ENVIRONMENTAL DESIGN
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900 Route 146 Clifton Park, NY 12065
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RESIDENCE AT 1345 ROUTE 9

PROPOSED RESIDENTIAL
PLANNED UNIT DEVELOPMENT DISTRICT

Town of Moreau

PREPARED FOR:
Schermerhorn Real Estate Holdings
536 Bay Road, Suite 2
Queensbury, NY 12804

PREPARED BY:
The Environmental Design Partnership, LLP
900 Route 146
Clifton Park, NY 12065

July 19, 2024

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LIST OF ATTACHMENTS

Attachment	Description

A. Full Environmental Assessment Form
B. Wetlands Letter prepared by Gilbert VanGuilder Land Surveyor, PLLC date March 14, 2024
C. Endangered Species Habitat Suitability Assessment Report prepared Gilbert VanGuilder Land Surveyor, PLLC date March 21, 2024
D. Phase 1A/!B Cultural Resources Survey Report

LIST OF EXHIBITS

Exhibit	Description
2.1	Aerial Vicinity Map
3.1	Surrounding Zoning Map
8.11	Community Master Plan

1.0 INTRODUCTION

The following narrative, exhibits and attachments represent a conceptual development plan for a Residential Planned Unit Development District (PUDD). The project site is bound to the southeast by US Route 9 and to the northwest by Interstate 87. The property is identified as tax parcel 63.-4-9.12.

The plan illustrates the general intent of the site development concept and the configuration for the major elements of the proposed design program. The PUDD Application was prepared in accordance with The Town of Moreau's Chapter 149 Zoning requirements.

The Applicant is proposing a zoning amendment to facilitate the construction of a mixed-use residential community that will be comprised of multi-family apartments, and commercial pad sites for future development to be complaint with C-1 zoning uses.

2.0 SITE LOCATION AND CHARACTER

The project site, located at 1345 to 1347 US Route 9 is undeveloped and is approximately 32.8 acres. The properties located to the northeast and southwest of the parcel are undeveloped. A commercial/retail establishment (Saratoga Olive Oil Company) is located immediately south of the property.

The entire property is treed and is relatively flat with slopes from zero to three (3) percent. According to the United States Department of Agriculture (USDA), Natural Resources Conservation Service, the soils on-site are sandy and excessively well drained. The average depth to bedrock and the water table is greater than six (6) feet (Refer to Exhibit 2.11 Aerial Vicinity Map). The dominant vegetation present onsite consists of Northern Red Oak (Quercus rubra), White Pine (Pinus strobus), Aspen Big Tooth (Populus grandidentata), Queen Anne's Lace (Daucus carota), Goldenrod (Solidago altissima), Burning Bush (Euonymus alatus), and Raspberry Bush (Rubus idaeus).

3.0 LAND USE AND ZONING

The site is zoned is currently zoned C-1 General Commercial. Permitted principal uses in the C-1 District include restaurants, diners, bars, places of public assembly, professional office, boat storage/repair/sales, farm and construction equipment sales and service, commercial greenhouse and nursery, mobile home sales, social clubs, motels, hotels, inns, fire stations, municipal buildings, office buildings, post offices, banks, funeral homes and parking garages. Uses permitted by Special Permit include single-family dwellings, agriculture, automobile sales/service/repair and fueling, drive-in theatres, laundromats, indoor recreation facilities,

outdoor recreation, light manufacturing, nursing or convalescent home, warehouses. (Refer to Exhibit 3.1 Surrounding Zoning Map).

4.0 EXISTING UTILITY INFRASTRUCTURE

4.1 WATER SERVICE

The property is within the Moreau water service territory and all proposed units will be connected to municipal water supply.

4.2 SANITARY SEWER SERVICE

The Town has established a new sanitary sewer district with proposed sanitary sewer being extended along US Route 9 immediately adjacent to the property. The property is located within the recently established Sewer District #1, Extension #5 Sewer District and all units will be connected to the municipal sanitary sewer being constructed.

5.0 WETLANDS

A Wetland Scientist from Gilbert VanGuilder Land Surveyor, PLLC visited the property on March 14, 2024 for the purpose of identifying any state and/or federal wetlands. Based upon that site visit, the Wetland Scientist determined there are no wetlands or adjacent areas on the subject property.

6.0 ENDANGERED SPECIES

6.1 UNITED STATES FISHERIES AND WILDLIFE SERVICE AND NEW YORK NATURAL HERITAGE

E. A review of the U.S Fish & Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) system indicates that the site falls within an area designated as a potential habitat for the Karner Blue Butterfly (*Lycaeides melissa samuelis*), the Indiana Bat (*Myotis sodalis*), the Northern Long-eared Bat (*Myotis septentrionalis*) and Tricolored Bat (*Perimyotis subflavus*). Correspondence with the New York State Department of Environmental Conservation New York Natural Heritage Program dated February 15, 2024 indicates that Frosted Elfin (*Callophrys irus)* and Small Swollen Bladderwort *(Uticularia radiata)* may be located within the vicinity of the project. (Refer to Endangered Species Habitat Suitability Assessment Report prepared Gilbert VanGuilder Land Surveyor, PLLC date March 21, 2024)

7.0 CULTURAL RESOURCES

The NYS Office of Parks, Recreation and Historic Preservation (OPRHP) was consulted regarding the proposed project. The OPRHP recommended a Phase IA/IB archaeological survey be completed for the project as the property is located within an archaeologically sensitive location. See attached OPRHP letter dated January 4, 2024

8.0 SITE DEVELOPMENT CONCEPT

8.1 SITE LAYOUT

The general design concept for the 32.8± acre residential development is based upon a detailed analysis process that evaluated the assets and constraints of the site and the surrounding area.

There are three primary components of this PDD Development:

- Within the rear half (western) portion of the property – 296 apartments. The multi-family buildings would consist of thirty-seven (37) 8-unit buildings. The buildings would be 2 stories in height. A proposed Town Road would lead from Route 9 westerly to the middle of the property and terminate into a private road that accesses all of the multi-family units. Community amenity spaces would be provided within the eastern and central portions of the multi-family development. Parking would be provided adjacent to private road network in front of each of the proposed buildings
- Within the northeastern portion of the property a future commercial pad site is proposed that would have frontage along Route 9, north of the proposed Town Road.
- The eastern portion of the property will be considered for future development that is consistent with the uses allowed under the C-1 zoning district.

8.2 SITE STATISTICS FOR THE DEVELOPMENT OF THE PARCEL INCLUDE:

- A total of 296 residential units that includes up to 37 8-unit buildings.
- Approximately 1.5 acres of community amenity space
- Future commercial pad site with frontage along Route 9

- Proposed future development within the eastern portion of the site to be compliant with the C-1 allowable uses.
- Municipal Sanitary Sewer
- Municipal water Service.
- Stormwater will be managed on-site.
- The primary street accessing the property would be dedicated to the Town of Moreau and allow for future connections to the undeveloped land to the South of te road (eastern portion of the property) and the future commercial pad site.

8.3 STORMWATER MANAGEMENT

A closed storm sewer system will be constructed within the proposed project conveying stormwater runoff into a series of stormwater management basins. The stormwater management system will be designed in accordance with the New York State Stormwater Design Manual and all stormwater management will comply with Phase II Regulations. As the detailed design of the proposed project is advanced, complete engineering narratives will be prepared and provided to the appropriate agencies for review.

9.0 PROJECT APPROVAL PROCESS

The Application will require a Zoning Amendment from the Town Board of Moreau for the Mixed Use Residential PUDD.

10.0 INVOLVED AGENCIES

The Zoning Amendment and Subdivision of Lands approval process will involve but not necessarily be limited to the following agencies:

1. Town of Moreau Town Board
2. Town of Moreau Planning Board
3. NYS Department of Environmental Conservation
4. NYS Department of Health
5. Saratoga County Planning Board
6. NYS Department of Parks, Recreation and Historic Preservation
7. United States Fisheries and Wildlife Service

Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer to the initial question is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the applicant or project sponsor to verify that the information contained in Part 1is accurate and complete.

A. Project and Applicant/Sponsor Information.

Name of Action or Project: Residence at 1345 Route 9		
Project Location (describe, and attach a general location map): 1345 to1347 US Route 9, Moreau, New York		
Brief Description of Proposed Action (include purpose or need): The proposed action includes the construction of 296 apartments and associated infrastructure located at 1345 to 1347 US Route 9 (Tax Parcel ID 63.-4-9.12) which is approximately 32.8 acres. The parcel is currently zoned as C-1 General Commercial. The proposed project is seeking to rezone this parcel to a Planned Unit Development District. Stormwater will be managed on-site. Potable water and sanitary sewer will be from an existing Town of Moreau municipal source.		
Name of Applicant/Sponsor: Schermerhorn Real Estate Holdings	Telephone: (518) 798-0674 E-Mail:	
Address: 536 Bay Road, Suite 2		
City/PO: Queensbury	State: NY	Zip Code: 12804
Project Contact (if not same as sponsor; give name and title/role): Joseph Dannible, Consultant for the Applicant	Telephone: (518) 371-7621 E-Mail: jdannible@edpllp.com	
Address: 900 Route 146		
City/PO: Clifton Park	State: NY	Zip Code: 12065
Property Owner (if not same as sponsor): Edward Petrush	Telephone: E-Mail:	
Address: PO Box 1284		
City/PO: South Glens Falls	State: NY	Zip Code: 12803

B. Government Approvals

B. Government Approvals, Funding, or Sponsorship. ("Funding" includes grants, loans, tax relief, and any other forms of financial assistance.)		
Government Entity	**If Yes: Identify Agency and Approval(s) Required**	**Application Date (Actual or projected)**
a. City Counsel, Town Board, or Village Board of Trustees ☑Yes ☐No	Town of Moreau Town Board - PUD Approval	July 2024
b. City, Town or Village Planning Board or Commission ☑Yes ☐No	Town of Moreau Planning Board - PUD Approval / Site Plan Approval	July 2024
c. City, Town or Village Zoning Board of Appeals ☐Yes ☑No		
d. Other local agencies ☐Yes ☑No		
e. County agencies ☑Yes ☐No	Saratoga County Planning Board - 239M Referral	Summer 2024
f. Regional agencies ☐Yes ☑No		
g. State agencies ☑Yes ☐No	NYSDEC - SPDES General Permit (GP-0-20-001) and OPRHP (No Effect Letter)	Fall 2024
h. Federal agencies ☐Yes ☐No		

i. Coastal Resources.
i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? ☐Yes ☑No

ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? ☐Yes ☑No

iii. Is the project site within a Coastal Erosion Hazard Area? ☐Yes ☑No

C. Planning and Zoning

C.1. Planning and zoning actions.

Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? ☐Yes ☑No

- **If Yes,** complete sections C, F and G.
- **If No,** proceed to question C.2 and complete all remaining sections and questions in Part 1

C.2. Adopted land use plans.

a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? ☑Yes ☐No

If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? ☐Yes ☑No

b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway; Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?) ☑Yes ☐No

If Yes, identify the plan(s):
NYS Heritage Areas:Mohawk Valley Heritage Corridor

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? ☐Yes ☑No

If Yes, identify the plan(s):

C.3. Zoning

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. ☑ Yes ☐ No
If Yes, what is the zoning classification(s) including any applicable overlay district?
C-1 General Commercial

b. Is the use permitted or allowed by a special or conditional use permit? ☐ Yes ☑ No

c. Is a zoning change requested as part of the proposed action? ☑ Yes ☐ No
If Yes,
i. What is the proposed new zoning for the site? Planned Unit Development District

C.4. Existing community services.

a. In what school district is the project site located? South Glens Falls

b. What police or other public protection forces serve the project site?
Saratoga County Sheriffs Department

c. Which fire protection and emergency medical services serve the project site?
South Glens Falls Fire District

d. What parks serve the project site?
Moreau Lake State Park, Harry J. Betar Jr. Recreation Park

D. Project Details

D.1. Proposed and Potential Development

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)? Residential

b. a. Total acreage of the site of the proposed action? 32.8 +/- acres
b. Total acreage to be physically disturbed? 21 +/- acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 32.8 +/- acres

c. Is the proposed action an expansion of an existing project or use? ☐ Yes ☑ No
i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % _____ Units: _____

d. Is the proposed action a subdivision, or does it include a subdivision? ☐ Yes ☑ No
If Yes,
i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)
ii. Is a cluster/conservation layout proposed? ☐ Yes ☐ No
iii. Number of lots proposed? _____
iv. Minimum and maximum proposed lot sizes? Minimum _____ Maximum _____

e. Will the proposed action be constructed in multiple phases? ☑ Yes ☐ No
i. If No, anticipated period of construction: _____ months
ii. If Yes:
- Total number of phases anticipated TBD
- Anticipated commencement date of phase 1 (including demolition) TBD month TBD year
- Anticipated completion date of final phase TBD month TBD year
- Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases:

Phasing will be conditioned upon absorption rates of the housing proposed.

f. Does the project include new residential uses? ☑ Yes ☐ No

If Yes, show numbers of units proposed.

	One Family	Two Family	Three Family	Multiple Family (four or more)
Initial Phase				296
At completion of all phases				296

g. Does the proposed action include new non-residential construction (including expansions)? ☑ Yes ☐ No

If Yes,

i. Total number of structures 1

ii. Dimensions (in feet) of largest proposed structure: TBD height; TBD width; and TBD length

iii. Approximate extent of building space to be heated or cooled: TBD square feet

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? ☑ Yes ☐ No

If Yes,

i. Purpose of the impoundment: Stormwater

ii. If a water impoundment, the principal source of the water: ☐ Ground water ☐ Surface water streams ☑ Other specify: Stormwater runoff

iii. If other than water, identify the type of impounded/contained liquids and their source.

iv. Approximate size of the proposed impoundment. Volume: TBD million gallons; surface area: TBD acres

v. Dimensions of the proposed dam or impounding structure: TBD height; TBD length

vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete):

D.2. Project Operations

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite) ☐ Yes ☑ No

If Yes:

i .What is the purpose of the excavation or dredging?

ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?

- Volume (specify tons or cubic yards):
- Over what duration of time?

iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them.

iv. Will there be onsite dewatering or processing of excavated materials? ☐ Yes ☐ No

If yes, describe.

v. What is the total area to be dredged or excavated? acres

vi. What is the maximum area to be worked at any one time? acres

vii. What would be the maximum depth of excavation or dredging? feet

viii. Will the excavation require blasting? ☐ Yes ☐ No

ix. Summarize site reclamation goals and plan:

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? ☐ Yes ☑ No

If Yes:

i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description):

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:

iii. Will the proposed action cause or result in disturbance to bottom sediments? ☐Yes ☐No
If Yes, describe:

iv. Will the proposed action cause or result in the destruction or removal of aquatic vegetation? ☐Yes ☐No
If Yes:

- acres of aquatic vegetation proposed to be removed:
- expected acreage of aquatic vegetation remaining after project completion:
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access):
- proposed method of plant removal:
- if chemical/herbicide treatment will be used, specify product(s):

v. Describe any proposed reclamation/mitigation following disturbance:

c. Will the proposed action use, or create a new demand for water? ☑Yes ☐No
If Yes:

i. Total anticipated water usage/demand per day: 65,120 gallons/day

ii. Will the proposed action obtain water from an existing public water supply? ☑Yes ☐No
If Yes:

- Name of district or service area: Moreau
- Does the existing public water supply have capacity to serve the proposal? ☑Yes ☐No
- Is the project site in the existing district? ☑Yes ☐No
- Is expansion of the district needed? ☐Yes ☑No
- Do existing lines serve the project site? ☐Yes ☑No

iii. Will line extension within an existing district be necessary to supply the project? ☑Yes ☐No
If Yes:

- Describe extensions or capacity expansions proposed to serve this project:
  A connection into the existing water main along route 9
- Source(s) of supply for the district: Town of Moreau Water

iv. Is a new water supply district or service area proposed to be formed to serve the project site? ☐ Yes ☑No
If, Yes:

- Applicant/sponsor for new district:
- Date application submitted or anticipated:
- Proposed source(s) of supply for new district:

v. If a public water supply will not be used, describe plans to provide water supply for the project:
Extension of lines within the existing district

vi. If water supply will be from wells (public or private), what is the maximum pumping capacity: _____ gallons/minute.

d. Will the proposed action generate liquid wastes? ☑Yes ☐No
If Yes:

i. Total anticipated liquid waste generation per day: 65,120 gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each):
Sanitary wastewater

iii. Will the proposed action use any existing public wastewater treatment facilities? ☑Yes ☐No
If Yes:

- Name of wastewater treatment plant to be used: Saratoga County
- Name of district: District 1, Extension #5
- Does the existing wastewater treatment plant have capacity to serve the project? ☑Yes ☐No
- Is the project site in the existing district? ☑Yes ☐No
- Is expansion of the district needed? ☐Yes ☑No

- Do existing sewer lines serve the project site? ☐Yes ☑No
- Will a line extension within an existing district be necessary to serve the project? ☑Yes ☐No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: Extension of lines within the existing district

iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? ☐Yes ☑No

If Yes:

- Applicant/sponsor for new district:
- Date application submitted or anticipated:
- What is the receiving water for the wastewater discharge?

v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge or describe subsurface disposal plans):

vi. Describe any plans or designs to capture, recycle or reuse liquid waste:

e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? ☑Yes ☐No

If Yes:

i. How much impervious surface will the project create in relation to total size of project parcel?

_____ Square feet or 7.48 acres (impervious surface)

_____ Square feet or 32.80 acres (parcel size)

ii. Describe types of new point sources. Buildings, driveways and roads

iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)?

