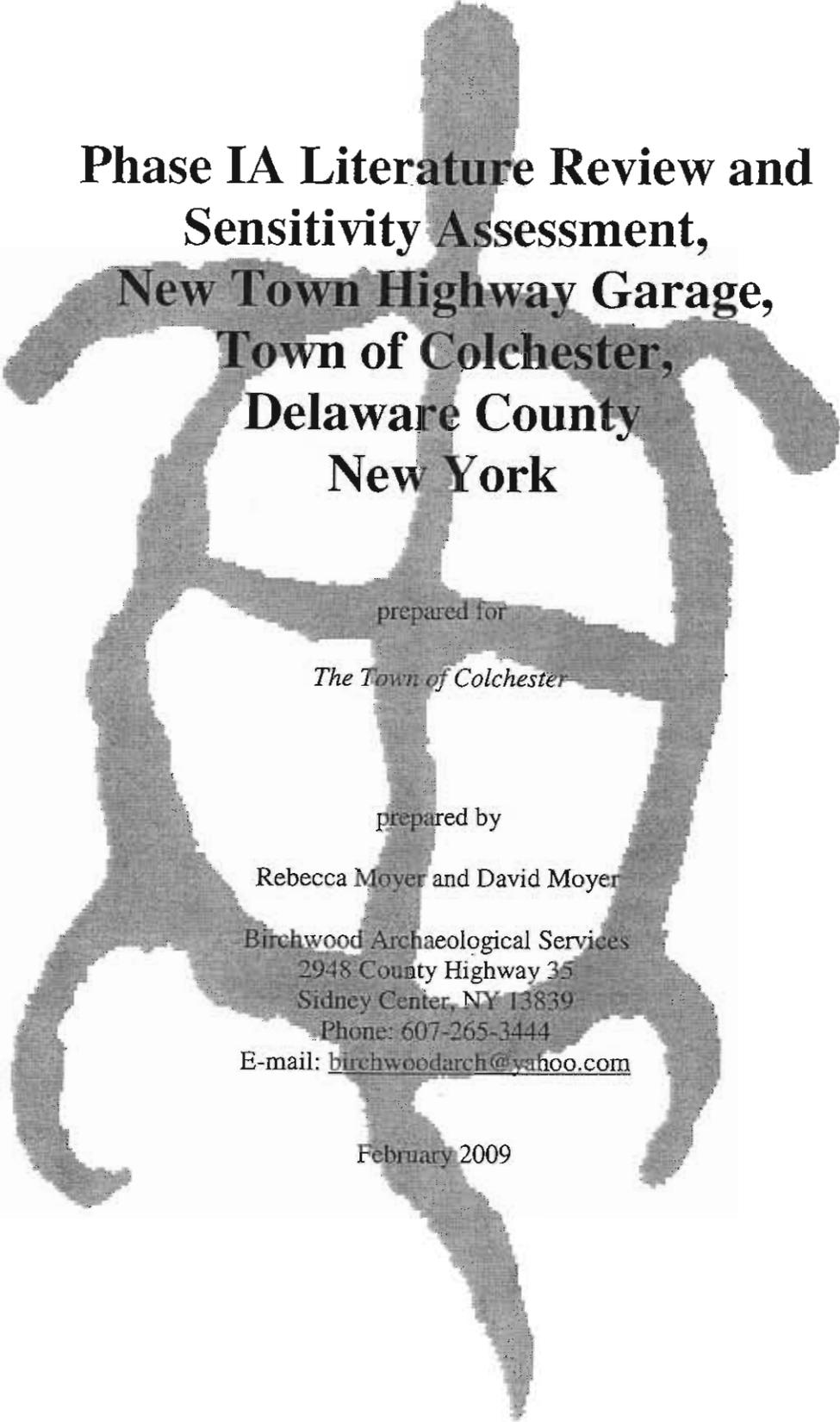


APPENDIX D

Phase 1A Cultural Resources Report

Phase 1B Cultural Resources Report



**Phase IA Literature Review and
Sensitivity Assessment,
New Town Highway Garage,
Town of Colchester,
Delaware County
New York**

prepared for

The Town of Colchester

prepared by

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February 2009

Management Summary

New Town Highway Garage Project

SHPO Project Review Number:

Involved State and Federal Agencies: DEC

Phase of Survey: IA

Location Information

Location: south of River Road
Minor Civil Division: Village of Downsville
County: Delaware

Survey Area (Metric & English)

Length: 417.4 ft (127.2m)
Width: 417.4 ft (127.2m)
Depth: 5 ft (1.5 m)
Number of Acres Surveyed: 4.0 acres
Number of Square Meters & Feet Excavated:
Percentage of the Site Excavated:

USGS 7.5 Minute Quadrangle Map: Downsville

Archaeological Survey Overview

Number & Interval of Shovel Tests:
Number & Size of Units:
Width of Plowed Strips:
Surface Survey Transect Interval:

Results of Archaeological Survey

Number & name of prehistoric sites identified: 0
Number & name of historic sites identified: 0
Number & name of sites recommended for Phase II/Avoidance: 0

Results of Architectural Survey

Number of buildings/structures/cemeteries within project area: 0
Number of buildings/structures/cemeteries adjacent to project area: 0
Number of previously determined NR listed or eligible buildings/structures/cemeteries/districts: 0
Number of identified eligible buildings/structures/cemeteries/districts: 0

Report Author(s): Douglas Idleman and David Moyer

Date of Report: February 2009

Executive Summary

A Phase IA Literature Review and Sensitivity Assessment has been completed for the Town of Colchester Highway Garage Project, located in the Town of Colchester, Delaware County, New York. The current project involves the construction of a new 110 x 125 ft (33.5-38.1 m) town garage as well as related parking and septic facilities. The area of potential effects (APE) includes approximately 4.0 acres of a larger 22.412 acre parcel. The proposed ground disturbance will extend to depths in excess of 5 ft (1.5 m).

The Phase IA review indicated that there are no prehistoric sites known within one mile of the project area. However, this does not necessarily reflect the absence of prehistoric cultural material, but merely signifies a lack of documentation. The project area is considered moderately sensitive for prehistoric remains due its vicinity to the East Branch of the Delaware River and other smaller tributaries, as well as the diversity of natural resources in the area which may have provided an attractive location for prehistoric peoples in terms of seasonal hunting and gathering purposes. In addition to the moderate prehistoric sensitivity of the current project, there are four historic archaeological sites and two National Register Listed properties known within one mile of the project area. Due to these factors, the project area is considered highly sensitive for historic remains.

No historically significant structures occur within the APE boundaries; however, there are a few modern, temporary sheds located within the APE. Most of the disturbance, which seems to consist largely of leveling, is located in the eastern part of the APE, where large trucks routinely haul gravel out of the property. The remainder of the APE appears relatively undisturbed. Soil survey information suggests that soils expected within the undisturbed parts of the current project boundaries consist of Barbour loam. As this type of soil forms from alluvial deposition and is probably undisturbed, it can be expected that any archaeological sites in the undisturbed portions of the APE are intact.

Some evidence of disturbance was noted during the surface inspection, most notably in the eastern part of the APE between the gravel mine and the access road. However, we recommend that the entire 4.0 acre area of potential effects be subjected to subsurface testing to ensure that archaeological deposits will not be impacted as part of the proposed project, since stratigraphically intact sites can sometimes be found in areas which appear visibly disturbed from the ground surface.

This assessment is subject to the review and concurrence of the New York State Office of Parks, Recreation, and Historic Preservation.

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Introduction

Birchwood Archaeological Services was contracted by the Town of Colchester to conduct a Phase IA Literature Review and Sensitivity Assessment for the Town of Colchester Highway Garage Project, located in the Town of Colchester, Delaware County, New York. The overview had been requested to assess the potential that significant cultural resources may be located within the project area. The investigation was performed in compliance with Section 14.09 of the New York State Parks, Recreation and Historic Preservation Law.

The project involves the construction of a new 110 x 125 ft (33.5-38.1 m) town garage as well as related parking and septic facilities. The area of potential effects (APE) includes approximately 4.0 acres of a larger 22.412 acre parcel. The proposed ground disturbance will extend to depths in excess of 5 ft (1.5 m) in places.

Background research was conducted to assess the potential for prehistoric and historic resources on the property and provide contexts with which to interpret any future findings (see Part I: Documentary Research). Field research was conducted to determine the potential need for subsurface testing.

Part I: Documentary Research

Documentary sources and collections were consulted to gain an overview of the prehistory, history, and environmental setting of the project area and surrounding region. A search was also conducted to locate known archaeological sites, historic structures, and National Register properties within one mile of the project area. Sources of information that were consulted included:

- Office of Parks, Recreation and Historic Preservation (OPRHP) site files and survey reports
- New York State Museum site files (copies at OPRHP)
- National Register of Historic Places
- New York State Library and Archives, Albany
- New York State Historical Association Library, Cooperstown
- Milne Library, SUNY Oneonta

Specific documentary references that were consulted are listed in the bibliography.

Environmental Setting

Delaware County is situated in the western foothills of the Catskill Mountains in central New York State, encompassing both the East and West Branches of the Delaware River. Its most prominent geographic feature is the Catskill Mountains, which are highest in elevation in the eastern part of Delaware County and decrease in height as one moves west across the County. The project lies within the Delaware section of the Glaciated Allegheny Plateau physiographic region.

The Delaware section of the Glaciated Allegheny Plateau consists of large, U-shaped valleys with topography reflecting both deglacial and postglacial. Most of the soils in the project vicinity were laid down as outwash following deglaciation, followed by continued deposition from flood events. (Seifried et. al, 2009).

The project area is located on a floodplain terrace near the southern bank of the East Branch of the Delaware River just south of the Village of Downsville (Figures 1 and 2; Photos 1-28). The project area consists of the relatively level floodplain terrace with a slight rise as one moves south approaching the mountains running adjacent to the river valley. Elevation ranges from 1,103 ft (336 m) above mean sea level in the north to 1,120 ft (341 m) above sea level in the south. The East Branch flows roughly east to west just north of the project area with the closest point being approximately 1,200 feet (31 m) away. A small pond lies 500 ft (152 m) almost directly east of the project area. This pond appears to be artificial as it does not occur on maps from the 19th Century. Downs Brook flows through the Village of Downsville and enters the East Branch 2,082 ft (635 m) northeast of the project area. Approximately 1.5 mi (2.4 km) east of the project area

is the western edge and dam of the Pepacton Reservoir. Built in 1955, this is one of multiple reservoirs in the Catskill Mountains used by New York City as a source of water.

Soils

The NRCS web soil survey (WSS) shows one soil type present within the current project boundaries: the Barbour loam soil series (Figure 3). The Barbour series consists of very deep well drained soils formed in recent alluvial deposits derived from areas of acid, reddish sandstone, siltstone, and shale. They are nearly level or gently sloping soils on flood plains. Mean annual temperature is 50 degrees F, and mean annual precipitation is 40 inches. A typical soil profile of Barbour loam is listed below in Table 1.

Table 1. Typical soil profile of Barbour loam.

Horizon	Depth	Description
Ap	0-6 in (0-15 cm)	dark reddish brown (5YR 3/2) loam, pinkish gray (5YR 6/2) dry; weak fine granular structure; very friable; many fine roots; strongly acid; abrupt smooth boundary (6 to 10 inches thick)
Bw1	6-18 in (15-46 cm)	reddish brown (5YR 4/3) silt loam; weak coarse prismatic structure parting to weak medium, fine and very fine subangular blocky; friable; common fine roots; common fine pores; faces of pedes are dark reddish brown (5YR 3/3); strongly acid; clear wavy boundary (12 to 24 inches thick)
Bw2	18-26 in (46-66 cm)	reddish brown (5YR 4/3) gravelly loam; very weak fine subangular blocky structure; friable; common fine roots; few fine pores; 20 percent gravel; strongly acid; clear wavy boundary (0 to 10 inches thick)
2C	26-72 in (66-183 cm)	reddish brown (5YR 4/4) very gravelly loamy sand; single grain; loose; 50 percent gravel; strongly acid

The majority of the project area is made up of what is classified as Pits, known to be gravel (map unit Pg) associated with gravel mining in that area. Due to the gravel mining, no soil description is composed.

The above soil profile suggests that both historic and prehistoric resources may potentially be found in the first 46 cm (18.1 in) of soil overlaying parent material. The soil survey did not indicate the presence of any buried A horizons within or adjacent to the current project area. As such, any subsurface testing should extend to at least 20 cm (8 inches) below the B horizons. All resources are expected to be confined to the A and B horizons.

This soil information is based upon documentary sources examined prior to the initiation of fieldwork. As a result, it may be necessary to modify the subsurface testing strategy in the field to meet unexpected soils, disturbances and other obstructions. The results of the subsurface testing and how they compare with the above soils information is discussed in the *Results* section of this report.

Current/Past Land Use

In general, the project area and its larger vicinity appear to have been used for agricultural purposes for many years prior to the current proposed project. The area along River Road is still planted agriculturally, having been most recently been used for corn cultivation (Photos 1-6), with the project area itself used by the town as a gravel mine. Large piles of gravel and paving material dot the vicinity (Photos 11-17), evidence of the towns use. The current project is very much in keeping with this latter land use, since the proposed construction is an extension of use by the town highway department.

Disturbance

While some portions of the project area appear visibly disturbed, other areas show little evidence of ground disturbance. Most of the disturbance is located in the eastern part of the APE, where large trucks routinely haul gravel out of the property (Photos 11-16). Most of this disturbance appears to consist of leveling by means of scraping a small amount of topsoil, leaving archaeological deposits a possibility (Photos 26 and 27). No evidence of extensive ground disturbance was noted in the location of the proposed septic field (Photos 17-22). As intact stratigraphy may sometimes be found in areas that appear disturbed on the surface, any subsurface testing strategy for this project should remain constant throughout the project area to ensure adequate testing of all potentially cultural bearing strata.

Previous Surveys

Three cultural resource surveys have been conducted within one mile of the project area (Table 2). The first survey listed was a Phase IA/IB survey completed by the Public Archaeology Facility (PAF) in 1999 as part of PIN 9044.43.101 NY 30, in the Towns of Hancock and Colchester. The Public Archaeology Facility (PAF) also completed a Phase IA/IB survey in 2000 for the Delaware County Salt Storage Facility Project. The third survey listed was also a Phase IA/IB survey, and was completed by Eugene Boesch in 2001 for the proposed Crown Atlantic Downsville Communication Facility. None of these surveys identified any archaeological sites.

Table 2. Previous cultural resource surveys within one mile of the project area.

Project Name	Reference	No. of Sites Identified
PIN 9044.43.10 Phase IA/IB	(Public Archaeology Facility 1999)	0
Delaware County Salt Storage Facility Phase IA/IB	(Public Archaeology Facility 2000)	0
Crown Atlantic Downsville Communication Facility Phase IA/IB	(Eugene Boesch 2001)	0

Prehistoric Overview

Glaciers covered much of central New York during the Wisconsin glaciation, which ended about 12,000 years ago. People may have begun occupying the area soon after the glaciers retreated. These Paleoindians were organized in highly mobile bands adapted to tundra and boreal forest environments. While archaeologists have traditionally emphasized the hunting of large megafauna such as mammoth and bison, there is increasing evidence that Paleoindians exploited a diverse array of small game and wild plants. Ritchie (1994: 4–5) notes several fluted point finds indicative of Paleoindian occupation along the northern part of Delaware County, although no Paleoindian camps have been identified near the project area.

Around 7000 B.C., stands of spruce and fir rapidly gave way to a denser forest of pine and deciduous trees, with oak becoming a dominant species. This drier climate supported less game and provided fewer plant resources for human populations. As a result, few sites dating from this Early and Middle Archaic period have been discovered in the region. Those few sites that have been found dating to this period are often found near water sources and suggest that people lived in small mobile bands and subsisted on gathered and hunted wild resources.

Beginning around 6500 B.C., the climate became increasingly wetter, resulting in an environment similar to ours today. The large number of sites from this period suggests that Late Archaic populations increased significantly at this time. While people continued to live in small, mobile bands, there was an increasing trend toward sedentism. Subsistence practices were highly diverse and included a wide variety of aquatic and terrestrial resources. Late Archaic sites range from small upland camps to large villages near the confluences of major streams. During the latter part of this period, the Lamoka and Brewerton phases figure prominently in the prehistory of the region. No beveled axes indicative of the Lamoka phase have been identified in Delaware County (Ritchie 1994:45).

The Transitional Period (ca. 1300-1000 B.C.) is characterized by the use of steatite vessels and smoking pipes, which gradually give way to large, thick pottery vessels. This period is very much a continuation of Late Archaic life ways, with increasing sedentism and reliance on plant resources. The Woodland Period begins about 1000 B.C. and is marked by the introduction of pottery and the development of an elaborate trade and ceremonial complex. It is during this time that people gradually began to cultivate plants.

The Late Woodland Period began around A.D. 1000 and is differentiated from its predecessor primarily on the basis of projectile point types, pottery styles and diet (Funk 1976). Hoe cultivation also appears during Late Woodland times. Diet was largely made up of cultigens (corn, beans and squash) and game supplemented by fishing and the gathering of aquatic and terrestrial resources. Large, permanent village sites occur along major rivers as well as defensive locations (Ritchie 1994). Small, ephemeral sites also occur, probably used as camps for resource extraction. These smaller sites are located in a wide variety of geographic contexts, ranging from wetlands and backwater drainages to

forested uplands. After about A.D. 1400, the Iroquois culture was fully developed, with intensive horticulture and large, palisaded villages (Ritchie and Funk 1973).

Known Prehistoric Sites

A check of site files of the Office of Parks, Recreation, and Historic Preservation and the New York State Museum indicated that no prehistoric sites are known within one mile of the project area. This does not necessarily reflect the absence of prehistoric cultural resources, but rather reflects the relative lack of archaeological surveys conducted in the vicinity.

