

SUPPLEMENTAL CULTURAL RESOURCES MANAGEMENT PLAN

Champlain Hudson Power Express HVDC Transmission Line Project

CSX-Pan American Southern

Schenectady to Rotterdam, Schenectady County

(Segment 7, Package 4B)

[Redacted for Public Distribution]

Lake Champlain to New York City
Schenectady County, New York

HAA 4268-83
SHPO 09PR03910

Submitted to:

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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: Supplemental Cultural Resources Management Plan

LOCATION INFORMATION

Municipality: Towns of Glenville and Rotterdam, Village of Scotia.
County: Schenectady County

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 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.
The current Supplemental CRMP focuses on Package 4B, Segment 7 which will primarily be located along the CSX Railroad ROW between the Town of Glenville and the Town of Rotterdam, Schenectady County.

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Date of Report: July 2023

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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
CFR – code of federal regulations
CHPE, LLC – Champlain Hudson Power Express, LLC
CLG – Certified Local Government
CMP – corrugates metal pipe
CRMP – Cultural Resources Management Plan
CRIS – Cultural Resource Inventory System (NYSHPO)
EM&CP – Environmental Management and Construction Plan
DOE – U.S. Department of Energy
GIS – Geographic Information System
GPS – Global Positioning System
HABS – Historic American Building Survey
Hartgen – Hartgen Archeological Associates, Inc.
HDD – horizontal directional drilling
HAER – Historic American Engineering Record
HALS – Historic American Landscape Survey
HVAC – high-voltage alternating current
HVDC – high-voltage direct current
LOW – Limits of Work
MOA – Memorandum of Agreement
MP – mile post, railroad
MW – megawatt
NHPA – National Historic Preservation Act
NRE – National Register-eligible
NHL – National Historic Landmark
NRHP – National Register of Historic Places
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
RCP – Reinforced concrete pipe
ROW – Right-of-Way
SOI – Secretary of the Interior
SRHP – State Register of Historic Places
TRC – TRC Companies, Inc

CULTURAL RESOURCES MANAGEMENT PLAN

1 Introduction

Hartgen Archeological Associates, Inc. (Hartgen) has been retained to create a Supplemental Cultural Resources Management Plan (CRMP) for the proposed Champlain Hudson Power Express (Project) located over multiple counties through New York. The current phase of work focuses on the overland portion along the CSX-Pan Am Railroad (Springfield Terminal Route) north of the Mohawk River and the CSX Rail ROW south of the Mohawk River between the Towns of Glenville and Rotterdam, and a portion of the Village of Scotia, Schenectady County. The current segment extends 9.6 miles.

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 NYSHPO. The goal of the Supplemental CRMP is to provide a framework for managing potential impacts to known, relevant historical properties and archeological sites (determined to be eligible for or listed in the National Register of Historic Places). Sites discovered during construction activities will also be managed in the Supplemental CRMP's framework. In addition, this management plan will 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 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 all the relevant information for Phase I of construction into one succinct document. In the event of a conflict between this document and that provided in Appendix 1, the CRMP (TRC 2021) will prevail.

This plan was enacted to assist the applicant with compliance with Section 106 of the National Historical Preservation Act and 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 (TRC 2021) 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 Historic 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).

This Supplemental CRMP has been developed in response to Programmatic Agreement Stipulation IV(B) and Stipulation II(C)(8 – 11 and 19). In 2015, TRC completed the *Champlain Hudson Power Express HVDC Transmission Line Project Cultural Resources Management Plan* which was revised in 2021 (TRC 2021). This document provided detailed procedures for unanticipated discoveries, monitoring during construction-related ground disturbance, and monitoring during post-construction operations; all stipulations of the CRMP (TRC 2021) remain applicable.

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 CRMP (TRC 2021).

2 Supplement CRMP Objectives

All components 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-centimeter tests placed at 50-foot intervals within the areas defined in . 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.

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.

3 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 in New York State. Installation of this transmission line will occur primarily beneath the ground within roadway and railroad right of way (ROW). Direct impacts to streams and waterbodies are avoided through means such as attaching to existing infrastructure (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 Supplemental CRMP.

The bolded reports include portions of the most current Project (Segment 7) and provide relevant background information.

- Hartgen. 2010a. Pre-Phase IA Archeological Screening: Champlain Hudson Power Express.
- **Hartgen. 2010b. Phase IA Literature Review and Archeological Sensitivity Assessment: Champlain-Hudson Power Express.**
- Hartgen. 2012. Phase IB Archeological Field Reconnaissance and Phase II Archeological 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.

3.1 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 terrestrial packages with their associated Environmental Management and Construction Plan (EM&CP) submittals (Table 1).

Table 1. CHPE Packages, Segments, Locations and Dates.