On-site stormwater management facilities

- If to surface waters, identify receiving water bodies or wetlands: N/A - Infiltration
- Will stormwater runoff flow to adjacent properties? ☐Yes ☑No

iv. Does the proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? ☑Yes ☐No

f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? ☐Yes ☑No

If Yes, identify:

i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)

ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)

iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)

g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit? ☐Yes ☑No

If Yes:

i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) ☐Yes ☐No

ii. In addition to emissions as calculated in the application, the project will generate:

- _____Tons/year (short tons) of Carbon Dioxide (CO_2)
- _____Tons/year (short tons) of Nitrous Oxide (N_2O)
- _____Tons/year (short tons) of Perfluorocarbons (PFCs)
- _____Tons/year (short tons) of Sulfur Hexafluoride (SF_6)
- _____Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs)
- _____Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? ☐Yes ☑No

If Yes:

i. Estimate methane generation in tons/year (metric): _____

ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____

i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? ☐Yes ☑No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust):

_____

j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? ☑Yes ☐No

If Yes:

i. When is the peak traffic expected (Check all that apply): ☑ Morning ☑ Evening ☑Weekend
☐ Randomly between hours of _____ to _____.

ii. For commercial activities only, projected number of truck trips/day and type (e.g., semi trailers and dump trucks): _____

iii. Parking spaces: Existing _____ Proposed _____ Net increase/decrease _____

iv. Does the proposed action include any shared use parking? ☐Yes ☐No

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe:

vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? ☐Yes ☐No

vii Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? ☐Yes ☐No

viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? ☐Yes ☐No

k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? ☐Yes ☑No

If Yes:

i. Estimate annual electricity demand during operation of the proposed action: _____

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other):

iii. Will the proposed action require a new, or an upgrade, to an existing substation? ☐Yes ☐No

l. Hours of operation. Answer all items which apply.

i. During Construction:

- Monday - Friday: 7 am to 7 pm
- Saturday: 7 am to 7 pm
- Sunday: N/A
- Holidays: N/A

ii. During Operations:

- Monday - Friday: N/A
- Saturday: N/A
- Sunday: N/A
- Holidays: N/A

m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? ☑ Yes ☐ No

If yes:

i. Provide details including sources, time of day and duration:

Typical of heavy construction equipment. All construction activities to occur during normal business hours.

ii. Will the proposed action remove existing natural barriers that could act as a noise barrier or screen? ☑ Yes ☐ No

Describe: Existing vegetation on the property to be selectively removed to accommodate development

n. Will the proposed action have outdoor lighting? ☑ Yes ☐ No

If yes:

i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:

Typical wall pack lighting on buildings and light poles within surface parking lots.

ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? ☑ Yes ☐ No

Describe: Existing vegetation on the property to be selectively removed to accommodate development

o. Does the proposed action have the potential to produce odors for more than one hour per day? ☐ Yes ☑ No

If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures:

p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? ☐ Yes ☑ No

If Yes:

i. Product(s) to be stored

ii. Volume(s) _____ per unit time _____ (e.g., month, year)

iii. Generally, describe the proposed storage facilities:

q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? ☐ Yes ☑ No

If Yes:

i. Describe proposed treatment(s):

ii. Will the proposed action use Integrated Pest Management Practices? ☐ Yes ☐ No

r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? ☐ Yes ☑ No

If Yes:

i. Describe any solid waste(s) to be generated during construction or operation of the facility:

- Construction: _____ tons per _____ (unit of time)
- Operation : _____ tons per _____ (unit of time)

ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:

- Construction:
- Operation:

iii. Proposed disposal methods/facilities for solid waste generated on-site:

- Construction:
- Operation:

s. Does the proposed action include construction or modification of a solid waste management facility? ☐ Yes ☑ No

If Yes:

i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): _____

ii. Anticipated rate of disposal/processing:

- _____ Tons/month, if transfer or other non-combustion/thermal treatment, or
- _____ Tons/hour, if combustion or thermal treatment

iii. If landfill, anticipated site life: _____ years

t. Will the proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? ☐ Yes ☑ No

If Yes:

i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: _____

ii. Generally describe processes or activities involving hazardous wastes or constituents: _____

iii. Specify amount to be handled or generated _____ tons/month

iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: _____

v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? ☐ Yes ☐ No

If Yes: provide name and location of facility: _____

If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:

E. Site and Setting of Proposed Action

E.1. Land uses on and surrounding the project site

a. Existing land uses.

i. Check all uses that occur on, adjoining and near the project site.

☑ Urban ☐ Industrial ☑ Commercial ☑ Residential (suburban) ☐ Rural (non-farm)
☑ Forest ☐ Agriculture ☐ Aquatic ☐ Other (specify): _____

ii. If mix of uses, generally describe:

b. Land uses and covertypes on the project site.

Land use or Covertype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces		7.48	+7.48
• Forested	32.80	4.08	-28.72
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)			
• Agricultural (includes active orchards, field, greenhouse etc.)			
• Surface water features (lakes, ponds, streams, rivers, etc.)			
• Wetlands (freshwater or tidal)			
• Non-vegetated (bare rock, earth or fill)			
• Other Describe: Lawn & SWMA		21.24	+21.24

c. Is the project site presently used by members of the community for public recreation? ☐ Yes ☑ No

i. If Yes: explain: _____

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? ☐ Yes ☑ No

If Yes,

i. Identify Facilities:

_____

_____

e. Does the project site contain an existing dam? ☐ Yes ☑ No

If Yes:

i. Dimensions of the dam and impoundment:

- Dam height: _____ feet
- Dam length: _____ feet
- Surface area: _____ acres
- Volume impounded: _____ gallons OR acre-feet

ii. Dam's existing hazard classification: _____

iii. Provide date and summarize results of last inspection:

_____

_____

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? ☐ Yes ☑ No

If Yes:

i. Has the facility been formally closed? ☐ Yes ☐ No

- If yes, cite sources/documentation: _____

ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:

_____

_____

iii. Describe any development constraints due to the prior solid waste activities: _____

_____

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? ☐ Yes ☑ No

If Yes:

i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:

_____

_____

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? ☐ Yes ☑ No

If Yes:

i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: ☐ Yes ☐ No

☐ Yes – Spills Incidents database — Provide DEC ID number(s): _____

☐ Yes – Environmental Site Remediation database — Provide DEC ID number(s): _____

☐ Neither database

ii. If site has been subject of RCRA corrective activities, describe control measures: _____

_____

_____

iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? ☑ Yes ☐ No

If yes, provide DEC ID number(s): 546025

iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):

A former race car drag strip was located to the northeast of the subject property (on another parcel). The track operators reportedly used PCB-laiden oil for dust control on the track and in the parking lot. General Electric remediated the property. According to the NYSDEC, the site has been fully remediated and no exposures are expected.

v. Is the project site subject to an institutional control limiting property uses? ☐ Yes ☑ No

- If yes, DEC site ID number: _____
- Describe the type of institutional control (e.g., deed restriction or easement): _____
- Describe any use limitations: _____
- Describe any engineering controls: _____
- Will the project affect the institutional or engineering controls in place? ☐ Yes ☐ No
- Explain: _____

E.2. Natural Resources On or Near Project Site

a. What is the average depth to bedrock on the project site? > 6 feet

b. Are there bedrock outcroppings on the project site? ☐ Yes ☑ No
If Yes, what proportion of the site is comprised of bedrock outcroppings? _____ %

c. Predominant soil type(s) present on project site: WnA - Windsor Loamy Sand 100 %
_____ %
_____ %

d. What is the average depth to the water table on the project site? Average: >6 feet

e. Drainage status of project site soils: ☑ Well Drained: 100 % of site
☐ Moderately Well Drained: _____ % of site
☑ Poorly Drained _____ % of site

f. Approximate proportion of proposed action site with slopes: ☑ 0-10%: 100 % of site
☐ 10-15%: _____ % of site
☐ 15% or greater: _____ % of site

g. Are there any unique geologic features on the project site? ☐ Yes ☑ No
If Yes, describe: _____

h. Surface water features.

i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? ☑ Yes ☐ No

ii. Do any wetlands or other waterbodies adjoin the project site? ☑ Yes ☐ No

If Yes to either *i* or *ii*, continue. If No, skip to E.2.i.

iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? ☑ Yes ☐ No

iv. For each identified regulated wetland and waterbody on the project site, provide the following information:

- Streams: Name _____ Classification _____
- Lakes or Ponds: Name _____ Classification _____
- Wetlands: Name Federal Waters Approximate Size N/A (see wetlands letter)
- Wetland No. (if regulated by DEC) _____

v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? ☐ Yes ☑ No

If yes, name of impaired water body/bodies and basis for listing as impaired: _____

i. Is the project site in a designated Floodway? ☐ Yes ☑ No

j. Is the project site in the 100-year Floodplain? ☐ Yes ☑ No

k. Is the project site in the 500-year Floodplain? ☐ Yes ☑ No

l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? ☑ Yes ☐ No
If Yes:

i. Name of aquifer: Principal Aquifer

m. Identify the predominant wildlife species that occupy or use the project site:
Deer | Birds | Squirrels
Chipmunks

n. Does the project site contain a designated significant natural community? ☐Yes ☑No
If Yes:
i. Describe the habitat/community (composition, function, and basis for designation):
ii. Source(s) of description or evaluation:
iii. Extent of community/habitat:
- Currently: _____ acres
- Following completion of project as proposed: _____ acres
- Gain or loss (indicate + or -): _____ acres

o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? ☑ Yes ☐No
If Yes:
i. Species and listing (endangered or threatened):
Frosted Elfin

p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? ☐Yes ☑No
If Yes:
i. Species and listing:

q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? ☐Yes ☑No
If yes, give a brief description of how the proposed action may affect that use:

E.3. Designated Public Resources On or Near Project Site

a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? ☐Yes ☑No
If Yes, provide county plus district name/number:

b. Are agricultural lands consisting of highly productive soils present? ☐Yes ☑No
i. If Yes: acreage(s) on project site?
ii. Source(s) of soil rating(s):

c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? ☐Yes ☑No
If Yes:
i. Nature of the natural landmark: ☐ Biological Community ☐ Geological Feature
ii. Provide brief description of landmark, including values behind designation and approximate size/extent:

d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? ☐Yes ☑No
If Yes:
i. CEA name:
ii. Basis for designation:
iii. Designating agency and date:

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places? ☐ Yes ☑ No

If Yes:

i. Nature of historic/archaeological resource: ☐ Archaeological Site ☐ Historic Building or District

ii. Name: _____

iii. Brief description of attributes on which listing is based:

_____

f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory? ☑ Yes ☐ No

g. Have additional archaeological or historic site(s) or resources been identified on the project site? ☐ Yes ☑ No

If Yes:

i. Describe possible resource(s): _____

ii. Basis for identification: _____

h. Is the project site within fives miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? ☐ Yes ☑ No

If Yes:

i. Identify resource: _____

ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): _____

iii. Distance between project and resource: _____ miles.

i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? ☐ Yes ☑ No

If Yes:

i. Identify the name of the river and its designation: _____

ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666? ☐ Yes ☐ No

F. Additional Information

Attach any additional information which may be needed to clarify your project.

If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

I certify that the information provided is true to the best of my knowledge.

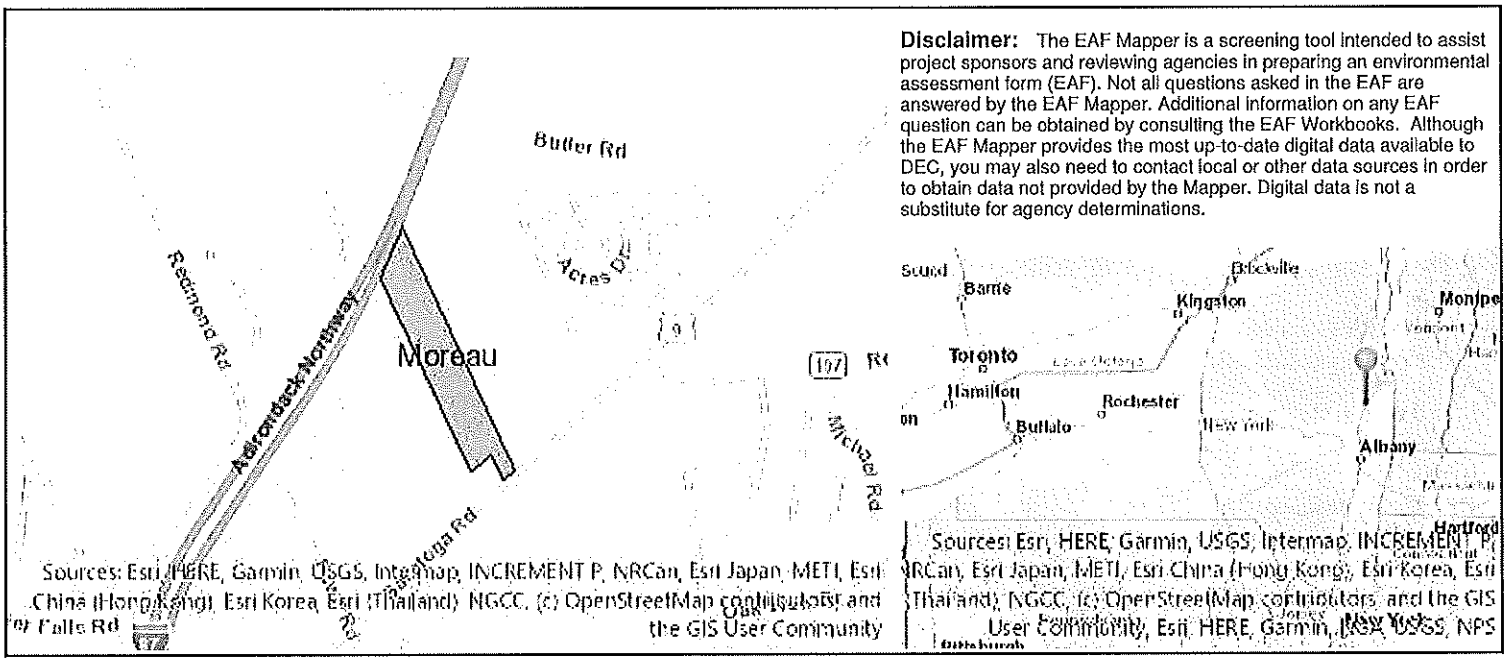
Applicant/Sponsor Name Joseph C Damible Date 7-19-2024

Signature _____ Title ELA Agent

PRINT FORM

EAF Mapper Summary Report

Wednesday, June 12, 2024 7:30 AM



B.i.i [Coastal or Waterfront Area]	No
B.i.ii [Local Waterfront Revitalization Area]	No
C.2.b. [Special Planning District]	Yes - Digital mapping data are not available for all Special Planning Districts. Refer to EAF Workbook.
C.2.b. [Special Planning District - Name]	NYS Heritage Areas:Mohawk Valley Heritage Corridor
E.1.h [DEC Spills or Remediation Site - Potential Contamination History]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Listed]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Environmental Site Remediation Database]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.iii [Within 2,000' of DEC Remediation Site]	Yes
E.1.h.iii [Within 2,000' of DEC Remediation Site - DEC ID]	546025
E.2.g [Unique Geologic Features]	No
E.2.h.i [Surface Water Features]	Yes
E.2.h.ii [Surface Water Features]	Yes
E.2.h.iii [Surface Water Features]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
E.2.h.iv [Surface Water Features - Wetlands Name]	Federal Waters
E.2.h.v [Impaired Water Bodies]	No
E.2.i. [Floodway]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.2.j. [100 Year Floodplain]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.

E.2.k. [500 Year Floodplain]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.2.l. [Aquifers]	Yes
E.2.l. [Aquifer Names]	Principal Aquifer
E.2.n. [Natural Communities]	No
E.2.o. [Endangered or Threatened Species]	Yes
E.2.o. [Endangered or Threatened Species - Name]	Frosted Elfin
E.2.p. [Rare Plants or Animals]	No
E.3.a. [Agricultural District]	No
E.3.c. [National Natural Landmark]	No
E.3.d [Critical Environmental Area]	No
E.3.e. [National or State Register of Historic Places or State Eligible Sites]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.3.f. [Archeological Sites]	Yes
E.3.i. [Designated River Corridor]	No

Gilbert VanGuilder
Land Surveyor, PLLC
988 Route 146, Clifton Park, NY 12065
518-383-0634
FAX 371-8437

Members:
Robert A. Wilklow, PLS
Kevin H. Weed, PLS

March 14, 2024

To whom it may concern,

On March 12, 2024, a wetland scientist from this office performed a site visit for two parcels identified as Tax Map Parcel 63.3-1-8 (1365 Route 9) and 63.-4-9.12 (1345-1347 Route 9) in the Town of Moreau for the purpose of identifying any state and/or federal wetlands on the subject parcels. Using the methodology as prescribed in the 1987 Wetland Delineation Manual, as well as the NYS Freshwater Wetlands Act regulations to evaluate any presence of hydrology, hydrophytic vegetation, and hydric soils. While utilizing the methodology it was determined that there are no wetlands or adjacent area on the subject parcels.

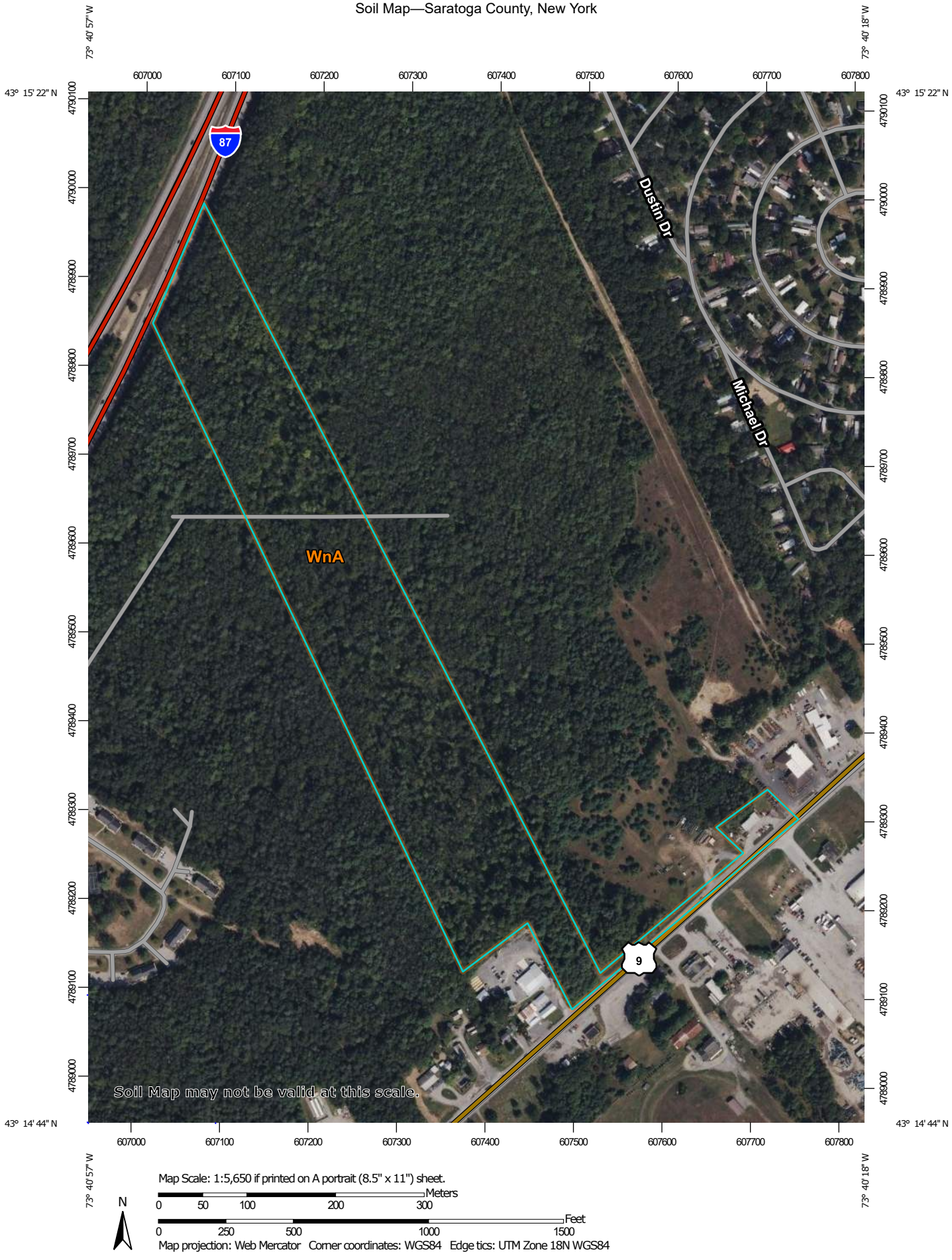
According to the NRCS website (Figure 1) the soil on site consists of **(WnA)** Windsor loamy sand, 0 to 3 percent slopes. **(WnA)** soil is excessively drained with a depth to the water table of more than 80 inches.

