface	3	ceramic	1			white	ironstone		tea cup							
SA 1	2	surface	1	glass/ metal	1			aqua				bottle, soda		hutchinson stopper	[MYNDERSE BRO'S/ SCHENECTADY / N. Y.]			
SA 1	2	surface	1	glass	1			aqua				bottle, medicine			[MADE BY/ DEAN FOSTER & CO/ BOSTON]			
SA 1	2	surface	1	glass	1			aqua				bottle, medicine		Dr. Hand's Remedies	[DR. D. B. HAND/ SCRANTON]		1885	
SA 1	2	surface	1	glass	1			aqua				bottle, medicine			[B 21]			
SA 1	2	surface	1	glass	1			aqua				bottle, ink						
SA 1	2	surface	3	glass	1			aqua				window						
SA 1	2	surface	7	glass	1			aqua				bottle						
SA 1	2	surface	1	glass	1			aqua				bottle						
SA 1	2	surface	3	glass	1			aqua				bottle						
SA 1	2	surface	6	glass	4			clear				bottle						
SA 1	2	surface	1	glass	1			clear						pressed				

Provenience	Feature #	Level	Quantity	Material Type	MNV/MNI/MNU	Quantity Discard	Decoration Color	Material Color	Paste	Ceramic Style	Ceramic Form	Glass Form	Other Artifact Types	Additional Information	Marks	Diameter (inches)	First Date	Late Date
SA 1	2	surface	5	glass	1			clear				hurricane						
SA 1	2	surface	5	glass	1			opaque blue										
SA 1	2	surface	1	metal	1								spoon					
SA 1	2	surface	5	ceramic	1		multi	white	earthenware	majolica								
SA 1	2	surface	2	stone	1								mill stone					
SA 1	3	0-40 cm	1	glass	1			olive				bottle, beer		Cannington, Shaw &	[C. S. & CO LD/ 2182]		1892	1913
SA 1	3	0-40 cm	2	glass	1			olive				bottle						
SA 1	3	0-40 cm	1	glass	1			aqua				bottle						
SA 1	3	0-40 cm	1	metal	1								ring			2.5		
SA 1	3	0-40 cm	1	metal	1								plate					
SA 1	3	0-40 cm	2	ceramic	1			buff	stoneware		bottle							
SA 1	3	0-40 cm	2	ceramic	1			buff	stoneware		crock							
SA 1	3	0-40 cm	2	ceramic	1			white	ironstone	molded	lid					3		
SA 1	3	0-40 cm	1	ceramic	1			white	ironstone		tea cup							
SA 1	3	0-40 cm	1	ceramic	1			white	ironstone		twiffler					8		
SA 1	3	0-40 cm	2	ceramic	1			white	ironstone		saucer					6		
SA 1	3	0-40 cm	1	ceramic	1			white	ironstone	molded								
SA 1	3	0-40 cm	1	ceramic	1		multi	white	ironstone	decal/ molded/ gilde	pitcher							
SA 1	3	0-40 cm	1	ceramic	1		blue	white	ironstone	transfer print								
SA 1	3	0-40 cm	1	glass	1			opaque white				decorative art		molded				

NEW YORK STATE OF OPPORTUNITY. | Parks, Recreation, and Historic Preservation

ANDREW M. CUOMO
Governor

ROSE HARVEY
Commissioner

November 8, 2017

Mary Barthelme
Governor's Office of Storm Recovery
99 Washington Ave, Suite 1224
Albany, NY 12231

Re: HTF/ GOSR/ HUD CDBG-DR/ NY Rising Program
North Ferry Street Pump Station Relocation
119 North Ferry St, Schenectady/ Schenectady County
16PR07821

Dear Ms. Barthelme:

Thank you for continuing to request the comments of the New York State Historic Preservation Office (SHPO). We have reviewed the materials submitted Nov. 1, 2017 in accordance with Title 54, Section 306108 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/ Cultural resources.

Based on this review, the SHPO has the following comments:
1. The above-ground buildings are acceptable to this office.
2. The SHPO continues to recommend a Phase 1 Archaeological Survey for any areas that will be subjected to ground disturbance which have not been previously surveyed.

Please contact Daniel Bagrow at 518-268-2160 or dan.bagrow@parks.ny.gov with any questions.

If I can be of further assistance, contact me at (518) 268-2187 Larry.moss@parks.ny.gov

Sincerely,

L Moss

Larry K Moss, Historic Preservation Technical Specialist

CC: Alicia Shultz

October 31, 2017

Mr. Larry Moss
Historic Preservation Technical Specialist
New York State Office of Parks, Recreation and Historic Preservation
Division of Historic Preservation
Peebles Island
P.O. Box 189
Waterford, New York 12188-0189

Re: North Ferry Street Pump Station Relocation
119 North Ferry St, Schenectady/ Schenectady County
16PR07821
Section 106 Compliance for North Ferry Street Pump Station Relocation, City of Schenectady, Schenectady County, New York

Dear Mr. Moss:

Pursuant to the Disaster Relief Appropriations Act, 2013 (Public Law 113-2) and the Housing and Community Development Act (42 U.S.C. § 5301 et seq.), the Governor's Office of Storm Recovery (GOSR), an office of New York State Homes and Community Renewal's Housing Trust Fund Corporation as a recipient of Community Development Block Grant – Disaster Recovery ("CDBG-DR") funds from the United States Department of Housing and Urban Development ("HUD"), is serving as the entity responsible for compliance with the HUD environmental review procedures set forth in 24 CFR Part 58. GOSR is acting on behalf of HUD in providing the enclosed project information and request for consultation.

GOSR processes environmental reviews for projects funded with HUD CDBG-DR on a case-by-case basis. A consultation request for the project described herein will also be sent to the Delaware Tribe of Indians, the Saint Regis Mohawk Tribe, the Mohawk Nation, and the Stockbridge-Munsee Community Band of Mohicans. In accordance with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended (54 U.S.C. §306108), and its implementing regulations, 36 Code of Federal Regulations (CFR) Part 800, this letter serves as notification of the proposed action.

Area of Potential Effect: The project will take place at the end of North Ferry Street in the City of Schenectady, New York (see attached figure). The design plans for the pump station have not been drafted to date. Attached are available renderings. The space surrounding the current pump station will be utilized and include an area of potential effect (APE) of approximately 19,000 square feet including the current building and new surrounding structures, landscaping, fencing and walkways. At this time, it is anticipated that the structural components for the pump station will include the following design requirements:

- 45'x 65' sanitary sewage pump station building, including 40' deep basement
- Stair and elevated floors
- Monorail hoist beam

- Exterior generator slab on grade

Assumptions:

- The building will be founded on mat foundation at a 40-foot +/- depth.
- Design of deep foundations (piles, caissons, etc.) will not be required.
- Above grade construction will be reinforced CMU with precast hollow core or precast double tee roof planks

Proposed Project Description: The City of Schenectady proposes to replace the existing North Ferry Street Pump Station, which was built in 1913 and is located in the Stockade District. The existing pump station site is prone to flooding from the Mohawk River. The ground floor elevation of the pump station is below the 100-year flood elevation resulting in inundation of the pump station dry well structure and submergence of critical electrical and control systems necessary for pumping operation during these flood events. As such, the new station must be designed to withstand flooding to an elevation of 235 feet to ensure continuous operation and reliability.

This project will improve septic and wastewater infrastructure to reduce flood damage and risk of pollution that would mitigate the type of devastation caused by Hurricane Irene and Tropical Storm Lee. The pump station is being designed with additional controls which will enable the City to convey flows through the existing interceptor sewer along Front Street which will allow for maximum flexibility for the long-term operations and maintenance of the system.

A review of CRIS indicates that part of the project area has already been surveyed as part of a previous archaeological survey, 02SR52605. Both locations proposed for the new pump station will be located outside of the footprint of this survey as shown on the proposed site plan. Significant new ground disturbance is expected to construct the new station and will require excavations and trenching work across the site.

Request for Comment: The purpose of this letter is to initiate consultation pursuant to Section 106 of the NHPA per the implementing regulations at 36 Code of Federal Regulations (CFR) Part 800. GOSR respectfully requests your review of the proposed project described herein. If you have any questions or require additional information regarding this request, please feel free to contact me at (518) 474-0755 or via email at lori.shirley@nyshcr.org. Thank you for your time and consideration.

Sincerely,

Alicia Shultz

Alicia Shultz
Community Developer
Bureau of Environmental Review and Assessment
Governor's Office of Storm Recovery

Enclosures:
Attachment 1: Project Location Map and Renderings

Google Earth

feet 300
meters 100

North Ferry Street,
Schenectady, NY

North Ferry Street Pump Station

October 31, 2017

Potential Area of Effect (APE) 19,000 Square Feet

PHASE I ARCHAEOLOGICAL SURVEY
PROPOSED RELOCATION OF
NORTH FERRY STREET PUMP STATION

City of Schenectady, Schenectady County, New York

THIS REPORT CONTAINS CONFIDENTIAL INFORMATION
NOT FOR PUBLIC DISTRIBUTION

Prepared for:

Governor's Office of Storm Recovery
99 Washington Avenue, Suite 1224
Albany, New York 12260

Prepared by:

Louis Berger
20 Corporate Woods Blvd.
Albany, New York 12211

Final Report
June 21, 2017

Management Summary

Involved Agencies	City of Schenectady New York State Governor's Office of Storm Recovery (GOSR) New York State Homes and Community Renewal (HCR) New York State Office of Parks, Recreation and Historic Preservation (OPRHP)
Phase of Survey	Phase I Archaeological Survey
Location Information	Riverside Park between Governor's Lane and the existing pump house
Town	Schenectady
County	Schenectady
Survey Area	Area of potential effect (project area), approximately 0.2 hectare (0.5 acre)
USGS 7.5-Minute Quadrangle Map	*Schenectady, NY*, 2016

Archaeological Survey Overview

Methods Used	Pedestrian reconnaissance Subsurface shovel testing (11 shovel tests excavated at 15-meter [50-foot] intervals)
Artifacts Recovered/ Features Identified	None

Results of Archaeological Survey

No./Name(s) of Prehistoric Sites Identified	N/A
No./Name(s) of Historic Sites Identified	N/A
Recommendations	No sites eligible for listing in the National Register of Historic Places were identified. No additional archaeological work recommended.
Report Author	Christopher Morine, RPA
Date of Report	June 20, 2017

Abstract

On behalf of the Governor's Office of Storm Recovery (GOSR), Louis Berger U.S., Inc. (Louis Berger), completed a Phase I archaeological survey for the proposed relocation of the North Ferry Street pump station in Riverside Park, Schenectady, New York. The archaeological survey was conducted to determine if potentially significant archaeological sites (i.e., those eligible for the National Register of Historic Places) are present prior to the proposed construction of the new pump station.

The total size of the property is approximately 0.2 hectare (0.5 acre). The area of potential effect (APE), or project area, is defined as the area within which project construction activities will take place. The project area encompasses the green space east of Governor's Lane to the existing pump station and south from the Mohawk River to the brick wall and chain-link fencing that demarcate the property boundary for the houses lining the north side of Front Street. The project area was determined to be archaeologically sensitive because of its proximity to the Mohawk River and previously identified archaeological sites in the vicinity of the project area.

During the investigation Louis Berger excavated 11 shovel tests at a standard 15-meter (50-foot) interval in the project area. Located on a manicured lawn, the project area appeared undisturbed; however, shovel testing identified a level of historical fill beneath the A horizon. Artifacts identified during the survey were primarily from the fill and consisted of late nineteenth- to early twentieth-century domestic refuse. The artifacts were not retained. The fill extended to 1 meter (3.3 feet) below ground surface in many of the shovel tests. A potentially intact sediment deposit of reddish brown silt clay was identified at the base of the fill above the 1-meter depth in four of the shovel tests. No artifacts were recovered from this level.

The Phase I survey identified widespread subsurface disturbance throughout the APE. No intact subsurface deposits were recovered, and no archaeological sites were identified. It is Louis Berger's opinion that no further archaeological work is warranted.

Table of Contents

Page

List of Figures

List of Tables

List of Photographs

I. Introduction

On behalf of the Governor's Office of Storm Recovery (GOSR), Louis Berger U.S., Inc. (Louis Berger), completed a Phase I archaeological survey for the proposed relocation of the North Ferry Street pump station in Riverside Park, Schenectady, New York (Figure 1). The archaeological survey was conducted to determine if potentially significant archaeological sites (i.e., those eligible for the National Register of Historic Places) are present prior to the proposed construction of the new pump station.

The Phase I archaeological survey was conducted in accordance with guidelines and recommendations established by the New York State Office of Parks, Recreation and Historic Preservation (OPRHP) and the *Standards for Cultural Resource Investigations and the Curation of Archaeological Collections*, published by the New York Archaeological Council (2000). The technical report conforms to the New York Archaeological Council standards and the requirements set forth in 36 CFR 66, Methods, Standards, and Reporting Requirements for Data Recovery. The survey was performed in accordance with the National Historic Preservation Act of 1966, as amended; Procedures for the Protection of Historic and Cultural Properties (36 CFR 800); the Procedures for Determining Site Eligibility for the National Register of Historic Places (36 CFR 60 and 63); the New York State Environmental Quality Review Act (SEQRA); and the Secretary of the Interior's Standards for Archaeology and Historic Preservation. The Project Manager and Project Archaeologist meet or exceed the qualifications described in the Secretary of the Interior's Professional Qualifications Standards (*Federal Register* 48:190:44738-44739) (United States Department of the Interior 1983) and in 36 CFR 66.3(b)(2) and 36 CFR 61.

This report has been organized into six chapters. Chapter II summarizes the existing conditions in the project area and provides relevant environmental and cultural contexts. Chapter III describes the methods used for the Phase I archaeological survey. The results of the Phase I archaeological survey are presented in Chapter IV, followed by Chapter V, the summary and conclusions. Chapter VI contains a list of the references cited. The report concludes with Appendix A, which contains a complete log of shovel test results.

The Phase I archaeological survey was conducted under the direction of Louis Berger Project Manager and Archaeologist Lauren Hayden. Archaeologist Christopher Morine conducted the fieldwork with the assistance of Field Archaeologist Amanda Burt. Mr. Morine wrote the report. Principal Editor Anne Moiseev supervised the editing and production of this report, including the graphics, which were prepared by Principal Draftsperson/GIS Analyst Jacqueline L. Horsford.

FIGURE 1: Location of Project Area (APE) (USGS Schenectady 2016)

II. Project Background

Research was conducted through the New York State OPRHP Cultural Resource Information System (CRIS) to assess the archaeological sensitivity of the project area. The research included review of the cultural resource management (CRM) reports on file on previous investigations and previously identified archaeological sites in the project vicinity. Louis Berger also reviewed local histories and eighteenth-, nineteenth-, and twentieth-century maps and plans to develop prehistoric and historic contexts for any identified resources.

A. Project Area Description

The area of potential effect (APE), or project area, is defined as the area within which project construction activities will take place, and measures approximately 0.2 hectare (0.5 acre). It is located on the south floodplain of the Mohawk River, bounded to the west by Governor's Lane, to the north by the Mohawk River, to the east by the existing pump station property, and to the south by the brick wall and fences that bound the properties on the north side of Front Street. The APE consists of a flat manicured lawn shaded by a handful of maple trees. The APE was determined to be archaeologically sensitive because of its proximity to the Mohawk River and the number of archaeological sites in the vicinity.

B. Environmental Context and Soils

The project area is located in the Mohawk Valley, in the Hudson-Mohawk Lowlands physiographic province. Topography in the project area consists of the low-lying alluvial land of the Mohawk drainage, some of which is currently inundated by the impoundment of the Mohawk River Barge Canal.

Bedrock in the vicinity of the project area is mapped as three adjacent Ordovician units: the Canajoharie Shale (Oc), Normanskill Shale (On), and the Schenectady Formation (Osc). The Canajoharie Shale is one of a series of Paleozoic autochthonous black shales that occupy the Champlain, Hudson, and Mohawk valleys, and has been correlated with the Utica Shale. The Normanskill Shale is of the same age. The Schenectady Formation consists of greywacke turbidites interbedded with sandstone, siltstone, and shale. The Schenectady Formation was deposited on top of the Canajoharie/Utica Shales when faults, caused by the Taconic Orogeny approximately 450 million years ago, created basins that were filled in with sediments (Kidd et al. 1995; Rogers et al. 1990).

The surficial geology of the project area is mapped as alluvium (al) and defines the Holocene-era meander belt of the Mohawk River. Alluvium is described as "recent [Holocene] deposits" that are confined to valley floors, are oxidized and non-calcareous, vary in texture, are frequently flooded, and range from 1 to 10 meters in thickness (Cadwell and Dineen 1987). Immediately south of the project area, the alluvium is bracketed by lacustrine silt and clay (lsc) that was deposited at the base of the glacial lake that occupied the valley (Cadwell and Dineen 1987). This material underlies the higher elevations south and east of the project area at the edge of the alluvial valley.

The soils mapped in the project area consist of Cut-and-Fill Land (Cu), composed of artificial fills and possibly related to the demolition of the Yates Boathouse and the development of Riverside Park. Mapped units of unmodified surface soils along the Mohawk River in the vicinity of the project area consist of a series of geographically associated soil series with relatively poor drainage and include soils that are moderately well drained (Teel), very poorly drained (Wayland), and ponded (Saprists and Aquents) (United States Department of Agriculture-Natural Resources Conservation Service [USDA-NRCS] 2017). Even the best drained of these units (Teel) is noted as possessing gleyed characteristics within 0.6 meter (24 inches) of the soil surface (USDA-NRCS 2017). Better drained soils are found on more elevated landforms representing higher, older terraces farther back from the river.

Precise elevations for the floodplain prior to development of Riverside Park are not available, but the USGS (1898) map depicts the project area as between 200 and 220 feet above mean sea level (amsl). Currently the average pool elevation of the river is 64.31 meters (211 feet) (New York State Canals 2014). Prior to conversion of this reach of

river to the New York State Barge Canal by construction of the Vischers Ferry Dam in 1913, the river elevation was approximately 62.48 meters (205 feet) amsl or slightly higher, based on elevations indicated for the river at Rexford Flats in 1898 (USGS 1898). The current project area elevations range from 69 to 70 meters (223 and 226 feet) amsl.

C. Prehistoric Context

Archaeologists have divided the vast expanse of New York culture history into five general periods: Paleoindian (12,000 to 9500 years before present [BP]); Archaic (9500 to 3000 BP); Woodland (3000 to 500 BP); Contact (500 to 300 BP); and Historic (300 BP to present). The first three subdivisions (Paleoindian, Archaic, and Woodland) are thought to represent Native American cultural adaptation to changing climatic conditions since the arrival of humans in the New York region around 12,000 years ago—from Pleistocene (Ice Age) to Holocene (modern) norms. The region's natural environment and geomorphology have greatly influenced the nature of Native American settlement, land use, and cultural development. One important factor in the interpretation of New York prehistory is the impact of glaciation on the topographic and hydrologic conditions in the area since the end of the Pleistocene.

