Shandaken Town Hall Relocation Feasibility Study

7092 Route 28 Town of Shandaken New York

May 22, 2024



Prepared for:

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1.0 INTRODUCTION

1.1 Background

LaBella Associates (LaBella) was engaged by the Town of Shandaken to prepare a Relocation Feasibility Study for the existing Town Hall complex. The March 2023 Shandaken Town Complex Flood Mitigation Retrofit Feasibility Study identified the challenges associated with the current site, which primarily constituted risk of flood damage. The report recommended immediate measures including removing the fueling station and other hazardous material from the current site. Additional recommendations were included but were considered interim measures until the town could construct a new town hall at a dry location. Relocation of the physical town hall building is not considered cost effective at this time, and relocation of the highway garage is not feasible due to the manner in which the building is constructed. The complex is currently located at 7209 Route 28 in Shandaken, NY, and consists of 4 separate parcels 5.18-2-32, 5.18-2-33, 5.18-2-34 and 5.18-2-35. Figure 1 presents each parcel boundary for the existing complex.



<u>Figure 1 – Aerial View of the Project Site</u>
(Aerial Photograph taken from Ulster County Parcel Viewer)

Per SDG Image Mate Online for Ulster County, total value of the existing 4 parcels and buildings is approx. \$2,200,000, with more than 90% of the value representing the existing town hall and highway garage buildings. See Table 1 below and **Appendix A** for existing parcel data.

Table 1 – Parcel Data for Existing Site

Parcel	Lot (acres)	Full Market Value	Land Value
5.18-2-32	1.60	\$932,611	\$9,500
5.18-2-33	0.75	\$24,067	\$4,000
5.18-2-34	0.60	\$1,263,538	\$8,000
5.18-2-35	0.26	\$12,034	\$2,000
Total	3.21	\$2,232,250	\$23,500

The complex is 50-100 feet northeast of Esopus Creek's northeast bank. Federal Emergency Management Agency (FEMA) revised the Flood Insurance Study (FIS) and Flood Insurance Rate Map (FIRM) for Ulster County in November 2016 and "Esopus Creek Reach 2" was restudied in April 2013. Base Flood Elevation (BFE) is 988 feet at FEMA Section AE on "Esopus Creek Reach 2", which is at the downstream end of the complex.

The entire complex is in FEMA Special Flood Hazard Area (SFHA) / FEMA Zone AE. The floodway boundary (area of active, high velocity flow) appears to arbitrarily cut through the complex, such that the entire complex, except for the town hall building and roughly half of the parking lot northeast of the highway garage is in the floodway. A review of the site grading clarifies that the lot is relatively flat and the town hall, even though not in the floodway, is expected to be impacted by flooding and high velocity flow. See **Appendix A** for existing site floodplain mapping.

LaBella first visited the Town Hall complex in February 2023. Ground and structure elevations were obtained using standard survey methodology. Note that all elevations in this report are referenced to North American Vertical Datum of 1988 (NAVD88). See **Appendix B** for existing site layout, floor elevations and on-site spot elevations. Table 2 presents finished floor elevations (FFEs) for the select on-site buildings.

Table 2 – FFEs and Flood Zone Determinations

Building/Room	FFE	Zone
Town Hall	986.6	Zone AE / not in floodway
Highway Garage	984.8	Zone AE / floodway
Highway Garage Locker Room	985.8	Zone AE / floodway

The following table provides historic crests and recent crests (flood events) on Esopus Creek at USGS Gage 01362500 (Esopus Creek at Cold Brook (MTRN6), ranked in order of severity.

Table 3 – Crests on Esopus Creek

Historic and Recent Crests (ranked starting with most severe event)				
Historic Crests	Recent Crests			
August 8, 2011	December 25, 2020			
March 21, 1980	December 18, 2023			
March 30, 1951	April 8, 2022			
April 3, 2005	October 26, 2021			
August 1933	April 14, 2020			
	May 1, 2020			
	October 7, 2023			
	April 12, 2024			

2.0 FOUR PROPOSED SITES

2.1 Parcel Information

The Town of Shandaken has requested that LaBella review the feasibility of four sites for use as proposed town hall complex site. Parcel information from SDG Image Mate Online for the four parcels are shown in Table 4 below and is contained in **Appendix C**.

Table 4 – Parcel Data for Proposed Sites

Address	Name	Parcel	Lot (Acres)	Property Class	Full Market Value	Land Value
Near 5681 Route 28	Stone Kill Farm	14.13-1- 17.130	11.0	311 – Residential vacant land	\$180,505	\$30,000
48-72 Route 42	Glenbrook Park	5.13-2- 25.100	29.1	682 – Recreational facility	\$661,853	\$35,000
11 School Lane	Phoenicia Elementary	13.12-2-12	12.0	612 – School	\$1,074,007	\$18,000
Near 8145 Route 28	Undeveloped / Wooded Site	42-40	259.0	910 – Private forest	\$935,018	\$155,400

2.2 Site Visit

LaBella observed 3 of the 4 parcels on March 23, 2024 and collected photo documentation. A follow-up site visit was conducted at Stone Kill Farm on May 13, 2024. A site visit was not conducted at the 4th site as it consists of undeveloped wooded area. See **Appendix D** for Site Photos.

Observations and assessments are limited to those portions of the parcel that were visible and accessible at the time of our visit. No laboratory testing, pressure tests, building/facility condition assessments or hazardous building material surveys were performed.

2.3 Zoning

Zoning for each of the 4 lots is presented in Table 5. A zoning map and enumeration of zones are provided in **Appendix E**. The following enumerations are provided in the Shandaken Town code:

- Highway Business (HB) district provides for limited commercial uses within existing
 business areas outside the hamlet centers of Phoenicia and Pine Hill. The Town
 encourages intensive well-designed development with HB district lands while
 discouraging any expansion that would nurture more extensive commercial highway
 stirp development. To the extent practicable, shared curb cuts, parking areas and
 signage are encouraged in the HB district.
- R1.5 residential district is a moderate-density residential district which generally
 encompasses the town's less environmentally constrained acreage, lies in the vicinity of
 the town's principal hamlet areas and is readily accessible for permanent residence.
 General, institutional and certain limited commercial uses are authorized by special use
 permit.
- R3 residential district is for low-density rural residential development or moderately sized lots and certain general, institutional and recreation uses through the special use permit procedure.
- Hamlet Residential (HR) provides for moderate-density residential development in the hamlet centers.

NameZoning DistrictInstitutional Use AllowedStone Kill FarmHB – Highway BusinessYesGlenbrook ParkR1.5 and R3 – ResidentialRequires special use permitPhoenicia ElementaryHR – Hamlet ResidentialNoUndeveloped / Wooded SiteNot ZonedYes

Table 5 – Zoning Districts

Therefore, institutional uses are generally limited to Highway Business (HB) and Hamlet Commercial (HC) districts, and are not allowed in the Hamlet Residential (HR) district. A special use permit would be required for Institutional use in an R1.5 or R3 residential district.

2.4 Accessibility

The proposed site needs to be accessible to emergency and highway vehicles, including fire trucks, ambulances, dump trucks and snow plows. LaBella visited each site to assess the access to each site and sight distance when trying to exit the site. Decision Sight Distances are defined in Table 3-3 of *AASHTO GDHS-7 Policy on Geometric Design of Highways and Streets, 7th Edition*. In order to complete Avoidance Maneuver A (defined as a stop on a rural road) on a 65 mile per hour (mph) road, approx. 700 feet of sight distance is required. On a 55-mph road, 535 feet of sight distance is required. Table 6 provides driveway access and sight distance data. See **Appendix F** for AASHTO Table 3-3.

Table 6 - Driveway Access and Sight Distance

Name	Driveway Access	Sight Distance
Stone Kill Farm	No restrictions - driveway is relatively flat	Located along a 0.75-mile long straight portion of Route 28, no concerns
Glenbrook Park	Entrance is at 5-6%	Limited site distance due to bridge guiderail
Phoenicia Elementary	No restrictions – not steep, no sharp turns	Driveway exits onto a side road, Route 214 bends south of driveway, which reduces sight distance
Undeveloped Site	No existing access	Located along A 0.75-mile-long straight reach of Route 28, no concerns

Stone Kill Farm and the Undeveloped Site each are located along straight stretches of Route 28 and have adequate sight distance.

Glenbrook Park has 2 entrances. Each exit onto a rural highway Route 42 with a posted speed limit of 55 miles per hour (mph). The north entrance is skewed and close to the bridge. Both factors effectively reduce sight distance or obstruct views.

The school exits onto School Street. However, School Street has poor site distance onto Route 214.

2.5 Flood Risk

Each site is subject to varying flood risk. Table 7 displays flood risk for each site pertaining to the 100-year flood event. See **Appendix G** for flood maps.

Table 7 – Flood Zones and Accessibility

Name	Flood Zone	Floodway	Access During Flooding
Stone Kill Farm	Zone X	Not in floodway	Accessible
Glenbrook Park	Zones AE and X	Not in floodway	Not Accessible
Phoenicia Elementary	Zones AE and X	Not in floodway	Not Accessible
Undeveloped Site	Zone X	Not in floodway	Accessible

Stone Kill Farm and the Undeveloped Site are located in Zone X and would not experience impacts or limited access during flood events.

Although the majority of the Glenbrook Park parcel is in Zone X, the lower portion of the site, including both entrances, is located in Zone AE. Therefore, the site would not be accessible during flooding.

Although the majority of the Phoenicia Elementary parcel is in Zone X, the lower portion of the site, including the athletic field, is located in Zone AE. The flood boundary is at the edge of School Street, potentially resulting in limited site access during flooding.

2.6 On-Site Drainage

Local topography was assessed for each site to understand the drainage patterns.

Table 8 – On-Site Drainage

Name	Well Drained	Pooling On-Site Expected ¹
Stone Kill Farm	Yes	No
Glenbrook Park	Yes	No
Phoenicia Elementary	Yes	No
Undeveloped Site	Yes	No

¹Excluding during 100-year flood conditions.

Stone Kill Farm has a low profile swale down the center of the grassed area that would redirect flow towards the south. There is also a swale along the east property line that would similarly direct flow to the south. Both swales appear to coverage near the southeast property corner and apparently crosses under Route 28 towards wetlands along the Esopus Creek. Therefore, the site is considered well drained.

The school site is graded towards the creek and does not appear to have any low points. The site is considered well drained.

Glenbrook Park is constructed on a slope. Runoff would generally continue west towards Route 42. The site is considered well drained.

The entire undeveloped wooded lot slopes steeply west towards Route 28 and is considered well drained.

2.7 Soil Type and Factors

The USDA Web Soil Survey was reviewed for each of the 4 sites, including soil type, depth to bedrock, depth to water table and hydrologic soil group. The information is summarized in the following tables. In general, 3 of the 4 sites were found to have soils suitable for construction. However, 75% of the undeveloped site consists of bedrock outcrop and may present challenges to constructability, including shallow bedrock, a shallow water table and a high chance for site runoff. See **Appendix H** for USDA web soil survey information.

Table 9 – Soil Type and Factors for Stone Kill Farm

Name	Soil Types	% of Total Area	Depth to Bedrock (feet)	Depth to Water Table (feet)	Hydrologic Soil Group
	Barbour loam (Ba)	42.4		4.5	В
Stone Kill Farm	Hudson and Schoharie soils, 25-55% slopes (HXE)	15.0	> 6.5	1.8	О
	Tunkhannock gravelly loam, 0-3% slopes (TkA)	42.6		6.5	А

The majority of the Stone Kill Farm parcel is buildable with deep bedrock, well-drained soils and a deep water table. The site is expected to have minimal runoff. The wooded portion of the has a shallow water table and poorly drained soils, but is not assumed to be planned for development.

Table 10 - Soil Type and Factors for Glenbrook Park

Name	Soil Types	% of Total Area	Depth to Bedrock (feet)	Depth to Water Table (feet)	Hydrologic Soil Group
	Barbour loam (Ba)	1.2		4.5	В
	Hoosic soils, very steep (HSF)	50.4		> 6.5	А
Glenbrook Park	Tunkhannock gravelly loam, 0-3% slopes (TkA)	31.3	> 6.5	> 6.5	А
	Tunkhannock gravelly loam, clayey substratum, 15-25% slopes (TuD)	17.1		3.0	В

The majority of the Glenbrook Park parcel is buildable with deep bedrock, deep water table and generally low rate of runoff.

Table 11 – Soil Type and Factors for Phoenicia Elementary

Name	Soil Types	% of Total Area	Depth to Bedrock (feet)	Depth to Water Table (feet)	Hydrologic Soil Group
	Alluvial land (AA)	8.9		0	B/D
	Hoosic soils, very steep (HSF)	5.1		> 6.5	А
Phoenicia Elementary	Tunkhannock gravelly loam, 3-8% slopes (TkB)	71.5	> 6.5	> 6.5	А
	Tunkhannock gravelly loam, rolling (TkC)	14.5		> 6.5	А

The majority of the Phoenicia Elementary parcel is buildable with deep bedrock, deep water table and generally low rate of runoff.

Table 12 – Soil Type and Factors for Undeveloped / Wooded Site

Name	Soil Types	% of Total Area	Depth to Bedrock (feet)	Depth to Water Table (feet)	Hydrologic Soil Group
	Arnot-Oquaga-Rock outcrop complex, very steep (ARF)	72.1	1.4	> 6.5	D
	Hoosic soils, very steep (HSF)	0.7	> 6.5	> 6.5	А
	Hudson and Schoharie soils, 15- 25% slopes (HwD)	0.0	> 6.5	1.8	D
Undeveloped /	Lackawanna and Swartswood soils, steep, extremely boulder (LEE)	4.7	> 6.5	2.1	С
Wooded Site	Odessa silt loam, 3-8% slopes (OdB)	0.7	> 6.5	0.7	D
	Oquaga-Arnot-Rock outcrop complex, sloping (ORC)	2.7	2.5	> 6.5	D
	Oquaga-Arnot-Rock outcrop complex, moderately steep (ORD)	14.9	2.5	> 6.5	С
	Schoharie silt loam, 8-15% slopes (SaC)	4.3	> 6.5	2.5	D

A large portion of the site contains shallow bedrock, presenting a challenged to constructability. The site is 75% rock outcrop and has a high chance for runoff. The roughly 1% of the site near the road has deep bedrock, but is subject to poor soils (OdB) and shallow groundwater, which

represents an additional cosntruction challenge. Geotechnical investigation is recommended to determine on-site soils and conditions if this site is selected.

2.8 Septic System Applicability

LaBella conducted a review of suitability for placement of an on-site septic system. Limited factors include shallow bedrock, shallow groundwater, steep slopes and poorly draining soil types. For areas with limiting factors, use of a 'raised bed' system is possible, but comes with added costs. Table 13 contains a summary pertaining to septic system applicability.

Table 13 – Septic System Applicability

Name	Existing On-Site Septic	Condition
Stone Kill Farm	Yes	Unknown
Glenbrook Park	Yes	Unknown
Phoenicia Elementary	Yes	Unknown
Undeveloped / Wooded Site	None	N/A

Three of the four sites are already developed and contain on-site septic. However, the condition and capacity of these systems is not known. Further investigation is recommended to confirm condition and capacity of on-site septic systems. On-site percolation testing is recommended to confirm the suitability for a septic system at the undeveloped site.

2.9 Environmental Resources

LaBella conducted an environmental resource review using the NYS DEC Environmental Resource Mapper. Factors included on the website tool include water bodies, wetlands, threatened and endangered species and significant natural communities. Table 14 contains a summary of results from NYS DEC Environmental Resource Mapper.

Table 14 – Environmental Resources

Name	Wetlands	Threatened / Endangered Species	Significant Communities	Significant Natural Communities
Stone Kill Farm	Not shown	Yes	Yes	No
Glenbrook Park	Not shown	Yes	Yes	No
Phoenicia Elementary	Not shown	Yes	Yes	No
Undeveloped / Wooded Site	Not shown	Yes	Yes	Yes

None of the sites appeared to contain wetlands. All of the sites potentially contained threatened or endangered species, which would require further coordination with the NYS DEC and US Fish and Wildlife Service (USFWS).

All of the sites were found to have Natural Communities consisting of Chestnut Oak forest. The Undeveloped / Wooded site contained two 'Significant Natural Communities' upslope, including Beech-maple mesic forest and Hemlock-northern hardwood forest.

2.10 Environmental Due Diligence

LaBella conducted an environmental review for each site consisting of a review of DEC and other record data. See **Appendix I** for historical mapping for each site and spill history for the Phoenicia Elementary site and the property adjacent to Glenbrook Park.

Table 15 – Environmental Due Diligence

Name	Underground Storage Tank	Spill History
Stone Kill Farm	Unknown	No
Glenbrook Park	No	No
Phoenicia Elementary	Yes	Yes
Undeveloped / Wooded Site	No	No

Stone Kill Farm, Phoenicia Elementary and the Undeveloped Site did not contain underground storage tanks and did not have spill histories.

Phoenicia Elementary site contains a 10,000-gallon underground storage tank (UST), which was installed in 1988. The original 10,000-gallon UST was added in 1966 and removed in 1989 when it was determined to be leaking. The records indicate that a 3-gallon spill of #2 fuel oil was reported in February 28, 1989, resulting from a tank overfill. The spill was closed February 28, 1989. A full Phase 1 and Phase 2 would be recommended if this site was acquired. The building also likely includes asbestos-containing material or other hazardous materials.

2.11 Proximity to Public Utilities

LaBella investigated the proximity of each parcel to public utilities using records form SDG Image Mate Online for Ulster County. Public utilities include sewer and drinking water. Portions of the Town of Shandaken contain public drinking water supply lines. See Table 16 below for a summary of public utilities.

Table 16 - Public Utilities

Name	Public Sewer	On-Site Septic	Public Water	Private Well
Stone Kill Farm	No	Yes	No	Yes
Glenbrook Park	No	Yes	No	Yes
Phoenicia Elementary	No	Yes	Yes	No
Undeveloped / Wooded Site	No	No	No	No

None of the properties contained public sewer. Stone Kil Farm and Glenbrook Park contain existing septic systems and appear to have on-site drinking water wells. The elementary school is in the Hamlet of Phoenicia which has a public drinking water system, however it does not have a public sewer system. The school is assumed to have an existing on-site septic system. The undeveloped / wooded site would require installation of both a septic system and a drinking water well or wells at considerable cost.

3.0 CONCLUSION

Each site was assessed for a variety of factors and considerations. Purchase of the Phoenicia Elementary parcel is not recommended primarily due to the presence of a 10,000-gallon underground oil tank. Note that the previous 10,000-gallon was closed or removed when the new tank was installed. The existing building also likely includes asbestos-containing materials that would need to be addressed if the existing building were renovated. Although the building is not in Zone AE, it appears access to the building could become constrained. Roughly half the parcel and almost all of the building is in Zone X.

Utilization of Glenbrook Park is not recommended since Route 42 is Zone AE, cutting off access to the park during flooding. The site also has limited site distance for vehicles exiting the site, primarily being obstructed vision due the bridge guiderails (the bridge is approx. 100 feet northwest of the primary entrance to the site). The secondary entrance is relatively steep, potentially making access difficult for emergency vehicles.

Purchase of Stone Kill Farm is recommended for relocation of the town hall complex. The benefits of the site include buildable land, deep bedrock and well-drained soils. The site also provides for more sufficient site distances and site access. Although there formerly appeared to be a channel or stream on the site, per historical 1960 aerial imagery, the soils are well drained and local drainage is not expected to be a concern. An environmental review indicates no environmental concerns, underground tanks or spills at or near the site. However, further investigation in the form of a Phase 1 ESA is recommended to investigate the two 1000-gallon propane tanks and one 500-gallon fuel oil tank viewed on the site, and to determine if further tanks are on the site. Further, the Stone Kill Farm site is significantly less expensive than the other sites, with a full value assessment of \$180,000 and land value of \$30,000. It is estimated that the lot would subdivided and purchase of the entire lot would not be required. It is important to note that the property is not currently listed for sale.

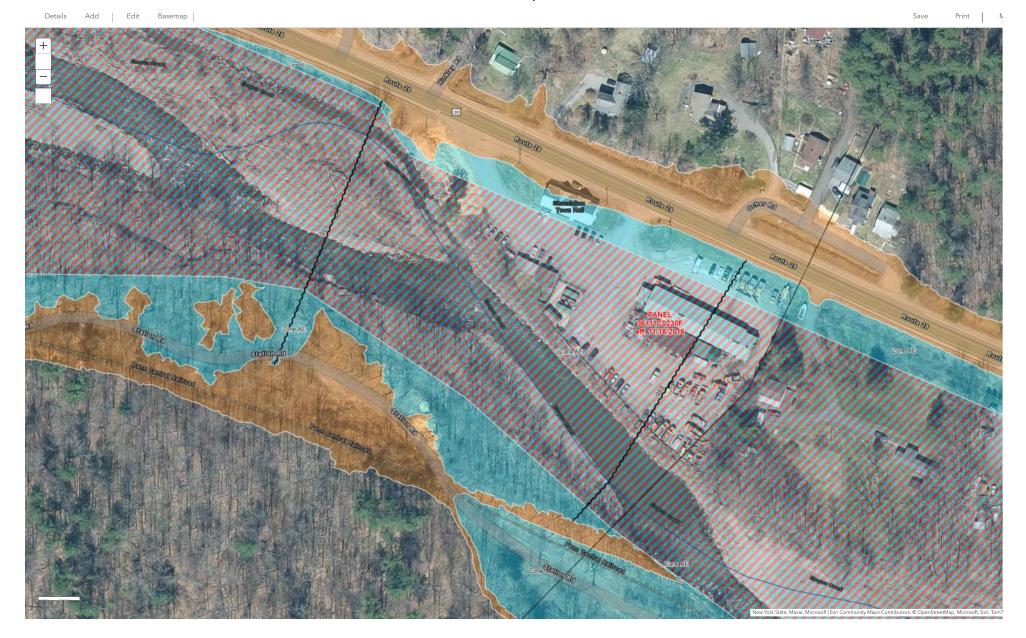
Purchase of the undeveloped / wooded site is also a recommended option for relocation of the town hall complex. Challenges at the site include on-site soils, exposed bedrock, need for clearing and lack of existing utilities. Roughly 1% of the site near the road has deep bedrock, but is subject to poor soils (OdB) and shallow groundwater. The upland portion of the site is relatively steep and contains mostly rock outcrop. Construction on the site would potentially require clearing of "Natural Communities" consisting of Chestnut Oak forest and two 'Significant Natural Communities' upslope including Beech-maple mesic forest and Hemlock-northern hardwood forest. Development of the site would also include installation of an appropriate septic system and drinking water well(s). It is estimated that the lot would subdivided and acquisition of the entire lot would not be required. Note that this land is currently owned by New York City (NYC) Department of Environmental Protection (DEP).