While performing the wetland delineation, several test pits were conducted within the subject parcels, the Munsell Color Chart was used to determine soil characteristics such as color, and texture, which is used to identify hydric soils. The test pits that were conducted within the site consisted of (10YR 5/4) with no mottling in the upper 12 inches, indicating that hydric soils are not present.

Currently the 1365 Route 9 parcel consists of an auto body garage, associated driveway, lawn area with the remaining land being wooded. The 1345-1345 Route 9 parcel is currently vacant forested land. The dominant vegetation present onsite consists of Northern Red Oak *(Quercus rubra)*, White Pine *(Pinus strobus)*, Aspen Big Tooth *(Populus grandidentata)*, Queen Anne's Lace *(Daucus carota)*, Goldenrod *(Solidago altissima)*, Burning Bush *(Euonymus alatus)*, and Raspberry Bush *(Rubus idaeus)*. The dominant plant species identified onsite have an indicator status of *(UPL)* occur almost always in non-wetlands, or *(FACU)* usually occur in non-wetland areas, indicating hydrophytic vegetation is not present.

Respectfully,
Jackie Pitts
Jackie Pitts

Figure 1: NRCS Soil Survey



Map Scale: 1:5,650 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 50 100 200 300

Feet
0 250 500 1000 1500

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

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: Saratoga County, New York
Survey Area Data: Version 23, Sep 6, 2023

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

Date(s) aerial images were photographed: Sep 9, 2022—Oct 22, 2022

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.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
WnA	Windsor loamy sand, 0 to 3 percent slopes	28.8	100.0%
Totals for Area of Interest		**28.8**	**100.0%**

Endangered Species
Habitat Suitability Assessment Report

Route 9
Town of Moreau
Saratoga County, New York

Prepared By:

Gilbert VanGuilder
Land Surveyor, PLLC
988 Route 146, Clifton Park, NY 12065
518-383-0634
FAX 371-8437

March 21, 2024

Table of Contents

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Members
Robert Wilklow, PLS
Kevin H. Weed, PLS

March 21, 2024

Endangered Species
Habitat Suitability Assessment Report

To whom it may concern,

This letter and enclosed information were prepared in summary of a habitat study performed on 2 parcels identified as Tax Map Parcel 63.3-1-8 (1365 Route 9) and 63.-4-9.12 (1345-1347 Route 9). The parcels are located on the west side of Route 9, approximately 0.50± miles north of Fawn Road, in the Town of Moreau. Currently the 1365 Route 9 parcel consists of an auto body garage, associated driveway, lawn area with the remaining land being wooded. The 1345-1347 Route 9 parcel is currently vacant forested land.

An inquiry was submitted to U.S. Fish and Wildlife Service through the IPaC website to identify any potential threatened/endangered species that may occur within the subject parcel. The Service identified the following species are potentially affected by activities in this location; the Indiana Bat *(Myotis sodalist)*, (endangered), the Northern Long-eared Bat *(Myotis septentrionalis)*, (endangered) and the Karner Blue Butterfly *(Lycaeides melissa samuelis)*, (endangered). A habitat suitability assessment was completed for the Indiana Bat *(Myotis sodalist)*, the Northern Long-eared Bat *(Myotis septentrionalis)* and the Karner Blue Butterfly *(Lycaeides melissa samuelis)*.

Species Requirements – Indiana Bat:

According to the U.S. Fish and Wildlife Service's website, "Indiana bats hibernate during winter in caves or, occasionally, in abandoned mines. For hibernation, they require cool, humid caves with stable temperatures, under 50° F but above freezing. Very few caves within the range of the species have these conditions. After hibernation, Indiana bats migrate to their summer habitat in wooded areas where they usually roost under loose tree bark on dead or dying trees. During summer, males roost alone or in small groups, while females roost in larger groups of up to 100 bats or more. Indiana bats also forage in or along the edges of forested areas. Indiana bats mate during fall before they enter caves to hibernate, females become pregnant in spring soon after they emerge from the caves. After migrating to their summer areas, females roost under the peeling bark of dead and dying trees in groups of up to 100 or more. Such groups are called maternity colonies. Each female in the colony gives birth to only one pup per year. Young bats are nursed by the mother, who leaves the roost tree only to forage for food. The young stay with the maternity colony throughout their first summer. Indiana bats eat a variety of flying insects found along rivers or lakes and in uplands. Suitable summer habitat for Indiana bats consists of a wide variety of forested/wooded habitats where they roost, forage, and travel and may also include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields, and pastures. This includes forests and woodlots containing potential roosts (i.e., live trees and/or snags ≥5 inches DBH (12.7 centimeter) that have exfoliating bark, cracks, crevices, and/or hollows), as well as linear features such as fencerows, riparian forests, and other wooded corridors. These wooded areas may be dense or loose aggregates of trees with variable amounts of canopy closure. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet (305 meters) of other forested/wooded habitat."

Species Requirements - Northern Long-eared Bat:

According to the U.S. Fish and Wildlife Service's website, "During summer, northern long-eared bats roost singly or in colonies underneath bark, in cavities, or in crevices of both living and dead trees. Males and

non-reproductive females may also roost in cooler places, like caves and mines. This bat seems opportunistic in selecting roosts, using tree species based on suitability to retain bark or provide cavities or crevices. It has also been found, rarely, roosting in structures like barns and sheds. Northern long-eared bats spend winter hibernating in caves and mines, called hibernacula. They typically use large caves or mines with large passages and entrances; constant temperatures; and high humidity with no air currents. Specific areas where they hibernate have very high humidity, so much so that droplets of water are often seen on their fur. Within hibernacula, surveyors find them in small crevices or cracks, often with only the nose and ears visible. Northern long-eared bats emerge at dusk to fly through the understory of forested hillsides and ridges feeding on moths, flies, leafhoppers, caddisflies, and beetles, which they catch while in flight using echolocation. This bat also feeds by gleaning motionless insects from vegetation and water surfaces."

Habitat Suitability – Indiana Bat & Northern Long-eared Bat:

The trees present within the subject parcels consist of trees with relatively smooth bark such as Northern Red Oak *(Quercus rubra)*, White Pine *(Pinus strobus)*, Aspen Big Tooth *(Populus grandidentata)*. The trees present within the subject parcel do not exhibit characteristics of suitable habitat. Therefore, we feel proposed tree clearing will have minimal effect on Indiana Bat or Northern Long-eared Bat roosting habitat.

There are no wetlands onsite that will provide an abundance of flying insects, and therefore potential foraging habitat for the Bat. Therefore, we feel this project will have no effect on Indiana Bat or Northern Long-eared Bat foraging habitat. There are no known maternal roost trees onsite, and the project site is not located within 0.25 miles of a hibernaculum.

An inquiry was submitted to U.S. Fish and Wildlife Service through the IPaC regulatory review process. The review process determined that because intentional take of the Indiana Bat or Northern Long-eared bat will not occur the proposed project "may affect, but not likely to adversely affect" the Indiana Bat or Northern Long-eared bat. The review process also states that "the proposed action does not intersect an area where the Northern Long-eared bat is likely to occur" and "the action area does not overlap with an area for which U.S. Fish and Wildlife Service currently has data to support the presumption that the Northern Long-eared bat is present." The coordination with the service states, "Based on the best available information, most suitable habitat is now expected to be unoccupied." and "we conclude take is not reasonably certain to occur in areas of suitable habitat where presence has not been documented." Therefore, we feel that the proposed project will have minimal effect on Northern Long-eared bat roosting habitat.

Species Requirements - Karner Blue Butterfly:

According to the U.S. Fish and Wildlife Service's website, "Karner blues are found in the northern range of wild lupine habitat. Wild Lupine (*Lupinus perennis*) is an attractively flowered plant that occurs in pine barrens and oak savannas in Indiana, Michigan, Minnesota, New Hampshire, New York, and Wisconsin. The Karner Blue's habitat is a patchwork of pine and scrub oak scattered among open grassy areas. Historically, a network of these openings among the trees was maintained by wildfire and at one time, the butterfly was found in this habitat in a nearly continuous narrow band across 10 states and one province. Today it has been eliminated from at least five of these states. Karner Blue caterpillars feed only on the leaves of the wild lupine plant. Adults feed on the nectar of flowering plants. This severely restricts where they can survive."

Habitat Suitability - Karner Blue Butterfly:

The 1345-1347 Route 9 parcel is currently vacant forested land with a greater than 50 percent canopy that would prohibit the growth of Wild Lupine. Currently the 1365 Route 9 parcel consists of an auto body garage, associated driveway, lawn area with the remaining land being wooded. The lawn area lacks an overhead canopy and consists of sandy soils which is suitable for Wild Lupine to grow. Due to the regular maintenance of the lawn area, there has not been enough time for Wild Lupine to establish and grow. Because of this, the potential for Karner Blue to be present onsite is very minimal due to the lack of Wild Lupine being present onsite. The forested areas on the site show no signs of natural disturbance and have a greater than 50 percent canopy that would prohibit the growth of Wild Lupine. Because of the overhead canopy creating a shaded environment in the forested areas of the site, and a lack of natural disturbance, the forested areas onsite

are not suitable for Wild Lupine to grow. Furthermore, while performing the habitat assessment no Karner Blue Butterflies were seen.

This habitat assessment was performed according to the **Karner Blue Butterfly *(Lycaeides Melissa samuelis)* Survey Protocols Within the State of New York**, Prepared by: U.S. Fish and Wildlife Service (Service), New York Field Office New York State Department of Environmental Conservation (NYSDEC), dated May 2008. https://www.fws.gov/northeast/nyfo/es/KBBPASurveyProtocols12May2008.pdf

Survey protocol requirements state that there are four phases of the butterfly surveys, in which the first step is a preliminary site assessment needed to identify potential butterfly habitat. If during the preliminary site assessment any of the following factors occur onsite, it will disqualify a part or all of the site from needing further assessment.

- *Agriculture: exclude only active row-cropped agricultural lands and fallow fields [Note that other open agricultural areas may support host plants and may be included];*
- *Active management: exclude areas with ongoing land management, forestry, or construction operations that will temporarily impede surveys, access, or habitat phenology;*
- *Mowed/lawn/hay: exclude areas regularly mowed during the growing season including lawns and some hay fields [Note that warm season grasses, such as little bluestem grass, are typically not harvested until after host plants have senesced and flight period is complete and may be included];*
- *Paved/developed: exclude paved and non-vegetated developed areas such as parking lots, buildings, and roads;*
- *Closed canopy: exclude areas with >50% canopy cover (only if there are no openings, trails, or paths through such areas); such areas will have shade for most or all of the day;*
- *Wet soil: exclude areas with non-sandy or poorly drained soils;*
- *Thick vegetation: exclude areas with complete shrub or herbaceous cover other than the host plant;*
- *Imminent conversion: exclude areas where conversion/development of the habitat is immediately imminent.*

Therefore, because the subject parcels consist entirely of three of the listed factors (Mowed/lawn/hay, Closed canopy and Paved/developed) further assessment of the site is not necessary.

Respectfully,
Jackie Pitts
Jackie Pitts

Figure 1: Site Location Map

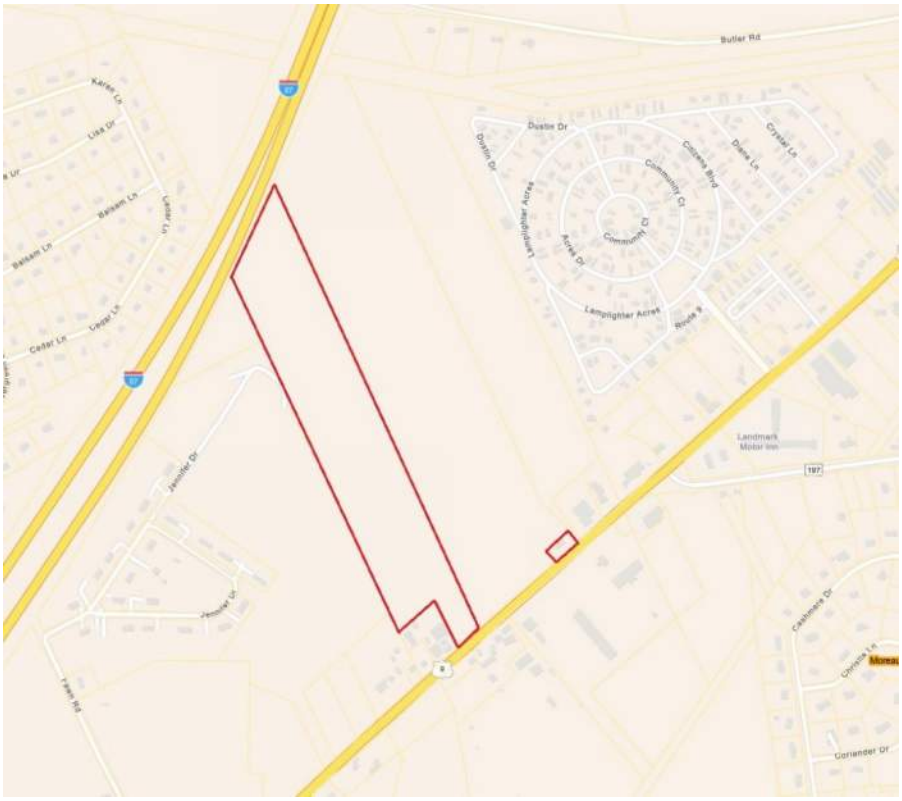

Figure 2: Site Aerial Map

Figure 3: N.Y.S.D.E.C. Rare Plant or Animals Mapping

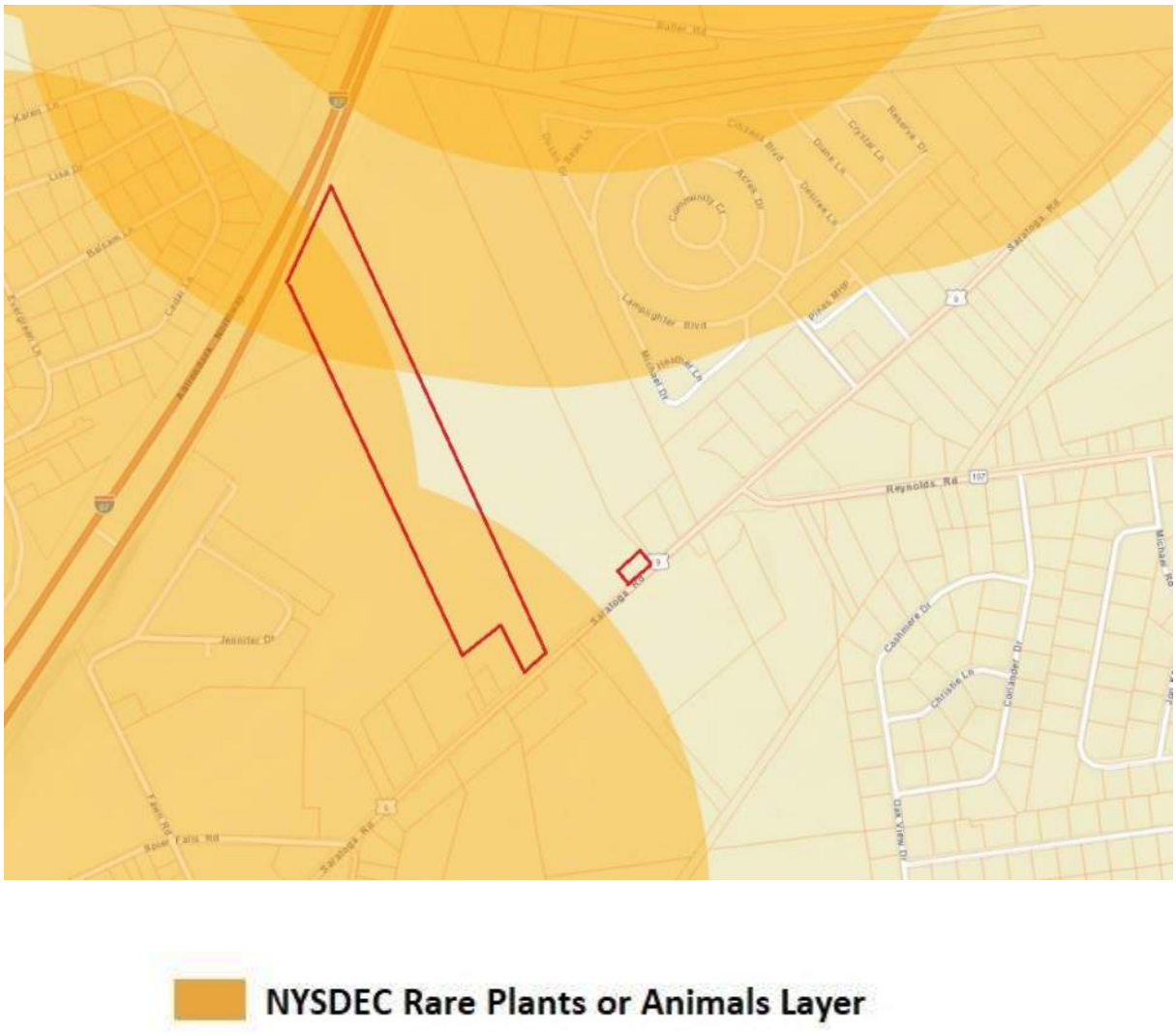

Figure 4: IPaC Resource List

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Saratoga County, New York

Local office

New York Ecological Services Field Office

(607) 753-9334
(607) 753-9699
fw5es_nyfo@fws.gov

3817 Luker Road
Cortland, NY 13045-9385

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

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1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
Indiana Bat Myotis sodalis Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat Myotis septentrionalis Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9045	Endangered

Insects

NAME	STATUS
Karner Blue Butterfly Lycaeides melissa samuelis Wherever found There is **proposed** critical habitat for this species. https://ecos.fws.gov/ecp/species/6656	Endangered
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act[1] and the Migratory Bird Treaty Act[2].

