

**APPENDIX O: CULTURAL
RESOURCES MANAGEMENT
PLAN
[REDACTED]
CASE 10-T-0139**

SUPPLEMENTAL CULTURAL RESOURCES MANAGEMENT PLAN
Champlain Hudson Power Express HVDC Transmission Line Project
CSX: Rotterdam to Bethlehem (Segment 8, Package 5A)

[REDACTED-Public Version]

Lake Champlain to New York City
Schenectady and Albany Counties, New York

HAA 4268-83
SHPO 09PR03910

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MANAGEMENT SUMMARY

SHPO Number: 09PR03910
Involved Agencies: U.S. Department of Energy, U.S. Army Corps of Engineers, NYSHPO
Phase of survey: Cultural Resources Management Plan (Supplemental)

LOCATION INFORMATION

Municipality: Towns of Bethlehem, Guilderland, New Scotland, Rotterdam, Village of Voorheesville.
County: Schenectady and Albany Counties

CULTURAL RESOURCE MANAGEMENT PLAN OVERVIEW

Objective: *The purpose of this Supplemental Cultural Resources Management Plan is to synthesize data sets into one document, and to provide OPRHP/DPS contact information for identified roles within the original Cultural Resource Management Plan drafted by TRC in 2015 and finalized in 2021.*
The plan also proposes Programmatic Allowances and an Archeological Monitoring Plan to assist with ongoing review and compliance as stipulated in the Programmatic Agreement between DOE and NYSHPO in 2021.
This Supplemental CRMP addresses Project activities in Package 5A, Segment 8, Rotterdam to Bethlehem.

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Date of Report: December 2022

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LIST OF ACRONYMS

ACHP – Advisory Council on Historic Preservation
AMP – Archeological Monitoring Plan
APE – Area of Potential Effect
BMP – Best Practices Management Plan (2012)
CA – Consulting Archeologist
CHPE, LLC – Champlain Hudson Power Express, LLC
CRMP – Cultural Resources Management Plan
CRIS – Cultural Resource Inventory System (NYSHPO)
DOE – U.S. Department of Energy
DPS –New York Department of Public Service GIS – Geographic Information System
GPS – Global Positioning System
Hartgen – Hartgen Archeological Associates, Inc.
HDD- horizontal directional drilling
HVAC – high-voltage alternating current
HVDC – high-voltage direct current
LOW –Limits of Work
MP – mile post, railroad
MW – megawatt
NHPA – National Historic Preservation Act
NRE – National Register-eligible
NYAC – New York Archaeological Council
NYSHPO – New York State Historic Preservation Officer
NYSM – New York State Museum
OPRHP – Office of Parks, Recreation and Historic Preservation
PPO – Project Preservation Officer
ROW – Right-of-Way
TRC – TRC Companies, Inc

CULTURAL RESOURCES MANAGEMENT PLAN

1 Introduction

Hartgen Archeological Associates, Inc. (Hartgen) has been retained to provide a Supplemental Cultural Resources Management Plan (CRMP) to the Final CRMP developed by TRC (2021) (Appendix 1) for the proposed Champlain Hudson Power Express (Project) located over multiple counties through New York. The current phase of work focuses on the cable route from Rotterdam, Schenectady County to the southern portion of the Town of Bethlehem in Albany County.

The Project has received approvals by the U.S. Department of Energy (DOE), and the U.S. Army Corps of Engineers, with consultation from the New York State Historic Preservation Office (NYSHPO). The goal of the Supplemental CRMP is to provide a framework in which potential impacts to relevant historical properties and archeological sites (determined to be eligible for or listed in the National Register of Historic Places) known to exist, or may be discovered, are to be managed during construction. This management plan will also create a comprehensive framework for identifying and undertaking additional archeological work that may be required prior to and during the construction of the Project.

TRC Companies, Inc. (TRC) created a draft comprehensive Cultural Resource Management Plan in 2015, finalized in 2021 to include three additional reports. This management plan is referred to throughout the current document (Appendix 1), with this document serving to fully incorporate the relevant information for Phase I of construction into one succinct document. This document provided detailed procedures for unanticipated discoveries, monitoring during construction-related ground disturbance, and monitoring during post-construction operations; all stipulations of the TRC CRMP remain applicable. In the event of a conflict between this document and that provided in Appendix 1, the TRC CRMP (2021) will prevail.

This Supplemental CRMP has been developed to in response to Programmatic Agreement Stipulation IV(B) and Stipulation II(C) (8 – 11 and 19) and to assist Project compliance with Section 106 of the National Historical Preservation Act. The supplemental plan will be reviewed by the New York State Office of Parks, Recreation and Historic Preservation (OPRHP) as well as the aforementioned federal agencies. This plan was established according to the New York Archaeological Council's *Standards for Cultural Resource Investigations and the Curation of Archaeological Collections* (1994), which are endorsed by OPRHP.

The Programmatic Agreement Among The U.S. Department of Energy, And The New York State Historic Preservation Officer For Managing Historic Properties That May Be Affected By Authorizing The Construction, Operation, Connection And Maintenance Of The Champlain Hudson Power Express HVDC Transmission Line Project (Programmatic Agreement), executed in 2021, stipulates completion of a Cultural Resources Management Plan (CRMP) to create procedures for the consideration and management of historic properties within the Champlain Hudson Power Express HVDC Transmission Line Project (Project).

Stipulation IV(B) within the Programmatic Agreement specifies the CRMP will be applied in lieu of Section 106 implementing regulations 36 CFR Part 800.4 – 800.6 to satisfy requirements of compliance with Section 106 of the National Historical Preservation Act (16 U.S.C. 470) related to identification of historic properties (36 CFR Part 800 800.4), assessment of adverse effects (36 CFR Part 800 800.5), and resolution of adverse effects (36 CFR Part 800.6).

Current design and engineering requirements indicate effects to historic and landscape resources may also require consideration throughout project execution; this Supplemental CRMP supports streamlined coordination and consultation with NYSHPO through agreement on programmatic allowances and treatments. This Supplemental CRMP provides structure and process for implementing requirements of the Programmatic Agreement and the TRC CRMP (2021).

2 Project Information

The Project involves the construction of approximately 339 miles of a high voltage direct current underground and underwater transmission line, running from Montréal, Canada to Queens, New York. This transmission line will bring 1,250 megawatts of hydropower to replace the use of fossil fuels, reducing carbon emissions and helping achieve renewable and clean energy in New York State. This proposed project will provide enough power for more than 1 million homes through New York State. Installation of this transmission line will occur primarily beneath the ground within roadway and railroad right of way. Direct impacts to streams and waterbodies are avoided through means such as attaching to existing infrastructures (bridges and culverts) or incorporating the use of horizontal directional drilling (HDD).

Several archeological reports by Hartgen and TRC examined and detailed the sensitivity and potential of the APE. These resources have been utilized in the creation of the Cultural Resource Management Plan.

The bolded reports include portions of the most current Project (Segment 8) and provide relevant background information.

- Hartgen. 2010a. Pre-Phase IA Archaeological Screening: Champlain Hudson Power Express.
- **Hartgen. 2010b. Phase IA Literature review and archaeological sensitivity assessment: Champlain-Hudson Power Express.**
- Hartgen. 2012. Phase IB Archaeological Field Reconnaissance and Phase II Archaeological Site Evaluation: Champlain Hudson Power Express, Canadian Pacific Railway Segment.
- Hartgen. 2013a. GIS Analysis: Archeological Sites within APE Archeological Sites Intersected by a 50-ft wide Construction Corridor Along the November 2012 CHPE/TDI Centerline.
- Hartgen. 2013b. GIS Analysis NRHP Properties within APE National Register of Historic Place Eligible (NRE) and Listed (NRL) Properties Intersected by a 50-ft wide Construction Corridor along the November 2012 CHPE/TDI Centerline.
- Hartgen. 2013c. GIS Analysis Underwater Resources within APE Underwater Anomalies and Sites within Lake Champlain and the Hudson River Intersected by a 50-ft wide Construction Corridor along the November 2012 CHPE/TDI Centerline.
- TRC. 2020a. Phase IA Archeological Assessment of Champlain-Hudson Alternative Routes, New York.
- TRC. 2020b. Phase IA Archeological Assessment of Champlain Hudson Astoria Converter Station and Astoria Preferred Alternative Route, Boroughs of Queens, New York.
- TRC. 2020c. Phase IA Archeological Assessment of Champlain-Hudson Power Express Project, Harlem Rail Yard Preferred Alternative, Boroughs of Queens, New York.
- **TRC. 2021. Phase IA Archaeological Assessment of the Champlain-Hudson New Scotland Converter Station, New Scotland, Albany County, New York.**
- TRC. 2022. Phase IA Archaeological Survey letter for the Stony Point Horizontal Directional Drill (HDD), Stony Point, Rockland County, New York.

2.1 Description of the Project

The area of potential effects (APE) includes portions of the Project that will be directly altered by the proposed undertaking. The overall APE encompasses 339 linear miles; the width of the APE varies. For the overall cable route, the Project is divided into 14 Packages with their associated EM&CP submittals (Table 1). The current plan addresses Package 5A, Segment 8.

Table 1. CHPE Packages, Routes, and Locations.