1. Paleoindian Period (12,000 to 9500 BP)

Humans (the Paleoindians) first entered the region from the south between 12,000 and 9500 BP, following the retreat of the Wisconsin glaciers. At its maximum extent (18,000 and 16,000 BP), the Wisconsin glacier covered all of New York State and extended south into northern New Jersey and Pennsylvania. As the ice sheets receded, open spruce woodland developed in the Northeast, with pine replacing spruce as the dominant arboreal species by about 10,000 BP (Gaudreau 1988).

Few definite habitation sites from the Paleoindian period have been identified in the Northeast. It is more common to encounter isolated finds of artifacts that are diagnostic for the period. Such artifacts include Clovis-type fluted projectile points, assorted scrapers, gravers, and drills. These lithic tools are usually made from cherts that originate in eastern New York and jaspers found in Pennsylvania and New Jersey. The Paleoindian sites that have been located in New York tend to be quarry-related activity areas, small base camps, and isolated kill sites.

Paleoindian period sites in the region appear to be located in three geographic settings: (1) lowlands adjacent to water and near coniferous swamps or larger rivers; (2) upland bluffs with deciduous trees as the predominant arboreal species; and (3) ridgetops with deciduous trees as the predominant arboreal species. The basic model for Paleoindian habitation in the Northeast assumes that Paleoindians coalesced in small, highly mobile bands that traveled and hunted through large territories, focusing on post-Pleistocene megafauna. It is also possible, however, that Paleoindian populations used a relatively wide range of plant and animal resources that were encountered in more restricted territorial ranges.

2. Archaic Period (9500 to 3000 BP)

The Archaic period is characterized by climatic amelioration that eventually resulted in greater biodiversity in the resource base, and changes in technology, site size, and site locations that reflect use of a broader spectrum of resources. Researchers usually divide the Archaic into three subperiods: Early (9500 to 7000 BP); Middle (7000 to 5500 BP); and Late (5500 to 3000 BP).

a. Early Archaic Period (9500 to 7000 BP)

The Early Archaic period was initially characterized by fluctuations in climate that eventually stabilized into a warming trend. The warmer conditions enhanced biological diversity in the plant and animal communities developing in the region. The subsistence focus of aboriginal populations shifted from primarily hunting post-Pleistocene megafauna to hunting, fishing, and gathering a diverse range of animal and plant forms. Populations may have increased as a result of the greater stability of the resource base. Most of the evidence of human occupation during this period is based on isolated finds of artifacts diagnostic for the period, including bifurcate-base points, which are most often located along major drainages.

b. Middle Archaic Period (7000 to 5500 BP)

During the Middle Archaic the climatic warming trend continued, and new varieties of flora and fauna became established in the region. The subsistence and settlement pattern of the human occupants of the region continued to shift toward seasonal transhumance focused on use of specialized resources within limited ranges, which may have fostered a greater degree of territoriality (Dincauze and Mulholland 1977). Diagnostic artifacts include Neville and Stark projectile points. The reliance on diverse and specialized resources fostered expansion of the toolkit, which included adzes, axes, drills, mortars and pestles, netsinkers, and hammerstones.

c. Late Archaic Period (5500 to 3000 BP)

Climatic warming continued into the Late Archaic. The rich and diverse biotic resource base enabled increased habitation. Diagnostic artifacts for the subperiod include small stemmed projectile points, such as Lamoka, Taconic, Squibnocket, and Brewerton.

By the Terminal Archaic or Transitional period, people were grinding and polishing soapstone to make bowls and other cultural items. The Terminal Archaic is characterized by three cultural traditions: the Laurentian tradition (Vergennes phase and Vosberg complex); the small stemmed tradition; and the Susquehanna tradition (Snook Hill and Orient phases). Based on a reassessment of the distribution of Terminal Archaic points, Snow (1980:237) suggests that the Susquehanna tradition (Snook Hill, Perkiomen, and Susquehanna Broad points) was dominant in the first half of the Terminal Archaic and superseded by the Orient complex (Orient Fishtail points) in the second half of the period. The exact nature of the cultural differences between these traditions has not been conclusively discerned. They may represent differences in settlement system and technology based on use of different resource niches, the migration of new people into the region, or the spread of distinctive technological ideas.

3. Woodland and Contact Periods (3000 to 300 BP)

The Woodland period is divided into three subperiods: Early Woodland (3000 to 1700 BP); Middle Woodland (1700 to 1200 BP); and Late Woodland (1200 to 500 BP).

a. Early Woodland Period (3000 to 1700 BP)

In general, Early Woodland occupations in the Eastern Woodlands are characterized by a continuation of Late Archaic lifeways. Throughout the eastern United States it appears that Early Woodland groups were sedentary or semisedentary, with residential sites located in riverine and upland contexts and logistical sites located in a variety of physiographic contexts.

Ritchie and Funk (1973:96) write that “as in the case of the Transitional [Archaic] stage, it [the Early Woodland] is marked by the appearance of certain new traits and by the characteristic expression of other, older traits,” but “there is no evidence for significant changes in subsistence or settlement patterns.” Substantial residential sites of the Late Archaic are often referred to as base camps, yet similar sites of the Early Woodland become “villages” with the presence of ceramics and possible storage pits at these sites.

Broadspear forms were phased out in the Early Woodland period, and small stemmed and notched forms, as well as lanceolate and teardrop forms, dominate hafted biface assemblages. Ground grooved axes, seen in the Late Archaic, continue into the Early Woodland but are refined, and the repertoire of such implements is expanded. Slate gorgets, pendants, and ground slate pieces have also been recovered from Early Woodland sites.

The mortuary complexity exhibited by some Late Archaic groups continued into the Early Woodland. Meadowood (3000 to 2560 BP) cremations, bundle burials, and flex burials include red ochre, cache blades (“up to 1,500 in one grave”), gorgets, tubular pipes, and copper objects, as well as utilitarian items such as hafted bifaces, other bifacial tools, adzes, celts, bone tools, carbonized nets, and basketry (Ritchie and Funk 1973:96, 348). Early Woodland groups also created burial mounds for their dead, which represents one of the most dramatic manifestations of the social complexity inherent in Adena societies.

The Early Woodland period (Middlesex phase) is characterized by the introduction of ceramic vessels—in this region typed as Vinette 1 undecorated wares, some with steatite temper. Sites of the period are usually found on well-drained knolls next to fresh water (Ritchie 1980:21).

b. Middle Woodland Period (1700 to 1200 BP)

The Middle Woodland period is marked by changes in lithic and ceramic technology. During the Middle Woodland maize agriculture and other horticultural practices were gradually incorporated into the subsistence adaptations of the occupants of the region, promoting development of semipermanent village settlement. Subsistence practices during the Middle Woodland period were not very different from those of earlier periods, although intensified hunting, gathering, and small-scale agriculture increased use of resources. The climate during this cultural period remained similar to that of the Early Woodland period. Episodic fluctuations in temperature and precipitation did occur, which affected the distribution and composition of biotic communities. Site types identified include small camps (some temporary and some reoccupied over time), semipermanent large camps, cemeteries, burial mounds, and workshop activity areas (Ritchie and Funk 1973:349). The bow and arrow were introduced in this period. Diagnostic lithic artifacts include Jack's Reef Corner Notched and Pentagonal projectile points, and Fox Creek projectile points. The presence of increased amounts of exotic lithic materials suggests further development of interregional trade networks. Other items of material culture associated with the Middle Woodland include ornamental pendants and pins. Ceramic technology became more sophisticated as indicated by a decrease in the wall thickness of pots and a rounding of vessel shape. Ceramic decoration, including netmarking, and ornamentation of collars and bodies increased.

c. Late Woodland Period (1200 to 500 BP)

During the Late Woodland period aboriginal populations continued to grow and expand into riverine environmental zones. Agriculture continued to increase in importance as part of aboriginal subsistence systems. Maize became a major component of the prehistoric diet. By the time of the Late Woodland, the climate was very similar to that of today. A greater number of sites, larger sites, and sites with a higher density of cultural material are associated with this period in prehistory compared with earlier periods. Sites have been encountered along major drainages, in association with rockshelters, in coastal areas, and on islands. Small campsites are also located near swamps and streams. The settlement-subsistence system for this period was apparently characterized by an annual pattern of seasonal movement between riverine, coastal, and inland sites. The semipermanence of many of the occupations and resource areas may have fostered greater territoriality (Mulholland 1988:163). Diagnostic artifacts include Levanna projectile points and Owasco-related ceramics.

d. Early Historic Contact (500 to 300 BP)

Native American settlement and subsistence adaptations of the Late Woodland continued during the early Contact period, characterized by seasonal hunting and gathering and focusing on streams and major watercourses in the spring and fall for the seasonal fish runs. During this period Native Americans also accessed smaller sites in inland and upland areas for hunting and resource procurement. Larger semipermanent village sites, consisting of oval and round houses and large pits, were also located in the interior near planted fields. In the winter smaller bands of people occupied sites in inland and upland settings close to forest game (Cronon 1983:48).

Initial contact between Europeans and Native Americans occurred when early explorers entered the area to engage in trade. The introduction of European material goods, the demands of trading relationships, rapid colonial expansion, and the spread of diseases brought by the Europeans had profound effects on the settlement and subsistence adaptations of the native populations. Native groups gradually became dependent on trade with the Europeans. Tribal and clan affiliations were affected, and much of the native population disappeared or was displaced (Brasser 1978). Some estimates suggest that between 60 and 90 percent of the native population was lost to European diseases in the seventeenth century in southern New England and New York (Snow 1980:34).

D. Historic Context

Europeans began permanent settlements in Schenectady with Arent Van Curler's 1661 purchase of land from the Mohawks. The alluvial flats surrounding the Mohawk River were fertile and perfect for agricultural use. Each of the

first settlers received a house lot, a farm plot on the Great Flat, a pasture ground, and a garden lot. The house lots were located west of present-day Ferry Street in four subdivided blocks surrounded by a stockade (Howell and Munsell 1886).

During the Colonial period the Mohawk Valley was the northwestern outpost of the British colonies, making it vulnerable to raids by the French and Indians. Two major skirmishes in the area were the 1669 battle between the Mohawk and Algonquian Indians at Wolf Hollow in Glenville, and the 1748 Battle of Beukendaal with a French and Indian war party (Sesquicentennial Celebration Booklet 1970:3).

Schenectady was incorporated as a borough in 1765. Most military activity in the area during the Revolutionary War took place farther west in the Mohawk Valley.

At the turn of the nineteenth century, the project area was in the vicinity of the center of manufacturing and commerce in Schenectady. Known as the west end, the area contained docks built on heavy piles that extended into the river. Boat building took place on the Strand, a strip of land adjacent to the Mohawk River that stretched from Governor's Lane to present-day Mohawk Street, the western boundary of the Poor Pasture (Howell and Munsell 1886; Greene 1925). In 1819 a fire destroyed this commercial area, and it was never restored as the center of commerce. Instead, commerce was relocated to the area surrounding the Erie Canal (Howell and Munsell 1886).

In the first quarter of the nineteenth century, the Schenectady area became the gateway to the west through the routing of the Erie Canal through the city and county. Construction of the canal began in 1817, and the nearly 640-kilometer (400-mile) course connecting the Hudson River in Albany to Lake Erie in Buffalo was completed in 1825 (Howell and Munsell 1886:48). The canal facilitated transportation and trade from the Atlantic Ocean, along the Hudson River, and to the Midwest, making New York City's harbor the largest in the country.

Trade and transportation were further enhanced through the construction of rail lines and other improvements. The Mohawk and Hudson Railroad opened in 1831, and a year later the Saratoga and Schenectady Railroad was completed (Howell and Munsell 1886:50). As a result of the abundant transportation options at the end of the nineteenth century, Schenectady became the location of several important industries, among them locomotive and electrical equipment manufacturing.

Home to the headquarters of General Electric (formerly the Edison Electric Company) and once the home of the American Locomotive Company (ALCO) headquarters, Schenectady was known as "the city that lights and hauls the world" (City of Schenectady 2017). During the middle to late twentieth century, many of the manufacturing jobs associated with GE were relocated, and ALCO's restructuring depleted the workforce at their facility. As a result Schenectady's population has declined by almost a third since 1950 (City of Schenectady 2017).

E. Previously Identified Sites and Previous Investigations

No previously documented archaeological sites are located in the project area. Eight surveys have been previously conducted in the vicinity (Table 1), but none in the project area. Site-file research revealed a total of 30 archaeological sites documented within a 1.6-kilometer (1-mile) radius of the project area (Table 2). Of the 30 sites, four are prehistoric, three contain both prehistoric and historic components, and 23 are historic.

Of the archaeological testing conducted in the vicinity of the current APE, the work conducted by Hartgen Archaeological Associates (HAA) in 2001 and 2002 for the Pump House and Riverwalk Project is of greatest relevance (HAA 2001a, 2001b, 2002). Excavations during the Phase IB survey consisted of three backhoe trenches and five shovel tests where previous disturbance in the APE was not evident. HAA noted widespread disturbance and fill in two of the three trenches and most of the shovel tests. Trench 2 and Shovel Tests 4 and 5 were excavated west of North Ferry Street and north of the pump station. HAA archaeologists identified refuse mixed with fill in Shovel Test 4 and characterized the stratigraphy in Shovel Test 5 as complex with eight levels of mostly coal ash fill. In Trench 2 HAA archaeologists identified a wall of the original pump station (circa 1871) and widespread disturbance, including brick and rubble within the foundation, related to the former pump station.

TABLE 1

PREVIOUS ARCHAEOLOGICAL SURVEYS IN PROJECT VICINITY

REPORT	PROJECT	RESULTS	SURVEY No.
HAA 2001a	Phase IA Literature Review and Sensitivity Assessment, Glenville Energy Park Wastewater Line	Roadside disturbance and slope reduced potential for intact subsurface deposits throughout much of project area. Archaeological field reconnaissance recommended along one block of NYS Route 5 and along the south side of Glen Avenue between Schermerhorn and Toll streets to identify potential precontact or historical deposits.	01SR52344
HAA 2001b	Phase IA Literature Review and Sensitivity Assessment, North Ferry Street Pump House and Riverwalk Project, City of Schenectady	Portions of project area previously disturbed from installation of subsurface water and sewer pipes. Determined potential for intact archaeological deposits between the buried lines. Non-historic fill noted east of project area above 51 centimeters (1.67 feet). Phase IB testing therefore recommended for those areas of project that will extend more than 50 centimeters below ground surface.	01SR52606
HAA 2002	Phase IB Archaeological Field Investigation for the North Ferry Street Pump House and Riverwalk Project, City of Schenectady	Three backhoe trenches and five shovel tests excavated. Foundation walls of four nineteenth-century houses identified in Trench 1. Late eighteenth-/early nineteenth-century domestic refuse also identified. Disturbance and fill identified to depths greater than proposed impacts in the other two trenches. No significant deposits identified, no further work recommended.	02SR52605
HAA 2003	Phase IA Literature Review and Archaeological Sensitivity Assessment, Canal Square Corridor Redevelopment, City of Schenectady	Stone foundation remains identified under seemingly twentieth-century buildings; historical foundations or shaft features belonging to prominent early settlers may still be intact. Staged archaeological studies recommended prior to ground-disturbing impacts.	03SR53884
HAA 2010	Phase IA Literature Review and Archaeological Sensitivity Assessment, Schenectady Former Manufactured Gas Plant Site	Project-specific plans for remediation of site not yet developed at time of report. Research suggested low potential for intact deposits because of historical impacts and development. Monitoring during ground disturbance activities recommended until more detailed plans for impacts were available.	10SR60597
Louis Berger 2014	Supplemental Archaeological Investigation, Proposed Embayment, ALCO Property Redevelopment, City of Schenectady	Four test borings completed; contained no artifacts other than brick and other miscellaneous structural materials within the fill cap. No archaeological features or sites identified. No further archaeological work recommended.	14SR62769
HAA 2016a	Phase IA Archaeological Investigation, Liberty Park Rebuild Project, State and Water Streets, City of Schenectady	Background research indicated that remains of map-documented structures were likely beneath Liberty Park. Phase IB survey recommended with archaeological sampling of staircase footer, buried conduits, and park light bases and foundations not under pavement. Archaeological monitoring recommended for those locations under pavement,.	16SR00972
HAA 2016	Phase IB Archaeological Field Reconnaissance, Liberty Park Rebuild Project, State and Water Streets, City of Schenectady	No archaeological sites identified during Phase IB. Archaeological monitoring recommended during construction of park light bases and foundations and electrical conduits because of the frequency of seventeenth- and eighteenth-century artifacts identified during survey.	17SR00021