EM&CP		Location Description	Segment Length (miles)	Anticipated (or Actual) Filing with DPS	PSC Approval of EM&CP	Anticipated Start of Construction
Construction Segment	Design Package					
Overland Segments						
1, 2	Package 1A/ Package 1B	Putnam to Dresden/ Dresden to Whitehall	17.6	(April 15, 2022)	October 13, 2022	November 2022
3	Package 1C/2	Whitehall to Fort Ann/ Fort Ann to Fort Edward	20.8	(December 23, 2022)	May 18, 2023	May 2023
8	Package 5A	Rotterdam to Bethlehem	16.99	(December 21, 2022)	June 22, 2023	July 2023
9	Package 5B	Selkirk Bypass	5.31	(December 21, 2022)	June 22, 2023	July 2023
4, 5	Package 3	Fort Edward to Milton	26.5	(April 24, 2023)	TBD	August 2023
10	Package 6	Ravena to Catskill	20.9	August 2023	TBD	October 2023
13, 14, 15	Package 8	Queens	2.13	August 2023	TBD	September 2023
6	Package 4A	Milton to Ballston	10.2	August 2023	TBD	September 2023
7	Package 4B	Schenectady to Rotterdam	9.6	August 2023	TBD	September 2023
11	Package 7A	Catskill to Germantown	23.84	(March 30, 2023)	TBD	August 2023
12	Package 7B	Stony Point to Haverstraw	7.6	(April 28, 2023)	TBD	August 2023
Laydown Yards EM&CP	Package 3, 5B, 6	Fort Edward, Bethlehem, Coxsackie	N/A	(November 11, 2022)	February 21, 2023	March 2023
Marine Segments						
16	Package 9	Transitional HDD (Stony Point)	N/A	(September 29, 2022)	March 20, 2023	September 2023
17	Package 10	3 Transitional HDDs (Putnam, Catskill, Congers)	N/A	(December 14, 2022)	April 20, 2023	May 2023
18A	Package 11A	Lake Champlain (Pre-Lay Mattressing)	96	(April 4, 2023)	TBD	August 2023
18B	Package 11B	Lake Champlain (Cable Installation)	96	November 2023	TBD	May 2024
19	Package 12	Hudson River (Pre-Lay Mattressing)	89.1	July 2023	TBD	September 2023
20	Package 13	Hudson River (Cable Installation)	89.1	December 2023	TBD	July 2024
21	Package 14	Harlem River	6.3	December 2023	TBD	July 2024
New York City Interconnection						
22	TBD	Converter Station, Astoria Complex (Queens)	N/A	(January 31, 2023)	May 18, 2023	June 2023
23	TBD	Astoria Rainey Cable HVAC System (Queens)	3.5	November, 2023	TBD	August 2024

Changes in the APE, including those necessary to avoid known historic and archeological resources, may be required to accommodate project implementation. Changes to the APE will follow methodology outlined in the CRMP (TRC 2021). The CRMP 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).

3.2 Segment 7, Package 4B Activities

This package starts in the Town of Glenville and includes a short segment in the Village of Scotia. From here, the cable crosses under the Mohawk River via HDD and into the Town of Rotterdam. The cable generally follows the CSX-Pan Am ROW north of the river and the CSX mainline south of the river, except for a short segment that passes under the NY State Thruway.

The construction activities in this segment include both open trench and duct bank excavations. The trenches will typically be 4.5 feet in depth and 2.4 feet in width at 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 with appropriate subbases, bases, and asphalt pavement repair (Figure 1).

Disturbance beyond the typical trench cuts include the location of Splices and vaults and boring/receiving pits for HDD installation. These are discussed in detail below relative to potential archeological resources and to previous evaluation and assessment.

3.2.1 Splices

Various Splice locations (some include vaults) will be installed to connect the cable segments together into an integrated whole. The Splice vaults will generally be about 15 by 40 feet in size. Most Splice locations also include an associated work area that averages about 40 by 100 feet in extent. In all, twenty (20) Splice locations or vaults will be installed in the Package 4B portion of the Project (Splice locations 139 to 145, 145A, 146 to 151, 151A, 152-154, 154A and 154B) (Table 2). Eight (8) of the splices are outside of the permitted route and are near known archeological sites or areas of high archeological sensitivity (Splice locations 144, 145, 151, 151A, 152-154A). These areas have been recommended for archeological testing or monitoring.

Table 2. Splice Locations and Recommendations for Segment 7, Package 4B.

Splice Location	Station Number	Conditions	Notes/Recommendations
139	45014+29	Splice and work area inside permitted route.	No archeological work.
140	45043+01	Work area extends just outside permitted route. Sloped.	No archeological work.
141	45067+18	Splice and work area largely inside permitted route. Sloped	No archeological work.
142	45088+86	Splice and work area inside permitted route.	No archeological work.
143	45119+43	Work area extends just outside of permitted route. Partially wet.	No archeological work.
144	45151+48	Work area extends beyond permitted route.	Archeological testing or monitoring work area.*
145	45169+77	Work area extends beyond permitted route.	Archeological testing or monitoring work area.*
145A	45201+26	Near Vley Road, parking lots, previously disturbed.	No archeological work.

* The area may be shovel-tested by a qualified archeologist prior to construction or monitored by a qualified archeologist during construction, see Sections 2 and 5, respectively.