Historic Overview

Delaware County lies in the south central region of New York State with the southwestern edge of the County bordering Pennsylvania. The headwaters of the Delaware River run through the County from northeast to southwest in two separate branches that are known as the West Branch in the north, and the East Branch in the south. The branches of the Delaware and its tributaries account for the terrain of Delaware County, which is mostly comprised of relatively steep ridges and the valleys formed by the various waterways. The Catskill State Park runs through portions of the southeastern section of the County, making the eastern border of the County the Catskill Mountains. Portions of the Susquehanna River valley comprise the northern border of Delaware County. The soil is made up mostly of reddish clay and is well known for being extremely rocky. Delaware County was created from parts of Ulster County and Otsego County on March 10, 1797. Delhi became the county seat in 1817, with the first land grant given in 1708. This land grant consisted of the 10 square mile Hardenburgh Patent, which was granted to Johannes Hardenburgh of Kingston and included the area south of the East branch of the Delaware River (French 1860). It wasn't until 1762/3 that Dutch settlers from Hurley, NY came and began to settle the area. From this time through the early 1770's, many more settlers arrived in Delaware County. However, around the beginning of the Revolutionary War, most everyone had been driven out by conflicts with Native American groups (Sullivan 1927). Most people returned after the Revolution with many more following to settle Delaware County. Logging was the first major industry, with dairy farming taking over and continuing through the present.

The Town of Colchester lies in the south central portion of Delaware County and is divided in half by the East Branch of the Delaware River. Being very close to the Catskill Mountains, Colchester is made up of many steep hills and valleys. It was formed from the Town of Middletown in 1792. In 1799, and later in 1827, parts of the town were annexed to the Town of Walton, with a section also annexed to Hancock in 1806 (French 1860). The first settler in Colchester arrived in 1766 from Westchester County. Sources differ on his first name, possibly Russell (Munsell 1880) or Timothy (Sullivan 1927), but his last name was Gregory and he settled on the east side of the Delaware River. He erected a cabin and went on to plant apple trees in a clearing along side the river. Other early settlers to Colchester were Jacob Barnhart, Frederick Miller, Daniel Wilson, William Commins and their families (Munsell 1880). As was true for other

parts of Delaware County, these early settlers were forced out of Colchester by Native Americans until after the Revolutionary War. The residents returned after the War and along with them came new settlers, many of which were Revolutionary War veterans. These young men saw much potential in the dense forests along the East Branch and very quickly began logging the region. Timber became the primary industry in Colchester, not only due to the immense forests in the area, but also because the logs were easily transported down the Delaware River to Philadelphia. With all of the logging going on, sawmills began to be built along the river. The first one was built by W. June and another man known only as Denham. By 1880, there were 36 sawmills in Colchester. William Horton who would later go on to be the first representative for Delaware County in the state legislature, built the first tannery. Shad Fishing was also a very important early resource for the inhabitants of Colchester. An account from one early resident (around 1763) said that in one day of fishing on the East Branch, the residents were able to feed their families for an entire season (Munsell 1880). Following the pattern of the rest of the county, logging waned and farming became the leading industry in Colchester (Sullivan 1927). The rich floodplain soils were good for growing wheat and pastureland for cattle was available just up the hills from the rivers and streams (Munsell 1860). A covered bridge, of the long truss Queen Post style, was built over the East Branch in Downsville, the only major village in Colchester. It was built in 1854 by Robert Murray and is 174 feet long. The bridge had a major rehabilitation performed in 1998 and was added to the National Register of Historic Places in 1999 (New York State Covered Bridges 2005).

The modern history of the Town of Colchester really begins with the building of the Pepacton Reservoir. Finished in 1955, the Pepacton Dam impounded the East Branch of the Delaware River so that it could be used as a water supply for New York City. The Reservoir is twenty-one miles long and averages about one half mile wide. Arena, Pepacton, Shaver Town and Union Grove were all communities that were flooded in the building of the Dam, displacing 974 people (Bear Systems 2008). The building of the Pepacton Reservoir also coincided with an influx of tourists making their way into the areas north of the Catskill Mountains. From the mid 20th century through the present, Colchester has been a popular place for a variety of outdoor activities such as hiking, hunting, and the area is especially well known for its trout fishing.

Known Historic Sites and Structures

A check of site files of the Office of Parks, Recreation, and Historic Preservation and the New York State Museum indicated that four historic archaeological sites are known within one mile of the project area (Table 3). The Hanford Mills Museum reported all four historic archaeological sites in 1979 during its Historic Industrial Resources Survey. The first of these listed sites is the William Rose/Gristmill/Tub Mill Brook/Wilson Hollow Brook Site (A025-03-0038), of which there is no visible evidence. This gristmill was presumably at base of the nearby falls and was presumably disturbed by highway construction. The 1869 Beers Atlas interestingly notes that “William Rose was captured by the Indians at Tab Mill in 1779” (Beers 1869). The George Downs/J.D. Downs/Tannery/Downs Brook Site (A025-03-0039) is located 500 ft upstream of the NYS 30 crossing. Beers lists J.D. Downs as proprietor of the gristmill and tannery, and

also as a manufacturer and dealer in hemlock lumber. Founded 1848 by George Downs, “the growth and prosperity of the Village of Downsville may be dated to the erection of the tannery put up in 1848 by George Downs” (History, 1880). The next listed site is the J.D. Downs and Elwood/Gristmill/Downs Brook Site (A025-03-0040), which George Downs likely owned prior to J.D. Downs. Members of the Downs and Elwood family also owned the Colchester tanneries and sawmills. Finally, the last site listed is the Stream sawmill/East Branch/Delaware Site (A025-03-0041), located just north of the old bridge abutments on the west bank of the Delaware River.

A survey of the State Historic Preservation Information Exchange system (SPHINX) and the National Register Information System (NRIS) revealed that there are two listed National Register properties within one mile of the project area. First is the Downsville Covered Bridge (99NR01466), significant under criteria A and C as a rare and substantially intact example of rural vernacular bridge design and construction in the Catskill region. Erected across the East Branch of the Delaware River in 1854, the 174-foot, single span, Timber Bridge incorporates a truss design patented by Colonel Stephen H. Long. During the 1830s, Colonel Stephen H. Long of the U.S. Army Corps of Topographical Engineers perfected a rigid timber truss form that incorporated panels consisting of intersecting diagonals and counters. Long's initial patented design of 1830 for an “assisted truss” included a redundant kingpost relieving truss above the center panel points (where the greatest flex would occur). With practical experience Long refined his design to eliminate its “overbuilt” characteristics, receiving additional patents in 1836 and 1839. The Downsville Covered Bridge is significant as one of only 3 intact, extant Long truss bridges remaining in New York State. It was removed from service in 1993 and restored in 1998. This bridge was built using native oak and hemlock timber cut in local sawmills. The span at Downsville was the first bridge in Delaware County erected by builder/contractor Robert Murray, who also built the nominated Hamden Covered Bridge in Delaware County in 1859. In 1854, Murray received the contract to construct the crossing needed over the East Branch of the Delaware. The builder employed the time-tested Long truss design; a sturdy and easily constructed configuration that he knew was suited to the traffic loads the Downsville Bridge would carry. The Downsville Covered Bridge has had many repairs throughout the years. In 1951, the Department of public works repaired the roof, tightened the chords, put on new siding and installed a new roof. In 1976, a new nail laminated deck was installed. During 1983-1985, local contractors and carpenters were retained to install new shingles, replace any necessary boards and fill in missing sideboards. The lumber for the project was cut in the Town of Colchester and brought to a nearby sawmill. An extensive program of restoration was completed in 1998 by the Delaware County Department of Public Works, which currently maintains the Downsville Covered Bridge as a local historic landmark. The imposing wood span remains an important transportation and vernacular engineering landmark in Delaware County and the Catskill region.

The next listed National Register property is the Union Free School (04NR05246). The Union Free school was established by Daniel Parrish, a New England schoolteacher who had relocated to Colchester from Dutchess County after the Revolution. George W. Downs, a leader in the local tanning and lumber business, was one of the town's

wealthiest citizens. In addition to his successful businesses, Downs also profited from the sale of lands inherited from his father, Abel Downs, who had acquired a substantial amount of property in the 1790s. In 1856, the younger Downs deeded a portion of his land in the hamlet of Downsville to District 3. A small school was built on the site, and three teachers were employed to teach grades one through eight. In 1862 a new school was constructed and the earlier building was remodeled for use as a residence. In the town of Colchester, like the rest of New York State, the early twentieth century saw the growth and expansion of the town's educational system. In 1903, citizens led by teacher Samuel A. Robinson started a movement to establish a Union Free School District and build a new school. The district voted on the proposal on 26 September 1903 and the measure passed (73-26). Construction of the school began in 1903 and was completed in the summer of 1906, with the first classes held in the fall of that year. The Downsville Union School was the first school to offer grades one through twelve in the hamlet. The school initially failed to attain the requisite five academic students required for regents certification, and did not achieve this milestone until June 1907, when the school was admitted to the junior grade. The following year it was advanced to the middle grade and then to the senior grade. In 1910, the school was accorded the rank of high school. Classes were taught here until 1938, when all district schools were centralized and moved to a new building on Maple Street.

The Union Free School is a typical example of the union schools built in rural New York in this period, with a division into gabled blocks that are united under a single hipped roof. It has a symmetrical form, central entrance, and groups of large banked windows outlining its functional divisions, with a large belfry that crowns the roof. On the interior, two classrooms flank the central hall (with rear stairs), one of the most common plans for grade schools in this period. The Union Free School is an important public building in Downsville, retaining a high level of integrity and symbolic of the value this community placed on education.

Table 3. Previously identified historic sites and National Register Listed Properties within one mile of project area.

Site Number	Cultural Affiliation	Status	Site Name	Distance	Reference
A025-03-0038	No info	I	William Rose, Gristmill, Tub Mill Brook/Wilson Hollow Brook	5,101 feet north	(Hanford Mills Museum 1979)
A025-03-0039	No info	I	George Downs/J.D. Downs, Tannery, Downs Brook	4,099 feet northeast	(Hanford Mills Museum 1979)
A025-03-0040	No info	I	J.D. Downs & Elwood, Gristmill, Downs Brook	4,242 feet northeast	(Hanford Mills Museum 1979)
A025-03-0041	No info	I	Steam Sawmill, East Branch, Delaware	4,160 feet southwest	(Hanford Mills Museum 1979)
99NR01466	No info		Downsville Covered Bridge	2,944 feet northeast	(SPHINX)
04NR05246	No info	I	Union Free School	4,081 feet northeast	(SPHINX)

*Status: I=inventoried, E=eligible, L=listed

Assessment of Sensitivity for Cultural Resources

An assessment of whether significant cultural resources are likely to be present within a project area must consider what is known of the prehistory of the area, including likely locations of archaeological sites and proximity to known sites; and the history of the immediate area, including whether any historic structures or features are known to exist within the project boundaries. An assessment must also consider that if cultural resources *are* located on a parcel, will they likely retain *integrity* (without which they would not be considered significant). Modifications to the land may serve to destroy all or portions of any cultural deposits that may exist.

Prehistoric Sensitivity

No prehistoric sites are known within one mile of the project area. This does not necessarily reflect the absence of prehistoric cultural resources, but rather reflects that fact that no culturally significant prehistoric material have been found or reported within one mile. The project area's vicinity to the East Branch and other smaller tributaries, as well as the diversity of natural resources in the area, may have provided an attractive location for prehistoric peoples in terms of seasonal hunting and gathering purposes, and possibly temporary camps. Due to these factors, the project is considered moderately sensitive for prehistoric remains.

Historic Sensitivity

Four historic archaeological sites have been identified within one mile of the project area, with each of these reported by the Hanford Mills Museum in 1979. In addition, there are two National Register listed properties known within a mile of the proposed project: the Downsville Covered Bridge and the Union Free School. In addition to these sites, the Village and Town of Colchester both possess historic structures and roadways dating to the 19th century. Due to these factors any undisturbed areas of the APE would be considered highly sensitive for historic remains.

Part II: Field Assessment

Methodology

The surface inspection and field walkover were conducted on February 12, 2009, a cold but sunny day, by David Moyer, RPA. The project area was subjected to a pedestrian walkover of all areas of proposed ground disturbance. The project area lies south of River Road, along the banks of the East Branch of the Delaware River, in the Town of Colchester, Delaware County, New York (Figures 1 and 2; Photos 1-29). Staff members from the town highway department that were spoken to were not aware of any historic or prehistoric resources in the project vicinity. Photographs were taken of the project area, adjacent visible structures, and any areas of disturbance (Appendix B).

Results

Surface Inspection

The area of potential effects (APE) was first subjected to a pedestrian walkover of all of all areas of proposed ground disturbance. The project is located on the south side of River Road south of the Village of Downsville in the Town of Colchester, Delaware County, New York (Figures 1 and 2; Photos 1-28). The project involves the construction of a new 110 x 125 ft (33.5-38.1 m) town garage, as well as related parking and septic facilities. The project will impact approximately 4.0 acres of a larger 22.412 acre parcel. The proposed ground disturbance will extend to depths in excess of 5 ft (1.5 m) below the ground where the building footprint is exposed.

The proposed garage will be accessed from the south side of River Road (Photos 1-6). The area is relatively level, with corn stubble apparent beneath the thin veil of snow and ice. An existing gravel access road extends south from River Road to an old railroad cut, the track and ties being removed years ago (Photos 7-10). The road continues southward a short distance to enter the town's gravel mine (Photos 11-16). Most of this area appeared to have been artificially leveled, with a small number of push piles noted along the northern boundary of the APE (Photos 26 and 27). Ground visibility in this area was good, with vegetation consisting of this tall grass jutting from rusted machinery and piles of debris.

The proposed septic field and future expansion area are located to the west of the proposed new garage, where the ground appeared less visibly disturbed (Photos 17-22). Vegetation was thicker in this area, which, with the drifting snow, provided little surface visibility. A small, late 19th or early 20th century outbuilding lies on its side adjacent to a large pile of barn refuse (Photos 23 and 24). All of this material appears to have been brought in from another location and does not represent the remains of structures that once stood in the APE or its vicinity. Piles of asphalt and broken cement occur further

east (Photo 25), and an existing well is visible near the western end of the property boundary (Photo 28).

No historic or precontact artifacts were noted during the surface inspection and no cultural features were identified. No historic or prehistoric archaeological sites were encountered.

Structures

No structures occur within the APE boundaries. A small shed occurs on the property, although this structure does not appear greater than 50 years old (Photo 18), while several temporary sheds are also present. Several historic structures are visible at a distance from the entrance to the property along River Road (Photos 1 and 6).

None of these structures will be impacted by any proposed construction activities.

Visual Impacts

The project area is situated at the base of an upland slope on the south side of the East Branch of the Delaware River (Figures 1 and 2; Photos 1-28). The proposed project involves the installation of a new town garage building as well as a new septic field and paved parking lots and roadways. While the project includes resurfacing the existing drive from River Road where several historic structures are visible (Photos 1-6), this should have minimal impact to these structures. The proposed garage building will be located behind a row of trees along the boundary of the old railroad tracks, which should obscure the new structure from the roadway (Photos 11-12, 26 and 27). The only National Register listed structure, the Downsville Covered Bridge, is located several hundred feet to the east of the project and is not visible from the APE. The project is in keeping with the existing land use of the parcel, since the area is already used by the town highway department as a gravel mine and storage area. For these reasons, the proposed project should have minimal impact to any historic properties in the vicinity.

Part III: Summary and Recommendations

A Phase IA Literature Review and Sensitivity Assessment has been completed for the Town of Colchester Highway Garage Project, located in the Town of Colchester, Delaware County, New York. The current project involves the construction of a new 110 x 125 ft (33.5-38.1 m) town garage as well as related parking and septic facilities. The area of potential effects (APE) includes approximately 4.0 acres of a larger 22.412 acre parcel. The proposed ground disturbance will extend to depths in excess of 5 ft (1.5 m).

The Phase IA review indicated that there are no prehistoric sites known within one mile of the project area. However, this does not necessarily reflect the absence of prehistoric cultural material, but merely signifies a lack of documentation. The project area is considered moderately sensitive for prehistoric remains due its vicinity to the East Branch of the Delaware River and other smaller tributaries, as well as the diversity of natural resources in the area which may have provided an attractive location for prehistoric peoples in terms of seasonal hunting and gathering purposes. In addition to the moderate prehistoric sensitivity of the current project, there are four historic archaeological sites and two National Register Listed properties known within one mile of the project area. Due to these factors, the project area is considered highly sensitive for historic remains.

No historically significant structures occur within the APE boundaries; however, there are a few modern, temporary sheds located within the APE. Most of the disturbance, which seems to consist largely of leveling, is located in the eastern part of the APE, where large trucks routinely haul gravel out of the property. The remainder of the APE appears relatively undisturbed. Soil survey information suggests that soils expected within the undisturbed parts of the current project boundaries consist of Barbour loam. As this type of soil forms from alluvial deposition and is probably undisturbed, it can be expected that any archaeological sites in the undisturbed portions of the APE are intact.

Some evidence of disturbance was noted during the surface inspection, most notably in the eastern part of the APE between the gravel mine and the access road. However, we recommend that the entire 4.0 acre area of potential effects be subjected to subsurface testing to ensure that archaeological deposits will not be impacted as part of the proposed project, since stratigraphically intact sites can sometimes be found in areas which appear visibly disturbed from the ground surface.

This assessment is subject to the review and concurrence of the New York State Office of Parks, Recreation, and Historic Preservation.

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Appendix A.