TABLE 2

RECORDED ARCHAEOLOGICAL SITES WITHIN 1.6-KILOMETER (1-MILE) RADIUS OF PROJECT AREA

SITE NUMBER/ SITE NAME (ADDITIONAL IDENTIFIER)	DISTANCE FROM APE	SITE TYPE/TIME PERIOD	ARTIFACTS/FEATURES	REPORTED BY
9340.000014/ Abraham Yates House (Robert Yates House)	285 meters (935 feet)/ South	Historic/circa 1700	Complete brick superstructure with foundation, creamware, porcelain, delft, redware, and tobacco pipe fragments	Historic Sites Bureau 1981
9340.000021/Site of Queen Annes Fort	200 meters (656 feet)/ Southeast	Historic/1704	Site of original stockade	Wemple and Fink 1967
9340.000079/ Riverside Park (NYAC Arms #76-3)	95 meters (312 feet)/ East	Prehistoric workshop (tentatively)/ Unknown	Unifacial chert scraper, utilized chert flakes, chert flakes, and trim	HAA 1996
9340.000099/ Elwood Hotel (Arnold's Body Shop)	1,480 meters (4,856 feet)/ East	Historic/1883	Walls without cellar hole, concrete block	Charles Fisher 1977
9340.000100/Old D&H Freight Yards	795 meters (2,608 feet)/ East	Historic/Not recorded	Not recorded	Charles Fisher 1977
9340.000101/ Van Velsen Mill Site	545 meters (1,788 feet)/ South	Historic/Not recorded	Not recorded	Charles Fisher 1977
9340.000102/ Old Erie Canal	1,380 meters (4,528 feet)/ Northeast	Historic/1825-1915	Former canal	Charles Fisher 1977
9340.000103/ Old Erie Canal Wall	455 meters (1,493 feet)/ Southeast	Historic/1825-1915	Former canal wall	Charles Fisher 1977
9340.000104/ ALCO Buildings Site	925 meters (3,035 feet)/ Northeast	Historic/1848-1968	Steel foundations with walls	Charles Fisher 1977
9340.000105/ Alpha Knitting Mill	1,485 meters (4,872 feet)/ Northeast	Historic/1882-1935	No visible evidence	Charles Fisher 1977
9340.000713/ Schenectady Stockade	153 meters (502 feet)/ South	Historic/Colonial	Collapsed superstructure, two walls made of wood and Dutch brick; Dutch clay pipe and pipe stem, animal bones, crockery,	Paul Huey 1977
9340.000720/ Schenectady Museum Site (NYSM 6281)	1,360 meters (4,462 feet) Southeast	Prehistoric/Unknown	Not recorded	University at Albany Institute for Archaeological Studies (IAS) 1989
9340.000723/ HAA Site 563 - Stockade	330 meters (1,083 feet) Southwest	Historic/Seventeenth and eighteenth century Prehistoric/ Unknown	Historic postmold Prehistoric pottery, flakes, biface, fire-cracked rock	HAA 1988
9340.000724/HAA Site 564 – 18th Century Site	300 meters (984 feet)/ South	Historic/Eighteenth century Prehistoric/ Unknown	Dried laid stone foundation Prehistoric pottery, flakes, biface, fire-cracked rock	HAA 1988
9340.001144/ Stockade Site	190 meters (623 feet)/ Southwest	Historic/Seventeenth through nineteenth century Prehistoric/Late Woodland	Line of three postmolds associated with the 1704 Stockade, a nineteenth-century foundation, a retaining wall, and a privy; early to mid-eighteenth-century ceramic, nails, and handmade bricks; triangular projectile point and pottery fragment	HAA 1992
9340.001198/ Durham Project 44 (Binnekill Harbor)	280 meters (919 feet)/ Southwest	Historic not recorded	Not recorded	OPRHP 1998
9340.001228/ Western Gateway Historic Site 1	610 meters (2,001)/ Southeast	Historic/mid-nineteenth century	Partial superstructure with belowground foundation with wood, late eighteenth- to early nineteenth-century ceramic, ash, shell, faunal, bottle glass	HAA 2001

TABLE 2 (continued)

SITE NUMBER/ SITE NAME (ADDITIONAL IDENTIFIER)	DISTANCE FROM APE	SITE TYPE/TIME PERIOD	ARTIFACTS/FEATURES	REPORTED BY
9340.001229/ Western Gateway Historic Site 2	680 meters (2,231 feet)/ Southeast	Historic/Indeterminate	Partial superstructure with traces of buried foundation and ceramics	HAA 2001
9340.001230/ Western Gateway Historic Site 3	690 meters (2,264 feet)/ Southeast	Historic/Nineteenth century	Partial superstructure with traces of buried foundation and ceramics, clay tobacco bowls and stems, glass tumbler and copper alloy utensil handle, and faunal remains	HAA 2001
9340.001302/ Little Italy Historic Site	795 meters (2,608 feet)/ East	Historic/Mid-nineteenth century	Buried archaeological deposits on several historic lots and four standing structures	HAA 2005
9340.001544/ Section House (CHPE Site 22)	825 meters (2,707 feet)/ South	Historic/Early to mid-twentieth century	Domestic refuse including vessel glass, glass tableware, food waste; construction debris contained wire nails, window glass, and wire	HAA 2012
9341.000006/ Washington Ave Bridge Abutments	240 meters (787 feet)/ North	Historic/1808	Standing ruins of former bridge abutments	Scotia-Glenville Historic Survey Committee 1975
9341.000009/ Reese Homestead/ Flint House	1,307 meters (4,288 feet)/ Northwest	Historic/1735, possibly 1715	Clapboard and brick homestead	Scotia-Glenville Historic Survey Committee 1976
9341.000011/ The Dyke	645 meters (2,116 feet)/ Northwest	Historic/1811	Dyke	Scotia-Glenville Historic Survey Committee 1976
9341.000013/ Grist Mill Site	1,300 meters (4,265 feet)/ Northwest	Historic/circa 1775	Site of possible first grist mill in the area	Scotia-Glenville Historic Survey Committee 1977
9341.000014/ Glenotia Park	1,320 meters (4,331 feet)/ Northwest	Historic/1907	Site of a recreation park	Scotia-Glenville Historic Survey Committee 1977
9341.000016/ Collins Lake Site (NYSM 2677)	1,140 meters (3,740 feet)/ North	Prehistoric/Unknown	Unidentified material dredged from the bottom of the lake	IAS 1989
9341.000017/ Collins Park Site (NYSM 2678)	1,040 meters (3,412 feet)/ Northwest	Prehistoric/Unknown	Large biface fragment	IAS 1989
9341.000020/ Durham Project 101	900 meters (2,953 feet)/ Northwest	Historic/Unknown	No inventory form on file	N/A
9341.000023/ Old Burr Bridge	240 meters (787 feet)/ North	Historic/1808	Partial superstructure with above ground foundation. Construction materials of stone and brick	HAA 2001

Subsurface disturbance and/or episodes of fill were generally listed as potentially present during Phase IA surveys (HAA 2001a, 2001b, 2010) or identified during Phase IB surveys (HAA 2002; Louis Berger 2014) within 1.6 kilometers (1.0 mile) of the APE.

A total of 12 resources in the project vicinity are listed in the National Register of Historic Places (Table 3). Three of the resources are districts: the Union Street Historic District, the Stockade Historic District, and the New York State Barge Canal.

TABLE 3

NATIONAL REGISTER-LISTED RESOURCES IN PROJECT VICINITY

USN/ NRHP #	PROPERTY ADDRESS	HISTORIC NAME	DATE
9340.000086/ 90NR02663	217-229 State Street	H.S. Barney Building	1873-1923
9340.000073 and 74/ 90NR02658	Corner of Jay Street	Schenectady City Hall and Post Office	circa 1930s
9340.001404/ 90NR02661	306-1364, 307-1355 Union Street, 2-4 Nott Terrace, 20½ Union Avenue	Union Street Historic District	circa 1830-1930
9341.000002/ 03NR05157	Mohawk Avenue	Abraham Glen House	1730-1929
9340.001152/ 15NR00100	9-13 State Street	Young Men's Christian Association (YMCA) of Schenectady	1926-1968
9340.000005/ 90NR02653	Union College	Nott Memorial Hall	1872
9340.001405/ 90NR02654	Bounded on the north by the Mohawk River, on the east by railroad tracks, on the south by the rear property line of structures on the south side of Union Street, and on the west by the Binne Kill.	Stockade Historic District	Seventeenth through twentieth century
9340.001134/ 90NR02656	General Electric	General Electric Research Laboratory	Twentieth century
9340.000153/ 90NR03296	508 State Street	Foster Building (Hotel Foster)	1907
9340.000076, 1182, 487/ 04NR05214	907 State Street; Nott Terrace	Vale Cemetery and Vale Park	circa 1700; 1857-1954
9340.000438/ 11NR06253	487 Nott Street	Nott Street School	1877-1942
00104.000641/ 14NR06559	NYS Barge Canal, Waterford to Tonawanda, Whitehall, Oswego, and Waterloo	New York State Barge Canal	1905-1963

F. Cartographic and Historical Photograph Review

A review of available historical maps (Beers and Beers 1866; Fagan 1856; Staffa 1985) (Figures 2-4) was conducted to determine the location of possible map-documented historic structures in the APE and historical development in and around the APE. Potential historical development in the project area was determined by georeferencing historical maps and overlaying them on aerial photographs of the project area. Discrepancies between historical and current surveying techniques may result in inaccuracies in the georeferencing of the modern data to the historical maps.

The 1698 Romer map (Staffa 1985) depicts the APE as pasture or other agricultural land with no structures (see Figure 2). The Fagan (1856) map depicts structures immediately west of and adjacent to Ferry Street, but open space west of these structures to Governor's Lane (see Figure 3). The Beers and Beers (1866) map depicts a similar structural layout (see Figure 4). A late nineteenth-century Sanborn map (1894) depicts a two-story frame building labeled "Boat Building" in the APE west of the Schenectady Water Works Pumping Station. An early twentieth-century Sanborn map (1914) depicts a similar but larger structure with a dock in the same location and labeled "Yates Boat House" "Dance Hall 2." The boat house occupied the ground floor with a dance hall on the second floor. No other structures are depicted in the APE.

Early historical photographs of the APE (Figures 5-7) primarily concentrate on the boathouse depicted in the Sanborn (1914) map. A moderate slope is visible from the shore of the Mohawk River up to the boathouse (see Figures 6 and 7). Established in 1913 (Grems-Doolittle 2014), Riverside Park consists of a level grade from the north property line

FIGURE 2: Project Area and Vicinity in 1698 (Grems-Doolittle 2015)

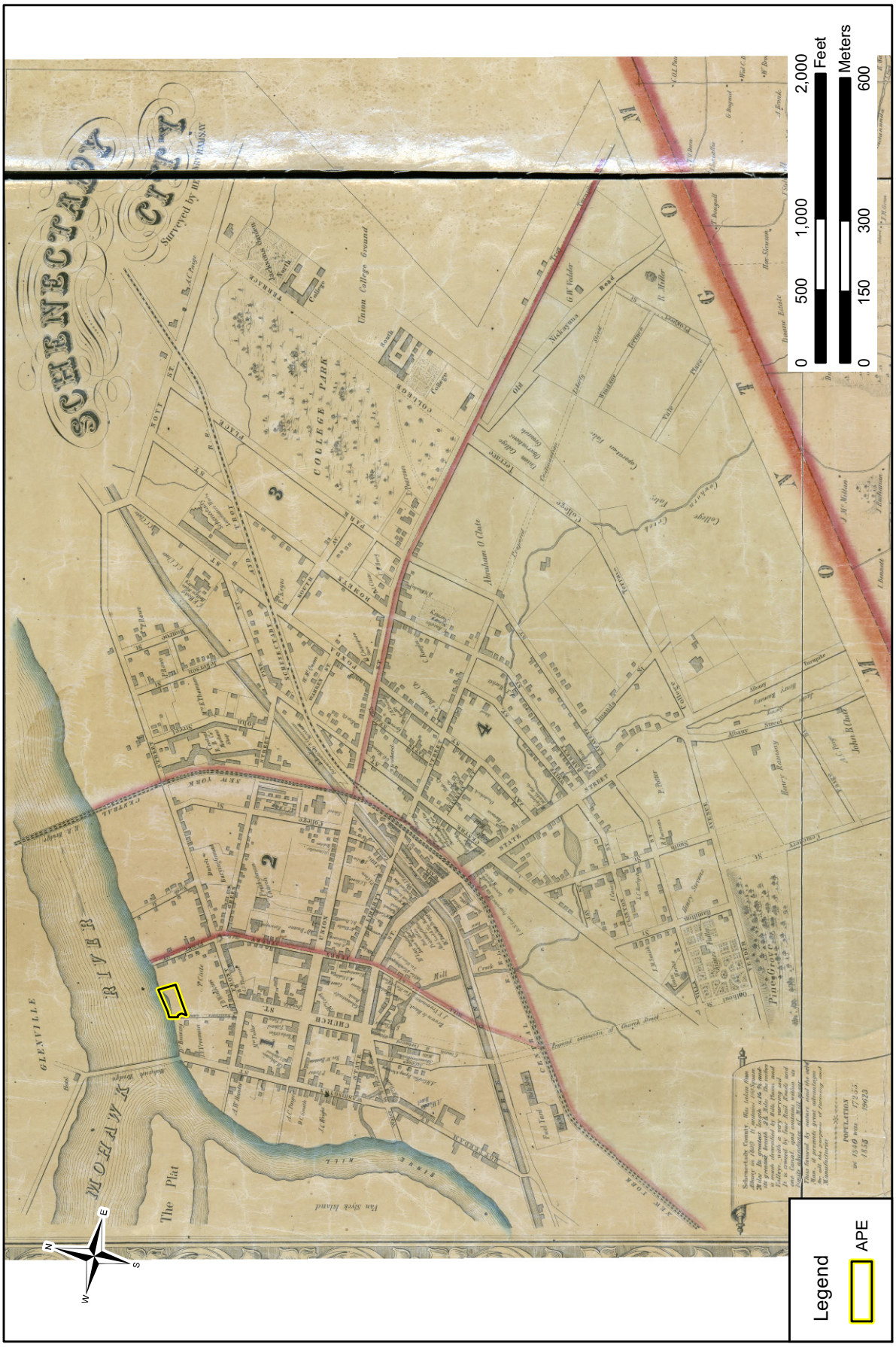


FIGURE 3: Project Area and Vicinity in 1856 (Fagan 1856)

FIGURE 4: Project Area and Vicinity in 1866 (Beers and Beers 1866)

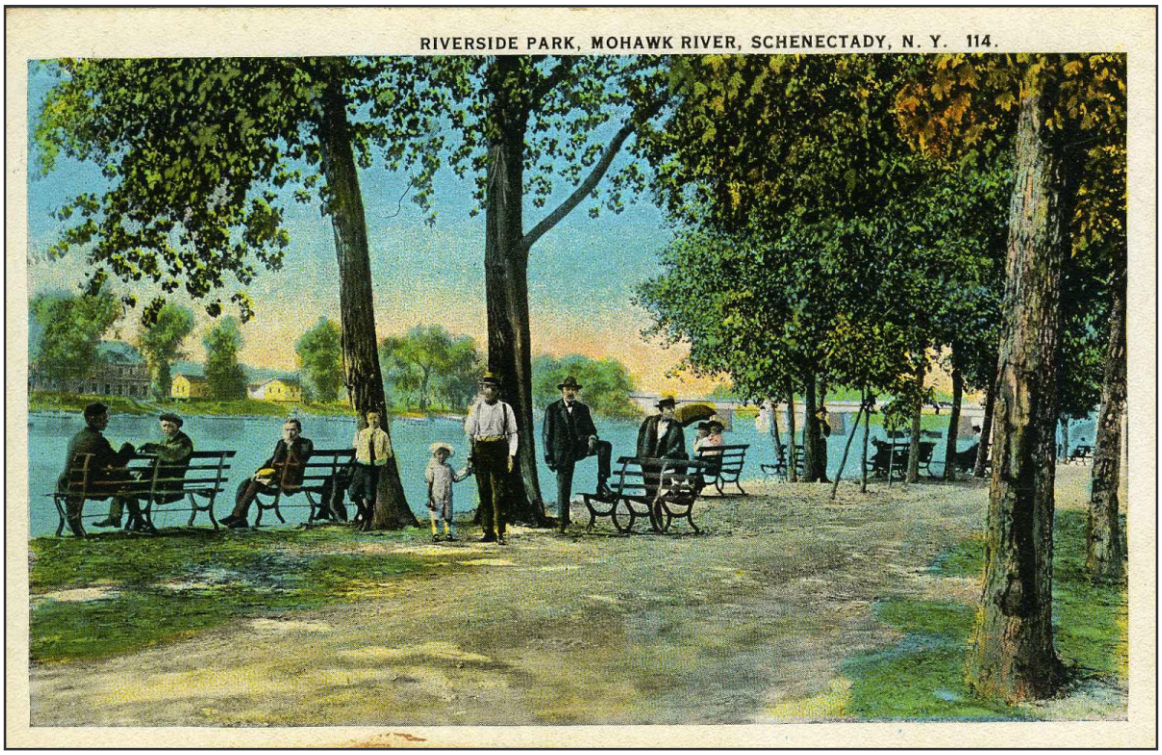


FIGURE 5: Riverside Park circa 1915 (Grem-Doolittle 2014)

FIGURE 6: Historical Photograph of the Yates Boat House (Rittner 2010)

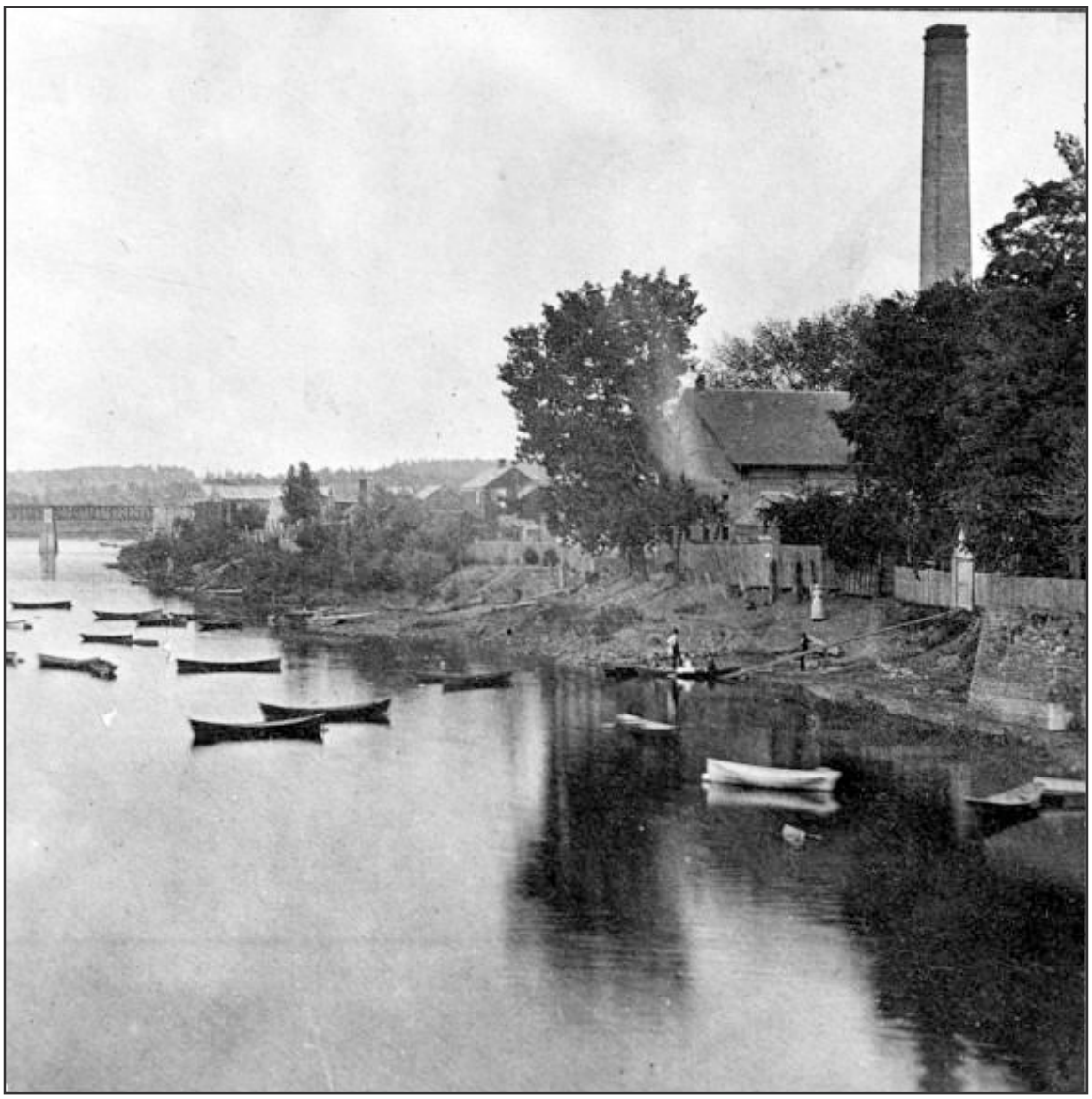


FIGURE 7: Historical Photograph of Boats in the Mohawk River at the End of North Ferry Street (Rittner 2010)

of the north side of Front Street to the bank of the Mohawk River. The north edge of the park currently makes a near vertical drop to the water, which is in contrast to the historical photographs of the Yates Boat House that depicts the gradual slope.