A traffic study is recommended to determine potential changes to traffic along Route 28 for either site. If the Stone Kill Farm parcel is selected, then conducting a full Phase 1 Environmental Site Assessment is strongly recommended. A structural assessment and regulated bulk material inspection are also recommended for any existing buildings on the site.

The selected mitigation measures must be selected by the Town in coordination with Catskill Watershed Corporation. It is important to assess estimated project costs and funding opportunities when selecting options.

<u>Closing:</u> This report constitutes the completed and exclusive expression of the opinions of LaBella. As stated, preparation of a Phase 1 Report is recommended prior to purchasing the site.

Appendix A: Existing Parcels and Floodplain Maps





Property Description Report For: 7209 Route 28, Municipality of Town of Shandaken

Status: Active **Roll Section:** Wholly Exem Swis: 515000

Tax Map ID #: 5.18-2-34

Property Class: 652 - Govt bldgs

Site: COM 1 In Ag. District: No

Site Property Class: 652 - Govt bldgs

Zoning Code:

Neighborhood Code: 00000 **School District:** Onteora

Total Assessment: 2023 - \$210,000

2022 - \$210,000

Total Acreage/Size: 0.60

Land Assessment: 2023 - \$8,000 2022 - \$8,000

2023 - \$1,263,538

Full Market Value: 2022 - \$1,135,135

No Photo Available

Equalization Rate:

Deed Book: 503 **Grid East:** 527365 **Property Desc:**

Deed Page: 343 **Grid North:** 1195792

Owners

Owner Information Not Available

Sales

No Sales Information Available

Utilities

Utilities:

Sewer Type: 0 Water Supply: 0

0

Inventory

Overall Eff Year Built: Overall Condition: 0 **Overall Grade:** 0 **Overall Desirability:**

Buildings

Eff Num **Basement Year Year Indent Gross Floor** AC% Sprinkler% Alarm% Elevators Type Built Built Condition Quality Area (sqft) Stories Bldgs

Improvements

Condition Structure Size Grade Year Special Districts for 2023

Special Districts for 2022

DescriptionUnitsPercentTypeValueFD161-Phoenicia fire00%0



Property Description Report For: 7201 Route 28, Municipality of Town of Shandaken

Status: Active **Roll Section:** Wholly Exem Swis: 515000

Tax Map ID #: 5.18-2-32

Property Class: 651 - Highway gar

Site: COM 1 In Ag. District: No

Site Property Class: 651 - Highway gar

Zoning Code:

Neighborhood Code: 00000 **School District:** Onteora

2023 - \$155,000 **Total Assessment:**

2022 - \$155,000

0

2023 - \$932,611 **Full Market Value:**

1.60

No Photo Available

2022 - \$837,838

2023 - \$9,500

2022 - \$9,500

Equalization Rate:

Total Acreage/Size:

Land Assessment:

Deed Book: 1124 **Grid East:** 527564 **Property Desc:**

Deed Page: 70 **Grid North:** 1195662

Owners

Owner Information Not Available

Sales

No Sales Information Available

Utilities

Sewer Type: 0 Water Supply: **Utilities:**

Inventory

Overall Eff Year Built: Overall Condition: 0 **Overall Grade: Overall Desirability:** 0

Buildings

Eff Num **Basement Year Year Indent Gross Floor** AC% Sprinkler% Alarm% Elevators Type Built Built Condition Quality Area (sqft) Stories Bldgs

Site Uses

Rentable Area (sqft) **Total Units** Use

Improvements					
Structure	Size	Grade	Condition	Year	
Land Types					
Туре	Size				
Primary	1.25 acres				
Waterfront	0.35 acres				
Special Districts fo	or 2023				
Description	Units	Percent	Туре	Value	
FD161-Phoenicia fire	0	0%		0	
Special Districts fo	or 2022				
Description	Units	Percent	Туре	Value	

0

0%

FD161-Phoenicia fire

0



Property Description Report For: Route 28, Municipality of Town of Shandaken

		Status:	Active
		Roll Section:	Wholly Exem
		Swis:	515000
		Tax Map ID #:	5.18-2-33
No Photo Available		Property Class:	311 - Res vac land
		Site:	RES 1
		In Ag. District:	No
		Site Property Class:	311 - Res vac land
		Zoning Code:	-
		Neighborhood Code:	00000
Total Acreage/Size:	0.75	School District:	Onteora
Land Assessment:	2023 - \$4,000 2022 - \$4,000	Total Assessment:	2023 - \$4,000 2022 - \$4,000
Full Market Value:	2023 - \$24,067 2022 - \$21,622		
Equalization Rate:		Property Desc:	
Deed Book:	656	Deed Page:	23
Grid East:	527439	Grid North:	1195739
Area			
Living Area:	0 sq. ft.	First Story Area:	0 sq. ft.
Second Story Area:	0 sq. ft.	Half Story Area:	0 sq. ft.
Additional Story Area:	0 sq. ft.	3/4 Story Area:	0 sq. ft.
Finished Basement:	0 sq. ft.	Number of Stories:	0
Finished Rec Room	0 sq. ft.	Finished Area Over Garage	0 sq. ft.
Structure			
Building Style:	0	Bathrooms (Full - Half): 0 - 0	

0 **Bedrooms:** Kitchens: 0 0 0 Fireplaces: **Basement Type:** Porch Type: 0 Porch Area: 0.00 Attached Garage Cap: 0.00 sq. ft. Basement Garage Cap: **Overall Condition:** Overall Grade:

Eff Year Built:

Owners

Year Built:

Owner Information Not Available

Sales

No Sales Information Available

Utilities					
Sewer Type:	0	Water Supply:	0		
Utilities:	0	Heat Type:	0		
Fuel Type:	0	Central Air:	No		
Improvements					
Structure	Size	Grade	Condition	Year	
Land Types					
Туре	Size				
Primary	0.50 acres				
Waterfront	0.25 acres				
Special Districts fo	or 2023				
Description	Units	Percent	Туре	Value	
FD161-Phoenicia fire	0	0%		0	

Percent

0%

Туре

Value

Special Districts for 2022

Units

Description

FD161-Phoenicia fire



Property Description Report For: Route 28, Municipality of Town of Shandaken

		Status:	Active
		Roll Section:	Wholly Exem
		Swis:	515000
		Tax Map ID #:	5.18-2-35
No Photo Available		Property Class:	311 - Res vac land
No Photo Available		Site:	RES 1
		In Ag. District:	No
		Site Property Class:	311 - Res vac land
		Zoning Code:	-
		Neighborhood Code:	00000
Total Acreage/Size:	0.26	School District:	Onteora
Land Assessment:	2023 - \$2,000 2022 - \$2,000	Total Assessment:	2023 - \$2,000 2022 - \$2,000
Full Market Value:	2023 - \$12,034 2022 - \$10,811		
Equalization Rate:		Property Desc:	
Deed Book:	624	Deed Page:	483
Grid East:	527289	Grid North:	1195812
Area			
Living Area:	0 sq. ft.	First Story Area:	0 sq. ft.
Second Story Area:	0 sq. ft.	Half Story Area:	0 sq. ft.
Additional Story Area:	0 sq. ft.	3/4 Story Area:	0 sq. ft.
Finished Basement:	0 sq. ft.	Number of Stories:	0
Finished Rec Room	0 sq. ft.	Finished Area Over Garage	0 sq. ft.
Structure			
Building Style:	0	Bathrooms (Full - Half)): 0 - 0
Bedrooms:	0	Kitchens:	0
Fireplaces:	0	Basement Type:	0
Porch Type:	0	Porch Area:	0.00
Basement Garage Cap:	0	Attached Garage Cap:	0.00 sq. ft.
Overall Condition:	0	Overall Grade:	
Year Built:		Eff Year Built:	

Owners

Owner Information Not Available

Sales

No Sales Information Available

Utilities					
Sewer Type:	0	Water Supply:	0		
Utilities:	0	Heat Type:	0		
Fuel Type:	0	Central Air:	No		
Improvements					
Structure	Size	Grade	Condition	Year	
Land Types					
Туре	Size				
Primary	0.15 acres				
Waterfront	0.11 acres				
Special Districts fo	or 2023				
Description	Units	Percent	Туре	Value	
FD161-Phoenicia fire	0	0%		0	

Percent

0%

Туре

Value

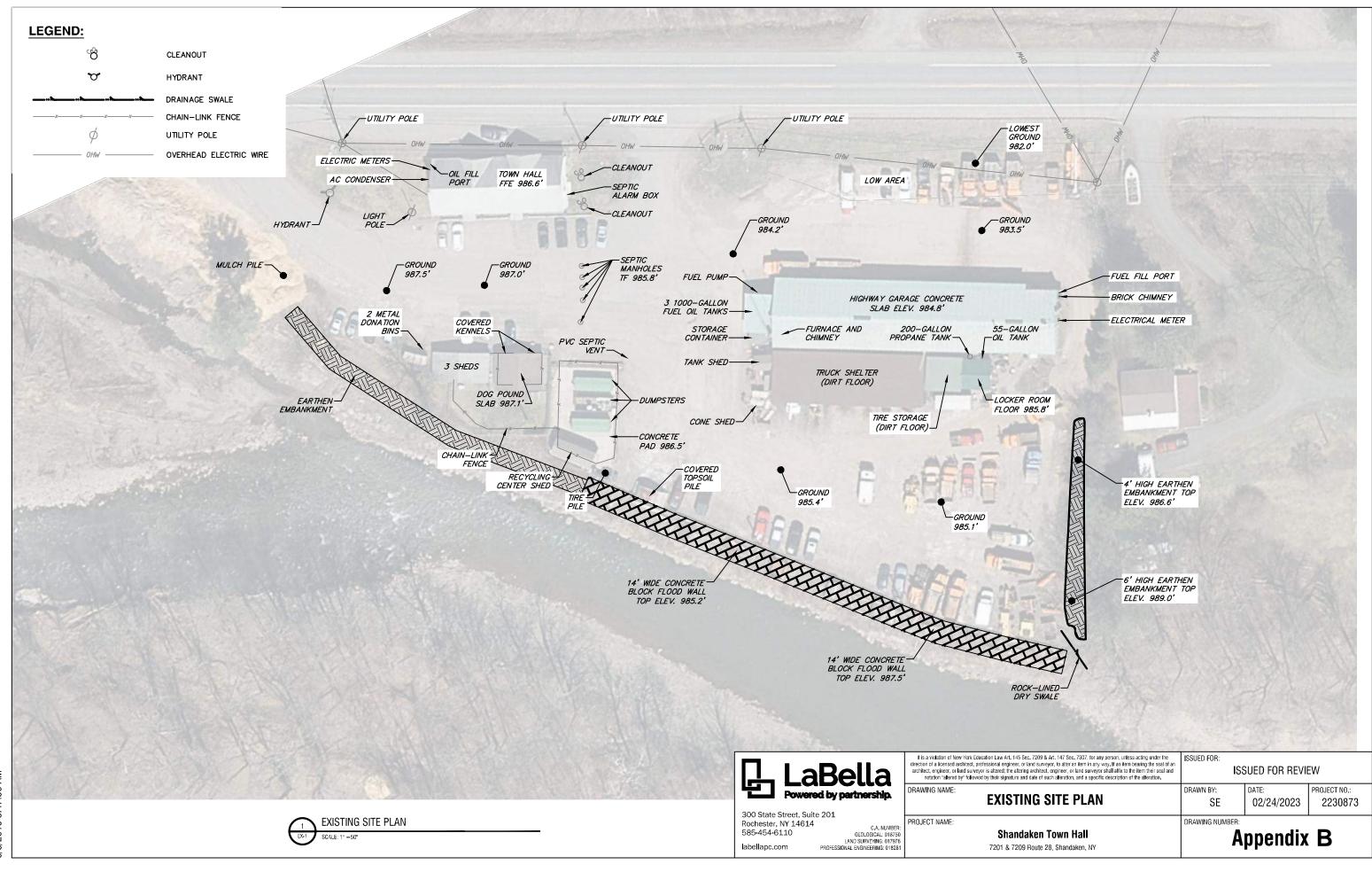
Special Districts for 2022

Units

Description

FD161-Phoenicia fire

Appendix B: Existing Site Plan



VERSION 23.1 6/3/2010 8:47:56 AM

Appendix C: Parcel Data for Relocation Sites

80 WHU 820W\30UFHO 9LHZU



\$ULO

MUULGH

2HUULGH

ZEBUFHOV





Property Description Report For: Route 28, Municipality of Town of Shandaken

Active

Roll Section: Taxable Swis: 515000 Tax Map ID #: 14.3-1-17.130 **Property Class:** 311 - Res vac land No Photo Available Site: RES 1 In Ag. District: No **Site Property Class:** 311 - Res vac land **Zoning Code: Neighborhood Code:** 00000

Status:

Total Acreage/Size: 11.00

School District: Onteora Land Assessment: 2023 - \$30,000 2023 - \$30,000 **Total Assessment:**

2022 - \$30,000 2022 - \$30,000 2023 - \$180,505 **Full Market Value:**

2022 - \$162,162

Equalization Rate: Property Desc: Deed Book: 6328 **Deed Page:** 119 **Grid East:** 544097 **Grid North:** 1179062

Area

Living Area: 0 sq. ft. First Story Area: 0 sq. ft. **Second Story Area:** 0 sq. ft. **Half Story Area:** 0 sq. ft. 0 sq. ft. **Additional Story Area:** 0 sq. ft. 3/4 Story Area: **Finished Basement:** 0 sq. ft. **Number of Stories: Finished Rec Room** 0 sq. ft. **Finished Area Over** 0 sq. ft. Garage

Structure

Building Style: 0 Bathrooms (Full - Half): 0 - 0 **Bedrooms:** 0 **Kitchens:** 0 Fireplaces: 0 **Basement Type:** 0 **Porch Type:** 0 **Porch Area:** 0.00 **Basement Garage Cap: Attached Garage Cap:** 0.00 sq. ft.

Overall Condition: 0 **Overall Grade:** Year Built: **Eff Year Built:**

Owners

Owner Information Not Available

α	1
· ·	$1 \cap c$
170	10.

Sale Date	Price	Property Class	Sale Type	Prior Owner	Value Usable	Arms Length	Addl. Parcels	Deed Book and Page
7/20/2018	\$0	311 - Res vac land	Land & Building	Kaatskill, Development	No	No	Yes	6328/119
10/7/1997	\$522,500	311 - Res vac land	Land & Building	Umhay, Arthur M	Yes	Yes	Yes	2724/267
Utilities								
Sewer Type:		0		Water Supply:	1	0		
Utilities:		0		Heat Type:		0		
Fuel Type:		0		Central Air:		No		

Improvements

Structure	Size	Grade	Condition	Year

Land Types

Туре	Size
ndeveloped	11.00 acres

Special Districts for 2023

Description	Units	Percent	Туре	Value
FD161-Phoenicia fire	0	0%		0

Special Districts for 2022

Description	Units	Percent	Туре	Value
FD161-Phoenicia fire	0	0%		0

80 WHU 820W\30UFHO 91HZU



MHUULGH
MENDOV





Property Description Report For: 48-72 Route 42, Municipality of Town of Shandaken

No Photo Available

Status: Active **Roll Section:** Wholly Exem

Swis: 515000

Tax Map ID #: 5.13-2-25.100 **Property Class:** 682 - Rec facility

Site: RES 1

In Ag. District: No

Site Property Class: 682 - Rec facility

Zoning Code:

Neighborhood Code: 00000 **School District:** Onteora

Total Assessment: 2023 - \$110,000

2022 - \$110,000

Total Acreage/Size: 29.10

Land Assessment: 2023 - \$35,000

2022 - \$35,000

Full Market Value: 2023 - \$661,853

2022 - \$594,595

Equalization Rate:

Deed Book:

Grid East: 519552 **Property Desc:**

Deed Page: Grid North: 1198708

Area

Living Area: 0 sq. ft. 0 sq. ft. **Second Story Area: Additional Story Area:** 0 sq. ft. **Finished Basement:** 0 sq. ft. **Finished Rec Room** 0 sq. ft.

First Story Area: 0 sq. ft. **Half Story Area:** 0 sq. ft. 0 sq. ft. 3/4 Story Area: **Number of Stories:**

Finished Area Over 0 sq. ft.

Garage

Structure

0 **Building Style:** Bathrooms (Full - Half): 0 - 0 **Bedrooms:** 0 **Kitchens:** 0 Fireplaces: 0 0 **Basement Type: Porch Type:** 0 **Porch Area:** 0.00 **Basement Garage Cap: Attached Garage Cap:** 0.00 sq. ft.

0 **Overall Condition: Overall Grade: Eff Year Built:**

Owners

Year Built:

Owner Information Not Available

Sales

No Sales Information Available

Utilities				
Sewer Type:	0	Water Supply:	0	
Utilities:	0	Heat Type:	0	
Fuel Type:	0	Central Air:	No	
Improvements				
Structure	Size	Grade	Condition	Year
Land Types				
Туре	Size			
Special Districts fo	or 2023			
Description	Units	Percent	Туре	Value
	0	0%		0
FD161-Phoenicia fire	0	0 70		O
FD161-Phoenicia fire Special Districts fo	_	0 70		Ü
	_	Percent	Туре	Value

80 WHU 820W\30UFHO 9LHZU



ZHUULGH
ZHUULGH





Property Description Report For: 11 School Ln, Municipality of Town of Shandaken

Status:

Active

Roll Section:

Wholly Exem

Swis:

515000

Tax Map ID #: **Property Class:** 13.12-2-12 612 - School

Site:

COM 1

In Ag. District:

No 612 - School

Site Property Class:

Zoning Code:

00000

Neighborhood Code:

Onteora

School District:

2023 - \$178,500

Total Assessment:

2022 - \$178,500

2023 - \$1,074,007 2022 - \$964,865

2023 - \$18,000

2022 - \$18,000

Equalization Rate:

Total Acreage/Size:

Land Assessment:

Full Market Value:

12.00

No Photo Available

Property Desc:

1136 541197

Deed Page: Grid North: 326 1186310

Owners

Deed Book:

Grid East:

Owner Information Not Available

Sales

No Sales Information Available

Utilities

Sewer Type: Utilities:

0 0 Water Supply:

0

0

0

Inventory

Overall Eff Year Built:

Overall Condition:

Overall Desirability:

Buildings

Overall Grade:

Eff

Num

AC% Sprinkler% Alarm% Elevators Type

Basement Year Year

Gross Floor

Indent

Built Built Condition Quality Area (sqft) Stories Bldgs

Site Uses

Rentable Area (sqft) Use

Total Units

Structure	Size	Grade	Condition	Year
Land Types				
Туре	Size			

Special Districts for 2023

No information available for the 2023 roll year.

Special Districts for 2022

Description	Units	Percent	Туре	Value
RT002-Unpaid water	0	0%	Т	0

8) WHU & QW\ 3) UFHO 9. HZU









Property Description Report For: Route 28, Municipality of Town of Shandaken

Status: Active **Roll Section:** Utility/RR 515000 Swis:

Tax Map ID #: 4.-2-40

Property Class: 910 - Priv forest

Site: RES 1 In Ag. District: No

Site Property Class: 910 - Priv forest

Zoning Code:

Neighborhood Code: 00000 **School District:** Onteora

Total Assessment: 2023 - \$155,400

2022 - \$155,400

2022 - \$155,400 **Full Market Value:**

2023 - \$935,018 2022 - \$840,000

2023 - \$155,400

Equalization Rate:

259.00

No Photo Available

Deed Book: 2830 **Grid East:** 512653

Total Acreage/Size:

Land Assessment:

Property Desc:

Deed Page: 51 **Grid North:** 1192761

Area

Living Area: 0 sq. ft. First Story Area: 0 sq. ft. **Second Story Area:** 0 sq. ft. **Half Story Area:** 0 sq. ft. 0 sq. ft. **Additional Story Area:** 0 sq. ft. 3/4 Story Area: **Finished Basement:** 0 sq. ft. **Number of Stories: Finished Rec Room** 0 sq. ft. **Finished Area Over** 0 sq. ft.

