



Phase IA Archaeological Survey and Sensitivity Assessment
Carmans River
Lower Lake Fish Passage
Suffolk County, New York

Final Report

Submitted to:
GEI Consultants Inc., P.C.
Haupaugge, New York

Technical Report 18-581
October 31, 2018

**PHASE IA ARCHAEOLOGICAL SURVEY AND
SENSITIVITY ASSESSMENT
CARMANS RIVER
LOWER LAKE FISH PASSAGE
SUFFOLK COUNTY, NEW YORK**

FINAL REPORT

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NY SHPO MANAGEMENT SUMMARY

Involved State and Federal Agencies:

United States Army Corps of Engineers
New York State Department of Environmental Conservation

SHPO Project Review Number: 17PR04504

Phase of Survey: Phase IA Archaeological Survey and Sensitivity Assessment

Location: Yaphank, Suffolk County, NY

Survey Area: 47661.5 sq. ft. (4427.9 sq. m.) or approximately 1.1 acres

USGS 7.5 Minute Quadrangle Map: Bellport, New York (1967)

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PaleoWest Project Number: 18-287

Date of Report: October 31, 2018

Contents

NY SHPO Management Summary.....	2
Introduction.....	6
Methods.....	6
Geography and Physical Setting.....	7
Topography and Hydrology.....	7
Soils.....	8
Current Conditions.....	8
Documentary Research.....	9
Historic Background.....	13
Archaeological Sensitivity Assessment.....	20
Site Walkover.....	20
Prehistoric Sensitivity.....	20
Historic Sensitivity.....	21
Conclusion and Recommendations.....	21
References.....	23
Appendix A: Photographs and Figures.....	26
Appendix B: Land Conveyance Records.....	51
Appendix C: Carmans river fish passage design.....	53

Tables

Table 1: Sites and Properties within 1 mile of the APE.....	11
Table 2: Previous Surveys within 1 mile of the APE.....	13

Photographs and Figures

Figure 1. Project area within Suffolk County, NY (USGS, Bellport, N.Y. Quadrangle. 7.5 minute series 1967)......	27
Figure 2. NRCS Soil Typology for project area (USDA-NRCS 2015).....	28
Figure 3. Freshwater Wetlands in the project area (SCDIT 2018).....	28
Figure 4. Site Walkover: Overview of project area looking north up Yaphank Ave from existing spillway.....	29
Figure 5. Site Walkover: Overview of project area, facing south down Yaphank Ave. from Homan-Gerard House.....	29
Figure 6. Site Walkover: West side of project area at existing spillway, facing north.....	30
Figure 7. Site Walkover: View of Lower Lake, facing west from existing spillway.....	30
Figure 8. Site Walkover: Existing spillway as seen from across the Lower Lake (low water level), facing SE.....	31
Figure 9. Site Walkover: East side of project area at existing spillway, facing east.....	31
Figure 10. Site Walkover: Looking down over existing spillway into Carmans River on east side of Yaphank Ave., facing east. Note dense wetland vegetation.....	32

Figure 11. Site Walkover: East side of Yaphank Ave, just north of the existing culvert, facing south. Existing culvert visible on right, possible stone foundation wall on southern bank of the Carmans River in background.	32
Figure 12. Site Walkover: Northern historic weir on western side of Yaphank Ave., facing NE from lake edge.....	33
Figure 13. Site Walkover: Northern weir cast-iron pipe on eastern side of Yaphank Ave., facing north from road edge. Note poor visibility of smaller stone wall feature in foreground.....	33
Figure 14. Site Walkover: Southern historic weir on western side of Yaphank Ave., facing down and to the west from road edge. Note dry lake bed in background.	34
Figure 15. Site Walkover: Southern weir cast-iron pipe on eastern side of Yaphank Ave., facing southeast from road edge. Note historic stone wall in background.	34
Figure 16. Site Walkover: Southern face of Homan-Gerard House with gravel access drive in foreground, facing northeast.	35
Figure 17. Site Walkover: Gravel parking area adjacent to Homan-Gerard House, facing south. Area of vegetation in background to be disturbed by temporary construction access.....	35
Figure 18. Site Walkover: Area of along eastern edge of existing boardwalk to be disturbed by temporary construction access, facing east.....	36
Figure 19. Site Walkover: Area of proposed temporary construction access into wetland zone in eastern project area, facing SE from end of boardwalk.	36
Figure 20. Site Walkover: Eastern project area, facing southwest from boardwalk. Location of proposed fish passage in far-left background. Mill foundation on right in dense vegetation, north of the proposed fish passage.	37
Figure 21. Site Walkover: Eastern project area, larger historic foundation wall, facing SW from end of boardwalk. This wall is outside the limit of proposed project disturbance and will remain intact.....	37
Figure 22. Site Walkover: Existing paved shoulder and lake-side vegetation on west side of Yaphank Ave, facing SW. Area to be disturbed by temporary construction access to the left of existing fence.	38
Figure 23. Site Walkover: Western project area, facing south from existing culvert. Concrete headwall will remain intact, but spillway will be modified by the project.....	38
Figure 24. Site file search results within a 1-mile radius of the project area.....	39
Figure 25. Cultural resources in the immediate vicinity of the project area. Two recorded archaeological sites, of “undetermined” status, may overlap with the limit of project disturbance. All others will not be impacted.	40
Figure 26. Detail of hand-copied Hulse map from 1797. Homans Mills called out on Connecticut River in upper left corner (Hulse 1797).	41
Figure 27. Detail of 1858 Chase map with mill and woolen factory (Chase 1858).	41
Figure 28. 1873 Beers-Comstock Map of Yaphank with mill complex (Beers-Comstock 1873).42	
Figure 29. Detail of 1909 Hyde Map (Hyde 1909).....	43
Figure 30. 1904 USGS map (USGS, Bellport, N.Y. Quadrangle. 7.5 minute series 1904).	44
Figure 31. 1967 USGS map (USGS, Bellport, N.Y. Quadrangle. 7.5 minute series 1967).	44
Figure 32. Historic photograph of the saw and grist mills, looking north towards the Homan-Gerard House along Yaphank Ave (YHS, Photography Collection: late 19th to early 20th C.)..	45
Figure 33. Historic photograph of saw and grist mills, woolen factory, looking south down Yaphank Ave (YHS, Photography Collection: late 19th to early 20th C.).....	45

Figure 34. Historic Photograph of eastern face of mill buildings, supported on piers over the river (YHS, Photography Collection: late 19th to early 20th C.)..... 46

Figure 35. View of the stone foundation wall from the north with three [3] possible stone piers in the midground. Photograph from 2013 site walkover by Yaphank Historical Society (YHS n.d.). 46

Figure 36. Historic photograph of mills, looking north up Yaphank Ave from historic sluiceway under repair (YHS, Photography Collection: late 19th to early 20th C.). 47

Figure 37. Historic photograph of mills and factory building, looking east from the Lower Lake (YHS, Photography Collection: late 19th to early 20th C.)..... 47

Figure 38. Historic postcard of mills and factory buildings, looking north up Yaphank Ave (YHS, Photography Collection: late 19th to early 20th C.)..... 48

Figure 39. Historic photograph of Homan-Gerard House concurrent with mill operation, looking north up Yaphank Ave (YHS, Photography Collection: late 19th to early 20th C.) 48

Figure 40. Historic photograph of 1920 Shroeder’s saw mill building, south face (YHS, Photography Collection: late 19th to early 20th C.) 49

Figure 41. 1925 photograph of Homan-Gerard House, looking south down Yaphank Ave with 1920 saw mill in background. Taken by Eugene Armbruster (YHS, Photography Collection: late 19th to early 20th C.). 49

Figure 42. 1925 photograph of Homan-Gerard House, west and south faces. Taken by Eugene Armbruster (YHS, Photography Collection: late 19th to early 20th C.). 50

INTRODUCTION

This Phase 1A archaeological survey and sensitivity assessment of the Carmans River Lower Lake Fish Passage project in Yaphank, Suffolk County, New York has been requested by the New York State Office of Parks, Recreation and Historic Preservation (OPRHP) to satisfy the requirements of the State Environmental Quality Review Act (SEQRA) and to comply with Section 106 of the National Historic Preservation Act of 1966 (NHPA), as amended, and the New York State Historic Preservation Act (SHPA) of 1980. The project entails modification to an existing spillway and culvert under Yaphank Avenue to construct a fish passage. While the study has established that the project area features a high level of historic archaeological sensitivity, dense vegetation within the area of potential effect (APE) precluded an understanding of the exact spatial relationship between planned project elements, recorded archaeological sites, and extant surface features.

The project area is in District 200, Section 667, Block 1, Lot 1 in the historic hamlet of Yaphank. See Figure 1 for the location of the project area on the 1967 United States Geological Survey Bellport, NY 7.5 minute quadrangle. The project area lies at the intersection of the Carmans River with Yaphank Ave, between Main Street (CR 21) to the north and the Long Island Expressway to the south, at the location of an existing concrete and timber flash board spillway. The APE includes 47661.5 sq. ft. (4427.9 sq. m.) or approximately 1.1 acres on either side of Yaphank Ave.

This report has been prepared by PaleoWest Archaeology (PaleoWest), LLC of Brooklyn, New York for GEI Consultants, Inc. P.C. of Hauppauge, New York. The survey includes historical study and records review documenting the known and potential archaeological resources in the immediate project area. A site walkover visit was also conducted. As the project area is “wholly or partially within, or substantially contiguous to, any historic building, structure, facility, site or district or prehistoric site that is listed on the National Register of Historic Places (National Register or NRHP),” the project is classified as a Type I SEQR action (SEQR 617.4(b)(9)).

This report is organized in the following manner: first, an overview of the geography and physical setting of the project site; second, a review of archaeological findings and historic resources near the project site; third, a discussion of the historic background of the project site; fourth, a review of archaeological sensitivity and disturbance; and finally, conclusion and recommendations.

METHODS

A systematic review of the following resources was performed to document the known and potential archaeology in the APE:

- Primary and secondary sources concerning the history of Yaphank, the Township of Brookhaven, and specific events associated with the project site and vicinity were reviewed at the Suffolk County Historical Society, the Yaphank Historical Society, and various online resources.

- 17th, 18th, 19th, and 20th century land conveyance records, deeds, and mortgages were collected for the subject parcel at the Suffolk County Public Records room.
- Census records and Long Island newspaper accounts from sources such as the *Brooklyn Daily Eagle* were reviewed.
- Historic maps and photographs were identified at various historical societies as well as online resources. These maps and photographs provided an overview of the topography and a chronology of land usage for the project site. A selection of these maps and photographs was reproduced for this report.
- Wills, personal letters, and newspaper clippings were consulted at the Yaphank Historical Society.
- A visit to the Brookhaven Department of Buildings was conducted and all available Certificates of Occupancy for the property consulted.
- A visit to the Brookhaven Public Works Department was conducted to gather information on known underground disturbances in the project area.
- Contacts were made with the Suffolk County Department of Public Works (SCDPW) and Suffolk County Parks.
- Information about previously recorded archaeological sites and surveys in the area was compiled from data available through the New York State Office of Parks, Recreation and Historic Preservation (NYSOPRHP).
- A site visit and walkover of the project area was conducted by Helen Juergens of PaleoWest to collect current photographs and understand the condition of the ground surface (See Figures 4 to 23).

GEOGRAPHY AND PHYSICAL SETTING

TOPOGRAPHY AND HYDROLOGY

The project is located in east-central Long Island in the Atlantic Coastal Lowland Physiographic Province. The Geologic Map of New York, Lower Hudson Bedrock Sheet, describes the area as part of the Monmouth Group, Matawan Group, and Magothy Formation of the Coastal Plain Deposits. This bedrock is formed from silty clay, glauconitic sandy clay, sand, and gravel (Fisher, Isachsen and Rickard 1970).

New York State was subjected to glaciation multiple times during the Pleistocene Epoch. Glacial deposits on Long Island were derived mostly from the Late Wisconsinan glaciation, between approximately 28,000 and 21,750 years ago (Cadwell 1986). Three [3] major glacial lobes deposited moraines on Long Island. In central Long Island, the deposition of the Ronkonkoma Moraine was controlled by the Connecticut Lobe.