Figures

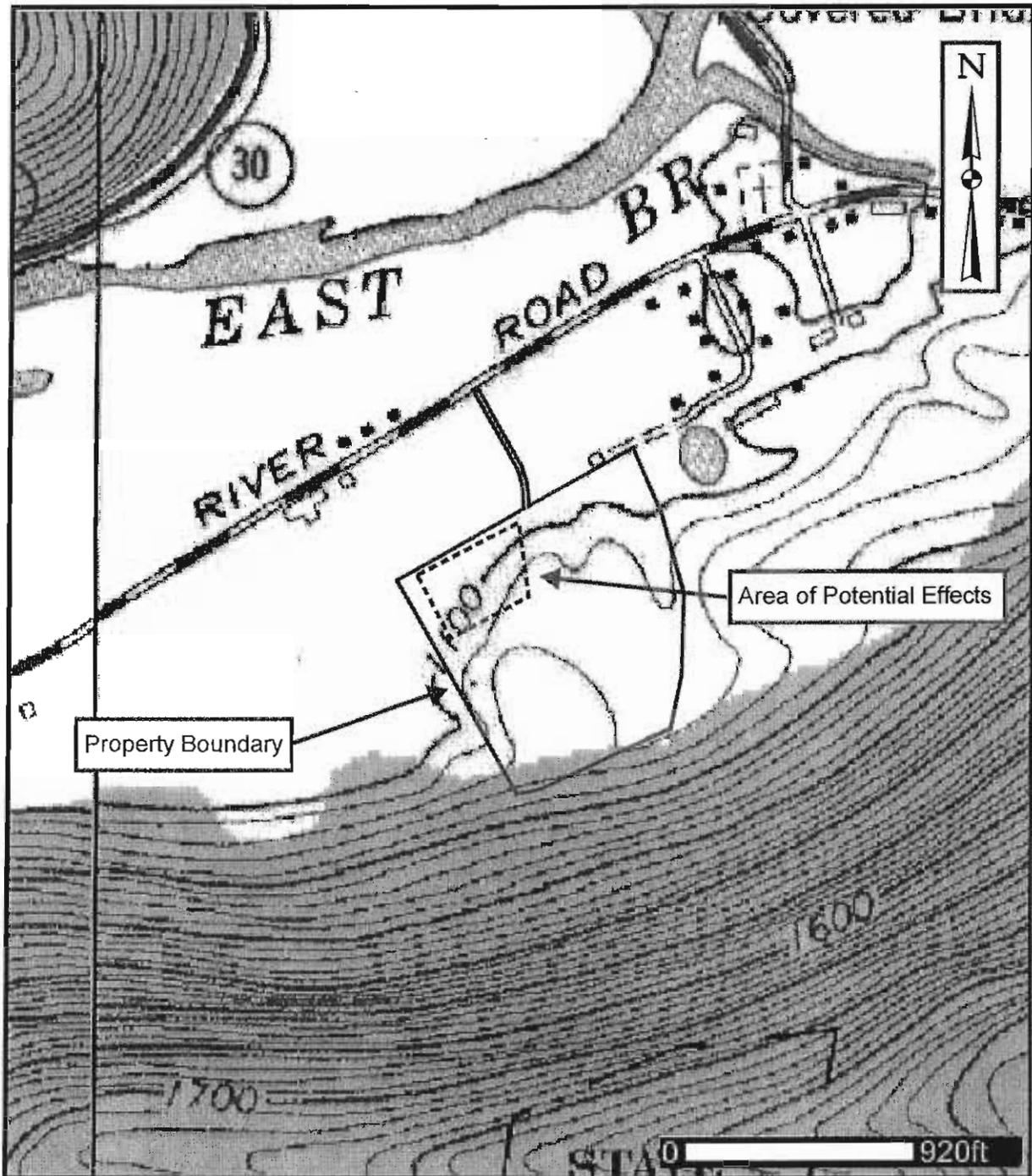


Figure 1. Map showing the location of the project area on Downsview USGS 7.5 minute topographic map

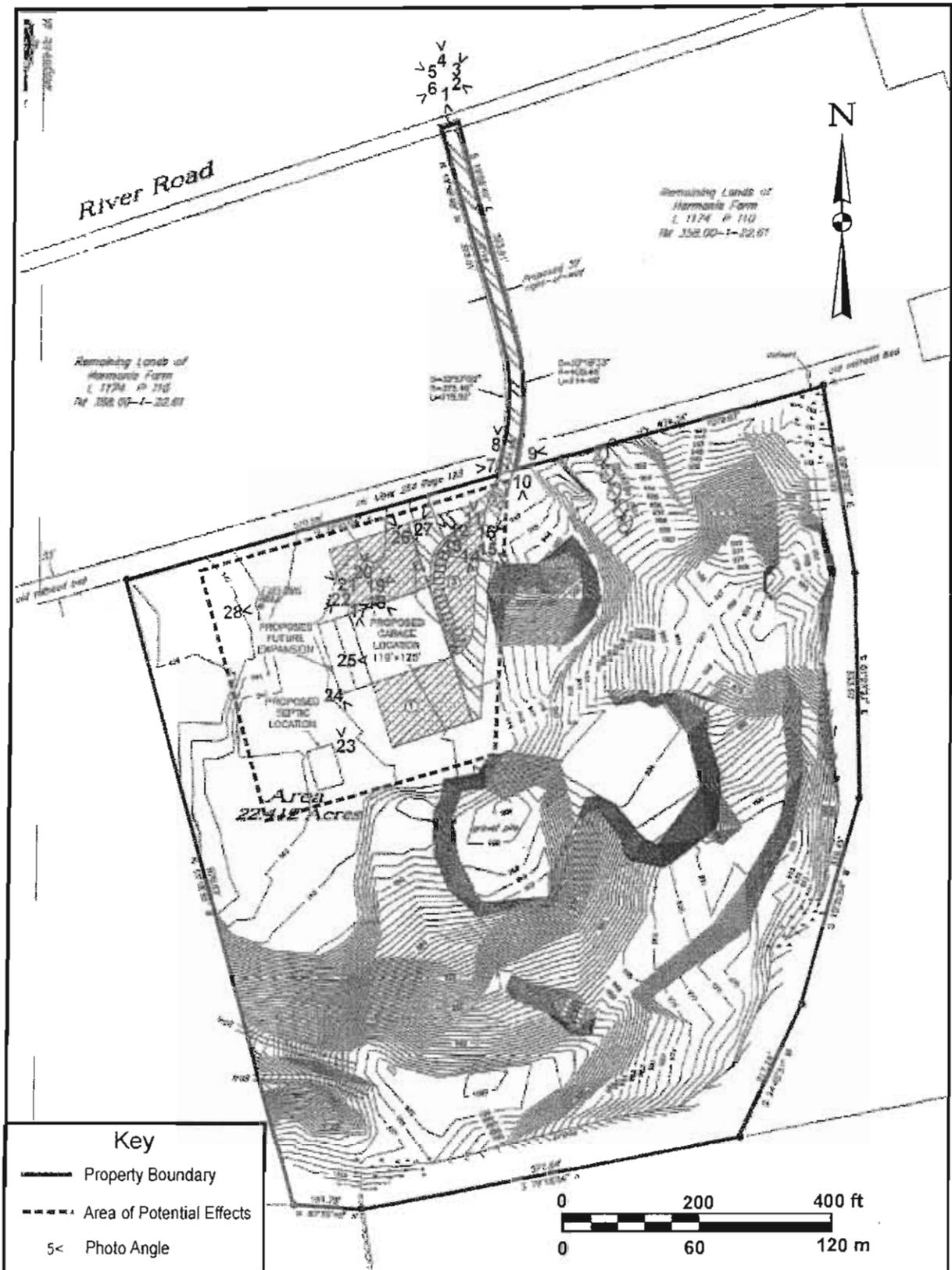


Figure 2. Map showing the location of the proposed construction at the project area.



Photo 13. Portion of panoramic view from the proposed garage parking area, facing southwest.



Photo 14. Portion of panoramic view from the proposed garage parking area, facing south.



Photo 15. Portion of panoramic view from the proposed garage parking area, facing southeast.



Photo 16. Portion of panoramic view from the proposed garage parking area, facing northeast.



Photo 17. Portion of panoramic view from the proposed garage location, facing south.

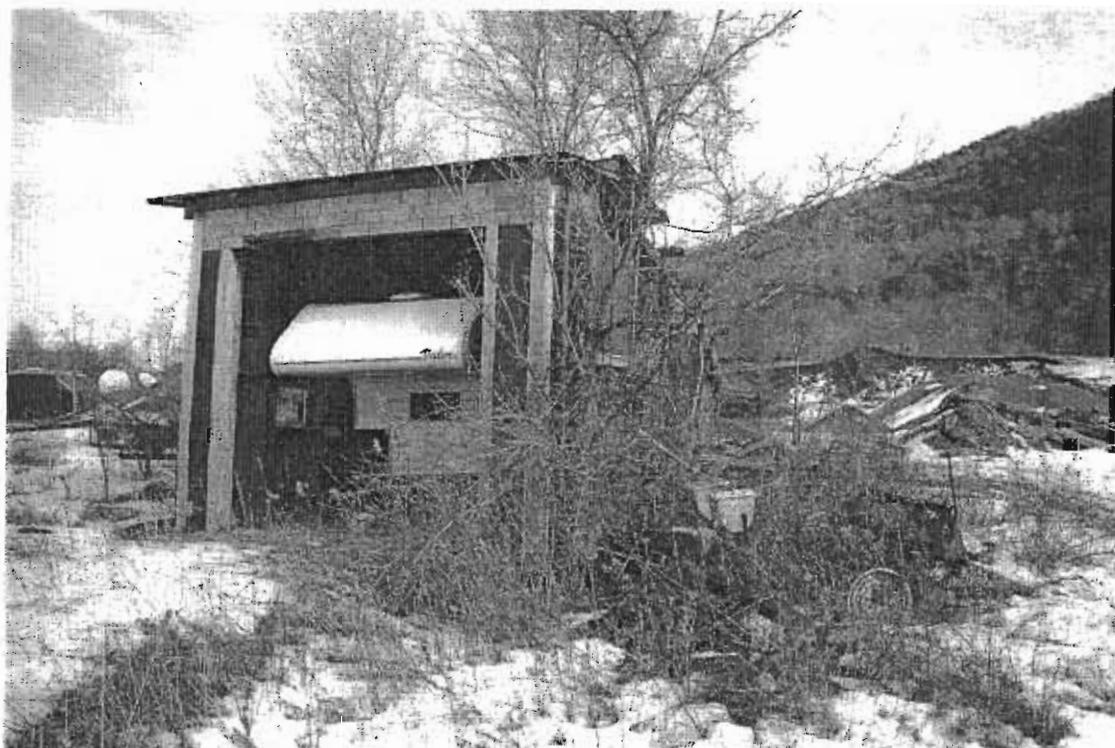


Photo 18. Portion of panoramic view from the proposed garage location, facing southeast.



Photo 19. Portion of panoramic view from the proposed garage location, facing northeast.



Photo 20. Portion of panoramic view from the proposed garage location, facing north.



Photo 21. Portion of panoramic view from the proposed garage location, facing northwest.



Photo 22. Portion of panoramic view from the proposed garage location, facing southwest.



Figure 3. Portion of Delaware County soil map with the location of the project area indicated.

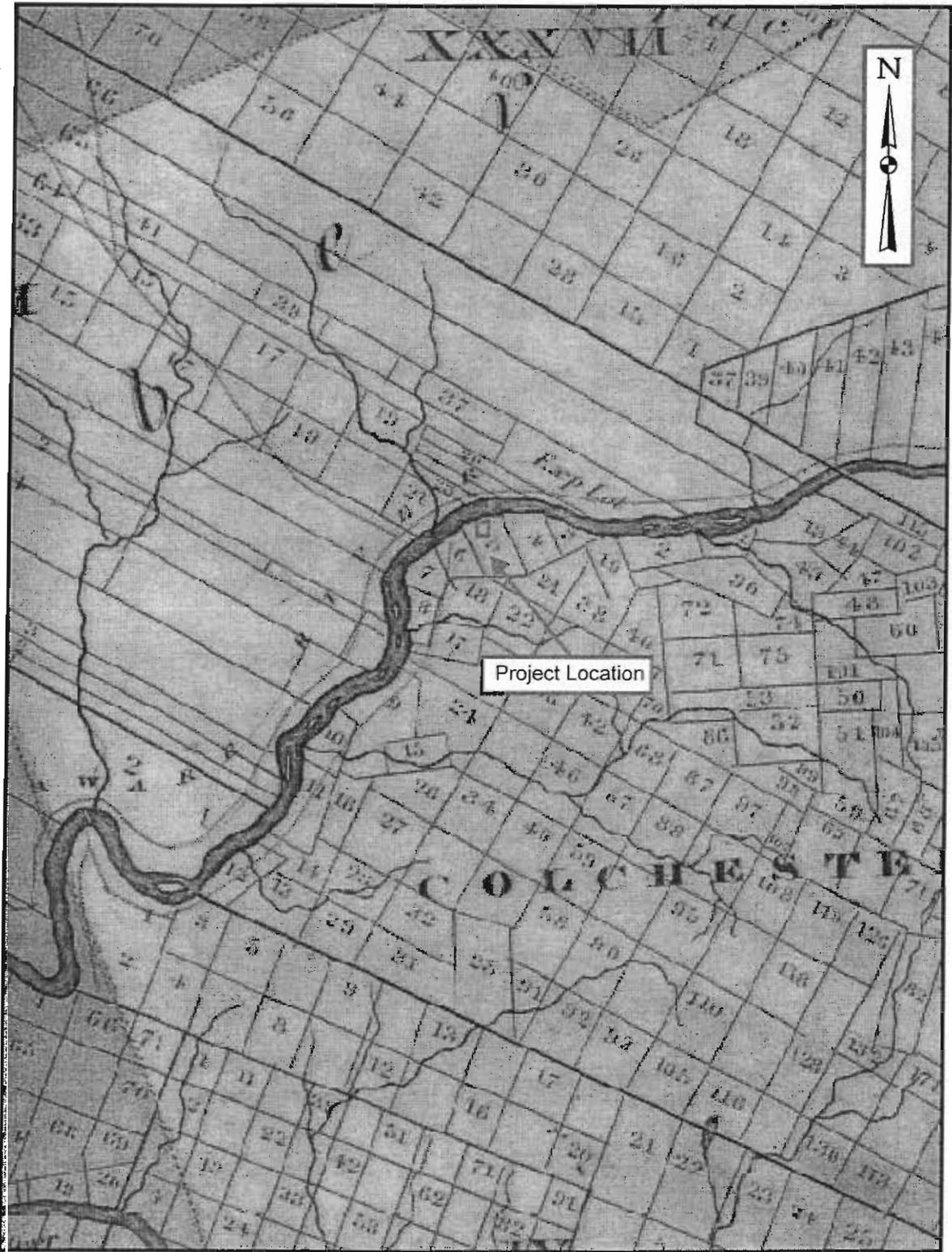


Figure 4. Detail of 1829 Burr map of Delaware County with the project area indicated.

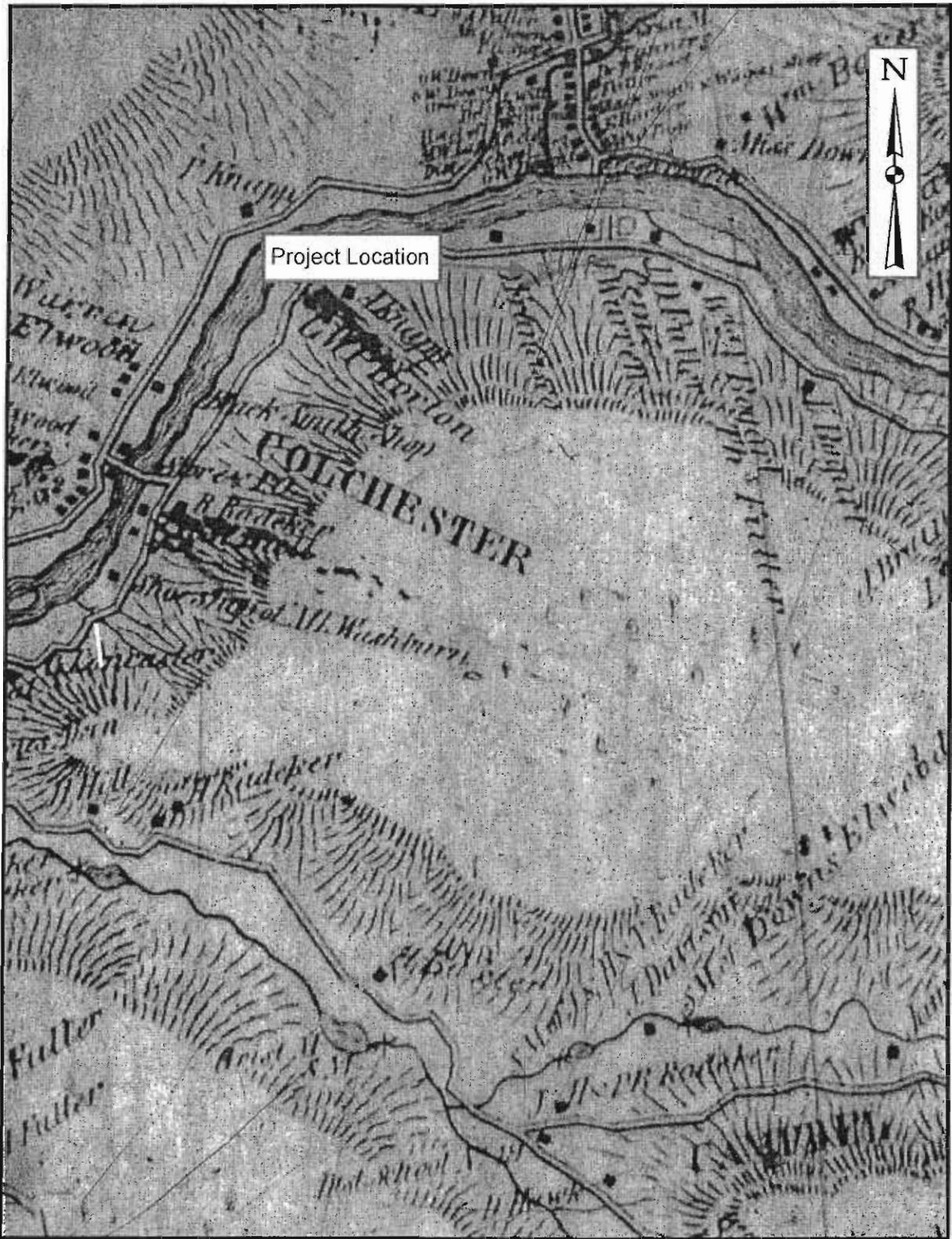


Figure 5. Portion of 1856 J. Gould Map with the approximate location of the project area indicated