Splice Location	Station Number	Conditions	Notes/Recommendations
146	45208+36	Splice and work area largely inside permitted route. Within extant commercial property.	No archeological work.
147	45240+70	Work area extends just outside of permitted route. Disturbed, paved road.	No archeological work.
148	45273+13	Work area extends just outside of permitted route. Disturbed, former sand and gravel mine.	No archeological work.
149	45304+55	Work area inside permitted route. Disturbed.	No archeological work.
150	45335+23	Work area outside permitted route. Disturbed from highway construction.	No archeological work.
151	45363+00	Work area outside permitted route. Appears undisturbed but sloped.	Archeological testing or monitoring work area.*
151A	45372+39	Work area outside permitted route. Appears undisturbed, but sloped.	Archeological testing or monitoring work area.*
152	45404+66	Work area outside permitted route. May be disturbed from previous transmission line work.	Archeological testing or monitoring work area.*
153	45436+89	Work area outside permitted route. Shared work area with HDD 70A.	Archeological testing or monitoring work area.*
154	45445+02	Work area extends just outside of permitted route.	Archeological testing or monitoring work area.*
154A	45476+92	Work area extends just outside of permitted route.	Archeological testing or monitoring work area.*
154B	45491+81	Work area extends several feet outside of permitted route, in an area disturbed between rails and Princetown Road.	No archeological work.

3.2.2 HDD

In the Package 4B portion of Segment 7, additional HDD will be required to avoid and minimize impacts to various drainage crossings, road crossings, and other resources. HDDs include the boring and receiving pits at both ends of the drilled cable. By and large, the drilled cable will not have any impact on archeological resources as they are typically 10 to 40 feet below ground surface. The associated pits themselves are estimated to generally be 10 by 5 by 5 feet in size. The work areas are generally larger, about 175 feet by 80 feet in extent.

In all, thirteen (13) HDD locations have been identified: HDD 62, 62A, 63, 64, 64A, 65A, 66 - 69, 69A, 70A and 70B. (Table 3). Archeological testing or monitoring is recommended for eight (8) of the HDD locations and/or associated work areas (HDD 62A, 64, 64A, 65A, 69, 69A, 70A, 70B).

* The area may be shovel-tested by a qualified archeologist prior to construction or monitored by a qualified archeologist during construction, see Sections 2 and 5, respectively.

Table 3. HDD Locations and Recommendations for Segment 7, Package 4B.

HDD	Station Number	Activity	Notes/Recommendations
62	45000+80 to 45009+50+	Under Maple Avenue. Northern work area sloped. Southern work area extends slightly outside of permitted route.	No archeological work.
62A	45019+80 to 45027+05	Under drainage. Northern pit and southern pits and work areas slightly outside permitted route. Some slope. Near Yates Cemetery.	Archeological testing or monitoring southern pit work area.*
63	45052+33 to 45064+70	Under Ronald Reagan Way. Northern work area extends slightly outside of permitted route sloped and disturbed. Southern pit and work area mostly inside permitted route, disturbed by recent road realignment.	No archeological work.
64	45098+36 to 45112+07	Under drainage. Northern pit and work area outside permitted route. Southern work area extends slightly outside of permitted route (previously tested).	Archeological testing or monitoring northern work area.*
64A	45139+75 to 45149+00	Under drainage. Northern work area extends outside of permitted route. Southern work area partially beyond permitted route.	Archeological testing or monitoring both work area.*
65A	45171+50 to 45199+00	Under RR tracks. Northern work area extends outside of permitted route. Southern pit and work area previously disturbed commercial property.	Archeological testing or monitoring for northern work area.* See also shared northern work area for Splice 145.
66	45228+90 to 45238+60	Under Sacandaga Road. Northern work area extends slightly outside of permitted route. Disturbed, parking area. Southern pit largely within permitted route, also disturbed.	No archeological work.
67	45279+50 to 45287+30	Under sidetracks in industrial park. Eastern work area in disturbed parking lot. Western work area between tracks in railroad berm.	No archeological work.
68	45314+10 to 45333+00	Under Mohawk River. Northern pit and work area outside permitted route but in disturbed portion of industrial park. Southern pit and work area alongside interstate interchange (disturbed).	No archeological work.
69	45337+00 to 45359+10	Under interstate interchange and railroad tracks. Northern pit in disturbed area of interstate. Southern pit in wooded area that appears undisturbed..	Archeological testing or monitoring for southern pit and work area.*
69A	45375+40 to 45399+50	Under railroad tracks from west side to east side. The northern pit and work area outside permitted route, appears undisturbed. May be disturbed by railroad and utility installation.	Archeological testing or monitoring both work areas.*
70A	45414+70 to 45432+90	Northern work area extends outside permitted between two sets of tracks and near existing access road. Southern work area outside permitted route, appears undisturbed.	Archeological testing or monitoring northern pit and work area, southern work area.*
70B	45447+45 to 45453+45	Under Gordon Road. Both work areas extend slightly outside of permitted route. Appears undisturbed.	Archeological testing or monitoring for work areas.*

* The area may be shovel-tested by a qualified archeologist prior to construction or monitored by a qualified archeologist during construction, see Sections 2 and 5, respectively.