The Carmans River is approximately 10 miles (16 km) long, running in a southeast direction from Middle Island to the Great South Bay. The river is fed by groundwater and the upper eight [8] miles reach is fresh water, but as the river encounters the tidal effects of the Great South Bay, to the south of the project area, the lower two [2] miles reach becomes a brackish estuary. This occurs below the Sunrise Highway where the river widens and is bordered on both sides by extensive salt marsh, much of which is in the Wertheim National Wildlife Refuge. The river runs

through the Pitch Pine-Oak woodlands of central Suffolk. The vegetation along the banks tends towards wetlands, differing from the upland Pine Barrens. Red Maples grow along the river together with a thick shrub layer which includes Sweet Pepper Bush and High Bush Blueberries (Bellone n.d.).

At the location of the proposed project, on either side of Yaphank Ave, fresh water wetlands surround the lake and river (Figure 3).

SOILS

The Geologic Map of New York, Lower Hudson Surficial Sheet, describes the area soils as outwash sand and gravel. This type is characterized as a proglacial fluvial deposition of coarse to fine gravel with sand, well rounded and stratified, generally of a finer texture with a variable thickness of 2-20 meters (Cadwell 1986).

The NRCS Web Soil Survey describes the immediate project area on either side of Carmans River as muck (Mu) (Figure 2). The landform is composed of marshes, swamps, or bogs formed from highly decomposed organic material over loose sandy and gravelly glaciofluvial deposits. The typical soil profile for the area consists of 36 inches of muck over 43 inches of coarse sand. It has a slope of 0-1 percent and is characteristically very poorly drained and subject to frequent flooding (USDA-NRCS 2015).

Directly to the north, the soil is described as Atsion sand (At), which is typically found on flats and depressions on the coastal plain and formed from sandy marine deposits. The typical soil profile for the area consists of 4 inches of decomposed plant material atop stratified sand and loamy sand. Atsion sand has a slope of 0-2 percent and is poorly drained but not prone to flooding.

Surrounding soils to the north and south are Carver and Plymouth sands (Cp). These outwash plains are formed from coarse sandy glaciofluvial deposits. The typical soil profile consists of 1 inch of highly decomposed plant material above coarse sand. The slope varies from 0 to 15 percent and is excessively drained without tendency to flood.

CURRENT CONDITIONS

The project area is located in the Historic District of Yaphank, a hamlet in the Town of Brookhaven, Suffolk County. The proposed fish passage is located at the site of an existing spillway and concrete culvert under Yaphank Avenue. The APE includes a total of 47661.5 sq. ft. (4427.9 sq. m.) or approximately 1.1 acres. The project plans include areas of disturbance for proposed temporary access and landscape restoration and soil retention, which extend along the lake on the western side of Yaphank Ave and into the wetlands of the Carmans River on the east (GEI Drawings available as Appendix C).

The land under the pavement of Yaphank Ave consists of a berm or earthen dam forming the eastern shore of Lower Lake. This land is under the jurisdiction of the Town of Brookhaven. At

the time of the site visit described in this report, the water level in Lower Lake had been lowered, and visibility of the western portion of the APE was moderate.

The land to the east of Yaphank Ave on either side of Carmans River falls in District 200, Section 667, Block 1, Lot 1 of Suffolk County. The entire tax lot is owned by the Suffolk County Parks Department and is currently maintained as part of the 1320-acre Southaven Park. The vegetation in the APE is typical of wetland environments and is very dense, resulting in highly limited ground surface visibility.

DOCUMENTARY RESEARCH

A records review conducted within a 1-mile radius of the project area through the New York State Cultural Resource Information System (NYS CRIS) found 18 historic archaeological sites, six [6] prehistoric archaeological sites, 47 historic properties, including six [6] listed on the National Register of Historic Places (National Register), and two [2] historic cemeteries, as depicted in Figure 24 and listed in Table 1. There are eight [8] previous surveys within the 1-mile search radius, as listed in Table 2. Within the limits of the APE, two [2] documented archaeological sites are present, both with “undetermined” eligibility for the National Register (USN 10302.000518 and USN 10302.000467, the Gerard Mill Site and the Smith-Gerard Grist Mill Site).

The APE itself substantially overlaps with and is immediately adjacent to the Homan-Gerard House and Mills property which was added to the National Register in 1988 (Figure 25). The registration consists of five [5] contributing structures and six [6] archaeological sites within a six-acre parcel (Kuhn 1988). These include a residential complex consisting of the Homan-Gerard house and four [4] support buildings (a barn and three [3] sheds), which are centrally located along Yaphank Avenue halfway between Main Street and the Carmans River. The archaeological sites encompass a historic kitchen midden just east of the residence, a historic family cemetery at the northwest corner, the remains of the J. P. Mills store and post office, a refuse midden, and two [2] visible stone foundations at the river crossing belonging to the historic lumber (saw) and grist mills. The residence and mill sites are described in detail in the Historic Background section of this report and the significance of the National Register property is related to two primary aspects: (1) the rare combined domestic and industrial components that provide an opportunity for studying residential and work life side-by-side and (2) the association of the complex with the era of “family capitalism” (Kuhn 1988).

The J. P. Mills store and post office date to the mid-19th century, situated at the southeast corner of Yaphank Ave and Main Street. The structure is attested to in that location on the Beers-Comstock map from 1873 (Figure 28) and site records state that the archaeological remains consist of a surface midden of ceramic, glass, brick, and scattered fieldstone that may represent the remains of the building’s foundation. Subsurface testing revealed an assemblage of early and late 19th century materials including blue transfer-print pearlware, square-cut nails, and green bottle glass (Kuhn 1988). Approximately 100 feet to the east of the store remains, a refuse midden was discovered which contained late 19th and 20th century artifacts. It was unclear at the time of excavation whether this locus represented the remains of a house or dump site (Kuhn 1988).

The Homan-Buckingham family cemetery is part of the Homan-Gerard Mill complex, located on Main Street. Jonas Buckingham married Deborah Homan in 1792 and they lived in the Homan family house to the south. The nine [9] marble gravestones date from 1812-1846 and include the names of Eliza Homan (1854), Daniel Homan (1814), Ency (or Deliverence) Homan (1816), Daniel Homan Jr. (1827), Jonas Buckingham (1815), Deborah Buckingham Jones (1842), Sally Buckingham (1843), James Buckingham (1816), and Ency Buckingham Corwin (1824).

To the south of Carmans River on Yaphank Ave, SUNY Stony Brook archaeologists found the remains of a concrete foundation (USN 10302.000010) which they attributed to the 20th century. Historic maps attest to structures standing in this location, ones associated with the Homan-Gerard mill and woolen factory complex in the late 19th century (Figure 27 to Figure 29). Concrete was available in the U.S. as a building material in that era, and it is possible that the concrete foundation remains belong to a 19th century factory outbuilding.

Adjacent to the Homan-Gerard property on Main Street, lies the Mary Louise Booth Girlhood House, built c. 1829 and listed on the National Register in 2015. Booth was a prominent suffragette, writer, and founding editor-in-chief of Harper's Bazaar. St. Andrew's Episcopal church neighbors the Booth house to the east, also facing Main Street. The structure was built in 1853 and listed on the National Register in 1988. The church grounds include a historic cemetery.

There are seven [7] prehistoric archaeological sites within a 1-mile search radius of the APE, all with an undetermined National Register eligibility status. The nearest site lies 0.06 miles to the northeast and is simply titled the Yaphank Prehistoric Site (USN 10302.000522). The original site form is labeled as "missing" on the NYS CRIS, so no other information is available. The other six [6] prehistoric sites are all located to the southeast of the project area on the south side of the Long Island Expressway. One Prehistoric Site (USN 10302.000473) is 0.52 miles from the current APE. The site was identified by SUNY Stony Brook in 1980 and consisted of a surface scatter of 12 quartz flakes, fire-cracked rock, charcoal, and two [2] flint flakes.

In 2001, R. Christopher Goodwin & Associates conducted a survey for a proposed Eastern Long Island Extension Pipeline. Eleven [11] sites were recorded during the survey, five [5] of which fall within the current search radius. Locus 1 (USN 10302.002284), Locus 2 (USN 10302.002285), and Locus 3 (USN 10302.002286) are part of the Carmans River 2 Site, approximately 0.45 miles to the southeast. The complex is made up of prehistoric and historic components. Locus 1 consisted of a tested quartz cobble and four [4] quartz flakes. Locus 2 had a prehistoric scatter consisting of a quartz biface, three [3] quartz cores, four [4] chert flakes, and 58 quartz flakes. A historic component dating to the late 18th or early 19th century consisted of ceramic fragments (15 creamware, one [1] pearlware, eight [8] redware, three [3] whiteware, four [4] stoneware, one [1] indeterminate), bottle glass, a thimble, brick fragments, and shells. Locus 3 contained 10 quartz flakes and a piece of shatter. Locus 1 (USN 10302.002287) and Locus 2 (USN 10302.002288) make up the Carmans River 3 Site, located approximately 0.30 miles to the southeast. Locus 1 consists of a prehistoric scatter of 24 quartz flakes. Locus 2 was a historic scatter of whiteware, window glass, and a metal fragment.

Table 1: Sites and Properties within 1 mile of the APE

USN Number	Name	Resource Type	NRHP Eligibility
10302.000010	20th Century Foundation	Historic Archaeological Site	Undetermined
10302.000011	White House 19th Century Foundation	Historic Archaeological Site	Undetermined
10302.000031	Weeks House	Historic Structure	Undetermined
10302.000032	Michael Hololob House	Historic Structure	Undetermined
10302.000033	Mary Louise Booth Girlhood House	Historic Structure	Eligible
10302.000034	Anthony House	Historic Structure	Undetermined
10302.000035	St. Andrew's Episcopal Church	Historic Structure	Eligible
10302.000036	Howell House (former store)	Historic Structure	Undetermined
10302.000037	Hammond House	Historic Structure	Undetermined
10302.000038	De La Marca Kovarik House	Historic Structure	Undetermined
10302.000039	Homan-Gerard House	Historic Structure	Eligible
10302.000041	Hawkins-Jacobsen House	Historic Structure	Eligible
10302.000042	Yaphank Community Shop	Historic Structure	Undetermined
10302.000043	Yaphank Garage	Historic Structure	Undetermined
10302.000044	Wittman Rabbitry	Historic Structure	Undetermined
10302.000045	Stroud House	Historic Structure	Undetermined
10302.000048	Greener House	Historic Structure	Undetermined
10302.000049	Neuss-Williams House	Historic Structure	Undetermined
10302.000050	Sylvester Homan House	Historic Structure	Undetermined
10302.000051	Richard Homan House	Historic Structure	Undetermined
10302.000052	Yaphank Union Cemetery	Historic Cemetery	Undetermined
10302.000053	Engelbach House	Historic Structure	Undetermined
10302.000054	Longwood Central School	Historic Structure	Not Eligible
10302.000055	Overton-Mouzakes House	Historic Structure	Undetermined
10302.000056	Lakeview Building	Historic Structure	Undetermined
10302.000057	Joseph Hololob House	Historic Structure	Undetermined
10302.000058	Agnello House and Carriage House Barns	Historic Structure	Undetermined
10302.000059	Herbert House	Historic Structure	Undetermined
10302.000060	Cook House	Historic Structure	Undetermined
10302.000061	Ripple House	Historic Structure	Undetermined
10302.000062	Yaphank Presbyterian Church	Historic Structure	Undetermined
10302.000063	Presbyterian Parsonage	Historic Structure	Undetermined
10302.000064	Arthur Davis House	Historic Structure	Undetermined
10302.000065	John Ed Davis House	Historic Structure	Undetermined
10302.000066	Homan House	Historic Structure	Undetermined
10302.000068	Serino Overton House	Historic Structure	Undetermined
10302.000069	Overton-Schmidt House	Historic Structure	Undetermined
10302.000070	Stills House	Historic Structure	Undetermined
10302.000465	Site of William J. Weeks Octagonal House	Historic Archaeological Site	Undetermined