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats[3], should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to Bald Eagle Nesting and Sensitivity to Human Activity

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read

"Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (▪)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

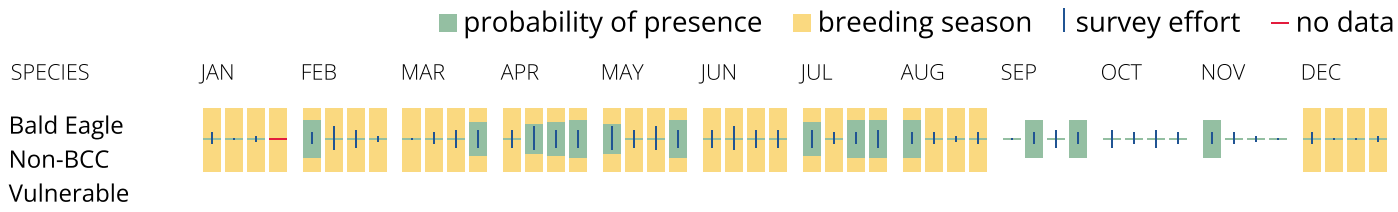
Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply). To see a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats[3] should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

---

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON

Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31
Belted Kingfisher Megaceryle alcyon This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Mar 15 to Jul 25
Black-billed Cuckoo Coccyzus erythropthalmus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10
Bobolink Dolichonyx oryzivorus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Jul 31
Canada Warbler Cardellina canadensis This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Aug 10
Chimney Swift Chaetura pelagica This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
Lesser Yellowlegs Tringa flavipes This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Wood Thrush Hylocichla mustelina This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read

"Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER FORESTED/SHRUB WETLAND

PSS1B

A full description for each wetland code can be found at the National Wetlands Inventory website

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Phase IA/IB Cultural Resources Survey
1345-1347 and 1365 US Route 9 Development Project, Town of Moreau, Saratoga County New York

prepared for

Schermerhorn Holdings
536 Bay Road #2
Queensbury, New York 12804

prepared by

David Moyer and Douglas Idleman

Birchwood Archaeological Services, Inc.
131 Marion Avenue
Gilbertsville, NY 13776
www.birchwoodarchaeology.com

June 2024

Management Summary

Phase IA/IB Cultural Resources Survey, 1345-1347 and 1365 US Route 9 Development Project, Town of Moreau, Saratoga County New York

SHPO Project Review Number:

Involved State and Federal Agencies: DEC

Phase of Survey: IA/IB

Location Information
Location: 1345-1347 and 1365 US Route 9
Minor Civil Division: Town of Moreau
County: Saratoga

Survey Area (Metric & English)
Length: 3,150 ft approx (1,066.8 m)
Width: 500 ft approx (152.4 m)
Depth: >5 ft (1.5 m)
Number of Acres Surveyed: 33.0
Number of Square Meters & Feet Excavated:
Percentage of the Site Excavated:

USGS 7.5 Minute Quadrangle Map: Glens Falls

Archaeological Survey Overview
Number & Interval of Shovel Tests: 563 STPs (40 cm round) in 15 m (49.2 ft) intervals

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

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

Report Author(s): David Moyer and Douglas Idleman

Date of Report: June 2024

Executive Summary

A Phase IA/IB Cultural Resources Survey has been completed for a proposed development project located at 1345-1347 and 1365 US Route 9 in the Town of Moreau, Saratoga County, New York (Figure 1 and 2; Photos 1-31). The project is located consists of two disconnected parcels which have been recently purchased for development purposes, although the nature of this development has not yet been determined. The Area of Potential Effect (APE) for this project includes 100% of these two parcels, an area measuring approximately 33.0 ± acres. The depth of the proposed ground disturbance is undefined, but it assumed that any ground disturbance may extend to a depth of 5 ft (1.5 m) in some areas where utilities or building footprints will be developed.

The Phase IA Literature Review and Sensitivity Assessment indicated that the project area is moderately sensitive for precontact archaeological remains due to its location near the Hudson River and proximity to five precontact archaeological sites within one mile of the project area. The area is also considered moderately sensitive for historic resources due to the proximity of a known historic archaeological site and the historic development along present day US Route 9.

A Phase IB field examination was conducted to test for cultural deposits that may be impacted by the proposed project. A total of 363 test pits were excavated at 15 m (49.2 ft) intervals in all areas of proposed improvements. Of these 563 STPs excavated, nine (1.6%) recovered modern or historic cultural refuse. Much of this refuse consisted of modern garbage which was recovered over a wide area and does not appear to constitute an archaeological site. No precontact artifacts or features were encountered and no archaeological sites were identified.

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(continued)

Introduction

Birchwood Archaeological Services was contracted to conduct a Phase IA/IB cultural resources survey for the areas of potential effect (APE) as part of a proposed development project located at 1345-1347 and 1365 US Route 9 in the Town of Moreau, Saratoga County, New York. The overview has been requested to assess the potential that significant cultural resources may be located within the project area. The investigation was performed as part of a request by the OPRHP in accordance with Section 106, Section 36 CFR 800 and Section 14.09 of the New York State Parks, Recreation, and Historic Preservation Act.

The project consists of two disconnected parcels located on the north side of US Route 9 in the Town of Moreau, Saratoga County, New York. (Figures 1 and 2; Photos 1-31). These two parcels have been recently purchased for development purposes, although the nature of this development has not yet been determined. The Area of Potential Effect (APE) for this project includes 100% of these two parcels, an area measuring approximately 33.0 ± acres. The depth of the proposed ground disturbance is undefined, but it assumed that any ground disturbance may extend to a depth of 5 ft (1.5 m) in some areas where utilities or building footprints will be developed.

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

Part I: Documentary Research

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

- Office of Parks, Recreation and Historic Preservation (OPRHP) site files and survey reports
- New York State Museum site files (copies at OPRHP)
- National Register of Historic Places
- New York State Library, Albany
- Stevens German Library, Hartwick College, Oneonta
- USDA NRCS Ballston Spa Field Office, Ballston Spa
- New York State Historical Association Library, Cooperstown

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

Environmental Setting

Saratoga County is located in east-central New York State and is bordered by the Hudson River to the north and east and the Mohawk River to the south. Two distinct physiographic provinces occur in the county: the Adirondack Highlands Physiographic province to the north and the Hudson-Mohawk Lowlands province in the south (Silverman 2004:12). The APE is located in the Hudson-Mohawk Lowlands, which is characterized by lower topography and sedimentary bedrock. Elevation in these lowlands can generally be attributed to escarpments formed by resistant rock layers than occur in the normally softer rock surrounding these deposits (Silverman 2004).

Multiple glacial advancements during the Pleistocene were the dominant force in the formation of the topography of Saratoga County, with the last glaciation receding over 10,000 years ago. These glaciers smoothed the hills and deepened the valleys, moving, grinding, and then redepositing this glacial till to form many of the soils found throughout the county. Ice-blocked lakes and kettles formed as the ice receded. This was especially dramatic along the western edge of Warren County, just north of Saratoga County and the APE, because of a large lobe of ice that extended down the Champlain Valley, across the lowlands, and blocked the end of Lake George north of the APE. The northern end of glacial Lake Albany formed near the end of the ice age and would have covered the APE at that time. Lake Albany, at its greatest extent, filled much of the Hudson River Valley from Warren County to Orange County, including much of the eastern half of Saratoga County. At the end of the ice age, the ice blocking it melted and Lake Albany drained south along the Hudson River, leaving behind the sand and other soils found in the lowlands near the APE. Erosion and alluvial processes along streams are the primary mechanism of soil formation in present-day Saratoga County (Silverman 2004).

The APE is located on a glacial outwash plain in the Town of Moreau, Saratoga County, New York. The elevation at the APE is approximately 350.0 ft (106.7 m) above sea level throughout. The closest named body of water near the APE is the Hudson River. A large, southward directed meander can be found 3,710.0 ft (1.1 km) north of the APE at its closest point, as the Hudson flows roughly to the east before turning south. Other named bodies of water near the APE include Moreau Lake located 1.5 mi (2.5 km) west-southwest of the APE at its closest point and Clendon Brook 2.5 mi (3.9 km) north-northwest of the APE. The North Branch Snook Kill is located 1.3 mi (2.1 km) south of the APE at its closest point. It enters the Snook Kill 3.7 mi (5.9 km) east-southeast of the APE as it flows east to the Hudson River. Multiple unnamed streams can be found near the APE. The streams are all tributaries of the North Branch Snook Kill and the Snook Kill and are located southwest, south, and southeast of the APE. The closest is located 1.1 mi (1.8 km) south of the APE while the next closest is 1.4 mi (2.3 km) southeast of the APE. Other unnamed streams include a stream 1.6 mi (2.6 km) east of the APE at its closest point, one that exits Moreau Lake 1.7 mi (2.7 km) east-southwest of the APE, two streams due south of the APE at distances of 2.0 mi (3.2 km) and 2.1 mi (3.3 km), and a small cluster of two streams 2.6 mi (4.2 km) and 2.83 mi (4.56 km) south-southwest of the APE.

Soils

The NRCS Web Soil Survey lists Windsor loamy sand (map unit WnA) as the only soil type occurring within the APE (Figure 3). The Windsor series consists of very deep, excessively drained soils formed in sandy outwash or eolian deposits. They are nearly level through very steep soils on glaciofluvial landforms. A typical profile of Windsor loamy sand is provided below in Table 1.

Table 1. Typical soil profile of Windsor loamy sand.

Horizon	Depth	Description
Oe	0-1 in (0-3 cm)	black (10YR 2/1) moderately decomposed forest plant material; many very fine and fine roots; very strongly acid; abrupt smooth boundary.
A	0-3 in (0-8 cm)	very dark grayish brown (10YR 3/2) loamy sand; weak medium granular structure; very friable; many very fine and fine roots; strongly acid; abrupt wavy boundary.
Bw1	3-9 in (8-23 cm)	strong brown (7.5YR 5/6) loamy sand; very weak fine granular structure; very friable; many fine and medium roots; strongly acid; gradual wavy boundary.
Bw2	9-21 in (23-53 cm)	yellowish brown (10YR 5/6) loamy sand; very weak fine granular structure; very friable; common fine and medium roots; strongly acid; gradual wavy boundary.
Bw3	21-25 in (53-64 cm)	light yellowish brown (10YR 6/4) sand; single grain; loose; few coarse roots; strongly acid; clear wavy boundary.
C	25-65 in (64-165 cm)	pale brown (10YR 6/3) and light brownish gray (10YR 6/2) sand; single grain; loose; few coarse roots; strongly acid.

The above soil description suggests that all buried historic and prehistoric resources should be confined to the A and upper B horizons, to a depth of 53 cm (21 in) below ground surface throughout the APE. Testing should extend at least 20 cm (8 inches) below the B horizons. All resources are expected to be confined to the upper soil horizons.

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

Current/Past Land Use

Previous land use was likely agricultural although little evidence of farm related land use remains today. Timber harvesting has been a dominant land use in the area, and rotting trees stumps and a logging road attest to this historic activity (Photo 14). Today, along use along this stretch of US Route 9 is largely commercial. A mobile home sales office occurs on the opposite (south) side of the property entrance (Photos 3 and 4), while an olive oil company occurs on the parcel situated directly to the west (Photos 11 and 12). The property located at 1365 US Route 9 has been extensively developed and includes a vacant garage building and an associated parking lot (Photos 7-10). Several tree stands were noted within the larger project parcel (Photos 21 and 28), which along with an adject hunting camp (Photos 29 and 30), reflect recreational hunting in the project environs.

Disturbance

Other than the fire hydrant and associated water main running along the northern edge of the road (Photo 13), little evidence of ground disturbance was noted at 1345-1347 US Route 9. Most of the prior ground disturbance occurs on the parcel at 1365 US Route 9, which appears to have been extensively disturbed by the construction of an automotive garage and a large asphalt parking lot (Photos 7-10).

Despite these disturbances, the remainder of the APE appears relatively undisturbed. Because pockets of intact stratigraphy can occur in what might otherwise be assumed disturbed contexts along roadways and utilities, no unpaved areas were specifically excluded from the Phase IB survey. All unpaved/undeveloped areas of proposed ground disturbance were examined using subsurface shovel testing at 15 m (49.2 ft) intervals to ensure that intact archaeological deposits will not be disturbed as part of the proposed undertaking.

Prehistoric Overview

Glaciers covered much of eastern New York during the Wisconsin glaciation, which ended about 12,000 years ago. People may have begun occupying the area soon after the glaciers retreated. These Paleoindians were organized in highly mobile bands adapted to tundra and boreal forest environments. While archaeologists have traditionally emphasized the hunting of large megafauna such as mammoth and bison, there is increasing evidence that

Paleoindians exploited a diverse array of small game and wild plants. Ritchie (1994: 4–5) notes two fluted point finds indicative of Paleoindian occupation in Saratoga County, both of which occur north of Saratoga Lake along the Hudson. No Paleoindian camps have been identified near the project area.

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

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

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

The Late Woodland Period began around A.D. 1000 and is differentiated from its predecessor primarily on the basis of projectile point types, pottery styles and diet (Funk 1976). Hoe cultivation also appeared during Late Woodland times. Diet was largely made up of cultigens (corn, beans and squash) and game supplemented by fishing and the gathering of aquatic and terrestrial resources. Large, permanent village sites occur along major rivers as well as defensive locations (Ritchie 1994). Small, ephemeral sites also occur, probably used as camps for resource extraction. These smaller sites are located in a wide variety of geographic contexts, ranging from wetlands and backwater drainages to forested uplands. After about A.D. 1400, the Iroquois culture was fully developed, with intensive horticulture and large, palisaded villages (Ritchie and Funk 1973).

Known Precontact Sites

A check of site files of the Office of Parks, Recreation, and Historic Preservation and the New York State Museum (NYSM) indicated that five precontact archaeological sites and one precontact archaeological areas are known within one mile of the APE (Table 2).

The ALB 323 ACP SARA 33 (09113.000024) is shown on the NY-CRIS as being north of the APE, but the inventory form indicates this site is located southwest of the APE along the west bank of Moreau Lake. While the site at Moreau Lake is just over a mile from the APE, it will be discussed here because it was included with the NY-CRIS listing for this unique site number (USN). This site was identified by Collamer & Associates, Inc., in 1992 as part of a survey for Moreau Lake State Park. Surface walkovers and excavations produced one dark gray chert biface, one gray chert utilized flake, and one gray chert primary flake (Collamer and Majot 1992. The site north of the APE is located within one mile of the APE and appears to correspond with a site reported by State Archaeologist Arthur C. Parker (1920:691) as '*Camps on the south side of Big Bend in Moreau township*.' Other references to this Parker site are discussed below.

The ALB 332 ACP SARA 38 (09113.000025) is located north of the APE. This site is stated to have been initially identified by Arthur C. Parker (1920) and was likely recorded in the 1970s by SUNY Albany for the NYSM (Tannenbaum n. d.). No information is given for this site, and it does not seem to appear in Parker's publication.

The ALB 371 McDonnell Prehistoric Site (09113.000027) is located north of the APE. This site was also recorded by SUNY Albany (Tannenbaum 1979). No additional information is available for the site.

The WARN - 11 (NYSM 5073) (11308.000019) is located north of the APE in Warren County on the north bank of the Hudson River. This is another site initially identified by Parker (1920:708) as a village site with mixed occupations and a cemetery located nearby.

One precontact archaeological area and one precontact archaeological site recorded by the New York State Museum are also located within one mile of the APE. The NYSM 4727 archaeological area is located north of the APE. It runs along the southern bank of the Hudson River following the large bend north of the APE. It was identified by Parker (1920:691) as a concentration of precontact campsites. This area encompasses the ALB 323 ACP SARA 33 site mentioned previously. The NYSM 8920 site is located north of the APE on the north bank of the Hudson River in Warren County. This site was identified by the NYSM and one debitage and one rusted trowel were recovered from the site.

The site catalogued as USN 09113.000026 is located north of the APE between a stream/channel and the Hudson River. There is no information indicating if this is a contact or historic site and no other information is available regarding this site. It is noted here because it appeared on the NY-CRIS because it was located within one mile of the APE, but it is not listed on Table 2 or Table 3, and it is not included with the precontact or historic archaeological site counts.

Table 2. Previously identified precontact sites within one mile of the APE.

Site Number	Cultural Affiliation	Status	Site Name/ Location	Reference
09113.000024	Unknown	I	ALB 323 ACP SARA 33	(Collamer and Majot 1992, Parker (1920:691)
09113.000025	Unknown	I	ALB 332 ACP SARA 38	(Parker 1920)
09113.000027	Unknown	I	ALB 371 MCDONNELL PREHISTORIC SITE	(Tannenbaum 1979)
11308.000019	Unknown	I	WARN - 11 (NYSM 5073)	(Parker 1920:708)
NYSM 4727	Unknown	I	NO INFO	(NYSM database, Parker 1920:691))
NYSM 8920	Unknown	I	NO INFO	(NYSM database)

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

Historic Overview

Saratoga County was formed from Albany County on February 7, 1791. This county formation included four principal towns, Balls Town, Halfmoon, Saratoga and Stillwater (Dunn 1974: 21). The county is 862 square miles and contains a hilly topography, punctuated by the junction of the Mohawk and Hudson rivers. The latter flows nearly seventy miles along the northeast border of the county, while the Mohawk forms a portion of the southern boundary. Saratoga County lies within original early land patents, including the Saratoga Patent. Indians traditionally used the area for hunting and fishing. Saratoga County was also a gateway for the westward migration of many settlers, as the Mohawk River provided a natural passageway through the Appalachian Mountains. Both the historic Champlain Canal, located on the Hudson River, and the Erie Canal, located on the Mohawk River, operated in this county. The Saratoga Patent was given to Cornelius Van Dyck, Jan Bleecker, Peter Phillips Schuyler, Johannes Wendell, Dirk Wessels, David Schuyler and Robert Livingston on November 4, 1684. The Dutch made the first settlements within the county of Saratoga shortly after the area around Albany was settled. During the revolution, the county saw the Battle of Saratoga, and the subsequent surrender of Burgoyne in 1777 (French 1860: 586). The city of Glens Falls was settled in 1762 and was incorporated as a city in 1908. It lies in the foothills of the Adirondack Mountains on the Hudson River, as does the village of South Glens Falls. Major industries have and still include lumber, paper, and electronics.