G. Archaeological Sensitivity Assessment

Although only four prehistoric archaeological sites were identified within 1.6 kilometers (1 mile) of the APE using CRIS, the Riverside Prehistoric Site is located just 95 meters (312 feet) east of the APE. Prehistoric sensitivity is therefore considered moderate to high. The APE is situated in the Stockade, the oldest portion of Schenectady. It has been continuously occupied since the seventeenth century, but historical maps show that the APE was primarily used as pasture or agricultural land. There is, however, potential for historical archaeological resources associated with the Yates Boat House and possibly the circa 1871 Pump House depicted on the Sanborn (1894) map. Historical sensitivity is therefore considered moderate.

III. Archaeological Field Methods and Techniques

The fieldwork was conducted on May 17, 2017. Louis Berger conducted a thorough pedestrian reconnaissance of the project area, followed by systematic subsurface shovel testing.

Shovel tests were excavated at a standard 15-meter (50-foot) interval and measured approximately 40 centimeters (1.3 feet) in diameter. All soils removed from the shovel tests were passed through 0.64-centimeter (0.25-inch) mesh hardware cloth to recover artifacts

As each natural or cultural stratum was excavated, that stratum was assigned an alphabetic designation (Stratum A, Stratum B, etc.) to indicate its stratigraphic relationship to the other levels in the shovel test. The letter designations were assigned beginning with the first excavated level of the shovel test and proceeded alphabetically through each subsequent level, until the termination of the shovel test. Transect A, beginning in the southwest corner of the property and running west to east along the southern boundary of Riverside Park, contained four tests (A-1–A-4) (Figure 8). Transect B began 15 meters (50 feet) north of Transect A, also running west to east, and contained four tests (B-1–B-4) (see Figure 8). Three judgmental tests were also excavated. One test, labeled JT-1, was placed west of the terminus of Governor's Lane. The remaining two (JT-2 and JT-3) were placed north of Transect B along the Riverside Park Sidewalk (see Figure 8).

The shovel test data were recorded on standardized forms and included stratum depth, soil texture, soil color according to Munsell soil color charts, percentage of rock fragments, and other data, such as presence of disturbance or fill, as needed. Shovel tests were excavated to 1 meter (3.3 feet) below ground surface (bgs) unless an impasse was encountered. Shovel test proveniences and project area conditions were recorded on a project plan map. Digital photographs were taken of the project area to give a general site overview and to complement the field notes. Details of shovel test results are provided in Appendix A.

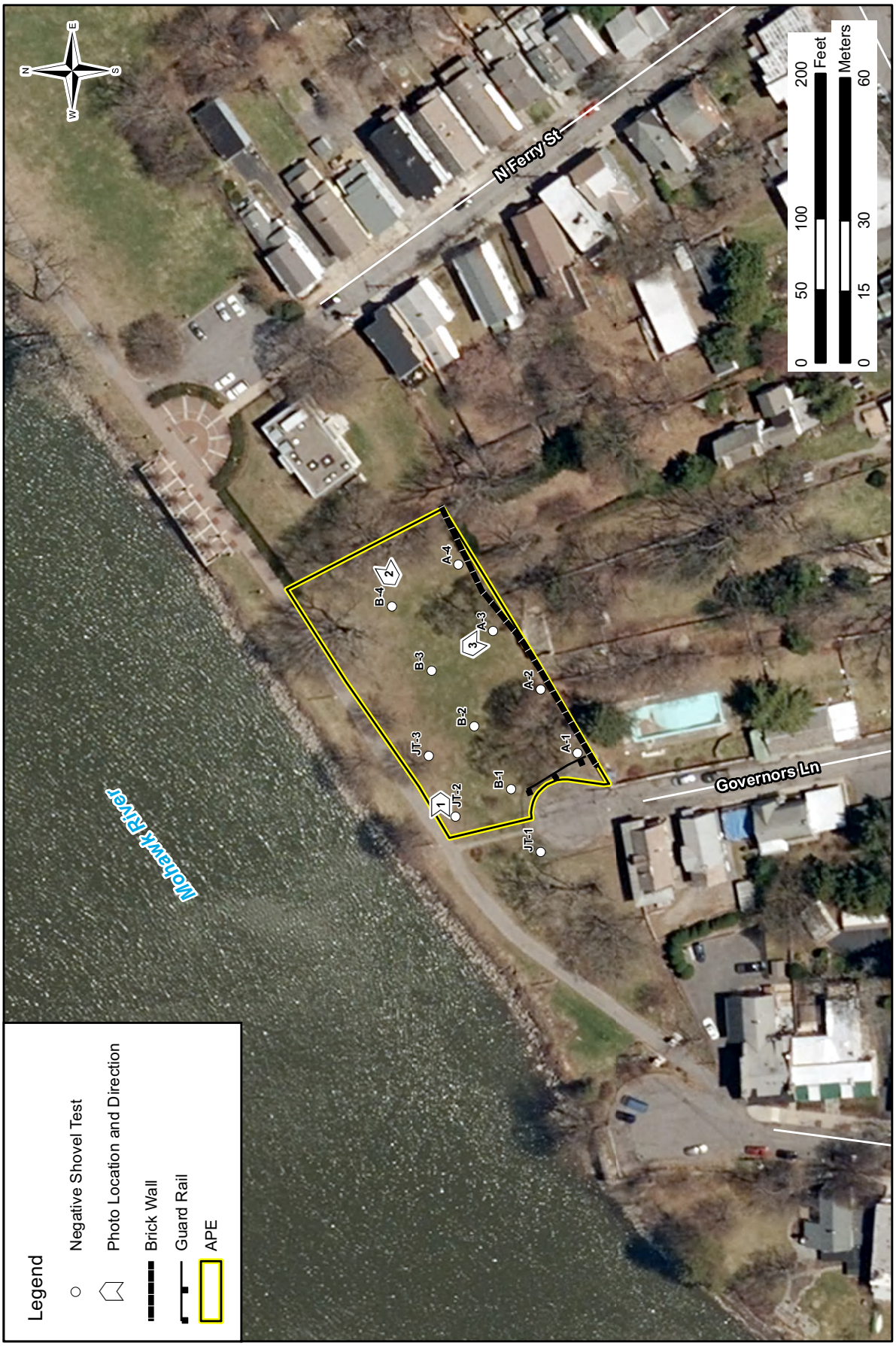


FIGURE 8: Plan Map of Project Area Showing Shovel Tests and Photograph Angles (NYS GIS 2014)

IV. Results of the Phase I Archaeological Survey

Louis Berger excavated 11 shovel tests in the APE (see Figure 8). Eight of these shovel tests were arrayed in two transects parallel to the southern boundary of the APE (Transects A and B). The remaining three tests were judgmental, two along the walkway north of Transect B, and the third west of the terminus of Governor's Lane.

Limited visible disturbances were noted in the APE during the pedestrian reconnaissance. They consisted of a guardrail at the end of Governor's Lane, a small bench with landscaping stones and a mulch bed, a cement sidewalk, and a handful of park benches along the walkway. For the most part these disturbances were located along the west and north edges of the APE. The majority of the project area appeared to be undisturbed (Photographs 1-3).

Soils encountered were generally uniform throughout the APE (Shovel Tests A-1–A-4, B-3 and B-4, JT-1–JT-3). Stratum A was a very dark grayish brown (10YR 3/2) silt loam that ranged from 14 to 63 centimeters (0.46 to 2.07 feet) thick and averaged 38.5 centimeters (1.26 feet) bgs. This generally overlaid Stratum B, a very dark grayish brown (10YR 3/2) mixed with a yellowish brown (10YR 5/8) sandy loam fill that typically extended more than 90 centimeters (2.95 feet) bgs when present. This stratum was filled with brick, mortar, coal, and cinder debris. Louis Berger archaeologists identified the majority of the artifacts in Stratum B. These artifacts included wire nails, machine-cut nails, whiteware, and shell. In four of the shovel tests, Louis Berger archaeologists identified a reddish brown (5YR 4/4) silt clay beneath Stratum B. This stratum was culturally sterile.

Shovel Tests B-1 and B-2 contained a more complex stratigraphy than the other shovel tests. Shovel Test B-1 consisted of six strata. The first four strata contained alternating very dark grayish brown (10YR 3/2) silt loam and a thin brownish yellow (10YR 6/6) silt loam to 36 centimeters (1.18 feet) bgs. After the first 36 centimeters, Louis Berger archaeologists identified Stratum E as a very dark grayish brown (10YR 3/2) and yellowish brown (10YR 5/8) mixed silt loam level, generally identified as Stratum B throughout the APE, to 81 centimeters (2.66 feet). The reddish brown (5YR 4/4) silt clay was encountered beneath this mixed level in Stratum F, which terminated at 100 centimeters (3.28 feet) bgs.

Shovel Test B-2 contained a very dark grayish brown (10YR 3/2) silt loam in Stratum A that extended 38 centimeters (1.25 feet) bgs. This overlaid a brownish yellow (10YR 6/6) silt loam that was only 3 centimeters (0.1 foot) thick. Stratum C, a very dark grayish brown (10YR 3/2) silt loam, extended to 75 centimeters (2.5 feet) bgs. This overlaid Stratum D, a reddish brown (5YR 4/4) silt clay, in which excavation was terminated at 100 centimeters (3.28 feet) bgs.

The historic-period resources identified were largely architectural and domestic, and were associated with the fill generally identified as Stratum B. These artifacts were noted in the field and discarded. It is possible that some of this debris is associated with the Yates Boat House identified on the Sanborn (1894, 1914) maps; however, no foundation remains were identified to confirm this. Historical photographs of the Yates Boat House depict a topographic slope from the boat house to the water's edge. Currently, Riverside Park is flat with a steep escarpment at the water's edge. It appears that the fill identified in the shovel tests was used to grade the park to a level surface. Louis Berger archaeologists reached a sterile subsoil in those tests where fill terminated before 1 meter (3.28 feet) bgs.

PHOTOGRAPH 1: Overview of the Project Area, View East

PHOTOGRAPH 2: Overview of the Project Area, View West

PHOTOGRAPH 3: Overview of the Project Area, View North

V. Summary and Conclusions

On behalf of GOSR, Louis Berger has completed a Phase I archaeological survey for the proposed relocation of the North Ferry Street pump station in Riverside Park, Schenectady, New York. The archaeological survey was conducted to determine if potentially significant archaeological sites are present prior to the proposed construction of the new pump station.

The total size of the property is approximately 0.2 hectare (0.5 acre). The APE, or project area, is defined as the area within which project construction activities will take place. The project area encompasses the green space east of Governor's Lane to the existing pump station and south from the Mohawk River to the brick wall and fencing that demarcates the property boundary for the houses lining the north side of Front Street. The project area was determined to be archaeologically sensitive because of its proximity to the Mohawk River and previously identified archaeological sites in the vicinity of the project area.

During the investigation Louis Berger excavated 11 shovel tests at a standard 15-meter (50-foot) interval in the project area. The project area is located in Riverside Park on a manicured lawn. The property appeared undisturbed; however, shovel testing identified a level of historical fill beneath the A horizon. Artifacts identified during the survey were primarily from the fill and consisted of late nineteenth- to early-twentieth century domestic refuse. The artifacts were not retained. The fill extended to 1 meter bgs in many of the shovel tests. A potentially intact sediment deposit of reddish brown silt clay was identified at the base of the fill above the 1-meter in depth in four of the shovel tests. No artifacts were recovered from this level.

The Phase I survey identified widespread subsurface disturbance throughout the APE. No intact subsurface deposits were recovered, and no archaeological sites were identified. It is Louis Berger's opinion that no further archaeological work is warranted.

VI. References

Beers, S.N., and Daniel G. Beers
1866 Schenectady [Township]; Ward No. 1, 2, 3, & 4; Schenectady Business Directory. In *New Topographical Atlas of the Counties of Albany and Schenectady, New York.* Stone & Stewart, Philadelphia. Accessed online May 2017 at <http://maps.nypl.org/warper/maps/10107>.

Brasser, T.J.
1978 Mahican. In *Northeast*, edited by Bruce Trigger, pp. 198-212. Handbook of North American Indians, volume 15, William Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

Cadwell, Donald H., and Robert J. Dineen
1987 *Surficial Geologic Map of New York, Hudson-Mohawk Sheet*. New York State Museum Chart and Map Series No. 40, Albany.

City of Schenectady
2017 General History: Settlement to 1960. City of Schenectady Website. Accessed online May 2017 at <http://www.cityofschenectady.com/248/General-History-Settlement-to-1960>.

Cronon, William
1983 *Changes in the Land: Indians, Colonists, and the Ecology of New England.* Hill and Wang, New York.

Dincauze, Dena, and Michael Mulholland
1977 Early and Middle Archaic Site Distributions and Habitats in Southern New England. In *Amerinds and Their Paleo-environments in Northeastern North America.* Annals of New York Academy of Sciences 288:439-456.

Fagan, L.
1856 *Map of Schenectady County New York.* L. Fagan, Philadelphia.

Gaudreau, Denise C.
1988 The Distribution of Late Quaternary Forest Regions in the Northeast: Pollen Data, Physiography, and the Prehistoric Record. In *Holocene Human Ecology in Northeastern North America*, edited by George P. Nichol, pp. 215-256. Plenum Press, New York.

Greene, Nelson (editor)
1925 *History of the Mohawk Valley: Gateway to the West 1614-1925: Covering the Six Counties of Schenectady, Schoharie, Montgomery, Fulton, Herkimer, and Oneida*. S.J. Clark, Chicago.

Grems-Doolittle Library Collections Blog [Grems-Doolittle]
2014 Schenectady's Riverside Park. Picture postcard of Riverside Park, ca. 1915. Schenectady County Historical Society. Accessed online May 2017 at <http://gremsdoolittlelibrary.blogspot.com/2014/08/schenectadys-riverside-park.html?_sm_au_=iVV6SDL53B0ssN8r>.

Hartgen Archaeological Associates, Inc. [HAA]
2001a *Phase IA Literature Review and Sensitivity Assessment, Glenville Energy Park Wastewater Line, Town of Glenville, Schenectady County, New York.* Prepared for Earth Tech, Inc., Concord, Massachusetts, by Hartgen Archaeological Associates, Inc., Rensselaer, New York. On file, New York State Office of Parks, Recreation and Historic Preservation Cultural Resource Information System.

2001b *Phase IA Literature Review and Archaeological Sensitivity Assessment, North Ferry Street Pump House and Riverwalk Project, City of Schenectady, Schenectady County, New York.* Prepared for Synthesis Architects, Schenectady, by Hartgen Archaeological Associates, Inc., Rensselaer, New York. On file, New York State Office of Parks, Recreation and Historic Preservation Cultural Resource Information System.

2002 *Phase IB Archaeological Field Investigation, North Ferry Street Pump House and Riverwalk Project, City of Schenectady, Schenectady County, New York.* Prepared for Synthesis Architects, Schenectady, by Hartgen Archaeological Associates, Inc., Rensselaer, New York. On file, New York State Office of Parks, Recreation and Historic Preservation Cultural Resource Information System.

2003 *Phase IA Literature Review and Archaeological Sensitivity Assessment, Canal Square Corridor Redevelopment, City of Schenectady, Schenectady County, New York.* Prepared for Schenectady Metroplex Development Authority, Schenectady, by Hartgen Archaeological Associates, Inc., Albany. On file, New York State Office of Parks, Recreation and Historic Preservation Cultural Resource Information System.

2010 *Phase IA Literature Review and Archaeological Sensitivity Assessment, Schenectady Former Manufactured Gas Plant Site, Broadway and Clinton Street, City of Schenectady, Schenectady County, New York.* Prepared for GEI Consultants, Inc., Glastonbury, Connecticut, by Hartgen Archaeological Associates, Inc., Rensselaer, New York. On file, New York State Office of Parks, Recreation and Historic Preservation Cultural Resource Information System.

2016a *Phase IA Archaeological Investigation, Liberty Park Rebuild Project, State and Water Streets, City of Schenectady, Schenectady County, New York.* Prepared for Schenectady County Metroplex Development Authority, Schenectady, by Hartgen Archaeological Associates, Inc., Rensselaer, New York. On file, New York State Office of Parks, Recreation and Historic Preservation Cultural Resource Information System.

2016b *Phase IB Archaeological Field Reconnaissance, Liberty Park Rebuild Project, State and Water Streets, City of Schenectady, Schenectady County, New York.* Prepared for Schenectady County Metroplex Development Authority, Schenectady, by Hartgen Archaeological Associates, Inc., Rensselaer, New York. On file, New York State Office of Parks, Recreation and Historic Preservation Cultural Resource Information System.

Howell, George Rogers, and John H. Munsell
1886 *History of the County of Schenectady, New York from 1662 to 1886*. W.W. Munsell & Co. Publishers, New York.

Kidd, W.S.F., A. Plesch, and F.W. Vollmer
1995 Lithofacies and Structure of the Taconic Flysch, Melange, and Allocthon in the New York Capital District. In *Field Trip Guide for the 67th Annual Meeting of the New York State Geological Association*, pp. 57–80. Union College, Schenectady, New York.

The Louis Berger Group, Inc. [Louis Berger]
2014 *Supplemental Archaeological Investigation, Proposed Embayment, ALCO Property Development, City of Schenectady, Schenectady County, New York*. Prepared for Bergmann Associates, Albany, by The Louis Berger Group, Inc., Albany.

Mulholland, Mitchell T.
1988 Territoriality and Horticulture: A Perspective for Prehistoric Southern New England. In *Holocene Human Ecology in Northeastern North America*, edited by George P. Nichols, pp. 137-166. Plenum Press, New York.