Garage

Structure

0 **Building Style:** Bathrooms (Full - Half): 0 - 0 **Bedrooms:** 0 **Kitchens:** 0 Fireplaces: 0 0 **Basement Type: Porch Type:** 0 **Porch Area:** 0.00 **Basement Garage Cap:** 0 **Attached Garage Cap:** 0.00 sq. ft. 0 **Overall Condition:**

Overall Grade: Eff Year Built:

Owners

Year Built:

Owner Information Not Available

Sales

Sale Value Addl. **Deed Book Property** Arms Sale Date **Prior Owner Usable Price** Class **Type** Length **Parcels** and Page 910 -8/12/1998 \$299,700 Land Bisaccia. No No No 2830/51 Priv Only Robert R forest

Utilities					
Sewer Type:	0	Water Su	pply: 0	0 0 No	
Utilities:	0	Heat Type	e: 0		
Fuel Type:	0	Central A	ir: No		
Improvements					
Structure	Size	Grade	Condition	Year	
Land Types					
Туре	Size				
Special Districts	for 2023				
Description	Units	Percent	Туре	Value	
FD162-Big Indian Oliverea	0	0%		0	
Special Districts	for 2022				
Description	Units	Percent	Туре	Value	
FD162-Big Indian Oliverea	0	0%		0	

Appendix D: Site Photos



Photo 1: Stone Kill Farm from Route 28.



Photo 2: Stone Kill Farm existing building #1 and adjacent fuel oil tank.



Photo 3: Closeup of existing building #1 and adjacent fuel oil tank.



Photo 4: Road off of Route 28 through middle of Stone Kill Farm parcel.



Photo 5: Stone Kill Farm existing building #2.



Photo 6: Stone Kill Farm parcel west of road off of Route 28.



Photo 7: One of two 1000-gallon propane tanks on Stone Kill Farm parcel.



Photo 8: Glenbrook Park North Entrance.



Photo 9: View of Glenbrook Park above Route 28.



Photo 10: Looking down at north entrance.



Photo 11: View across Glenbrook Park parcel.



Photo 12: Poilce / ambulance garage.



Photo 13: Poor sight distance onto Route 42 due to bridge guiderail, looking north.



Photo 14: Looking south at Route 42 from north entrance.



Photo 15: View of Phoenicia Elementary from School Street.



Photo 16: View of north face of school.



Photo 17: Looking north along School Street.

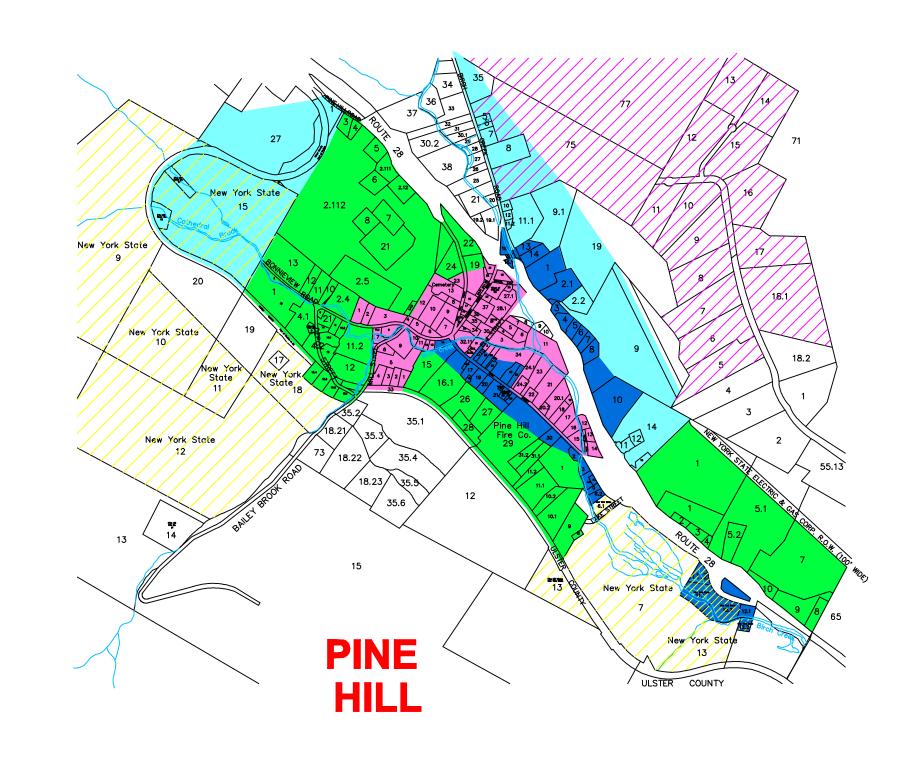


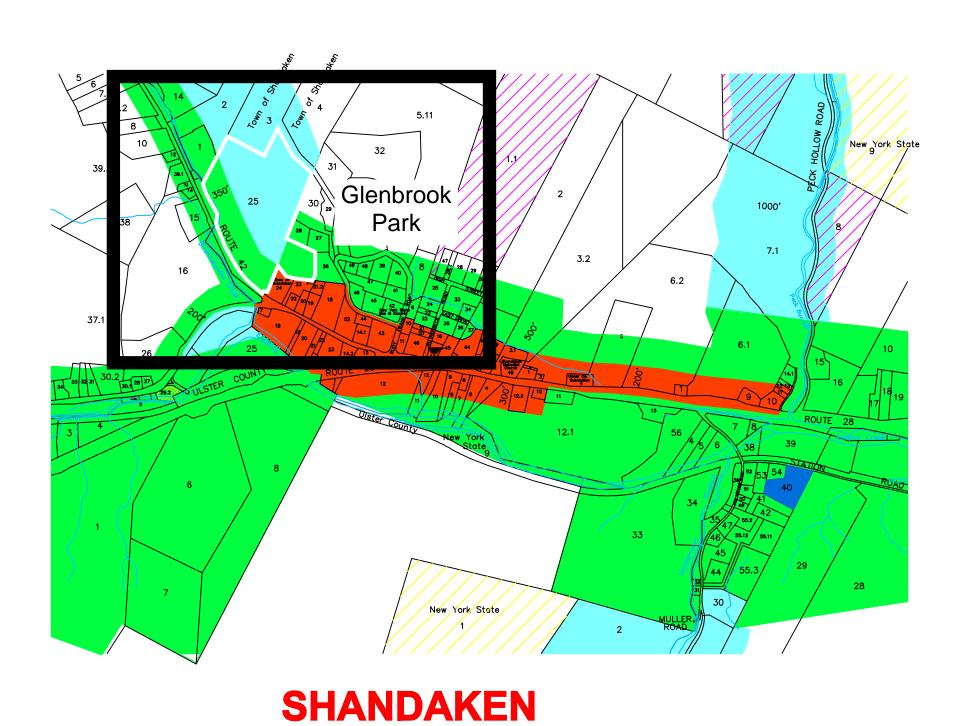
Photo 18: Looking west along Route 214.

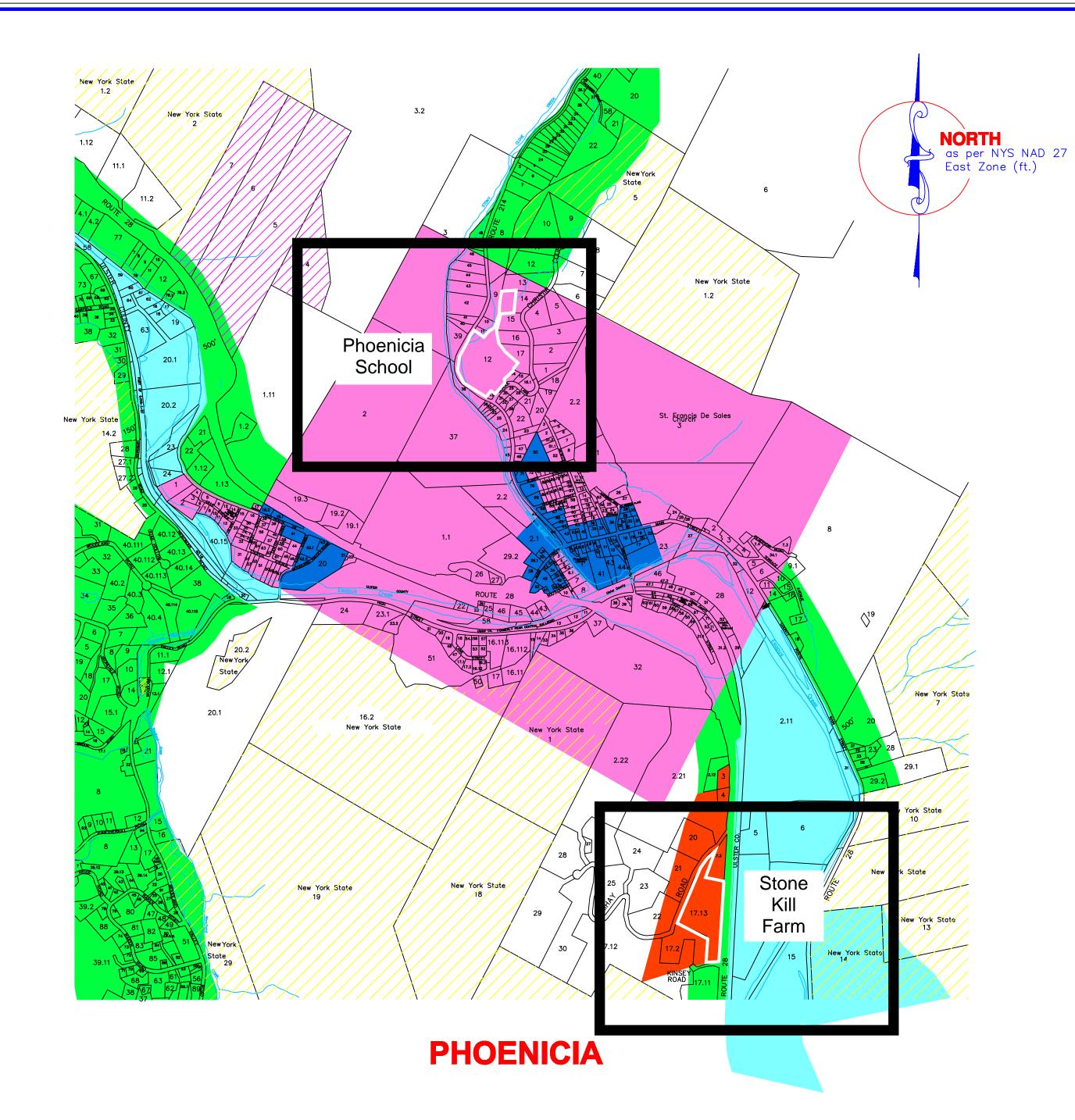


Photo 19: Looking southeast along Route 214.

Appendix E: Zoning Map and Data







NOTE: Town Board has accepted this map as FINAL on 05 June, 2006



BIG INDIAN

LEGEND

R3

CLI

NY STATE LAND

NY CITY LAND or EASEMENT

TOWN OF SHANDAKEN

- SITUATE -

TOWN OF SHANDAKEN

ULSTER COUNTY, NEW YORK

1 inch = 1000 feet

PAGE 2 OF 2

Undeveloped Site



Chapter 116. Zoning

Article III. Establishment of Zoning Districts

§ 116-5. Enumeration of districts.

A. For the purposes of this chapter, the Town of Shandaken hereby establishes and divides the town into the following eight zoning districts:

[Amended 12-28-1992 by L.L. No. 3-1992]

R5 Residential District R3 Residential District R1.5 Residential District HR Hamlet Residential District HC Hamlet Commercial District HB **Highway Business District** CLI Commercial/Light Industrial District FW Floodway District

B. An additional overlay district is also hereby established:

FF-O Flood-Fringe Overlay District

- C. These zoning districts are generally described as follows:
 - (1) The R5 Residential District is a very low-density residential district that generally encompasses the most ecologically sensitive land areas of the community, based upon their slope, soil and water-related characteristics. Conservation, recreation and large-lot residential uses are encouraged.
 - (2) The R3 Residential District provides for low-density rural residential development or moderately sized lots and certain general, institutional and recreational uses through the special use permit procedure.
 - (3) The Residential R1.5 District is a moderate-density residential district which generally encompasses the town's less environmentally constrained acreage, lies in the vicinity of the town's principal hamlet areas and is readily accessible for permanent residence. General, institutional and certain limited commercial uses are authorized by special use permit. This district permits an increase in density for cluster residential development serviced by central water or central water and municipal sanitary sewer facilities.

 [Amended 12-28-1992 by L.L. No. 3-1992]
 - (4) The HR Hamlet Residential District provides for moderate-density residential development within hamlet centers. This district permits a reduction in minimum lot area for development serviced by central water and/or common sewer facilities.

- (5) The HC Hamlet Commercial District may only occur in areas where municipal water and/or sewers are provided. This district permits residential, commercial and civic/institutional uses to coexist at a moderate density and with adequate public services.
- (6) The CLI Commercial/Light Industrial District permits research, commercial, manufacturing and wholesale activities to occur under general performance standards.
- (7) The FW Floodway District may be designated by the Federal Emergency Management Agency (FEMA). No development is permitted within the floodway, which is defined as "the channel of a river or other watercourse and the adjacent land areas required to carry and discharge a flood or given magnitude."
- (8) The FF-O Flood-Fringe Overlay District has been designated by FEMA as a "floodplain area with special flood hazards that is likely to be flooded at least once every 100 years." All development within the FF-O District is subject to special permit review as provided in Article **VII** of this chapter.
- (9) The Highway Business (HB) District provides for limited commercial uses within existing business areas outside the principal hamlet centers of Phoenicia and Pine Hill for the convenience of town residents and visitors. The overall policy of the town is to encourage intensive well-designed development within the HB District lands while discouraging any expansion of the HB District that would nurture more extensive commercial highway strip development. To the extent practicable, shared curb cuts, parking areas and signage are encouraged within the HB District. [Added 12-28-1992 by L.L. No. 3-1992]

§ 116-6. Zoning District Map.

The location and boundaries of said districts are shown on the "Zoning District Map, Town of Shandaken." Said map, together with all explanatory matter thereon and all amendments thereto, is hereby adopted and is declared to be an appurtenant part of the chapter. Said map shall be kept up-to-date and shall be located in the Town Clerk's office for the use and benefit of the public. Certified copies of said map shall also be on file in the offices of the Planning Board and the Town Zoning Enforcement Officer.

§ 116-7. Interpretation of district boundaries.

Where uncertainty exists with respect to the boundaries of any of the aforesaid zoning districts as shown on the Zoning District Map, the following rules shall apply:

- A. Where district boundaries are indicated as approximately following the center lines or right-of-way lines of streets, highways, railroads, public utility easements or watercourses, said boundaries shall be construed to be coincident with such lines. Such boundaries shall be deemed to be automatically adjusted if a center line or right-of-way line of such street, highway, public utility or watercourse is moved a maximum distance of 50 feet by action of a person other than the owner of the affected land area.
- B. Where district boundaries are indicated as approximately following the town boundary line, property lines, lot lines or projections thereof, said boundaries shall be construed to be coincident with such lines or projections thereof.
- C. Where district boundaries are so indicated that they are approximately parallel to the town boundary line, property lines, lot lines, right-of-way lines or projections thereof, said boundaries shall be construed as being parallel thereto and at such distances therefrom as indicated on the Zoning District Map or as shall be determined by use of the scale shown on said map.

- D. Where a district boundary line divides a single lot in a single or joint ownership of record at the time such line is established, the regulations for the less restricted portion of such lot may, at the owner's discretion, and with the exception of the FW Floodway and FF-O Flood Fringe Overlay Districts, extend not more than 50 feet into the more restricted portion, provided that the lot has street or highway frontage in the less restricted district.
- E. Where district boundaries are shown to approximately follow the edge of lakes, reservoirs or other bodies of water, the mean high-water line thereof shall be construed to be the district boundaries.
- F. In all other cases, where dimensions are not shown on the Zoning District Map, the location of the boundaries shown on said map shall be determined by use of the scale appearing thereon.

§ 116-8. Delineation of flood hazard zones.

The boundaries of the FF-O Flood-Fringe Overlay and the FW Floodway Districts are established herein as delineated on the most current edition of the appropriate Flood Hazard Boundary Map as issued for the Town of Shandaken by the Federal Emergency Management Agency. Any revisions, amendments or successors thereto are hereby adopted and made a part of this chapter. The latest edition of said map shall be kept on file in the offices of the Town Clerk and the Town Zoning Enforcement Officer for the use and benefit of the public.

§ 116-9. Application of district regulations.

Except as hereinafter otherwise provided:

- A. No building, structure or land shall hereafter be used or occupied and no building or structure or part thereof shall hereafter be erected, moved, altered, reconstructed or enlarged except in conformance with the regulations herein specified for the district in which it is located.
- B. No part of a yard or other open space required in connection with any building or use shall be included as part of a yard or other open space similarly required for another building.
- C. No yard or lot existing at the time of the passage of this chapter shall be reduced in size or area below the minimum requirements set forth herein. Yards or lots created after the effective date of this chapter shall meet the minimum requirements established by this chapter, with such lots established in full conformance with the requirements of the town's Land Subdivision Regulations.^[1]
 [1] Editor's Note: See Ch. 105, Subdivision of Land.
- D. No off-street parking or loading space required for one building or use shall be included as meeting, in whole or in part, the off-street parking or loading space required for another building or use except as otherwise provided for in this chapter.
- E. No off-street parking or loading space shall be so reduced in area that it does not meet the minimum requirements of this chapter.
- F. Within each district, the regulations set forth by this chapter shall be considered minimum regulations and shall apply uniformly to each kind of building, structure or land.
- G. Within any residential (R-5, R-3, R-1.5 or HR) district, except as otherwise specifically provided by this chapter in § 116-32 with respect to residential cluster development or in § 116-40W with respect to senior citizen or elderly housing, not more than one principal residence shall be erected on any premises unless each residence is located so that it would conform to all area and bulk regulations of the district in which it is located if a separate lot were created for each residence. [Amended 12-28-1992 by L.L. No. 3-1992; 4-14-1999 by L.L. No. 1-1999]

Article IV. Use Regulations

§ 116-10. District Schedule of Use Regulations.

[Amended 12-28-1992 by L.L. No. 3-1992]

- A. The general use regulations in each zoning district are set forth in the attached District Schedule of Use Regulations. This schedule is supplemented, as appropriate, by other provisions of this chapter.
- B. Any use not listed specifically or through a similar use, as such may be deemed by the Zoning Board of Appeals, as a permitted, special permit or accessory use in the attached schedule shall be considered a prohibited use under this chapter.
- C. Symbols used on the attached schedule shall be interpreted as follows:
- P = Permitted principal use in specified district.
- SP = Special use permit required for use in specified district.
- X = Prohibited use in specified district.