South Glens Falls lies within the town of Moreau in the northeast corner of Saratoga County. The town was organized March 28, 1805, from the town of Northumberland while the village of South Glens Falls was incorporated in 1895 (Sylvester 1878:14). Elijah Parks, who came from Connecticut, was one of the first settlers in South Glens Falls. In 1766 Elijah and his sons purchased 800 acres of land on which he built a house, later known as the old castle, and a sawmill (Sylvester 1878:4). The houses that Parks and his family built were the first houses at South Glens Falls. When the Revolutionary began, there were twelve families living in the area. It is said that Daniel Parks, son of Elijah, along with a group of neighbors took the keys from the British officer at Lake George in 1775. In 1777, a raid broke up the Parks' settlement at South Glens Falls, after which they went to live within the protective

walls of Fort Edward (Sylvester 1878:6). Within the village of South Glens Falls lies a two thousand acre tract of land patented to John Glen from Schenectady in 1770 (Sylvester 1878:7). Glen purchased the Parks' land and lived in the old castle for some time. Until 1788 the area had been known as Wing's Falls (after a local prominent settler). In 1788, it was renamed Glens Falls, in exchange for Glen providing Wing with a banquet party. The Glens Falls Feeder Canal first came into being when William McDonald pushed through the state senate a measure ordering the survey and construction of the canal. As lumbering in the area grew, additional lands to the north began to be used in a similar manner. This resulted in the long distance transportation of logs becoming a necessity. After the construction of the feeder canal, lumber could be floated downriver, through the canal sluices, and further south to larger cities and ports (Brown 1963:147). In 1794, a Baptist church was formed. In 1808, a temperance society was formed by Billy J. Clark, a physician, in the town of Moreau, one of the first of its kind locally. In 1828, the Day family settled in South Glens Falls, at which time the old castle was still standing, and the sawmill was in operation. By 1840 there was also a gristmill and a cotton mill in operation. Additionally, a variety of mills were built on the north side of the Hudson. The Morgan Lumber Company opened four sawmills and at one time was cutting sixty million feet of lumber a year (Sylvester 1878:17). They also ran a planing mill and a box-factory. At this time, the Glens Falls Company (reorganized in 1882 to become the Glens Falls Paper Mill Company) was also in high production mode and was a major employer in the local area owning everything on the north side of the river except the Wing Mill. The lime industry was also flourishing in the 1830's. Lime was used for a variety of building activities, both functional and ornamental. In 1836, Julius H. Rice established a stone-works company that lasted until 1860 when it was sold to Cheney & Arms. The village was laid out and surveyed under the direction of Rice in 1837. In 1844 a parochial school was established at South Glens Falls. July 1st, 1869, saw the creation of a Methodist chapel. The business of Reynolds, Dix & Company was formed in 1872 and employed about twenty-five persons. This company was a large stone and marble cutting business providing sawed marble, flagstone, and limestone for building purposes. In 1878 the population of South Glens Falls was approximately five hundred (Sylvester 1878:19). In 1913 a boom was created in the Glens Falls Feeder canal to manage log traffic during holding periods in order to prevent overflow burst during a flood (Brown 1963:147). The bridge crossing the Hudson was lifted off its footings leaving only remnants. This was not the first time bridging this part of the Hudson ran into problems. Previously, in 1802, a bridge was carried away by a freshet and was replaced with a toll bridge the following year built by Warren Ferris. In 1833, a free bridge replaced the toll bridge, and in 1842 a covered bridge with lattice sides was installed (Brown 1963:150).

In 1995 the village of South Glens Falls celebrated its centennial. As of 2000, the village maintained a population of 3,368 while the Town of Moreau boasted a population of 13,826 (Wikipedia 2005). Much of the industry that boomed throughout the developmental progression of South Glens Falls has faded, as evidenced through the remains of various mills that dot the area.

Known Historic Sites and Structures

A check of site files on the New York Cultural Resources Information System (NY-CRIS) indicates that one historic archaeological site is known within one mile of the APE (Table 3).

This site is the E.H. Wood Historic Site (09113.000122), which is located northwest of the APE. This site was identified by Birchwood Archaeological Services in 2016 during a cultural resources survey for the Cerrone Residential Subdivision Project. A depression measuring 40.6 ft (12.4 m) x 29.0 ft (8.8 m) and a square, dry laid, stone foundation were identified at the site. These features were likely associated with the "E.H. Wood" house shown on the 1856 Samuel Geil map and the "Sherman and Co." lumber and lime manufacturing company on the 1866 Beers map. Another rectangular depression was identified on an adjacent parcel which could also represent the main residence on the property during the nineteenth century. Artifacts recovered from the site include clear bottle glass, cut bone, and a button from England that dates to c. 1800.
(Idleman and Moyer 2016)

The NY-CRIS also indicated that 10 historic structures or properties have been inventoried within one mile of the APE (Table 3). None of these structures are listed nor eligible for listing on the National Register of Historic Places NRHP.

The Big Bend Cemetery (09113.000209) is the only property that is undetermined for NRHP listing. This cemetery is located northwest of the APE. Forty-eight graves can be found in the cemetery. These mostly belong to members of the Betts, Crandell, Danford, Stevens, and Wood families, with the earliest grave dating to 1796. Based on the most recent burial, the cemetery was used until 1865.

The remaining nine structures discussed below are not eligible for NRHP listing. The structure at 358 Reynolds Road (09113.000124), located east of the APE, is a one-and-a-half-story clapboard residence built in 1960. The structure at 5 Michael Road, Moreau - 5 Michael Road 12828 (09113.000134) is located east of the APE. This is a one-story modular home built in 1980. The structure at 34 Fawn Rd (09113.000137) is located south of the APE. This structure is a split level, two-story, ranch house built in 1986. The Quarters House (09113.000146), located at 354 Reynolds Road, is located east of the APE. It is a one-story residence built in 1958. The structure at 1377-1387 Route 9 (09113.000205), located just northeast of the APE, is a commercial structure with an attached garage built in 1980. The structure at 1452 US Route 9 (09113.000232) is located northeast of the APE. This is a one-and-a-half-story residence with multiple commercial additions built in 1970. The structure at 299 Lamplighter Acres (09113.000236) is located north of the APE. This is a one-story mobile home built in 1972. It is purported to be the oldest mobile home in that mobile home park. The structure at 1365 Route 9 (09113.000243) is located at the southeast corner of the APE. This structure is a commercial car dealership and garage built in 1960 (Photos 7-10). The structure at 345 NY Route 197 (11506.000642) is located east of the APE. No additional information is available for this structure.

A review of relevant historic maps shows that no historic map-documented structure (MDS) could be found within the APE (Figures 4-13). MDS are shown near the APE beginning in 1856 (Figure 9). These are predominately residences found along US Route 9 and other roads in the vicinity. Settlement density seems relatively stable through the rest of the nineteenth century and into the early twentieth century (Figures 10-11), and it is not until the mid-twentieth century that the number of MDS shows an increase in the area (Figure 12). The presence of settlements near the APE are present going back to the early nineteenth century (Figures 6-8), but it appears that in the late eighteenth century, the area immediately near the

APE is shown as mostly clear of human activity except for the presence of US Route 9 running north-south through the area (Figure 4-5).

Table 3.

Previously recorded historic archaeological sites, structures and NRHP listed properties within one mile of the APE.

USN	Name	Status
09113.000122	THE E.H. WOOD HISTORIC SITE	Undetermined
11506.000642	345 NY ROUTE 197	Not Eligible
09113.000124	358 REYNOLDS ROAD, MOREAU - 358 REYNOLDS ROAD	Not Eligible
09113.000134	5 MICHAEL ROAD, MOREAU - 5 MICHAEL ROAD 12828	Not Eligible
09113.000137	34 FAWN RD, GANSEVOORT - 34 FAWN RD 12831	Not Eligible
09113.000146	QUARTERS HOUSE - 354 REYNOLDS RD 12828	Not Eligible
09113.000205	1377-1387 ROUTE 9 - 1377-1387 ROUTE 9 12803	Not Eligible
09113.000209	BIG BEND CEMETERY - OLD BEND ROAD/DYKE ROAD	Undetermined
09113.000232	1452 US ROUTE 9 - 1451 ROUTE 9 12828	Not Eligible
09113.000236	299 LAMPLIGHTER ACRES, FORT EDWARD NY 12828 - 299 LAMPLIGHTER ACRES 12828	Not Eligible
09113.000243	1365 ROUTE 9, MOREAU, NY - 1365 UNITED STATES ROUTE 9 12831	Not Eligible

Assessment of Sensitivity for Cultural Resources

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

Prehistoric Sensitivity

Five precontact archaeological sites and one precontact archaeological area are known within one mile of the APE (Table 2), directly attesting to the use of the local terrain by precontact people. The sites with sufficient information indicate small camps were the most common in the area, but one site was reported as a village indicating a more intensive use of the Upper Hudson River Falley. Sites from all times periods are known to exist within this portion of the Hudson-Mohawk Lowlands, from Paleoindian occupations through European contact. These tend to be concentrated northeast and east of the APE, closer to the Hudson River. The proximity of the APE to the Hudson River and its tributaries would have provided many resources for precontact groups to exploit, allowing for possible full time occupation of the area. Due to these factors, the area should be considered moderately sensitive for precontact remains.

Historic Sensitivity

One historic archaeological site and 10 historic structures can be found within one mile of the APE (Table 3). The historic site was likely a residence and then later associated with a commercial industrial company during the middle and late part of the nineteenth century. The structures are generally twentieth century residences and commercial buildings, but a cemetery found within one mile of the APE was established and used much earlier. Based on the graves, this cemetery was in use from the 1796 to 1865 by multiple families living along the south bank of the Hudson River. While historic cultural remains seem relatively sparse immediately near the APE, this region has been historically significant regarding the formation of both New York State and the early years of the nation. There is well-documented historic activity from the mid-eighteenth century, during the French and Indian War, which continued through the American Revolution near the end of the eighteenth century, and into the present day in those areas north and east of the APE. Also, historic maps indicate road were present by the late eighteenth century, with settlements present in the general area by the early nineteenth century, and structures present near the APE by the mid-nineteenth century. As a result of the historic import of the vicinity, the APE should be considered moderately sensitive for historic remains.

Part II: Field Research

Field investigations were conducted to identify any historic or prehistoric cultural resources that may be impacted by the proposed project. Fieldwork was conducted on April 15th through the 23rd of 2024 under the supervision of David Moyer, RPA. Staff archaeologists Royce Duda and Dr. Brian Broadrose assisted in the field investigations. The weather was cool and mild with a high temperature of around 60 degrees. Photographs were taken of the project area, adjacent visible structures, and areas of disturbance (Appendix B).

Methodology

Field Walkover and Surface Collection

The entire project area was initially examined through a walkover designed to identify visible features and artifact scatters, areas of disturbance, and the general terrain and ground cover. The project area was not recently plowed or disked, so subsurface testing was used to identify cultural deposits. Only the area within the proposed impact area was tested; areas outside of this will not be disturbed by the project.

Subsurface Testing

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

STPs were placed using a compass and tape at 15 m (49.2 foot) intervals to form a uniform grid over the entire 33.0± acre APE. When an STP was placed in an area that was obviously disturbed (e.g., in a ditch alongside the road), an attempt was made to move the shovel test beyond the area of disturbance, to a maximum distance of 3 meters from its original location. A list of the STPs and their soil profiles is provided in Appendix C. Modern refuse was noted and reburied in the field. Excavation of STPs was halted 20 cm (8 in.) into culturally sterile subsoil unless otherwise noted in the STP records (Appendix C).

Results

Surface Inspection

The project area was first subjected to a pedestrian walkover of the entire proposed construction area. The project consists of two disconnected parcels located on the north side of US Route 9 in the Town of Moreau, Saratoga County, New York. (Figures 1 and 2; Photos 1-31). The Area of Potential Effect (APE) for this project includes 100% of these two parcels, an area measuring approximately 33.0 ± acres.

The property located at 1345-1347 US Route 9 is accessed via a logging road which extends north through a wooded area on the north side of the road (Photos 1-6 and 14). A mobile home sales office occurs on the opposite (south) side of the property entrance (Photos 3 and 4). An olive oil company occurs on the parcel situated directly to the west (Photos 11 and 12). A fire hydrant occurs along the north side of the road between the two parcels (Photo 13). Vegetation within this project parcel consisted of mature trees, providing limited visibility to adjacent parcels (Photos 15-20 and 22-27). Surface visibility was poor due to pine needles and leaf cover. Several tree stands were noted within the project parcel, reflecting modern recreational land use (Photos 21 and 28). A hunting camp was noted on an adjacent parcel to the west at the end of the logging road (Photos 29 and 30). A modern steel fence defines the northern boundary of the project area and separates the property from Interstate 87 (Photo 31).

The property located at 1365 US Route 9 is much smaller and is located to the east of the larger parcel, being separated by an open field. A vacant garage building and associated parking lot occur on this parcel (Photos 7-10). Most of the property was either paved with asphalt or else was encompassed by the garage building itself, although areas of sparse grass were noted to the east and west of the building. Information on the NY-CRIS system indicates that this structure has been previously inventoried (09113.000243) and been determined Not Eligible for NRHP inclusion. The property appears to have been most recently used as a used car lot.

No artifacts or cultural features were encountered as part of the surface inspection and no archaeological sites were identified.

Subsurface Examinations

A Phase IB field examination was conducted to test for cultural deposits that may be impacted by the proposed project A total of 569 STPs were initially placed at 15 m (49.2 ft) intervals in all areas of proposed improvements (Figure 2). Each STP was labeled according to transect, with numerical labels used to designate the individual holes. Six test pits (1.1%) could not be excavated due to a garage building and asphalt paving on the parcel at 1365 US Route 9 (Photos 7-10). This brought the total number of STPs excavated to 563. Of the 563 STPs excavated, nine (1.6%) recovered modern or historic cultural refuse. Artifacts recovered include fragments of brown and clear bottle glass, a plastic shotgun shell, two fragments of a light bulb, a plastic spoon, two fragments of coal slag, a fragment of roofing slate and three brick fragments. Much of this refuse consisted of modern garbage which was recovered over a wide area and does not appear to constitute an archaeological site. No

precontact artifacts or features were encountered and no archaeological sites were identified as part of the subsurface testing.

STPs excavated within the project boundaries ranged in depth from 32-99 cm (12.6-39.0 in) below the ground surface, with an average depth of 50.5 cm (19.9 in). STPs performed as part of this project reached a sufficient depth as to extend below potentially cultural material bearing soils. Roots were the greatest hindrance to the excavations, and twelve STPs (2.1%) were stopped by impenetrable root networks ranging between 32 and 41 cm (12.6 and 16.1 in) below the ground surface.

The soils encountered as part of the subsurface investigations appeared stratigraphically intact and were similar to the soil profile for Oakville loamy fine sand (Table 1). Topsoil generally consisted of 10YR 3/2 brownish black loamy sand overlaying a subsoil consisting of 10YR 6/4 dull yellow orange loamy sand. STPs K-1 and K-4 were excavated adjacent to the garage building at 1365 Route 9 (Photos 7-10) and encountered a gravelly fill consisting of 10YR 2/1 black loamy sand. Likewise, STP H-52 encountered fill consisting of 10YR 3/1 brownish black loam. Several of the test pits in the northern part of the APE encountered truncated topsoil consistent with prior soil scraping, possibly related to the construction of the adjacent interstate. No other soil anomalies were noted.

Part III: Summary and Recommendations

A Phase IA/IB Cultural Resources Survey has been completed for a proposed development project located at 1345-1347 and 1365 US Route 9 in the Town of Moreau, Saratoga County, New York (Figure 1 and 2; Photos 1-31). The project is located consists of two disconnected parcels which have been recently purchased for development purposes, although the nature of this development has not yet been determined. The Area of Potential Effect (APE) for this project includes 100% of these two parcels, an area measuring approximately 33.0 ± acres. The depth of the proposed ground disturbance is undefined, but it assumed that any ground disturbance may extend to a depth of 5 ft (1.5 m) in some areas where utilities or building footprints will be developed.

The Phase IA Literature Review and Sensitivity Assessment indicated that the project area is moderately sensitive for precontact archaeological remains due to its location near the Hudson River and proximity to five precontact archaeological sites within one mile of the project area. The area is also considered moderately sensitive for historic resources due to the proximity of a known historic archaeological site and the historic development along present day US Route 9.

A Phase IB field examination was conducted to test for cultural deposits that may be impacted by the proposed project. A total of 363 test pits were excavated at 15 m (49.2 ft) intervals in all areas of proposed improvements. Of these 563 STPs excavated, nine (1.6%) recovered modern or historic cultural refuse. Artifacts recovered include fragments of brown and clear bottle glass, a plastic shotgun shell, two fragments of a light bulb, a plastic spoon, two fragments of coal slag, a fragment of roofing slate and three brick fragments. Much of this refuse consisted of modern garbage which was recovered over a wide area and does not appear to constitute an archaeological site. No precontact artifacts or features were encountered and no archaeological sites were identified.

Based upon the results of the survey, we recommend that the project be allowed to proceed, and that no further archaeological studies appear warranted. If any archaeological deposits are encountered during the construction process, all work should cease, and a qualified archaeologist should be consulted prior to resuming any ground disturbance. These recommendations are subject to the review and concurrence of the New York State Office of Parks, Recreation and Historic Preservation.

References Cited

Brown, William H
1963 *History of Warren County*, Board of Supervisors of Warren County, New York.

Collamer, Jeanette and Sarah Majot
1992 *Stage 1A Cultural Resource Investigations and Limited Stage 1B Field Investigations for the Moreau Lake State Park, Town of Moreau, Saratoga County, New York.* Prepared by Collamer & Associates, Inc. Report on file at NYS Office Parks, Recreation and Historic Preservation, Waterford, NY.

Dunn, Violet B. Ed.
1974 Untitled forward, In *Saratoga County Heritage*. New York State Historical Association, Cooperstown, NY.

French, J. H.
1860 "Saratoga County." *Historical and Statistical Gazetteer Of the State of New York.* R. Pearsall Smith, Syracuse NY.

Funk, Robert E.
1976 *Recent Contributions to Hudson Valley Prehistor*y. New York State Museum and Science Service Memoir 22. The State Education Department of The University of the State of New York, Albany.

Idleman, Douglas and David Moyer
2016 *Phase IA/IB Cultural Resources Survey Cerrone Residential Subdivision Project Town of Moreau, Saratoga County, New York.* Prepared by Birchwood Archaeological Services. Report on file at NYS Office Parks, Recreation and Historic Preservation, Waterford, NY.

Parker, Arthur C.
1920 The Archaeological History of New York. *New York State Museum Bulletin* 235-238. Albany.