New York Archaeological Council
2000 *Standards for Cultural Resource Investigations and the Curation of Archaeological Collections in New York State*. Available through the New York State Office of Parks, Recreation and Historic Preservation, Historic Preservation Field Services Bureau, Peebles Island, Waterford.

New York State Geographic Information Systems [NYS GIS]
2014 Orthoimagery. New York State Geographic Information Systems (GIS) Clearinghouse, Albany, New York. Accessed online May 2017 at <https://orthos.dhses.ny.gov/>.

New York State Office of Parks Recreation and Historic Preservation [OPRHP]
2017 Cultural Resource Information System (CRIS). Files accessed online May 2017 at <https://cris.parks.ny.gov/Default.aspx>.

Ritchie, William A.
1980 *The Archaeology of New York State*. Revised edition. Harbor Hill Books, Harrison, New York.

Ritchie, William A., and Robert E. Funk
1973 *Aboriginal Settlement Patterns in the Northeast*. Memoir 20. New York State Museum and Science Service, Albany.

Rogers, William B., Yngvar W. Isachsen, Timothy D. Mock, and Richard E. Nyahay
1990 *New York State Geological Highway Map*. New York State Museum Educational Leaflet 33, Albany.

Sanborn Map Publishing Company [Sanborn]
1894 *Insurance Map of Schenectady, New York*. Sanborn Map Company, New York.

1914 *Insurance Map of Schenectady, New York*. Sanborn Map Company, New York.

Sesquicentennial Celebration Booklet
1970 *Glenville—Past and Present*. Printed booklet in the collection of the Schenectady County Historical Society, Schenectady, New York.

Snow, Dean R.
1980 *The Archaeology of New England.* Academic Press, New York

Staffa, Susan Jane
1985 Circa 1698 Map of Schenectady Town by Colonel Wolfgang Romer. In *Colonial Schenectady in Maps.* Privately printed.

United States Department of Agriculture-National Resources Conservation Service [USDA-NRCS]
2017 *Web Soil Survey*. United States Department of Agriculture-National Resources Conservation Service, Washington, D.C. Accessed May 2017 at <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>.

United States Department of the Interior
1983 Archaeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines. *Federal Register*, Part IV, 48(2):44716-44742. Annotated version showing later technical and officially adopted revisions available from the National Park Service's preservation laws, regulations, and standards webpage at <http://www.cr.nps.gov/local-law/arch_stnds_0.htm>.

United States Geological Survey [USGS]
1898 *Schenectady, New York.* 15-minute Series Quadrangle, New York. Government Printing Office, Washington, D.C.

2016 *Schenectady, New York*. 7.5-Minute Series Topographic Quadrangle. United States Geological Survey, Reston, Virginia.

Appendix A

Shovel Test Log

STP	Stratum	Depth to base of Stratum		Soil Color	Texture	Coarse Fraction	Artifact Cat. #	Comments
		cm	ft					
A-1	A	33	1.08	10YR 3/2 Very Dark Grayish Brown	Silt Loam		NCM	
	B	101	3.31	10YR 3/2 Very Dark Grayish Brown Mixed With 10YR 5/8 Yellowish Brown	Sandy Loam	Brick and Mortar	NCM	Large concentration of brick and mortar fragments between 33 and 51 centimeters
A-2	A	58	1.90	10YR 3/2 Very Dark Grayish Brown	Silt Loam		NCM	Rock Impasse
A-3	A	28	0.92	10YR 3/2 Very Dark Grayish Brown	Silt Loam		NCM	
	B	61	2.00	10YR 3/2 Very Dark Grayish Brown Mixed With 10YR 5/8 Yellowish Brown	Sandy Loam	Brick and Mortar	NCM	Root Impasse
A-4	A	32	1.05	10YR 3/2 Very Dark Grayish Brown	Silt Loam		NCM	
	B	90	2.95	10YR 3/2 Very Dark Grayish Brown Mixed With 10YR 5/8 Yellowish Brown	Sandy Loam	Brick and Mortar	NCM	
	C	104	3.41	5YR 5/4 Reddish Brown	Silt Clay		NCM	
B-1	A	14	0.46	10YR 3/2 Very Dark Grayish Brown	Silt Loam		NCM	
	B	17	0.56	10YR 6/6 Brownish Yellow	Silt Loam		NCM	
	C	31	1.02	10YR 3/2 Very Dark Grayish Brown	Silt Loam		NCM	
	D	36	1.18	10YR 6/6 Brownish Yellow	Silt Loam		NCM	
	E	81	2.66	10YR 3/2 Very Dark Grayish Brown Mixed With 10YR 5/8 Yellowish Brown	Silt Loam	Brick and Mortar	NCM	
	F	100	3.28	5YR 4/4 Reddish Brown	Silt Clay		NCM	
B-2	A	38	1.25	10YR 3/2 Very Dark Grayish Brown	Silt Loam		NCM	
	B	41	1.34	10YR 6/6 Brownish Yellow	Silt Loam		NCM	
	C	75	2.46	10YR 3/2 Very Dark Grayish Brown Mixed With 10YR 5/8 Yellowish Brown	Silt Loam	Brick and Mortar	NCM	
	D	100	3.28	5YR 4/4 Reddish Brown	Silt Clay		NCM	
B-3	A	26	0.85	10YR 3/2 Very Dark Grayish Brown	Silt Loam		NCM	
	B	82	2.69	10YR 3/2 Very Dark Grayish Brown Mixed With 10YR 5/8 Yellowish Brown	Silt Loam	Brick and Mortar, Coal, Slag	NCM	
	C	106	3.48	5YR 5/4 Reddish Brown	Silt Clay		NCM	
B-4	A	32	1.05	10YR 3/2 Very Dark Grayish Brown	Silt Loam		NCM	
	B	102	3.35	10YR 3/2 Very Dark Grayish Brown Mixed With 10YR 5/8 Yellowish Brown	Silt Loam	Brick and Mortar, Coal, Slag	NCM	
JT-1	A	54	1.77	10YR 3/2 Very Dark Grayish Brown	Silt Loam		NCM	
	B	100	3.28	10YR 3/2 Very Dark Grayish Brown Mixed With 10YR 5/8 Yellowish Brown	Silt Loam	Brick and Mortar	NCM	
JT-2	A	63	2.07	10YR 3/2 Very Dark Grayish Brown	Silt Loam		NCM	
	B	91	2.98	10YR 3/2 Very Dark Grayish Brown Mixed With 10YR 5/8 Yellowish Brown	Silt Loam	Brick and Mortar	NCM	Rock Impasse

STP	Stratum	Depth to base of Stratum		Soil Color	Texture	Coarse Fraction	Artifact Cat. #	Comments
		cm	ft					
JT-3	A	46	1.51	10YR 3/2 Very Dark Grayish Brown	Silt Loam		NCM	
	B	100	3.28	10YR 3/2 Very Dark Grayish Brown Mixed With 10YR 5/8 Yellowish Brown	Silt Loam		NCM	

Louis Berger

Delaware Tribe Historic Preservation Representatives
P.O. Box 64
Pocono Lake, PA 18347
temple@delawaretribe.org

December 14, 2016

Governor's Office of Storm Recovery
Bureau of Environmental Review and Assessment
Att: Matt Accardi
25 Beaver St.
New York, NY 10004

Re: Section 106 Compliance for North Ferry Street Pump Station Relocation, City of Schenectady, Schenectady County, New York

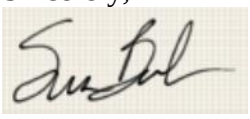
Mr. Accardi,

Thank you for sending the Delaware Tribe additional information regarding the above referenced project. Our review indicates that there could be culturally significant areas within the proposed project area. We request a Phase I survey be performed with subsurface testing.

In the event a concentration of artifacts and/or in the unlikely event any human remains are accidentally unearthed during the project that all work is halted until the Delaware Tribe of Indians is informed of the inadvertent discovery and a qualified archaeologist can evaluate the find.

We appreciate your cooperation and look forward to working together on our shared interests in preserving Delaware cultural heritage. If you have any questions, feel free to contact this office by phone at (610) 761-7452 or by e-mail at temple@delawaretribe.org..

Sincerely,



Susan Bachor
Delaware Tribe Historic Preservation Representative

Governor's Office of Storm Recovery

ANDREW M. CUOMO
Governor

LISA BOVA-HIATT
Executive Director

November 23, 2016

Chet Brooks, Chief
Delaware Tribe of Indians, Delaware Tribal Headquarters
5100 Tuxedo Blvd
Bartlesville, OK 74006

RE: Section 106 Compliance for North Ferry Street Pump Station Relocation, City of Schenectady, Schenectady County, New York

Dear Chief Chet Brooks:

Pursuant to the Disaster Relief Appropriations Act, 2013 (Public Law 113-2) and the Housing and Community Development Act (42 U.S.C. § 5301 et seq.), the Governor's Office of Storm Recovery (GOSR) is acting under the auspices of New York State Homes and Community Renewal's Housing Trust Fund Corporation as a recipient of Community Development Block Grant – Disaster Recovery ("CDBG-DR") funds from the United States Department of Housing and Urban Development ("HUD"). GOSR is the entity responsible for compliance with the HUD environmental review procedures set forth in 24 CFR Part 58. GOSR is acting on behalf of HUD in providing the enclosed project information and inviting this discussion with your Tribe to respond with any concerns or comments.

GOSR processes environmental reviews for projects funded with HUD CDBG-DR on a case-by-case basis. GOSR proposes to provide funding for the construction of a new pump station in the City of Schenectady, New York. In accordance with Section 101(d)(6)(B) of the National Historic Preservation Act of 1966, as amended (54 U.S.C. 302706(b)), and its implementing regulations, 36 Code of Federal Regulations (CFR) Part 800, this letter serves as notification of the proposed action. This consultation is being sent to the Delaware Tribe of Indians, the Saint Regis Mohawk Tribe, the Mohawk Nation, and the Stockbridge-Munsee Community Band of Mohicans.

Area of Potential Effect: The project will take place at the end of North Ferry Street in the City of Schenectady, New York (see **Figure 1**). The pump station will be located at one of the two proposed sites, though the official site has not been confirmed. The design plans for the pump station have not been drafted to date. This consultation is to determine if one of the two locations if preferable. One location is north of current pump station and second is located south of the current pump station (see **Figure 1**). At this time, it is anticipated that the structural components for the pump station will include the following design requirements:

- 45'x 65' sanitary sewage pump station building, including 40' deep basement
- Stair and elevated floors
- Monorail hoist beam

- Exterior generator slab on grade

Assumptions:

- The building will be founded on mat foundation at a 40-foot +/- depth.
- Design of deep foundations (piles, caissons, etc.) will not be required.
- Above grade construction will be reinforced CMU with precast hollow core or precast double tee roof planks

Proposed Project Description: The City of Schenectady proposes to replace the existing North Ferry Street Pump Station, which was built in 1913 and is located in the Stockade District. The existing pump station site is prone to flooding from the Mohawk River. The ground floor elevation of the pump station is below the 100-year flood elevation resulting in inundation of the pump station dry well structure and submergence of critical electrical and control systems necessary for pumping operation during these flood events. As such, the new station must be designed to withstand flooding to an elevation of 235 feet to ensure continuous operation and reliability.

The architectural design of the pump station will be matched to the character of the neighborhood by incorporating concepts from the Riverfront Overlook and existing North Ferry Street Pump Station architectural fenestration and landscaping. Since the new building will respond closely in scale to the existing historic structure, their final relationship will need to be considered in the design. Once the new pump station is operational the City plans to repurpose the historic pump station and will not demolish it.

This project will improve septic and wastewater infrastructure to reduce flood damage and risk of pollution that would mitigate the type of devastation caused by Hurricane Irene and Tropical Storm Lee. The pump station is being designed with additional controls which will enable the City to convey flows through the existing interceptor sewer along Front Street which will allow for maximum flexibility for the long-term operations and maintenance of the system.

A review of CRIS indicates that part of the project area has already been surveyed as part of a previous archaeological survey, 02SR52605. Both locations proposed for the new pump station will be located outside of the footprint of this survey as shown on the proposed site plan. Significant new ground disturbance is expected to construct the new station and will require excavations and trenching work across the site.

GOSR is completing an environmental review for this project pursuant to HUD NEPA regulations. SHPO has recommended a Phase I report be completed, regardless of which site is chosen for constriction. If the Area of Potential Effect encompasses historic properties of religious or cultural significance to your Tribe, please respond within 30 days or sooner. Additionally, please indicate if there are other sources of information or other parties, Nations, Tribes, or members of the public you believe should be included in the consultation process. Please respond by email or in writing to the address listed below.

Mrs. Alicia Shultz
Community Developer - Environmental Services
New York State Homes & Community Renewal
38-40 State St.,408N, Hampton Plaza
Albany, NY 12207

I am available to answer any questions that you may have regarding this action. If you have any questions, please feel free to contact me at (518) 474-0647 or via email at Alicia.Shultz@nyshcr.org.

Sincerely,

Alicia Shultz
Community Developer
Bureau of Environmental Review and Assessment
Governor's Office of Storm Recovery

Enclosures:
Attachment 1: Project Location Maps

Electronic letter sent to:
Susan Bachor
Delaware Tribe of Indians Historic Preservation Representative
P.O. Box 64
Pocono Lake, PA 73005


Alternate Pump Station Location
Existing Pump Station
Alternate Pump Station Location
N Ferry St
Front St
© 2016 Google

Figure 2.1 – Existing Pump Station Location

NEW YORK STATE OF OPPORTUNITY. | Parks, Recreation, and Historic Preservation

ANDREW M. CUOMO
Governor

ROSE HARVEY
Commissioner

REVISED November 23, 2016

Mary Barthelme
Governor's Office of Storm Recovery
99 Washington Ave, Suite 1224
Albany, NY 12231

Re: HTF/ GOSR/ CDBG-DR/ HUD/ NY Rising Program
North Ferry Street Pump Station Relocation
The foot of North Ferry St, Schenectady/ Schenectady County
16PR07821

Dear Ms. Barthelme:

Thank you for requesting the comments of the New York State Historic Preservation Office (SHPO). We have reviewed the materials submitted Nov. 17, 2016 in accordance with Title 54, Section 306108 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/ Cultural resources.

Daniel Bagrow of the Archaeology Unit recommends a Phase 1 Archaeological Survey, regardless of which alternative is chosen. Hartgen Archeological Associates, Inc. completed a limited archaeological survey in the area in 2002 but the area they tested is predominantly outside of the proposed APE. The report would be helpful for informing any future work in the area but doesn't specifically cover the alternatives. If you have any questions or concerns, Mr. Bagrow can be reached at 518-268-2160 or dan.bagrow@parks.ny.gov.

The SHPO would prefer the city site the new building southwest of the existing building, since it would be behind the current building and out of sight of the park visitors. Since the new building would be hidden by the original historic building, it would not interfere with its historic character.

If I can be of further assistance, contact me at (518) 268-2187 or Larry.moss@parks.ny.gov

Sincerely,

L Moss

Larry K Moss, Historic Preservation Technical Specialist
CC: Alicia Shultz

Governor's Office of
Storm Recovery

ANDREW M. CUOMO
Governor

LISA BOVA-HIATT
Executive Director

November 23, 2016

Mohawk Nation Council of Chiefs
Of Haudenosaunee Six Nations Confederacy
Akwesasne Territory Box 336
Via Rooseveltown, NY 13683-0366

RE: Section 106 Compliance for North Ferry Street Pump Station Relocation, City of Schenectady, Schenectady County, New York

Dear Mohawk Nation Council of Chiefs:

Pursuant to the Disaster Relief Appropriations Act, 2013 (Public Law 113-2) and the Housing and Community Development Act (42 U.S.C. § 5301 et seq.), the Governor's Office of Storm Recovery (GOSR) is acting under the auspices of New York State Homes and Community Renewal's Housing Trust Fund Corporation as a recipient of Community Development Block Grant – Disaster Recovery ("CDBG-DR") funds from the United States Department of Housing and Urban Development ("HUD"). GOSR is the entity responsible for compliance with the HUD environmental review procedures set forth in 24 CFR Part 58. GOSR is acting on behalf of HUD in providing the enclosed project information and inviting this discussion with your Nation to respond with any concerns or comments.

GOSR processes environmental reviews for projects funded with HUD CDBG-DR on a case-by-case basis. GOSR proposes to provide funding for the construction of a new pump station in the City of Schenectady, New York. In accordance with Section 101(d)(6)(B) of the National Historic Preservation Act of 1966, as amended (54 U.S.C. 302706(b)), and its implementing regulations, 36 Code of Federal Regulations (CFR) Part 800, this letter serves as notification of the proposed action. This consultation is being sent to the Delaware Tribe of Indians, the Saint Regis Mohawk Tribe, the Mohawk Nation, and the Stockbridge-Munsee Community Band of Mohicans.

Area of Potential Effect: The project will take place at the end of North Ferry Street in the City of Schenectady, New York (see **Figure 1**). The pump station will be located at one of the two proposed sites, though the official site has not been confirmed. The design plans for the pump station have not been drafted to date. This consultation is to determine if one of the two locations if preferable. One location is north of current pump station and second is located south of the current pump station (see **Figure 1**). At this time, it is anticipated that the structural components for the pump station will include the following design requirements:

- 45'x 65' sanitary sewage pump station building, including 40' deep basement
- Stair and elevated floors
- Monorail hoist beam

- Exterior generator slab on grade

Assumptions:

- The building will be founded on mat foundation at a 40-foot +/- depth.
- Design of deep foundations (piles, caissons, etc.) will not be required.
- Above grade construction will be reinforced CMU with precast hollow core or precast double tee roof planks

Proposed Project Description: The City of Schenectady proposes to replace the existing North Ferry Street Pump Station, which was built in 1913 and is located in the Stockade District. The existing pump station site is prone to flooding from the Mohawk River. The ground floor elevation of the pump station is below the 100-year flood elevation resulting in inundation of the pump station dry well structure and submergence of critical electrical and control systems necessary for pumping operation during these flood events. As such, the new station must be designed to withstand flooding to an elevation of 235 feet to ensure continuous operation and reliability.

The architectural design of the pump station will be matched to the character of the neighborhood by incorporating concepts from the Riverfront Overlook and existing North Ferry Street Pump Station architectural fenestration and landscaping. Since the new building will respond closely in scale to the existing historic structure, their final relationship will need to be considered in the design. Once the new pump station is operational the City plans to repurpose the historic pump station and will not demolish it.

This project will improve septic and wastewater infrastructure to reduce flood damage and risk of pollution that would mitigate the type of devastation caused by Hurricane Irene and Tropical Storm Lee. The pump station is being designed with additional controls which will enable the City to convey flows through the existing interceptor sewer along Front Street which will allow for maximum flexibility for the long-term operations and maintenance of the system.