EM&CP		Location Description	Segment Length (miles)	Anticipated EM&CP Filing with DPS	Anticipated Start of Construction
Construction Segment	Design Packages				
OVERLAND SEGMENTS					
1, 2	1A/1B	Putnam to Dresden/ Dresden to Whitehall	17.6	April 15, 2022	November 2022
X	X	3 Laydown Yards	N/A	November 17, 2022	February 2023
3	1C/2	Whitehall to Fort Ann Fort Ann to Kingsbury	20.8	December 2022	May 2023
4, 5	3	Kingsbury to Milton	26.5	January 2023	June 2023
6	4A	Milton to Ballston	10.2	February 2023	July 2023
7	4B	Ballston to Schenectady/Rotterdam	9.6	February 2023	July 2023
8	5A	Rotterdam to Bethlehem	16.99	December 2022	May 2023
9	5B	Selkirk Rail Yard Bypass	5.31	December 2022	May 2023
10	6	Ravena to Catskill	20.9	January 2022	June 2023
11	7A	Catskill to Germantown	8.6	February 2022	July 2023
12	7B	Stony Point to Haverstraw	7.6	February 2022	July 2023
13, 14, 15	8	Queens	2.13	January 2022	June 2023
Laydown Yards EM&CP	3,4B,5B,6	Fort Edward, Bethlehem, Coxsackie	N/A	November 11, 2022	February 2023
MARINE SEGMENTS					
16	9	Transitional HDD (Stony Point)	N/A	September 29, 2022	July 2023
17	10	Lake Champlain	~96	December 2023	June 2023
18	11	3 Transitional HDDs (Putnam, Catskill, Clarkstown)	N/A	February 2023	June 2023
19	12	Upper Hudson River	~67.5	March 2023	August 2023
20	13	Lower Hudson River	~21.6	December 2023	June 2024
21	14	Harlem River	~6.3	December 2023	June 2024
22	TBD	Converter Station, Astoria Complex, (Queens)	N/A	January 2023	June 2023
23	TBD	Astoria Rainey Cable HVAC System, (Queens)	~3.5	TBD	TBD

Changes in the APE, including those necessary to avoid known historic and archaeological resources, may be required to accommodate project implementation. Changes to the APE will follow methodology outlined in the TRC CRMP (2021). The TRC CRMP (2021) states: *If the corridor is changed or if a construction zone wider than 55 feet (terrestrial) or 50 feet (in-water) is required to build the Project, then the APE will be adjusted accordingly. All additional efforts to identify, assess, and manage cultural resources shall use the same guidance as that stipulated in the CRMP. It shall be the responsibility of the PPO and his/her designee to work with the appropriately trained archaeologist to ensure that survey and assessment of new APE construction areas is completed before construction takes place* (TRC 2021). Changes in the APE and associated survey and reporting will be provided to Signatories of the Programmatic Agreement in conjunction with annual reporting requirements (Section 3.6 Reporting Requirements).

2.2 Segment 8 Activities

2.3 Objectives

For each component of the segment (Splice Locations and Vaults, HDD, work areas, access roads, etc.) were evaluated to determine whether the proposed work lies within the permitted route (APE) or outside the permitted route. Areas outside the permitted route were further evaluated to determine whether the areas have been previously disturbed (lacking archeological potential) or undisturbed (having archeological potential). Recommendations are proposed for either archeological monitoring during construction in the manner described in Section 5 or archeological testing.

Archeological testing may be utilized in advance of construction. Testing would be conducted by the excavation of 40 cm tests placed at 50-foot intervals within the areas defined below. Excavated soil would be passed through 0.25-inch hardware mesh when feasible and examined for both precontact (Native American) and historic artifacts. The stratigraphy of each test would be recorded including the depth, soil description, and artifact content. The location of each shovel test would be plotted on the project map. Test excavations will be photographed.

The testing shall adhere to the New York Archaeological Council's *Standards for Cultural Resource Investigations and the Curation of Archaeological Collections* (1994), which are endorsed by OPRHP. The investigation shall be overseen by an Archeologist as defined under the Secretary of the Interior's Professional Qualification Standards outlined in *Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines as Amended and Annotated* and required under Title 36 of the Code of Federal Regulations, Section 61 (36 CFR 61).

The survey report(s) shall be prepared according to OPRHP's *State Historic Preservation Office (SHPO) Phase I Archeological Report Format Requirements* (2005) or another format acceptable to OPRHP. As appropriate, reports will contain text, tables, color maps and photographs, shovel test records, and an artifact inventory.

2.4 Segment Overview

This segment extends from the Town of Rotterdam on the CSX Railroad right-of-way (Selkirk Subdivision, Schenectady MP 9.4) to the southern portion of the Town of Bethlehem (Castleton Subdivision, Selkirk MP 0.0). The construction activities in this segment include both open trench (typically the railroad ROW) and ductbank excavations (typically in roadway ROWs). The trenches will typically be 4.5 feet in depth and 2.4 feet in width and the base. The open trenches will be backfilled with sand around the conduit and flowable fill above. The duct bank excavations will be placed in concrete with flowable fill above and appropriate subbases, bases and asphalt pavement repair (Figure 1).

Disturbance beyond the typical trench cuts include the location of splice vaults and boring/receiving pits for HDD installation**Error! Reference source not found.**). These are discussed in detail below relative to potential archeological resources and previous evaluation and assessment.

2.4.1 Splice Locations and Vaults

Various splice vaults (or open pit splice locations) will also be installed to connect the cable segments together into an integrated whole. The splices will generally be about 15 by 40 feet in size, but will also include a work area, crane pad, and associated access ways. In all, 33 Splice locations and vaults will be installed in the Package 5A portion of the Project (Splices 155 to 184, and 158.A, 163.A, and 167.A, and 168 to 184). All, or portions, of the majority of Splice locations and vaults include crane pads, and associated work areas that fall outside the permitted route. Additionally, most are largely undisturbed. As a result, all but nine of these locations have been recommended for testing or monitoring (Table 2**Error! Reference source not found.**).

Table 2. Splice Locations and Vaults within Segment 8, Package 5A.

Item	Station Number	Activity	Notes/Recommendations
Splice 155	50027+50	Work area extends 15 ft outside west edge of permitted route. Wooded area, no apparent disturbance. Town of Rotterdam.	Test or monitor.
Splice 156	50055+00	Area of deviation in current work/ laydown yard. Town of Princetown.	None (prior disturbance).
Splice 157	50081+60	Splice box, filling to level portion of area, crane pad and adjacent work areas. Mostly within areas of previous disturbance. Town of Rotterdam.	None.
Splice 158	50096+00	Splice, filling to level portion of area, crane pad and adjacent work areas are outside permitted route. Town of Rotterdam. Adjacent to Golub Late Archaic Site (09305.000255). No apparent disturbance.	Test or monitor.
Splice 158.A	50127+00	Splice box, filling to level portion of area, crane pad and adjacent work areas. Town of Guilderland. No apparent disturbance.	Test or monitor.
Splice 159, and parking areas	50158+25	Work areas and pits outside of permitted route. Town of Guilderland.	Test or monitor.
Splice 160	50181+00	Work areas outside of permitted area, no apparent disturbance, splice and cable route excepted. Town of Guilderland.	Test or monitor (work area).
Splice 161	50208+00	Town of Guilderland. Work areas outside of permitted area, no apparent disturbance, splice and cable route excepted.	Test or monitor (work area).
Splice 162	50238+00	Town of Guilderland. Splice and work area outside of permitted route. No apparent disturbance.	Test or monitor (work area).
Splice 163	50262+50	Town of Guilderland. Vault and pad fully within railroad ROW. Work area slightly extends outside permitted work area. No apparent ground disturbance.	Test or monitor (work area).
Splice 163.A	50276+50	Vault and pad fully within railroad ROW. Work area slightly extends outside permitted work area. No apparent ground disturbance. Town of Guilderland.	Test or Monitor (portions outside permitted route).
Splice 164	50302+00	Town of Guilderland. Splice and cable within permitted route, work area extends beyond. No apparent disturbance. Within NYSM Site 2780 (northern locus).	Test or monitor.
Splice 165	50330+25	Town of Guilderland. Extensive fill required for work area, appears partially disturbed.	Test or monitor.
Splice 166	50349+00	Town of Guilderland, 600 feet from Normanskill, within railroad ROW.	Test or monitor.
Splice 167	503373+00	Town of Guilderland. Falls largely within permitted route.	Test or monitor portions outside permitted route.
Splice 167.A	50402+25	Town of Guilderland. Within permitted route, previously disturbed.	None.
Splice 168	50434+00	Town of Guilderland. Outside permitted route, but within industrial complex, previously disturbed.	None.