Town of Shandaken

DISTRICT SCHEDULE OF USE REGULATIONS

[Amended 6-11-1997 by L.L. No. 2-1997; 4-14-1999 by L.L. No. 1-1999; 5-25-2005 by L.L. No. 3-2005; 2-23-2012 by L.L. No. 2-2012]

Structure/Land Use	R5	R3	R1.5	HR	HC	НВ	CLI	FW
Residential uses								
One-family dwelling	Р	Р	Р	Р	Р	Р	X	Х
Two-family dwelling	Р	Р	Р	Р	Р	Р	X	Х
Multifamily dwelling	Χ	Х	SP	SP	SP	SP	X	Х
Mobile home on individual lot	Р	Р	Р	Х	Χ	Х	X	Х
Mobile home park	Χ	X	Х	Х	Χ	Х	Х	Х
Boarding- and rooming house	SP	SP	SP	SP	Р	Х	Х	Х
Community residence or other alternate- care housing, as defined in § 116-4B	X	X	SP	SP	SP	X	X	Х
Senior citizen or elderly housing	Χ	Х	SP	SP	Χ	Х	X	Х
General uses								
Conservation uses, including public parks and public recreation areas	Р	Р	Р	Р	Р	Р	Р	Р
Agriculture or farm use, including keeping of fowl or animals, in accordance with § 116-30	Р	Р	Р	Р	Р	Р	Р	Р
Church or other place of worship, including meeting hall and similar facilities	X	SP	SP	SP	SP	SP	X	Х
Private or parochial, academic or technical school	Х	SP	S4P	SP	SP	SP	Х	Х
Day nursery or nursery school	Χ	SP	SP	SP	SP	SP	Х	Х
Hospital, nursing home or medical clinic	X	SP	SP	SP	SP	SP	SP	Х

Structure/Land Use	R5	R3	R1.5	HR	НС	НВ	CLI	FW
Cultural facilities (library, art gallery, museum, etc.), institutions and philanthropic uses	Х	SP	SP	SP	Р	Р	X	Х
Nonprofit membership club or non- profit recreation and athletic facility	SP	SP	SP	SP	SP	SP	X	X
Cemetery or crematory	SP	SP	SP	SP	Χ	X	X	Х
Public utility or transportation use, excluding garage and maintenance facility	SP	SP	SP	SP	SP	Р	Р	Х
Public utility or transportation garage or maintenance facility	Х	Х	Х	Х	Χ	Х	SP	Х
Governmental buildings and uses (nonproprietary functions)	Х	Р	Р	Р	Р	Р	Х	Х
Golf course or country club	SP	SP	SP	X	Χ	SP	SP	SP
Accessory uses								
Class 1 home occupation, occur- ring wholly within dwelling	Р	Р	Р	Р	Р	Р	Р	X
Class 2 home occupation, occur- ring outside or within customary ac- cessory structure or elsewhere on the residential premises	SP	SP	SP	SP	SP	SP	SP	X
Accessory use or structure incidental to the permitted or special permit use and located on the same lot, not otherwise specified herein	Р	Р	Р	Р	Р	Р	Р	Х
Stables for horses for noncommercial purposes	Р	Р	Р	Х	X	X	X	X
Accessory apartment within single-family dwelling, as defined in § 116-4B	SP	SP	SP	SP	SP	SP	Х	Х
Guest cottage on residential premises	SP	SP	SP	SP	SP	SP	X	X
Single-family residence accessory to business or institutional use	Χ	SP	SP	SP	SP	SP	SP	X
Roadside (farm produce) stand	SP	SP	SP	SP	Р	Р	Р	Х
Commercial uses (in addition to home occupations)								
Riding academy	SP	SP	Х	Х	X	Х	Х	Х
Vacation resort, day camp, camp cottage or cabin development	SP	SP	SP	SP	Х	Х	X	Х
Funeral home	X	X	SP	SP	SP	SP	Х	Х
General or professional office	X	X	SP	SP	Р	Р	Р	Х
Retail business or service not otherwise specified herein	Х	Х	X	Х	Р	Р	Р	X
School conducted for profit	Х	X	Х	Х	SP	SP	SP	Х
Personal service establishment (beauty shop, barbershop, etc.)	X	Х	X	Х	Р	Р	Р	Х

Hotel, motel or lodge development	cture/Land Use	R5	R3	R1.5	HR	HC	НВ	CLI	FW
motel or lodge development Tavern, bar or nightclub not integral to a hotel, motel or lodge development Structure/Land Use R5 R3 R1.5 HR HC HB CLI Commercial recreation facilities, SP SP SP X X X X X X X X X X X X X X X	lotel, motel or lodge development	SP	SP	SP	SP	SP	SP	SP	Х
to a hotel, motel or lodge development Structure/Land Use R5 R3 R1.5 HR HC HB CLI Commercial recreation facilities, mountain-related Other commercial recreation and amusement facilities Limited neighborhood business uses Gasoline station X X X X X X P P P P P P P P P P P P P		Х	SP	SP	SP	Р	Р	Р	Х
Commercial recreation facilities, mountain-related Other commercial recreation and amusement facilities Limited neighborhood business uses Gasoline station X X X X X X X P P P P P P P P P P P P	o a hotel, motel or lodge	X	X	Х	X	SP	SP	SP	X
mountain-related X X X X X SP P P Limited neighborhood business uses X X X X X X X X X X X X X SP <	Structure/Land Use	R5	R3	R1.5	HR	HC	НВ	CLI	FW
amusement facilities Limited neighborhood business uses Gasoline station X X X X X X X SP P P Campgrounds, recreational vehicle and camping trailer parks Boarding or breeding kennels SP SP X X X SP P Veterinarian's office or animal hospital (fully enclosed) Self-service laundry X X X X X X SP P P Bed-and-breakfast establishment SP SP SP SP SP P P P AX Bed-and-breakfast establishment SP SP SP SP SP P P P AX Bed-and-breakfast establishment SP SP SP SP SP P P P Commercial nurseries or greenhouses Building material supply and sales X X X X X X X X P P Research laboratories, light industrial/heavy commercial uses Research laboratories, light industrial/heavy commercial or sales Automobile service station, including car wash Automobile service station, including are sales Wholesale business or sales not otherwise specified herein Laundry or dry-cleaning plant X X X X X X X X X P Contractor's yard/establishment SP SP SP SP X X X X X X X X X X P Unenclosed storage of junk cars and parts and other materials Radio, television and other trans-		SP	SP	X	Х	X	Х	Х	Х
uses Gasoline station X X X X X X SP SP Campgrounds, recreational vehicle and camping trailer parks Boarding or breeding kennels SP SP X X X P P Veterinarian's office or animal hospital (fully enclosed) Self-service laundry X X X X X SP P Bed-and-breakfast establishment SP SP SP SP SP P Health club or other profit-making recreational club Commercial nurseries or greenhouses Building material supply and sales Research laboratories, light industrial/heavy commercial uses Research laboratories, light industrial, warehousing, processing and manufacturing uses Automobile service station, including car wash Automobile or equipment rental or sales Wholesale business or sales not otherwise specified herein Laundry or dry-cleaning plant X X X X X X X X X X P Contractor's yard/establishment SP SP SP SP X X X X X X P Contractor's yard/establishment SP SP SP X X X X X X X X X X X X X X X X		X	Х	X	Х	SP	Р	Р	Х
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recreational club Commercial nurseries or greenhouses Building material supply and sales Research laboratories, light industrial, warehousing, processing and manufacturing uses Automobile service station, including car wash Automobile or equipment rental or sales Wholesale business or sales not otherwise specified herein Laundry or dry-cleaning plant SP SP SP SP X X X X X X X X X X X X X X	Bed-and-breakfast establishment	SP	SP	SP	SP	Р	Р	Х	Х
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trial, warehousing, processing and manufacturing uses Automobile service station, including car wash Automobile or equipment rental or sales Wholesale business or sales not otherwise specified herein Laundry or dry-cleaning plant X X X X X X X X X X X X X	: industrial/heavy commercial uses								
ing car wash Automobile or equipment rental or sales Wholesale business or sales not otherwise specified herein Laundry or dry-cleaning plant SP SP SP X X X X X X X X X X X X X	rial, warehousing, processing and	X	X	X	Х	SP	Х	Р	Х
Sales Wholesale business or sales not otherwise specified herein Laundry or dry-cleaning plant X X X X X X X X X X X X X		Х	X	X	X	Х	X	SP	Х
otherwise specified herein Laundry or dry-cleaning plant X X X X X X X X P Contractor's yard/establishment SP SP SP X X X X SP Sawmill SP SP X X X X SP Unenclosed storage of junk cars and parts and other materials Radio, television and other trans-		X	X	X	X	SP	Х	SP	Х
Contractor's yard/establishment SP SP SP X X X SP Sawmill SP SP X X X X SP Unenclosed storage of junk cars X X X X X X X X X X X X X X X X X X X		X	X	Х	X	SP	X	Р	X
Sawmill SP SP X X X X SP Unenclosed storage of junk cars X X X X X X X X X X X X X X X X X X X	aundry or dry-cleaning plant	Х	Х	Х	X	Х	Х	Р	Х
Unenclosed storage of junk cars X X X X X X X X X And parts and other materials Radio, television and other trans- SP SP X X X X SP	Contractor's yard/establishment	SP	SP	SP	X	Х	Х	SP	Х
and parts and other materials Radio, television and other trans- SP SP X X X X SP	Sawmill	SP	SP	X	X	Х	X	SP	Х
		X	Х	X	Х	X	Х	Х	Х
IIIISSIOII SUUCUITES	Radio, television and other trans- nission structures	SP	SP	X	X	X	X	SP	Х
Telecommunications facilities SP SP X X X X X	elecommunications facilities	SP	SP	Х	X	Х	Х	Х	Х

Structure/Land Use	R5	R3	R1.5	HR	НС	НВ	CLI	FW
Timber harvesting or commercial logging, as defined in § 116-4B	SP	SP	SP	Х	X	X	Х	Х
Commercial excavation (sand/shale/gravel/ stone quarry)	SP	SP	SP	Х	Х	Х	SP	Х
Water bottling and related uses	SP	SP	SP	Х	Х	X	SP	X

Appendix F: AASHTO Table 3-3

Drivers need decision sight distances whenever there is likelihood for error in either information reception, decision making, or control actions (42). Examples of critical locations where these kinds of errors are likely to occur, and where it is desirable to provide decision sight distance include interchange and intersection locations where unusual or unexpected maneuvers are needed, changes in cross section such as toll plazas and lane drops, and areas of concentrated demand where there is apt to be "visual noise" from competing sources of information, such as roadway elements, traffic, traffic control devices, and advertising signs.

The decision sight distances in Table 3-3 may be used to (1) provide values for sight distances that may be appropriate at critical locations, and (2) serve as criteria in evaluating the suitability of the available sight distances at these locations. Because of the additional maneuvering space provided, decision sight distances should be considered at critical locations or critical decision points should be moved to locations where sufficient decision sight distance is available. If it is not practical to provide decision sight distance because of horizontal or vertical curvature or if relocation of decision points is not practical, special attention should be given to the use of suitable traffic control devices for providing advance warning of the conditions that are likely to be encountered.

Table 3-3. Decision Sight Distance

U.S. Customary									
Design	Decision Sight Distance (ft)								
Speed		Avoidance Maneuver							
(mph)	Α	В	С	D	E				
30	220	490	450	535	620				
35	275	590	525	625	720				
40	330	690	600	715	825				
45	395	800	675	800	930				
50	465	910	750	890	1030				
55	535	1030	865	980	1135				
60	610	1150	990	1125	1280				
65	695	1275	1050	1220	1365				
70	780	1410	1105	1275	1445				
75	875	1545	1180	1365	1545				
80	970	1685	1260	1455	1650				
85	1070	1830	1340	1565	1785				

Metric								
Design	Decision Sight Distance (m)							
Speed		Avoidance Maneuver						
(km/h)	Α	В	C	D	Е			
50	70	155	145	170	195			
60	95	195	170	205	235			
70	115	235	200	235	275			
80	140	280	230	270	315			
90	170	325	270	315	360			
100	200	370	315	355	400			
110	235	420	330	380	430			
120	265	470	360	415	470			
130	305	525	390	450	510			
140	340	580	420	490	555			

Avoidance Maneuver A: Stop on road in a rural area—t = 3.0 s

Avoidance Maneuver B: Stop on road in an urban area—t = 9.1 s

Avoidance Maneuver C: Speed/path/direction change on rural road—t varies between 10.2 and 11.2 s

Avoidance Maneuver D: Speed/path/direction change on suburban road or street—t varies between 12.1 and 12.9 s

Avoidance Maneuver E: Speed/path/direction change on urban, urban, urban core, or rural town road or street—t varies between 14.0 and 14.5 s

Appendix G: Floodplain Maps

Print | N







Appendix H: USDA Web Soil Survey Results

Stone Kill Farm



MAP LEGEND MAP INFORMATION The soil surveys that comprise your AOI were mapped at Area of Interest (AOI) С 1:15.800. Area of Interest (AOI) C/D Soils Warning: Soil Map may not be valid at this scale. D Soil Rating Polygons Enlargement of maps beyond the scale of mapping can cause Not rated or not available Α misunderstanding of the detail of mapping and accuracy of soil **Water Features** line placement. The maps do not show the small areas of A/D contrasting soils that could have been shown at a more detailed Streams and Canals Transportation B/D Rails ---Please rely on the bar scale on each map sheet for map measurements. Interstate Highways C/D Source of Map: Natural Resources Conservation Service **US Routes** Web Soil Survey URL: D Major Roads Coordinate System: Web Mercator (EPSG:3857) Not rated or not available -Local Roads Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts Soil Rating Lines Background distance and area. A projection that preserves area, such as the Aerial Photography Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required. This product is generated from the USDA-NRCS certified data as of the version date(s) listed below. B/D Soil Survey Area: Ulster County, New York Survey Area Data: Version 22, Sep 5, 2023 Soil map units are labeled (as space allows) for map scales 1:50,000 or larger. Not rated or not available Date(s) aerial images were photographed: Sep 4, 2020—Nov 7. 2020 **Soil Rating Points** The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background A/D imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident. B/D

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Ва	Barbour loam	В	4.7	42.4%
HXE	Hudson and Schoharie soils, 25 to 55 percent slopes	D	1.7	15.0%
TkA	Tunkhannock gravelly loam, 0 to 3 percent slopes	A	4.7	42.6%
Totals for Area of Inter	rest	11.1	100.0%	

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

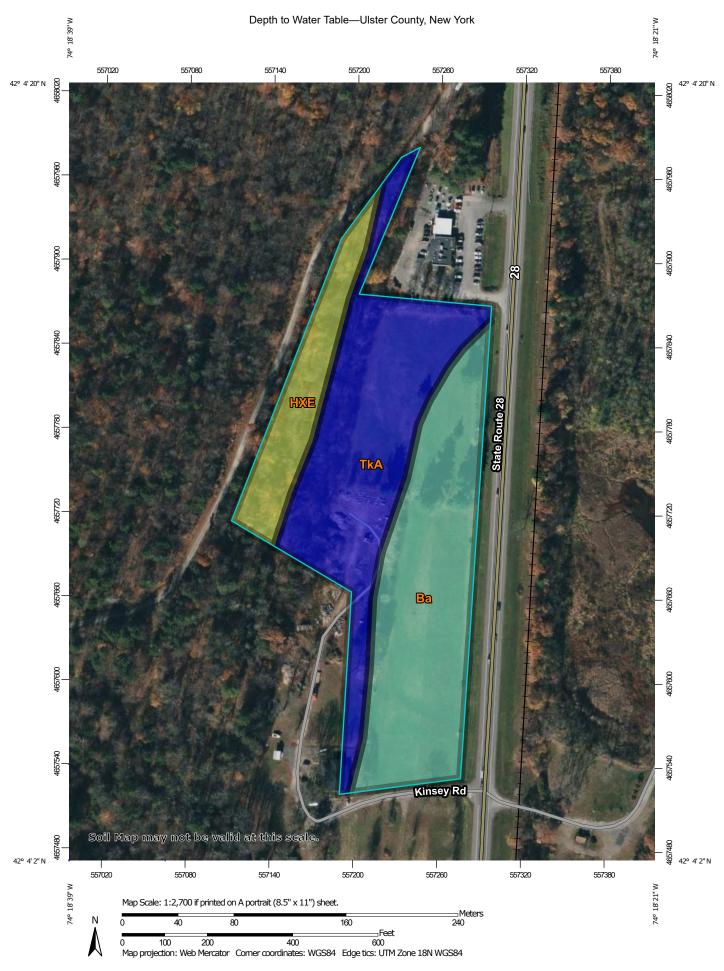
Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition
Component Percent Cutoff: None Specified

Tie-break Rule: Higher



Not rated or not available

Streams and Canals

Interstate Highways

Aerial Photography

MAP LEGEND

Water Features

Transportation

Background

Rails

US Routes

Maior Roads

Local Roads

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

0 - 25

25 - 50

50 - 100

100 - 150

150 - 200 > 200

Not rated or not available

Soil Rating Lines

0 - 25

25 - 50

50 - 100

100 - 150

150 - 200

> 200

Not rated or not available

Soil Rating Points

0 - 25

25 - 50

50 - 100

100 - 150

150 - 200

> 200

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15.800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Ulster County, New York Survey Area Data: Version 22, Sep 5, 2023

Soil map units are labeled (as space allows) for map scales 1:50.000 or larger.

Date(s) aerial images were photographed: Sep 4, 2020—Nov 7, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Depth to Water Table

Map unit symbol	Map unit name	Rati	ng (centimeters)	Acres in AOI	Percent of AOI
Ва	Barbour loam	137	54"	4.7	42.4%
HXE	Hudson and Schoharie soils, 25 to 55 percent slopes	56	22"	1.7	15.0%
TkA	Tunkhannock gravelly loam, 0 to 3 percent slopes	>200	78"	4.7	42.6%
Totals for Area of Inter	est	11.1	100.0%		

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

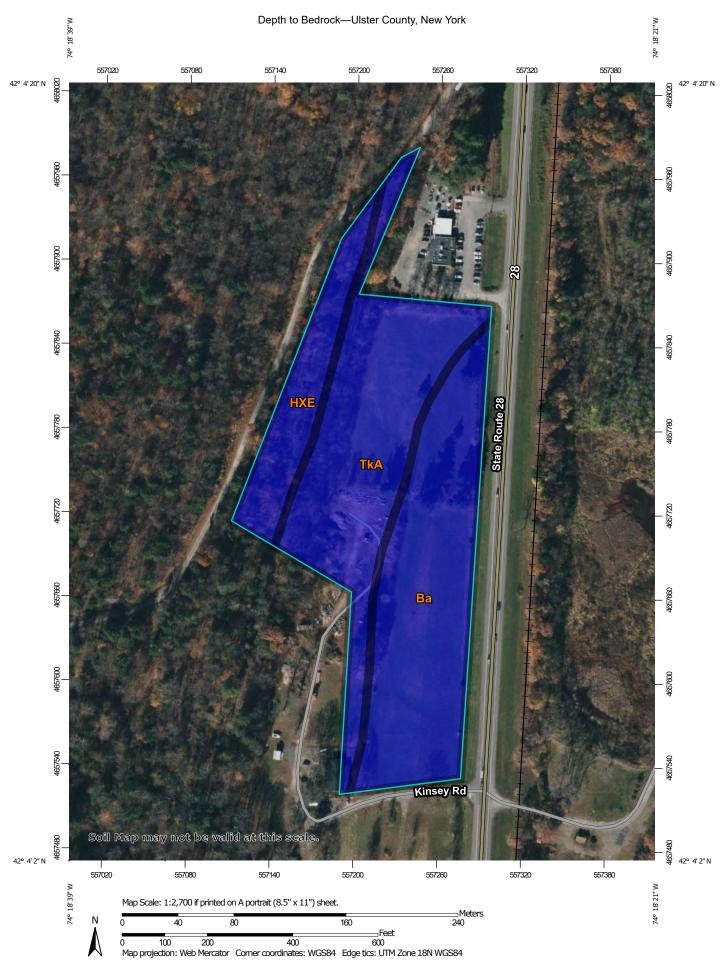
Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No Beginning Month: January Ending Month: December



Not rated or not available

Streams and Canals

Interstate Highways

Aerial Photography

MAP LEGEND

Water Features

Transportation

Background

Rails

US Routes

Maior Roads

Local Roads

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

0 - 25

25 - 50

50 - 100

100 - 150

150 - 200

> 200

Not rated or not available

Soil Rating Lines
0 - 25

25 - 50

50 - 100

100 - 150

150 - 200

> 200

Not rated or not available

Soil Rating Points

0 - 25

25 - 50

50 - 100

100 - 150

150 - 200

> 200

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15.800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Ulster County, New York Survey Area Data: Version 22, Sep 5, 2023

Soil map units are labeled (as space allows) for map scales 1:50.000 or larger.

Date(s) aerial images were photographed: Sep 4, 2020—Nov 7, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Depth to Bedrock

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
Ва	Barbour loam	>200	4.7	42.4%
HXE	Hudson and Schoharie soils, 25 to 55 percent slopes	>200	1.7	15.0%
TkA	Tunkhannock gravelly loam, 0 to 3 percent slopes	>200	4.7	42.6%
Totals for Area of Inter	rest	11.1	100.0%	

Description

The term bedrock in soil survey refers to a continuous root and water restrictive layer of rock that occurs within the soil profile.

There are many types of restrictions that can occur within the soil profile but this theme only includes the three restrictions that use the term bedrock. These are:

- 1) Lithic Bedrock
- Paralithic Bedrock
- 3) Densic Bedrock

Lithic bedrock and paralithic bedrock are comprised of igneous, metamorphic, and sedimentary rocks, which are coherent and consolidated into rock through pressure, heat, cementation, or fusion. Lithic bedrock represents the hardest type of bedrock, with a hardness of strongly coherent to indurated. Paralithic bedrock has a hardness of extremely weakly coherent to moderately coherent. It can occur as a thin layer of weathered bedrock above harder lithic bedrock. Paralithic bedrock can also be much thicker, extending well below the soil profile.

Densic bedrock represents a unique kind of bedrock recognized within the soil survey. It is non-coherent and consolidated, dense root restrictive material, formed by pressure, heat, and dewatering of earth materials or sediments. Densic bedrock differs from densic materials, which formed under the compaction of glaciers, mudflows, and or human-caused compaction.

If more than one type of bedrock is described for an individual soil type, the depth to the shallowest one is given. If no bedrock is described in a map unit, it is represented by the "greater than 200" depth class.