3.2.3 Access Roads

This segment will also require temporary access roads to move equipment and workers from public roadways to the railroad ROW. The roads may be constructed in a variety of manners including timber matting on the existing ground surface, or placing geotextile fabric on the ground surface with gravel or other stone material atop it. These would require minimal, if any, mechanical grading. Grading up to 16 inches may be necessary in some locations to remove the topsoil, which will be stockpiled and returned once construction activities end. In Package 4B, twenty-five (25) access roads and construction entrances have been identified. For the purposes of the CRMP, only three (3) of the perpendicular roads are discussed here in Table 4. Since they will be placed on existing, informal access roads utilized by adjacent landowners, no archeological work is recommended for these three access roads. Other access roads will be parallel roads with the railroad, these are discussed in the Excursion section of the SCRMP.

Table 4. Temporary Access Roads for Segment 7, Package 4B.

Access Roads	Station Number	Location	Notes/Recommendations
1- CSX MP 6.08	45155+50	From Lowes parcel. Cluster of known sites in the vicinity. Proposed road follows an existing informal dirt road, previously disturbed.	No archeological work.
2- CSX MP 7.08	45208+50	From Vley Road through commercial lot. Previously disturbed.	No archeological work.
3-	45413+00	From Schermerhorn Road along existing private access drive. Previously disturbed.	No archeological work.

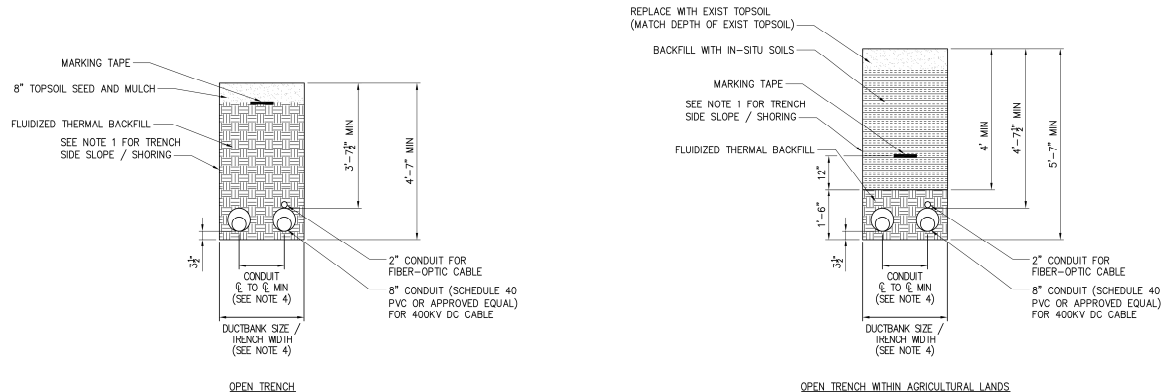
3.2.4 Deviations/Excursions from Permitted Route

Due to other design and engineering constraints, particularly wetlands and other environmental factors, the proposed cable route deviates outside of the area previously archeologically considered (roadway and railroad ROWs). In total there are eighteen (18) excursions, some of the deviation locations involve HDD pits or vault structures, and were previously addressed above (Table 5). Eight (8) deviations listed below are recommended for archeological testing or monitoring, however seven (7) of these were discussed above in the HDD or Splice section. P4B-13 is the only excursion with recommend testing or monitoring that has not been previously mentioned.

Table 5. Project Excursions for Segment 7, Package 4B.

Deviation/ Excursion	Station Numbers	Location	Notes/Recommendations
P4B-1	45000+00 to 45008+50	Town of Glenville, Maple Avenue to railroad. Access road. Slope and disturbed.	No archeological work.
P4B-2	45019+20 to 45029+00	Town of Glenville, see HDD 62.A.	Archeological testing or monitoring.*
P4B-3	45049+64 to 45050+20 and 45051+00 45058+50to	Town of Glenville, see HDD 63.	No archeological work.
P4B-4	45064+00 to 45070+50	Town of Glenville, see Splice 141.	No archeological work.
P4B-5	45070+50 to 45085+75	See HDD 63 and access road. Previously disturbed.	No archeological work.
P4B-6	45096+75 to 45114+60	See HDD 64. Staging area at northern and southern pits, both appear undisturbed.	Archeological testing or monitoring.*
P4B-7	45127+00 to 45128+00 and 45129+25 to 45130+30	Trenching through Freemans Bridge Road. Previously disturbed.	No archeological work.
P4B-8	45131+25 to 45183+50	See HDD 64.A and 65.A. Parallel access road, Staging areas at both pits appears undisturbed.	Archeological testing or monitoring.*
P4B-9	45195+50 to 45204+00	Near Vley Road, Village of Scotia. Splice 145A. HDD 65A. (southern pit). Previously disturbed.	No archeological work.
P4B-10	45228+00 to 45239+00	See HDD 66. Work area in paved storage yard.	No archeological work.
P4B-11	45278+00 to 45285+00	See HDD 67. In access road, previously disturbed.	No archeological work.
P4B-12	45313+00 to 45357+50	See HDD 68 under Mohawk River. In an area previously disturbed by industrial park on north side, and highway interchange on south.	No archeological work.
P4B-13	45358+50 to 45369+00	Appears to be undisturbed, slightly sloping.	Archeological testing or monitoring.*
P4B-14	45373+50 to 45386+00	Parallel access road in Town of Rotterdam. See HDD 69A northern pit and work area.	Archeological testing or monitoring.*
P4B-15	45431+50 to 43432+50	See Splice 153.	Archeological testing or monitoring.*
P4B-16	45444+50 to 45453+50	See Splice 154 and HDD 70.B work areas.	Archeological testing or monitoring.*
P4B-17	45472+00 to 45486+00	See Splice 154A. Extended LOW north of Putnam Road appears undisturbed.	Archeological testing or monitoring.*
P4B-18	45494+75 to 45494+83	See Splice 154B. Previously disturbed.	No archeological work.