Item	Station Number	Activity	Notes/Recommendations
Splice 169	50465+50	Town of Guilderland. Outside permitted route, but within industrial complex, previously disturbed.	None.
Splice 170	50487+00	Town of Guilderland. Splice within permitted route, work area and crane pad extend beyond.	Test or monitor (work area and pad).
Splice 171	50519+00	Town of Guilderland. Splice within permitted route, work area extends beyond.	Test or monitor (work area).
Splice 172	50542+50	Town of Guilderland. Slight deviation for crane pad near extant gas pipeline.	None.
Splice 173	50574+40	Within permitted route.	None.
Splice 174	50593+00	Town of Guilderland. Work extends slightly outside permitted route, previously disturbed.	None.
Splice 175	50623+00	Village of Voorheesville. Splice within permitted route, work area and crane pad extend beyond.	Test or monitor.
Splice 176	50661+50	Village of Voorheesville. Splice within permitted route, work area and crane pad extend beyond.	Test or monitor.
Splice 177	50683+50	Town of New Scotland. Crane pad extends outside permitted route.	Test or monitor (crane pad).
Splice 178	50710+00	Town of New Scotland. Parts of crane pad and work area outside permitted route.	Test or monitor (crane pad and work area).
Splice 179	50742+25	Town of New Scotland. Crane pad and work area extends outside permitted route, within former lumberyard, disturbed.	None.
Splice 180	50766+50	Town of New Scotland. Crane pad and work area extends outside permitted route, appears undisturbed.	Test or monitor (work area and crane pad).
Splice 181	50798+00	Town of New Scotland. Crane pad and work area partially extends beyond permitted route.	Test or monitor (work area and crane pad).
Splice 182	50828+00	Town of New Scotland. Crane pad and work area partially extends beyond permitted route.	Test or monitor (work area and crane pad).
Splice 183	50855+50	Town of New Scotland. Outside of permitted route but within RR ROW	Test or monitor.
Splice 184	50887+00	Town of New Scotland. Outside of permitted route but within RR ROW	Test or monitor.

2.4.2 HDD

In the Package 5A portion of Segment 8, additional HDD will be required to avoid and minimize impacts to various drainage crossings and road crossings.

The HDD cables (once drilled beneath the surface greater than 10 feet) are no longer considered a ground disturbing activity, as such those portions of the cable installed via HDD, even if outside the permitted route are not considered for archeological testing or monitoring. However, the receiving and boring pits are both ends of the drilled cable are considered for their potential to affect archeological resources. This also includes their related temporary work areas which will be graded and covered with aggregate (similar to the access roads discussed below).

In all, 22 locations have been identified: HDD 71 to 73, 73.A & 74,75, 75A.A, 75.A, 75.B, 76 & 76.A, 77 to 78, 79.A, 80, 80.A, 81, 82 and 83, 83.A, 84.A, 84.B, 85, 87, and 87.A (note 86 has been eliminated) (Table 3). In all, 11 of the HDD pits or associated work areas are recommended for archeological testing or monitoring.

Table 3. HDD Locations within Segment 8, Package 5A.

Item	Station Number	Activity	Notes/Recommendations
HDD 71 (north pit)	50005+00 to 50024+00	Drilling beneath Burdeck Street; also crosses from east side of CSX tracks to west side. Town of Rotterdam..	None.
HDD 71 (south pit)	50024+00-50030+00	Temporary work area outside of permitted route, foundations noted in vicinity of work. Town of Rotterdam..	Test or monitor.
HDD 72	50043+00 to 50048+00	Crosses Mariaville Road. Work area on south end extends 30 feet outside permitted route. Town of Rotterdam.	None (prior disturbance).
HDD 73	50065+00 to 50070+30	Crosses beneath Duanesburg Rd., pits and work areas in locations of previous disturbance. Town of Rotterdam.	None.
HDD 73.A & 74	50100+00 to 50119+50	Crosses beneath utility corridor and I-90. HDD 73.A set-up is 350 feet from Golub Late Archaic Site; the set-up is fully within permitted route; depth is 100 feet deep. Town of Rotterdam and Guilderland.	Test or monitor.
HDD 75	50145+25 to 50153+25	Under Guilderland Avenue (Route 158), northern pit and work area outside permitted route. Southern work area shared with work area for Splice 159.	Test or monitor work areas outside of permitted route.
HDD 75A.A	50167+90 to 50174+9-	Stream crossing. Both pit and work area within permitted route.	None.
HDD 75.A	50210+00 to 50232+50	Town of Guilderland. HDD under wetlands and stream. Work areas and southern boring pit outside of permitted route.	Test or monitor (work areas and southern boring pit).
HDD 75.B	50290+50 to 50297+80	Town of Guilderland. HDD under stream. Southern work area extends outside of permitted route.	Test or monitor (southern work area).
HDD 76 & 76A	50306+50 to 50327+30	Town of Guilderland. Crosses beneath Route 20 (Western Turnpike), a railroad branch, and pond. Northern boring pit with area of disturbance. Southern pit work area extends beyond permitted area.	Test or monitor (southern HDD pit work area).
HDD 77	50333+00 to 50346+00	Town of Guilderland. Southern HDD set-up extends outside west edge of railroad ROW, between ROW and reservoir..	Test or monitor (southern HDD pit work area).
HDD 78	50382+25 to 50399+30	Town of Guilderland. Crosses wetland, NY Route 146, railroad siding, and Black Creek. Both boring pits, work and parking areas previously disturbed.	None.
HDD 79.A	50409+25 to 50422+00	Town of Guilderland. Under railroad sidetracks. Both boring pits, work areas, and parking areas inside industrial complex, previously disturbed.	None.
HDD 80	50442+50 to 50461+50	Town of Guilderland. Crosses beneath railroad spur. Both boring pits, work areas, and parking areas in locations previously disturbed.	None.
HDD 80.A	50551+00 to 50573+00	Town of Guilderland. Part of work area falls outside of permitted route, slope and disturbance between railroad and local road.	None.
HDD 81	50578+25 to 50588+55	Village of Voorheesville. HDD under North Main Street, and beneath CSX to the east side of the ROW. Northern boring pit within permitted route and previously disturbed.	None.

Item	Station Number	Activity	Notes/Recommendations
HDD 82 and 83	50599+00 to 50615+00	Village of Voorheesville, crosses Vly Creek and NY Route 85A. Northern boring pit and work area disturbed and sloped. Southern boring pit within permitted route and parking area disturbed.	None.
HDD 83.A	50673+75 to 50680+75	Town of New Scotland, HDD under stream. Work area extends outside of permitted route.	Test or monitor (work area).
HDD 84.A	50728+50 to 50739+00	Town of New Scotland, under New Scotland South Road (Route 308), boring pits and work area largely within permitted route, southern area within former lumberyard, disturbed.	None.
HDD 84.B	50777+00 to 50787+65	Town of New Scotland. Under Game Farm Road, northern and southern boring pits within permitted route, southern work areas fall outside.	Test or monitor (southern work areas).
HDD 85	50807+50 to 50823+35	Town of New Scotland. Crosses NY Route 443, and some drainages. Small portions fall outside of permitted route along extant access road.	None.
HDD 87	50830+50 to 50842+75	Town of New Scotland. Crosses to southwest side of railroad tracks. Northern work area outside of permitted route. Entire southern portion outside of permitted route but within RR ROW.	Test or monitor (north work area, all of southern set up).
HDD 87.A	50890+50 to 50897+00	Town of Bethlehem. Under small stream. Northern and southern boring pits and work areas outside of permitted route. Southern within railroad yard, disturbed.	Test or monitor (northern setup only).

2.4.3 Access Roads

In Package 5A, 24 access ways have been identified, including both temporary access “roads” and “routes” (Table 4) Off-site temporary access roads begin at or near existing public roadways and join the cable route, typically at splice or HDD locations. The access roads, 12 in all (5A-01, 5A-03 to 5A-11, 5A-13 to 5A-15) will be constructed largely outside of the permitted route. Improvements include clearing of vegetation, grading, and the installation of aggregate and riprap (light stone fill) between 9 and 32 inches in thickness on a compacted subgrade. Engineers are also considering utilizing timber mats or similar treatment, which will require clearing and minimal grading of less than 6 inches. If this option is selected, then a pedestrian survey in advance of construction is recommended over testing or monitoring. Alternatively, a pedestrian survey and testing of the area(s) may be employed to identify areas of archaeological sensitivity and timber mats, or similar treatment may be used to avoid impacts to potential archaeological sites.

Otherwise, testing or monitoring recommended for three Temporary Off-Site Access Roads:

- 5A-05-RD, Sta 50309+00 to 50346+00—3,800 feet in total.
- 5A-10-RD, Sta 50555+00—200 feet in total.
- 5A-14-RD, Sta 50829+50—400 feet in total.

Additional access ways include temporary Off-Site access routes, 12 in all. These require no additional construction activities or improvements as part of the Project, since they will be in existing paved areas like private access ways, parking lots and storage areas.

Table 4. Temporary Off-Site Access Roads, Segment 8, Package 5A.