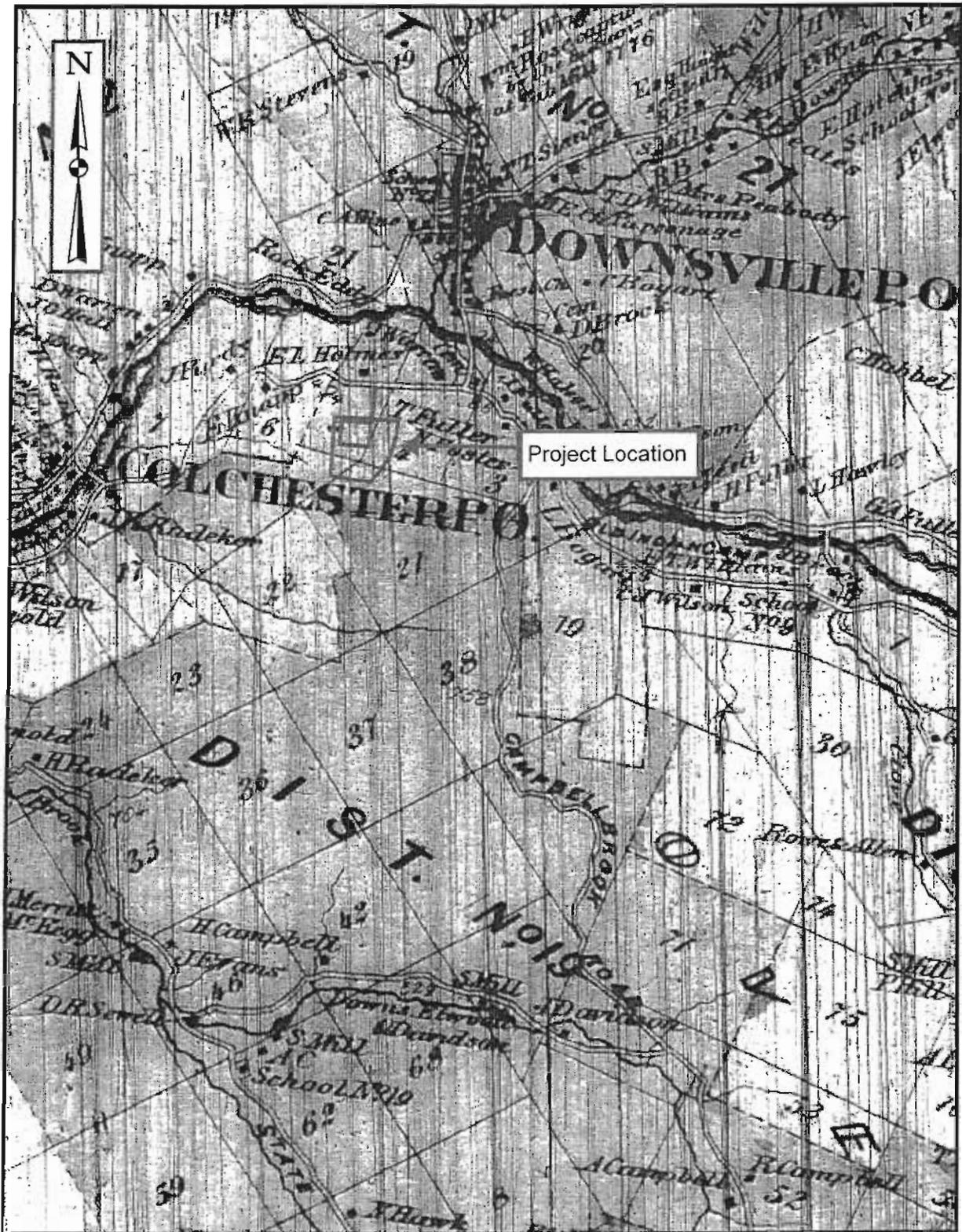


Figure 6. Portion of 1869 Beers Map with the approximate location of the project area indicated.

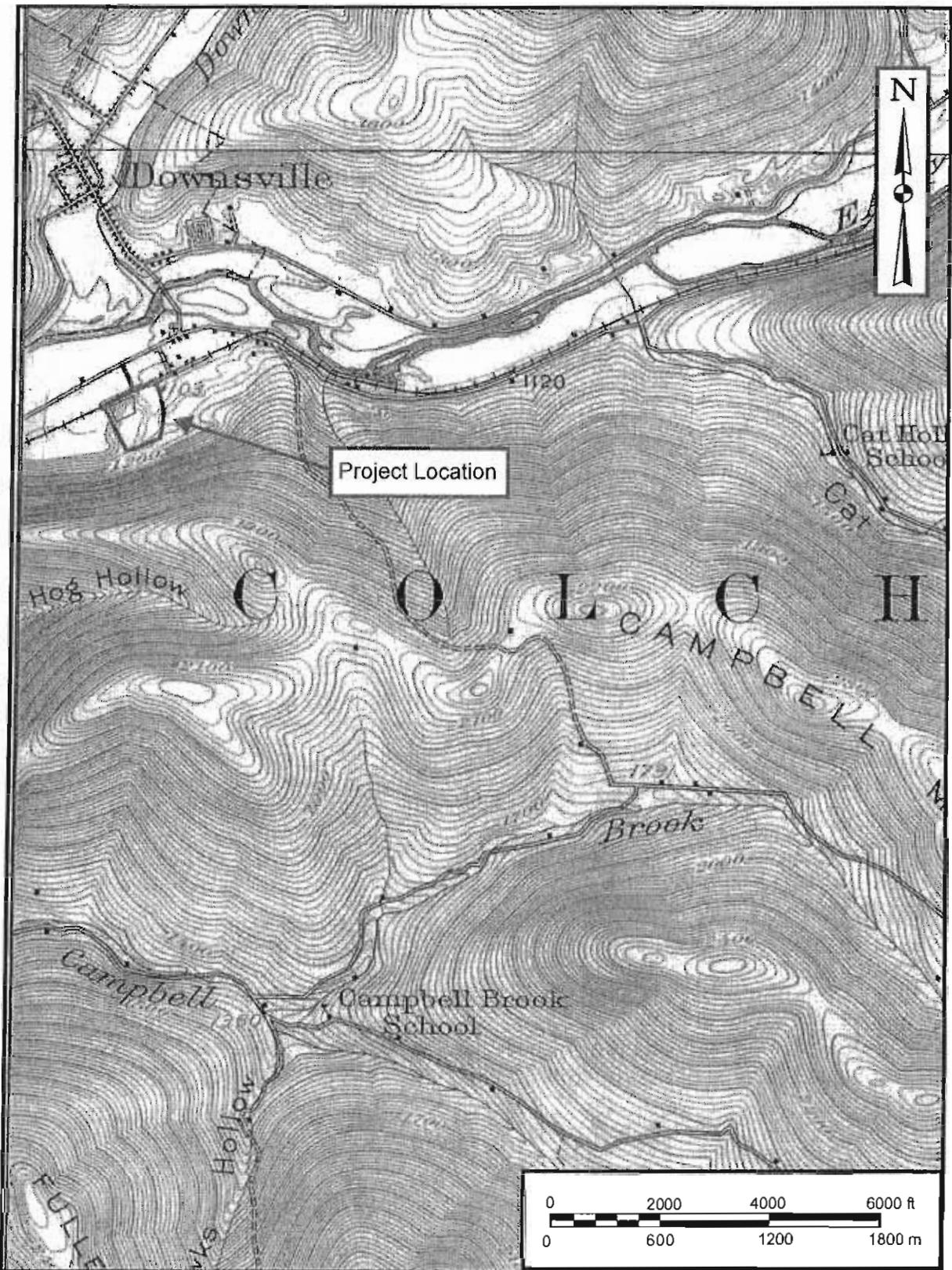


Figure 7. Portion of 1922 Andes USGS topographic map with the location of the project area indicated.



Figure 8. Aerial photograph with the location of the project area indicated

Appendix B.

Photographs



Photo 1. Portion of panoramic view from the entrance to the project on River Road, facing south.

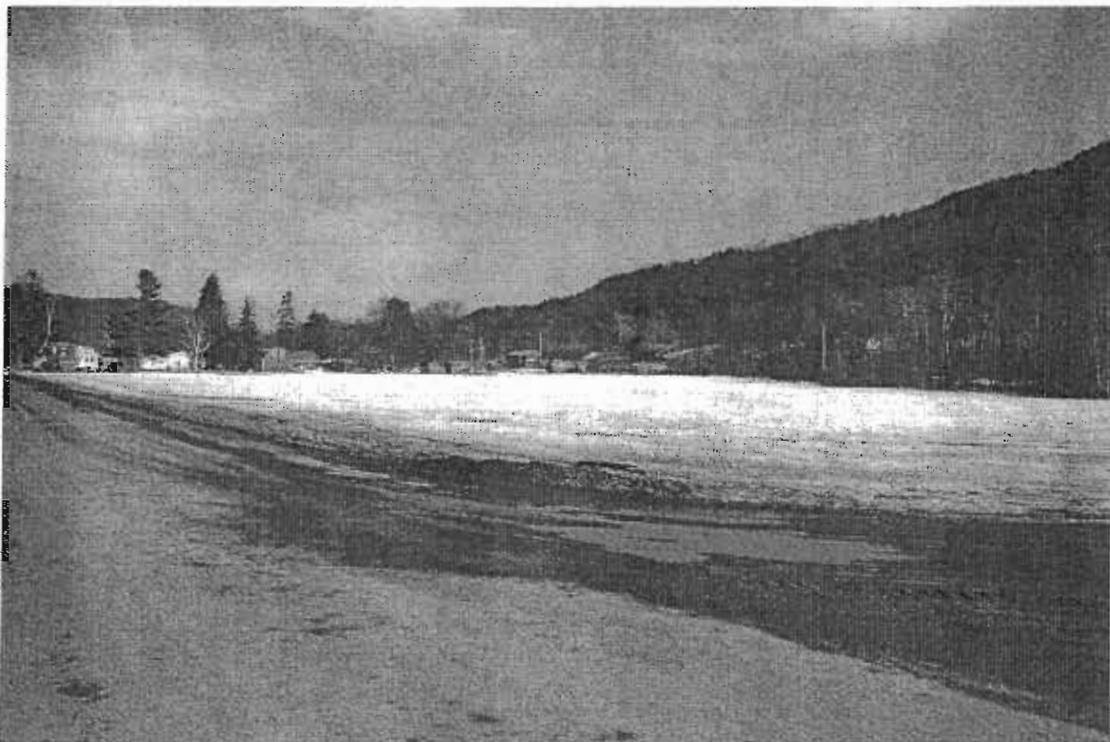


Photo 2. Portion of panoramic view from the entrance to the project on River Road, facing southeast.

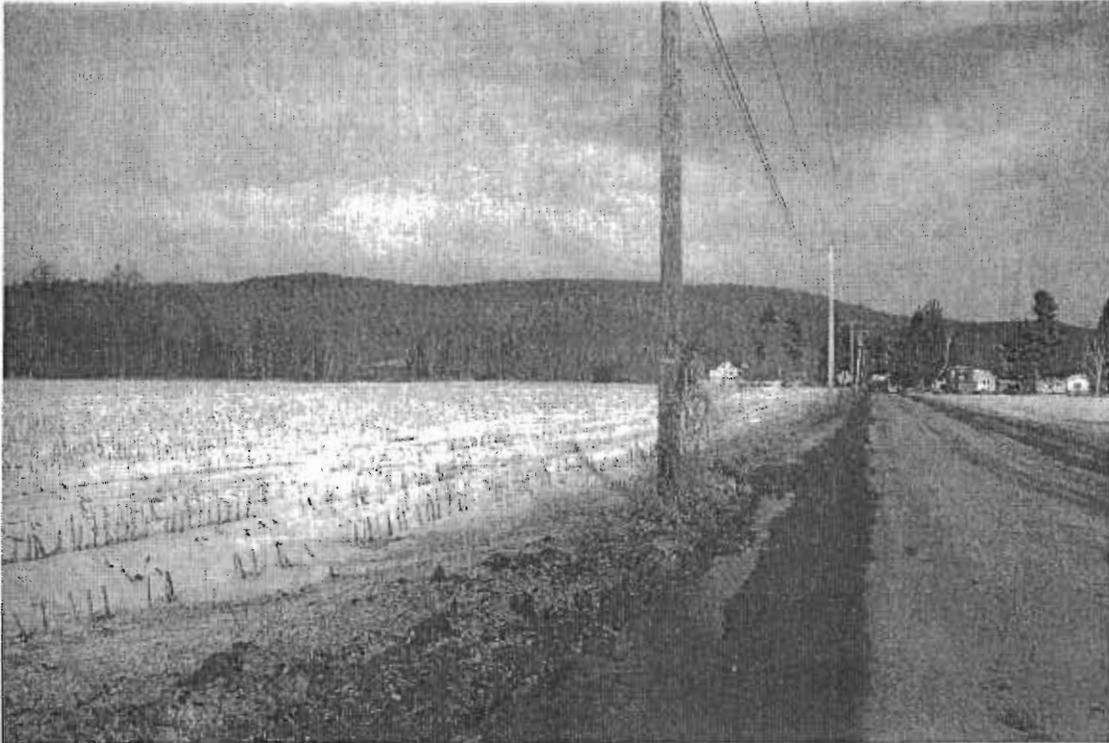


Photo 3. Portion of panoramic view from the entrance to the project on River Road, facing northeast.



Photo 4. Portion of panoramic view from the entrance to the project on River Road, facing north.



Photo 5. Portion of panoramic view from the entrance to the project on River Road, facing northwest.



Photo 6. Portion of panoramic view from the entrance to the project on River Road, facing southwest.



Photo 7. View of abandoned railroad grade from the existing access road, facing west.



Photo 8. View along the existing access road from the intersection of the abandoned railroad grade, facing north.



Photo 9. View of abandoned railroad grade from the existing access road, facing east.



Photo 10. View along existing access road from the intersection of the abandoned railroad grade, facing south.



Photo 11. Portion of panoramic view from the proposed garage parking area, facing north.



Photo 12. Portion of panoramic view from the proposed garage parking area, facing northwest.



Photo 23. View of small outbuilding lying in a pile of structural debris, facing north.



Photo 24. View of large pile of wooden structural refuse, facing southeast.



Photo 25. View of piles of concrete and asphalt at the existing mine, facing east.



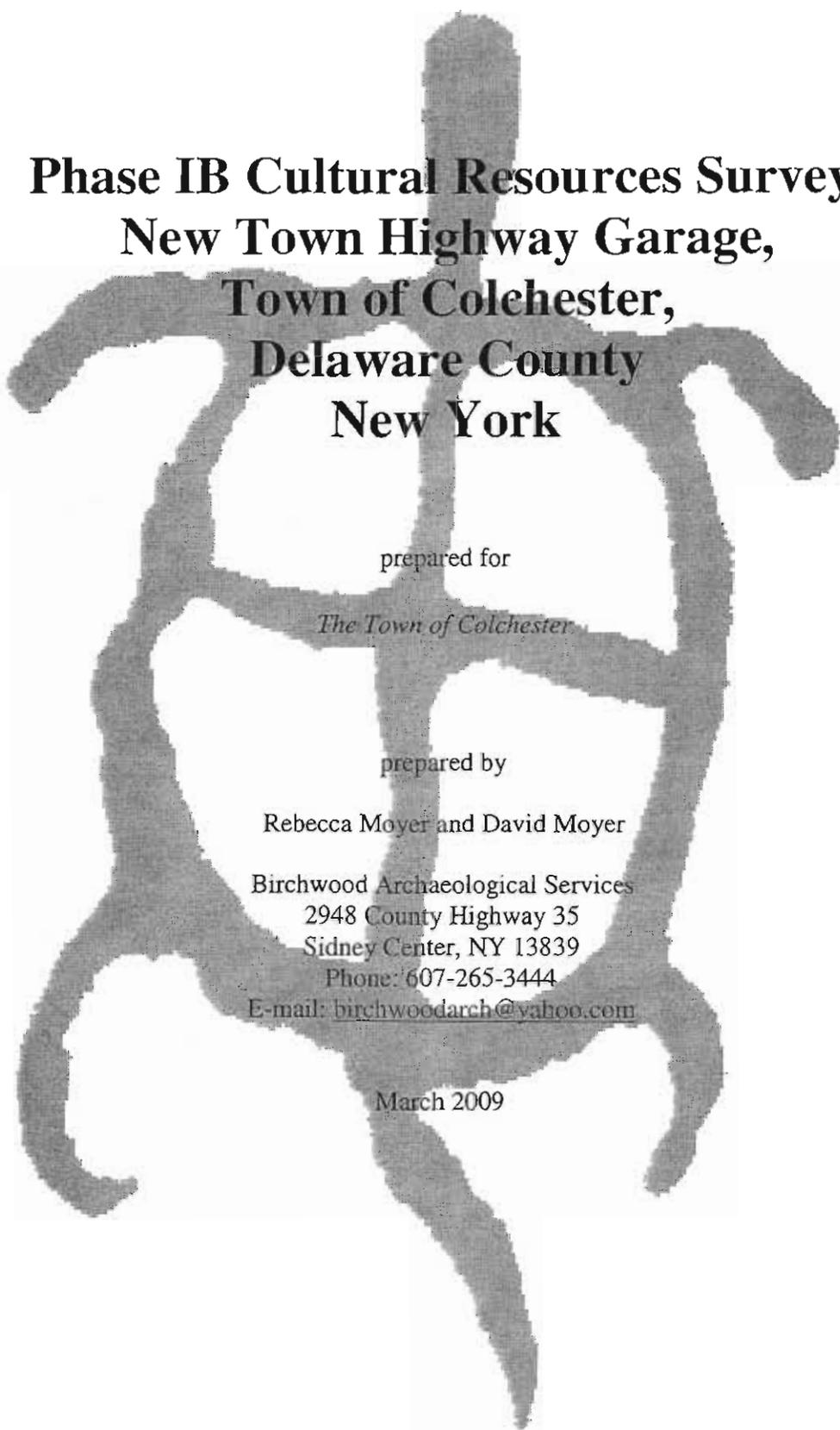
Photo 26. View of push piles along the northern edge of the proposed garage parking area, facing northwest.



Photo 27. View of push piles along the northern edge of the proposed garage parking area, facing northeast.



Photo 28. View of existing well near the western boundary of the APE, facing east.