* The area may be shovel-tested by a qualified archeologist prior to construction or monitored by a qualified archeologist during construction, see Sections 2 and 5, respectively.



- NOTES:
1. SLOPING, BENCHING, OR SHORING SHALL BE IN ACCORDANCE WITH OSHA EXCAVATION STANDARDS, 29 CFR PART 1926, SUBPART P. AT LOCATIONS WHERE THE TRENCH IS NOT SHORED, SLOPING AND/OR BENCHING WILL DEPEND ON TYPE OF SOILS ENCOUNTERED ON SITE. SLOPE FROM EDGE OF ROADWAY TO BOTTOM OF EXCAVATIONS MAY BE FLATTER THAN 2:1 (H:V) FOR AASHTO HS-20 LOADING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EVALUATING SLOPE STABILITY BASED ON ACTUAL EQUIPMENT FOR SITE OPERATIONS AS DETERMINED BY A GEOTECHNICAL ENGINEER.
 2. SEE DETAIL 3 ON DETAIL SHEET C-631 FOR PAVEMENT TRANSITION DETAIL.
 3. SEE SHEET C-631 FOR SURFACE RESTORATION DETAILS.
 4. SEE PLAN AND PROFILE SHEETS FOR CONDUIT ϕ TO ϕ AND DUCTBANK SIZE TRENCH WIDTH (NOTE ABOVE PROFILE VIEW).

1 TYPICAL TRENCHING DETAILS
 NOT TO SCALE

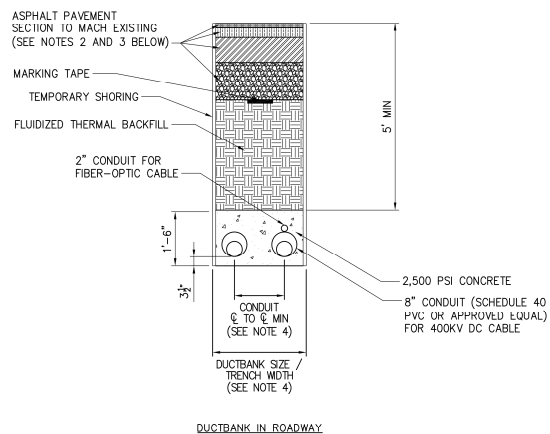


Figure 1. Typical open trench (railroad) and duct bank (roadway) and agricultural land installation of the cable illustrated.

3.3 Historic/Archeological Properties within/along the Cable Route

There are twenty-one (21) previously reported archeological sites along the Package 4B, Segment 7 portion of the Project. A brief discussion of those sites near the cable route and other Project facilities is presented below (Table 6).

3.4 NYSM Sites

There is little specific information available on these broadly defined sites. The NYSM files are based on museum excavations and other site information from a variety of sources. One of the most prominent sources of site information is Arthur C. Parker, the former New York State Archaeologist. Parker described many of the NYSM sites in his 1920 publication *The Archaeological History of New York*. He generally collected site data from local collectors and informants, and rarely visited the sites himself and conducted virtually no excavations. The sites themselves are typically centered on drainages, portions of drainages, or other major topographic features. While the sites' boundaries do not represent the precise location of archeological deposits, they do suggest an elevated level of sensitivity for precontact activity.

NYSM 6254 is one of a few of the New York State Museum sites that is represented by a single point rather than a large polygon. No information is available concerning the site and no determination of eligibility has been made.

Little information is available about NYSM 4021 site, and it has no determination of eligibility from SHPO. The Project extends through only the very easternmost portion of the site.

NYSM 6479 appears to be a compilation of a cluster of more discrete NYSM sites that have been rendered as points rather than a large encompassing polygon. In all, over 20 sites are included within the NYSM 6479 polygon. Several are pertinent to the current Project.

Pottery Springs No. 2 (NYSM 6837) is mapped immediately adjacent to the cable route. No additional information is available and there has been no determination of eligibility. No Project impacts are anticipated to the site, if monitoring or testing is implemented.

Pottery Springs 1 (NYSM 6836) and Circle Site (NYSM 6264) are mapped as two discrete site locations. However, given their proximity and reference to each other, it is unclear if they represent a single site or actually two separate site loci. No Project impacts are anticipated to these sites based on their mapped locations.