Temporary Off-Site Access Roads	Station#	Location	Notes/Recommendations
5A-01-RD	50041+50	Kellar Avenue, Town of Rotterdam. About 100 ft extension of existing street into ROW.	None (prior disturbance).
5A-03-RD	50145+00	Between railroad grade and Guilderland Avenue, Town of Guilderland. Portion outside permitted route is sloped, most within permitted route.	None.
5A-04-RD	50253+00	West Old State Road, Town of Guilderland, 400 feet. Within area previous disturbed by bridge and railroad.	None (prior disturbance).
5A-05-RD	50309+00 to 50346+00	Begins near Western Turnpike Road ends at Splice 166. Town of Guilderland. Road is primarily outside of certified route extending over 3,800 feet.	Test or monitor.
5A-06-RD	50333+00	Fuller Station Road over railroad tracks, steep slopes. Town of Guilderland, 400 feet.	None.
5A-08-RD	50371+00	Town of Guilderland, between existing access road and railroad, disturbed. 300 feet.	None.
5A-09-RD	50473+00	Town of Guilderland, less than 100 feet, short transition between route and industrial park.	None.
5A-10-RD	50550+00	Town of New Scotland, between School Road and HDD 80.A 200 feet in total.	Test or monitor.
5A-11-RD	50648+00	Town of New Scotland, between Locust Drive and route. About 275 feet along retention pond, likely disturbed.	None.
5A-13-RD	50809+00	Town of New Scotland. About 400 feet, along Delaware Turnpike (Route 443) within existing access road and permitted route.	None.
5A-14-RD	50829+50	Town of New Scotland, Waldenmaier Road to HDD 87. Near edge of field, crosses ATV tracks. No apparent disturbance. About 400 feet.	Test or monitor.
5A-15-RD	50838+00 to 50844+50	Access road and cable route outside of permitted area but within RR ROW and former sidetrack. See also deviations, Splices 183 and 184, HDDs 87 and 87A. Towns of New Scotland and Bethlehem.	None, but see Splice and HDD locations.

2.4.4 Deviations/Excursions from Permitted Route

Due to other design and engineering constraints, particularly wetlands and other environmental factors, the proposed cable route, as well as temporary access roads parallel to the railroad ROW deviates outside of the area previously archeologically considered.

For the purposes of the EM&CP, 22 deviations, known as “Excursions,” have been identified. Most of these are associated with the HDD work areas and/or Splice locations. As such, they have been addressed for cultural resources in the section above. In all, six Excursions S8-5, 13, 15, 20, 21, and 22 are discussed here (Table 5). Archeological testing or monitoring is recommended for three of these areas.

- S8-20 (50667+00 to 50672+00), work and parking areas, Town of New Scotland on the north of Youmans Road.
- S8-20 (50667+00 to 50672+00), work and parking areas, Town of New Scotland on the south of Youmans Road.
- S8-22 (50837+00 to 50901+00), cable and/or temporary access road outside of permitted route and along old sidetrack, Town of New Scotland.

Table 5. Areas of deviation from permitted route in Segment 8, Package 5A.

Excursion	Station	Proposed activities	Observations	Archeological Recommendations
S8-5	50135+00 to HDD 75	Parallel temporary access road and cable installation.	Town of Guilderland. Within or near wetlands or sloped.	None.
S8-13	50347+00 to 50357 (includes Splice 166)	Short parallel temporary access road.	Town of Guilderland. Within or near wetlands, sloped.	None.
S8-15	50463+00 to 50493+00	Parallel temporary access road and cable installation.	Town of Guilderland. Within or near wetlands.	None.
N/A	50500+00 to 50502+00	Equipment parking and muster area. Along Stone Road in Town of New Scotland.	Town of New Scotland existing graveled railroad work/parking area.	None.
S8-20	50664+00 to 50667+00	Work area outside permitted route, agricultural land.	South of Voorheesville, Town of New Scotland north of Youmans Road.	Test or monitor.
S8-20	50667+00 to 50672+00	Work and parking areas outside permitted route, farmland.	South of Youmans Road, Town of New Scotland.	Test or monitor.
S8-21 (portion)	50676+00 to 50678+00	Short parallel temporary access road.	In and around wetlands. Town of New Scotland.	None.
S8-22	50837+00 to 50901+00	Cable and temporary access road outside of permitted route	Partially along old sidetrack, previously disturbed. Town of Bethlehem.	Test or monitor those portions outside old sidetrack.

2.4.5 Bridge Attachment

In this segment a portion of the cable will be installed on the existing substructure of the CSX bridge over the Normanskill (Table 6). The bridge has not been evaluated for the National Register. The nearby dam for the Watervliet Reservoir is reported as both a structure and archeological site. It appears that the dam has been determined not eligible for the National Register according to CRIS. To the east, downstream of the dam, the French's Mill Road Bridge is, however, considered eligible for the National Register. No impacts are anticipated to the dam or road bridge. The Project will complete a determination of eligibility with respect to the CSX railroad bridge and continue consultation with NYSHPO. In addition, archeological testing or monitoring is recommended for the work areas associated with the bridge attachments, as they lie in an archeologically sensitive area.

Table 6. Bridge Attachment in Segment 8, Package 5A.

Bridge Attachment	50358+80 to 50363+50	Town of Guilderland. Attaching cable to existing substructure of railroad bridge over Normanskill. Work areas on both sides of bridge.	Archeological testing or monitoring.
Bridge Attachment	50358+80 to 50363+50	Town of Guilderland. CSX railroad bridge over Normanskill, designed for double tracks occupied by single track. Riveted Warren through-truss bridge, early 20 th century, partial concrete abutments and combined steel and stone piers.	Effects determination prior to initiating work at this location.

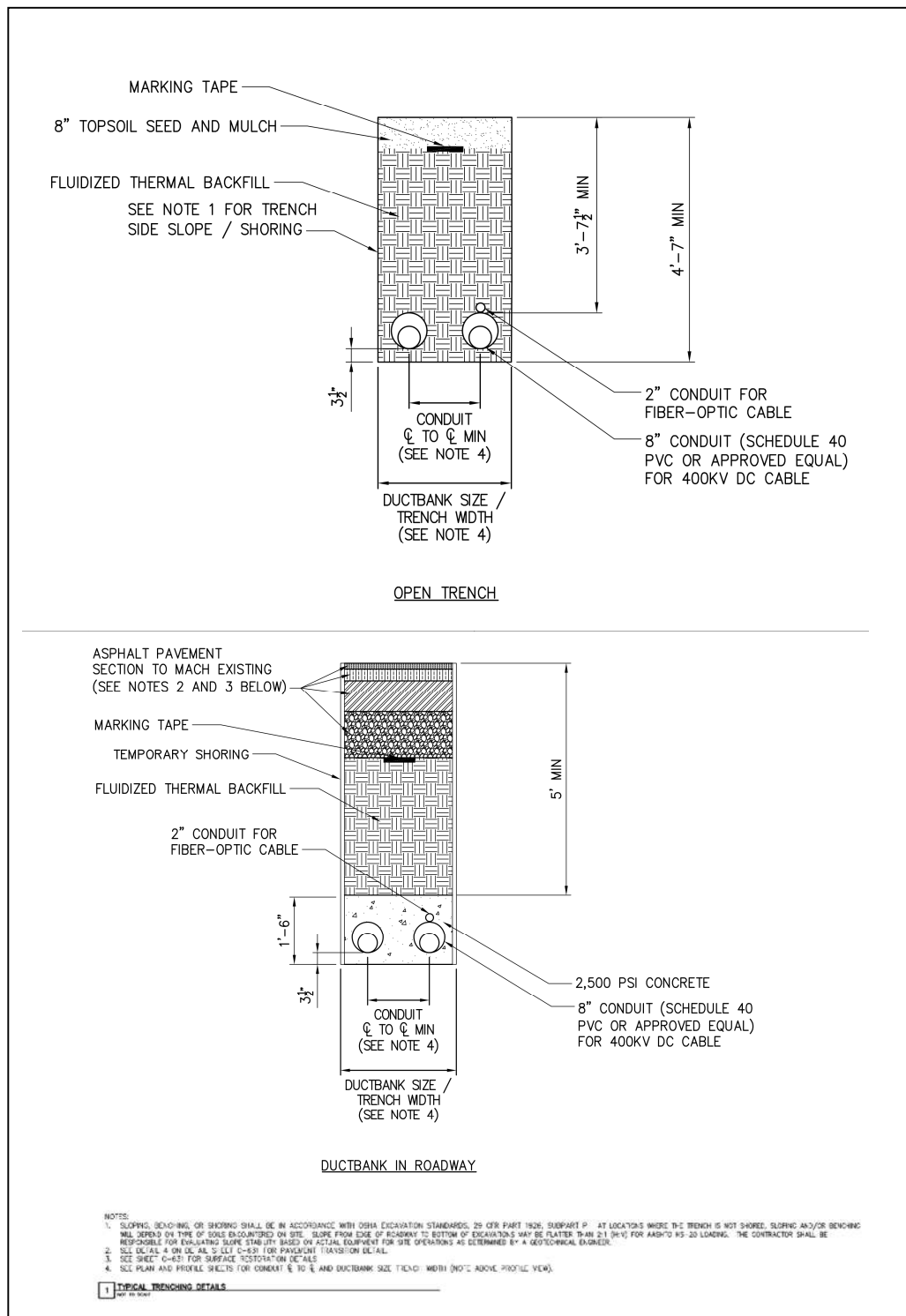


Figure 1. Typical open trench (railroad) and duct bank (roadway) installation of the cable illustrated.

2.5 Historic/Archeological Properties within/along the Cable Route

In all, there are eight archeological sites (two sites are likely duplicates) within or in the immediate vicinity of the Project in Segment 8, Package 5A. In addition, one property immediately adjacent to the cable route has been determined National Register-eligible, the Schenectady General Reserve Depot (USN 09305.000276). The sites and properties and potential Project effects are discussed in more detail below (Table 7).