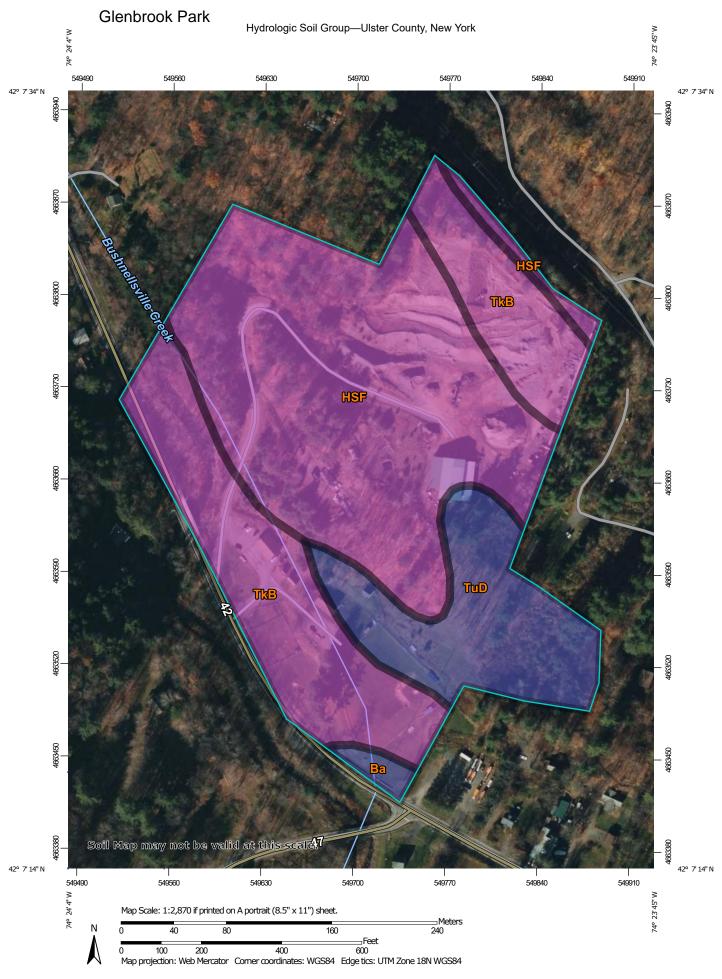
Depth to bedrock is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component Component Percent Cutoff: None Specified

Tie-break Rule: Lower Interpret Nulls as Zero: No



MAP LEGEND MAP INFORMATION The soil surveys that comprise your AOI were mapped at Area of Interest (AOI) С 1:15.800. Area of Interest (AOI) C/D Soils Warning: Soil Map may not be valid at this scale. D Soil Rating Polygons Enlargement of maps beyond the scale of mapping can cause Not rated or not available Α misunderstanding of the detail of mapping and accuracy of soil **Water Features** line placement. The maps do not show the small areas of A/D contrasting soils that could have been shown at a more detailed Streams and Canals Transportation B/D Rails ---Please rely on the bar scale on each map sheet for map measurements. Interstate Highways C/D Source of Map: Natural Resources Conservation Service **US Routes** Web Soil Survey URL: D Major Roads Coordinate System: Web Mercator (EPSG:3857) Not rated or not available -Local Roads Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts Soil Rating Lines Background distance and area. A projection that preserves area, such as the Aerial Photography Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required. This product is generated from the USDA-NRCS certified data as of the version date(s) listed below. B/D Soil Survey Area: Ulster County, New York Survey Area Data: Version 22, Sep 5, 2023 Soil map units are labeled (as space allows) for map scales 1:50,000 or larger. Not rated or not available Date(s) aerial images were photographed: Sep 4, 2020—Nov 7. 2020 **Soil Rating Points** The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background A/D imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident. B/D

Hydrologic Soil Group

			_	
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Ва	Barbour loam	В	0.3	1.2%
HSF	Hoosic soils, very steep	A	13.6	50.4%
TkB	Tunkhannock gravelly loam, 3 to 8 percent slopes	A	8.4	31.3%
TuD	Tunkhannock gravelly loam, clayey substratum, 15 to 25 percent slopes	В	4.6	17.1%
Totals for Area of Interest		27.0	100.0%	

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

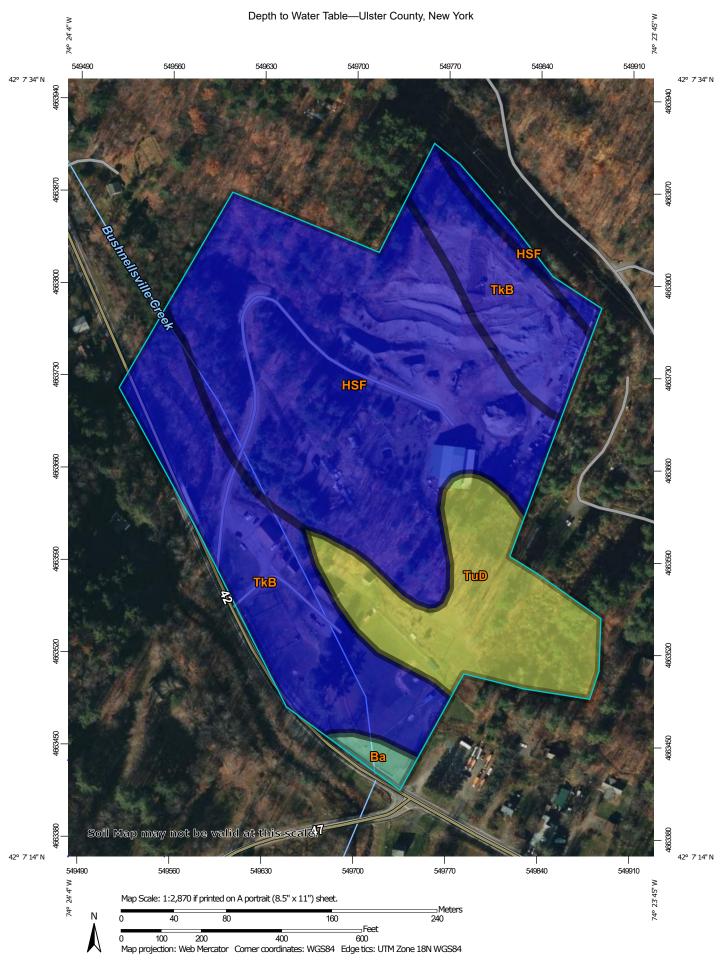
If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher



Not rated or not available

Streams and Canals

Interstate Highways

Aerial Photography

MAP LEGEND

Water Features

Transportation

Background

Rails

US Routes

Maior Roads

Local Roads

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

0 - 25

25 - 50

50 - 100

100 - 150

150 - 200

> 200

Not rated or not available

Soil Rating Lines

0 - 25

25 - 50

50 - 100

100 - 150

150 - 200

> 200

Not rated or not available

Soil Rating Points

0 - 25

25 - 50

50 - 100

100 - 150

150 - 200

> 200

MAP INFORMATION

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Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Ulster County, New York Survey Area Data: Version 22, Sep 5, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 4, 2020—Nov 7, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
Ва	Barbour loam	137	0.3	1.2%
HSF	Hoosic soils, very steep	>200	13.6	50.4%
TkB	Tunkhannock gravelly loam, 3 to 8 percent slopes	>200	8.4	31.3%
TuD	Tunkhannock gravelly loam, clayey substratum, 15 to 25 percent slopes	91	4.6	17.1%
Totals for Area of Interest			27.0	100.0%

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

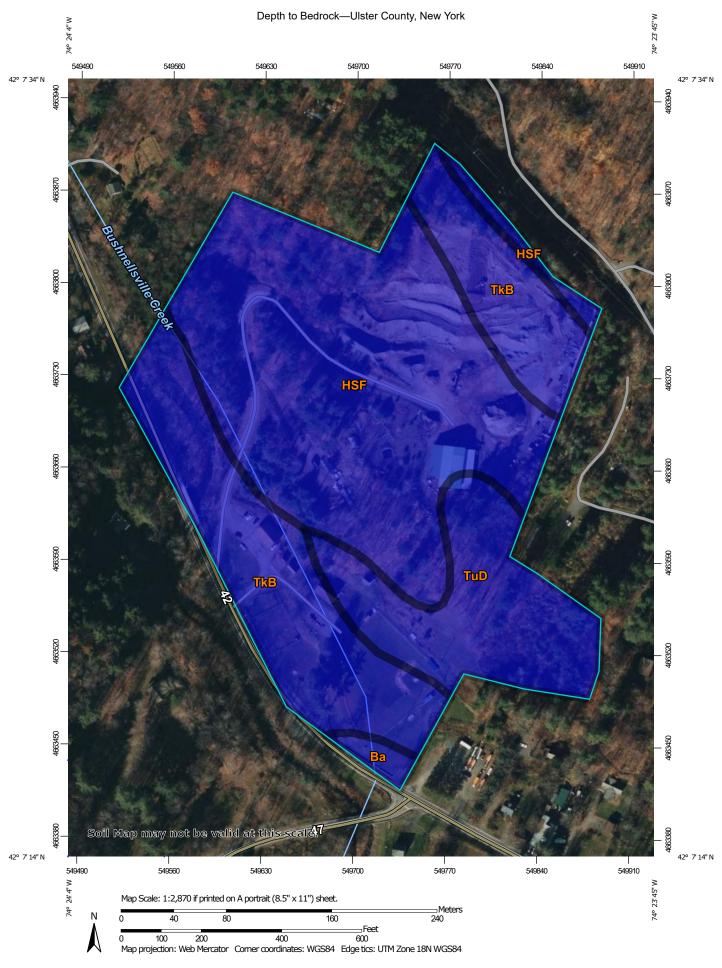
Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No Beginning Month: January Ending Month: December



Not rated or not available

Streams and Canals

Interstate Highways

Aerial Photography

MAP LEGEND

Water Features

Transportation

Background

Rails

US Routes

Maior Roads

Local Roads

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

0 - 25

25 - 50

50 - 100

100 - 150

150 - 200

> 200

Not rated or not available

Soil Rating Lines

0 - 25

25 - 50

50 - 100

100 - 150

150 - 200

> 200

Not rated or not available

Soil Rating Points

0 - 25

25 - 50

50 - 100

100 - 150

150 - 200

> 200

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15.800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Ulster County, New York Survey Area Data: Version 22, Sep 5, 2023

Soil map units are labeled (as space allows) for map scales 1:50.000 or larger.

Date(s) aerial images were photographed: Sep 4, 2020—Nov 7, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Depth to Bedrock

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
Ва	Barbour loam	>200	0.3	1.2%
HSF	Hoosic soils, very steep	>200	13.6	50.4%
TkB	Tunkhannock gravelly loam, 3 to 8 percent slopes	>200	8.4	31.3%
TuD	Tunkhannock gravelly loam, clayey substratum, 15 to 25 percent slopes	>200	4.6	17.1%
Totals for Area of Interest			27.0	100.0%

Description

The term bedrock in soil survey refers to a continuous root and water restrictive layer of rock that occurs within the soil profile.

There are many types of restrictions that can occur within the soil profile but this theme only includes the three restrictions that use the term bedrock. These are:

- 1) Lithic Bedrock
- 2) Paralithic Bedrock
- 3) Densic Bedrock

Lithic bedrock and paralithic bedrock are comprised of igneous, metamorphic, and sedimentary rocks, which are coherent and consolidated into rock through pressure, heat, cementation, or fusion. Lithic bedrock represents the hardest type of bedrock, with a hardness of strongly coherent to indurated. Paralithic bedrock has a hardness of extremely weakly coherent to moderately coherent. It can occur as a thin layer of weathered bedrock above harder lithic bedrock. Paralithic bedrock can also be much thicker, extending well below the soil profile.

Densic bedrock represents a unique kind of bedrock recognized within the soil survey. It is non-coherent and consolidated, dense root restrictive material, formed by pressure, heat, and dewatering of earth materials or sediments. Densic bedrock differs from densic materials, which formed under the compaction of glaciers, mudflows, and or human-caused compaction.

If more than one type of bedrock is described for an individual soil type, the depth to the shallowest one is given. If no bedrock is described in a map unit, it is represented by the "greater than 200" depth class.

Depth to bedrock is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

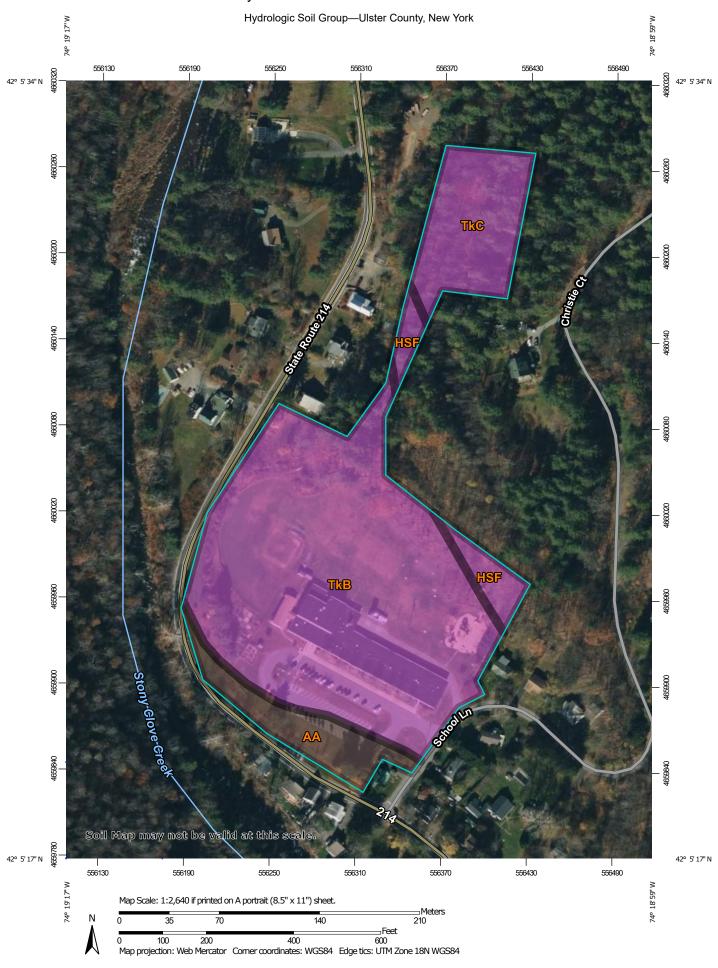
Units of Measure: centimeters

Aggregation Method: Dominant Component Component Percent Cutoff: None Specified

Tie-break Rule: Lower Interpret Nulls as Zero: No

Project Number: 2241334 LaBella Associates

Phoenicia Elementary



MAP LEGEND MAP INFORMATION The soil surveys that comprise your AOI were mapped at Area of Interest (AOI) С 1:15.800. Area of Interest (AOI) C/D Soils Warning: Soil Map may not be valid at this scale. D Soil Rating Polygons Enlargement of maps beyond the scale of mapping can cause Not rated or not available Α misunderstanding of the detail of mapping and accuracy of soil **Water Features** line placement. The maps do not show the small areas of A/D contrasting soils that could have been shown at a more detailed Streams and Canals Transportation B/D Rails ---Please rely on the bar scale on each map sheet for map measurements. Interstate Highways C/D Source of Map: Natural Resources Conservation Service **US Routes** Web Soil Survey URL: D Major Roads Coordinate System: Web Mercator (EPSG:3857) Not rated or not available -Local Roads Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts Soil Rating Lines Background distance and area. A projection that preserves area, such as the Aerial Photography Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required. This product is generated from the USDA-NRCS certified data as of the version date(s) listed below. B/D Soil Survey Area: Ulster County, New York Survey Area Data: Version 22, Sep 5, 2023 Soil map units are labeled (as space allows) for map scales 1:50,000 or larger. Not rated or not available Date(s) aerial images were photographed: Sep 4, 2020—Nov 7. 2020 **Soil Rating Points** The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background A/D imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident. B/D

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
AA	Alluvial land	B/D	1.1	8.9%
HSF	Hoosic soils, very steep	A	0.6	5.1%
TkB	Tunkhannock gravelly loam, 3 to 8 percent slopes	А	8.6	71.5%
TkC	Tunkhannock gravelly loam, rolling	А	1.7	14.5%
Totals for Area of Interest			12.0	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

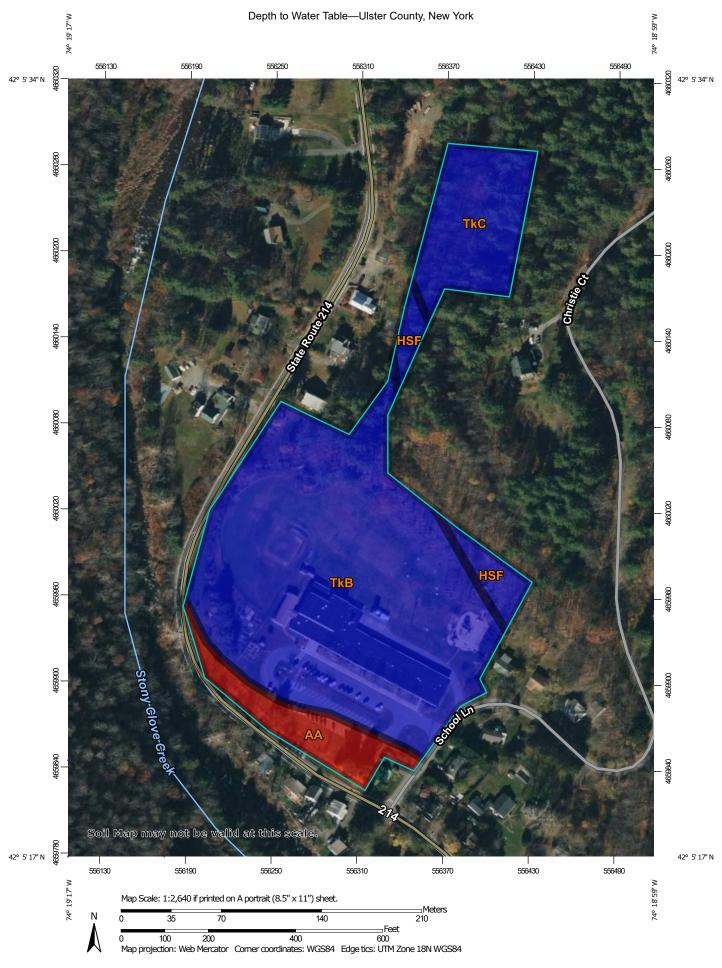
Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition
Component Percent Cutoff: None Specified

Tie-break Rule: Higher



Not rated or not available

Streams and Canals

Interstate Highways

Aerial Photography

MAP LEGEND

Water Features

Transportation

Background

Rails

US Routes

Maior Roads

Local Roads

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

0 - 25

25 - 50

50 - 100

100 - 150

150 - 200

> 200

Not rated or not available

Soil Rating Lines

0 - 25

25 - 50

50 - 100

100 - 150

150 - 200

> 200

Not rated or not available

Soil Rating Points

0 - 25

25 - 50

50 - 100

100 - 150

150 - 200

> 200

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15.800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Ulster County, New York Survey Area Data: Version 22, Sep 5, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 4, 2020—Nov 7, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
AA	Alluvial land	0	1.1	8.9%
HSF	Hoosic soils, very steep	>200	0.6	5.1%
TkB	Tunkhannock gravelly loam, 3 to 8 percent slopes	>200	8.6	71.5%
TkC	Tunkhannock gravelly loam, rolling	>200	1.7	14.5%
Totals for Area of Interest			12.0	100.0%

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

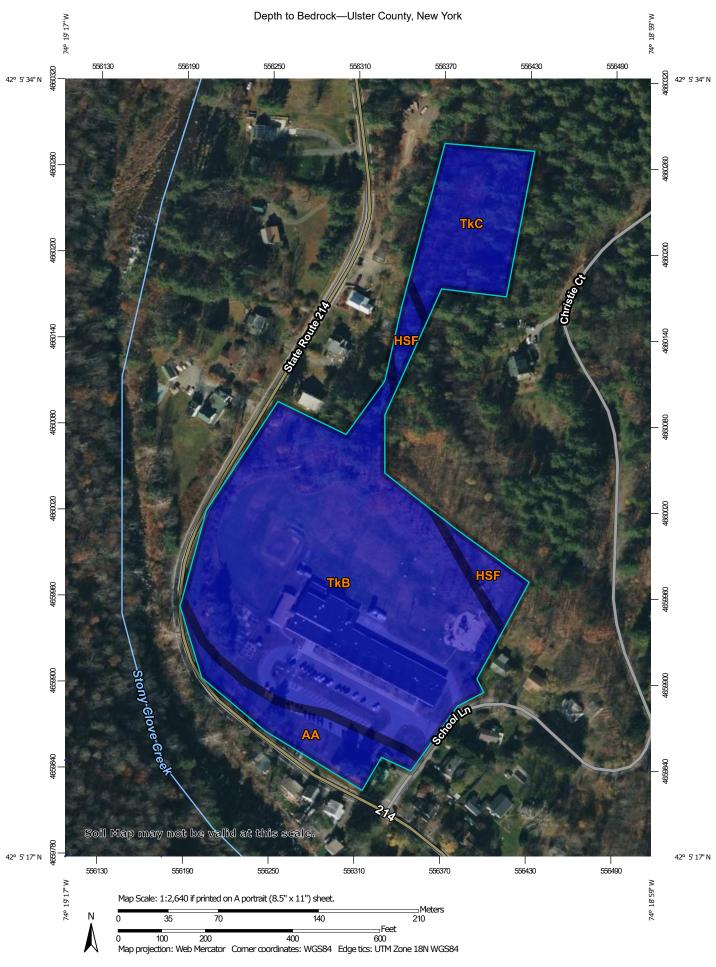
Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No Beginning Month: January Ending Month: December



Not rated or not available

Streams and Canals

Interstate Highways

Aerial Photography

MAP LEGEND

Water Features

Transportation

Background

Rails

US Routes

Maior Roads

Local Roads

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

0 - 25

25 - 50

50 - 100

100 - 150

150 - 200 > 200

Not rated or not available

Soil Rating Lines

0 - 25

25 - 50

50 - 100

100 - 150

150 - 200

> 200

Not rated or not available

Soil Rating Points

0 - 25

25 - 50

50 - 100

100 - 150

150 - 200

> 200

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15.800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Ulster County, New York Survey Area Data: Version 22, Sep 5, 2023

Soil map units are labeled (as space allows) for map scales 1:50.000 or larger.

Date(s) aerial images were photographed: Sep 4, 2020—Nov 7. 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Depth to Bedrock

	T			
Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
AA	Alluvial land	>200	1.1	8.9%
HSF	Hoosic soils, very steep	>200	0.6	5.1%
TkB	Tunkhannock gravelly loam, 3 to 8 percent slopes	>200	8.6	71.5%
TkC	Tunkhannock gravelly loam, rolling	>200	1.7	14.5%
Totals for Area of Interest			12.0	100.0%

Description

The term bedrock in soil survey refers to a continuous root and water restrictive layer of rock that occurs within the soil profile.