USN Number	Name	Resource Type	NRHP Eligibility
10302.000467	Gerard Mill Site	Historic Archaeological Site	Undetermined
10302.000469	Weeks House Site	Historic Archaeological Site	Undetermined
10302.000472	House Site	Historic Archaeological Site	Undetermined
10302.000473	Prehistoric Site	Prehistoric Archaeological Site	Undetermined
10302.000509	Earth Log Dam	Historic Archaeological Site	Undetermined
10302.000510	Corduroy Road Site	Historic Archaeological Site	Undetermined
10302.000514	19th C. Foundation Remains	Historic Archaeological Site	Undetermined
10302.000515	Homan-Buckingham Cemetery	Historic Cemetery	Undetermined
10302.000516	19th C. Refuse Dump	Historic Archaeological Site	Undetermined
10302.000517	Homan-Smith-Gerard Saw Mill Site	Historic Archaeological Site	Undetermined
10302.000518	Smith-Gerard Grist Mill Site	Historic Archaeological Site	Undetermined
10302.000520	St. Andrew's Cemetery	Historic Archaeological Site	Undetermined
10302.000521	Property Line Mound/Lopped Tree	Historic Archaeological Site	Undetermined
10302.000522	Yaphank Prehistoric Site (form missing)	Prehistoric Archaeological Site	Undetermined
10302.000523	Homan Mill-Dam Site	Historic Archaeological Site	Undetermined
10302.001075	Suffolk County Farm Country Home	Historic Structure	Undetermined
10302.001076	Suffolk County Farm Hay Barn	Historic Structure	Listed
10302.001078	J. Brown-Moreland House	Historic Structure	Undetermined
10302.001079	Long Island Rail Road Bridge Over Carmans River	Historic Structure	Undetermined
10302.001080	J.P. Mills House and Bird House	Historic Structure	Undetermined
10302.001081	A. Cook-Bonati House	Historic Structure	Undetermined
10302.002284	Carmans River 2 Locus 1 Site	Prehistoric Archaeological Site	Undetermined
10302.002285	Carmans River 2 Locus 2 Site	Prehistoric and Historic Archaeological Site	Undetermined
10302.002286	Carmans River 2 Locus 3 Site	Prehistoric Archaeological Site	Undetermined
10302.002287	Carmans River 3 Locus 1 Site	Prehistoric Archaeological Site	Undetermined
10302.002288	Carmans River 3 Locus 2 Site	Historic Archaeological Site	Undetermined
10302.002289	Carmans River 5 Locus 1 Site	Historic Archaeological Site	Not Eligible
10302.002290	Carmans River 5 Locus 2 Site	Historic Archaeological Site	Not Eligible
10302.003084	Charles E. Walters Primary School	Historic Structure	Not Eligible
14PR04810	Mary Louise Booth Girlhood House	Historic	NR Listed 2015
90NR01777	Robert Hawkins Homestead	Historic	NR Listed 1986
90NR01779	Suffolk County Almshouse Barn	Historic	NR Listed 1986
90NR01784	St. Andrews Episcopal Church	Historic	NR Listed 1988
90NR01785	Homan-Gerard House and Mills	Historic	NR Listed 1988

Table 2: Previous Surveys within 1 mile of the APE

Survey Number	Survey Title	Author	Date	Distance from PA (miles)
99SR50431	Archaeological Site File and Literature Search Report of Field Reconnaissance, and Archaeological Site Evaluation of Connecticut River Estates, Yaphank, Town of Brookhaven, Suffolk County	Institute for Long Island Archaeology	1999	0.57 miles W
01SR51798	Stage I Archival Search and Archaeological Survey of the Parente Property, Yaphank, Town of Brookhaven, Suffolk County, New York	Institute for Long Island Archaeology/SUNY	2001	1.0 mile S
05SR55297	Stage I Archaeological Survey for the Proposed Whispering Hills cluster Plan, Yaphank, Town of Brookhaven, Suffolk County New York	Institute for Long Island Archaeology/SUNY	2005	0.33 miles NE
05SR55543	Stage I Archaeological Survey for the Proposed Windwood Oaks Subdivision, Yaphank, Town of Brookhaven, Suffolk County, New York	Institute for Long Island Archaeology/SUNY	2005	0.57 miles S
06SR56881	Stage I Archaeological Survey for the Proposed Lake Grove School, Yaphank, Town of Brookhaven, Suffolk County, New York	Institute for Long Island Archaeology/SUNY	2006	0.68 miles E
08SR58658	Phase I Archaeological Investigation for the Claire Rose Property, Yaphank, Town of Brookhaven, Suffolk County, New York	Tracker Archaeology	2008	0.8 miles E
10SR60244	Phase IA Archaeological and Historic Resources Assessment, Yaphank County Center, Areas A, B, C, D, E, and F, Yaphank Town of Brookhaven, Suffolk County, New York	Historical Perspectives	2010	0.28 miles S
12SR61205	Phase IA Archaeological Survey, River Road Path, Town of Brookhaven, Suffolk County, New York	RBA Group	2012	0.8 miles E

HISTORIC BACKGROUND

The original peopling of Long Island remains contested (Lepper and Bonnicksen 2004), though it is certain that humans have lived there for at least 12,000 years. Long Island is strategically placed for settlement due to its location at the confluence of the Hudson and other rivers between New England and the Mid-Atlantic throughout the cultural sequence. Native populations on Long Island were thriving during the Contact period as the indigenous peoples that occupied this part of the island (Nissequogue, Secatogue, Setaukets, Unkechaugs, Corchaugs, Shinnecocks) maintained mostly amiable relations with European settlers at that time (Brasser 1978, Salwen 1978).

During the period of European settlement, the Town of Brookhaven purchased the land from the local Algonkian-speaking Native American inhabitants, the Setalcotts (or Setaukets), and the Unkechaugs (Shaw 1947). The village of Middle Island East (ultimately to become Yaphank) was settled along the east bank of the Carmans River in 1726; the date of the first house built by a Captain Robert Robinson. Subsistence farming and logging were the primary occupations of the earliest Euroamerican inhabitants. 1739 marked the beginning of river damming practices in the area, when Captain Robinson paid the Town of Brookhaven six [6] shillings for the right to build a mill on what is now the Upper Lake (Homan 1875). At some point thereafter, the village

became known as Millville. Throughout the mid-1700s dams were built in three [3] places along the Carmans River (then called the Connecticut River) and mills were constructed below the mill ponds. Upper Lake and Lower Lake in Yaphank are mill ponds, as is Hard's Lake further south. These early mills are first recorded in a 1797 map by Isaac Hulse, Surveyor for the Town of Brookhaven (Figure 26).

Millville was renamed Yaphank in 1845 when the hamlet applied for a post office following the eastward expansion of the Long Island railroad (LIA 1941). As there were already 13 different Millvilles in the United States at the time, a prominent villager suggested the name of Yaphank, pulled from an Indian name for a creek or river bank on the south side of town (Homan 1875, Bayles 1874). The first map which records the name of Yaphank was created in 1858 by J. Chase (Figure 27).

Lying at one end of historic Yaphank, the project area is associated with a long-recorded history of residential and commercial activity proximate to the Lower Lake and Carmans River. (Ross 1902). The land associated with Block 1, Lot 1 has been developed since the mid-18th century. In 1762, the Town of Brookhaven granted land and water rights to John Homan to build a saw mill on the Carmans River “below his house, adjoining to his land... for the sum of forty shillings” (Homan 1875, 177, Town Records Nov. 1, 1762, Liber 105 171 1859)(Figure 26). John Homan and his wife Mary had five [5] children and they lived in a house that is no longer standing, but likely stood at the same location as the current house. When he died later the same year as the mill grant, John Homan's will bequeathed his house and property equally between his four [4] sons.(YHS, John Homan's Will 1762).

The Town of Brookhaven granted additional permissions to John's son, Daniel Homan, to build a grist mill “on the same stream, and at the place or dam where his saw mill now stands” in 1771 (Homan 1875, 178, Town Records Feb. 4, 1771).

Daniel Homan built the extant residence in 1790, replacing the original family home. The structure is two-and-one-half stories set on a stone foundation with a full cellar of mortared fieldstone. The heavy timber framing of the main block was constructed using pegged mortise and tenon jointing forming a three-bay façade with a gambrel roof (Kuhn 1988). The cladding was made of riven wood shingles with nine-over-six double hung sash windows on the first floor and six-over-six double-hung sash windows on the second floor. A central chimney provided heat for the house. The detailing, including the eight-paneled front door with sidelights framed by reeded pilasters, suggests a Federal Style which dominated the American architectural landscape from roughly 1780 to 1840 (Figure 39, Figure 41, Figure 42). The house was the subject of a study in 1993 conducted by J. Lawrence Jones & Associates, who recommended stabilization and restoration priorities for the house and accessory buildings. One observation in the report theorizes that the small cellar beneath the main house could be “indicating that there was an earlier, smaller structure on the site which this house replaced or which was expanded into the present house” (Jones 1993, 2). This is further supported in a later report by Historic Preservation Consultant Zachary Sudenroth that describes the massive hand-hewn oak joists and glacial pebble lining of the stone foundation as evidence of earlier construction methods (Studenroth n.d.).

Daniel Homan died in 1814. He left behind a widow, Deliverance Clark Homan, and four [4] children: Deborah, Hannah, Mary, and Daniel Jr. Deborah's husband Jonas Buckingham helped run the mill operation during Daniel Sr.'s long illness and until Daniel Jr. came of age. (The Buckingham family is buried in the cemetery on the property.) The house Daniel Sr. built was passed down to his heirs and in 1820 Daniel Jr. was also granted the rights to the original saw and grist mills. These he sold out of the family to Robert H. Hawkins in 1821 for \$5,000, separating ownership of the mills from the family residence (Liber E 172 1821). At this time, Robert H. Hawkins demolished the original 18th century grist mill structure to rebuild a larger grist mill (it is not clear if the original saw mill was also replaced in this venture). Daniel Homan Jr. died a short time later in 1827 without leaving a will. His widow, Clarissa Homan, sold the house along with a small parcel across the street to Robert H. Hawkins, thus reuniting the residence and mills (Liber 1 59 1827).

The house built by Daniel Homan Sr. in 1790 was modified in the following decades. A kitchen was added sometime between 1825-1840 (Kuhn 1988), a three-bay structure, one-and-one-half stories tall, set perpendicular to the rear of the main block. Like the main house, the kitchen is timber-framed on a stone foundation, but with clapboard cladding and a gable roof. Fixed-pane eyebrow windows indicate the later period of construction. A later small, one-room, shed-roof appendage is attached to the end of the wing. The three [3] small sheds situated behind the house probably date to the 19th century as well. These are one-story, gable-roof buildings sided in wood shingles, clapboard, and flushboard siding with irregular fenestration (Kuhn 1988). The large, timber-framed, two-story barn structure dates to the late-19th century and is sheathed in wood shingles with an overhanging roofline and a brick foundation. A kitchen midden site was discovered next to the rear of the house and is described in the 1988 National Register form. The artifact assemblage (including coal slag, food remains, building material, whiteware sherds, and a kaolin pipe stem) correlates with a 19th and 20th century occupation (Kuhn 1988). Sometime in the latter half of the 19th century, a small Victorian porch was added to the front and southern sides of the house (Figure 39). This was removed around the turn-of-the-century (Kuhn 1988).

Robert Hawkins Gerard (sometimes referred to as "Hawkins Gerard") came to Yaphank to live with his uncle, Robert H. Hawkins, and learn the mill trade. He was 21 years old when his uncle purchased the Homan mills from Daniel Homan Jr. in 1821 and he participated in rebuilding the larger mill. He married a woman named Fanny Hawkins, and later adopted their nephew Edward L. Gerard in 1842. Robert Hawkins Gerard inherited all of the mill property including the residence upon the death of his uncle Robert H. Hawkins in 1855 (Mouzakes 2017). The indenture is dated September 24 of 1861 (Liber 121 477 1861).

As he became successful in the milling industry, Robert H. Gerard entered into a partnership with William Sidney Smith to establish a woolen factory. The Town of Brookhaven granted land rights for this endeavor to the partners in 1859 (Liber 105 171). A factory structure was built along Yaphank Ave directly to the south of the mills (Town Records June 14, 1859) (Figure 11, Figure 33, Figure 38). R. H. Gerard is shown as the owner of the house and mill on the 1858 Chase map, with the "Woolen Factory" indicated to the south (Figure 27). Financially unsuccessful, the factory was in disuse by the 1870s (Homan 1875). Townsperson Bayles wrote a contemporary reference of the woolen factory that stood at the lower dam and had been out of operation for many years (Bayles 1874). The Beers-Comstock Map from 1873 also shows R. H.

Gerard as the owner of the Homan house (Figure 28), as well as a saw mill and grist mill on either side of a sluiceway east of the dam. Three [3] structures immediately to the south of the river are labeled as “Mill Company” buildings.