**Phase IB Cultural Resources Survey,
New Town Highway Garage,
Town of Colchester,
Delaware County
New York**

prepared for

The Town of Colchester

prepared by

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March 2009

Management Summary

New Town Highway Garage Project

SHPO Project Review Number:

Involved State and Federal Agencies: DEC

Phase of Survey: IB

Location Information

Location: south of River Road
Minor Civil Division: Village of Downsville
County: Delaware

Survey Area (Metric & English)

Length: 417.4 ft (127.2m)
Width: 417.4 ft (127.2m)
Depth: 5 ft (1.5 m)
Number of Acres Surveyed: 4.0 acres
Number of Square Meters & Feet Excavated:
Percentage of the Site Excavated:

USGS 7.5 Minute Quadrangle Map: Downsville

Archaeological Survey Overview

Number & Interval of Shovel Tests: 83 STPs excavated at 15m (49.2 foot) intervals
Number & Size of Units:
Width of Plowed Strips:
Surface Survey Transect Interval:

Results of Archaeological Survey

Number & name of prehistoric sites identified: 0
Number & name of historic sites identified: 0
Number & name of sites recommended for Phase II/Avoidance: 0

Results of Architectural Survey

Number of buildings/structures/cemeteries within project area: 0
Number of buildings/structures/cemeteries adjacent to project area: 0
Number of previously determined NR listed or eligible buildings/structures/cemeteries/districts: 0
Number of identified eligible buildings/structures/cemeteries/districts: 0

Report Author(s): Douglas Idleman and David Moyer

Date of Report: March 2009

Executive Summary

A Phase IB Cultural Resource Survey has been completed for the Town of Colchester Highway Garage Project, located in the Town of Colchester, Delaware County, New York. The current project involves the construction of a new 110 x 125 ft (33.5-38.1 m) town garage as well as related parking and septic facilities. The area of potential effects (APE) includes approximately 4.0 acres out of a 22.412 acre parcel. The proposed ground disturbance will extend to depths in excess of 5 ft (1.5 m) below the ground where the building footprint is exposed.

The Phase IA review indicated that there are no prehistoric sites known within one mile of the project area. However, this does not necessarily reflect the absence of prehistoric cultural material, but merely signifies a lack of documentation. The project area is considered sensitive for prehistoric remains because its vicinity to the East Branch of the Delaware River and other smaller tributaries, as well as the diversity of natural resources in the area which may have provided an attractive location for prehistoric peoples in terms of seasonal hunting and gathering purposes, and possibly even temporary camps. In addition to the moderate prehistoric sensitivity of the current project, there are six historic archaeological sites known within one mile of the project area. Due to these factors the project is considered highly sensitive for historic remains.

A Phase IB field examination was conducted to test for cultural deposits that may be impacted by the proposed project. The entire 4.0 acres of potential effects (APE) was surveyed using subsurface testing. A total of 83 STPs were placed at 15 m (49.2 foot) intervals in a grid in the location of the proposed garage and related facilities. Each STP was labeled according to transect, with numerical labels used to further designate individual holes. Of these 83 STPs, 12 (14.5%) were not excavated due to the fact they were located in visibly disturbed, recently mined sections of the project area (Photos 1-6). Of the 71 STPs actually excavated, 7 (10%) contained cultural material. All of the recovered artifacts appear to represent modern trash such as rope, aluminum can fragments, auto safety glass, coal and a locking washer. No cultural features were identified and archaeological sites were encountered. Soils in undisturbed portions of the project area were consistent with the Barbour loam series descriptions examined prior to the initiation of fieldwork. Most of the soils encountered within disturbed areas do seem to resemble that of the 2C horizon from the Barbour loam soil series. This would seem likely as the upper horizons were probably removed during past mining of the project area.

Based on the results of this survey, it would appear that no historic or prehistoric archaeological resources will be impacted by the proposed project. For this reason, we recommend that the project be allowed to proceed and that no further archaeological work is warranted. These recommendations are subject to the review and concurrence of the New York State Office of Parks, Recreation, and Historic Preservation.

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Introduction

Birchwood Archaeological Services was contracted by the Town of Colchester to conduct a Phase IB Cultural Resources Survey for the Town of Colchester Highway Garage Project, located in the Town of Colchester, Delaware County, New York. The overview had been requested to assess the potential that significant cultural resources may be located within the project area. The investigation was performed in compliance with Section 14.09 of the New York State Parks, Recreation and Historic Preservation Law.

The project involves the construction of a new 110 x 125 ft (33.5-38.1 m) town garage as well as related parking and septic facilities. The area of potential effects (APE) includes approximately 4.0 acres of a 22.412 acre parcel. The proposed ground disturbance will extend to depths in excess of 5 ft (1.5 m) below the ground where the building footprint is exposed.

Background research was conducted to assess the potential for prehistoric and historic resources on the property and provide contexts with which to interpret any future findings (see Part I: Documentary Research). Field investigations were conducted by the principal investigator to identify any surface features in the project area (see Part II: Field Reconnaissance).

Part I: Documentary Research

Documentary sources and collections were consulted to gain an overview of the prehistory, history, and environmental setting of the project area and surrounding region. A search was also conducted to locate known archaeological sites, historic structures, and National Register properties within one mile of the project area. Sources of information that were consulted included:

- Office of Parks, Recreation and Historic Preservation (OPRHP) site files and survey reports
- New York State Museum site files (copies at OPRHP)
- National Register of Historic Places
- New York State Library and Archives, Albany
- New York State Historical Association Library, Cooperstown
- Milne Library, SUNY Oneonta

Specific documentary references that were consulted are listed in the bibliography.

Environmental Setting

Delaware County is situated in the western foothills of the Catskill Mountains in central New York State, encompassing both the East and West Branches of the Delaware River. Its most prominent geographic feature is the Catskill Mountains, which are highest in elevation in the eastern part of Delaware County and decrease in height as one moves west across the County. The project lies within the Delaware section of the Glaciated Allegheny Plateau physiographic region.

The Delaware section of the Glaciated Allegheny Plateau consists of large, U-shaped valleys with topography reflecting both deglacial and postglacial. Most of the soils in the project vicinity were laid down as outwash following deglaciation, with continued deposition from flooding events (Seifried et. al, 2009).

The project area is located on a floodplain terrace near the southern bank of the East Branch of the Delaware River just south of the village of Downsville (Figures 1 and 2; Photos 1-28). Elevation in the project area consists of the relatively level floodplain terrace with a slight rise as one moves south approaching the mountains running adjacent to the river valley, and ranges from 1,103 ft (336 m) above mean sea level in the north to 1,120 ft (341m) above sea level in the south. The East Branch flows roughly east to west just north of the project area with the closest point being approximately 1,200 ft (31m) away. A small pond lies 500 ft (152 m) almost directly east of the project area that appears to be artificial as it does not seem to appear on maps from the 19th century. Downs Brook flows through the Village of Downsville and enters the East Branch 2,082 ft (635m) northeast of the project area. Approximately 1.5 miles (2.4km) east of the

project area is the western edge and dam of the Pepacton Reservoir. Built in 1955, this is one of multiple reservoirs in the Catskill Mountains used by New York City as a source of water.

Soils

The NRCS web soil survey (WSS) shows only the Barbour loam soil type as occurring within the boundaries of the project area (Figure 3). The Barbour series consists of very deep well drained soils formed in recent alluvial deposits derived from areas of acid, reddish sandstone, siltstone, and shale. They are nearly level or gently sloping soils on flood plains. Mean annual temperature is 50 degrees F, and mean annual precipitation is 40 inches. A typical soil profile of Barbour loam is listed below in Table 1.

Table 1. Typical soil profile of Barbour loam.

Horizon	Depth	Description
Ap	0-6 in (0-15 cm)	dark reddish brown (5YR 3/2) loam, pinkish gray (5YR 6/2) dry; weak fine granular structure; very friable; many fine roots; strongly acid; abrupt smooth boundary (6 to 10 inches thick)
Bw1	6-18 in (15-46 cm)	reddish brown (5YR 4/3) silt loam; weak coarse prismatic structure parting to weak medium, fine and very fine subangular blocky; friable; common fine roots; common fine pores; faces of peds are dark reddish brown (5YR 3/3); strongly acid; clear wavy boundary (12 to 24 inches thick)
Bw2	18-26 in (46-66 cm)	reddish brown (5YR 4/3) gravelly loam; very weak fine subangular blocky structure; friable; common fine roots; few fine pores; 20 percent gravel; strongly acid; clear wavy boundary (0 to 10 inches thick)
2C	26-72 in (66-183 cm)	reddish brown (5YR 4/4) very gravelly loamy sand; single grain; loose; 50 percent gravel; strongly acid

The majority of the project area is made up of what is classified as Pits/gravel (map unit Pg) which is associated with gravel mining in the area. Due to this gravel mining, no soil description is available.

The above soil profile suggests that both historic and prehistoric resources may potentially be found in approximately the first 46cm (18in) of soil overlaying parent material. The soil survey did not indicate the presence of any buried A horizon in the soil profile within or adjacent to the current project. Testing should extend at least 20 cm (8in) below the B horizon. All resources are expected to be confined to the A and B horizons.

This soil information is based upon documentary sources examined prior to the initiation of fieldwork. As a result, it may be necessary to modify the subsurface testing strategy in the field to meet unexpected soils, disturbances and other obstructions. The results of the subsurface testing and how they compare with the above soils information is discussed in the *Results* section of this report.

Current/Past Land Use

In general, much of the project area appears to have been used for agricultural purposes for many years prior to the initiation of the proposed project. The area along River Road is still planted agriculturally, having been utilized as corn fields (Photos 1-6). More recently, the project area itself has been used by the town as a gravel mine, with large piles of gravel, and paving material dotting the vicinity (Photos 11-17). The current project is very much in keeping with this latter land use, since the proposed construction area has been used by the town highway department for many years.

Disturbance

While some portions of the project area appear visibly disturbed, other areas show little evidence of ground disturbance. Most of the disturbance is located to the eastern part of the APE, where large trucks routinely haul gravel out of the property (Photos 11-16). Fortunately, most of this disturbance appears to consist of leveling by scraping a small amount of topsoil, so archaeological deposits might still remain (Photos 26 and 27). No evidence of extensive ground disturbance was noted where the proposed septic field will be located (Photos 17-22). Because intact stratigraphy can sometimes be found in areas which might appear disturbed on the surface, the subsurface testing strategy should remain constant through the project area to endure for adequate testing of all potentially cultural bearing strata.

Previous Surveys

Three cultural resource surveys have been conducted within one mile of the project area (Table 2). The first survey listed was a Phase IA/IB survey completed by the Public Archaeology Facility (PAF) in 1999 as part of PIN 9044.43.101 NY 30, Towns of Hancock and Colchester. Public Archaeology Facility (PAF) also completed an additional Phase IA/IB survey in 2000 as part of a Stage 1 Archaeological Reconnaissance for the Delaware County Salt Storage Facility Project, which did not identify any new archaeological sites. The third survey listed was a Phase IA/IB survey completed by Eugene Boesch in 2001 as part of Stage 1 Archaeological investigation of the proposed Crown Atlantic Downsville Communication Facility Study Area.

Table 2. Previous cultural resource surveys within one mile of the project area.

Project Name	Reference	No. of Sites Identified
PIN 9044.43.10 Phase IA/IB	(Public Archaeology Facility 1999)	0
Delaware County Salt Storage Facility Phase IA/IB	(Public Archaeology Facility 2000)	0
Crown Atlantic Communication Facility Phase IA/IB	(Eugene Boesch 2001)	0

Prehistoric Overview

Glaciers covered much of central New York during the Wisconsin glaciation, which ended about 12,000 years ago. People may have begun occupying the area soon after the glaciers retreated. These Paleoindians were organized in highly mobile bands adapted to tundra and boreal forest environments. While archaeologists have traditionally emphasized the hunting of large megafauna such as mammoth and bison, there is increasing evidence that Paleoindians exploited a diverse array of small game and wild plants. Ritchie (1994: 4–5) notes several fluted point finds indicative of Paleoindian occupation along the northern part of Delaware County, although no Paleoindian camps have been identified near the project area.

Around 7000 B.C., stands of spruce and fir rapidly gave way to a denser forest of pine and deciduous trees, with oak becoming a dominant species. This drier climate supported less game and provided fewer plant resources for human populations. As a result, few sites dating from this Early and Middle Archaic period have been discovered in the region. Those few sites that have been found dating to this period are often found near water sources and suggest that people lived in small mobile bands and subsisted on gathered and hunted wild resources.

Beginning around 6500 B.C., the climate became increasingly wetter, resulting in an environment similar to ours today. The large number of sites from this period suggests that Late Archaic populations increased significantly at this time. While people continued to live in small, mobile bands, there was an increasing trend toward sedentism. Subsistence practices were highly diverse and included a wide variety of aquatic and terrestrial resources. Late Archaic sites range from small upland camps to large villages near the confluences of major streams. During the latter part of this period, the Lamoka and Brewerton phases figure prominently in the prehistory of the region. No beveled axes indicative of the Lamoka phase have been identified in Delaware County (Ritchie 1994:45).

The Transitional Period (ca. 1300-1000 B.C.) is characterized by the use of steatite vessels and smoking pipes, which gradually give way to large, thick pottery vessels. This period is very much a continuation of Late Archaic life ways, with increasing sedentism and reliance on plant resources. The Woodland Period begins about 1000 B.C. and is marked by the introduction of pottery as well as the development of an elaborate trade and ceremonial complex. It is during this time that people gradually began to cultivate plants.

The Late Woodland Period began around A.D. 1000 and is differentiated from its predecessor primarily on the basis of projectile point types, pottery styles and diet (Funk 1976). Hoe cultivation also appears during Late Woodland times. Diet was largely made up of cultigens (corn, beans and squash) and game supplemented by fishing and the gathering of aquatic and terrestrial resources. Large, permanent village sites occur along major rivers as well as defensive locations (Ritchie 1994). Small, ephemeral sites also occur, probably used as camps for resource extraction. These smaller sites are located in a

wide variety of geographic contexts, ranging from wetlands and backwater drainages to forested uplands. After about A.D. 1400, the Iroquois culture was fully developed, with intensive horticulture and large, palisaded villages (Ritchie and Funk 1973).

Known Prehistoric Sites

A check of site files of the Office of Parks, Recreation, and Historic Preservation and the New York State Museum indicated that no prehistoric sites are known within one mile of the project area.

Historic Overview

Delaware County lies in the south central region of New York State with the southwestern edge of the County bordering Pennsylvania. The headwaters of the Delaware River run through the County from northeast to southwest in two separate branches that are known as the West Branch in the north, and the East Branch in the south. The branches of the Delaware and its tributaries account for the terrain of Delaware County, which is mostly made of relatively steep ridges and the valleys formed by the various waterways. The Catskill State Park runs through portions of the southeastern section of the County, making the eastern border of the County the Catskill Mountains. Portions of the Susquehanna River valley make up the northern border of Delaware County. The soil is made up mostly of reddish clay and is well known for being extremely rocky. Delaware County was created from parts of Ulster County and Otsego County on March 10, 1797, and Delhi became the county seat in 1817. The first land grant had been given in 1708, this being the 10 square mile Hardenburgh Patent, granted to Johannes Hardenburgh of Kingston. This patent included the area south of the East branch of the Delaware River (French 1860). It wasn't until 1762/3 that Dutch settlers from Hurley, NY came and began to settle the area. From this time through the early 1770's, many more settlers came to Delaware County. Around the beginning of the Revolutionary War, a number of settlers had been driven out by conflicts with Native American groups (Sullivan 1927). Logging was the first major industry, with dairy farming quickly following as the county grew.

The Town of Colchester lies in the south central portion of Delaware County, and is divided in half by the East Branch of the Delaware River. Being very close to the Catskill Mountains, Colchester is made up of many steep hills and valleys. It was formed from the Town of Middletown in 1792. In 1799, and later on in 1827, parts of the town were annexed to the Town of Walton with a section also annexed to Hancock in 1806 (French 1860). The first settler in Colchester arrived in 1766 from Westchester County. Sources differ on his first name, possibly being Russell (Munsell 1880) or Timothy (Sullivan 1927), however, his last name was known to be Gregory. He settled on the east side of the Delaware River, where he erected a cabin and planted apple trees in a clearing along side the river. Other early settlers in Colchester were Jacob Barnhart, Frederick Miller, Daniel Wilson, William Commins and their families, among others (Munsell

1880). As was true for other parts of Delaware County, these early settlers were forced out of Colchester by Native Americans until after the Revolutionary War. The residents returned after the War and along with them came new settlers, many of which were Revolutionary War veterans. These young men saw much potential in the dense forests along the East Branch and very quickly began logging the region. Timber became the primary industry in Colchester, not only due to the immense forests in the area, but also because the logs were easily transported down the Delaware River to Philadelphia. With all of the logging going on, sawmills began to be built along the river. The first one was built by W. June and a man known as Denham. By 1880, there were 36 sawmills in Colchester. William Horton, who would later go on to be the first representative for Delaware County in the state legislature, built the first tannery. Shad fishing was also an early important resource for the inhabitants of Colchester. An account from one early resident, said that in one day of fishing on the East Branch, the residents were able to feed their families for an entire season (Munsell 1880). Following the pattern of the rest of the County, logging waned and farming became the leading industry in Colchester (Sullivan 1927). The rich floodplain soils were good for growing wheat and pastureland for cattle was available just up the hills from the rivers and streams (Munsell 1860). A covered bridge, of the long truss Queen Post style, was built over the East Branch in Downsville, the only major village in Colchester. It was built in 1854 by Robert Murray and is 174 feet long. The bridge underwent a major rehabilitation performed in 1998, and was added to the National Register of Historic Places in 1999 (New York State Covered Bridges 2005).

The modern history of the Town of Colchester really begins with the building of the Pepacton Reservoir. Finished in 1955, the Pepacton Dam impounded the East Branch of the Delaware River so that it could be used as another water supply for New York City. The Reservoir is twenty-one miles long and averages about one half mile wide. Arena, Pepacton, Shaver Town, and Union Grove were communities that were flooded in the building of the Dam, which displaced 974 people (Bear Systems 2008). The building of the Pepacton Reservoir also coincided with an influx of tourists making their way into the areas north of the Catskill Mountains. From the mid 20th century through the present, Colchester has been a popular place for many outdoor activities such as hiking and hunting, and the area is especially well known for its trout fishing.