There are many types of restrictions that can occur within the soil profile but this theme only includes the three restrictions that use the term bedrock. These are:

- 1) Lithic Bedrock
- 2) Paralithic Bedrock
- 3) Densic Bedrock

Lithic bedrock and paralithic bedrock are comprised of igneous, metamorphic, and sedimentary rocks, which are coherent and consolidated into rock through pressure, heat, cementation, or fusion. Lithic bedrock represents the hardest type of bedrock, with a hardness of strongly coherent to indurated. Paralithic bedrock has a hardness of extremely weakly coherent to moderately coherent. It can occur as a thin layer of weathered bedrock above harder lithic bedrock. Paralithic bedrock can also be much thicker, extending well below the soil profile.

Densic bedrock represents a unique kind of bedrock recognized within the soil survey. It is non-coherent and consolidated, dense root restrictive material, formed by pressure, heat, and dewatering of earth materials or sediments. Densic bedrock differs from densic materials, which formed under the compaction of glaciers, mudflows, and or human-caused compaction.

If more than one type of bedrock is described for an individual soil type, the depth to the shallowest one is given. If no bedrock is described in a map unit, it is represented by the "greater than 200" depth class.

Depth to bedrock is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component Component Percent Cutoff: None Specified

Tie-break Rule: Lower Interpret Nulls as Zero: No

Project Number: 2241334 LaBella Associates



MAP LEGEND MAP INFORMATION The soil surveys that comprise your AOI were mapped at Area of Interest (AOI) С 1:15.800. Area of Interest (AOI) C/D Please rely on the bar scale on each map sheet for map Soils D measurements. Soil Rating Polygons Not rated or not available Α Source of Map: Natural Resources Conservation Service Web Soil Survey URL: **Water Features** A/D Coordinate System: Web Mercator (EPSG:3857) Streams and Canals В Maps from the Web Soil Survey are based on the Web Mercator Transportation projection, which preserves direction and shape but distorts B/D Rails --distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more Interstate Highways accurate calculations of distance or area are required. C/D **US Routes** This product is generated from the USDA-NRCS certified data as D Major Roads of the version date(s) listed below. Not rated or not available -Local Roads Soil Survey Area: Ulster County, New York Survey Area Data: Version 22, Sep 5, 2023 Soil Rating Lines Background Aerial Photography Soil map units are labeled (as space allows) for map scales 1:50.000 or larger. A/D Date(s) aerial images were photographed: Sep 4, 2020—Nov 7, 2020 B/D The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor C/D shifting of map unit boundaries may be evident. D Not rated or not available **Soil Rating Points** A/D B/D

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
ARF	Arnot-Oquaga-Rock outcrop complex, very steep	D	226.4	72.1%
HSF	Hoosic soils, very steep	A	2.1	0.7%
HwD	Hudson and Schoharie soils, 15 to 25 percent slopes	D	0.0	0.0%
LEE	Lackawanna and Swartswood soils, steep, extremely bouldery	С	14.8	4.7%
OdB	Odessa silt loam, 3 to 8 percent slopes	D	2.1	0.7%
ORC	Oquaga-Arnot-Rock outcrop complex, sloping	D	8.4	2.7%
ORD	Oquaga-Arnot-Rock outcrop complex, moderately steep	С	46.8	14.9%
SaC	Schoharie silt loam, 8 to 15 percent slopes	D	13.4	4.3%
Totals for Area of Interest			314.1	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

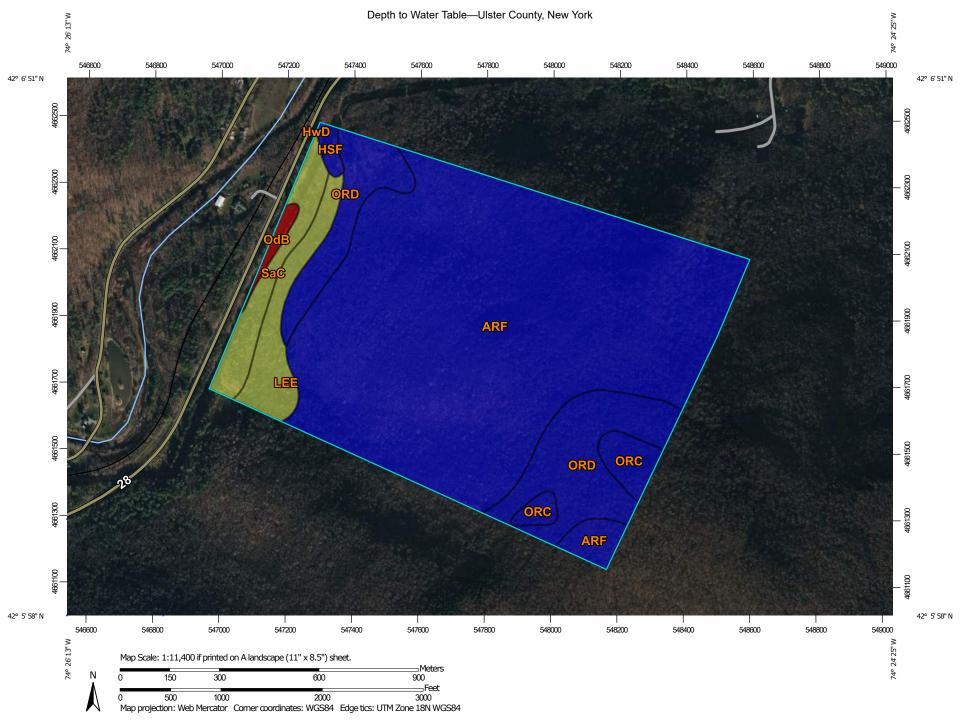
If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher



MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

0 - 25

25 - 50

50 - 100

100 - 150

150 - 200

> 200

Not rated or not available

Not rated or not available

Water Features

Streams and Canals

Transportation

→ Rails

Interstate Highways

Major Roads

US Routes

Local Roads

Background

Aerial Photography

Soil Rating Lines

0 - 25

25 - 50

50 - 100

100 - 150

150 - 200

> 200

Not rated or not available

Soil Rating Points

0 - 25

25 - 50

50 - 100

100 - 150

150 - 200

> 200

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15.800.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

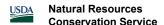
This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Ulster County, New York Survey Area Data: Version 22, Sep 5, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 4, 2020—Nov 7, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.



Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
ARF	Arnot-Oquaga-Rock outcrop complex, very steep	>200 78"	226.4	72.1%
HSF	Hoosic soils, very steep	>200 78"	2.1	0.7%
HwD	Hudson and Schoharie soils, 15 to 25 percent slopes	56 22"	0.0	0.0%
LEE	Lackawanna and Swartswood soils, steep, extremely bouldery	64 25"	14.8	4.7%
OdB	Odessa silt loam, 3 to 8 percent slopes	20 8"	2.1	0.7%
ORC	Oquaga-Arnot-Rock outcrop complex, sloping	>200 78"	8.4	2.7%
ORD	Oquaga-Arnot-Rock outcrop complex, moderately steep	>200 78"	46.8	14.9%
SaC	Schoharie silt loam, 8 to 15 percent slopes	76 30"	13.4	4.3%
Totals for Area of Interest			314.1	100.0%

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

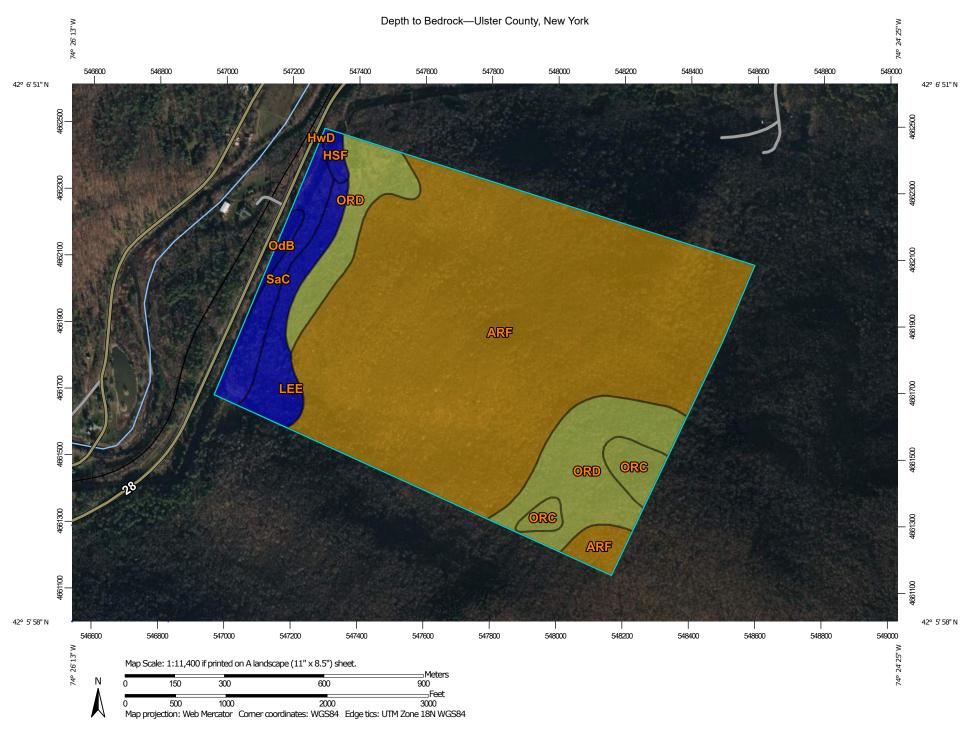
Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No Beginning Month: January Ending Month: December



MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

0 - 25

25 - 50

50 - 100

100 - 150

150 - 200 > 200

Not rated or not available

Water Features

Not rated or not available

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads Local Roads

Background

Aerial Photography

Soil Rating Lines

0 - 25

25 - 50

50 - 100

100 - 150

150 - 200

> 200

Not rated or not available

Soil Rating Points

0 - 25

25 - 50

50 - 100

100 - 150

150 - 200

> 200

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15.800.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

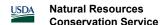
This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Ulster County, New York Survey Area Data: Version 22, Sep 5, 2023

Soil map units are labeled (as space allows) for map scales 1:50.000 or larger.

Date(s) aerial images were photographed: Sep 4, 2020—Nov 7, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.



Depth to Bedrock

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
ARF	Arnot-Oquaga-Rock outcrop complex, very steep	43 78"	226.4	72.1%
HSF	Hoosic soils, very steep	>200 78"	2.1	0.7%
HwD	Hudson and Schoharie soils, 15 to 25 percent slopes	>200	0.0	0.0%
LEE	Lackawanna and Swartswood soils, steep, extremely bouldery	>200	14.8	4.7%
OdB	Odessa silt loam, 3 to 8 percent slopes	>200 8"	2.1	0.7%
ORC	Oquaga-Arnot-Rock outcrop complex, sloping	76 78"	8.4	2.7%
ORD	Oquaga-Arnot-Rock outcrop complex, moderately steep	76 78"	46.8	14.9%
SaC	Schoharie silt loam, 8 to 15 percent slopes	>200 30"	13.4	4.3%
Totals for Area of Interest			314.1	100.0%

Description

The term bedrock in soil survey refers to a continuous root and water restrictive layer of rock that occurs within the soil profile.

There are many types of restrictions that can occur within the soil profile but this theme only includes the three restrictions that use the term bedrock. These are:

- 1) Lithic Bedrock
- 2) Paralithic Bedrock
- 3) Densic Bedrock

Lithic bedrock and paralithic bedrock are comprised of igneous, metamorphic, and sedimentary rocks, which are coherent and consolidated into rock through pressure, heat, cementation, or fusion. Lithic bedrock represents the hardest type of bedrock, with a hardness of strongly coherent to indurated. Paralithic bedrock has a hardness of extremely weakly coherent to moderately coherent. It can occur as a thin layer of weathered bedrock above harder lithic bedrock. Paralithic bedrock can also be much thicker, extending well below the soil profile.

Densic bedrock represents a unique kind of bedrock recognized within the soil survey. It is non-coherent and consolidated, dense root restrictive material, formed by pressure, heat, and dewatering of earth materials or sediments. Densic bedrock differs from densic materials, which formed under the compaction of glaciers, mudflows, and or human-caused compaction.

If more than one type of bedrock is described for an individual soil type, the depth to the shallowest one is given. If no bedrock is described in a map unit, it is represented by the "greater than 200" depth class.

Depth to bedrock is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

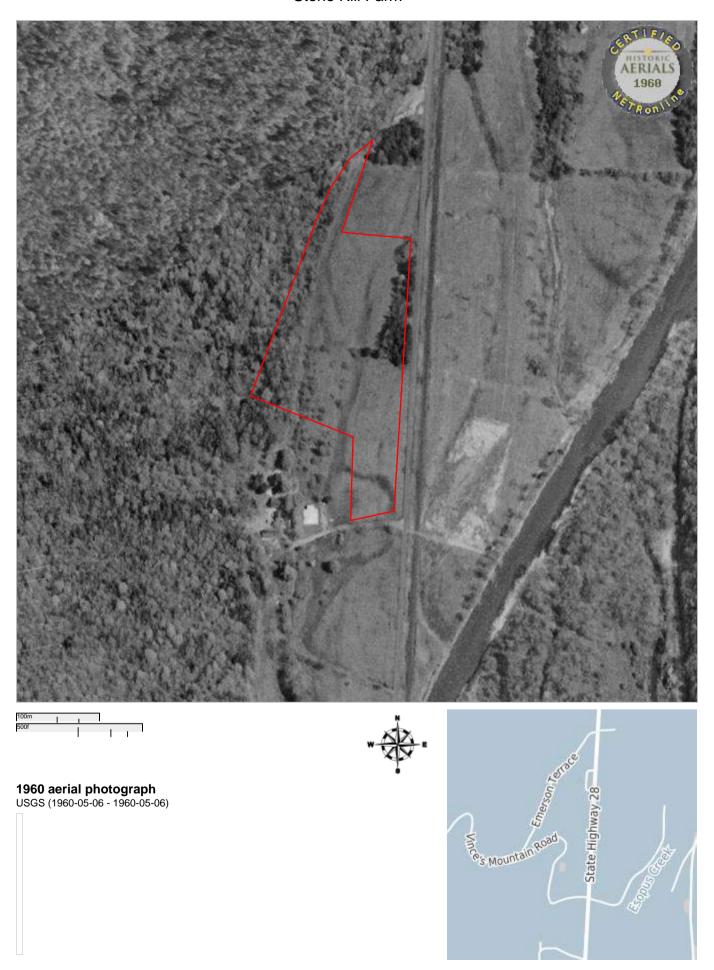
Aggregation Method: Dominant Component Component Percent Cutoff: None Specified

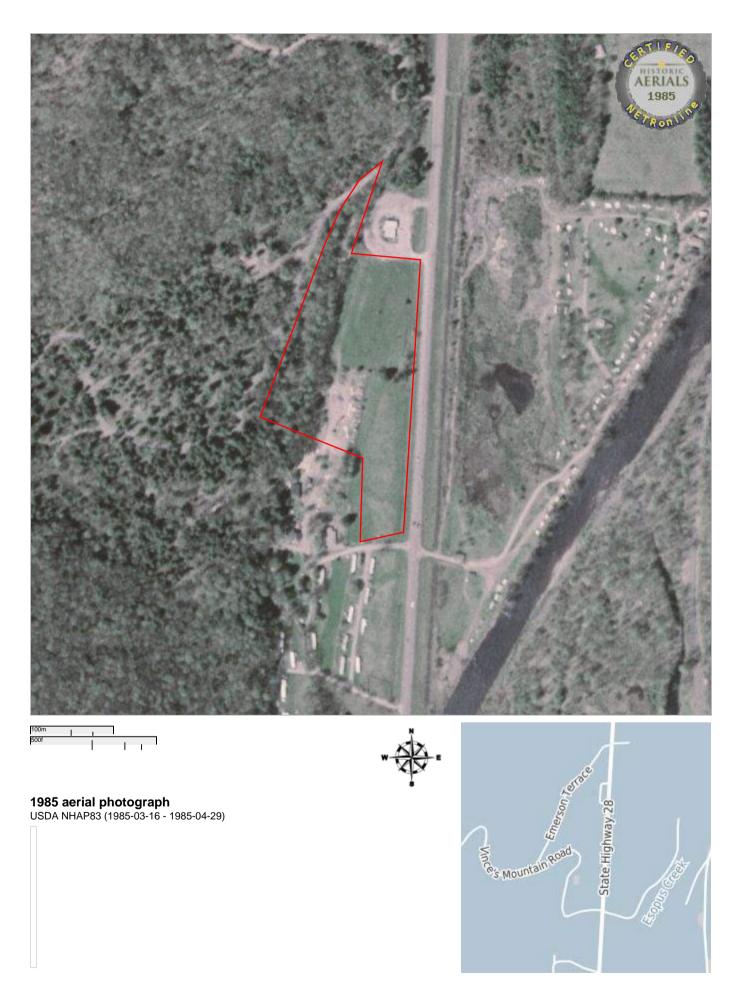
Tie-break Rule: Lower Interpret Nulls as Zero: No Appendix I: Historic Mapping and Spill History

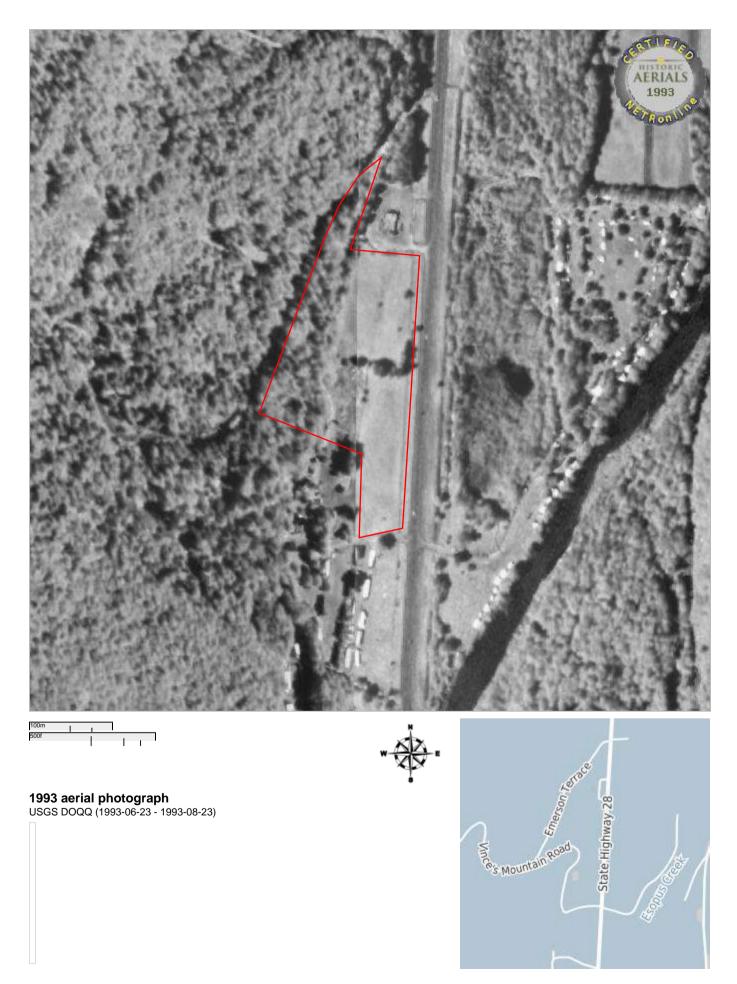
Project Number: 2241334 LaBella Associates

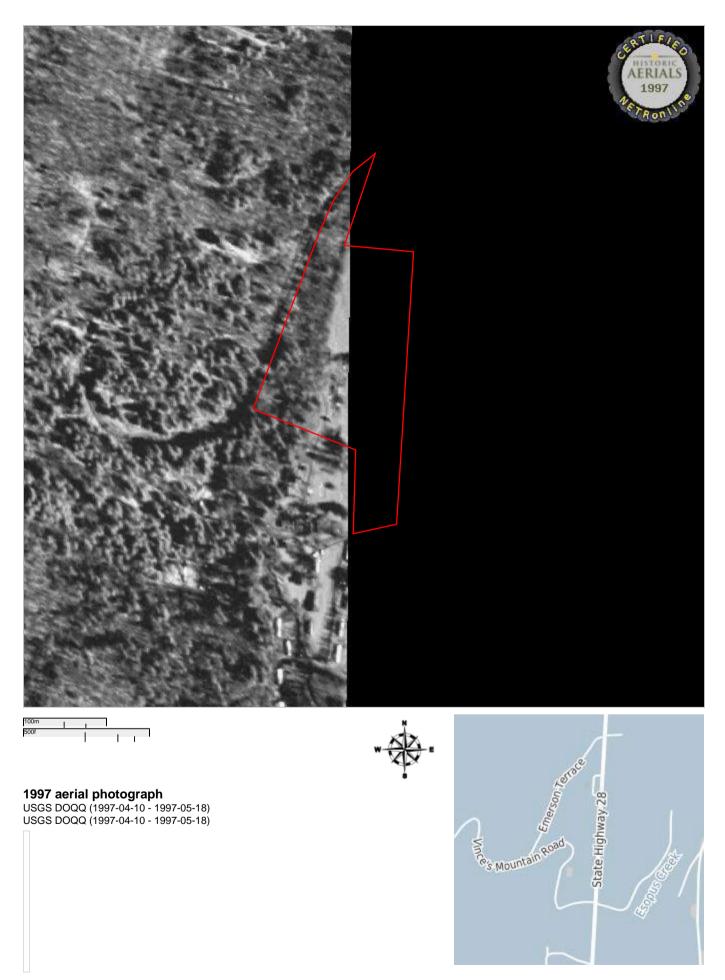
Project Number: 2241334 LaBella Associates