NYSM 6276 (09305.000131), an unnamed precontact site, is mapped east of the. The site actually contains two point-locations, and it is unclear if this is the result of a mapping error, or if the site has two discrete loci. The westernmost locus is within several hundred feet of the proposed cable route.

3.5 Steven Farm Historic Site (09302.000190)

This site was recorded and documented based on extensive professional archeology conducted in anticipation of the relocation of Maple Avenue to better accommodate traffic into the Stratton Air National Guard Base via Ronald Reagan Way in the Town of Glenville. The site is associated with the 1869 farm and farmhouse of the Stevens family, local scions of the Alplaus area since the 1600s. Extensive Phase II excavations on the railroad ROW resulted in the creation of a permanent easement and protective covenant. Eventually, the land was deeded over to the town. The site includes dense artifact deposits and the features associated with the farm buildings and main farmhouse which burned in the early 20th century. The site is just east of Project activities and will not be impacted.

3.5.1 Durham Project Sites

Several Durham Project sites are recorded in this segment of the Project. Durham sites were mapped based on information obtained from Dean Snow's University at Albany research on the Mohawk Valley and conducted by the NYSM as part of a cultural resources inventory. Unfortunately, the site forms generally contain little to

no information on the type of site (historic or precontact) or the deposits and features associated with the site. Durham 74 (09302.000114) is indicated to be a historic site and it is mapped near an HDD crossing. As the cable will be drilled no impacts are anticipated.

Durham Site 102 (09305.000247) is also listed as historic in date. It is situated northeast of the railroad .

3.5.2 Freeman Bridge Road Sites

A cluster of 10 precontact sites and one historic site have been identified near a proposed access road. The site locations are well documented, as part of a recent professional archeological survey in advance of the development of the parcel. These sites lie on the southeast side of the tracks, the same as the proposed cable route. However, all of these sites are located several hundred feet away. The proposed access road are likely to pass near the sites, but not to directly impact them.

3.5.3 Yates Family Plot (09302.000009)

The Yates Cemetery (09302.000009) is mapped southeast of the railroad grade in the Town of Glenville, west of Maple Avenue at the end of Grayson Place. However, the cemetery is actually further east, away from the Project and will not be impacted.

3.6 Historic Properties

William & Eliza Jackson Farmstead (09302.000223) is located at 81C Maple Avenue just north of Ronald Reagan Way. The 19th-century farmstead contains a circa 1821 brick farmhouse and several outbuildings. This property is immediately adjacent to the northwest side of the tracks, and to the Project. The property has been determined eligible for the NRHP. No impacts are expected as the property is on the opposite side of the rail tracks from the cable route.

Table 6. Archeological and Historic Resources within or near Package 4B, Segment 7.

Resource (USN)	Description	Status	Impact/Recommendation
Yates Cemetery (09302.000009)	18 th to late 19 th -century family plot.	Undetermined.	No impacts anticipated. No protective measure recommended.
William & Eliza Jackson Farmstead (09302.000223)	Circa 1821 brick farmhouse and property.	Eligible for the NRHP.	Adjacent on opposite side of tracks. No impacts anticipated. No protective measure recommended.
Steven Farm Historic Site (09302.000190)	Remains of 19 th -century farmstead.	Undetermined.	Adjacent on opposite side of tracks. No impacts anticipated. No protective measure recommended.
NYSM 6254	Likely precontact.	Undetermined.	No impacts anticipated. No protective measure recommended.
NYSM 4021	Likely precontact.	Undetermined.	No impacts anticipated. No protective measure recommended.
Durham Site 74 (09302.000114)	Undescribed historic site.	Undetermined.	No impacts anticipated. No protective measure recommended.
NYSM 6931	Likely precontact.	Undetermined.	Archeological testing or monitoring.*
NYSM 6479	Likely precontact.	Undetermined.	No impacts anticipated. No protective measure recommended.
Durham Site 102 (09305.000247)	Undescribed historic site.	Undetermined.	Archeological testing or monitoring.*
Pottery Springs 1	Likely precontact.	Undetermined.	No impacts anticipated. No protective measure recommended.

Resource (USN)	Description	Status	Impact/Recommendation
(NYSM 6836)			
Circle Site (NYSM 6264)	Likely precontact.	Undetermined.	No impacts anticipated. No protective measure recommended.
Pottery Springs No. 2 (NYSM 6837)	Likely precontact.	Undetermined.	Archeological testing or monitoring.*
NYSM 6276 (09305.000131)	Likely precontact.	Undetermined.	Archeological testing or monitoring.*

3.7 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 the line.

TRC created a CRMP for the permitting process, with an overall permitting CRMP created in 2015, and subsequent revisions and addenda in 2021. The plan provides guidance for those monitoring activities not indicated in the CRMP (TRC 2021) which specifically addressed previously identified sites within or along the permitted route, and also dealt with unanticipated discoveries when an archeologist is not present.

No areas of monitoring have been previously identified in the current segment of the Project. This current report serves as the Supplemental CRMP for the now planned construction activities, tasked with synthesizing the previously reported data into one document and identifying roles and points of contact for communication ease.

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. No heritage areas, special events or other resources have been identified for this package by other stakeholders.