Edward L. Gerard was named as Robert H. Gerard’s heir and eventually took over the milling business from his uncle (Liber 151 581 1859). Edward married Agnes Cook in 1873 and together they moved into the Homan-Gerard residence. According to local historian Mouzakes, the rear addition (1880) and the Victorian porch (1892) were added to the house by Edward and Agnes (2017). In 1879, Edward inherited the mills from his uncle (Mouzakes 2017, Liber 241 540 1879). Six [6] years later, he bought out the remaining mill interests for \$6,944.96 upon the death of his uncle’s former partner, William Smith (Mouzakes 2017). Edward Gerard died in 1899, leaving both the residence and the mill, along with other properties, to his widow Agnes and their children, Charles E. Gerard and Catherine Gerard Hand. A tax assessment of the mill property in 1909 listed its value at \$21,000 (Brooklyn Daily Eagle 1900). E. L. Gerard’s name is associated with the mill company buildings on the south of Carmans River in a 1909 map of Brookhaven by Hyde (Figure 29). Three [3] structures appear on the south side of the river on the 1904 USGS map, although in a slightly different configuration (Figure 30). This is the latest available historic map to show the mill and woolen factory buildings.

Agnes Gerard managed the house and mill property following her husband’s death, although the mill fell out of use as industrialization and population shifts reduced demand for cottage industrial products and services in the late 19th century. Around the turn of the century, Agnes began advertising the house in the Brooklyn Daily Eagle newspaper for summer boarders. An 1898 ad reads “To Let- For the Summer, large house, 10 rooms; plenty shade; large plaza; fine, healthy location; house unfurnished or furnished; write for particulars; references required. Address E. L. Gerard, Yaphank L.I.” (Brooklyn Daily Eagle 1898). The postings describe Yaphank as a “quiet country village” (Brooklyn Daily Eagle 1900). Another ad from June 18, 1901 touts fresh water bathing, boating, and fishing with rent listed at \$150 for the season (Brooklyn Daily Eagle 1901).

On Tuesday, November 10, 1908 at one o’clock Agnes held an auction of all the woolen factory materials. A public posting for the auction (on file at the YHS) describes the factory contents as oak wagon material, sleigh runners, wire netting, nails, window blinds, scales, hinges, bolts, sandpaper, a drill, brackets, screws, bellows, locks, cement, tile, bricks, “and other things too numerous to mention.” A newspaper notice from November 13, 1908 states “The contents of the old factory near the grist mill was auctioned off on Tuesday. This building was erected about 1842 and run as a woolen mill for a few years, but has been used as a lumber storehouse for a long time. It will now be taken down or removed, it is said” (Patchogue Advance 1908). It is not clear exactly when the factory structure was demolished, but it is no longer noted on the 1967 USGS map (Figure 31).

Continuing to experience financial difficulties, Agnes Gerard sought a mortgage on the mill property from the Union Savings Bank. On May 16, 1915 the mortgage was denied (Mouzakes 2017). At this time her address is recorded as 53 Oak Street in Patchogue, so it is not clear if the Homan-Gerard house remained occupied or was perhaps rented out. In 1916, Agnes signed over her interest in the property to her son Charles Gerard, as well as that of her daughter Catherine

Gerard, for \$1,000 (Mouzakes 2017). Charles also attempted to mortgage the property, but was denied “due to a very inactive real estate market in Yaphank” (Mouzakes 2017).

Evidence of disagreement over the rightful ownership of the stretch of Yaphank Ave which crosses the dam appears in 1913. Sometimes called Mill Road or Mill Dam Road, this stretch of Yaphank Ave consisted of a bridge running over a sluiceway, which directed water to power the mills. An article in the November 1, 1913 Brooklyn Daily Eagle states that Mrs. [Agnes] Gerard had recently closed the road when she “had the bridge over the sluiceway torn up to make repairs.” Her lawyer claimed that the grant of 1857 which gave mill rights on the river to Smith and Gerard also gave them full title to the pond and the road over the dam. She and her son Charles therefore claimed both the right to control traffic on the road and the ability to sell the same road to the town at a cost of \$2,500. Town members argued that the road had always been a public right of way. A second article in the Brooklyn Daily Eagle dating to December 1, 1914 describes the contentious legal battle that ensued, eventually going to the New York Supreme Court. Several septuagenarian witnesses attested to having preformed labor on the road in past episodes of repair. The road was ultimately designated as a public way.

Several historic resources indicate that the structure of Yaphank Ave was significantly altered sometime between 1916 and 1918. As the road became a popular throughway and automobile traffic began increased, demand to widen and improve the surface was raised. Throughout 1916 there are two [2] notices in the Patchogue Advance newspaper that describe plans for widening Yaphank Ave at the location of the dam. On June 23 “Bets are out that the mill dam may not be widened. This is a pet project of the Civil Association for some years, but not yet realized.” And on August 11, “The Brookhaven Town Authorities are widening Yaphank Avenue over the mill dam road which is much needed.” On November 10 in the Brooklyn Daily Eagle, “Road to Replace Bridge: The bridge over the flood gates of the Yaphank Mill Dam Pond on Yaphank Avenue will be eliminated as a 30-inch pipe will be installed in their stead and the road filled in. The Yaphank Civic Association recently adopted a resolution urging the completion of the Mill Dam road. The concrete work on the sluiceways and road is now being pushed.” As this description matches the current condition of Yaphank Ave, it is reasonable to assume the changes were completed in 1916 or shortly thereafter (see Figure 4 to Figure 15).

The Gerard-era mill structures burned down in 1919. In the same year, Charles Gerard was eventually successful in establishing a mortgage on the mill property. In 1919 Gertrude and William Schroeder entered into a \$4,500 mortgage under Charles Gerard (Mortgage Liber 466 259 1919). Following the destruction of the historic mill buildings, the Schroeders constructed a new small saw mill structure at the same location (Figure 40, Figure 41). Economically, this mill was unsuccessful. The Schroeders made an offer to sell the property for water power to the Civic Improvement Association of Yaphank for \$10,000 in 1920 (Brooklyn Daily Eagle 1920), but the bid was not accepted and the mill went out of business in 1921. At this time the property went back to the control of Charles Gerard. The new mill structure stood in place until it was demolished in 1965, according to historian Mouzakes (Homan-Gerard Timeline for the House and Mills (Revised Sept. 2017)).

While the mill industry in Yaphank was on the decline in the early 20th century, fishing and hunting continued to draw visitors, provide economic foci, and attract social efforts throughout

Long Island. Back in 1858, trout fishing in Carmans River had fostered the establishment of a sporting organization whose members called themselves The Suffolk Club (Bellone n.d.). The club purchased 1,500 acres in Yaphank just to the southeast of the current project area for a shooting and fishing preserve. In the 1920s, Anson Hard bought out all the shares of the Suffolk Club and added several properties in Yaphank to use as a private hunting grounds. As part of this estate, he purchased the Homan-Gerard residence and mill properties for \$7,000 when they went up at auction in 1922 (Liber 1045 79 1922). He raised pheasants on the estate and kept a heard of European Sitka deer (Bellone n.d.). The Homan-Gerard house was used as a gamekeepers cottage until 1941. Photographs of the house were taken by New York-area historian and photographer Eugene Armbruster in 1925 (Figure 41, Figure 42).

Anson Hard died in 1935. His ex-wife and mother of his children, Florence Dean, acquired the property, including the Homan-Gerard house and mills, on August 14, 1936 (Liber 1877 2 1936). Florence Dean continued to acquire and add adjacent properties in Yaphank to the estate. In 1941, the Homan-Gerard house was deemed unlivable, and a new gamekeepers cottage was constructed directly adjacent on the north side (Mouzakes 2017). According to Mouzakes, the Homan-Gerard house was boarded up in the 1950s, and the Victorian porch was removed in 1960.

In 1955, the large estate was inherited by Florence and Anson's son, Kenneth Hard (Liber 4259 452 1956). Hard kept the property as a hunting and fishing lodge until the entire 57.6-acre estate, including the Homan-Gerard house and mills, was sold in 1963 to Suffolk County for \$2,500,000, becoming the county's first public park (Town Records 1965). The Suffolk County Parks Department has since maintained the area as part of Southaven Park, using historic trail ways and clearing vegetation as necessary. No ground-disturbing, modern construction projects have been recorded by the department (Gibbons, et al. 2018).

To the south of the APE, New York State Governor Thomas E. Dewey approved plans in 1954 for a 64-mile extension of the Long Island Expressway between the Queens-Nassau border and Riverhead in Suffolk County (NYTimes 1954). This project was completed in the Suffolk County area in the mid-1960s and can be seen on the 1967 USGS map (Figure 31). The new expressway project cut through the old Hard Estate, disrupting the historic landscape surrounding the current project area.

There is some evidence that utility work may have disturbed the stretch of Yaphank Avenue in the project area as well. A 1972 letter from the Long Island Lighting Company addressed to the Brookhaven Town Board expressed the necessity of corrosion protection "of our existing gas mains... one possible location for the proposed cathodic protection system is Yaphank Lake" (Murray 1972). It is unclear when or where these existing gas mains were installed, but they most likely ran under Yaphank Ave. The Town Board of Waterways and Natural Resources approved the protection system to be installed in the adjacent Lower Lake in July of 1972. A high-pressure gas line is understood to have been installed at some point below the roadway, but the Suffolk County Department of Public Works does not have documentation at present (Suffolk County DPW 2018, pers. comm., 18 September).

As part of Southaven Park land, the Homan-Gerard residence sat unoccupied and boarded up for decades. In 1974, the roof of the house was replaced, and the deteriorated center chimney was removed above the ridge line (Kuhn 1988). In 1984, the house and mills were dedicated to the Suffolk County Historic Trust, and the property was nominated to the National Register in 1988. At that time, the support buildings behind the Homan-Gerard house were in a state of disrepair.

The extant remains of the multi-component mill complex on the Carmans River consists of two [2] stone wall foundations visible on the east side of Yaphank Ave. From photographs, it appears that the stone walls served as foundations for the western edges of the saw and grist mill structures, respectively (Figure 32, Figure 33). The eastern ends of the structures were supported by multiple stone piers set in the wetlands (Figure 34, Figure 35). Two [2] cast-iron weirs lie on the west side of Yaphank Ave on the lake, and two [2] corresponding cast iron pipes pass beneath the road from the weirs to the river (Kuhn 1988). These cast iron structures are historical updates to earlier wooden weir structures evidenced in photographs (Figure 33, Figure 34, Figure 36). A stone wall visible to the south of the current culvert could perhaps be the remains of the adjacent woolen factory building (Figure 11). This building is not described historically nor archaeologically in the 1988 National Register inventory form. However, the woolen factory building is visible in historic photographs from the late 19th and early 20th century (Figure 33, Figure 38), and multiple “Mill Company” buildings are attested in historic maps (Figure 27, Figure 28, Figure 29, Figure 30).

In 2003, the Suffolk County Department of Public Works (SCDPW) undertook a culvert reconstruction project which included the Lower Lake culvert under Yaphank Avenue. In preparation, Suffolk County applied for a permit from the New York State Department of Environmental Conservation (NYSDEC) in 2002. In a Notice of Complete Application published by NYSDEC on Aug. 8, 2002, the project is described as an Unlisted Action under SEQR, as well as “not subject to review in accordance with SHPA” (NYSDEC 2002). The project plans called for the repair of cracks and spalls on all concrete surfaces of the culvert and the installation of approximately 200 linear feet of rip rap for slope protection. Original plans also included the demolition of the “two abandoned culverts on the north,” but these were altered upon recognition of the historic nature of the cast-iron weir and pipe structure (Shannon 2002). Instead, the concrete supporting the weirs was repaired. The As Built Record Plan drawing supplied by the Dept. of Public Works indicates that clearance, grading, and ground disturbance occurred mostly on the lake side of Yaphank Ave, and did not encroach on the stone foundation mill remains visible on the eastern side of Yaphank Ave (SCDPW 2003).

The Homan-Gerrard house is currently undergoing renovations begun in 2012 under the direction of the Yaphank Historical Society.

ARCHAEOLOGICAL SENSITIVITY ASSESSMENT

SITE WALKOVER

A site walkover of the APE was performed on September 19th, 2018 by PaleoWest Project Director Helen Juergens (Figure 4 to Figure 23). The proposed fish passage is located at the site of an existing spillway and concrete culvert under Yaphank Avenue, in Yaphank, Suffolk County.