Ritchie, William A.
1994 *The Archaeology of New York State, revised editio*n. Purple Mountain Press, Fleischmanns, New York.

Ritchie, William A. and Robert E. Funk
1973 *Aboriginal Settlement Patterns in the Northeas*t. New York State Museum and Science Service Memoir 20. The State Education Department of the University of the State of New York, Albany, New York.

Silverman, Mark H.
2004 *Soil Survey Of Saratoga County, New York*. USDA Soil Conservation Service, U.S. Government Printing Office, Washington, D.C.

Sylvester, Nathaniel Bartlett
1893 History of Saratoga County New York: *With Historical Notes on its Various Towns Together with Biographical sketches of its Prominent men and Leading Citizens*. Prepared by Samuel T. Wiley and W. Scott Garner. Gersham Publishing Company, Richmond Ind.

Tannenbaum
no date *ALB 332 ACP 38 (Sara).* Archeological Site Inventory Form. Prepared by the State University of Abany. Report on file at NYS Office Parks, Recreation and Historic Preservation, Waterford, NY.

Tannenbaum
1979 *McDonnell ALB 371.* Archeological Site Inventory Form. Prepared by the State University of Abany. Report on file at NYS Office Parks, Recreation and Historic Preservation, Waterford, NY

Appendix A.

Figures

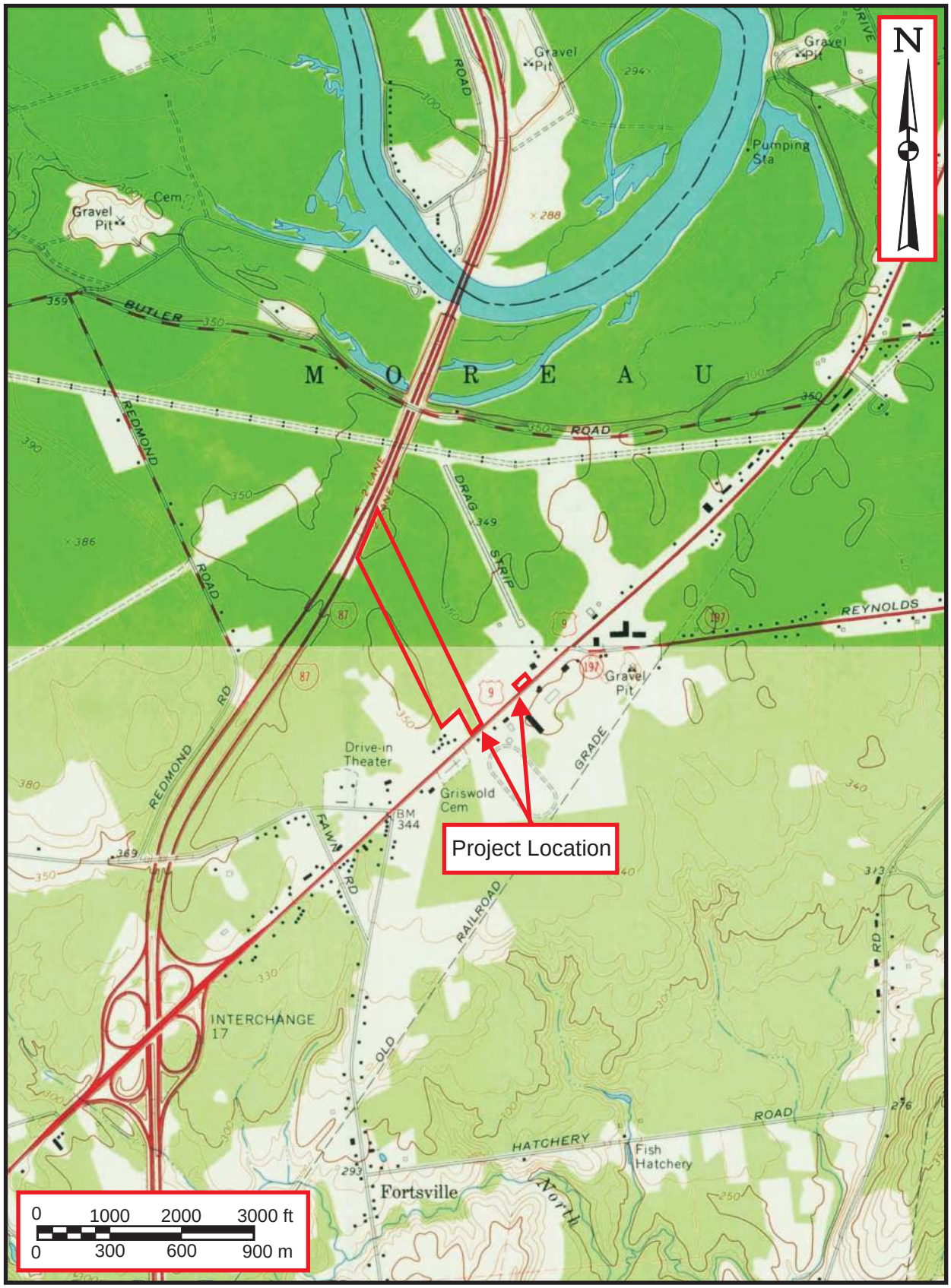

Figure 1. Map showing location of APE on Gansevoort and Glens Falls 7.5 minute USGS topographic maps.

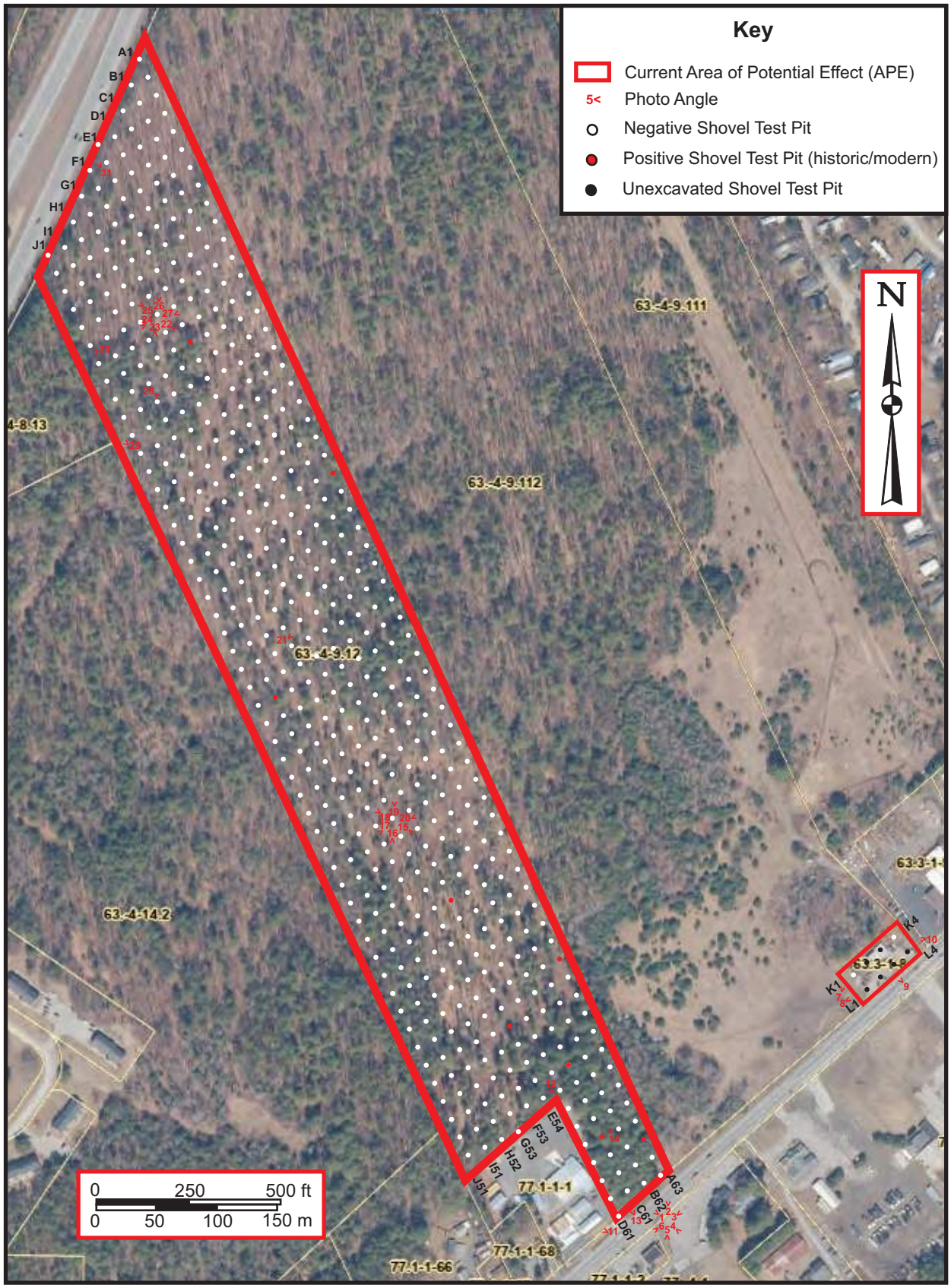

Figure 2. Map showing the location of subsurface testing within the project boundaries.

Figure 3. USDA Web Soil Survey map with APE indicated.

Figure 4. Detail of 1778 Kitchin and Baldwin map with APE indicated.

Figure 5. Detail of 1779 Faden and Sauthier map with APE indicated.

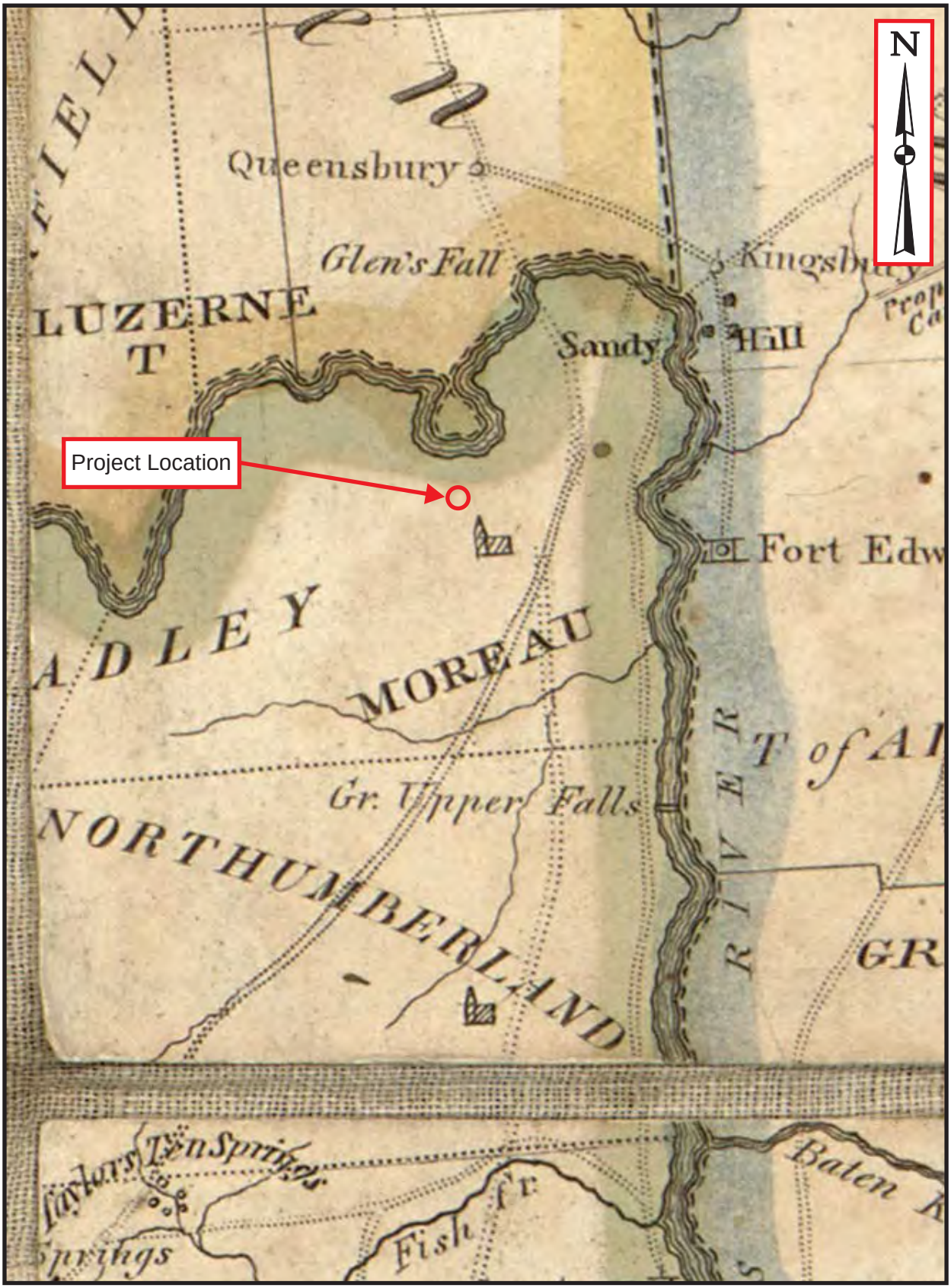

Figure 6. Detail of 1817 Lay map with APE indicated.

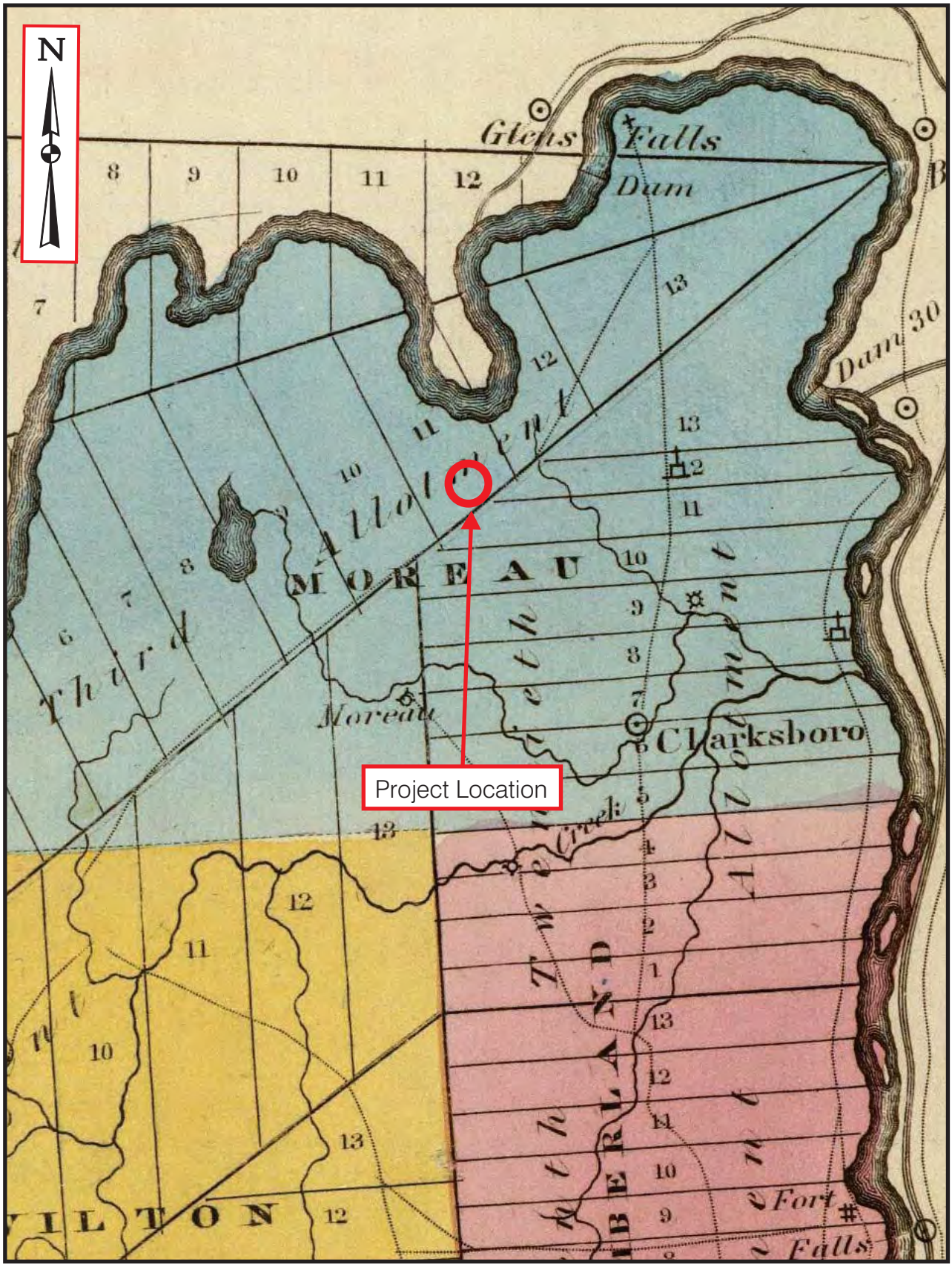

Figure 7. Detail of 1829 Burr map with APE indicated.