2.5.1 Schenectady General Reserve Depot (USN 09305.000276)

With respect to National Register-eligible historic properties, only one is adjacent to this portion of the cable route. The Schenectady General Reserve Depot (USN 09305.000276) was determined eligible in 2009 by the NYSHPO. The property is not well defined or mapped, but simply referred to as 900 Rotterdam Industrial Park Road. The former military depot opened in 1918 to support American efforts in World War I. A military presence remained until 2006. The depot grew and changed over time and was utilized again as a supply depot during WW II and the Korean War, as well as Civilian Conservation Corps camps. In the aftermath of WW II, it served as an American Graves Redistribution Center, one of 15 in US. The military housing at the depot has been separately determined eligible. The property is adjacent to the current route and will not be directly impacted by the construction.

2.5.2 NYSM/LP 6479

The cable route passes near this very broadly delineated archeological site. There is no associated information with recordation form, but since this is a New York State Museum (NYSM) site it is assumed to be precontact in date. It is an area of elevated sensitivity, rather than direct observation of archeological material. The NYSHPO has not made a determination of eligibility for the site.

2.5.3 Golub Late Archaic Site (09305.000255)

This precontact Archaic site was located by systematic archeological testing in 2000. The material consisted of a Late archaic projectile point, a bifacial too, and debitage. The NYSHPO has not made a determination of National Register eligibility for the site, although the site was recommended as not eligible by the excavators after Phase II investigation (Hartgen Archeological Associates 2020).

2.5.4 NYSM 7330, Army Depot

This is another site with little data or details. No testing or monitoring are recommended for this site, as most of this portion of the route is previously disturbed. The NYSHPO has not made a determination of National Register eligibility for the site

2.5.5 NYSM 2780 (A720 and A722)

This site has two, discontinuous locations on the Project in the Town of Guilderland. Little is known about the site, or why it was divided into two separate loci. It is also likely precontact in date, and perhaps are areas of elevated archeological sensitivity rather than discrete archeological expression. The NYSHPO has not made a determination of National Register eligibility for the site.

2.5.6 Coss High Bluff Sites (00106.0000405) (00106.000407)

These sites were two of the many recorded archaeological that resulted from a systematic Phase IB reconnaissance. The cluster of sites was recommended as an archeological district, but the NYSHPO has yet to create such a designation.

2.5.7 Prehistoric Site (00106.000113) "Parker Site" and Black Creek Site-NYSM 346

These may be the same site with two different site forms and slightly different mapped areas.; neither is the result of modern archeological survey and the source material for their locations are unclear. The NYSHPO has not made a determination of National Register eligibility for the site.

Table 7. Project Activities near or within Known Archeological Sites and Historic Properties.

Resources	Location	Conditions	Recommendation
Schenectady General Reserve Depot (USN 09305.000276)	Town of Rotterdam		None.
NYSM/LP 6479 (vicinity)	Town of Rotterdam	Testable.	Test or monitor.
NYSM/LP 6479 (vicinity)	Town of Rotterdam	Testable.	Test or monitor.
NYSM 7330, Army Depot Vicinity (vicinity)	Town of Rotterdam	Previously disturbed.	None.
Golub Late Archaic Site (09305.000255 (vicinity)	Town of Rotterdam	Testable.	Test or monitor.
NYSM 2780 (northern locus)	Town of Guilderland.	Testable.	Test or monitor.
NYSM 2780 (southern locus)	Town of Guilderland.	Testable.	Test or monitor.
Coss High Bluff Isolated Find 1 Prehistoric Site (00106.0000405), nearby	Town of Guilderland.	Testable.	Test or monitor.
Coss High Bluff Prehistoric Site (00106.000407), vicinity	Town of Guilderland.	Testable.	Test or monitor. (See also NYSM 2780, southern locus)
Prehistoric Site (00106.000113) and Black Creek Site-NYSM 346	Town of Guilderland.	Previously disturbed.	None.

3 Construction Timeline

The construction timeline is November 2022 to December 2025 for the entire project.

4 Cultural Resource Management Plan

4.1 Objective

It is the objective of this CRMP to demonstrate a comprehensive plan for the encounter of cultural resources during the construction and installation of the transmission line, as well as the various other components affiliated with it.

TRC created a Final CRMP for the permitting process, with an overall permitting CRMP created in 2015, and subsequent revisions and addendums in 2021. This current report serves as the Supplemental CRMP for the now planned construction activities, tasked in synthesizing the previously reported data into one document and identifying roles and points of contact for communication ease. No areas of archeological monitoring have been previously identified in this portion of the Project.

The CRMP also adheres to the Best Practices Management Plan (BMP) developed by the Certificate Holder, Transmission Developers Inc., in 2012 as agreed upon the Department of Public Services and other stakeholders.

Currently the Consulting Archeologist (CA) for the terrestrial portion of the Project is Matthew Kirk, Hartgen Archeological Associates, Inc. The Project Preservation Officer (PPO) is Ashley L. Bushey from the construction team, Kiewit.

4.2 Heritage Areas, Special Events, and Other Resources

As part of the Section 106 process, the federal agency solicited comment and feedback from Tribal Nations that have expressed an interest in the regions in which the Project is to be constructed. As part of that endeavor, no traditional cultural properties were identified within or immediately adjacent to the Project. No other heritage areas or special events have been identified within this segment of the Project. The Certificate Holder, and its assignees, continues to solicit information from the public and other stakeholders to identify such areas, should they exist. If a heritage area or special event is identified, the Project will coordinate mitigation measures which may include restrictions on workspace or access to sites, scheduling considerations, or work hour reductions.

4.3 Project Preservation Officer (PPO)

Hartgen will act as the Consulting Archeologists (CA) for the purpose of this effort. The CA will work closely with the Project Preservation Officer (PPO); the PPO, or their designee, will be present for all ground disturbing activities, and will have “stop-work” authority. The PPO will be part of the prime construction management team, Kiewit Corporation.

It is the responsibility of the CA to train this individual as a PPO and to provide a hands-on workshop for construction personnel, as designated by the PPO. The PPO and the construction team should have an understanding of cultural resources present in different areas, as well as understanding the potential for unknown cultural deposits. It is the responsibility of the PPO to implement the CRMP and ensure that requirements and conditions of the CRMP are met. Table 8 includes the necessary contact information.

The PPO will have the authority to cease excavation or construction work. In the event of encountering cultural materials or human remains, it is the responsibility of the PPO to halt construction activities and contact and coordinate with the CA to visit the location of the discoveries as quickly as possible. Unanticipated discoveries, such as human remains, will follow the protocols developed by OPRHP in 2021 in consultation and coordination with the state’s Tribal entities. This protocol supersedes previous iterations presented in the BMP, TRC CRMP (2021), and other related documents and plans (Appendix 2).

In the event of these discoveries, the CA will have up to three workdays to excavate and remove cultural material from the APE before the construction continues. The CA, in consultation with the PPO and the NYSHPO, may request additional archeological field assistance to complete the necessary work in a timely manner. It is the responsibility of the PPO to work with the appropriately trained archeologists to ensure that the survey and assessment of any change in the APE is completed prior to construction taking place.

4.4 Identification of Historic Properties

Changes in the APE or modifications to work proposed within the APE will prompt review of the subject location(s) for historic properties. The review will include archeological survey as specified in the TRC CRMP (2021) in addition to completion of a files search that will include previous survey data through New York CRIS and may be supplemented with local assessor records, historic topographic maps, historic aerial images, Sanborn Fire Insurance and other historic maps, and other resources as available.

Properties are typically considered to hold historic potential when they meet or exceed 50 years of age. The Project may elect to consider the historic potential of properties approaching this age threshold to accommodate anticipated construction horizons. The Project will complete a survey evaluation for properties that meet or exceed the age threshold for historic potential, have no existing determination of NRHP eligibility or a determination ten or more years old, and may be affected by project activities. The evaluation will be completed by a cultural resource specialist who meets or exceeds the Secretary of the Interior’s Professional Qualification Standards (SOI Standards) in a discipline appropriate for the subject site; archeological sites will be evaluated by professionals who meet or exceed the SOI Standards in the area of archeology; architectural and landscape sites will be evaluated by professionals who meet or exceed the SOI Standards in the area of Architectural History. Survey evaluations will be subject to quality assurance review by a professional other

than the author(s) who meets or exceeds applicable SOI Standards. Survey information will be input into the New York CRIS system prior to submission of annual reports on January 10 of each calendar year this agreement is in effect.

4.5 Reporting Requirements

The TRC CRMP (2021) establishes a requirement for annual reporting concerning activities conducted under the TRC CRMP (2021): *The PPO will prepare an annual report to the DOE and NYSHPO (and any of the other signatory or consulting parties listed in the Programmatic Agreement), which summarizes activities conducted under this CRMP on an annual basis for as long as this TRC CRMP is in effect (i.e., through post-construction monitoring). The report will be completed and submitted on or before January 10 of each year. The CRMP may be updated and/or revised as appropriate to improve its implementation so long as concurrence is reached by the parties involved is achieved. The annual report will include a summary of all historic properties and archaeological resources that may have been encountered during construction and how they were treated. Post-construction reports will identify which cultural resources were monitored and provide a summary of resource conditions and whether looting or other forms of ground disturbance were noted* (TRC 2021).