Known Historic Sites and Structures

A check of site files of the Office of Parks, Recreation, and Historic Preservation and the New York State Museum indicated that four historic archaeological sites are known within one mile of the project area (Table 3). The Hanford Mills Museum reported all four historic archaeological sites in 1979. The first listed site is the William Rose, Gristmill, Tub Mill Brook/Wilson Hollow Brook Site (A025-03-0038). There is no visible evidence of this gristmill, which was presumably at base of the falls, however it is interesting to note that “William Rose...was...captured by the Indians at Tab Mill 1779” (Beers Atlas 1869). The George Downs/J.D. Downs Tannery/Downs Brook Site (A025-03-0039) is located 500ft upstream of NYS Route 30 crossing. Beers lists J.D. Downs as proprietor of the gristmill and tannery, as well as being the manufacturer and dealer of hemlock lumber. Founded 1848 by George Downs, “the growth and prosperity of the Village of Downsville may be dated to the erection of the tannery put up in 1848 by George Downs” (History 1880). The next listed site is the J.D. Downs and Elwood/Gristmill/Downs Brook Site (A025-03-0040), which was also owned by George Downs prior to J.D. Downs’ running of this mill. Members of the Downs and Elwood family also owned Colchester tanneries and sawmills. The last site listed is the Stream Sawmill/East Branch/Delaware Site (A025-03-0041), which is located just north of the old bridge abutments on the west bank of the Delaware River, east of the intersection of Barney Hollow Road and NYS Route 30. The property owners report having found spikes and other metal objects in garden.

A survey of the State Historic Preservation Information Exchange system (SPHINX) and the National Register Information System (NRIS) revealed that there are two listed National Register properties within one mile of the project area. The Downsville Covered Bridge (99NR01466) is significant under criteria A and C as a rare and substantially intact example of rural vernacular bridge design and construction in the Catskill region. The few covered timber bridges that remain in the rural regions of New York State collectively represent a vanishing structure type built using obsolete technology. Because of their increasing rarity and vulnerability, those examples that remain are eminently worthy of preservation. Erected across the East Branch of the Delaware River in 1854, the 174-foot, single span, timber bridge incorporates a truss design patented by Col. Stephen H. Long. During the 1830s, Colonel Stephen H. Long of the U.S. Army Corps of Topographical Engineers perfected a rigid timber truss form that incorporated panels consisting of intersecting diagonals and counters. Long’s initial patented design of 1830 was for an “assisted truss”, which included a redundant kingpost relieving truss above the center panel points (where the greatest flex would occur). With practical experience Long refined his design to eliminate its “overbuilt” characteristics, receiving additional patents in 1836 and 1839. The Old Blenheim Bridge (1855), Schoharie County (National Historic Landmark, 1964; National Civil Engineering Landmark), is a notable example of the Long truss design.

The Downsville Covered Bridge is significant as one of only 3 intact, extant Long truss bridges remaining in New York State. Having been removed from service in 1993 and

restored in 1998, the imposing wood span remains an important transportation and vernacular engineering landmark in Delaware County and the Catskill region. The Downsville Covered Bridge Built was built using native oak and hemlock timber cut to dimension in local sawmills, a reflection of building traditions in the area. The span at Downsville was the first bridge in Delaware County erected by builder/contractor Robert Murray, who also built the nominated Hamden Covered Bridge in Delaware County in 1859. In 1854, Murray received the contract to construct the crossing needed over the East Branch of the Delaware. The builder employed the time-tested Long truss design; a sturdy and easily constructed configuration that he knew was suited to the traffic loads the Downsville Bridge would carry. The Downsville Covered Bridge has had many repairs throughout the years. In 1951, the Department of public works repaired the roof, tightened the chords, put on new siding and installed a new roof. In 1976, a new nail laminated deck was installed. During 1983-1985, local contractors and carpenters were retained to install new shingles, replace any necessary boards and fill in missing sideboards with lumber for the project cut in the Town of Colchester and trucked to a local sawmill. An extensive program of restoration was completed in 1998 by the Delaware County Department of Public Works, which currently maintains the Downsville Covered Bridge as a local historic landmark.

The next listed property is the Union Free School (04NR05246) which was constructed in 1784 and is located at the entrance to Cole's Creek. Daniel Parrish, a New England schoolteacher who had relocated to Colchester from Dutchess County after the Revolution, established the school. Town records from 1855 indicated twenty-two school districts in Colchester. District 3 school, in Downsville, was noted as built in 1814, with John D. Fuller and George W. Downs listed as trustees. Downs, a leader in the tanning and lumber business, was one of the town's wealthiest citizens. In addition to his successful businesses, Downs also profited from the sale of lands inherited from his father, Abel Downs, who had acquired a substantial amount of property in the 1790s. In 1856, the younger Downs deeded a portion of his land in the hamlet of Downsville to District 3. A small school was built on the site and three teachers were employed to teach grades one through eight. In 1862 a new school was constructed and the earlier building was remodeled for use as a residence. The 1862 school, a two-story building that was later used for a church and then a residence, still survives on a parcel three doors from the nominated school; however, it is no longer recognizable as a school. Munsell's 1880 history reports twenty-five school districts in town, serving 104 pupils. In the town of Colchester, like the rest of New York State, the early twentieth century saw the growth and expansion of educational systems. In 1903, citizens led by Samuel A. Robinson, a teacher, started a movement to establish a Union Free School District and build a new school. Construction of the school began in 1903 and was completed in the summer of 1906, with the first classes held in the fall of that year. The Downsville Union School was the first school to offer grades one through twelve in the hamlet. There were five teachers in 1906-07, six in 1908-12 and seven in 1913-21. Although the school voted to establish an academic department, the district initially failed to attain the requisite five academic students required for regents' certification, a status not achieved until June 1907. The following year, the Union Free School was advanced to include middle grade, eventually including through senior grades, and in 1910, the school was accorded the

rank of high school. Classes were taught here until 1938, when all district schools were centralized and moved to a new building on Maple Street. The Union Free School is a typical example of the union schools built in rural New York in this period. The division into gabled blocks united under a single hipped roof is seen in popular pattern books of school architecture. Like other union schools, the upper story of the main block is a single large open space set aside for the academic department (and later high school). Following a common pattern, restrooms and lockers were located in the basement; however, there was no gymnasium. The Union Free School is an important public building in Downsville, with a high level of integrity, leaving it a symbol of the value that the local community placed on education.

Table 3. Previously identified historic sites and National Register Listed Properties within one mile of project area.

Site Number	Cultural Affiliation	Status	Site Name	Distance	Reference
A025-03-0038	19 th C.	I	William Rose, Gristmill, Tub Mill Brook/Wilson Hollow Brook	5,101 feet north	(Hanford Mills Museum 1979)
A025-03-0039	19 th C.	I	George Downs/J.D. Downs, Tannery, Downs Brook	4,099 feet northeast	(Hanford Mills Museum 1979)
A025-03-0040	19 th C.	I	J.D. Downs & Elwood, Gristmill, Downs Brook	4,242 feet northeast	(Hanford Mills Museum 1979)
A025-03-0041	19 th C.	I	Steam Sawmill, East Branch, Delaware	4,160 feet southwest	(Hanford Mills Museum 1979)
99NR01466	19 th C.		Downsville Covered Bridge	2,944 feet northeast	(SPHINX)
04NR05246	19 th C.	I	Union Free School	4,081 feet northeast	(SPHINX)

*Status: I=inventoried, E=eligible, L=listed

Assessment of Sensitivity for Cultural Resources

An assessment of whether significant cultural resources are likely to be present within a project area must consider what is known of the prehistory of the area, including likely locations of archaeological sites and proximity to known sites; and the history of the immediate area, including whether any historic structures or features are known to exist within the project boundaries. An assessment must also consider that if cultural resources *are* located on a parcel, will they likely retain *integrity* (without which they would not be considered significant). Modifications to the land may serve to destroy all or portions of any cultural deposits that may exist.

Prehistoric Sensitivity

No prehistoric sites are known within one mile of the project area. This does not necessarily reflect the absence of prehistoric cultural resources, but rather reflects that that no culturally significant prehistoric material has been found or reported within one mile. The project area's vicinity to the East Branch and other smaller tributaries, as well as the diversity of natural resources in the area may have provided an attractive location for prehistoric peoples in terms of seasonal hunting and gathering purposes, and possibly even temporary camps. Due to these factors, the project is considered moderately sensitive for prehistoric remains.

Historic Sensitivity

Six historic archaeological sites have been identified within one mile of the project area. Four of these were reported by the Hanford Mills Museum in 1979. These are the William Rose gristmill, the George Downs/J.D. Downs tannery, the J.D. Downs and Elwood gristmill, and the Stream sawmill. The last two sites are listed on the National Register and are the Downsville Covered Bridge and the Union Free School. In addition to these two sites, the Village and Town of Colchester both possess historic structures and roadways dating to the 19th century. Due to these factors any undisturbed areas of the APE would be considered highly sensitive for historic remains.

Part II: Field Assessment

Field investigations were conducted to identify any historic or prehistoric cultural resources that may be impacted by the proposed project. The fieldwork was conducted on March 16-17, 2009 by David Moyer, RPA. Douglas Idleman served as a field technician during the subsurface investigations. The weather was mild and sunny. The property owners were not aware of any historic or prehistoric resources in the project vicinity. Photographs were taken of the project area, adjacent visible structures, and any areas of disturbance (Appendix B).

Methodology

Field Walkover and Surface Collection

The project area was subjected to a pedestrian walkover of all areas of proposed ground disturbance. The project area lies south of River Road, along the banks of the East Branch of the Delaware River, in the Town of Colchester, Delaware County, New York (Figures 1 and 2; Photos 1-29).

Subsurface Testing

Standard shovel test pits (STPs) were used to test for buried cultural deposits. STPs are small (about 40 cm or 16 inch diameter) holes excavated with a shovel; sediments are screened through 1/4 inch mesh to look for artifacts. STPs are excavated in natural soil layers, as much as possible, and are dug through the topsoil to at least 20 cm (~ 8 inches) into culturally sterile subsoil.

STPs were placed along linear transects at 15m (49.2 ft) intervals within the area of the proposed garage and related parking and septic areas (See Subsurface Examinations). When an STP was placed in an area that was obviously disturbed (e.g., in a ditch along side the road), an attempt was made to move the shovel test beyond the area of disturbance, to a maximum distance of 3 meters from its original location. A list of the STPs and their soil profiles is provided in Appendix C. Modern refuse and isolated historic artifacts not associated with archaeological sites were noted and reburied in the field. Excavation of STPs was halted 20 cm (8 in.) into culturally sterile subsoil unless noted in the STP records (Appendix C).

Part II: Results

Surface Inspection

The area of potential effects (APE) was first subjected to a pedestrian walkover of all of all areas of proposed ground disturbance. The project is located on the south side of River Road south of the Village of Downsville in the Town of Colchester, Delaware County, New York (Figures 1 and 2; Photos 1–26). The project involves the construction of a new 110 x 125 ft (33.5-38.1 m) town garage as well as related parking and septic facilities. The project will impact approximately 4.0 acres out of a 22.412 acre parcel. The proposed ground disturbance will extend to depths in excess of 5 ft (1.5 m) below the ground where the building footprint is exposed.

The proposed garage will be accessed from the south side of River Road (Photos 20-25). The area is relatively level and surrounded on all sides by corn fields. An existing gravel access road extends south from River Road to an old railroad cut, the track and ties being removed years ago (Photos 18 and 19). The road continues southward a short distance to enter the town's gravel mine (Photos 1-6). Most of this area appeared to have been artificially leveled, with a small amount of push piles noted along the northern boundary of the APE (Photo 9). Ground visibility in this area was very good, with vegetation consisting of this tall grass jutting from rusted machinery and piles of debris.

The proposed septic field and garage expansion area is located to the west of the proposed garage, where things appeared less visibly disturbed (Photos 9-13). Vegetation was thicker in this area, but still provided relatively good surface visibility. A small, late 19th or early 20th century outbuilding lies on its side adjacent to a large pile of barn refuse (Photos 17). All of this material appears to have been brought in from another location and does not represent the remains of structures that once stood in the APE or its vicinity. Two concrete pads were noted during the surface inspection. One of the pads is southeast of the existing well (Photo 14). The other concrete pad is north of the existing well in the northwestern portion of the project area (Photo 15). Piles of asphalt and broken cement occur further east. An existing well is visible near the western end of the property boundary

No historic or precontact artifacts were noted during the surface inspection and no cultural features were identified. No historic or prehistoric archaeological sites were encountered.

Structures

No structures occur within the APE boundaries. Theses landscape features consist of concrete pads that were noted during the surface inspection. One of the pads is southeast of the existing well (Photo 14). The other concrete pad is north of the existing well in the northwestern portion of the project area (Photo 15). A small shed occurs on the property, although this structure doesn't appear greater than 50 years old (Photo 18), and several temporary sheds are also present. A historic train depot is located just east of the project area that would have serviced the railroad line that runs north of the project area. The

depot is visible from the access road to the project area (Photo 26), but it is not visible from the area of proposed construction. Several historic structures are visible at a distance from the entrance to the property along River Road (Photos 1 and 6). No other structures are readily visible.

None of these structures will be impacted by any proposed construction activities.

Visual Impacts

The project area is situated at the base of an upland slope on the south side of the East Branch of the Delaware River (Figures 1-3; Photos 1-26). The proposed project involves the installation of a new town garage building as well as a new septic field and paved parking lots and roadways. While the project includes resurfacing the existing drive from River Road where several historic structures are visible (Photos 25 and 26), this should have minimal impact to these structures. The proposed garage building will be located behind a row of trees along the boundary of the old railroad tracks, which should obscure the new structure from the roadway (Photos 20 and 21). The only National Register listed structure, the Downsview covered bridge, is located several hundred feet to the east of the project and is not visible from the APE. The project is in keeping with the existing land use of the parcel, since the area is already used by the town highway department as a gravel mine and storage area. For these reasons, the proposed project should have minimal impact to any historic properties in the vicinity.

Subsurface Examinations

Subsurface testing was conducted throughout the sand and gravel mine in all areas of proposed improvements. The entire 4.0 acres of potential effects (APE) was surveyed using subsurface testing. A total of 83 STPs were placed at 15 m (49.2 foot) intervals in a grid in the location of the proposed garage and related facilities. Each STP was labeled according to transect, with numerical labels used to further designate individual holes. Of these 83 STPs, 12 (14.5%) were not excavated due to their location in visibly disturbed, recently mined sections of the parcel (Photos 1-6). Of the 71 STPs excavated, seven (10%) contained cultural material. All of the recovered artifacts appear to represent modern trash such as rope, aluminum can fragments, auto safety glass, coal and a locking washer. Twenty four of the STPs (33.8%) encountered impassable rock or compacted gravel that prevented deeper excavation, while concrete halted the excavation of three (4.2%) other STPs. In addition to these obstacles, three STPs (4.2%) were stopped by rising water levels. Five STPs (7%) had to be relocated. Two of these were moved due to the presence of standing water (Photo 7), two because of piles of stone (Photo 3), and one as a result of the presence of a modern shed (Photo 16). No cultural features were identified and no archaeological sites were identified.

STPs excavated within the project boundaries ranged in depth from 11-71cm (4.3 to 28 inches) below the ground surface, with an average depth of 45.4cm (17.9 inches). Soils in undisturbed portions of the project area were consistent with the Barbour loam series descriptions examined prior to the initiation of fieldwork. Most of the soils encountered within the noted disturbed areas resemble the 2C horizon found in the Barbour loam

series. This would seem likely as the upper horizons were probably removed during mining activities performed in the proposed project area.

Part III: Summary and Recommendations

A Phase IB Cultural Resource Survey has been completed for the Town of Colchester Highway Garage Project, located in the Town of Colchester, Delaware County, New York. The current project involves the construction of a new 110 x 125 ft (33.5-38.1 m) town garage as well as related parking and septic facilities. The area of potential effects (APE) includes approximately 4.0 acres out of a 22.412 acre parcel. The proposed ground disturbance will extend to depths in excess of 5 ft (1.5 m) below the ground where the building footprint is exposed.

The Phase IA review indicated that there are no prehistoric sites known within one mile of the project area. However, this does not necessarily reflect the absence of prehistoric cultural material, but merely signifies a lack of documentation. The project area is considered sensitive for prehistoric remains because its vicinity to the East Branch of the Delaware River and other smaller tributaries, as well as the diversity of natural resources in the area which may have provided an attractive location for prehistoric peoples in terms of seasonal hunting and gathering purposes, and possibly even temporary camps. In addition to the moderate prehistoric sensitivity of the current project, there are six historic archaeological sites known within one mile of the project area. Due to these factors the project is considered highly sensitive for historic remains.

A Phase IB field examination was conducted to test for cultural deposits that may be impacted by the proposed project. The entire 4.0 acres of potential effects (APE) was surveyed using subsurface testing. A total of 83 STPs were placed at 15 m (49.2 foot) intervals in a grid in the location of the proposed garage and related facilities. Each STP was labeled according to transect, with numerical labels used to further designate individual holes. Of these 83 STPs, 12 (14.5%) were not excavated due to the fact they were located in visibly disturbed, recently mined sections of the project area (Photos 1-6). Of the 71 STPs actually excavated, 7 (10%) contained cultural material. All of the recovered artifacts appear to represent modern trash such as rope, aluminum can fragments, auto safety glass, coal and a locking washer. No cultural features were identified and archaeological sites were encountered. Soils in undisturbed portions of the project area were consistent with the Barbour loam series descriptions examined prior to the initiation of fieldwork. Most of the soils encountered within disturbed areas do seem to resemble that of the 2C horizon from the Barbour loam soil series. This would seem likely as the upper horizons were probably removed during past mining of the project area.

Based on the results of this survey, it would appear that no historic or prehistoric archaeological resources will be impacted by the proposed project. For this reason, we recommend that the project be allowed to proceed and that no further archaeological work is warranted. These recommendations are subject to the review and concurrence of the New York State Office of Parks, Recreation, and Historic Preservation.

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Appendix A.