4.3 Project Preservation Officer (PPO)

Hartgen will act as the Consulting Archeologist (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, currently Ashley L. Bushey, 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 (TRC 2021) and ensure that the requirements and conditions of the CRMP are met. **Error! Reference source not found.** includes the necessary contact information.

The PPO (or designee) 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 (or designee) to halt construction activities and contact and coordinate with the CA to visit the location of the discoveries as quickly as possible.

The Project Preservation Officer (PPO), shall in turn notify the Certificate/Permit Holder (TDI/CHPE), who shall notify NY SHPO, the US Army Corps of Engineers (USACE), DPS, other stakeholders and Tribal Nations, as appropriate within 24 hours of the initial reporting of the finds, per the Certificate Conditions 110 and 111 and USACE Permit NAN-2009-01089-M7, General Conditions C.

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), NY SHPO, other stakeholders and Tribal Nations will have 48 hours from the time of notification to respond.

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 (or designee) 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 CRMP (TRC 2021) in addition to completion of a files search that will include previous survey data through New York CRIS, and which 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 Barriers and Other Protective Measures

No additional protective measures with respect to cultural resources have been identified or requested by stakeholders for Segment 7 of the Project. If portions of the Project are altered, additional assessment, which may include desktop review, pedestrian survey, and/or archeological shovel tests, will be required to determine the presence or absence of cultural resources. Protective measures may include temporary fencing, construction call-outs, and signage will be implemented.

If portions of the Project are altered, additional assessment, which may include desktop review, pedestrian survey, and/or archeological 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.

If not possible, see Section 6.7 and 7.5 for Programmatic Allowances for potential mitigation and additional SHPO consultation.

Protective measures may include installation of temporary fencing and/or site delineation on Facility maps. Should an archeological site be impacted by Project activities, mitigation will include notification procedures and data recovery as stipulated in the Section 4.0 of the CRMP (TRC 2021), and/or other treatment measures determined through consultation with NYSHPO, Tribal Nations, and consulting parties.

4.6 Reporting Requirements

The CRMP (TRC 2021) establishes a requirement for annual reporting concerning activities conducted under the CRMP: *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 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 CRMP (TRC 2021).

4.7 Programmatic Allowances

Activities considered Programmatic Allowances are not exempt from archeological monitoring and remain subject to unanticipated discovery protocols, including stop-work provisions, as contained in the CRMP (TRC 2021).

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, and a verbal description and map of the geographic area of the proposed work;
- 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. Vertical improvements may consist of, but are not limited to, buildings, structures, and other forms of infrastructure with height above ground and constructed by the project.
- C. Ground disturbing activities within historic and contributing properties when action is discrete (including but not limited to edges of agricultural fields, wooded areas, lawns, or curbs), where no contributing or potentially contributing buildings, structures, objects, sites, or features are present (including but not limited to slate sidewalks, hitching posts, carriage steps, mature trees, fences, retaining walls, and other landscaping dating to the historic period of 50 years or more in age).

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 areas from the effects of construction.
- B. Obtaining credits in/from an existing wetland mitigation bank.
- C. Vegetation or landscaping to support habitat mitigation when the subject action affects less than one-half acre and does not occur within an archeologically sensitive area, as defined by the Supplemental CRMP.

4.7.8 Drainage Improvements

- A. Erosion control measures including best management practices placement of 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 subterranean 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 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 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 divisions of municipal or county governments which 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 advance historic preservation in a 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, archeological 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 Boards or Commissions, 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 CRMP (TRC 2021).

4.9 Property Owner Requests

The Project may accommodate property owner requests, including privately and publicly held properties, that 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. Seventeen such areas have been identified in the current segment. 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. The Consulting Archeologist may request the on-site supervisor for 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 very 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(s) 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 Certificate/Permit Holder (TDI/CHPE), NY SHPO, the US Army Corps of Engineers (USACE), DPS, other stakeholders and Tribal Nations, as appropriate within 24 hours of the initial reporting of the finds, per the Certificate Conditions 110 and 111 and USACE Permit NAN-2009-01089-M7, General Conditions C. 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), NY SHPO, 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 eligibility for the archeological resource based on the information provided by the Consulting Archeologist 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 Supplemental CRMP associated with the area of the subject archeological site, are selected. Dispute resolution among the parties will be guided by the CRMP (TRC 2021).

5.5.1 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, 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 CRMP (TRC 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. Mitigation efforts can move forward as soon as NYSHPO approves the work plan. 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.

5.5.2 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. 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 Deliverables

6.1 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.

6.2 Annual Report

The CA will provide an annual report detailing the activities completed under the CRMP (TRC 2021) and the supplemental CRMPs to the DOE and NYSHPO for as long as the CRMP (TRC 2021) 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.

7 Communications

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 7. 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
U.S. Army Corps of Engineers	Stakeholder	Stephan Ryba	Stephan.a.ryba@usace.army.mil
New York State Historic Preservation Office (NYSHP0)	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	Kathy Schlegel	215.597.1726 kathy_schlegel@nps.gov
Advisory Council on Historic Preservation	Stakeholder	Stephanie Stevens	202.354.2102 stephanie_stephens@nps.gov

8 Summary of Archeological Recommendations

In Package 4B of Segment 7, there are seventeen discrete areas or resources that require additional archeological field/monitoring efforts (). Seven of the Excursion are included in the HDD and Splice recommendations, but repeated here for clarity.