The Carmans River currently runs from the Lower Lake on the west, flows over a timber flashboard and concrete spillway under Yaphank Ave through an existing concrete culvert, and continues downriver to the east (Figure 7 to Figure 10). Two [2] historic weirs sit approximately 80 and 120 feet to the north of the culvert, respectively. The remains of each consist of a cast iron gate set in concrete on the lake side leading to a 30” cast iron pipe that passes beneath Yaphank Ave (Figure 12 to Figure 15). The cast iron pipes empty into the wetland area of the Carmans River on the east side of the road. These weir structures appear to be of late 19th or early 20th century manufacture (Cummings 1973).

The historic Homan-Gerard house sits to the north of the mill complex along Yaphank Ave (Figure 16). A gravel drive leads from Yaphank Ave to a gravel parking area along the southern side of the house (Figure 17). This drive, parking, and the adjacent vegetated wetland area will be used as temporary access during the construction of the proposed fish passage (Figure 18, Figure 19).

The proposed fish passage is located on the river (eastern) side of Yaphank Ave (Figure 20). The remains of two [2] stone foundation walls stand on this eastern edge, a smaller one between and a larger one to the south of the jutting cast iron pipes (Figure 21). These are the remains of the saw and grist mill building foundations. A stone wall is visible on the south side of Carmans River which could be the remains of the 19th century woolen factory building that once stood immediately to the south of the mill structures on Yaphank Ave (Figure 11).

On the western side of Yaphank Ave., an existing paved shoulder will be used for construction access (Figure 22). This area will also be disturbed and landscaped during construction (Figure 23).

PREHISTORIC SENSITIVITY

The project site is situated on the Carmans River, which provided a fresh water resource on Long Island during prehistory. The Lower Lake was only formed in the 1700s as a dam pond; however, the river itself has long been fed by groundwater and supports an important trout habitat. Previous surveys conducted within the vicinity have detected several prehistoric sites consisting of lithic scatters located along Carmans River approximately half a mile to the southeast of the APE (see Table 1). While the proximity of the APE to the river suggests a high level of pre-Contact activity, the degree to which the project site has been altered by industrial development since the mid-eighteenth century indicates that there is only a low level of pre-Contact Period archaeological sensitivity in the APE.

HISTORIC SENSITIVITY

Euroamerican settlement on Long Island first occurred in the middle of the seventeenth century, and the land surrounding both the Upper and Lower Lakes in Yaphank has been settled and developed since that era. The project area has been built upon since the 18th century and these buildings included residences and commercial-industrial structures associated with the Homan-Gerard family property, mills, and factories. Two [2] documented archaeological sites, the Homan-Gerard grist and saw mills, are present within the APE, and additional potential sites are documented in both the archival and cartographic records. Both the documented and potential sites are/would be associated with significant historical patterns (Colonial-era Long Island, era of “family capitalism”).

In terms of documented disturbance, no historic building permits are listed with the Brookhaven Department of Buildings, and Yaphank was never included in any maps produced by the Sanborn Map Company. On the other hand, it is rather clear that the historic dam, bridge, and sluiceway have been significantly impacted by 20th century disturbance. The 1916-17 conversion of the dam facility, from a largely wooden structure to a cast iron and concrete construction, had a major impact on its historic fabric, even though it remained functional for milling purposes into the 1920s. Most recently, the existing culvert underwent renovations by the Public Works department in 2003. According to engineers associated with the fish passage project (L. Schwanof and M. B. Billerman 2018, pers. comm., September 17), a buried high-pressure gas line maintained by National Grid also runs the length of Yaphank Ave, within the footprint of the historic dam. It is not clear if this line is the same as that mentioned by the Long Island Lighting Company in 1972.

Architectural or archaeological remains of historically significant structures, such as the 18th, 19th, or 20th century mill structures and 19th century woolen factory buildings, may be preserved beneath the current ground surface. There is a high level of historic archaeological sensitivity, but the tangled and dense nature of underbrush in the APE precludes an understanding of whether extant resources indeed overlap with the project footprint.

CONCLUSION AND RECOMMENDATIONS

Phase IA survey and archaeological sensitivity assessment for the Carmans River Lower Lake Fish Passage project identified one [1] national register property within or overlapping with the APE (the territory of the Homan-Gerard House and Mills), and two [2] archaeological sites proximate to the APE associated with the 18th, 19th, and 20th century mill operations, just east of Yaphank Avenue on the north river bank. There are visual indications that at least one [1] additional, undocumented site representing a 19th century woolen factory may be present within the APE on the south bank, also on the eastern side of Yaphank Avenue. While no major disturbance has been documented for these resources, significant disturbance of the historic dam and bridge structure itself is well documented, beginning in the early 20th century with the concretization of the structure and continuing through road reconstruction efforts, underground utility installations, and culvert renovations. Intensive, tangled vegetation throughout the APE

makes it impossible to assess the exact overlap between planned project elements and extant archaeological sites and features.

Archaeological investigations within the APE have the potential to reveal information about the workings and long-term development of Long Island's cottage milling industry from its 18th century inception through the community's transition away from the economics of water-powered millwork in the early 20th century. Historical accounts of this era of industrialization often emphasize the rapidity of development, but glimpses of how these changes occurred on a more everyday scale are less plentiful.

According to SCDEP and GEI, the project design was selected from six [6] alternatives to minimize potential environmental impacts, and changes to proposed plantings and other flexible design features constitute additional avoidance measures supported by the project proponents. PaleoWest Archaeology recommends cutting and clearing of tangled ground cover vegetation (i.e., grasses, vines, shrubs) to allow unobstructed views of the ground surface and wetlands. This should be followed by GPS-based mapping and drawing of surface architecture and other visible features prior to construction to assess the spatial relationship between extant archaeological resources and the APE. Such efforts would produce a high-resolution set of maps and drawings that document the extant surface indications (in the uplands and wetlands) and assess potential intersections with the APE.

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APPENDIX A: PHOTOGRAPHS AND FIGURES

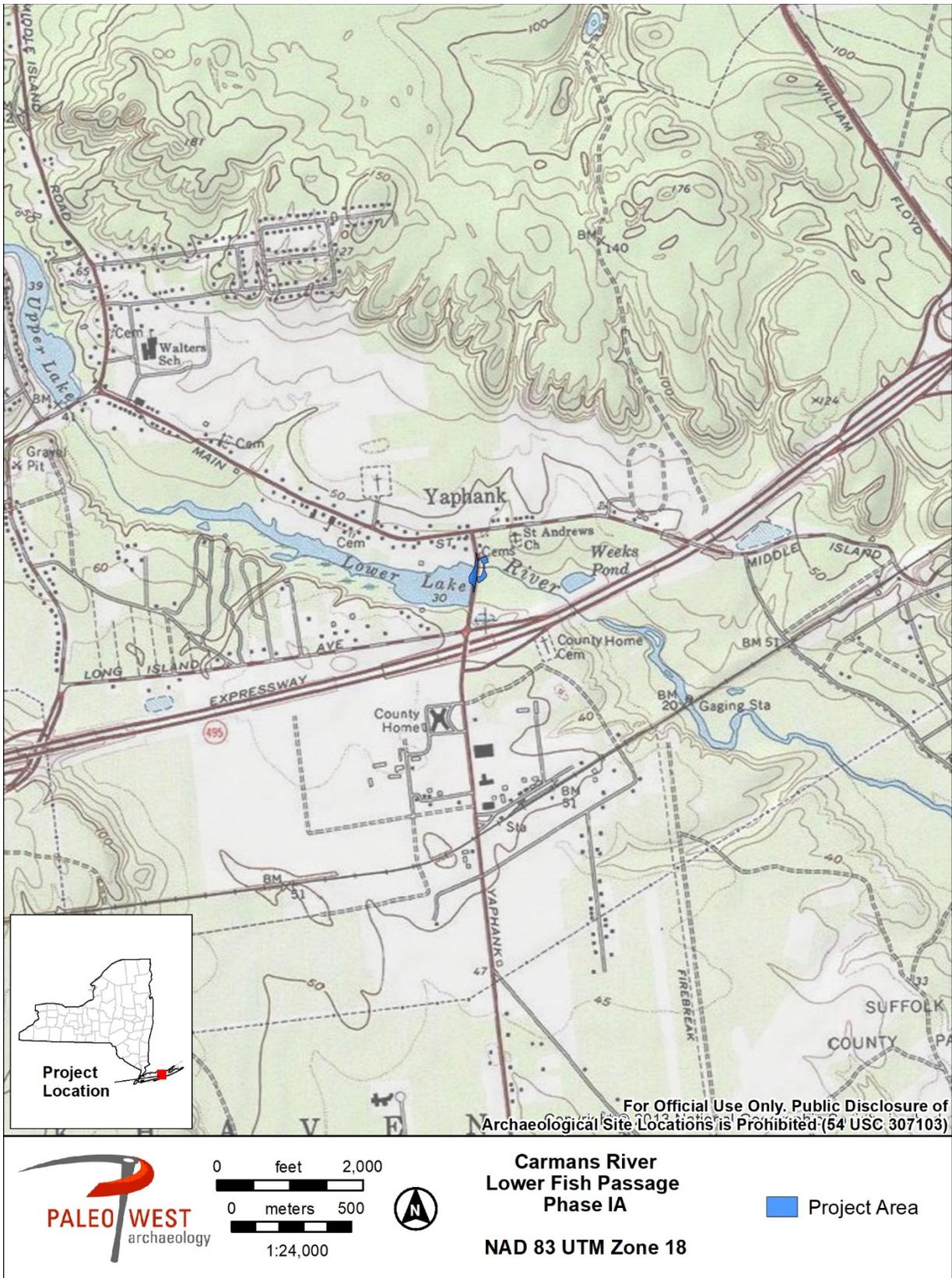


Figure 1. Project area within Suffolk County, NY (USGS, Bellport, N.Y. Quadrangle. 7.5 minute series 1967).

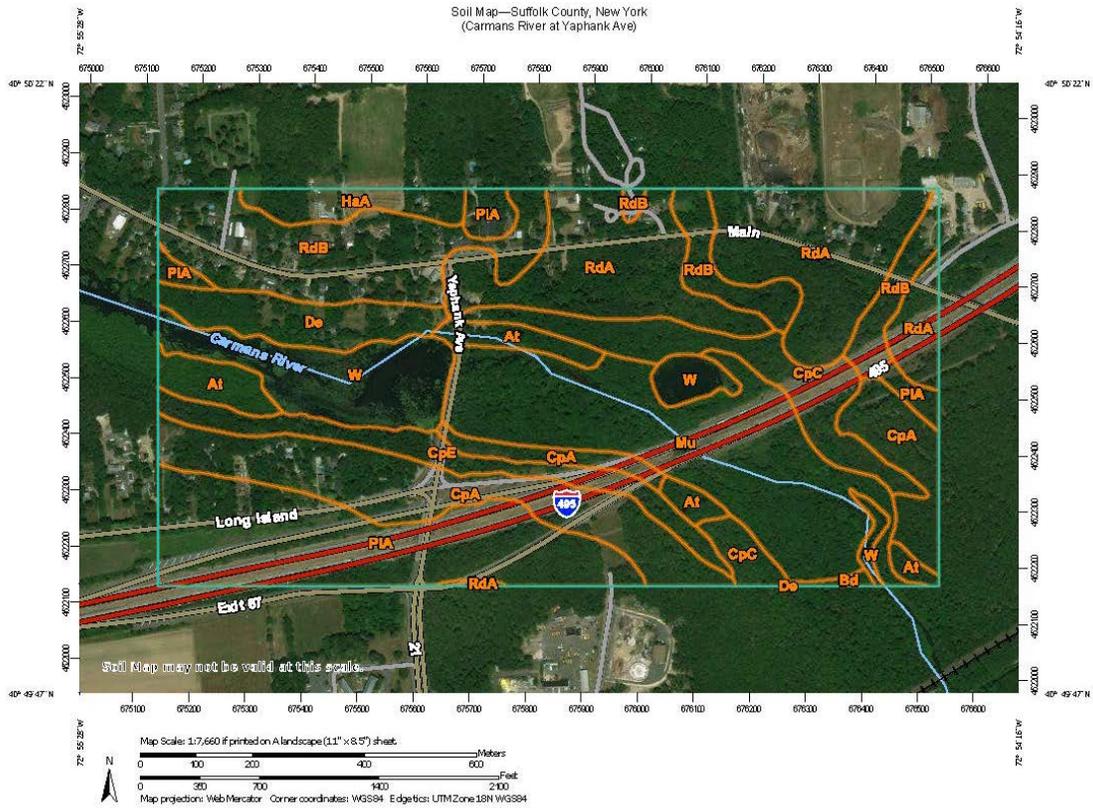


Figure 2. NRCS Soil Typology for project area (USDA-NRCS 2015)