A review of CRIS indicates that part of the project area has already been surveyed as part of a previous archaeological survey, 02SR52605. Both locations proposed for the new pump station will be located outside of the footprint of this survey as shown on the proposed site plan. Significant new ground disturbance is expected to construct the new station and will require excavations and trenching work across the site.

GOSR is completing an environmental review for this project pursuant to HUD NEPA regulations. SHPO has recommended a Phase I report be completed, regardless of which site is chosen for constriction. If the Area of Potential Effect encompasses historic properties of religious or cultural significance to your Nation, please respond within 30 days or sooner. Additionally, please indicate if there are other sources of information or other parties, Nations, Tribes, or members of the public you believe should be included in the consultation process. Please respond by email or in writing to the address listed below.

Mrs. Alicia Shultz
Community Developer - Environmental Services
New York State Homes & Community Renewal
38-40 State St.,408N, Hampton Plaza
Albany, NY 12207

I am available to answer any questions that you may have regarding this action. If you have any questions, please feel free to contact me at (518) 474-0647 or via email at Alicia.Shultz@nyshcr.org.

Sincerely,

Alicia Shultz
Community Developer
Bureau of Environmental Review and Assessment
Governor's Office of Storm Recovery

Enclosures:
Attachment 1: Project Location Maps


Alternate Pump Station Location
Existing Pump Station
Alternate Pump Station Location
N Ferry St
Front St
© 2016 Google

Figure 2.1 – Existing Pump Station Location

NEW YORK STATE OF OPPORTUNITY. | Parks, Recreation, and Historic Preservation

ANDREW M. CUOMO
Governor

ROSE HARVEY
Commissioner

REVISED November 23, 2016

Mary Barthelme
Governor's Office of Storm Recovery
99 Washington Ave, Suite 1224
Albany, NY 12231

Re: HTF/ GOSR/ CDBG-DR/ HUD/ NY Rising Program
North Ferry Street Pump Station Relocation
The foot of North Ferry St, Schenectady/ Schenectady County
16PR07821

Dear Ms. Barthelme:

Thank you for requesting the comments of the New York State Historic Preservation Office (SHPO). We have reviewed the materials submitted Nov. 17, 2016 in accordance with Title 54, Section 306108 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/ Cultural resources.

Daniel Bagrow of the Archaeology Unit recommends a Phase 1 Archaeological Survey, regardless of which alternative is chosen. Hartgen Archeological Associates, Inc. completed a limited archaeological survey in the area in 2002 but the area they tested is predominantly outside of the proposed APE. The report would be helpful for informing any future work in the area but doesn't specifically cover the alternatives. If you have any questions or concerns, Mr. Bagrow can be reached at 518-268-2160 or dan.bagrow@parks.ny.gov.

The SHPO would prefer the city site the new building southwest of the existing building, since it would be behind the current building and out of sight of the park visitors. Since the new building would be hidden by the original historic building, it would not interfere with its historic character.

If I can be of further assistance, contact me at (518) 268-2187 or Larry.moss@parks.ny.gov

Sincerely,

L Moss

Larry K Moss, Historic Preservation Technical Specialist
CC: Alicia Shultz

Governor's Office of Storm Recovery

ANDREW M. CUOMO
Governor

LISA BOVA-HIATT
Executive Director

November 23, 2016

Ron LaFrance, Jr.; Paul Thompson; and Beverly Cook, Chiefs
St. Regis Mohawk Tribe
412 State Route 37
Akwesasne, NY 13655

RE: Section 106 Compliance for North Ferry Street Pump Station Relocation, City of Schenectady, Schenectady County, New York

Dear Chiefs of the St. Regis Mohawk Tribe:

Pursuant to the Disaster Relief Appropriations Act, 2013 (Public Law 113-2) and the Housing and Community Development Act (42 U.S.C. § 5301 et seq.), the Governor's Office of Storm Recovery (GOSR) is acting under the auspices of New York State Homes and Community Renewal's Housing Trust Fund Corporation as a recipient of Community Development Block Grant – Disaster Recovery ("CDBG-DR") funds from the United States Department of Housing and Urban Development ("HUD"). GOSR is the entity responsible for compliance with the HUD environmental review procedures set forth in 24 CFR Part 58. GOSR is acting on behalf of HUD in providing the enclosed project information and inviting this discussion with your Tribe to respond with any concerns or comments.

GOSR processes environmental reviews for projects funded with HUD CDBG-DR on a case-by-case basis. GOSR proposes to provide funding for the construction of a new pump station in the City of Schenectady, New York. In accordance with Section 101(d)(6)(B) of the National Historic Preservation Act of 1966, as amended (54 U.S.C. 302706(b)), and its implementing regulations, 36 Code of Federal Regulations (CFR) Part 800, this letter serves as notification of the proposed action. This consultation is being sent to the Delaware Tribe of Indians, the Saint Regis Mohawk Tribe, the Mohawk Nation, and the Stockbridge-Munsee Community Band of Mohicans.

Area of Potential Effect: The project will take place at the end of North Ferry Street in the City of Schenectady, New York (see **Figure 1**). The pump station will be located at one of the two proposed sites, though the official site has not been confirmed. The design plans for the pump station have not been drafted to date. This consultation is to determine if one of the two locations if preferable. One location is north of current pump station and second is located south of the current pump station (see **Figure 1**). At this time, it is anticipated that the structural components for the pump station will include the following design requirements:

- 45'x 65' sanitary sewage pump station building, including 40' deep basement
- Stair and elevated floors
- Monorail hoist beam

- Exterior generator slab on grade

Assumptions:

- The building will be founded on mat foundation at a 40-foot +/- depth.
- Design of deep foundations (piles, caissons, etc.) will not be required.
- Above grade construction will be reinforced CMU with precast hollow core or precast double tee roof planks

Proposed Project Description: The City of Schenectady proposes to replace the existing North Ferry Street Pump Station, which was built in 1913 and is located in the Stockade District. The existing pump station site is prone to flooding from the Mohawk River. The ground floor elevation of the pump station is below the 100-year flood elevation resulting in inundation of the pump station dry well structure and submergence of critical electrical and control systems necessary for pumping operation during these flood events. As such, the new station must be designed to withstand flooding to an elevation of 235 feet to ensure continuous operation and reliability.

The architectural design of the pump station will be matched to the character of the neighborhood by incorporating concepts from the Riverfront Overlook and existing North Ferry Street Pump Station architectural fenestration and landscaping. Since the new building will respond closely in scale to the existing historic structure, their final relationship will need to be considered in the design. Once the new pump station is operational the City plans to repurpose the historic pump station and will not demolish it.

This project will improve septic and wastewater infrastructure to reduce flood damage and risk of pollution that would mitigate the type of devastation caused by Hurricane Irene and Tropical Storm Lee. The pump station is being designed with additional controls which will enable the City to convey flows through the existing interceptor sewer along Front Street which will allow for maximum flexibility for the long-term operations and maintenance of the system.

A review of CRIS indicates that part of the project area has already been surveyed as part of a previous archaeological survey, 02SR52605. Both locations proposed for the new pump station will be located outside of the footprint of this survey as shown on the proposed site plan. Significant new ground disturbance is expected to construct the new station and will require excavations and trenching work across the site.

GOSR is completing an environmental review for this project pursuant to HUD NEPA regulations. SHPO has recommended a Phase I report be completed, regardless of which site is chosen for constriction. If the Area of Potential Effect encompasses historic properties of religious or cultural significance to your Tribe, please respond within 30 days or sooner. Additionally, please indicate if there are other sources of information or other parties, Nations, Tribes, or members of the public you believe should be included in the consultation process. Please respond by email or in writing to the address listed below.

Mrs. Alicia Shultz
Community Developer - Environmental Services
New York State Homes & Community Renewal
38-40 State St.,408N, Hampton Plaza
Albany, NY 12207

I am available to answer any questions that you may have regarding this action. If you have any questions, please feel free to contact me at (518) 474-0647 or via email at Alicia.Shultz@nyshcr.org.

Sincerely,

Alicia Shultz
Community Developer
Bureau of Environmental Review and Assessment
Governor's Office of Storm Recovery

Enclosures:
Attachment 1: Project Location Maps

Electronic letter sent to:
Arnold Printup
Saint Regis Mohawk Tribe, THPO
412 State Route 37
Akwesasne, NY 13655


Alternate Pump Station Location
Existing Pump Station
Alternate Pump Station Location
N Ferry St
Front St
© 2016 Google

Figure 2.1 – Existing Pump Station Location

NEW YORK STATE OF OPPORTUNITY. | Parks, Recreation, and Historic Preservation

ANDREW M. CUOMO
Governor

ROSE HARVEY
Commissioner

REVISED November 23, 2016

Mary Barthelme
Governor's Office of Storm Recovery
99 Washington Ave, Suite 1224
Albany, NY 12231

Re: HTF/ GOSR/ CDBG-DR/ HUD/ NY Rising Program
North Ferry Street Pump Station Relocation
The foot of North Ferry St, Schenectady/ Schenectady County
16PR07821

Dear Ms. Barthelme:

Thank you for requesting the comments of the New York State Historic Preservation Office (SHPO). We have reviewed the materials submitted Nov. 17, 2016 in accordance with Title 54, Section 306108 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/ Cultural resources.

Daniel Bagrow of the Archaeology Unit recommends a Phase 1 Archaeological Survey, regardless of which alternative is chosen. Hartgen Archeological Associates, Inc. completed a limited archaeological survey in the area in 2002 but the area they tested is predominantly outside of the proposed APE. The report would be helpful for informing any future work in the area but doesn't specifically cover the alternatives. If you have any questions or concerns, Mr. Bagrow can be reached at 518-268-2160 or dan.bagrow@parks.ny.gov.

The SHPO would prefer the city site the new building southwest of the existing building, since it would be behind the current building and out of sight of the park visitors. Since the new building would be hidden by the original historic building, it would not interfere with its historic character.

If I can be of further assistance, contact me at (518) 268-2187 or Larry.moss@parks.ny.gov

Sincerely,

L Moss

Larry K Moss, Historic Preservation Technical Specialist
CC: Alicia Shultz

Governor's Office of Storm Recovery

ANDREW M. CUOMO
Governor

LISA BOVA-HIATT
Executive Director

November 23, 2016

Shannon Holsey, President
Stockbridge-Munsee Community, Band of the Mohicans
N8476 Moh He Con Nuck Road
Bowler, WI 54416

RE: Section 106 Compliance for North Ferry Street Pump Station Relocation, City of Schenectady, Schenectady County, New York

Dear President Shannon Holsey:

Pursuant to the Disaster Relief Appropriations Act, 2013 (Public Law 113-2) and the Housing and Community Development Act (42 U.S.C. § 5301 et seq.), the Governor's Office of Storm Recovery (GOSR) is acting under the auspices of New York State Homes and Community Renewal's Housing Trust Fund Corporation as a recipient of Community Development Block Grant – Disaster Recovery ("CDBG-DR") funds from the United States Department of Housing and Urban Development ("HUD"). GOSR is the entity responsible for compliance with the HUD environmental review procedures set forth in 24 CFR Part 58. GOSR is acting on behalf of HUD in providing the enclosed project information and inviting this discussion with your Community to respond with any concerns or comments.

GOSR processes environmental reviews for projects funded with HUD CDBG-DR on a case-by-case basis. GOSR proposes to provide funding for the construction of a new pump station in the City of Schenectady, New York. In accordance with Section 101(d)(6)(B) of the National Historic Preservation Act of 1966, as amended (54 U.S.C. 302706(b)), and its implementing regulations, 36 Code of Federal Regulations (CFR) Part 800, this letter serves as notification of the proposed action. This consultation is being sent to the Delaware Tribe of Indians, the Saint Regis Mohawk Tribe, the Mohawk Nation, and the Stockbridge-Munsee Community Band of Mohicans.

Area of Potential Effect: The project will take place at the end of North Ferry Street in the City of Schenectady, New York (see **Figure 1**). The pump station will be located at one of the two proposed sites, though the official site has not been confirmed. The design plans for the pump station have not been drafted to date. This consultation is to determine if one of the two locations if preferable. One location is north of current pump station and second is located south of the current pump station (see **Figure 1**). At this time, it is anticipated that the structural components for the pump station will include the following design requirements:

- 45'x 65' sanitary sewage pump station building, including 40' deep basement
- Stair and elevated floors
- Monorail hoist beam

- Exterior generator slab on grade

Assumptions:

- The building will be founded on mat foundation at a 40-foot +/- depth.
- Design of deep foundations (piles, caissons, etc.) will not be required.
- Above grade construction will be reinforced CMU with precast hollow core or precast double tee roof planks

Proposed Project Description: The City of Schenectady proposes to replace the existing North Ferry Street Pump Station, which was built in 1913 and is located in the Stockade District. The existing pump station site is prone to flooding from the Mohawk River. The ground floor elevation of the pump station is below the 100-year flood elevation resulting in inundation of the pump station dry well structure and submergence of critical electrical and control systems necessary for pumping operation during these flood events. As such, the new station must be designed to withstand flooding to an elevation of 235 feet to ensure continuous operation and reliability.

The architectural design of the pump station will be matched to the character of the neighborhood by incorporating concepts from the Riverfront Overlook and existing North Ferry Street Pump Station architectural fenestration and landscaping. Since the new building will respond closely in scale to the existing historic structure, their final relationship will need to be considered in the design. Once the new pump station is operational the City plans to repurpose the historic pump station and will not demolish it.

This project will improve septic and wastewater infrastructure to reduce flood damage and risk of pollution that would mitigate the type of devastation caused by Hurricane Irene and Tropical Storm Lee. The pump station is being designed with additional controls which will enable the City to convey flows through the existing interceptor sewer along Front Street which will allow for maximum flexibility for the long-term operations and maintenance of the system.

A review of CRIS indicates that part of the project area has already been surveyed as part of a previous archaeological survey, 02SR52605. Both locations proposed for the new pump station will be located outside of the footprint of this survey as shown on the proposed site plan. Significant new ground disturbance is expected to construct the new station and will require excavations and trenching work across the site.

GOSR is completing an environmental review for this project pursuant to HUD NEPA regulations. SHPO has recommended a Phase I report be completed, regardless of which site is chosen for constriction. If the Area of Potential Effect encompasses historic properties of religious or cultural significance to your Community, please respond within 30 days or sooner. Additionally, please indicate if there are other sources of information or other parties, Nations, Tribes, or members of the public you believe should be included in the consultation process. Please respond by email or in writing to the address listed below.

Mrs. Alicia Shultz
Community Developer - Environmental Services
New York State Homes & Community Renewal
38-40 State St.,408N, Hampton Plaza
Albany, NY 12207

I am available to answer any questions that you may have regarding this action. If you have any questions, please feel free to contact me at (518) 474-0647 or via email at Alicia.Shultz@nyshcr.org.

Sincerely,

Alicia Shultz
Community Developer
Bureau of Environmental Review and Assessment
Governor's Office of Storm Recovery

Enclosures:
Attachment 1: Project Location Maps

Electronic letter sent to:
Bonney Hartley
THPO, New York Office
Stockbridge-Munsee Community, Band of the Mohicans
65 1st Street
Troy, NY 12180


Alternate Pump Station Location
Existing Pump Station
Alternate Pump Station Location
N Ferry St
Front St
© 2016 Google

Figure 2.1 – Existing Pump Station Location

NEW YORK STATE OF OPPORTUNITY. | Parks, Recreation, and Historic Preservation

ANDREW M. CUOMO
Governor

ROSE HARVEY
Commissioner

REVISED November 23, 2016

Mary Barthelme
Governor's Office of Storm Recovery
99 Washington Ave, Suite 1224
Albany, NY 12231

Re: HTF/ GOSR/ CDBG-DR/ HUD/ NY Rising Program
North Ferry Street Pump Station Relocation
The foot of North Ferry St, Schenectady/ Schenectady County
16PR07821

Dear Ms. Barthelme:

Thank you for requesting the comments of the New York State Historic Preservation Office (SHPO). We have reviewed the materials submitted Nov. 17, 2016 in accordance with Title 54, Section 306108 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/ Cultural resources.

Daniel Bagrow of the Archaeology Unit recommends a Phase 1 Archaeological Survey, regardless of which alternative is chosen. Hartgen Archeological Associates, Inc. completed a limited archaeological survey in the area in 2002 but the area they tested is predominantly outside of the proposed APE. The report would be helpful for informing any future work in the area but doesn't specifically cover the alternatives. If you have any questions or concerns, Mr. Bagrow can be reached at 518-268-2160 or dan.bagrow@parks.ny.gov.

The SHPO would prefer the city site the new building southwest of the existing building, since it would be behind the current building and out of sight of the park visitors. Since the new building would be hidden by the original historic building, it would not interfere with its historic character.

If I can be of further assistance, contact me at (518) 268-2187 or Larry.moss@parks.ny.gov

Sincerely,

L Moss

Larry K Moss, Historic Preservation Technical Specialist
CC: Alicia Shultz

NEW YORK STATE OF OPPORTUNITY. | Parks, Recreation, and Historic Preservation

ANDREW M. CUOMO
Governor

ROSE HARVEY
Commissioner

REVISED November 23, 2016

Mary Barthelme
Governor's Office of Storm Recovery
99 Washington Ave, Suite 1224
Albany, NY 12231

Re: HTF/ GOSR/ CDBG-DR/ HUD/ NY Rising Program
North Ferry Street Pump Station Relocation
The foot of North Ferry St, Schenectady/ Schenectady County
16PR07821

Dear Ms. Barthelme:

Thank you for requesting the comments of the New York State Historic Preservation Office (SHPO). We have reviewed the materials submitted Nov. 17, 2016 in accordance with Title 54, Section 306108 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/ Cultural resources.

Daniel Bagrow of the Archaeology Unit recommends a Phase 1 Archaeological Survey, regardless of which alternative is chosen. Hartgen Archeological Associates, Inc. completed a limited archaeological survey in the area in 2002 but the area they tested is predominantly outside of the proposed APE. The report would be helpful for informing any future work in the area but doesn't specifically cover the alternatives. If you have any questions or concerns, Mr. Bagrow can be reached at 518-268-2160 or dan.bagrow@parks.ny.gov.

The SHPO would prefer the city site the new building southwest of the existing building, since it would be behind the current building and out of sight of the park visitors. Since the new building would be hidden by the original historic building, it would not interfere with its historic character.