Splice Locations 144, 145, 151, 151A, 152-154 and 154A, have work areas located just outside the permitted route, and will require archeological testing or monitoring given their close proximity to culturally sensitive areas. HDD are generally within the permitted route, but their associated work areas occasionally extend beyond in areas of archeological sensitivity. These include HDD 62A, 64, 64A, 65A, 69, 69A, 70A, and 70B. Excursion areas are portions of the project outside the permitted route and typically include construction staging and equipment storage areas associated with the various HDD and Splice work area and their access roads.

Identified Excursions for archeological testing and monitoring include P4B-2, P4B-6, P4B-8, P4B-13 to P4B-17. None of the perpendicular access roads are recommended for archeological work as they follow existing unimproved access roads and private drives.

Table 8. Archeological Recommendations for Package 4B, Segment 7.

Item/Activity	Sta. Number	Location	Conditions	Recommendations
Splice 144	45151+48	Town of Glenville	Undisturbed.	Archeological testing or monitoring work area. *
Splice 145	45169+77	Town of Glenville	Undisturbed.	Archeological testing or monitoring work area. See also HDD 65A. *
Splice 151	45363+00	Town of Rotterdam	Undisturbed.	Archeological testing or monitoring work area. *
Splice 151A	45372+39	Town of Rotterdam	Undisturbed.	Archeological testing or monitoring work area. *
Splice 152	45404+66	Town of Rotterdam	Undisturbed.	Archeological testing or monitoring. *
Splice 153	45436+89	Town of Rotterdam	Undisturbed.	Archeological testing or monitoring work area. *
Splice 154	45445+02	Town of Rotterdam	Undisturbed.	Archeological testing or monitoring. *
Splice 154A	45476+92	Town of Rotterdam	Undisturbed.	Archeological testing or monitoring. *
HDD 62A	45019+80 to 45027+05	Town of Glenville	Undisturbed, some slope.	Archeological testing or monitoring southern work area. *
HDD 64	45098+36 to 45112+07	Town of Glenville	Undisturbed.	Archeological testing or monitoring northern work area. *
HDD 64A	45139+75 to 45149+00	Town of Glenville	Undisturbed.	Archeological testing or monitoring both work area. *
HDD 65A	45171+50 to 45199+00	Town of Glenville	Undisturbed.	Archeological testing or monitoring for northern work area. *
HDD 69	45337+00 to 45359+10	Town of Rotterdam	Undisturbed.	Archeological testing or monitoring for southern pit and work area. *
HDD 69A	45375+40 to 45399+50	Town of Rotterdam	Undisturbed.	Archeological testing or monitoring both work area. *
HDD 70A	45414+70 to 45432+90	Town of Rotterdam	Undisturbed.	Archeological testing or monitoring northern pit and work area, southern work area. *
HDD 70B	45447+45 to 45453+45	Town of Rotterdam	Undisturbed.	Archeological testing or monitoring for work areas. *
P4B-2	45019+20 to 45029+00	Town of Glenville	Undisturbed. See HDD 62.A.	Archeological testing or monitoring. *
P4B 6	45096+75 to 45114+60	Town of Glenville, see HDD 64.	Undisturbed.	Archeological testing or monitoring. *
P4B-8	45131+25 to 45183+50	Town of Glenville, see HDD 64.A. and 65.A.	Undisturbed.	Archeological testing or monitoring. *
P4B-13	45358+50 to 45369+00	Towns of Glenville and Rotterdam	Mostly undisturbed in the area of recommendation.	Archeological testing or monitoring. *

* The area may be shovel-tested by a qualified archeologist prior to construction or monitored by a qualified archeologist during construction, see Sections 2 and 5, respectively.

Item/Activity	Sta. Number	Location	Conditions	Recommendations
P4B-14	45373+50 to 45386+00	Town of Rotterdam, see HDD 69A.	Undisturbed.	Archeological testing or monitoring.*
P4B-15	45431+50 to 43432+50	Town of Rotterdam, see Splice 153.	Undisturbed.	Archeological testing or monitoring.*
P4B -16	45444+50 to 45453+50	Town of Rotterdam, see Splice 154 and HDD 70.B.	Undisturbed.	Archeological testing or monitoring.*
P4B-17	45472+00 to 45486+00	Town of Rotterdam, see Splice 154A.	Undisturbed.	Archeological testing or monitoring.*

* The area may be shovel-tested by a qualified archeologist prior to construction or monitored by a qualified archeologist during construction, see Sections 2 and 5, respectively.

9 Bibliography

New York Archaeological Council (NYAC)

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

TRC

- 2021 Champlain Hudson Power Express HVDC Transmission Line Project, Cultural Resources Management Plan (Final), on file at OPRHP, Peebles Island, New York.

**Appendix 1: Champlain Hudson Power Express 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.