Figures

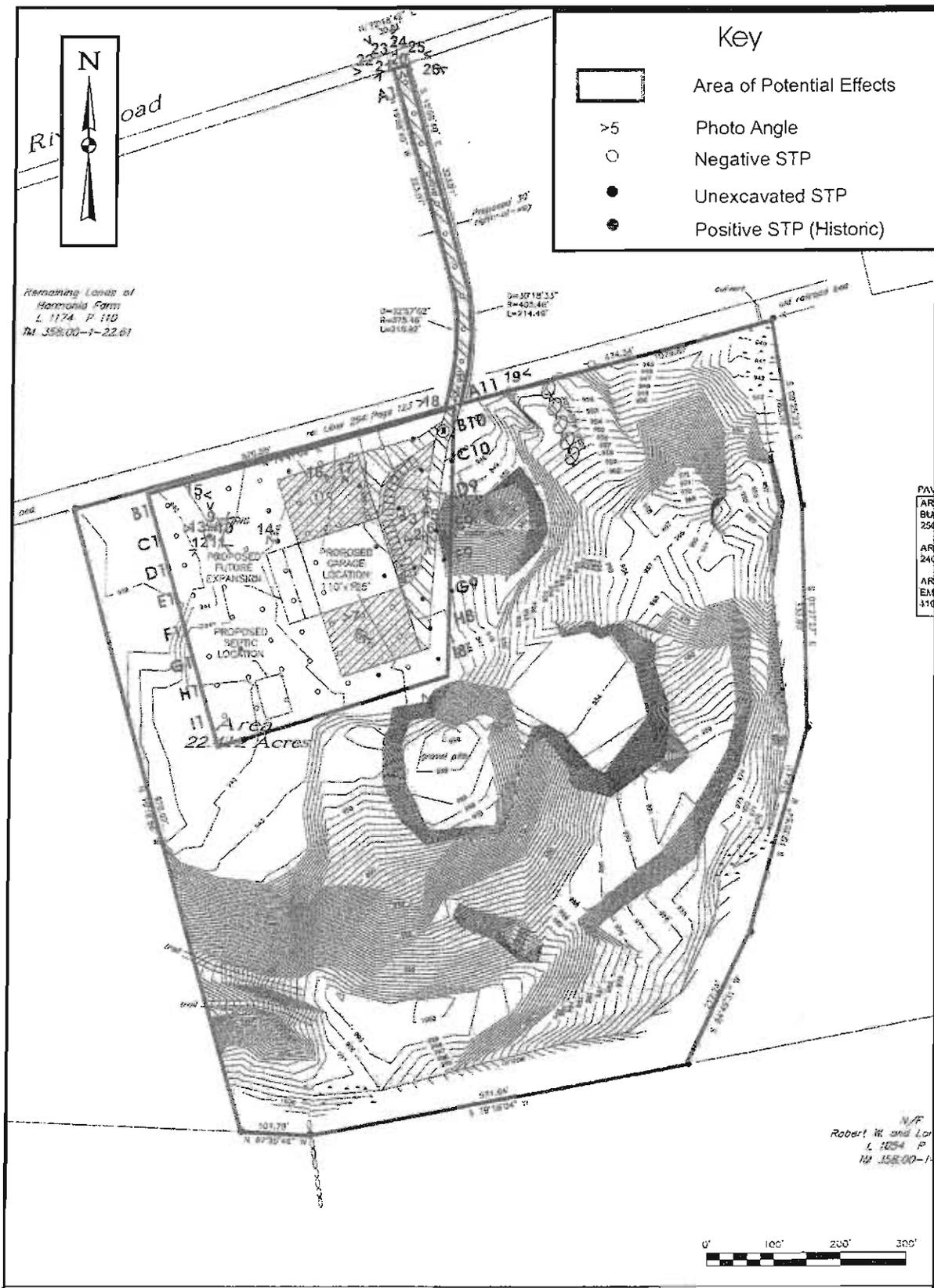


Figure 2. Map showing subsurface testing at the Town of Colchester Highway Garage project area

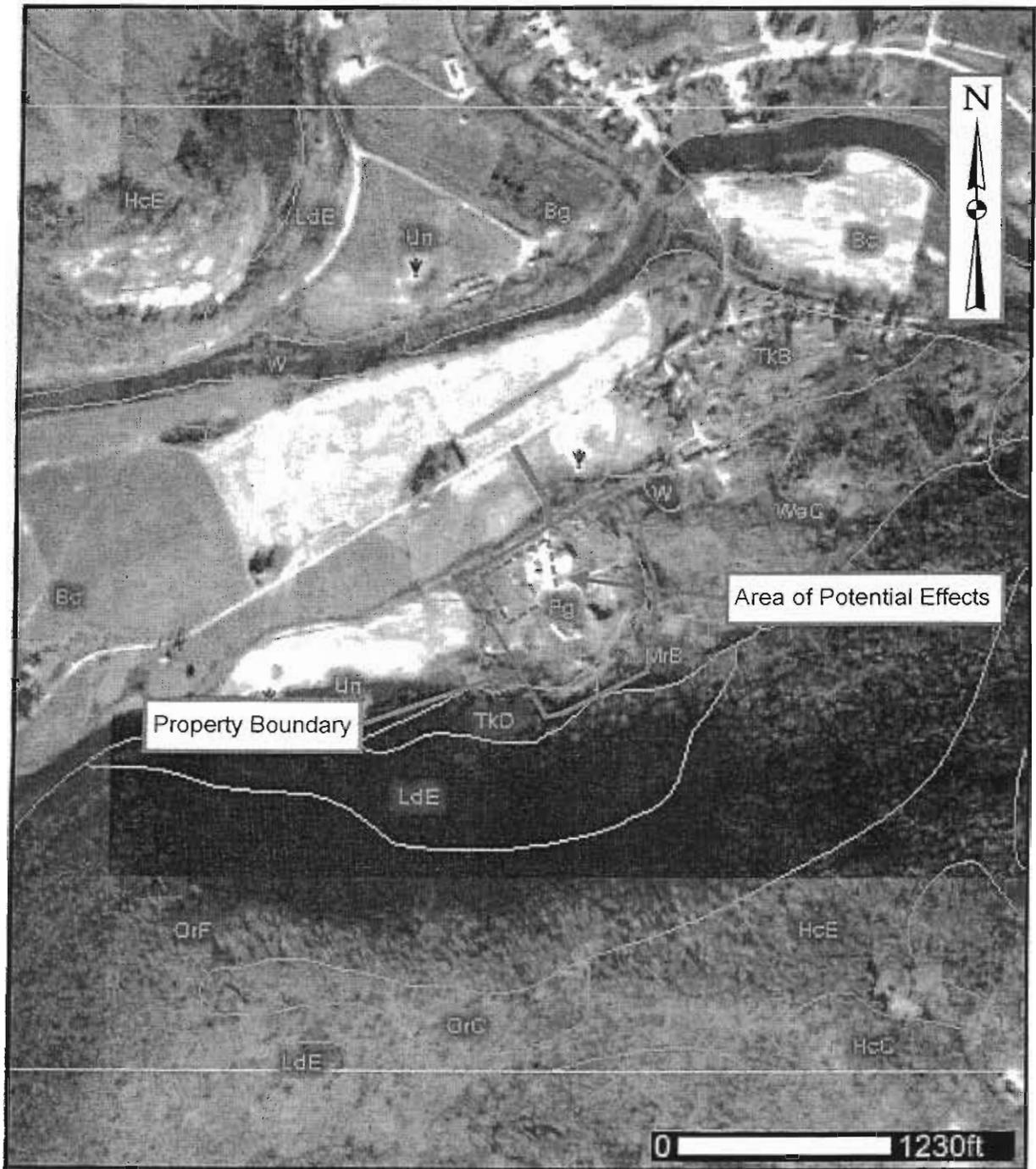


Figure 3. Portion of Delaware County soil map with the location of the project area indicated.

Appendix B.

Photographs



Photo 1. Portion of panoramic view from the west end of project area, facing south.



Photo 2. Portion of panoramic view from the west end of project area, facing west.

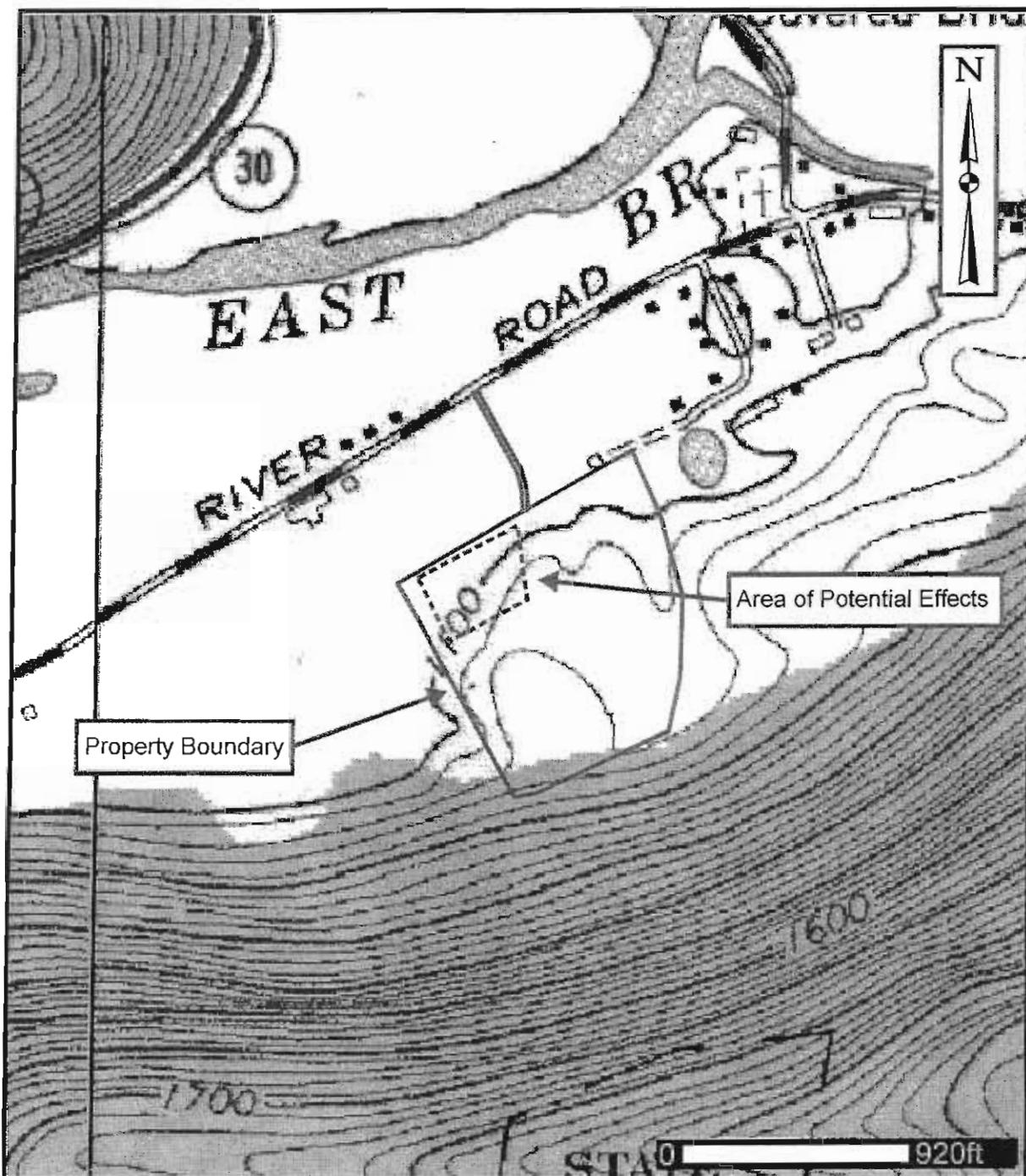


Figure 1. Map showing the location of the project area on Downsview USGS 7.5 minute topographic map



Photo 3. Portion of panoramic view from the west end of project area, facing northwest.



Photo 4. Portion of panoramic view from the west end of project area, facing north.



Photo 5. Portion of panoramic view from the west end of project area, facing northeast.



Photo 6. Portion of panoramic view from the west end of project area, facing southeast.

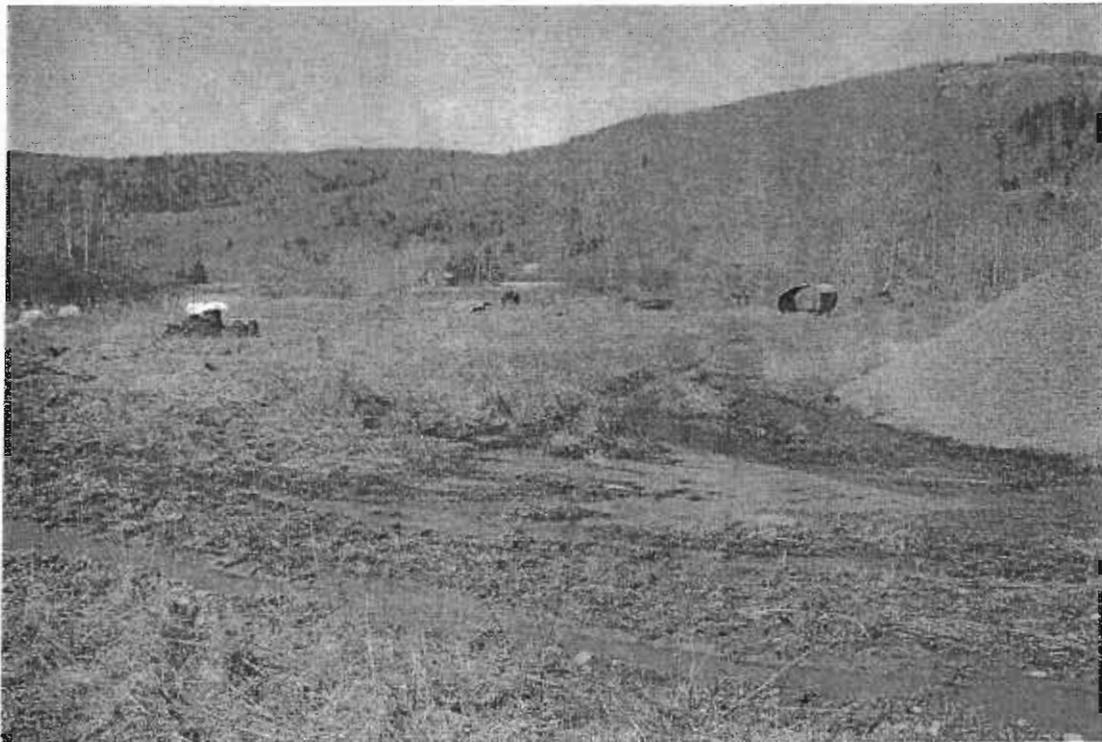


Photo 7. View of standing water near center of project area, facing west.



Photo 8. View of explosives storage containers at south end of project area with stp in foreground, facing south.



Photo 9. Portion of panoramic view from existing well near northeast corner of project area, facing north.



Photo 10. Portion of panoramic view from existing well near northeast corner of project area, facing northeast



Photo 11. Portion of panoramic view from existing well near northeast corner of project area, facing southeast.



Photo 12. Portion of panoramic view from existing well near northeast corner of project area, facing southwest.



Photo 13. Portion of panoramic view from the existing well near northeast corner of project area, facing west.

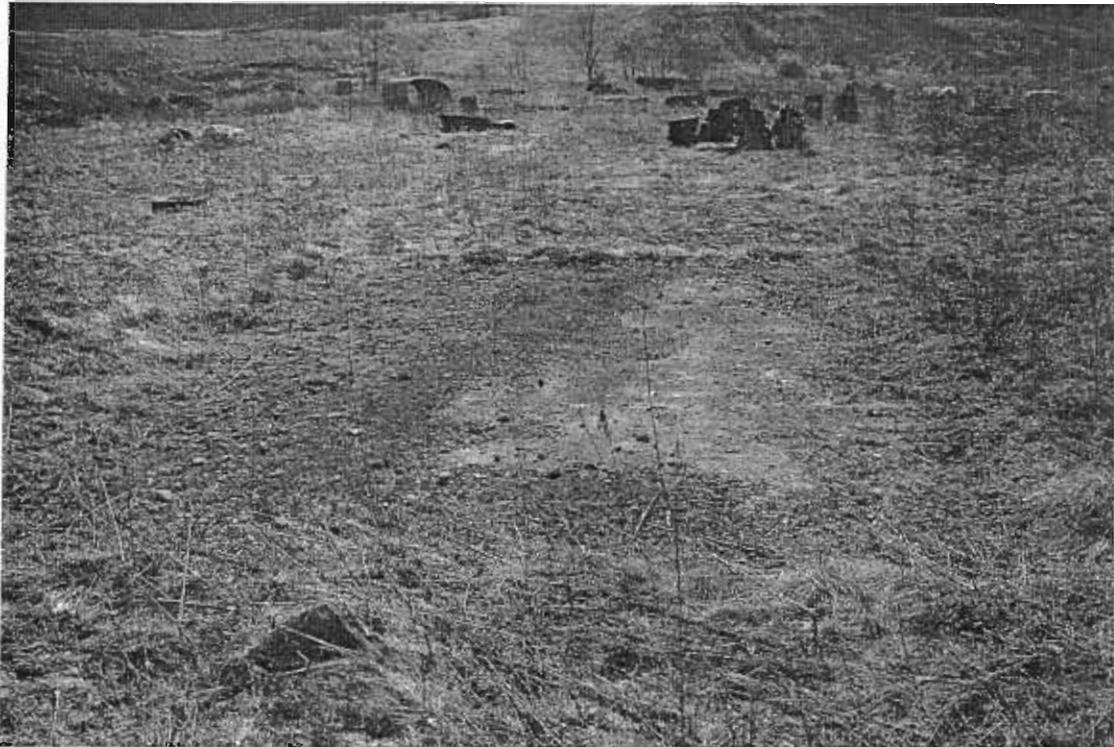


Photo 14. View of the concrete pad south of existing well, facing south.



Photo 15. View of the concrete pad north of existing well, facing west.



Photo 16. View of the modern shed and storage container, facing southeast.



Photo 17. View of the building refuse and building on its side near center of project area, facing south.



Photo 18. View of the former railroad bed, facing southwest.



Photo 19. View of the former railroad bed, facing northeast.



Photo 20. Portion of panoramic view from the project area entrance at River Road, facing south.



Photo 21. Portion of panoramic view from the project area entrance at River Road, facing southwest.



Photo 22. Portion of panoramic view from the project area entrance at River Road, facing west.