If I can be of further assistance, contact me at (518) 268-2187 or Larry.moss@parks.ny.gov

Sincerely,

L Moss

Larry K Moss, Historic Preservation Technical Specialist
CC: Alicia Shultz

Governor's Office of
Storm Recovery

ANDREW M. CUOMO
Governor

LISA BOVA-HIATT
Executive Director

November 14, 2016

Mr. Larry Moss
Historic Preservation Technical Specialist
New York State Office of Parks, Recreation and Historic Preservation
Division of Historic Preservation
Peebles Island
P.O. Box 189
Waterford, New York 12188-0189

Re: Section 106 Compliance for North Ferry Street Pump Station Relocation, City of Schenectady, Schenectady County, New York

Dear Mr. Moss:

Pursuant to the Disaster Relief Appropriations Act, 2013 (Public Law 113-2) and the Housing and Community Development Act (42 U.S.C. § 5301 et seq.), the Governor's Office of Storm Recovery (GOSR), an office of New York State Homes and Community Renewal's Housing Trust Fund Corporation as a recipient of Community Development Block Grant – Disaster Recovery ("CDBG-DR") funds from the United States Department of Housing and Urban Development ("HUD"), is serving as the entity responsible for compliance with the HUD environmental review procedures set forth in 24 CFR Part 58. GOSR is acting on behalf of HUD in providing the enclosed project information and request for consultation.

GOSR processes environmental reviews for projects funded with HUD CDBG-DR on a case-by-case basis. A consultation request for the project described herein will also be sent to the Delaware Tribe of Indians, the Saint Regis Mohawk Tribe, the Mohawk Nation, and the Stockbridge-Munsee Community Band of Mohicans. In accordance with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended (54 U.S.C. §306108), and its implementing regulations, 36 Code of Federal Regulations (CFR) Part 800, this letter serves as notification of the proposed action.

Area of Potential Effect: The project will take place at the end of North Ferry Street in the City of Schenectady, New York (see **Figure 1**). The pump station will be located at one of the two proposed sites, though the official site has not been confirmed. The design plans for the pump station have not been drafted to date. This consultation is to determine if one of the two locations if preferable. One location is north of current pump station and second is located south of the current pump station (see **Figure 1**). At this time, it is anticipated that the structural components for the pump station will include the following design requirements:

- 45'x 65' sanitary sewage pump station building, including 40' deep basement
- Stair and elevated floors
- Monorail hoist beam

- Exterior generator slab on grade

Assumptions:

- The building will be founded on mat foundation at a 40-foot +/- depth.
- Design of deep foundations (piles, caissons, etc.) will not be required.
- Above grade construction will be reinforced CMU with precast hollow core or precast double tee roof planks

Proposed Project Description: The City of Schenectady proposes to replace the existing North Ferry Street Pump Station, which was built in 1913 and is located in the Stockade District. The existing pump station site is prone to flooding from the Mohawk River. The ground floor elevation of the pump station is below the 100-year flood elevation resulting in inundation of the pump station dry well structure and submergence of critical electrical and control systems necessary for pumping operation during these flood events. As such, the new station must be designed to withstand flooding to an elevation of 235 feet to ensure continuous operation and reliability.

The architectural design of the pump station will be matched to the character of the neighborhood by incorporating concepts from the Riverfront Overlook and existing North Ferry Street Pump Station architectural fenestration and landscaping. Since the new building will respond closely in scale to the existing historic structure, their final relationship will need to be considered in the design. Once the new pump station is operational the City plans to repurpose the historic pump station and will not demolish it.

This project will improve septic and wastewater infrastructure to reduce flood damage and risk of pollution that would mitigate the type of devastation caused by Hurricane Irene and Tropical Storm Lee. The pump station is being designed with additional controls which will enable the City to convey flows through the existing interceptor sewer along Front Street which will allow for maximum flexibility for the long-term operations and maintenance of the system.

A review of CRIS indicates that part of the project area has already been surveyed as part of a previous archaeological survey, 02SR52605. Both locations proposed for the new pump station will be located outside of the footprint of this survey as shown on the proposed site plan. Significant new ground disturbance is expected to construct the new station and will require excavations and trenching work across the site.

Request for Comment: The purpose of this letter is to initiate consultation pursuant to Section 106 of the NHPA per the implementing regulations at 36 Code of Federal Regulations (CFR) Part 800. GOSR respectfully requests your review of the proposed project described herein. If you have any questions or require additional information regarding this request, please feel free to contact me at (518) 474-0755 or via email at lori.shirley@nyshcr.org. Thank you for your time and consideration.

Sincerely,

Alicia Shultz
Community Developer
Bureau of Environmental Review and Assessment
Governor's Office of Storm Recovery

Enclosures:
Attachment 1: Project Location Map


Alternate Pump Station Location
Existing Pump Station
Alternate Pump Station Location
N Ferry St
Front St
© 2016 Google

Figure 2.1 – Existing Pump Station Location

Appendix E – Sole Source Aquifer

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

MAY 15 2018

Alicia Shultz
Senior Environmental Scientist
New York State Homes and Community Renewal
38-40 State Street, 408N, Hampton Plaza
Albany, NY 12207

Dear Ms. Shultz:

This is in response to your May 4, 2018 request to the U.S. Environmental Protection Agency (EPA) for a Sole Source Aquifer review of the proposed construction of a pump station at North Ferry Street in Schenectady, NY. The project is being funded under the Housing and Urban Development (HUD) Community Development Block Grant - Disaster Recovery (CDBG-DR) Program. The project site is above the Schenectady-Niskayuna aquifer, designated by EPA as a Sole Source Aquifer on January 24, 1985 (citation 50 FR 2022). Therefore, our review has been conducted in accordance with Section 1424(e) of the Safe Drinking Water Act (SDWA).

The new pump station would replace the existing one, which is housed in a masonry building of historical interest. The ground floor of the existing pump station is below the 100-year flood plain and, since it is only approximately 70 feet from the southern bank of the Mohawk, the pump station is susceptible to flooding in a severe storm. The ground floor of the new facility would be ten feet higher than the existing station and, in addition, no water sensitive equipment would be placed on that floor. Wastewater would enter the station through either PVC or concrete pipes, 15 feet below grade, and flow into a 35-foot-deep, concrete-lined excavation referred to as a "wet well." When the level of wastewater reaches a prescribed height, the pumps will turn on and drive sewage through pipes about 5 to 6 feet below grade. Sewage is pumped to a wastewater treatment plant on Anthony Street, operated by the City of Schenectady, and discharged after treatment into the Mohawk River. The pumps would be powered electrically, with a backup, emergency generator powered by diesel. The diesel fuel would be stored in an above-ground, double-walled tank that, in turn, would be housed within a concrete compartment. Stormwater would chiefly undergo sheet flow off the site and towards the river and be combined, to a minor extent, with the pumped wastewater.

Based on the information provided, it is anticipated that this project will not pose a significant threat to public health or ground water resources and complies with Section 1424(e) of the SDWA. Please be advised that meeting the requirements of 1424(e) does not preclude the need to meet National Environmental Policy Act (NEPA) requirements to address direct, indirect, and cumulative impacts. This review does not constitute a review under Section 309 of the Clean Air Act; EPA therefore reserves the right to review additional environmental documents on this project.

If you have any questions concerning this matter or would like additional information, please feel free to contact Michael Poetzsch of my staff at (212) 637-4147.

Sincerely yours,

Grace Musumeci, Chief
Environmental Review Section

Governor's Office of
Storm Recovery

ANDREW M. CUOMO
Governor

May 4, 2018

Ms. Grace Musemeci
Chief of the Environmental Review Section
U.S. Environmental Protection Agency
Region 2 Main Regional Office
290 Broadway
New York, NY 10007-1866

RE: CDBG-DR Funding Application for the North Ferry Street Pump Station, Schenectady, New York

Ms. Musemeci:

The New York State Governor's Office of Storm Recovery (GOSR) received a funding application to design and construct a replacement sewage pump station adjacent to the existing pump station located at 123 North Ferry Street Pump Station, Schenectady, Schenectady County, New York. The project area is within the boundaries of the Schenectady-Niskayuna Sole Source Aquifer.

The existing North Ferry Street Pump Station, built in 1913, is located on the southern shore of the Mohawk River at the end of North Ferry Street. The ground floor elevation [225 feet above sea level (ASL)] is below the 100-year flood elevation and is prone to flooding from the Mohawk River. The North and South Ferry Street Pump Stations, critical components of the city's sewer system, were both severely impacted by floodwaters. The proposed Project, located just to the south of the existing facility, would include the construction of an improved wastewater pump station. The Project would disturb less than 0.5 acres of land of grassy area. Construction of the Project could require dewatering during excavation. The construction of the wet well would require excavation to approximately 31 feet below the existing surface.

For additional information, please see the enclosures.

Pursuant to the Disaster Relief Appropriations Act, 2013 (Public Law 113-2) and the Housing and Community Development Act (42 U.S.C. § 5301 et seq.), GOSR is acting under the auspices of New York State Homes and Community Renewal's Housing Trust Fund Corporation as a recipient of Community Development Block Grant – Disaster Recovery ("CDBG-DR") funds from the United States Department of Housing and Urban Development ("HUD") and is the entity responsible for compliance with the HUD NEPA environmental review procedures set forth in 24 C.F.R. Part 58. 24 C.F.R. Part 58 requires GOSR to review projects for conformance with the Safe Drinking Water Act of 1974 (42 U.S.C. 201, 300(f) *et seq.*, and 21 U.S.C. 349) as amended, and Environmental Protection Agency ("EPA") regulations pertaining to Sole Source Aquifers found at 40 C.F.R. Part 149.

In accordance with the Memorandum of Understanding ("MOU") between EPA and HUD dated August 24, 1990, GOSR hereby requests an Initial Screen/Preliminary Review for the North Ferry Street Pump Station project. Please review the attached documentation, including Attachment 2.B and 3 to the MOU. Responses can be sent to me via email at Alicia.Shultz@nyshcr.org. In accordance with the MOU, a non-response within fifteen days shall constitute a favorable review of the project/activity. If you have any questions, please call me at (518) 474-0647.

Sincerely,

Alicia Shultz
Senior Environmental Scientist

Enclosures

ATTACHMENT 2.A

NON-HOUSING/PROJECT ACTIVITY INITIAL SCREEN CRITERIA

The following list of criteria questions are to be used as an initial screen to determine which **non-housing** projects/activities should be forwarded to the Environmental Protection Agency (EPA) for Preliminary Sole Source Aquifer (SSA) Review. (For housing projects/activities see Attachment 2.B) If any of the questions are answered affirmatively, Attachment 3, SSA Preliminary Review Requirements, should also be completed. The application/final statement, this Attachment, Attachment 3, and any other pertinent information should than be forwarded to EPA at the address below.

Any project/activity not meeting the criteria in this Attachment, but suspected of having a potential adverse effect on the Sole Source Aquifer should also be forwarded.

CRITERIA QUESTIONS	YES	NO	N/A
1. Is the project/activity located within a currently designated or proposed groundwater sensitive area such as a special Ground Water Protection Area, Critical Supply Area, Wellhead Protection Area, etc.? The project locations are all within the boundaries of the Schenectady-Niskayuna Sole Source Aquifer System, Great Flats Aquifer, protection zone. https://www.schenectadycounty.com/node/224	☒	☐	☐
2. Is the project/activity located within a one half mile radius (2640 feet) of a current or proposed public water supply well or wellfield? No.	☐	☒	☐

3. Will the project/activity include or directly cause (check appropriate items):

	YES	NO	N/A
construction or expansion of solid waste disposal, recycling or conversion facilities	☐	☒	☐
construction or expansion or closure of landfills	☐	☒	☐
construction or expansion of water supply facilities	☐	☒	☐
construction or expansion of on-site wastewater treatment plants or sewage trunk lines	☐	☒	☐
construction or expansion of gas or petroleum trunk lines greater than 1320 feet	☐	☒	☐
construction or expansion of railroad spurs or similar extensions	☐	☒	☐
construction or expansion of municipal sewage treatment plants	☐	☒	☐

4. Will the project/activity include storage or handling of any hazardous constituents as listed in Attachment 4, Hazardous Constituents	☐	☒	☐
5. Will the project/activity include bulk storage of petroleum in underground or above ground tanks in excess of 1100 gallons? (Please give what assurance they are done in a proper manner.)	☐	☒	☐
6. Will the project/activity require a federal or state discharge elimination permit or modification of an existing permit?	☐	☒	☐

This attachment was completed by:

Name:	Clifford Jarman
Title:	Sr. Env. Scientist
Address:	1401 Lime Rock Drive
	Round Rock, TX 78681
Telephone number:	512-244-2192
Date:	04/05/18

ATTACHMENT 3

SSA PRELIMINARY REVIEW INFORMATION REQUIREMENTS

Where currently available, the information in this Attachment should be provided to the Environmental Protection Agency (see address below) along with the application/final statement; Attachment 2.A, Non-Housing Initial Screen Criteria or Attachment 2.B, Housing Initial Screen Criteria; and any other information which may be pertinent to a Sole Source Aquifer review. Where applicable, indicate the source of your information.

I. Project/Activity Location	**Enclosed?**	
	Yes	No
1. Provide the geographic location and total acreage of the project/activity site. Include a site map which identifies the site in relation to the surrounding area. [Examples of maps which can be used include: 1:24,000 or 1:25,000 U.S. Geological Survey quadrangle sheet, Hagstroms Street Map.] Maps are attached: Project area is approximately 0.13 acres.	☒	☐
2. If applicable, identify which groundwater sensitive areas (Special Ground Water Protection Area, Critical Supply Area, Wellhead Protection Area, etc.) the project/activity is located within or adjacent to. Available documentation at https://www.schenectadycounty.com/node/224 shows that the project is within the Great Flats Aquifer protection zone.	☐	☒

II. Nature of Project/Activity	**Enclosed?**	
	Yes	No
3. Provide a general narrative describing the project/activity including but not limited to: type of facility; type of activities to be conducted; number and type of units; number of residents, etc. Provide the general layout of the project/activity site and site-plan if available. Replacement of sewage pump house. See attached	☒	☐

III. Public Water Supply	**Enclosed?**	
	Yes	No
4. Provide a description of plans to provide water supply. The facility will use existing utilities.	☐	☒

5. Provide the location of nearby existing or proposed public water supply wells or wellfields within one half mile radius (2640 feet) of the project/activity. Provide the name of the supplier(s) of those wells or wellfields. This information should be available from the local health department, State health department or the State environmental agency. No well within ½ mile of proposed project, see attached well location map.	☒	☐

IV. Wastewater and Sewage Disposal	**Enclosed?**	
	Yes	No
6. Provide a description of plans to handle wastewater and sewage disposal. If the project/activity is to be served by existing public sanitary sewers provide the name of the sewer district. The project is to replace/improve part of the existing sewage system for the city.	☐	☒
7. Provide a description of plans to handle storm water runoff. New facility will be integrated into existing stormwater runoff regime.	☐	☒
8. Identify the location, design, size of any on-site recharge basins, dry wells, leaching fields, retention ponds, etc. There are no such facilities associated with the proposed project.	☐	☒

V. Use, Storage, Transport of Hazardous or Toxic Materials *(Applies only to non-housing projects/activities)*	**Enclosed?**	
	Yes	No
9. Identify any products listed in Attachment 4, Hazardous Constituents, of the Housing and Urban Development-Environmental Protection Agency Memorandum of Understanding which may be used, stored, transported, or released as a result of the project not related to construction There are no hazardous materials in the proposed project.	☐	☒
10. Identify the number and capacity of underground storage tanks at the project/activity site. Identify the products and volume to be stored, and the location on the site. There are no current underground storage tanks (USTs) at this facilities. No USTs are proposed	☐	☒
	☐	☒

11. Identify the number and capacity of above ground storage tanks at the project/activity site. Identify the products and volume to be stored, and the location on the site There are no current aboveground storage tanks (ASTs) at these facilities. A 2,500 gallon AST will be part of the emergency generator.		

This form was completed by:

Name: Clifford Jarman

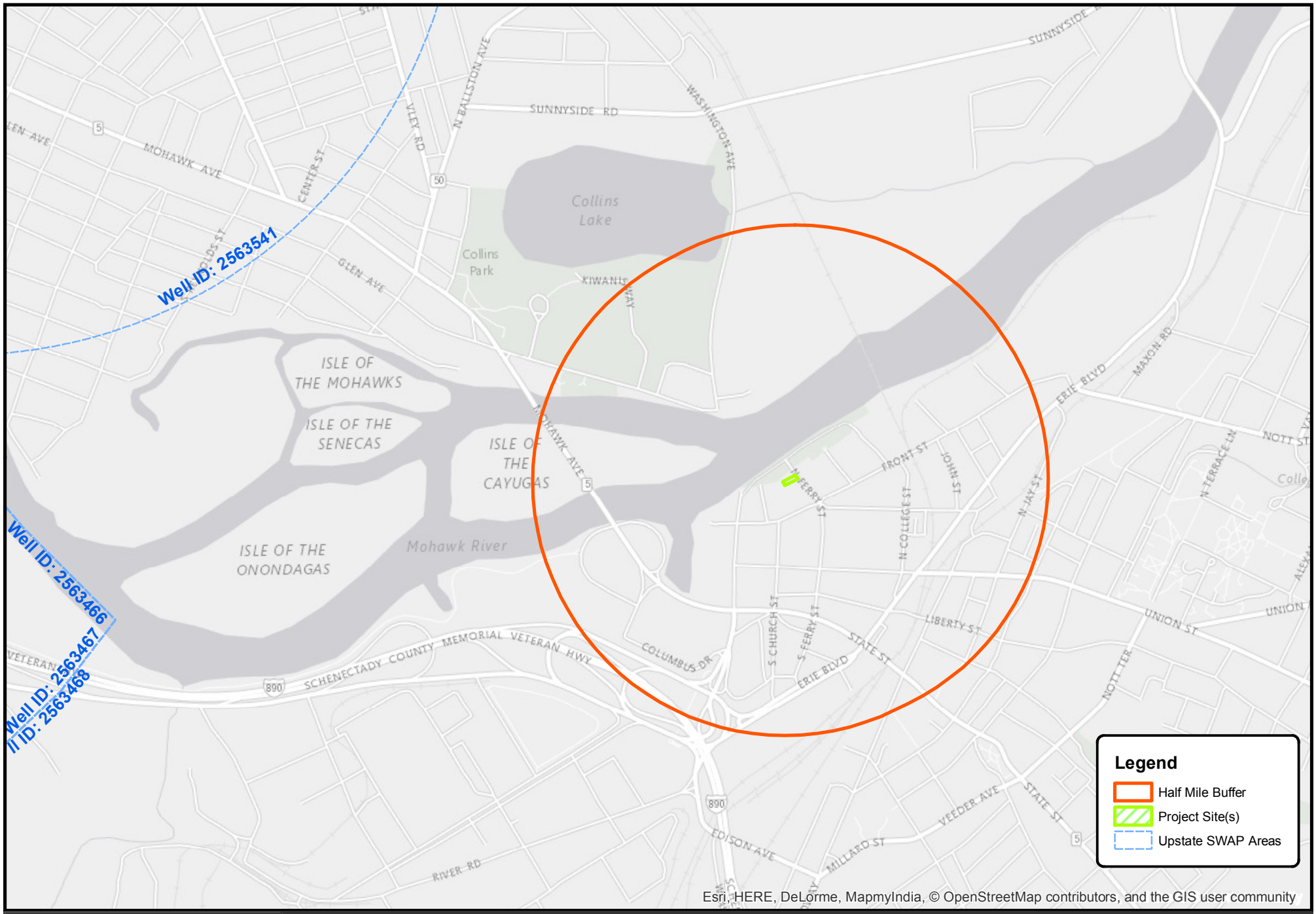
Title: Sr. Env. Scientist

Address: 1401 Lime Rock Drive

Round Rock, TX 78681

Telephone number: 512-244-2192

Date: 04/25/18



N

DRAFT- INTERNAL REVIEW ONLY

0 0.075 0.15 0.3 Miles

North Ferry Street Pump Station

123 N Ferry St, Schenectady, Schenectady County, NY 12305

SSA and SWAP Analysis

Governor's Office of Storm Recovery

Drawn By: AMM | Version: 1.0 | Date: 11/09/2017

Description of the Proposed Project [24 CFR 50.12 & 58.32; 40 CFR 1508.25]**:**
The City of Schenectady, Schenectady County, New York proposes to construct a new pump station to replace the existing North Ferry Street Pump Station located at 123 North Ferry Street (**Figure 1**). The new pump station would connect to existing sewer infrastructure.