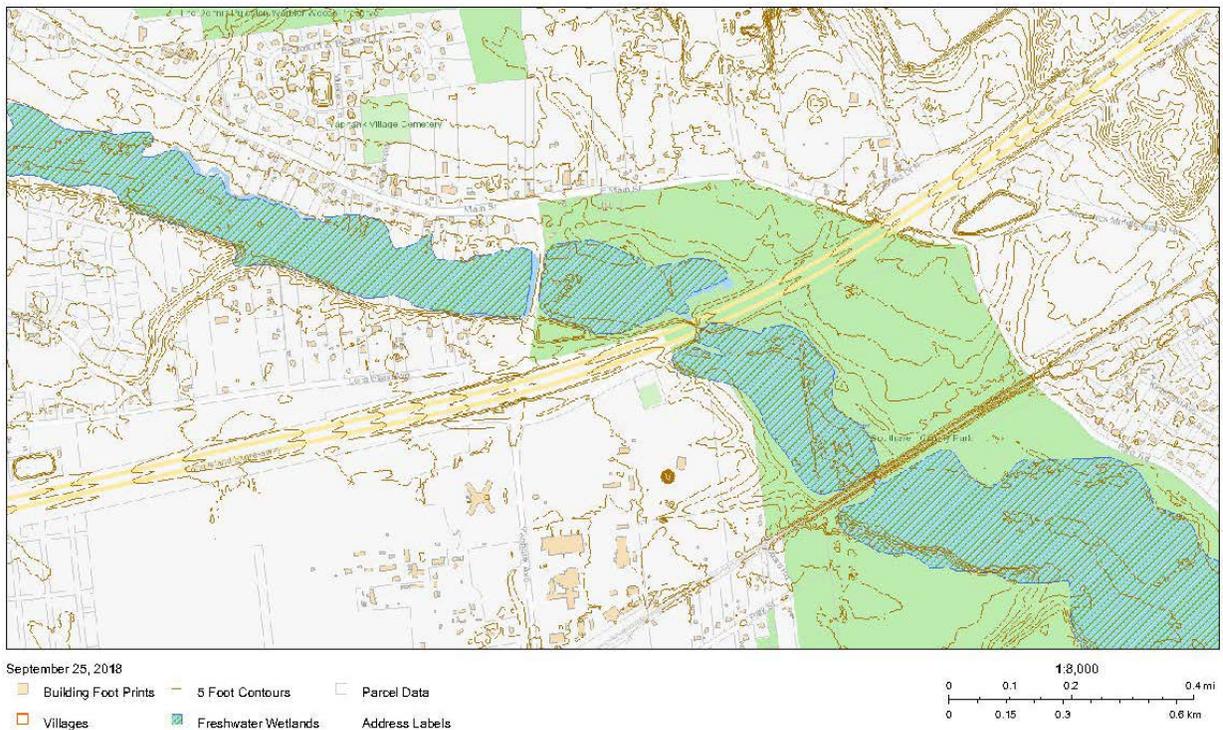


Figure 3. Freshwater Wetlands in the project area (SCDIT 2018)



Figure 4. Site Walkover: Overview of project area looking north up Yaphank Ave from existing spillway.



Figure 5. Site Walkover: Overview of project area, facing south down Yaphank Ave. from Homan-Gerard House.



Figure 6. Site Walkover: West side of project area at existing spillway, facing north.



Figure 7. Site Walkover: View of Lower Lake, facing west from existing spillway.



Figure 8. Site Walkover: Existing spillway as seen from across the Lower Lake (low water level), facing SE.



Figure 9. Site Walkover: East side of project area at existing spillway, facing east.



Figure 10. Site Walkover: Looking down over existing spillway into Carmans River on east side of Yaphank Ave., facing east. Note dense wetland vegetation.



Figure 11. Site Walkover: East side of Yaphank Ave, just north of the existing culvert, facing south. Existing culvert visible on right, possible stone foundation wall on southern bank of the Carmans River in background.



Figure 12. Site Walkover: Northern historic weir on western side of Yaphank Ave., facing NE from lake edge.



Figure 13. Site Walkover: Northern weir cast-iron pipe on eastern side of Yaphank Ave., facing north from road edge. Note poor visibility of smaller stone wall feature in foreground.



Figure 14. Site Walkover: Southern historic weir on western side of Yaphank Ave., facing down and to the west from road edge. Note dry lake bed in background.



Figure 15. Site Walkover: Southern weir cast-iron pipe on eastern side of Yaphank Ave., facing southeast from road edge. Note historic stone wall in background.



Figure 16. Site Walkover: Southern face of Homan-Gerard House with gravel access drive in foreground, facing northeast.



Figure 17. Site Walkover: Gravel parking area adjacent to Homan-Gerard House, facing south. Area of vegetation in background to be disturbed by temporary construction access.



Figure 18. Site Walkover: Area of along eastern edge of existing boardwalk to be disturbed by temporary construction access, facing east.



Figure 19. Site Walkover: Area of proposed temporary construction access into wetland zone in eastern project area, facing SE from end of boardwalk.



Figure 20. Site Walkover: Eastern project area, facing southwest from boardwalk. Location of proposed fish passage in far-left background. Mill foundation on right in dense vegetation, north of the proposed fish passage.



Figure 21. Site Walkover: Eastern project area, larger historic foundation wall, facing SW from end of boardwalk. This wall is outside the limit of proposed project disturbance and will remain intact.



Figure 22. Site Walkover: Existing paved shoulder and lake-side vegetation on west side of Yaphank Ave, facing SW. Area to be disturbed by temporary construction access to the left of existing fence.



Figure 23. Site Walkover: Western project area, facing south from existing culvert. Concrete headwall will remain intact, but spillway will be modified by the project.

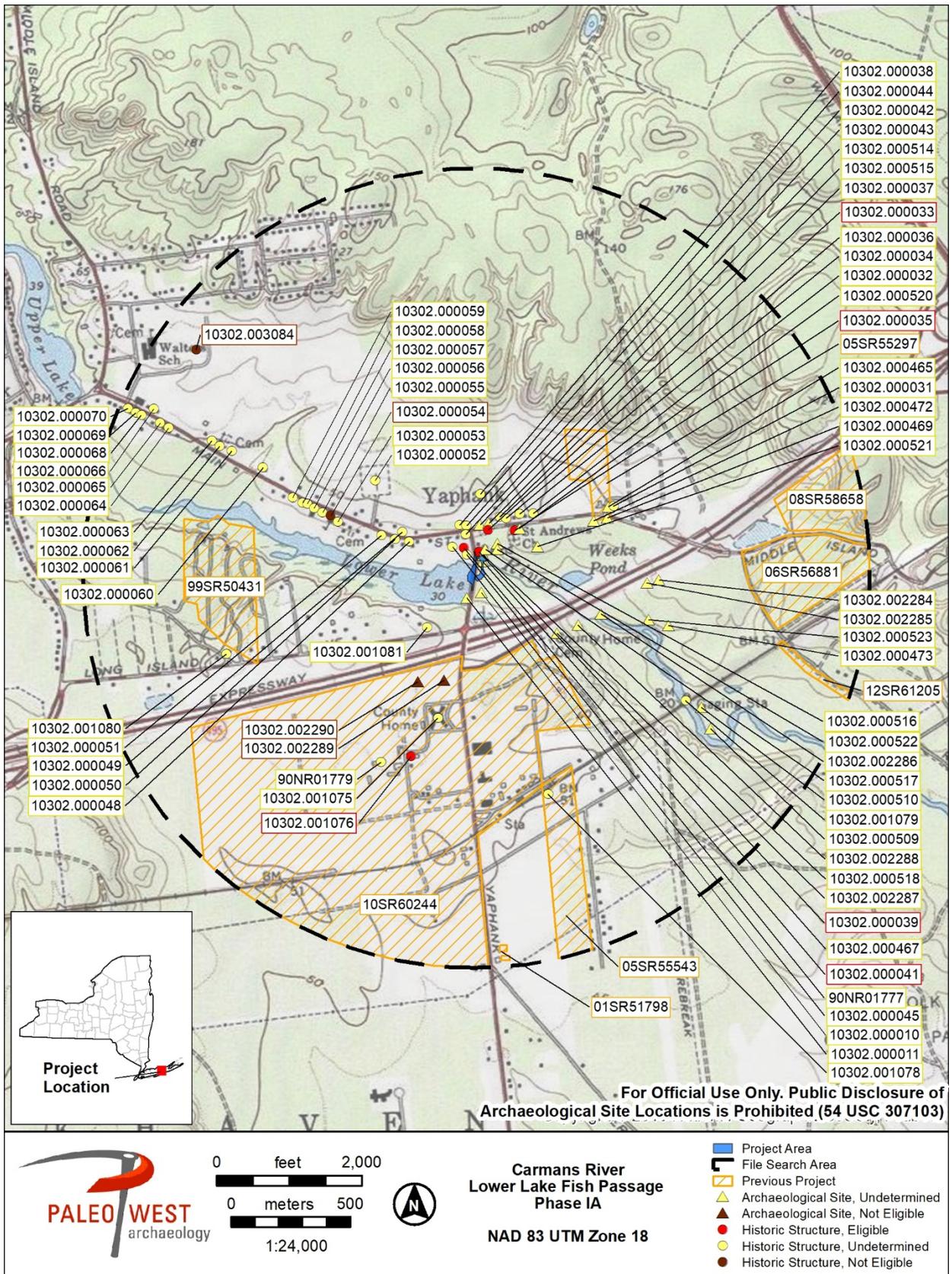


Figure 24. Site file search results within a 1-mile radius of the project area.

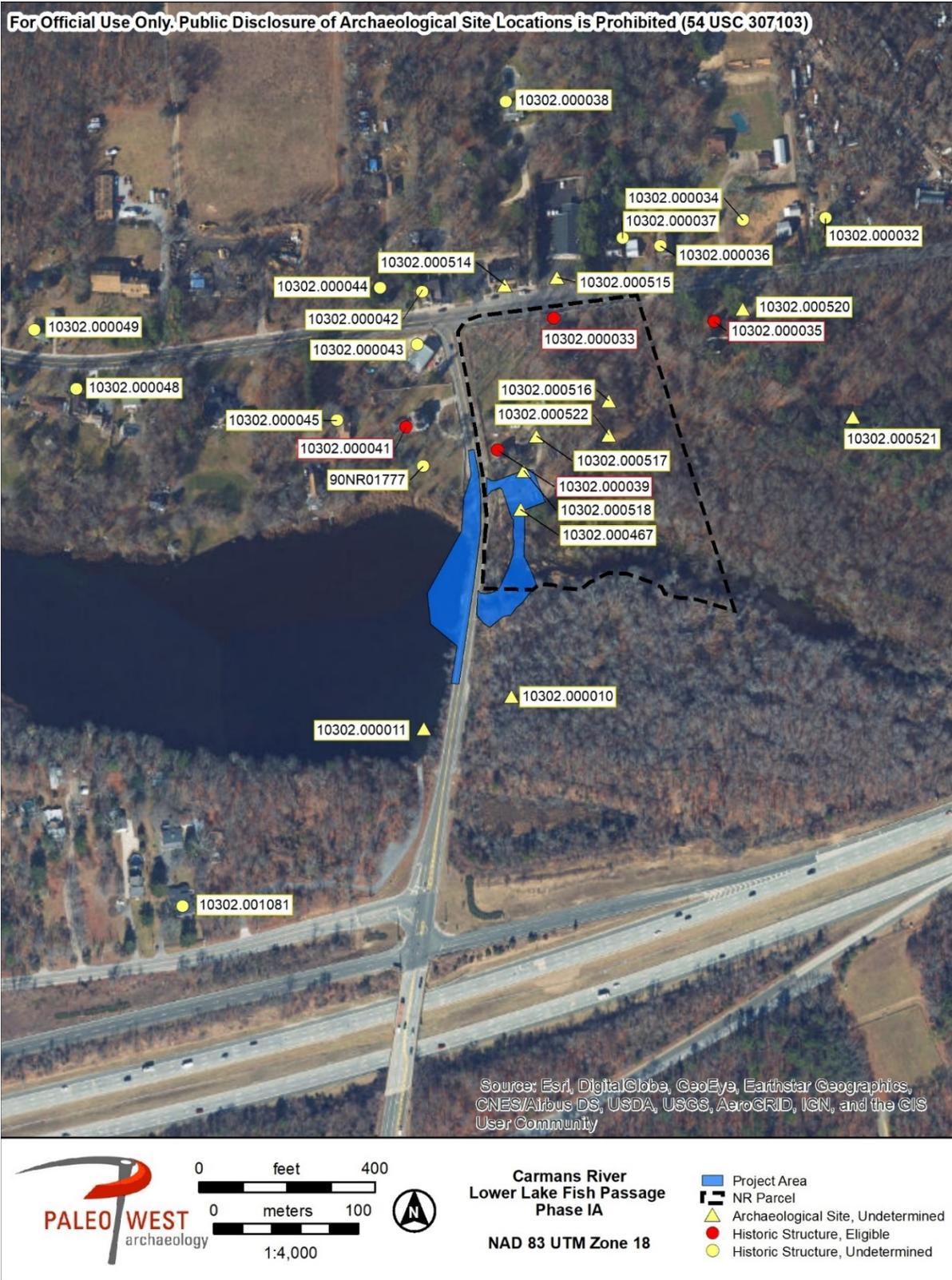


Figure 25. Cultural resources in the immediate vicinity of the project area. Two recorded archaeological sites, of “undetermined” status, may overlap with the limit of project disturbance. All others will not be impacted.