The PPO will establish and maintain:

- A system of tracking archeological monitoring reports;
- Application of Program Comments, Exemptions, or Program Alternatives;
- Application of Programmatic Allowances;
- Implementation of Treatment Measures;
- Potential changes to APE;
- Annual report that summarizes the above items stipulated by the TRC CRMP (2021).

4.6 Barriers and Other Protective Measures

No additional protective measure with respect to cultural resources have been identified or requested by stakeholders for the current segments of the Project. If portions of the Project are altered, additional assessment, which may include desktop review, pedestrian survey, and/or archaeological shovel tests, will be required to determine the presence or absence of cultural resources. Should cultural resources be identified, the Certificate Holder will avoid these resources if possible. Protective measures may include installation of temporary fencing and/or site delineation on Facility maps. Should an archaeological site be impacted by Project activities, mitigation will include notification procedures and data recovery as stipulated in the Section 4.0 of the CRMP, and/or other treatment measures determined through consultation with NYSHPO, Tribal Nations, and consulting parties.

4.7 Programmatic Allowances

Activities considered Programmatic Allowance are not exempt from archeological monitoring and remain subject to unanticipated discovery protocols, including stop-work provisions, as contained in the TRC CRMP.

Programmatic Allowances include actions where historic properties will not be affected or effects to historic properties hold limited potential to diminish historic integrity. Where Programmatic Allowance(s) are applicable, the action will not require independent consultation with the State Historic Preservation Office (SHPO).

Application of Programmatic Allowances requires review by Project Preservation Officer (PPO). The PPO must complete:

- Memorandum to file containing a verbal description of work proposed, verbal description and map of geographic area subject to the work proposed;
- Summary of file search and/or literature review conducted to identify potential historic properties;

- Description of historic properties affected (if any);
- Justification for the application of one or more Programmatic Allowances.

The Project will maintain a tracking system of memoranda applying Programmatic Allowances, which will be communicated to NYSHPO and the Programmatic Agreement signatories in an annual report.

In addition to the Programmatic Allowances contained in this document, the Project may include application of relevant Section 106 Program Comments and program alternatives including but not limited to:

- Program Comment for Actions Affecting Post-1945 Concrete and Steel Bridges (*Federal Register*, Vol. 77, No. 222, November 16, 2012)
https://www.achp.gov/sites/default/files/program_comments/2017-01/program%20comment%20concrete%20and%20steel%20bridges.pdf
- Program Comment to Exempt Consideration of Effects to Rail Properties within Rail Rights-of-Way (*Federal Register* Vol. 84, No. 125, June 28, 2019)
<https://www.govinfo.gov/content/pkg/FR-2019-06-28/pdf/2019-13779.pdf>
- Advisory Council on Historic Preservation (ACHP) Exemption Regarding Historic Preservation Review Process for Effect to the Interstate Highway System (*Federal Register* Vol 70, No. 46, March 10, 2005)
https://www.achp.gov/sites/default/files/exemptions/2017-01/final_interstate_exemption_notice.pdf

4.7.1 Transportation Facilities

- A. Resurfacing existing roadways and/or replacement in-kind of highway signals, signage, or appurtenances when approved by the owner of the transportation facility.
- B. Replacement in-kind of railroad signals, crossing materials, and other railroad features or appurtenances when approved by the owner of the transportation facility.
- C. Installation of utility attachments on bridges in areas with existing utility attachments.

4.7.2 Ground Disturbing Activities

- A. Ground disturbing activities within areas of documented previous disturbance.
- B. Ground disturbing activities within non-historic and non-contributing properties or features when no vertical improvements are proposed.
- C. Ground disturbing activities within historic and contributing properties when 1) no contributing features, including contributing landscaping and vegetation, are present and affected within the area of disturbance; and 2) the area subject to disturbance is returned to pre-construction appearance including replication of pre-construction land contours and in-kind replacement of vegetation and landscape features.

4.7.3 Temporary Staging and Temporary Facilities

- A. Temporary staging or stockpiling within existing parking areas.
- B. Temporary staging or stockpiling within transportation rights of way.
- C. Temporary staging or stockpiling within areas with documented previous ground disturbance when the ground is returned to pre-construction appearance, including contours and vegetation.
- D. Installation of temporary construction support facilities when the ground is returned to pre-construction appearance, including contours and vegetation.
- E. Location of temporary construction trailers not requiring a foundation or pad.

4.7.4 Utilities, Lighting, and Maintenance Facilities

- A. Installation of underground utilities using directional bore drilling or similar method.
- B. Replacement, repair, and/or maintenance of existing underground utilities in-kind when work occurs within the existing utility footprint.
- C. Installation, replacement, or upgrade to lighting within transportation rights of way and/or at Project locations requiring routine maintenance.
- D. Establishing maintenance facilities within Project easements or right of way no more than 10-feet high with a footprint no more than 120 square feet when facility is not located within a State Register of Historic Places (SRHP) or National Register of Historic Places (NRHP) historic district.

4.7.5 Pre-Construction Due Diligence and Testing

- A. Conducting geotechnical testing, hazardous materials sampling, seismic or vibration testing or monitoring, or drill samples.
- B. Wetland testing and delineation.
- C. Wildlife surveys and inventories.
- D. Property line and ownership verification surveys.
- E. Utility location surveys.

4.7.6 Hazard and Hazardous Waste Removal

- A. Removal of debris related to weather or storm damage, or present as a result of modern dumping.
- B. Hazardous waste removal.

4.7.7 Environmentally Sensitive Area (ESA) Protection and Mitigation

- A. Installation of temporary fencing to protect areas of cultural, biological, or other environmentally sensitive area from the effects of construction.
- B. Wetland mitigation construction.
- C. Vegetation or landscaping to support habitat mitigation.

4.7.8 Drainage Improvements

- A. Erosion control measures including placement of best management practices, rip rap within non-historic channels, and emergency erosion control measures.
- B. Re-grading or re-establishing existing drainage channels.
- C. Temporary drainage systems including culvert placement and grading, provided the area is returned to pre-construction appearance.
- D. Replacement or up-sizing corrugated metal pipe (CMP), concrete box culvert (CBC), reinforced concrete pipe (RCP), and plastic pipe culverts where no architectural headwalls or wingwalls are present or where these features, if present, will remain in place.

4.7.9 Signage and Surveillance

- A. Installation, maintenance, repair, or removal of security systems.
- B. Installation of signage not located within a NRHP district.
- C. Replacement of existing signs; including within a NRHP district when replacement is in-kind and at the same location as the sign to be replaced.
- D. Maintenance, repair, or removal of signage.

- E. Installation of less than 100 linear feet of security fence within Project easements or right of way when not located within a SRHP or NRHP historic district.

4.7.10 Easements and Right of Way

- A. Acquisition of easements or right of way from non-historic properties and when not located within a State Register of Historic Places (SRHP) or National Register of Historic Places (NRHP) historic district.
- B. Acquisition of easements or right of way for sub-terranean activities when no surface rights or access is conferred.

4.8 Treatment Measures

When Project actions do not qualify as Programmatic Allowances, the Project will complete an evaluation of the potential for actions to diminish the historic integrity of historic or archeological resources, as defined in 36 CFR Part 800.5(a)(1). The Project may reference applicable National Register Bulletins, published by the National Park Service, to support the evaluation. Project actions found to diminish integrity as defined in 36 CFR Part 800.5(a)(1) will require Treatment Measures. The Project will complete a memorandum documenting eligibility of the resource(s), application of the criteria of adverse effect, avoidance measures considered, efforts to minimize the effect, coordination with property owner(s) or local government(s) in selection of Treatment Measures if applicable, and rationale for application of the selected Treatment Measure, if applicable. A separate Memorandum of Agreement (MOA) will not be required when one or more of the following Treatment Measures are selected. If the Project action is determined not to diminish integrity, further action will not be required.

The Project will maintain a tracking system of memoranda and Treatment Measures, which will be communicated to NYSHPO and the Programmatic Agreement signatories in the annual report.

This section will not apply to designated National Historic Landmark properties, as consultation with the Department of the Interior is required (36 CFR Part 800.10), generally conducted via consultation with the National Park Service.

4.8.1 Data Recovery

Data recovery and reporting is the preferred mitigation for archeological sites. Implementation of this Treatment Measure will follow protocol contained in TRC CRMP (2021) Section 4.0 Project Effects and Management Measures. Additional details concerning data recovery for resources identified during archeological monitoring or that are unanticipated discoveries are outlined in more detail below.

4.8.2 Certified Local Government or Historic Preservation Board/Commission Priority Project Sponsorship

The Project crosses through several Certified Local Government (CLGs) jurisdictions. CLG programs are a division of municipal or county government to create and implement local-level historic preservation planning and programming. Many CLGs maintain a formal historic preservation plan containing goals and priority projects for preservation activities within their jurisdiction. Whether or not a CLG maintains a formal historic preservation plan, all are required to maintain a system of identification and documentation of historic properties, sometimes referred to as historic survey. Communities may also maintain a Historic Preservation Board, Commission, or similar entity and choose not to become a CLG. Each program will formally or informally document preservation priorities within their jurisdictions, often identifying lack of funding as a significant barrier to implementation.