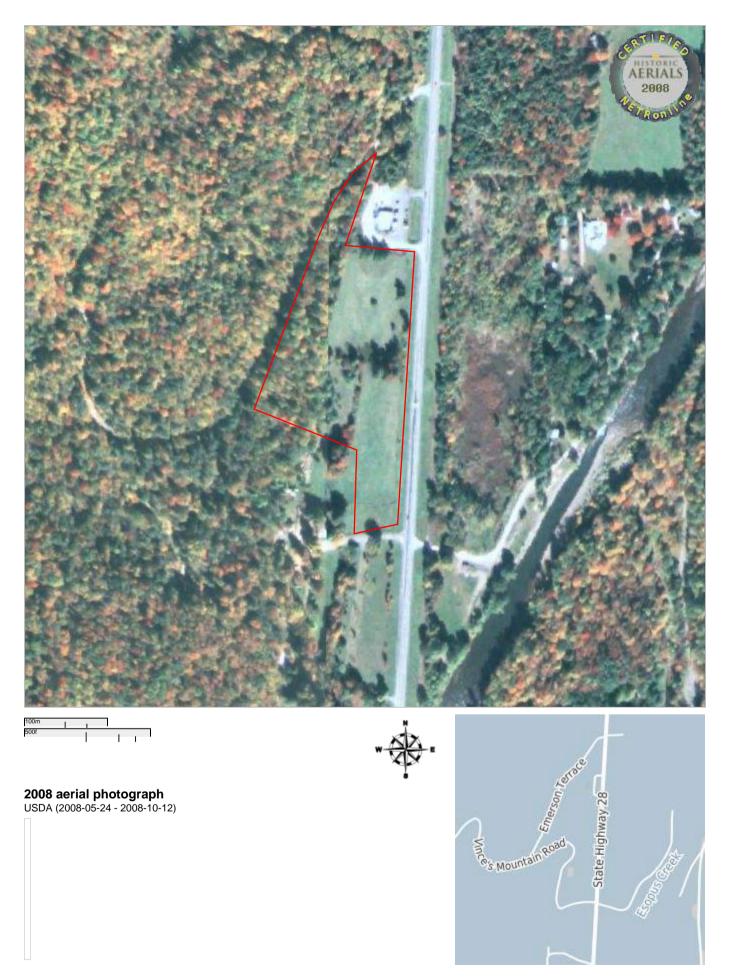
Stone Kill Farm

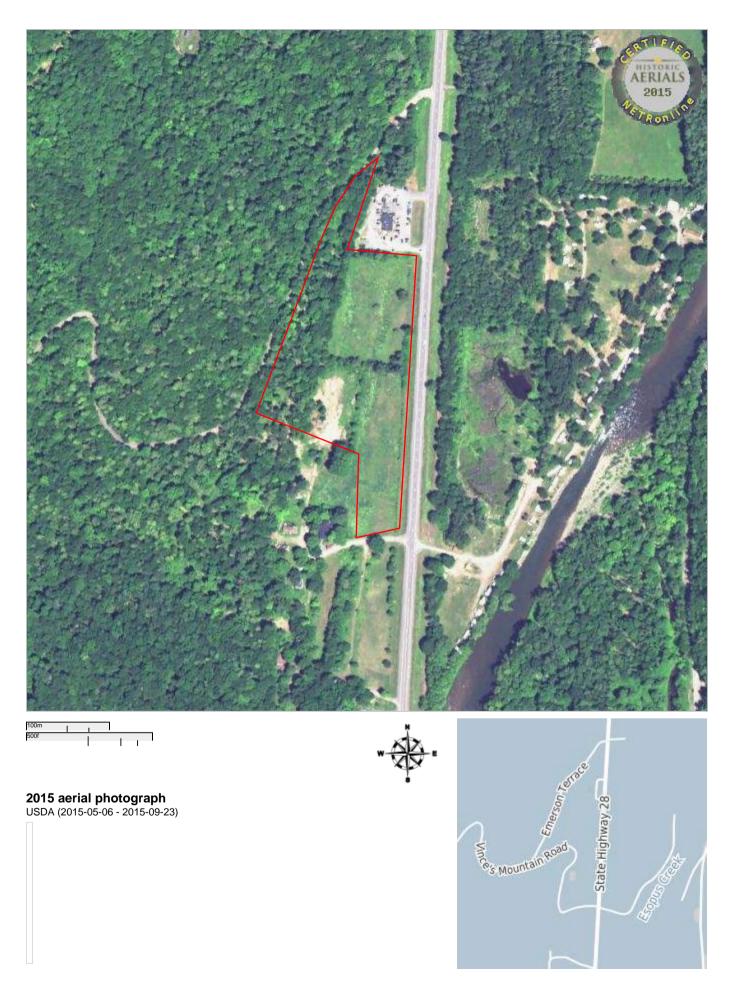














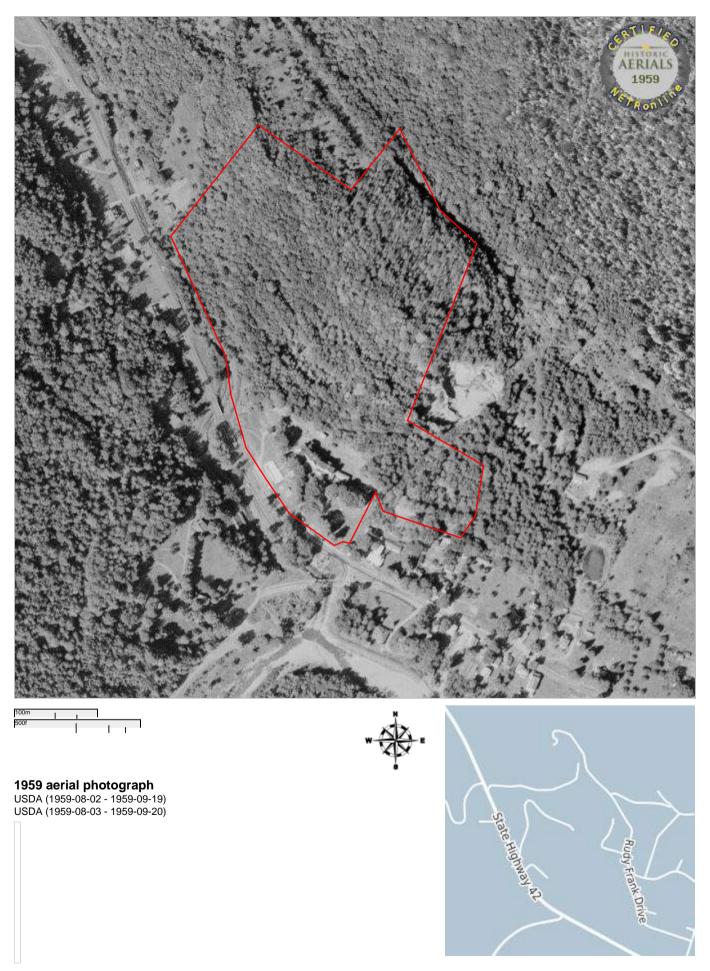


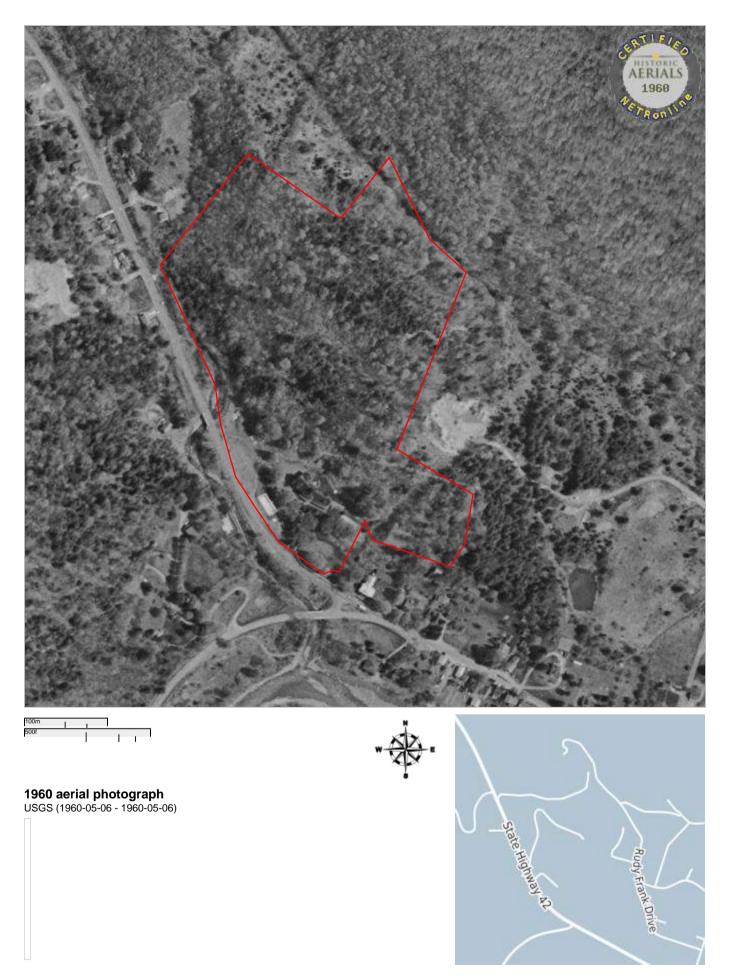
2021 aerial photographUSDA (2021-09-19 - 2021-11-10)
USDA (2021-09-20 - 2021-11-10)

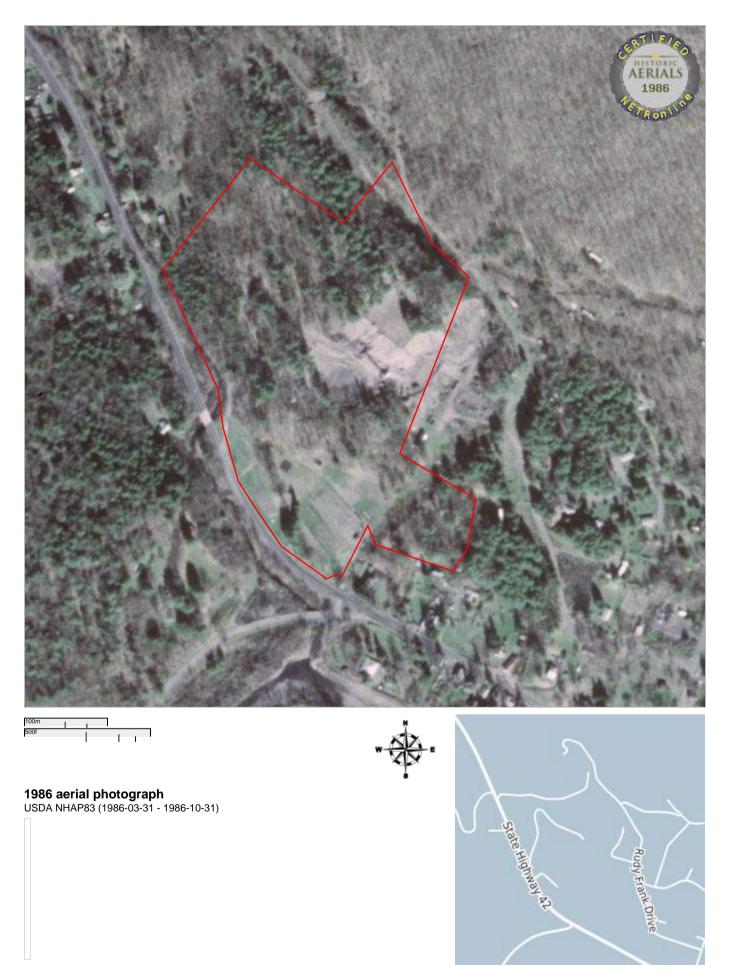


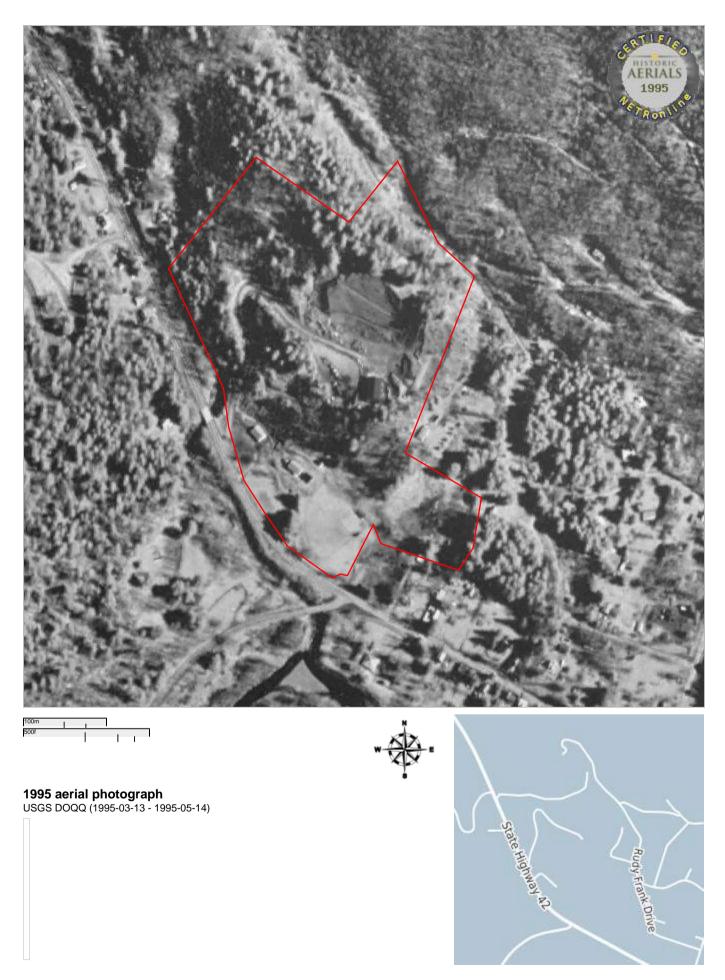
Project Number: 2241334 LaBella Associates

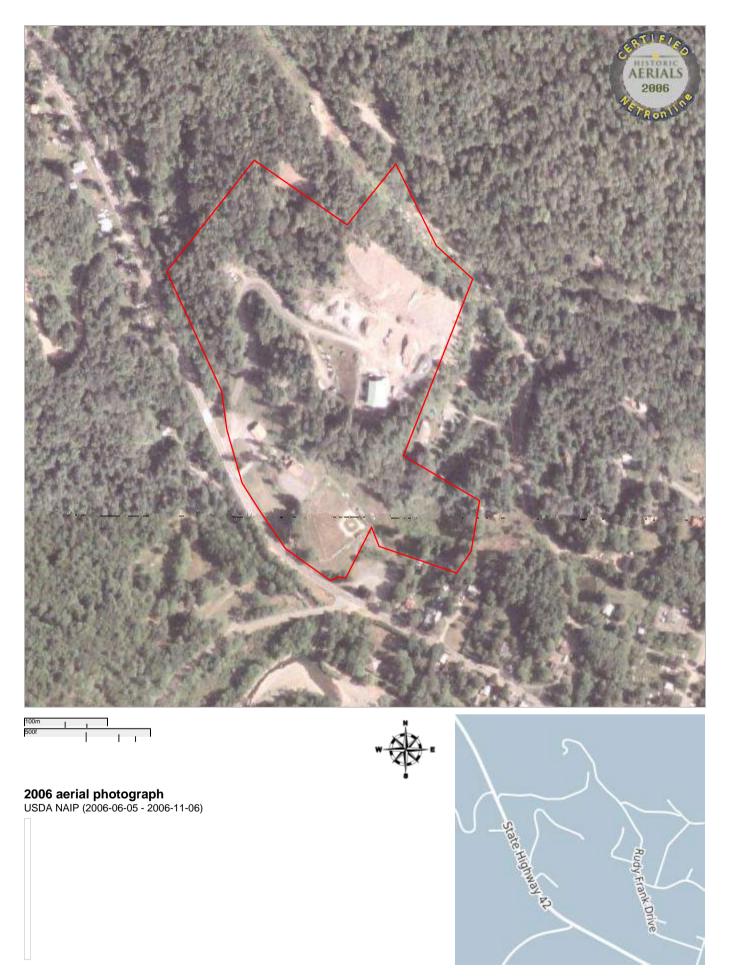
Glenbrook Park



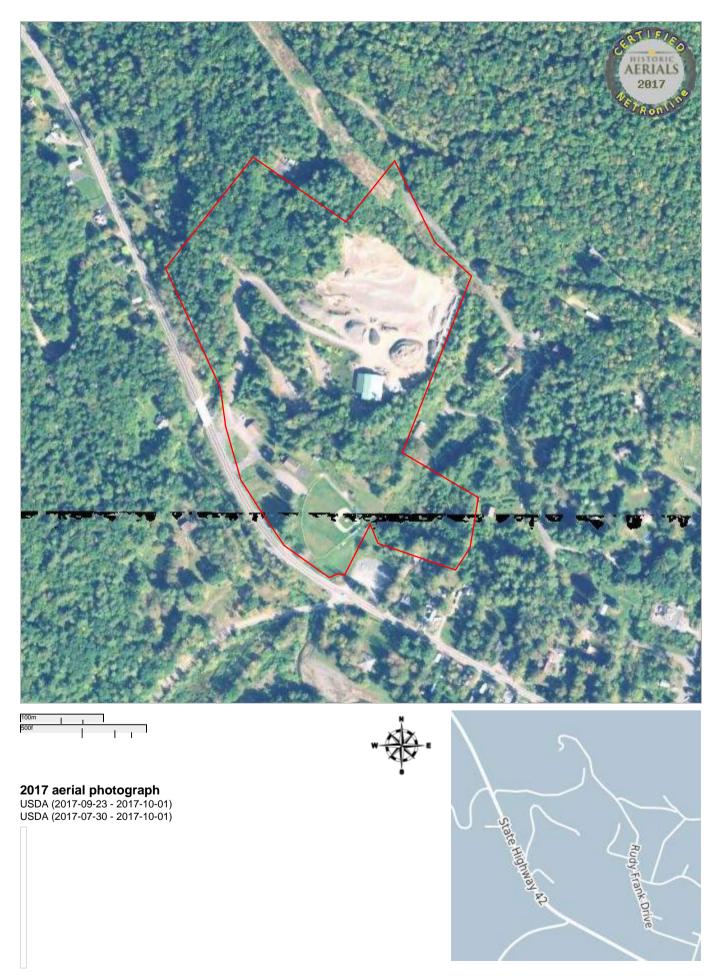


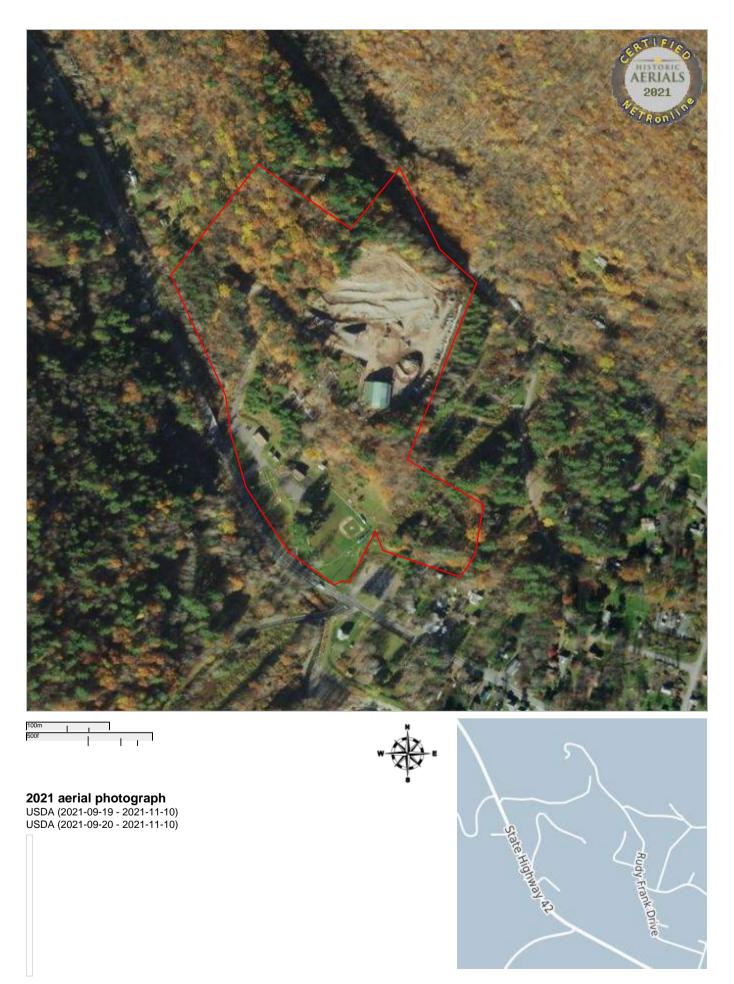








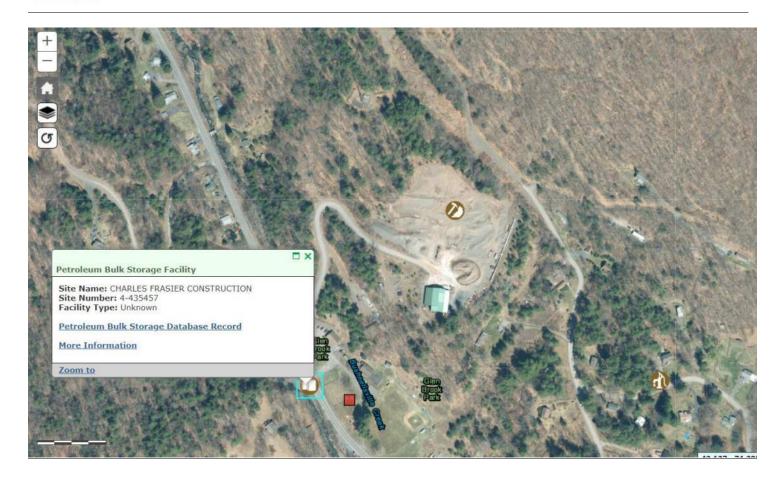




Glenbrook Park - active mine/quarry operation

| Feature | Passanders | Chi Bass | 2022| | Cappel 3/16| | Equation | Passanders | Chi Bass | Cappel 3/16| | Equation | Passanders | Chi Bass | Cappel 3/16| | Equation | Passanders | Cappel 3/16| | Equation | Pass

lecord Count: 1 Rows: 1 to 1



Spill at 79 Route 42:

Environmental Remediation Databases Details

Facility Information

Site No.: 4-435457
Status: Unregulated/Closed
Expiration Date: 06/28/1993
Site Type: PBS
Facility Type: Unknown
Site Name: CHARLES FRASIER CONSTRUCTION
Address: RT 42 SR 79
Locality: SHANDAKEN
State: NY
Zipcode: 12480
County: Greene

Facility(Property) Owner(s) Information

Facility Owner: CHARLES FRASIER RT. 42 . SHANDAKEN , NY. 12480 Mail Contact: CHARLES FRASIER RT. 42 . SHANDAKEN , NY. 12480

Facility Operator

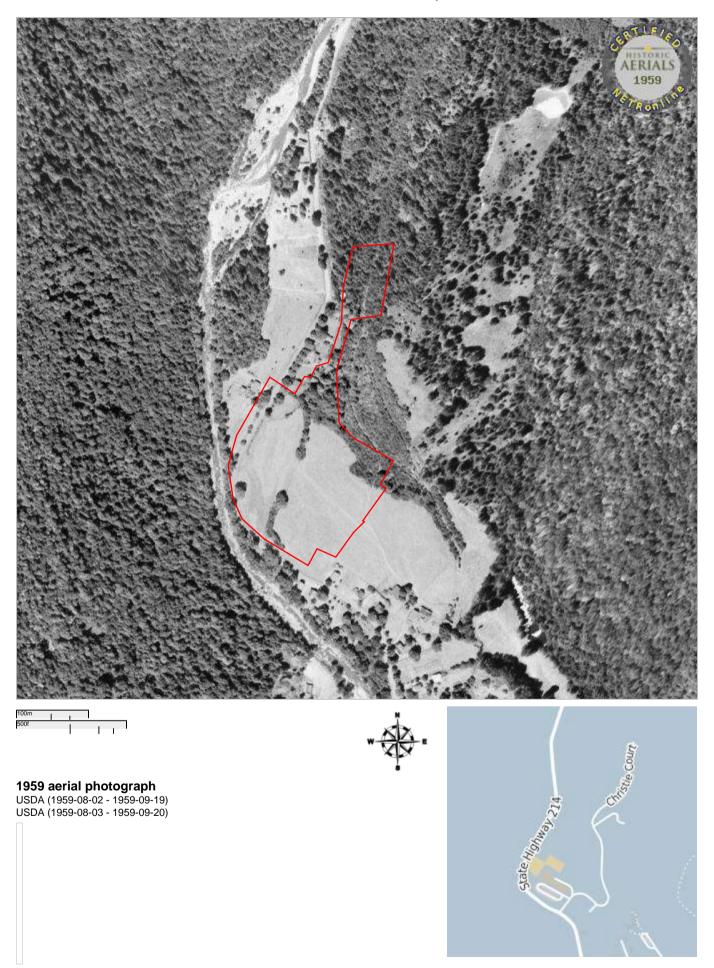
Facility Operator: CHARLES FRASIER

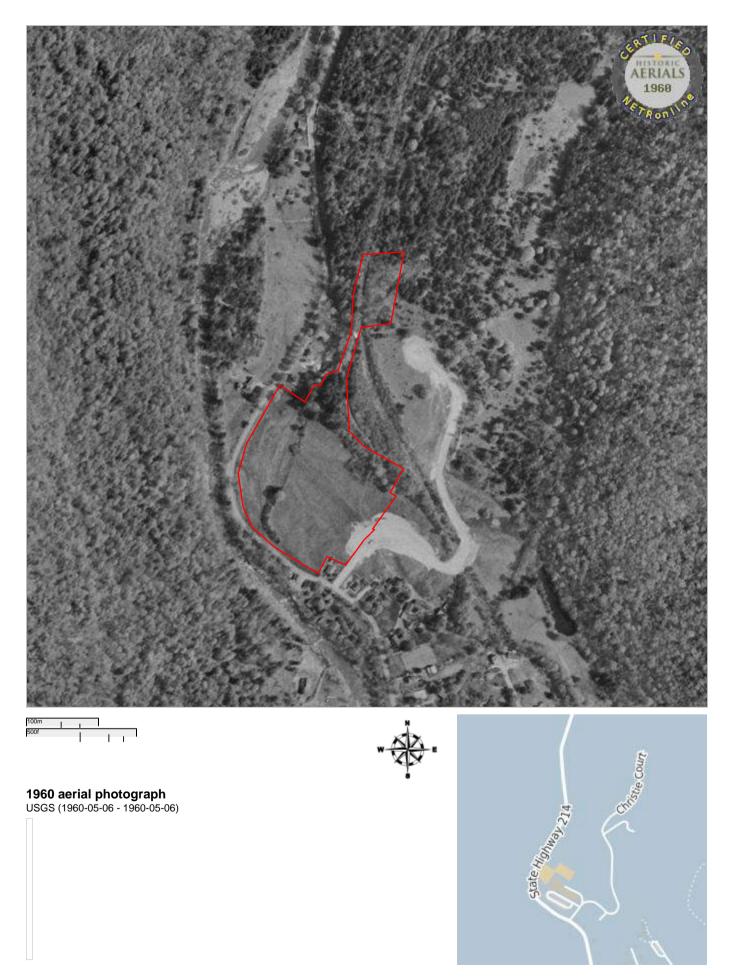
Tank Information

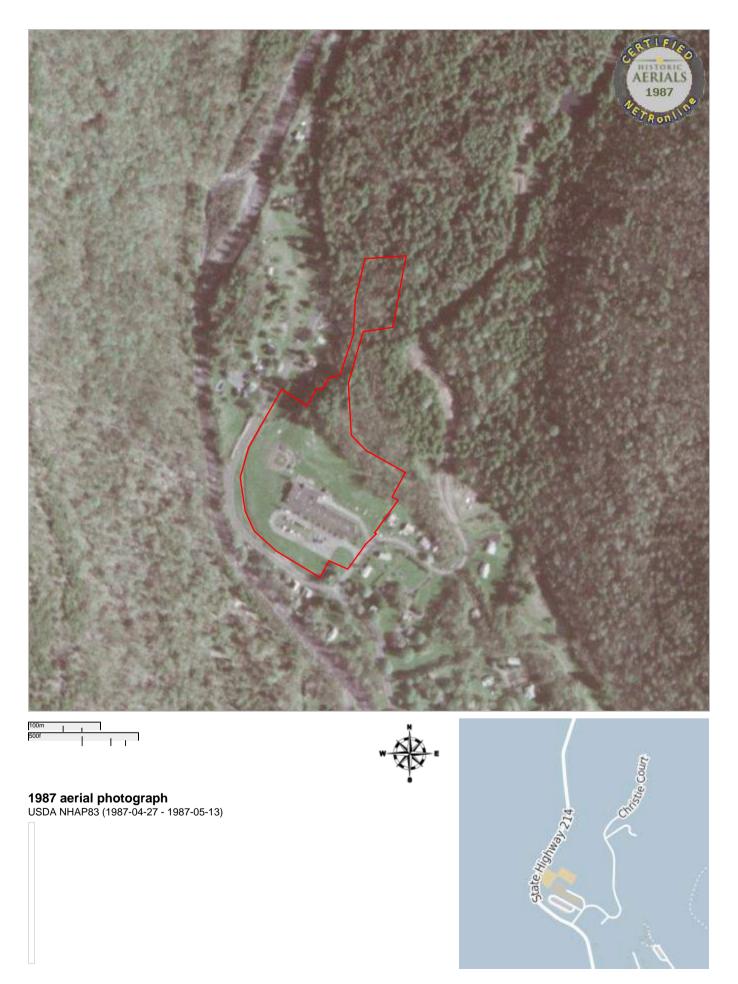
2 Tanks Found

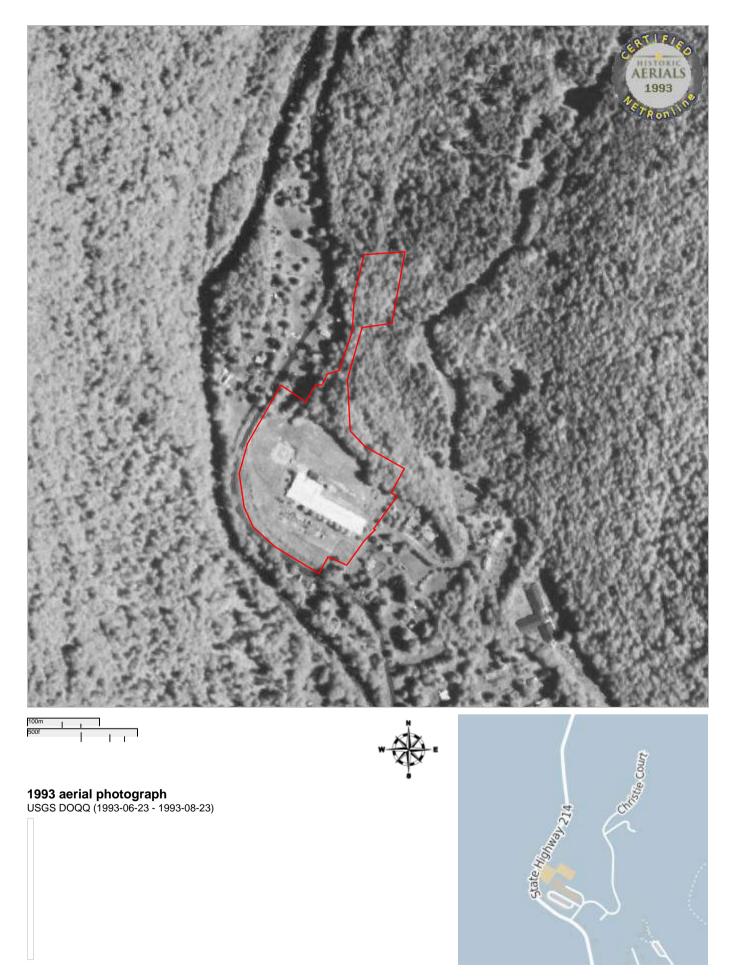
Tank No	Tank Location	Status	Capacity (Gal.)
1	Underground including vaulted with no access for inspection	Closed - Removed	1000
2	Underground including vaulted with no access for inspection	In Service	500

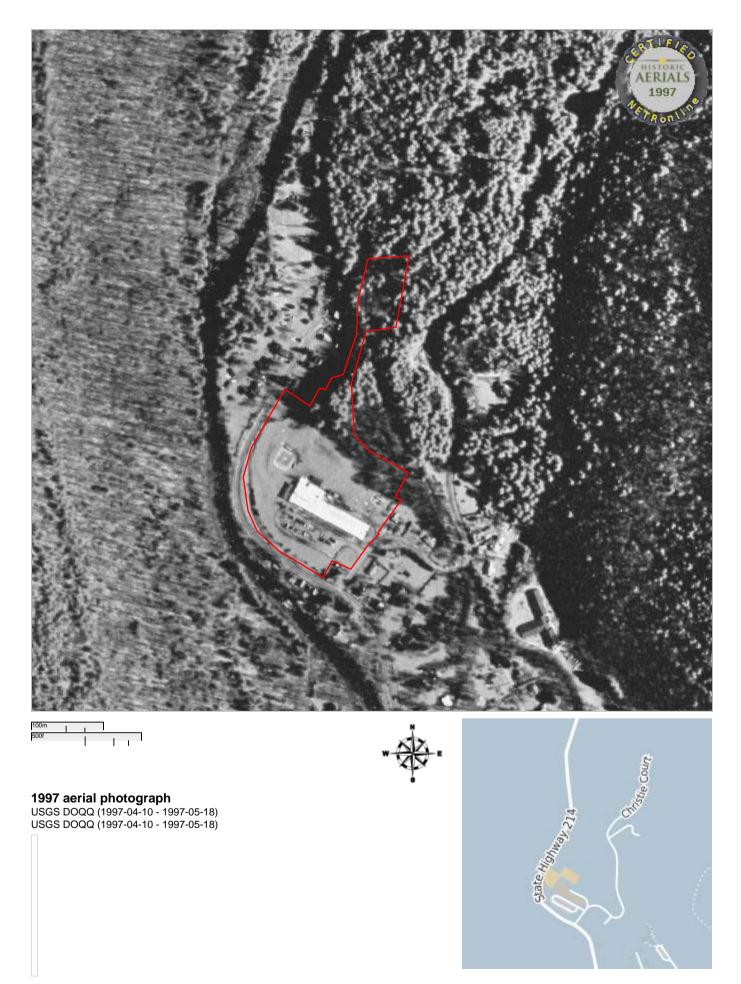
Phoenicia Elementary

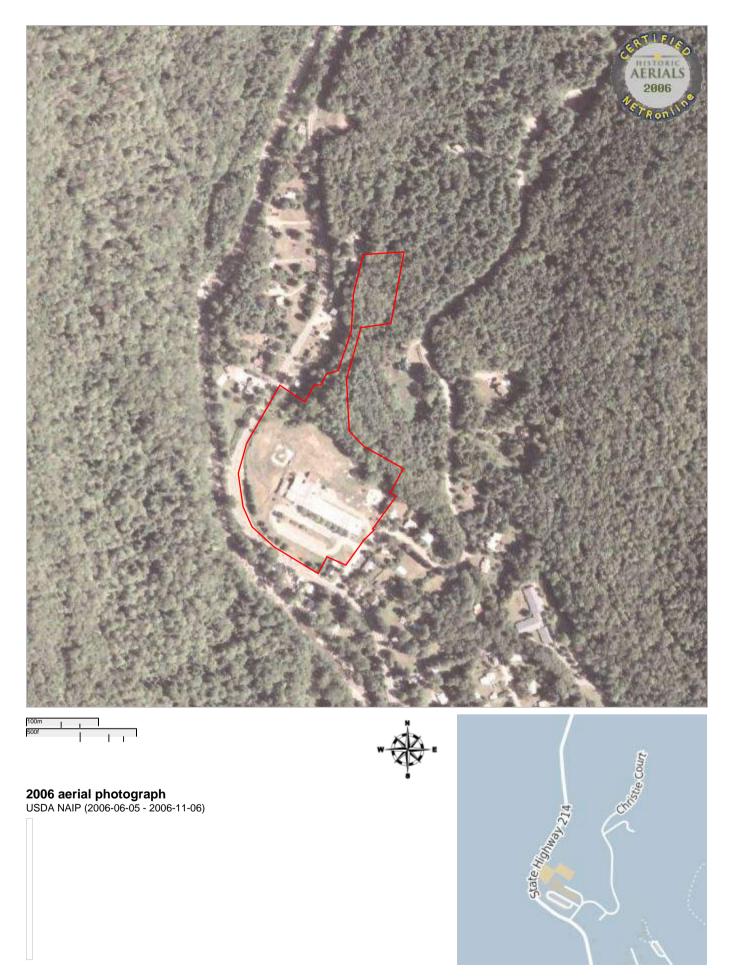




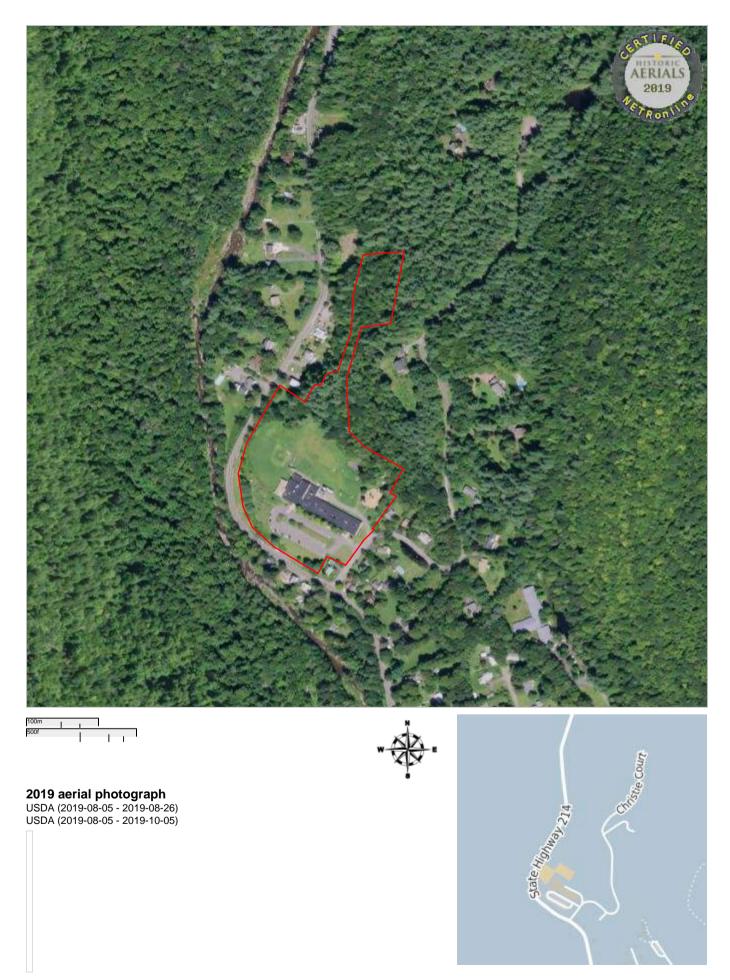


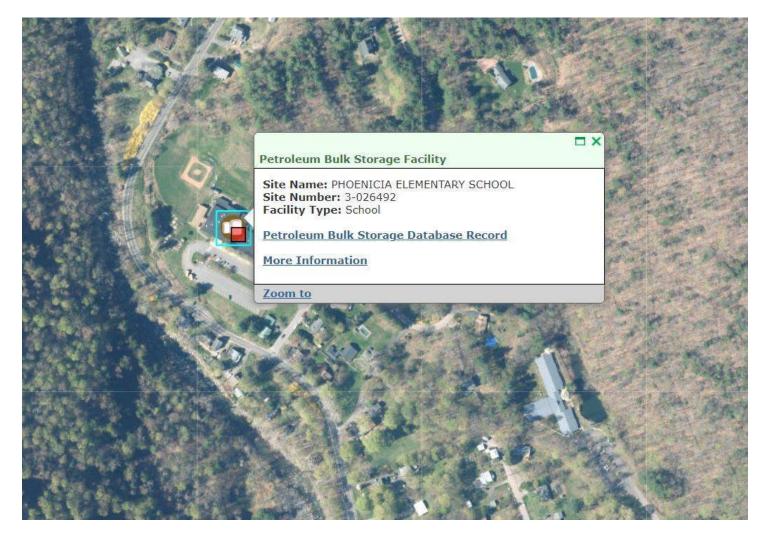












Environmental Remediation Databases Details

Facility Information

Facility Information

Site No.: 3-026492

Status: Active
Expiration Date: 10/29/2027

Site Type: PBS
Facility Type: School
Site Name: PHOENICIA ELEMENTARY SCHOOL
Address: 8 SCHOOL LANE
Locality: PHOENICIA
State: NY
Zipcode: 12464
County: Ulster

Facility(Property) Owner(s) Information

Facility Owner: ONTEORA CENTRAL SCHOOL DISTRICT 4166 ROUTE 28, P.O. BOX 300. BOICEVILLE, NY. 12412

Mail Contact: ONTEORA CENTRAL SD 4166 ROUTE 28. BOICEVILLE, NY. 12412

Facility Operator

 $\textbf{Facility Operator:}\ \ \mathsf{ONTEORACSD}$

Tank Information

2 Tanks Found

Tank No	Tank Location	Status	Capacity (Gal.)
01	Underground including vaulted with no access for inspection	In Service	10000
1	Underground including vaulted with no access for inspection	Closed - Removed	10000

Spill Incidents Database Search Details

Spill Record

Administrative Information

DEC Region: 3 Spill Number: 8808257 Spill Date/Time

Location

Spill Name: PHOENICIA ELEMENTARY Address: SCHOOL ROAD
City: PHOENICIA County: Ulster

Spill Description

Material Spilled	Amount Spilled	Resource Affected	
#2 fuel oil	3 Gal.	Soil	

Cause: Tank Overfill Source: Tank Truck Waterbody:

Record Close

Date Spill Closed: 02/28/1989

"Date Spill Closed" means the date the spill case was closed by the case manager in the Department of Environmental Conservation (the Department). The spill case was closed because either; a) the records and data submitted indicate that the necessary cleanup and removal actions have been completed and no further remedial activities are necessary, or b) the case was closed for administrative reasons (e.g., multiple reports of a single spill consolidated into a single spill number). The Department however reserves the right to require additional remedial work in relation to the spill, if in the future it determines that further action is necessary.

Undeveloped Site