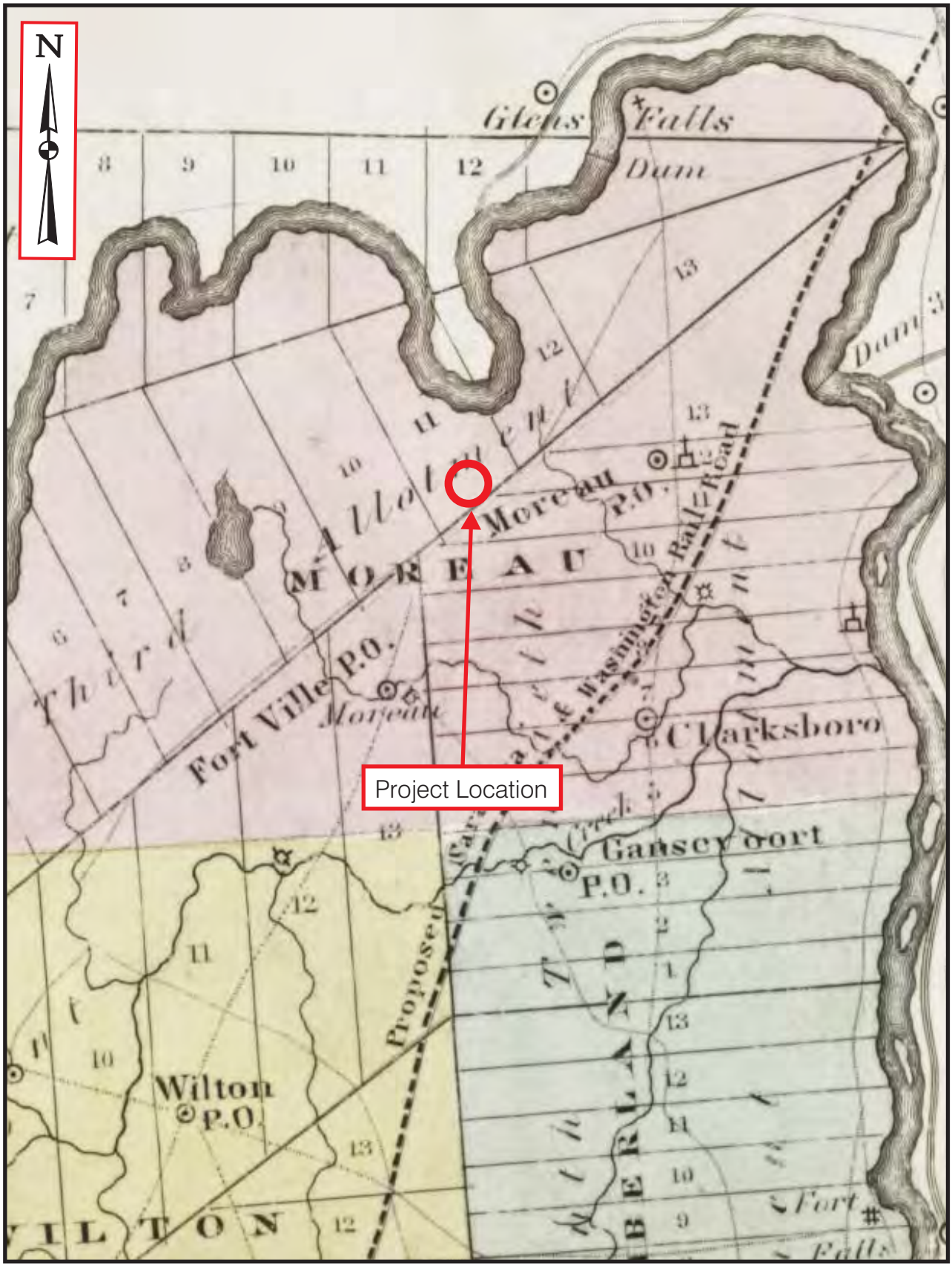

Figure 8. Detail of 1829 Burr map with APE indicated.

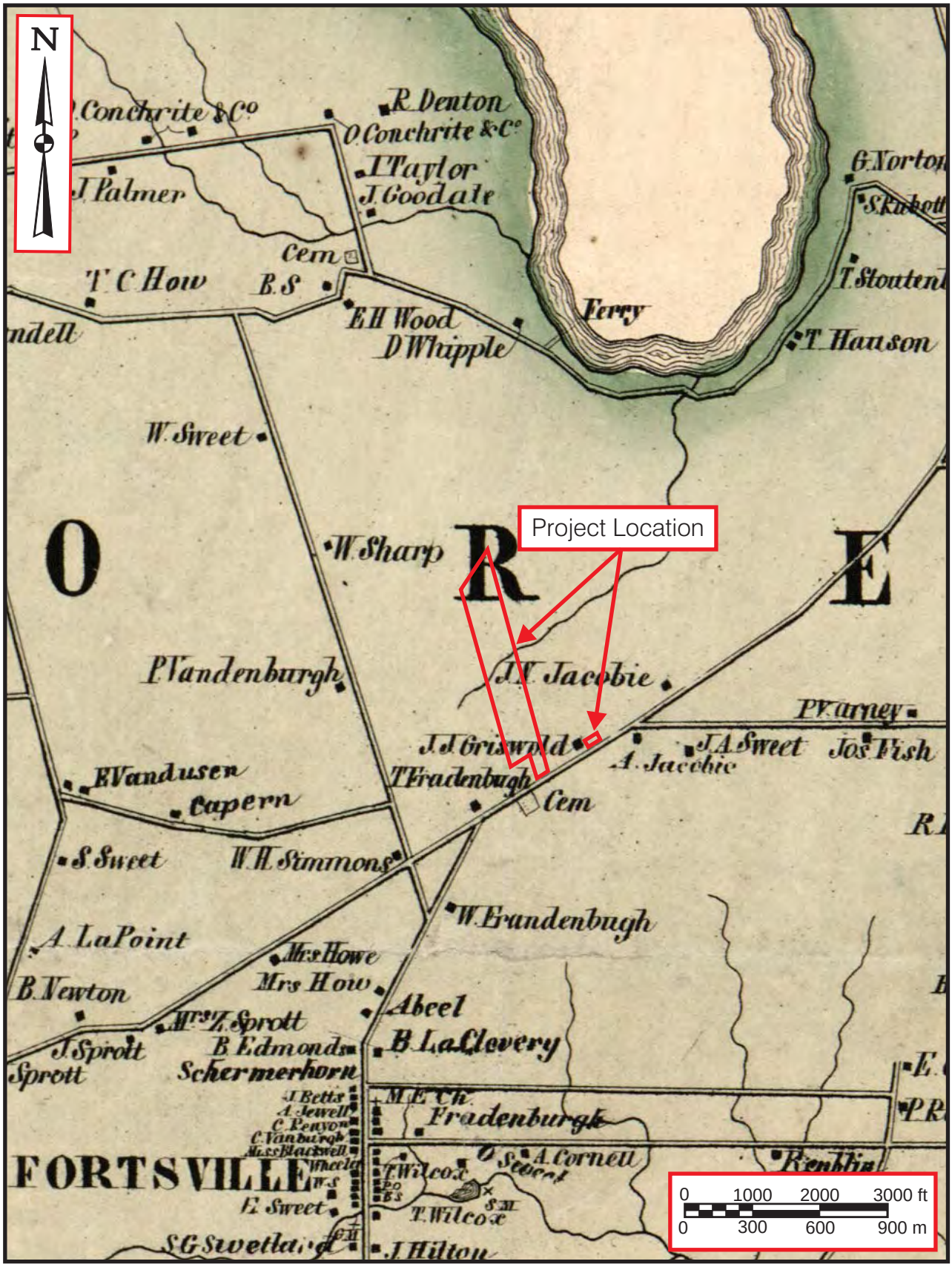

Figure 9. Detail of 1856 Geil map with location of APE indicated..

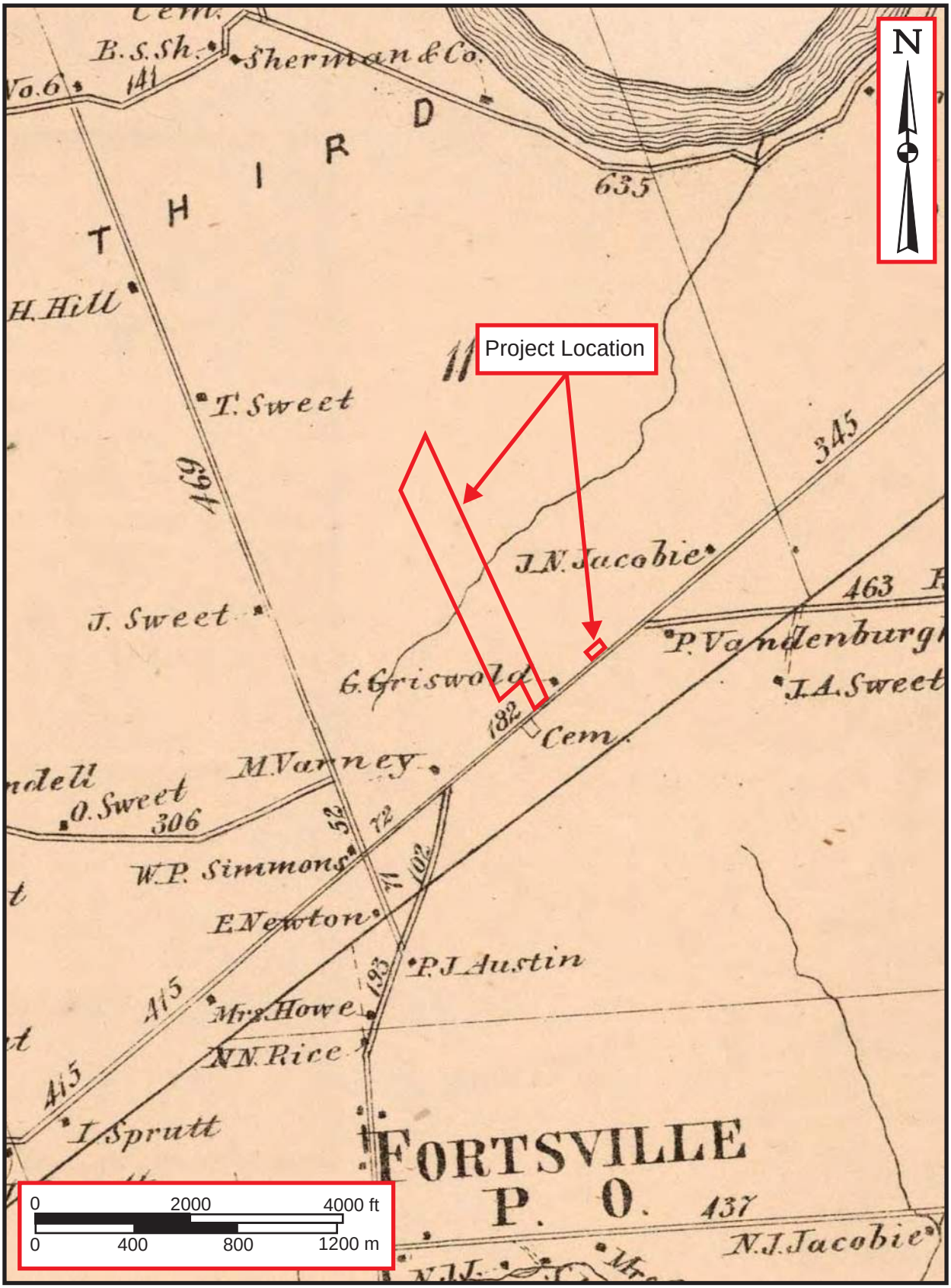

Figure 10. Detail of 1866 Stone & Stewart map with APE indicated.

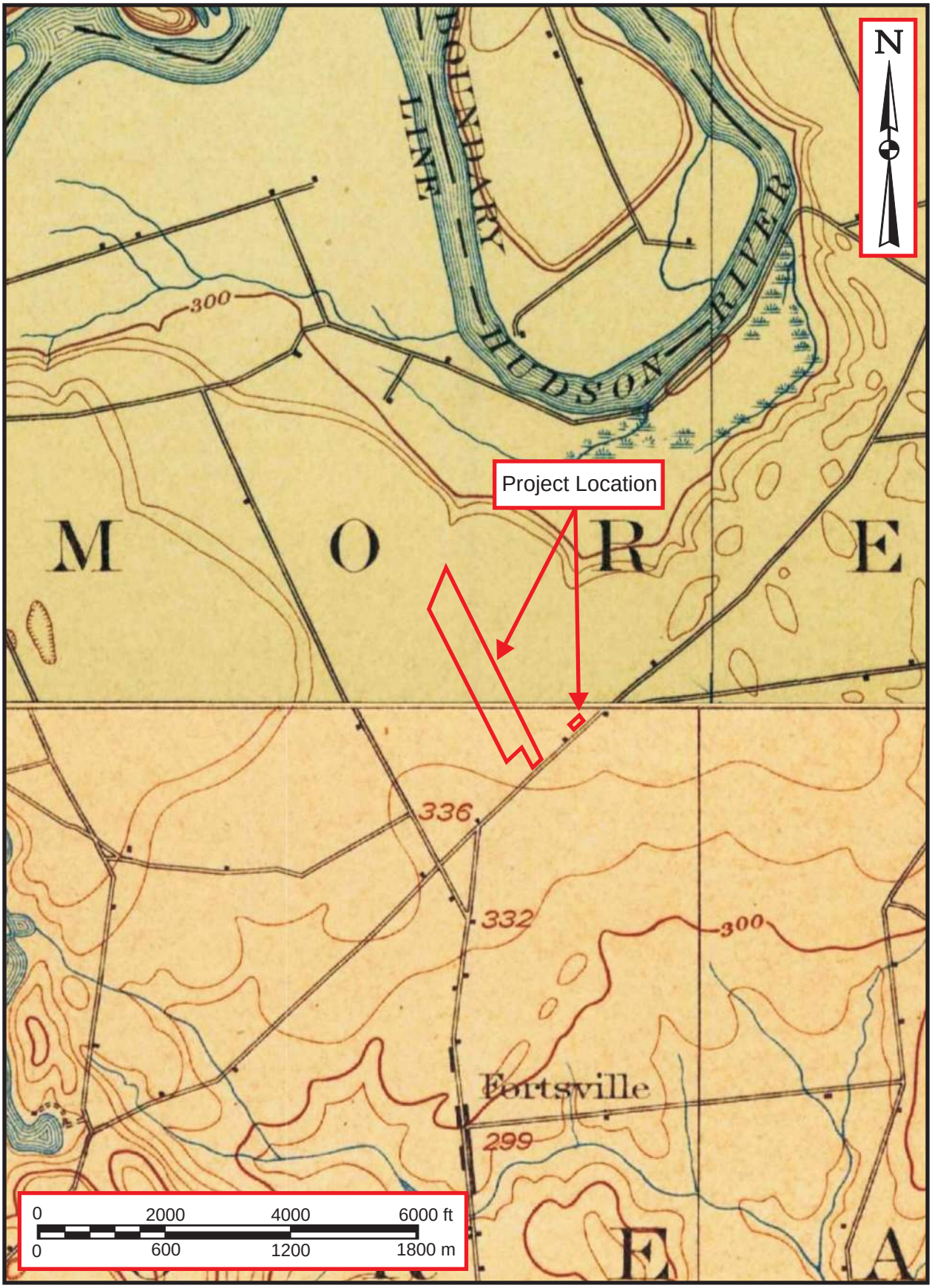

Figure 11. Detail of 1897 Glens Falls and 1900 Schuylerville 15 minute topographic mapa with APE indicated.

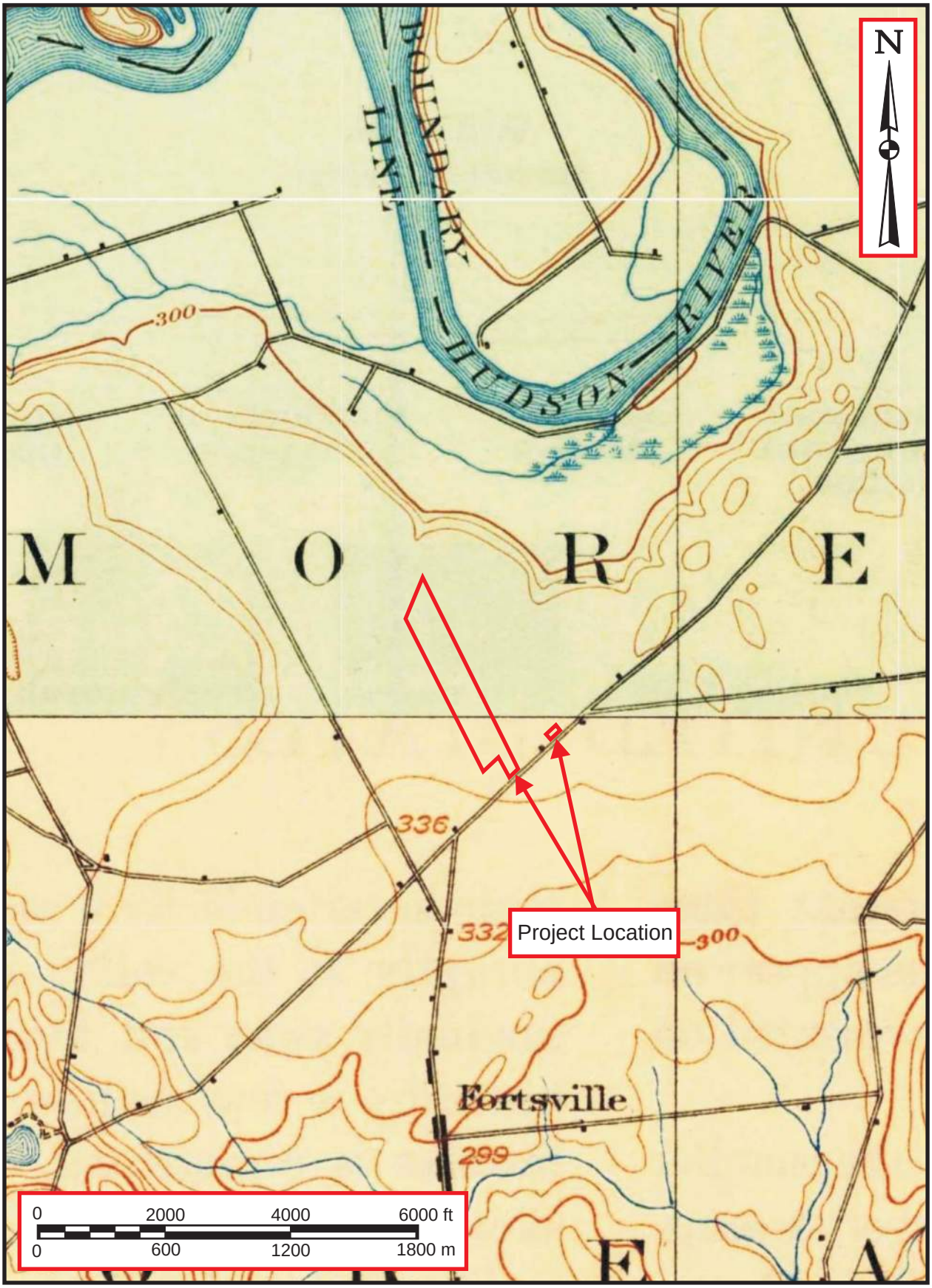

Figure 12. Detail of 1925 Schuylerville and 1927 Glens Falls 15 minute topographic maps with APE indicated.

Appendix B.

Photographs

Photo 1. Portion of panoramic view from the entrance along US Route 9, facing northwest.

Photo 2. Portion of panoramic view from the entrance along US Route 9, facing north.

Photo 3. Portion of panoramic view from the entrance along US Route 9, facing northeast.