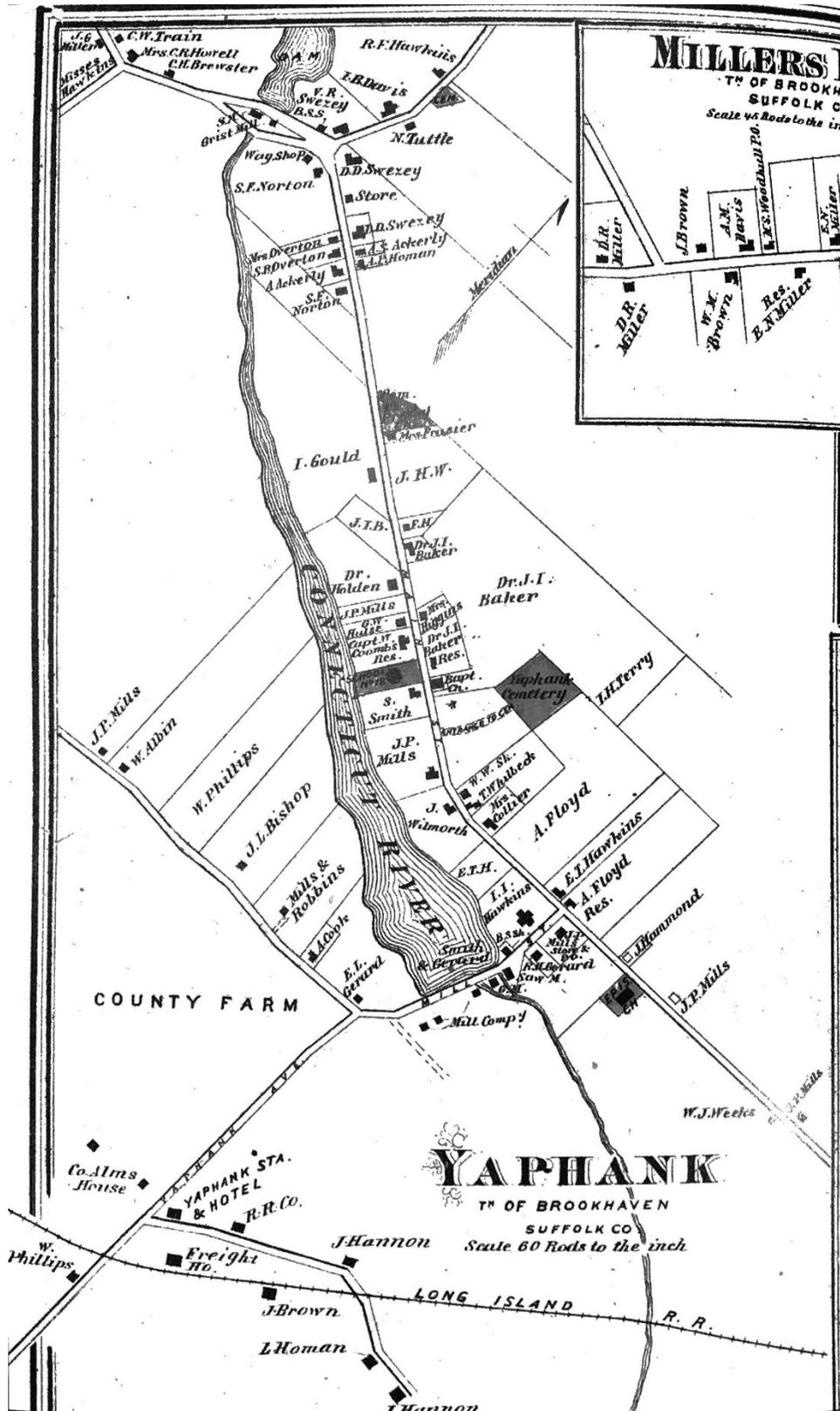


Figure 28. 1873 Beers-Comstock Map of Yaphank with mill complex (Beers-Comstock 1873).

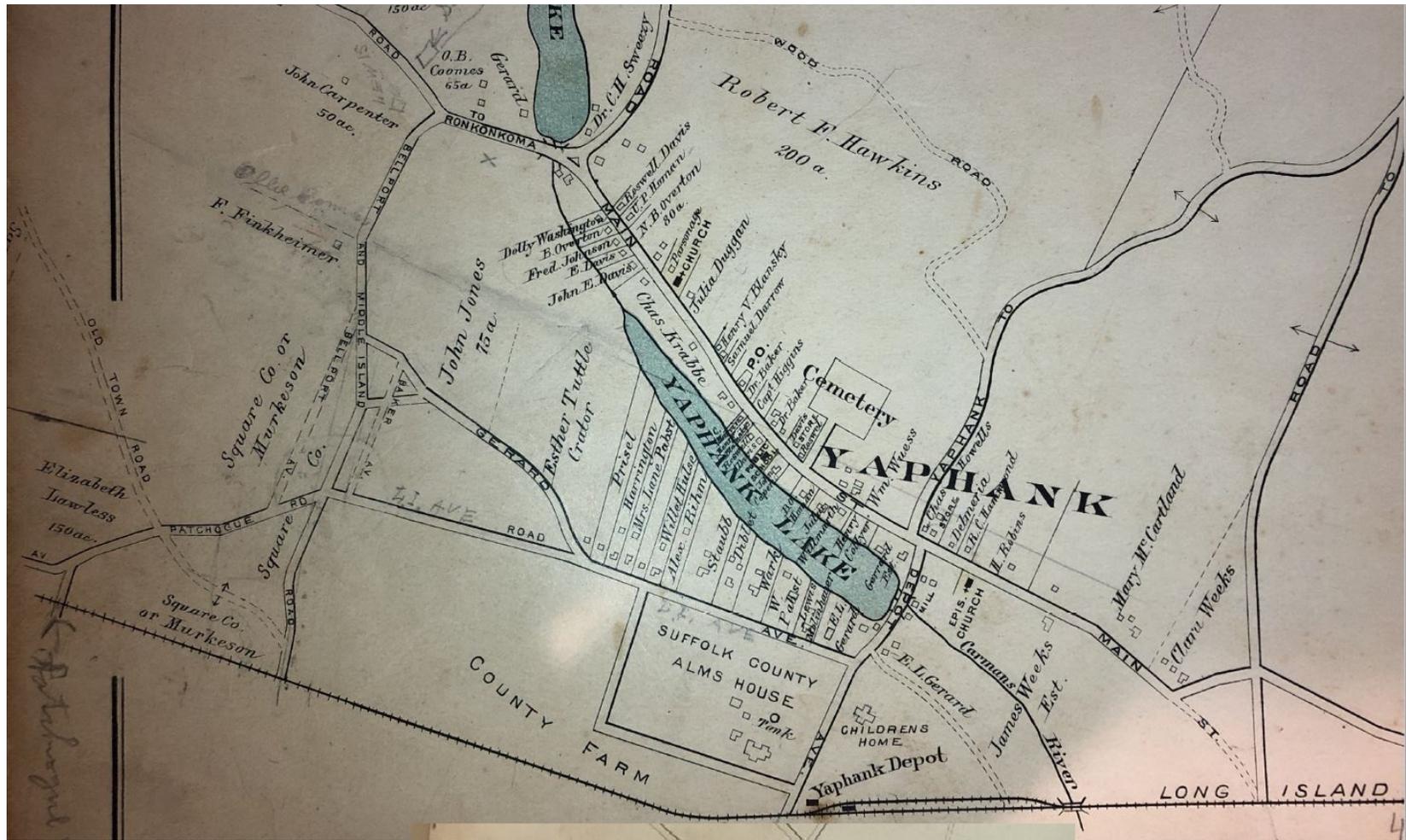


Figure 29. Detail of 1909 Hyde Map (Hyde 1909).

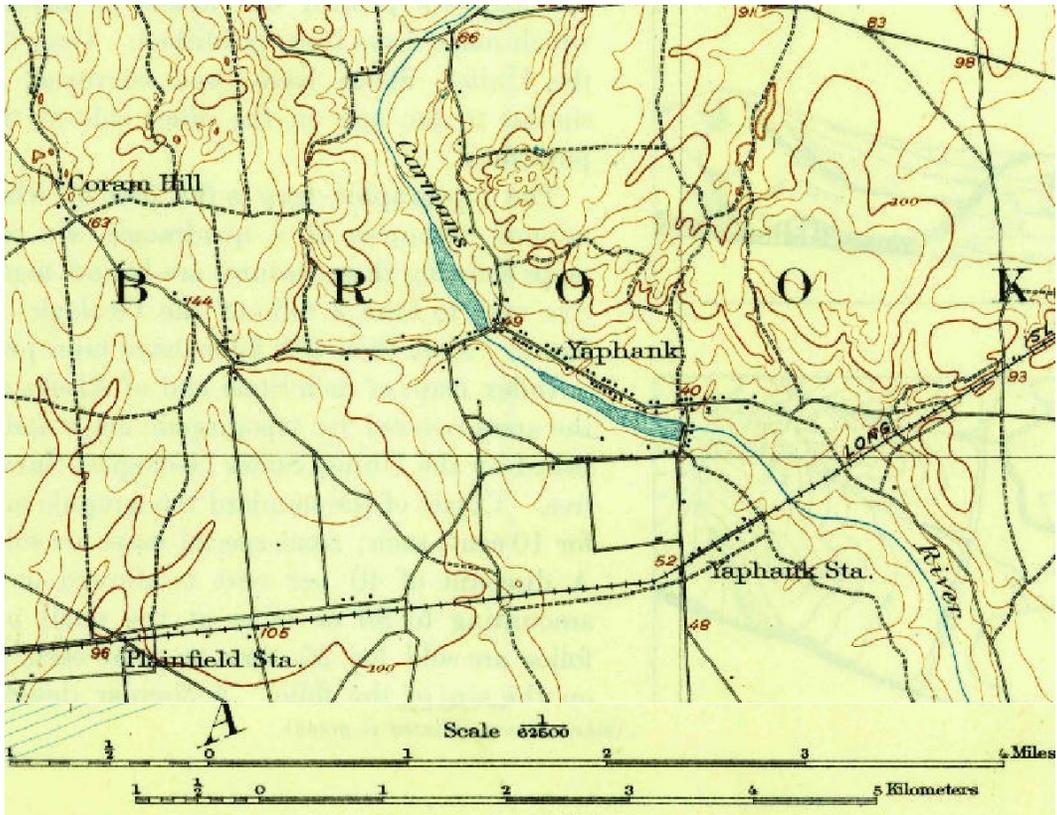


Figure 30. 1904 USGS map (USGS, Bellport, N.Y. Quadrangle. 7.5 minute series 1904).