Site-specific mitigation often has limited value to advancement of historic preservation, community. To create broader impact to the historic properties and the communities they serve, the Project may coordinate with

CLGs or Historic Preservation Boards/Commissions to sponsor one or more of the priority projects identified within that entity's jurisdiction and not necessarily within the Project APE.

Example projects include, but are not limited to, historic surveys, State or National Register Nominations, historic context documentation, completion (or update) of a strategic preservation plan, completion of a strategic historic survey plan, archaeological or architectural history field schools, historic preservation technical trainings or workshops, workshops related to historic preservation tax credits, and more.

New York CLGs are listed on the NYSHPO website at: <https://parks.ny.gov/shpo/certified-local-governments/listing.aspx>

4.8.3 Digital Photography Package

Prior to implementation of the work necessitating implementation of Treatment Measures, a digital photography package will be prepared by an individual meeting the Secretary of the Interior's Professional Qualification Standards. The photography package will include images demonstrating the property in its setting and context, images showing each exterior building elevation, images showing the spatial relationships of building(s) and features of the site, and appropriate detail images. A map showing photograph locations and view direction will be included. A photography log will be included containing photograph numbers, cardinal direction viewpoint, historic resource name and number (if applicable), street address (if applicable), city or town, county, state, and image description. The digital photography package will follow the National Park Service photography standards for the National Register of Historic Places:

https://www.nps.gov/subjects/nationalregister/upload/Photo_Policy_update_2013_05_15_508.pdf

Copies of the photography package on archival CD will be provided to NYSHPO, local Historic Preservation Board or Commission, and/or interested local or state repositories. One set of archivally produced, archivally labelled photographs will be provided to the NYSHPO.

4.8.4 National Park Service Heritage Documentation (HABS/HAER/HALS)

Prior to implementation of the work necessitating implementation of Treatment Measures, the property subject to the work will be documented to National Park Service standards using the appropriate heritage documentation form: Historic American Building Survey (HABS), Historic American Engineering Record (HAER), or Historic American Landscape Survey (HALS). Work will be completed by a Cultural Resource Specialist who meets or exceeds the Secretary of the Interior's Professional Qualification Standards. The appropriate level of documentation (Level I, Level II, Level III) will be selected based on the Secretary of the Interior's Standards and Guidelines for Architectural and Engineering Documentation, as published in the Federal Register July 21, 2003: https://www.NationalParkService.gov/hdp/standards/standards_regs.pdf

The Project will follow HABS/HAER/HALS Standards & Guidelines published by National Park Service Heritage Documentation Programs. The Project will coordinate with the National Park Service Northeast Region to obtain an applicable HABS/HAER/HALS. The Project will complete comment resolution with the National Park Service Northeast Region and submit final documentation for transmittal to the Library of Congress.

4.8.5 Public Interpretation

Public interpretation will be designed and produced, which may include print or digital media, on-site or off-site signage, workshops or technical trainings, or other means of engaging and educating interested public regarding historic properties. If the public interpretation involves physical signage, installation will require agreements from the landowner accepting the sign(s) including responsibility for maintenance.

Completion of public interpretation as a Treatment Measure will be executed independent of the commitment to provide \$5,000 in educational investment included in the TRC CRMP (2021).

4.9 Property Owner Requests

The Project may accommodate property owner requests, including privately and publicly held properties, which may exceed Project needs or requirements. If a property owner request accommodated by the Project escalates permitting, consultation, or Treatment Measure requirements, the subject property owner will assume responsibility for associated costs.

5 Archeological Monitoring Methodology

5.1 Objective

The objective of the archeological monitoring is to identify and document archeological deposits that may be encountered in areas that were previously inaccessible for archeological survey or not considered during the initial resource assessment, specifically in those areas outside of the originally permitted route. The monitoring methodology is established to create an efficient and streamlined notification process and means to determine the potential eligibility of resources for inclusion on the National Register, and for the creation and adoption of timely and effective mitigation strategies.

5.2 Monitoring

The Consulting Archeologist will observe the contractor's excavations within designated areas as indicated by station numbers in the Supplement CRMPs (Table 9). On the basis of such observations, the Consulting Archeologist may request a short-term cessation of work in the vicinity of a potential archeological site or find in order to record information or to evaluate exposed archeological deposits. Within the course of observation, the Consulting Archeologist may request from the on-site supervisor time to evaluate significant finds, deposits, or other archeological materials in an effort to assess their eligibility for the National Register.

The Consulting Archeologist may direct the Contractor's workers in the use of machinery on a limited basis to assist in the exposure of material of archeological importance. This assistance will comprise work which would otherwise be done without archeological involvement, but where archeological direction can ensure that significant material is not disturbed.

The Consulting Archeologist will inspect excavation areas, soil profiles, backdirt piles, and will collect artifact and soil samples as appropriate. The Consulting Archeologist will map and document archeological deposits using field notes, photography, and measured scale drawings. The locations of archeological deposits will be mapped with a submeter GPS unit.

Archeological monitoring and associated site or find evaluation time will vary depending on the type of site or find encountered. Typical stop-work requests to complete archeological evaluation will be accommodated within one hour or less, often within fifteen minutes. Stop-work will be limited to an area within 50 feet of the potential archeological find; work may continue outside the area of the potential archeological find provided work occurs in an area not subject to archeological monitoring or an additional archeologist is available to observe the work.

5.3 Notification

For archeological finds that may be National Register-eligible but cannot be adequately recorded during a short cessation of work (typically one hour or less per find) and cannot be otherwise avoided, the Consulting Archeologist will notify the on-site Supervisor and request a halt to construction activities near the find. The Consulting Archeologist shall notify the Project Preservation Officer (PPO), who shall in turn notify the NYSHPO, other stakeholders and Tribal Nations, as appropriate within 24 hours of the initial reporting of the finds, per the Certificate Conditions 110 and 111. During this time, work in the immediate vicinity of the find must halt and the area of concern fenced or otherwise protected from construction activities. Once the area is secured, activity adjacent to the find may continue during the consultation process. Per 36 CFR Part

800.13(b)(3), NYSHPO, other stakeholders and Tribal Nations will have 48 hours from the time of notification to respond.

5.4 Determination of Eligibility

The NYSHPO will make a determination of National Register eligibility for the archeological resource based on the information provided by the Archeological Monitor and PPO. The NYSHPO shall receive this information from electronic communications and respond within 48 hours, per 36 CFR Part 800.13(b)(3).

5.5 Determination of Effects, Mitigation Efforts and Dispute Resolution

It is expected that potential archeological finds will be located within a relatively narrow construction corridor with limited means for avoidance. When a site is determined eligible for inclusion on the National Register, avoidance is not possible, and continued construction requires disturbance of the site, the resulting Section 106 determination of effect will be Adverse Effect. Determinations of Adverse Effect require mitigation treatment to resolve; a separate Memorandum of Agreement will not be required when mitigation treatments contained within this document, or a CRMP associated with the area of the subject archeological site, is selected. Dispute resolution among the parties will be guided by the TRC CRMP (2021).

5.6 Data Recovery Mitigation Strategy

Data recovery mitigation strategy will be outlined in a brief plan that provides guidance on the level of effort expected, square meters of excavation, sampling percentage, and number of anticipated feature excavations. The strategy will provide a schedule for the proposed recovery/documentation efforts with the understanding, including options to expedite the process, which may include 10-hour working days and additional crew. The mitigation plan shall also include a protocol for artifact collection, processing, cataloging, analyses, and final curation of materials, as outlined in the TRC CRMP (2021) Section 4.3. The data recovery plan will be provided to NYSHPO, Tribes, and other stakeholders prior to implementation; these parties will have up to 15 days to review and provide comment. Data Recovery can begin as soon as notification to proceed is provided from NYSHPO. The PPO will notify the NYSHPO, Tribes, and other stakeholders of the completion of the fieldwork and that portion of the project shall be cleared to resume construction.

5.7 Alternative Archeological Mitigation

Alternative archeological mitigation efforts that contemplate non-traditional excavation and or data recovery methods may be appropriate considering the circumstances. Numerous treatment methods may be selected including but not limited to off-site archeology, non-invasive archeology in the vicinity, and other appropriate strategies may also be considered. Factors that may influence such decisions include the Project's constraints (in terms of construction corridor width and depth), weather and soil conditions, hazardous work environments, other health and safety concerns, and Project schedule.

6 Communication

Through the many moving parts of this Project, efficient and immediate contact and consultation will be vital. The Project contacts are listed in the table below:

Table 8. Project Contacts.