The existing North Ferry Street Pump Station, built in 1913, is located on the southern shore of the Mohawk River at the end of North Ferry Street in the historic Stockade District (**Figure 2**). The site is adjacent to the Mohawk River, which is classified as an NWI wetland L1UBHh (lacustrine, limnetic, unconsolidated bottom, permanently flooded, diked/impounded. The site is within the 100-year floodplain and is located over the Schenectady-Niskayuna Sole Source Aquifer. Land use surrounding the pump station site is primarily residential, parkland, and commercial.

The ground floor elevation [225 feet above sea level (ASL)] is below the 100-year flood elevation and is prone to flooding from the Mohawk River. Flooding of the Mohawk River and its tributaries after Hurricane Irene and Tropical Storm Lee caused destruction throughout the City of Schenectady. The city drinking water and wastewater facilities experienced flooding and power failures. The North and South Ferry Street Pump Stations, critical components of the city's sewer system, were severely impacted by floodwaters. The control and electrical systems were inundated and the control panels did not operate for almost 24 hours due to power failure.

The proposed Project site is located just to the south of the existing facility (**Figure 3**). This location would share access and parking currently used for the existing pump station and Riverside Park. The permanent entrance and driveway to the pump station would be off of North Ferry Street (See **Figures 4a and 4b**).

The Project would include the construction of an improved wastewater pump station. The new pump station would withstand flooding and continue to operate in future storm events improving the reliability and resiliency of the City of Schenectady's wastewater facilities. The Project site would allow for the reconnection of the gravity influent lines for the sewersheds served by the existing pump station.

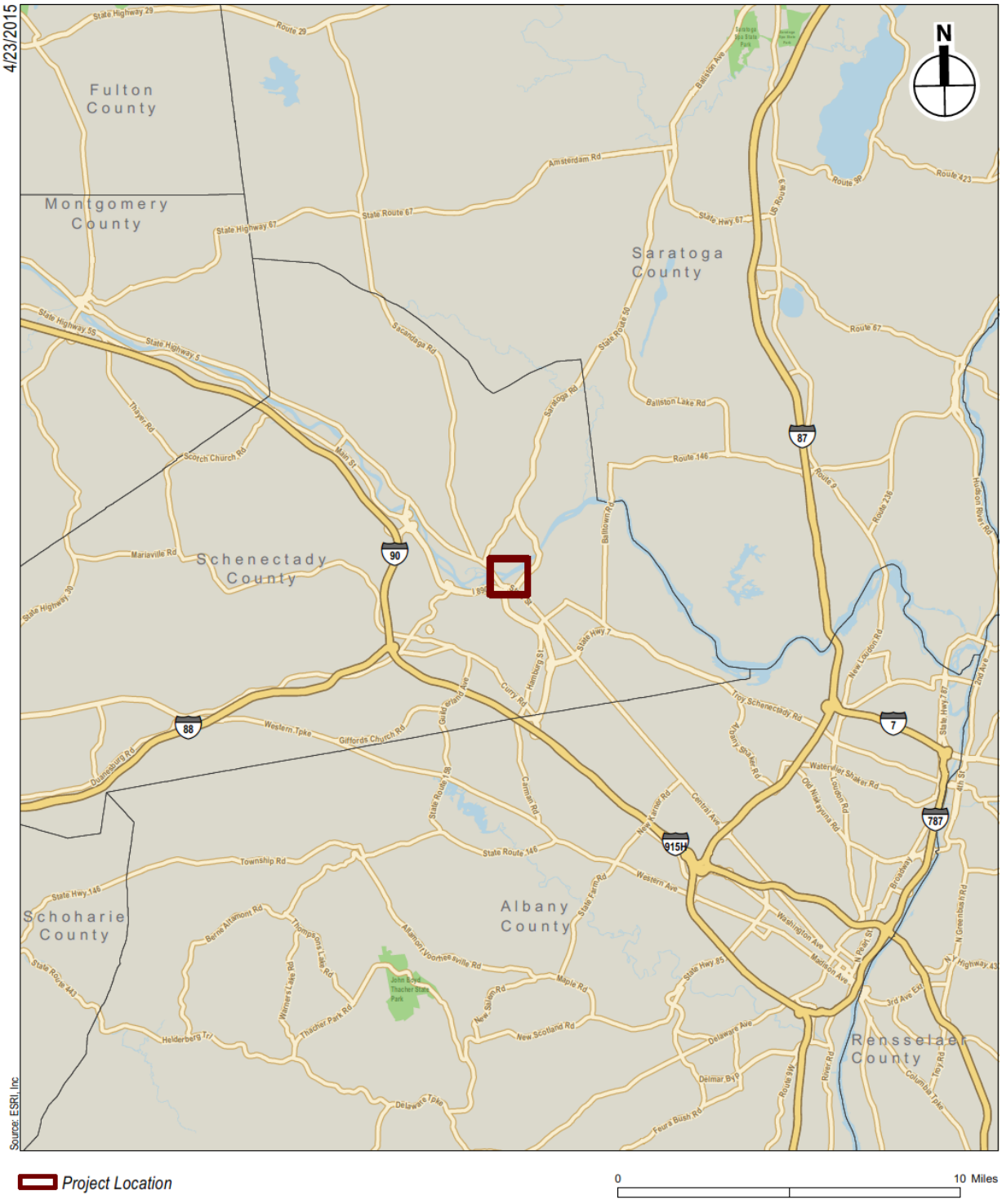
The proposed pump station is being designed with additional controls which would enable the City to convey flows through the existing interceptor sewer along Front Street which would allow for maximum flexibility for the long-term operations and maintenance of the system. Parking and access would remain unchanged from the existing facility.

The Project would disturb less than 0.5 acres of land. Construction of the Project could require dewatering during excavation. The construction of the wet well would require excavation to approximately 31 feet below the existing surface (See **Figures 4a and 4b**).

Natural gas service would be extended to the pump station site for connection to gas-fired heating equipment within the building. Two separate independent sources of electrical power would be provided to the pump station. The primary source would be commercial power from either a utility substation or transmission grid. The standby power source would be from an on-site, diesel-fueled, engine generator connected to the utility distribution grid. The diesel generator would have an integral double-contained, 2500-gallon AST, above-ground fuel tank.

No land acquisition is anticipated.

Once the new pump station is operational the City plans to remove the existing North Street Pump Station from service and repurpose the historic building.



Project Location Map
Figure 1

SCHENECTADY NORTH FERRY STREET PUMP STATION

Figure 1 – Site Location Map

Figure 2 – Project Location Map (Red – Existing Facility, Yellow - Proposed Project Area)

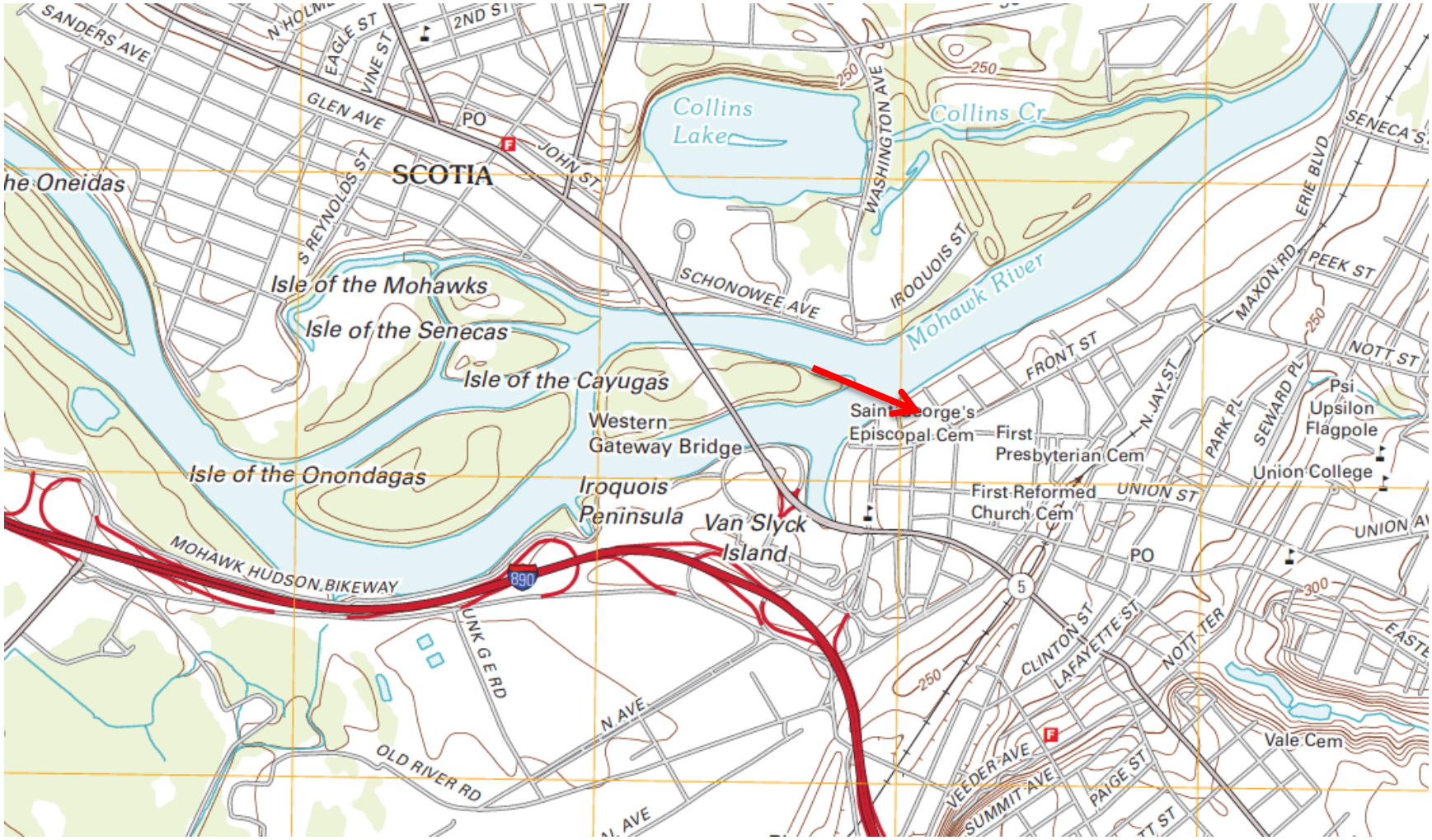


Figure 3 – Topographic Map

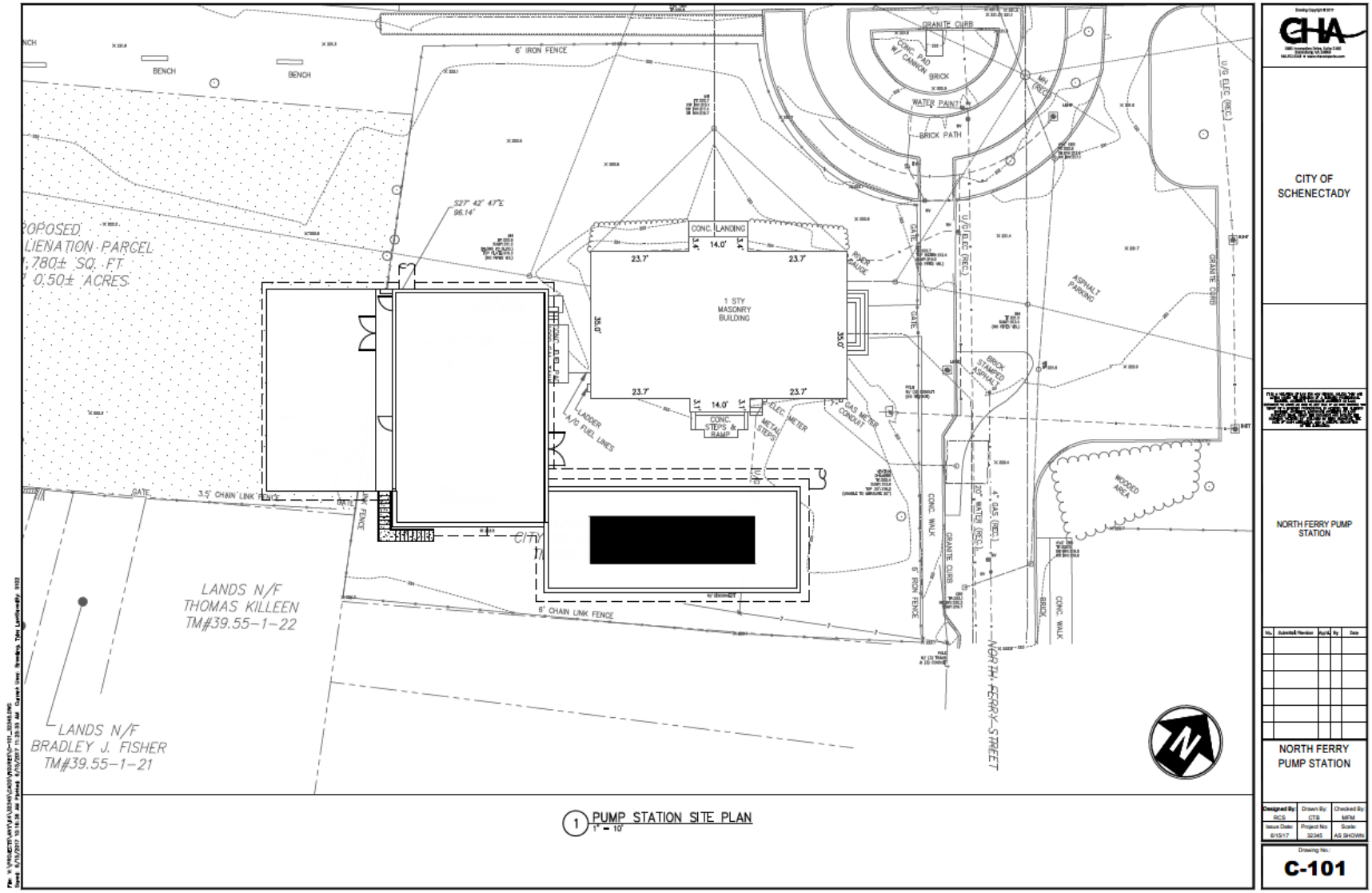
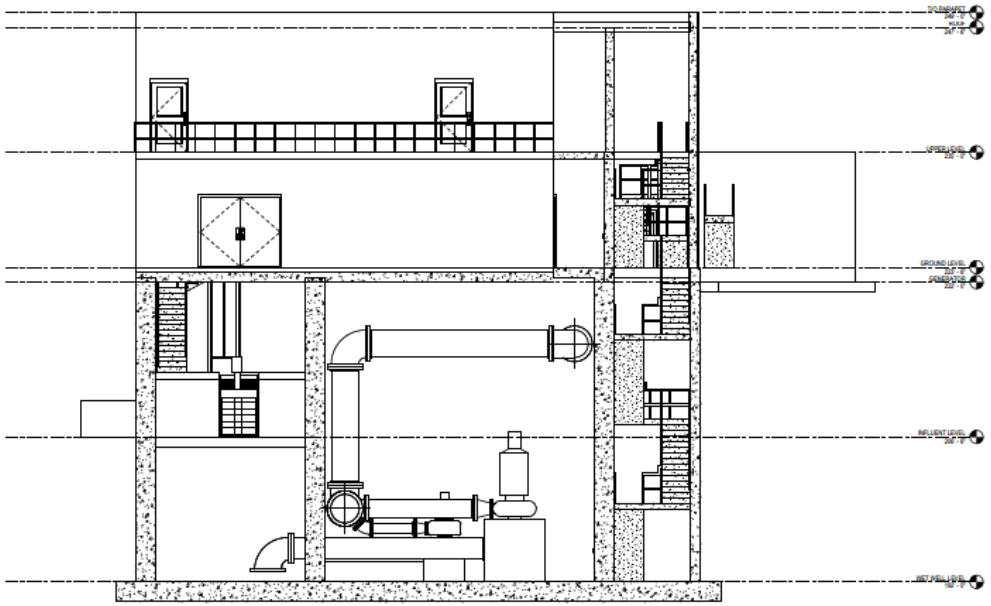


Figure 4a: Proposed Site Plan



1 PARTIAL BUILDING SECTION

CHA

CITY OF SCHENECTADY

NOT FOR CONSTRUCTION

NORTH FERRY PUMP STATION

No.	Submittal / Revision	Mark	By	Date

SECTION

Designed By: RCS	Drawn By: CTB	Checked By: MFM
Issue Date: 08/15/17	Project No: 32345	Scale: AS SHOWN

Drawing No:

G-004

Figure 4b. Proposed Elevation Plan. Side View

Appendix F – Wetlands

Path: C:\Projects\North Ferry Street Pump Station HUD EA_103P359237\GIS\North Ferry Street Pump Station - Freshwater Wetlands.mxd

Freshwater Wetlands

123 North Ferry Street
City of Schenectady,
Schenectady County, New York

Legend

- Project Area
- NYS Freshwater Wetlands
- NYS Freshwater Wetlands Buffer

NWI Wetlands

- Lake

Tetra Tech, Inc