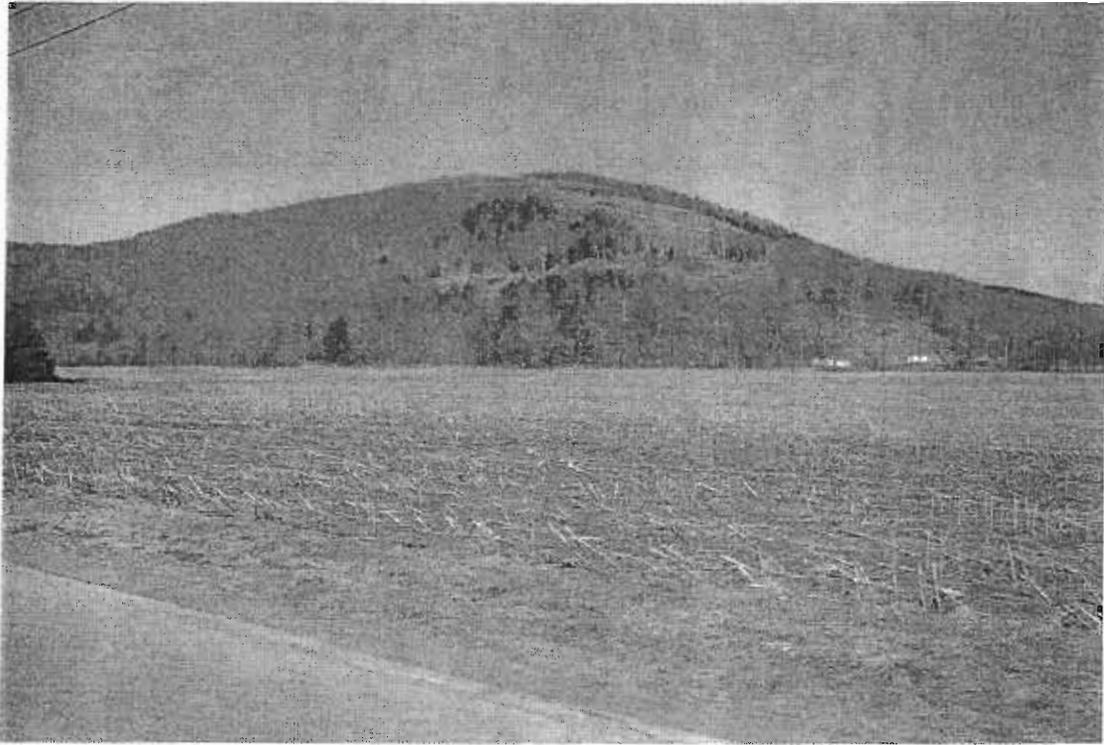


Photo 23. Portion of panoramic view from the project area entrance at River Road, facing northwest.



Photo 24. Portion of panoramic view from the project area entrance at River Road, facing northeast.



Photo 25. Portion of panoramic view from the project area entrance at River Road, facing east



Photo 26. View of the train depot east of project area, facing southeast

Appendix C.

Shovel Test Pit Records

Shovel Test Pit Record

STP	Lvl	from to (cm)		Soil Description	Soil Interpretation	Artifacts (Y/N)	Comments
		from (cm)	to (cm)				
A-1	1	0	12	10YR 4/4 dark yellowish brown sandy loam	Ap Horizon	N	
A-1	2	12	60	5YR 4/3 reddish brown silty sand	Bw Horizon	N	
A-2	1	0	17	10YR 4/4 dark yellowish brown silty loam	Ap Horizon	N	
A-2	2	17	51	5YR 4/4 reddish brown clay loam	Bw Horizon	N	
A-3	1	0	22	10YR 4/4 dark yellowish brown sandy loam	Ap Horizon	N	
A-3	2	22	57	5YR 4/3 reddish brown silty sand	Bw Horizon	N	
A-4	1	0	20	10YR 4/4 dark yellowish brown silty loam with gravel	Ap Horizon	N	
A-4	2	20	50	5YR 4/4 reddish brown clay loam with gravel	Bw Horizon	N	
A-5	1	0	16	10YR 4/4 dark yellowish brown sandy loam	Ap Horizon	N	
A-5	2	16	47	5YR 4/3 reddish brown silty sand	Bw Horizon	N	
A-6	1	0	35	10YR 4/4 dark yellowish brown silty loam	Ap Horizon	N	
A-6	2	35	55	5YR 4/4 reddish brown clay loam	Bw Horizon	N	
A-7	1	0	14	10YR 4/4 dark yellowish brown sandy loam	Ap Horizon	N	
A-7	2	14	58	5YR 3/3 dark reddish brown clay silt	Bw Horizon	N	
A-8	1	0	46	10YR 4/4 dark yellowish brown sandy loam	Ap Horizon	N	
A-8	2	46	71	10YR 4/2 dark grayish brown sandy loam clay	Bw Horizon	N	
A-9	1	0	24	10YR 4/4 dark yellowish brown sandy loam with gravel	Ap Horizon	N	
A-9	2	24	46	5YR 3/3 dark reddish brown silty sand with gravel	Bw Horizon	N	
A-10	1	0	56	5YR 3/3 dark reddish brown silty sand with gravel	Ap Horizon	N	stopped by rocks
A-11	1	0	60	5YR 3/3 dark reddish brown silty sand with gravel	Ap Horizon	N	stopped by rocks
B-1	1	0	8	10YR 4/4 dark yellowish brown sandy loam	Ap Horizon	N	
B-1	2	8	43	10YR 4/2 dark grayish brown silty sand	Bw Horizon	N	stopped by rocks
B-2	1	0	27	10YR 4/4 dark yellowish brown sandy loam with gravel	Ap Horizon	N	
B-2	2	27	62	10YR 4/2 dark grayish brown silty sand	Bw Horizon	N	
B-3	1	0	22	10YR 4/4 dark yellowish brown sandy loam	Ap Horizon	N	
B-3	2	22	44	10YR 4/2 dark grayish brown silty sand	Bw Horizon	N	stopped by rocks
B-4	1	0	12	10YR 4/4 dark yellowish brown sandy loam	Ap Horizon	N	
B-4	2	12	40	5B 6/1 bluish gray gravel with sand	Bw Horizon	N	stopped by gravel fill
B-5	1	0	20	10YR 4/4 dark yellowish brown sandy loam	Ap Horizon	Y	moved 2m S due to shed; modern can fragment, devilled ham-discarded
B-5	2	20	57	10YR 4/2 dark grayish brown silty sand	Bw Horizon	N	
B-6	1	0	15	10YR 4/4 dark yellowish brown sandy loam	Ap Horizon	N	
B-6	2	15	43	5YR 3/3 dark reddish brown silty sand	Bw Horizon	N	stopped by rocks

Shovel Test Pit Record

STP	Lvl	from (cm)	to (cm)	Soil Description	Soil Interpretation	Artifacts (Y/N)	Comments
B-7	1	0	14	10YR 4/4 dark yellowish brown sandy loam	Ap Horizon	N	
B-7	2	14	47	10YR 4/4 dark yellowish brown sandy loam	Bw Horizon	N	moved 2m S due to pile of stone
B-8	1	0	11	5B 6/1 bluish gray with gravel	Ap Horizon	N	stopped by rocks
B-8	2	11	31	5YR 3/3 dark reddish brown silty sand not dug due to disturbed	Bw Horizon	N	stopped by compacted gravel
B-10				not dug located on concrete ramp			
C-1	1	0	17	10YR 4/4 dark yellowish brown sandy loam	Ap Horizon	N	
C-1	2	17	62	10YR 4/2 dark grayish brown silty sand	Bw Horizon	N	
C-2	1	0	40	10YR 4/4 dark yellowish brown sandy loam with gravel	Ap Horizon	N	
C-2	2	40	66	10YR 4/2 dark grayish brown silty sand	Bw Horizon	N	
C-3	1	0	9	10YR 4/4 dark yellowish brown sandy loam	Ap Horizon	N	
C-3	2	9	42	10YR 4/2 dark grayish brown silty sand with gravel	Bw Horizon	N	stopped by rocks
C-4	1	0	19	10YR 4/4 dark yellowish brown sandy loam with gravel	Ap Horizon	Y	rope fragment (1) - reburied
C-4	2	19	32	10YR 4/2 dark grayish brown silty sand with gravel	Bw Horizon	N	stopped by rocks
C-5	1	0	7	10YR 4/4 dark yellowish brown sandy loam with gravel	Ap Horizon	N	
C-5	2	7	17	10YR 4/2 dark grayish brown sandy loam with gravel	Bw Horizon	N	
C-5	3	19	42	10YR 4/4 dark yellowish brown sandy loam with gravel	C Horizon	N	
C-6	1	0	14	5B 6/1 bluish gray with gravel	Ap Horizon	N	
C-6	2	14	46	5YR 3/3 dark reddish brown silty sand gravel fill	Bw Horizon	N	
C-7	1	0	5	10YR 4/4 dark yellowish brown sandy loam with gravel	Ap Horizon	N	
C-7	2	5	15	10YR 4/4 dark yellowish brown sandy loam with gravel	Bw Horizon	Y	locking washer (1); coal (2) - reburied
C-7	3	15	45	5YR 3/3 dark reddish brown silty sand with gravel	C Horizon	N	
C-8	1	0	11	10YR 4/4 dark yellowish brown silty sand gravel fill	Ap Horizon	N	
C-8	2	11	16	5YR 3/3 dark reddish brown silty sand with gravel	Bw Horizon	N	
C-8	3	16	24	5YR 3/3 dark reddish brown silty sand with gravel	C Horizon	N	stopped by rocks
C-9				not dug due to gravel mine			
C-10	1	0	18	10YR 4/4 dark yellowish brown sandy loam	Ap Horizon	N	
D-1	2	18	60	10YR 4/2 dark grayish brown silty sand	Bw Horizon	N	

Shovel Test Pit Record

STP	Lvl	from (cm)	to (cm)	Soil Description	Soil Interpretation	Artifacts (Y/N)	Comments
D-2	1	0	14	10YR 4/4 dark yellowish brown sandy loam with gravel	Ap Horizon	N	
D-2	2	14	46	10YR 4/2 dark grayish brown silty sand with gravel	Bw Horizon	N	
D-3	1	0	13	10YR 4/4 dark yellowish brown silty sand with gravel	Ap Horizon	N	stopped by concrete pad
D-4	1	0	18	10YR 4/4 dark yellowish brown silty sand with gravel	Ap Horizon	Y	glass, clear, curved (4) - reburied
D-4	2	18	42	10YR 4/3 dark brown silty sand with gravel	Bw Horizon	N	
D-5	1	0	18	10YR 4/4 dark yellowish brown silty sand with gravel	Ap Horizon	N	
D-5	2	18	50	10YR 4/3 dark brown silty sand with gravel	Bw Horizon	N	
D-6	1	0	22	10YR 4/4 dark yellowish brown silty sand with gravel	Ap Horizon	N	
D-6	2	22	46	5YR 3/3 dark reddish brown silty sand with gravel	Bw Horizon	N	
D-7	1	0	2	gravel fill	Ap Horizon	N	
D-7	2	2	25	10YR 4/4 dark yellowish brown silty sand not dug due to packed gravel road	Bw Horizon	N	stopped by rocks
D-8	1	0	67	10YR 4/4 dark yellowish brown silty sand with gravel	Ap Horizon	N	stopped by rocks
E-1	1	0	31	10YR 4/4 dark yellowish brown sandy loam	Ap Horizon	N	stopped by broken concrete
E-2	1	0	12	10YR 4/4 dark yellowish brown sandy loam	Ap Horizon	N	
E-2	2	12	51	10YR 4/2 dark grayish brown silty sand	Bw Horizon	N	
E-3	1	0	16	10YR 4/4 dark yellowish brown sandy loam	Ap Horizon	N	
E-3	2	16	53	10YR 4/2 dark grayish brown silty sand	Bw Horizon	N	stopped by water
E-4	1	0	8	10YR 4/4 dark yellowish brown sandy loam	Ap Horizon	N	
E-4	2	8	51	10YR 4/2 dark grayish brown silty sand	Bw Horizon	N	
E-5	1	0	63	10YR 4/4 dark yellowish brown sandy loam	Ap Horizon	N	located on push pile
E-6	1	0	33	5YR 3/3 dark reddish brown silty sand with gravel	Ap Horizon	N	no topsoil; stopped by compacted gravel
E-7	1	0	11	5B 6/1 bluish gray with gravel	Ap Horizon	Y	located on push pile; auto moved 3m N due to stone pile; auto safety glass (3) - discarded
E-7	2	11	42	5YR 3/3 dark reddish brown silty sand	Bw Horizon	N	
E-8	1	0	16	5B 6/1 bluish gray with gravel	Ap Horizon	N	
E-8	2	16	51	5YR 3/3 dark reddish brown silty sand not dug due to disturbed	Bw Horizon	N	stopped by rocks
E-9	1	0	12	10YR 4/4 dark yellowish brown sandy loam	Ap Horizon	N	
F-1	2	12	49	10YR 4/2 dark grayish brown silty sand	Bw Horizon	N	
F-2	1	0	14	10YR 4/4 dark yellowish brown sandy loam	Ap Horizon	N	
F-2	2	14	52	10YR 4/2 dark grayish brown silty sand	Bw Horizon	N	

Shovel Test Pit Record

STP	Lvl	from (cm)	to (cm)	Soil Description	Soil Interpretation	Artifacts (Y/N)	Comments
F-3	1	0	12	10YR 4/4 dark yellowish brown sandy loam	Ap Horizon	N	
F-3	2	12	48	10YR 4/2 dark grayish brown silty sand	Bw Horizon	N	
F-4	1	0	13	10YR 4/4 dark yellowish brown sandy loam	Ap Horizon	N	
F-4	2	13	51	10YR 4/2 dark grayish brown silty sand	Bw Horizon	N	
F-5	1	0	10	10YR 4/4 dark yellowish brown sandy loam	Ap Horizon	N	
F-5	2	10	46	10YR 4/2 dark grayish brown silty sand	Bw Horizon	N	stopped by water
F-6	1	0	10	10YR 4/4 dark yellowish brown sandy loam	Ap Horizon	N	
F-6	2	10	32	10YR 4/2 dark grayish brown silty sand	Bw Horizon	N	
F-7				not dug - disturbed in mine			
F-8				not dug - disturbed in mine			
F-9				not dug - disturbed in mine			
G-1	1	0	20	10YR 4/4 dark yellowish brown sandy loam	Ap Horizon	N	
G-1	2	20	48	10YR 4/2 dark grayish brown silty sand with gravel	Bw Horizon	N	
G-2	1	0	17	10YR 4/4 dark yellowish brown sandy loam	Ap Horizon	Y	white plastic fragments (3)
G-2	2	17	40	10YR 4/2 dark grayish brown silty sand with gravel	Bw Horizon	N	stopped by rocks
G-3	1	0	16	10YR 4/4 dark yellowish brown sandy loam	Ap Horizon	N	
G-3	2	16	45	10YR 4/2 dark grayish brown sandy loam with gravel	Bw Horizon	N	
G-4	1	0	20	10YR 4/4 dark yellowish brown sandy loam	Ap Horizon	N	
G-4	2	20	46	10YR 4/2 dark grayish brown sandy loam with gravel	Bw Horizon	N	
G-5	1	0	27	10YR 4/4 dark yellowish brown sandy loam	Ap Horizon	N	moved 1m S due to water, stopped by water
G-6	1	0	39	10YR 4/4 dark yellowish brown sandy loam	Ap Horizon	N	no topsoil; stopped by compacted gravel
G-7	1	0	12	5YR 3/3 dark reddish brown sandy loam with gravel	Ap Horizon	N	stopped by road
G-8				not dug due to gravel mine			
G-9				not dug due to gravel mine			
H-1	1	0	11	10YR 4/4 dark yellowish brown sandy loam with gravel	Ap Horizon	N	stopped by concrete pad
H-2	1	0	16	10YR 4/4 dark yellowish brown sandy loam with gravel	Ap Horizon	N	
H-2	2	16	43	10YR 4/2 dark grayish brown silty sand with gravel	Bw Horizon	N	stopped by rocks

Shovel Test Pit Record

STP	Lvl	from (cm)	to (cm)	Soil Description	Soil Interpretation	Artifacts (Y/N)	Comments
H-3	1	0	17	10YR 4/4 dark yellowish brown sandy loam with gravel	Ap Horizon	N	
H-3	2	17	40	10YR 4/2 dark grayish brown silty sand with gravel	Bw Horizon	N	stopped by rocks
H-4	1	0	28	10YR 4/4 dark yellowish brown sandy loam with gravel	Ap Horizon	N	
H-4	2	28	48	10YR 4/2 dark grayish brown silty sand with gravel	Bw Horizon	N	
H-5	1	0	18	10YR 4/4 dark yellowish brown sandy loam with gravel	Ap Horizon	N	
H-5	2	18	41	10YR 4/2 dark grayish brown silty sand with gravel	Bw Horizon	N	
H-6	1	0	19	10YR 4/4 dark yellowish brown sandy loam with gravel	Ap Horizon	N	moved 2m W due to water
H-6	2	19	42	5YR 3/3 dark reddish brown silty sand with gravel	Bw Horizon	N	
H-7	1	0	12	10YR 4/4 dark yellowish brown sandy loam with gravel	Ap Horizon	N	
H-7	2	12	32	5YR 3/3 dark reddish brown silty sand with gravel	Bw Horizon	N	stopped by rocks
H-8				not dug due to gravel mine			
I-1	1	0	13	10YR 4/4 dark yellowish brown sandy loam	Ap Horizon	N	
I-1	2	13	43	10YR 4/2 dark grayish brown silty sand	Bw Horizon	N	stopped by rocks
I-2	1	0	18	10YR 4/4 dark yellowish brown sandy loam	Ap Horizon	N	
I-2	2	18	41	10YR 4/2 dark grayish brown silty sand	Bw Horizon	N	stopped by rocks
I-3	1	0	16	10YR 4/4 dark yellowish brown sandy loam	Ap Horizon	N	
I-3	2	16	46	10YR 4/2 dark grayish brown silty sand	Bw Horizon	N	
I-4	1	0	22	10YR 4/4 dark yellowish brown sandy loam	Ap Horizon	N	
I-4	2	22	47	10YR 4/2 dark grayish brown silty sand	Bw Horizon	N	
I-5	1	0	17	10YR 4/4 dark yellowish brown sandy loam	Ap Horizon	N	
I-5	2	17	50	10YR 4/2 dark grayish brown silty sand	Bw Horizon	N	
I-6	1	0	25	10YR 4/4 dark yellowish brown sandy loam with gravel	Ap Horizon	Y	skæet fragments (4) - discarded
I-6	2	25	58	10YR 4/2 dark grayish brown silty sand	Bw Horizon	N	
I-7	1	0	37	compacted sandy gravel	Ap Horizon	N	stopped by rocks
I-8				not dug located in mine			