Agency/Organization	Role	Contact person	Contact information
Kiewit Corporation	Project Preservation Officer	Ashley L. Bushey	Ashley.Bushey@Kiewit.com 802.349.6388
CHA Consulting, Inc.	Consulting Engineer	Chris Einstein	ceinstein@chacompanies.com 518.453.4505
U.S. Department of Energy	Stakeholder	Melissa Pauley	melissa.pauley@hq.doe.gov

Agency/Organization	Role	Contact person	Contact information
U.S. Army Corps of Engineers	Stakeholder	Stephan Ryba	Stephan.a.ryba@usace.army.mil
New York State Historic Preservation Office (NYSHPO)	Stakeholder	Nancy Herter	Nancy.herter@parks.ny.gov 518.268.2179
New York DPS	Stakeholder	Matthew Smith	matthew.smith@dps.ny.gov
Hartgen Archeological Associates	Consulting Archeologist	Matthew Kirk	mkirk@hargen.com 518.283.0534 518.300.5940
Transmission Developers Inc.	Applicants/Owner	Ayokunle "Kunle" Kafi, PE, CEM	Ayokunle.kafi@transmissiondevelopers.com 347.920.6550
Delaware Nation	Tribal Nation	Carissa Speck	(405) 247-2448, Ext. 1403 cspeck@delawarenation-nsn.gov
Delaware Tribe of Indians	Tribal Nation	Susan Bachor	610.761.7452 sbachor@delawaretribe.org
Shinnecock Nation	Tribal Nation	Jeremy Dennis	631.283.6143 adminoffice@shinnecock.org jeremynative@gmail.com
St. Regis Mohawk Tribe	Tribal Nation	Darren Bonaparte	518.358.2272, ext. 2163 darren.bonaparte@srmt-nsn.gov
Stockbridge-Munsee Community	Tribal Nation	Jeff Bendremer	413.884.6029 thpo@mohican-nsn.gov
National Park Service	Stakeholder	William Griswold	978.970.5146 william_griswold@nps.gov
Advisory Council on Historic Preservation	Stakeholder	Stephanie Stevens	202.354.2102 stephanie_stephens@nps.gov

7 Deliverables

7.1 Periodic Updates

The PPO in coordination and under the guidance of the CA will provide periodic (bimonthly) updates on the progress of cable installation via email to the stakeholders. The communication will include project progress, discussion of unanticipated cultural resources, and the schedule for future work.

7.2 Annual Report

The CA will provide an annual report detailing the activities completed under the TRC CRMP (2021) to the DOE and NYSHPO for as long as the CRMP is in effect. This report will be completed and submitted on or before January 10th each year. This report will include a summary of all historic properties and archeological resources that may have been encountered during construction and how they were treated. Post construction reports will identify which cultural resources were monitored and provide a summary of resource conditions and whether forms of disturbance were noted.

8 Summary of Recommended Effort

In Package 5A of Segment 8 a number of additional archeological field/monitoring efforts are recommended (Table 9). These include activities at splice locations, HDDs, and access roads that fall outside of the permitted route, as well as several deviation areas of Excursions.

Engineers are also considering utilizing timber mats or similar treatment, which will require clearing and minimal grading of less than 6 inches. If this option is selected, then a pedestrian survey in advance of construction is recommended over testing or monitoring.

In all, 22 segments of this section deviate outside of the permitted cable route and are known as “Excursions.” Of these, eight were not in areas already associated with work areas for HDDs and Splices y previously analyzed for archeological sensitivity. Excursion S8-20 located north and south of Youmans Road is recommended for additional archeological testing or monitoring. Additionally, the long deviation known as Excursion S8-22 which parallels an old sidetrack should also be archeologically tested or monitored during construction. No other excursions require archeological work.

In this segment a portion of the cable will be installed on the existing substructure of the CSX bridge over the Normanskill. The bridge has not been evaluated for the National Register. The nearby dam for the Watervliet Reservoir is reported as both a structure and archeological site. It appears that the dam has been determined not eligible for the National Register according to CRIS. To the east, downstream of the dam, the French’s Mill Road Bridge is, however, considered eligible for the National Register. No impacts are anticipated to the dam or road bridge.

The Project will complete a determination of eligibility with respect to the CSX railroad bridge and continue consultation with NYSHPO.

Table 9. Archeological Recommendations for Segment 8/Package 5A.

Item	Station Number	Notes/Recommendations
HDD 71 (south pit)	50024+00-50030+00	Test or monitor.
Splice 155	50027+50	Test or monitor.
Splice 158	50096+00	Test or monitor.
HDD 73.A & 74	50098+00 to 50119+00	Test or monitor.
HDD 75	50145+25 to 50153+25	Test or monitor work areas outside of permitted route.
Splice 158.A	50127+00	Test or monitor.
Splice 159, and parking	50158+25	Test or monitor.
Splice 160	50181+00	Test or monitor (work area).
Splice 161	50208+00	Test or monitor (work area).
HDD 75.A	50210+40 to 50233+00	Test or monitor (work areas and southern boring pit).
Splice 162	50238+00	Test or monitor (work area).
Splice 163	50262+50	Test or monitor (work area).
Splice 163.A	50276+50	Test or monitor (portions outside permitted route).
HDD 75.B	50290+00 to 50297+00	Test or monitor (southern work area).
Splice 164	50302+00	Test or monitor.
HDD 76 & 76.A	50307+00 to 50326+00	Test or monitor (southern HDD pit work area).
Splice 165	50330+25	Test or monitor.
HDD 77	50333+00 to 50346+00	Test or monitor.
Splice 166	50349+00	Test or monitor. NYSM 2780 (southern locus).
Bridge Attachment	50358+80 to 50363+50	Test or monitor. NYSM 2780 (southern locus).
Bridge Attachment	50358+80 to 50363+50	Effects determination prior to initiating work.
Splice 167	50373+00	Test or monitor portions outside permitted route.
Splice 175	50623+00	Test or monitor.
Splice 176	50661+50	Test or monitor.
HDD 83.A	50673+75 to 50680+75	Test or monitor (work area).
Splice 177	50683+50	Test or monitor (crane pad).
Splice 178	50710+00	Test or monitor (crane pad and work area).
Splice 180	50766+50	Test or monitor (work area and crane pad).
HDD 84.B	50777+00 to 50787+40	Test or monitor (southern work areas).
Splice 181	50823+10	Test or monitor (work area and crane pad).
Splice 182	50828+00	Test or monitor (work area and crane pad).
HDD 87	50866+00 to 50881+00	Test or monitor (north work area and all southern).
Splice 183	50855+50	Test or monitor.

Item	Station Number	Notes/Recommendations
Splice 184	50887+00	Test or monitor.
HDD 87.AA	50890+25 to 50896+75	Test or monitor (northern setup only).
5A-05-RD	50309+00 to 50346+00	Test or monitor.
5A-10-RD	50555+00	Test or monitor.
5A-14-RD	50837+00	Test or monitor.
S8-20	50664+00 to 50672+00	Test or monitor. Areas north and south of Youmans Road.
S8-22	50837+00 to 50901+00	Test or monitor those portions outside old sidetrack.

9 Bibliography

Hartgen Archeological Associates

- 2020 Phase I Cultural Resources Survey – Volume 1: New York, IGTS Enhancement by Compression Project, Towns of Athens and Dover, Greene and Dutchess Counties, New York, HAA #5443-31.

Hartgen Archeological Associates, Inc.

- 2010 Phase IA Literature Review and Archeological Sensitivity Assessment, Champlain-Hudson Power Express.

Hudson Mohawk Archaeological Consultants

- 2008 Phase IA Literature Review and Archaeological Sensitivity Assessment & Phase IB Archaeological Field Survey and Reconnaissance, Normanskill Hydroelectric Facility Project, Watervliet Reservoir and Dam Expansion, Town of Guiderland, Albany County, New York, On file at NYSOPRHP, Peebles Island, NY. .

New York Archaeological Council (NYAC)

- 1994 *Standards for Cultural Resource Investigations and the Curation of Archaeological Collections in New York State*. NYAC, n.p.

Appendix 1: Cultural Resources Management Plan (TRC 2021)

THIS DOCUMENT IS CONSIDERED PRIVILEGED AND CONFIDENTIAL AND NOT INCLUDED

Appendix 2: SHPO Human Remains Protocol 2021

**State Historic Preservation Office/
New York State Office of Parks, Recreation and Historic Preservation
Human Remains Discovery Protocol
(January 2021)**

If human remains are encountered during construction or archaeological investigations, the New York State Historic Preservation Office (SHPO) recommends that the following protocol is implemented.

- Human remains shall be treated with dignity and respect. Should human remains or suspected human remains be encountered, work in the general area of the discovery shall stop immediately and the location shall be secured and protected from damage and disturbance.
- If skeletal remains are identified and the archaeologist is not able to conclusively determine if they are human, the remains and any associated materials shall be left in place. A qualified forensic anthropologist, bioarchaeologist or physical anthropologist shall assess the remains in situ to help determine if they are human.
- If the remains are determined to be human, law enforcement, the SHPO, the appropriate Indian Nations, and the involved state and federal agencies shall be notified immediately. If law enforcement determines that the burial site is not a criminal matter, no skeletal remains or associated materials shall be removed until appropriate consultation takes place.
- If human remains are determined to be Native American, they shall be left in place and protected from further disturbance until a plan for their avoidance or removal is developed. Please note that avoidance is the preferred option of the SHPO and the Indian Nations. The involved agency shall consult SHPO and the appropriate Indian Nations to develop a plan of action. Photographs of Native American human remains and associated materials should not be taken without consulting with the involved Indian Nations.
- If human remains are determined to be non-Native American, the remains shall be left in place and protected from further disturbance until a plan for their avoidance or removal is developed. Please note that avoidance is the preferred option of the SHPO. The involved agency shall consult SHPO and other appropriate parties to develop a plan of action.
- The SHPO recommends that burial information is not released to the public to protect burial sites from possible looting.