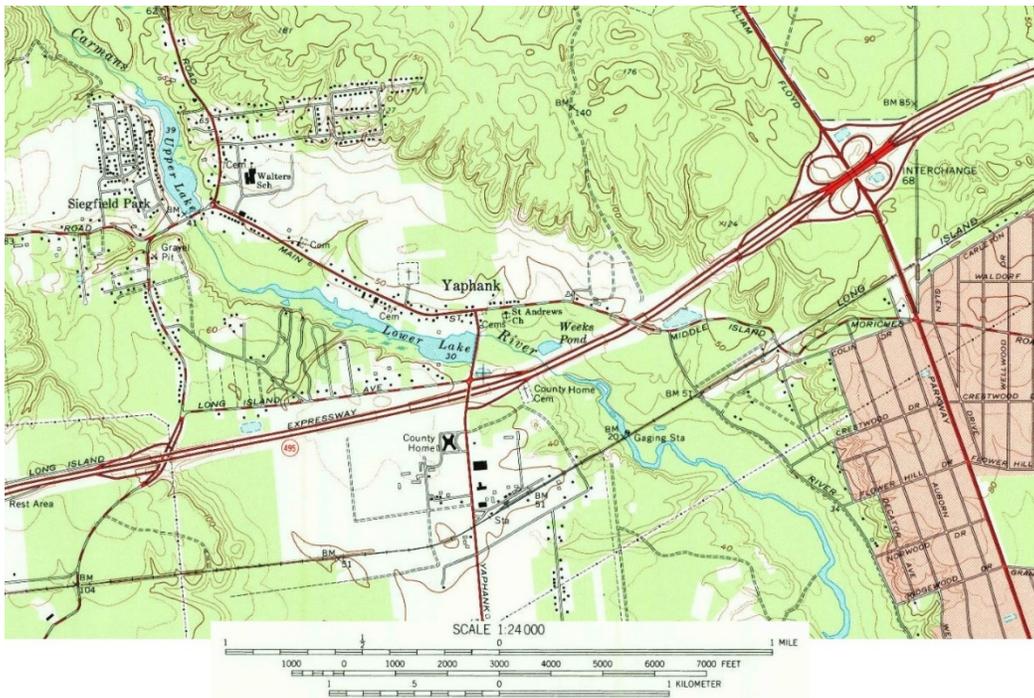


Figure 31. 1967 USGS map (USGS, Bellport, N.Y. Quadrangle. 7.5 minute series 1967).



Figure 32. Historic photograph of the saw and grist mills, looking north towards the Homan-Gerard House along Yaphank Ave (YHS, Photography Collection: late 19th to early 20th C.).



Figure 33. Historic photograph of saw and grist mills, woolen factory, looking south down Yaphank Ave (YHS, Photography Collection: late 19th to early 20th C.).



Figure 34. Historic Photograph of eastern face of mill buildings, supported on piers over the river (YHS, Photography Collection: late 19th to early 20th C.).



Figure 35. View of the stone foundation wall from the north with three [3] possible stone piers in the midground. Photograph from 2013 site walkover by Yaphank Historical Society (YHS n.d.).



Figure 36. Historic photograph of mills, looking north up Yaphank Ave from historic sluiceway under repair (YHS, Photography Collection: late 19th to early 20th C.).

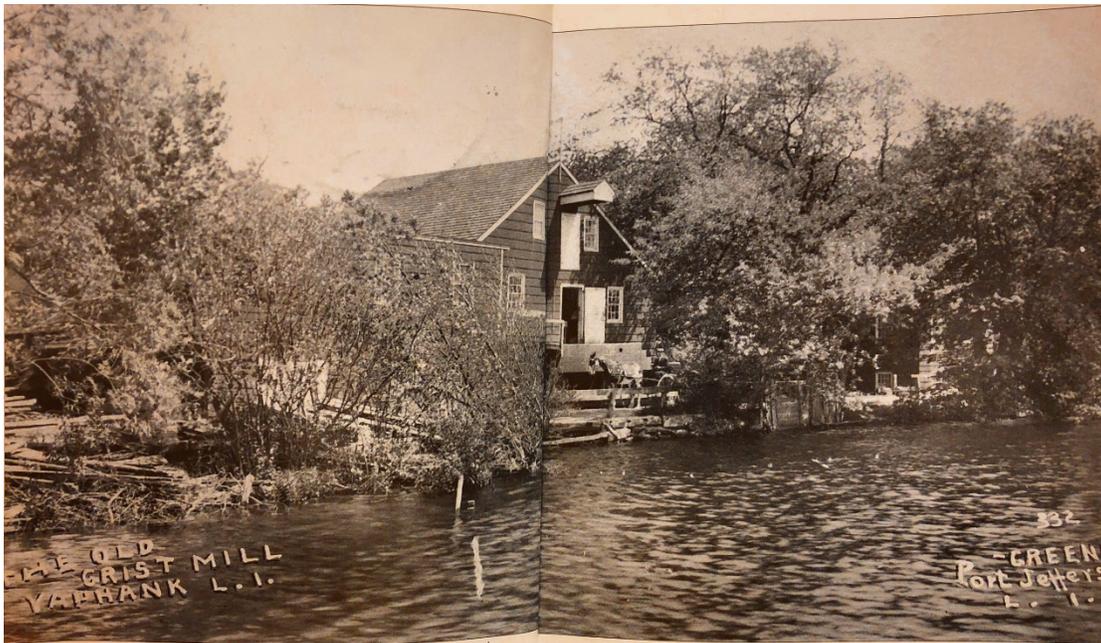


Figure 37. Historic photograph of mills and factory building, looking east from the Lower Lake (YHS, Photography Collection: late 19th to early 20th C.).



Figure 38. Historic postcard of mills and factory buildings, looking north up Yaphank Ave (YHS, Photography Collection: late 19th to early 20th C.).



Figure 39. Historic photograph of Homan-Gerard House concurrent with mill operation, looking north up Yaphank Ave (YHS, Photography Collection: late 19th to early 20th C.)



Figure 40. Historic photograph of 1920 Shroeder's saw mill building, south face (YHS, Photography Collection: late 19th to early 20th C.)



Figure 41. 1925 photograph of Homan-Gerard House, looking south down Yaphank Ave with 1920 saw mill in background. Taken by Eugene Armbruster (YHS, Photography Collection: late 19th to early 20th C.).



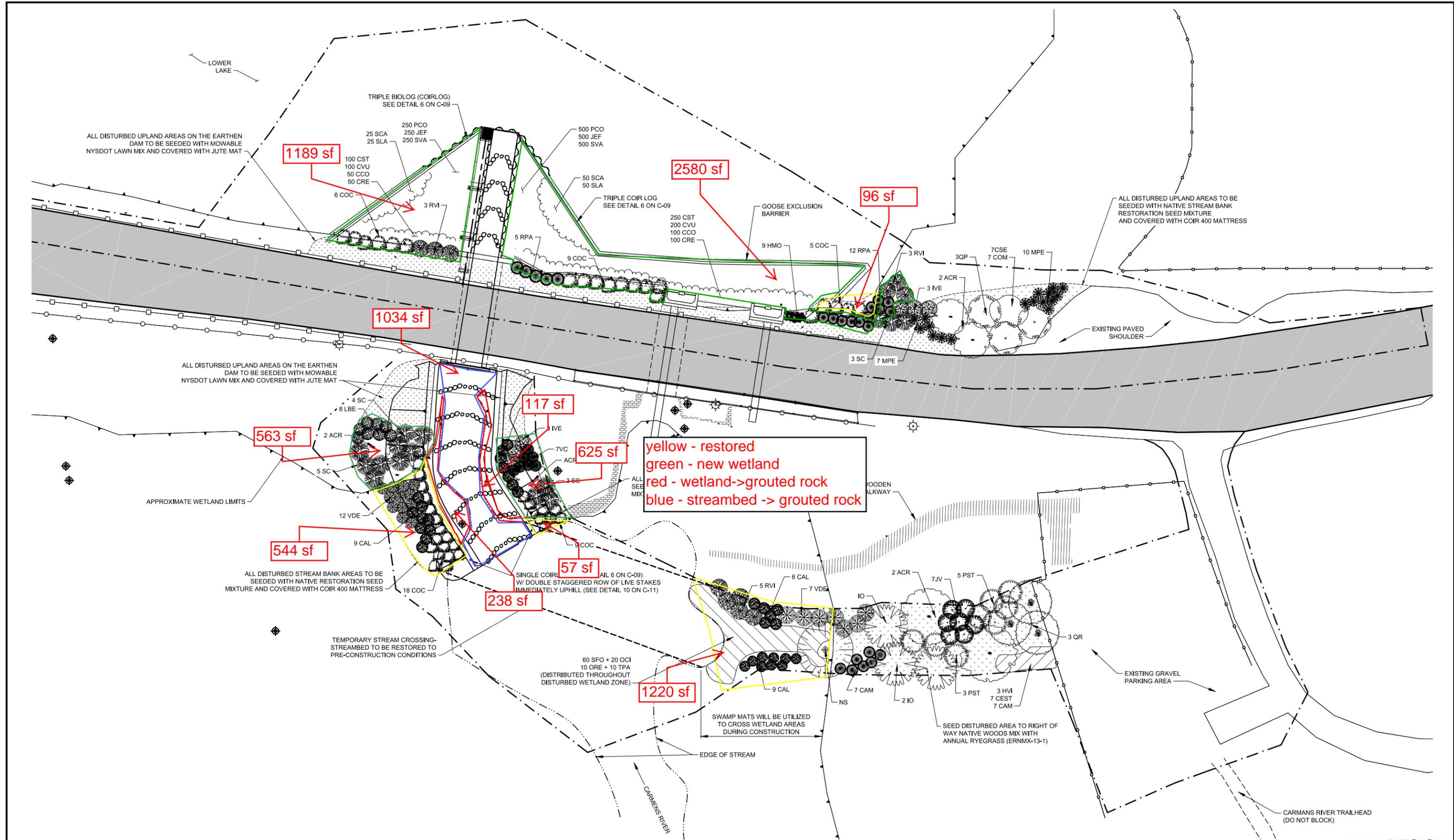
Figure 42. 1925 photograph of Homan-Gerard House, west and south faces. Taken by Eugene Armbruster (YHS, Photography Collection: late 19th to early 20th C.).

APPENDIX B: LAND CONVEYANCE RECORDS

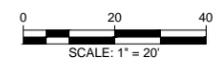
Land Conveyance Records for Block 1

Date	Grantor	Grantee	Liber: Page	Notes
1821	Daniel Homan Jr.	Robert H. Hawkins	E 172	Mill rights
1826	Charles Homan	Daniel Buckingham	G 314	Buckingham is relation of Homan
1827	Clarissa Homan	Robert H. Hawkins	1 59	House property
1856	Daniel Buckingham	Robert H. Gerard	43 386	Homan to Gerard
1859	Town of Brookhaven	Robert H. Gerard	105 171	Mill rights for \$1
1859	Robert Hawkins Gerard	Edward L. Gerard	151 581	Granted mill to nephew
1861	Edmund J. Hawkins	Robert H. Hawkins and siblings	121 477	Hawkins inheritance
1879	Wickham Mills	Edward L. Gerard	241 540	Mill rights to Edward
1919	Charles Gerard	Gertrude and William Schroeder	466 259	\$4500 mortgage
1922	Jetur W. Hand	Anson H. Hard	1045 79	Auction (Hand is relation of Gerard)
1936	Frederick, George, and Katherine Hard	Florence B. Deans	1877 2	Inheritance
1956	Florence B. Hard	Kenneth B. Hard	4259 452	Inheritance

APPENDIX C: CARMANS RIVER FISH PASSAGE DESIGN



NOTES:
 1. REFER TO C-09 FOR WETLAND PLANT SCHEDULE
 2. REFER TO G-02 FOR SYMBOL AND HATCH LEGEND



NO.	DATE	ISSUE/REVISION	APP
3	06/30/17	100% DESIGN	LS
2	06/02/17	60% REVIEW	LS
1	02/07/16	60% REVIEW - PREVIOUS ALTERNATIVE	LS
0	12/14/15	30% REVIEW	LS

Designed: K. Price
 Checked: J. Engels
 Drawn: T. Carmody
 Submitted By: L. Schwano
 P.E. No.: NY 058482-1
 Submittal Date: 06/28/2017



Department of Economic Development and Planning
 H. Lee Dennison Building
 100 Veterans Memorial Hwy, 2ND Floor
 Hauppauge, Suffolk County, NY 11788
 GEI Project 1323940

Carmans River Lower Lake Fish Passage
 Suffolk County, New York
 RESTORATION PLAN (1 OF 2)

DWG. NO. C-08
 REV 3

100% DESIGN