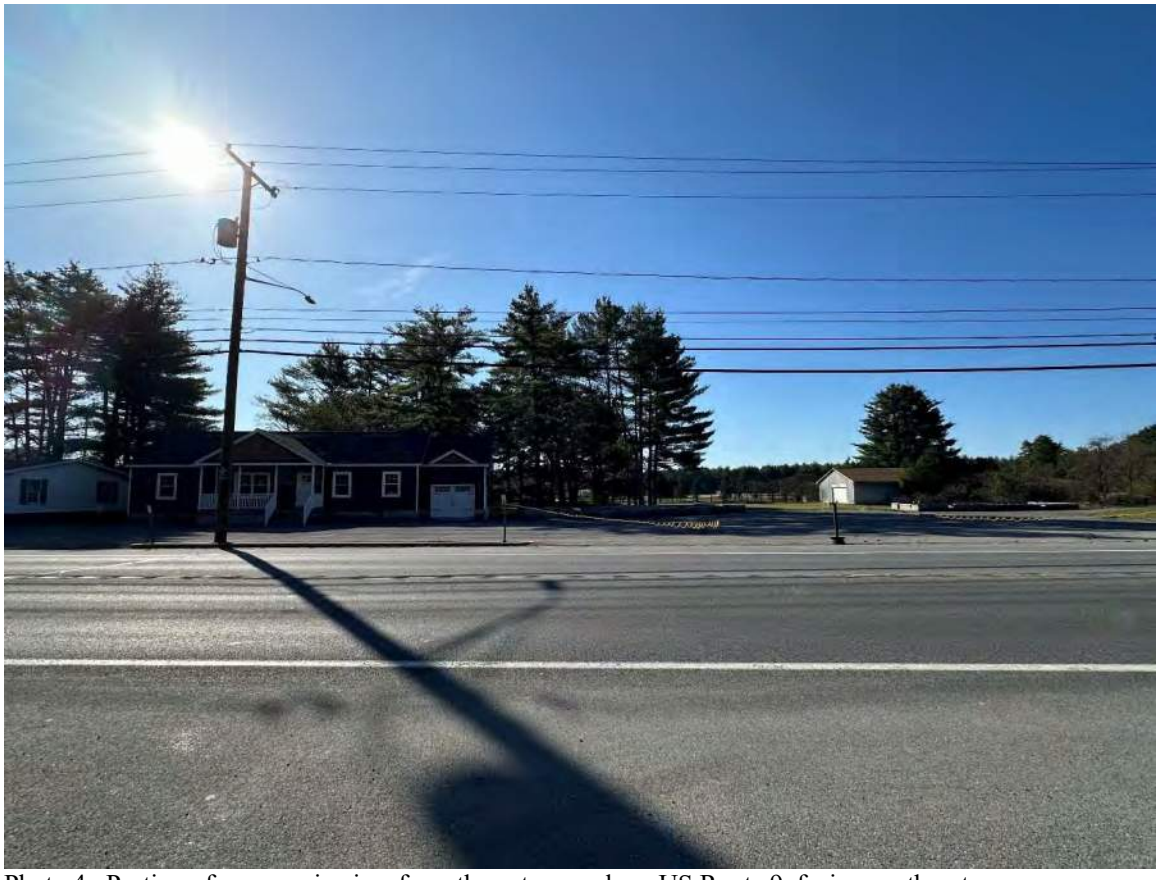

Photo 4. Portion of panoramic view from the entrance along US Route 9, facing southeast.

Photo 5. Portion of panoramic view from the entrance along US Route 9, facing south.

Photo 6. Portion of panoramic view from the entrance along US Route 9, facing southwest.

Photo 7. View of automotive garage building and parking lot at 1365 US Route 9, facing north.

Photo 8. View of automotive garage building and parking lot at 1365 US Route 9, facing northeast.

Photo 9. View of automotive garage building and parking lot at 1365 US Route 9, facing northwest.

Photo 10. View of automotive garage building and parking lot at 1365 US Route 9, facing east.

Photo 11. View of olive oil company to the west of the project boundaries, facing west.

Photo 12. View of the rear of the olive oil company complex adjacent to the project boundaries, facing south.

Photo 13. View of fire hydrant along the north side of US Route 9, facing northwest.

Photo 14. View along an existing logging road in the southern part of the project area, facing north.

Photo 15. Portion of panoramic view from the southern part of the project area, facing southeast.

Photo 16. Portion of panoramic view from the southern part of the project area, facing south.

Photo 17. Portion of panoramic view from the southern part of the project area, facing southwest.

Photo 18. Portion of panoramic view from the southern part of the project area, facing northwest.

Photo 19. Portion of panoramic view from the southern part of the project area, facing north.

Photo 20. Portion of panoramic view from the southern part of the project area, facing northeast.

Photo 21. View of hunting stand in the central part of the project area, facing northeast.

Photo 22. Portion of panoramic view from the northern part of the project area, facing southeast.

Photo 23. Portion of panoramic view from the northern part of the project area, facing south.

Photo 24. Portion of panoramic view from the northern part of the project area, facing southwest.

Photo 25. Portion of panoramic view from the northern part of the project area, facing northwest.

Photo 26. Portion of panoramic view from the northern part of the project area, facing north.

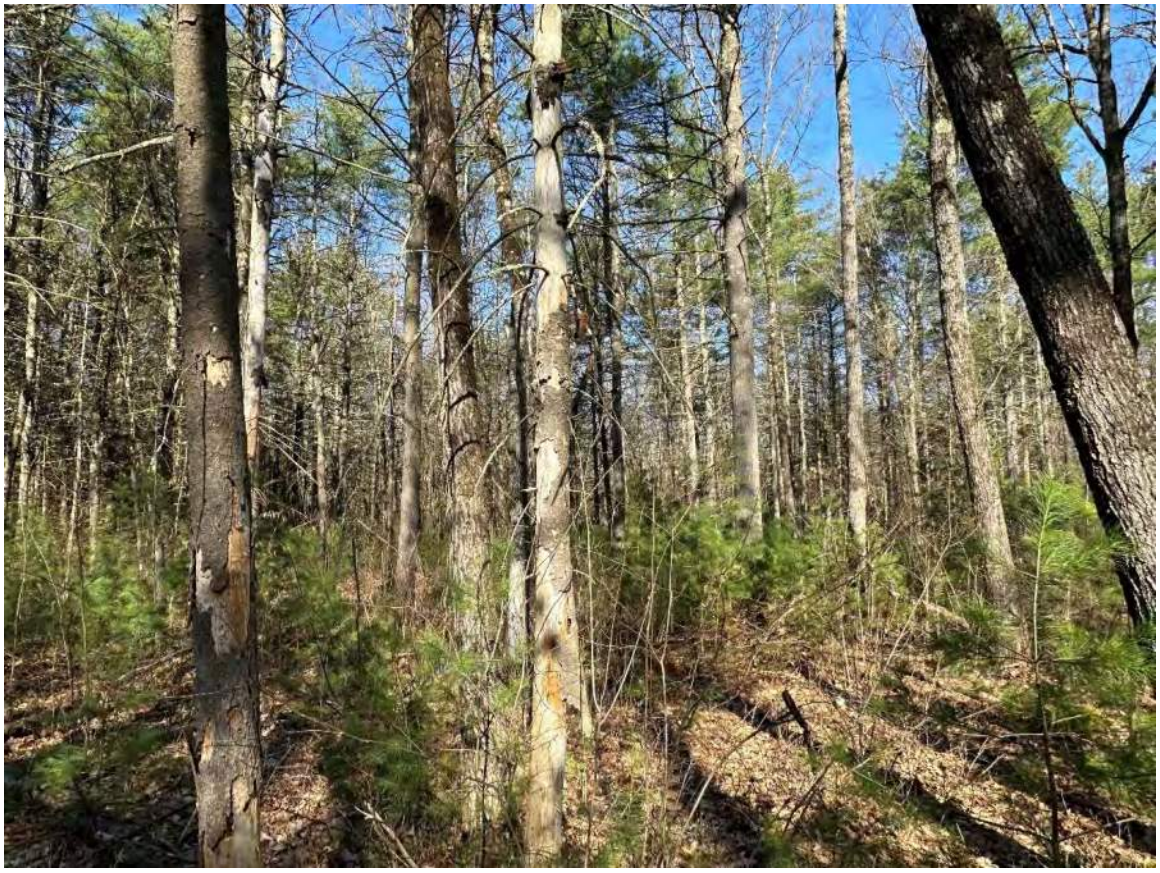

Photo 27. Portion of panoramic view from the northern part of the project area, facing northeast.

Photo 28. View of hunting stand in the northern part of the project area, facing southeast.

Photo 29. View of entrance to camp on an adjacent parcel, facing northwest.


Photo 30. View of hunting camp on an adjacent parcel to the west, facing west.

Photo 31. View of fence and Interstate 87 from the northern boundary of the project area, facing northwest.

Appendix C.

Shovel Test Pit Records

Appendix C.

STP Records

STP	Lvl	from (cm)	to (cm)	Soil Description	Soil Interpretation	Artifacts (Y/N)	Comments
A-1	1	0	15	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-1	2	15	45	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-2	1	0	7	10YR 3/2 brownish black loamy sand	A Horizon	N	truncated
A-2	2	7	45	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-3	1	0	14	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-3	2	14	47	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-4	1	0	18	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-4	2	18	48	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-5	1	0	20	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-5	2	20	47	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-6	1	0	26	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-6	2	26	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-7	1	0	19	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-7	2	19	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-8	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-8	2	23	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-9	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-9	2	22	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-10	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-10	2	23	53	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-11	1	0	24	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-11	2	24	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-12	1	0	26	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-12	2	26	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-13	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-13	2	22	48	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-14	1	0	20	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-14	2	20	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	

STP	Lvl	from (cm)	to (cm)	Soil Description	Soil Interpretation	Artifacts (Y/N)	Comments
A-15	1	0	20	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-15	2	20	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-16	1	0	20	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-16	2	20	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-17	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-17	2	22	48	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-18	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-18	2	23	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-19	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-19	2	22	36	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	stopped by roots
A-20	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-20	2	23	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-21	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-21	2	23	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-22	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-22	2	25	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-23	1	0	24	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-23	2	24	51	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-24	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	Y	1 brown bottle glass reburied
A-24	2	25	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-25	1	0	27	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-25	2	27	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-26	1	0	28	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-26	2	28	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-27	1	0	31	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-27	2	31	56	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-28	1	0	27	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-28	2	27	48	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-29	1	0	28	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-29	2	28	53	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-30	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-30	2	25	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-31	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	

STP	Lvl	from (cm)	to (cm)	Soil Description	Soil Interpretation	Artifacts (Y/N)	Comments
A-31	2	25	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-32	1	0	26	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-32	2	26	54	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-33	1	0	26	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-33	2	26	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-34	1	0	30	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-34	2	30	53	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-35	1	0	30	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-35	2	30	56	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-36	1	0	32	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-36	2	32	57	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-37	1	0	24	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-37	2	24	51	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-38	1	0	27	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-38	2	27	55	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-39	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-39	2	25	55	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-40	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-40	2	25	55	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-41	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-41	2	23	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-42	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-42	2	25	54	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-43	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-43	2	25	55	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-44	1	0	24	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-44	2	24	54	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-45	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-45	2	23	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-46	1	0	26	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-46	2	26	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-47	1	0	27	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-47	2	27	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	

STP	Lvl	from (cm)	to (cm)	Soil Description	Soil Interpretation	Artifacts (Y/N)	Comments
A-48	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-48	2	25	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-49	1	0	26	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-49	2	26	53	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-50	1	0	26	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-50	2	26	55	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-51	1	0	24	10YR 3/2 brownish black loamy sand	A Horizon	Y	2 light bulb glass reburied
A-51	2	24	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-52	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-52	2	25	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-53	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-53	2	25	38	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	stopped by roots
A-54	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-54	2	25	55	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-55	1	0	28	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-55	2	28	51	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-56	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-56	2	25	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-57	1	0	27	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-57	2	27	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-58	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-58	2	25	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-59	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-59	2	25	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-60	1	0	26	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-60	2	26	54	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-61	1	0	28	10YR 3/2 brownish black loamy sand	A Horizon	Y	2 coal slag reburied
A-61	2	28	54	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-62	1	0	26	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-62	2	26	53	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
A-63	1	0	21	10YR 3/2 brownish black loamy sand	A Horizon	N	
A-63	2	21	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-1	1	0	21	10YR 3/2 brownish black loamy sand	A Horizon	N	

STP	Lvl	from (cm)	to (cm)	Soil Description	Soil Interpretation	Artifacts (Y/N)	Comments
B-1	2	21	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-2	1	0	19	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-2	2	19	45	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-3	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-3	2	23	51	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-4	1	0	17	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-4	2	17	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-5	1	0	14	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-5	2	14	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-6	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-6	2	22	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-7	1	0	13	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-7	2	13	45	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-8	1	0	26	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-8	2	26	55	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-9	1	0	18	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-9	2	18	48	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-10	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-10	2	22	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-11	1	0	27	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-11	2	27	58	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-12	1	0	24	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-12	2	24	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-13	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-13	2	23	51	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-14	1	0	24	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-14	2	24	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-15	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-15	2	22	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-16	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-16	2	23	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-17	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-17	2	22	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	

STP	Lvl	from (cm)	to (cm)	Soil Description	Soil Interpretation	Artifacts (Y/N)	Comments
B-18	1	0	21	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-18	2	21	51	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-19	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-19	2	22	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-20	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-20	2	23	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-21	1	0	24	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-21	2	24	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-22	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-22	2	25	55	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-23	1	0	26	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-23	2	26	59	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-24	1	0	20	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-24	2	20	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-25	1	0	19	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-25	2	19	51	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-26	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-26	2	22	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-27	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-27	2	23	55	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-28	1	0	21	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-28	2	21	53	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-29	1	0	21	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-29	2	21	48	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-30	1	0	20	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-30	2	20	48	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-31	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-31	2	22	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-32	1	0	20	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-32	2	20	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-33	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-33	2	22	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-34	1	0	27	10YR 3/2 brownish black loamy sand	A Horizon	N	

STP	Lvl	from (cm)	to (cm)	Soil Description	Soil Interpretation	Artifacts (Y/N)	Comments
B-34	2	27	55	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-35	1	0	19	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-35	2	19	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-36	1	0	21	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-36	2	21	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-37	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-37	2	25	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-38	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-38	2	23	51	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-39	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-39	2	25	53	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-40	1	0	24	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-40	2	24	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-41	1	0	27	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-41	2	27	54	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-42	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-42	2	25	51	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-43	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-43	2	23	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-44	1	0	27	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-44	2	27	55	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-45	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-45	2	23	51	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-46	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-46	2	22	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-47	1	0	26	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-47	2	26	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-48	1	0	24	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-48	2	24	51	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-49	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-49	2	25	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-50	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-50	2	25	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	

STP	Lvl	from (cm)	to (cm)	Soil Description	Soil Interpretation	Artifacts (Y/N)	Comments
B-51	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-51	2	22	51	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-52	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-52	2	23	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-53	1	0	30	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-53	2	30	57	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-54	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-54	2	22	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-55	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-55	2	25	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-56	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-56	2	25	51	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-57	1	0	17	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-57	2	17	48	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-58	1	0	24	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-58	2	24	53	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-59	1	0	26	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-59	2	26	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-60	1	0	33	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-60	2	33	58	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-61	1	0	30	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-61	2	30	54	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
B-62	1	0	27	10YR 3/2 brownish black loamy sand	A Horizon	N	
B-62	2	27	55	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-1	1	0	12	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-1	2	12	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-2	1	0	16	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-2	2	16	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-3	1	0	10	10YR 3/2 brownish black loamy sand	A Horizon	N	truncated
C-3	2	10	47	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-4	1	0	14	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-4	2	14	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-5	1	0	15	10YR 3/2 brownish black loamy sand	A Horizon	N	

STP	Lvl	from (cm)	to (cm)	Soil Description	Soil Interpretation	Artifacts (Y/N)	Comments
C-5	2	15	48	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-6	1	0	15	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-6	2	15	45	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-7	1	0	19	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-7	2	19	45	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-8	1	0	17	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-8	2	17	33	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	stopped by roots
C-9	1	0	17	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-9	2	17	45	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-10	1	0	18	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-10	2	18	47	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-11	1	0	18	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-11	2	18	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-12	1	0	20	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-12	2	20	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-13	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-13	2	22	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-14	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-14	2	25	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-15	1	0	24	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-15	2	24	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-16	1	0	24	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-16	2	24	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-17	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-17	2	25	47	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-18	1	0	26	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-18	2	26	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-19	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-19	2	25	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-20	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-20	2	25	39	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	stopped by roots
C-21	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-21	2	25	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	

STP	Lvl	from (cm)	to (cm)	Soil Description	Soil Interpretation	Artifacts (Y/N)	Comments
C-22	1	0	24	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-22	2	24	48	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-23	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-23	2	25	53	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-24	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-24	2	25	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-25	1	0	28	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-25	2	28	51	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-26	1	0	27	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-26	2	27	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-27	1	0	28	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-27	2	28	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-28	1	0	28	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-28	2	28	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-29	1	0	28	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-29	2	28	40	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	stopped by roots
C-30	1	0	26	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-30	2	26	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-31	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-31	2	25	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-32	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-32	2	25	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-33	1	0	27	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-33	2	27	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-34	1	0	28	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-34	2	28	53	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-35	1	0	28	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-35	2	28	53	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-36	1	0	29	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-36	2	29	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-37	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-37	2	25	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-38	1	0	26	10YR 3/2 brownish black loamy sand	A Horizon	N	

STP	Lvl	from (cm)	to (cm)	Soil Description	Soil Interpretation	Artifacts (Y/N)	Comments
C-38	2	26	55	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-39	1	0	26	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-39	2	26	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-40	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-40	2	25	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-41	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-41	2	25	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-42	1	0	27	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-42	2	27	51	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-43	1	0	27	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-43	2	27	33	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	stopped by roots
C-44	1	0	24	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-44	2	24	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-45	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-45	2	23	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-46	1	0	21	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-46	2	21	44	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-47	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-47	2	22	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-48	1	0	26	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-48	2	26	54	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-49	1	0	27	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-49	2	27	51	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-50	1	0	26	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-50	2	26	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-51	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-51	2	25	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-52	1	0	28	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-52	2	28	40	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	stopped by roots
C-53	1	0	28	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-53	2	28	53	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-54	1	0	30	10YR 3/2 brownish black loamy sand	A Horizon	Y	1 clear glass reburied
C-54	2	30	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	

STP	Lvl	from (cm)	to (cm)	Soil Description	Soil Interpretation	Artifacts (Y/N)	Comments
C-55	1	0	27	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-55	2	27	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-56	1	0	28	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-56	2	28	51	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-57	1	0	27	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-57	2	27	38	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-58	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	Y	plastic spoon fragment reburied
C-58	2	25	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-59	1	0	27	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-59	2	27	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-60	1	0	27	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-60	2	27	62	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
C-61	1	0	38	10YR 3/2 brownish black loamy sand	A Horizon	N	
C-61	2	38	64	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-1	1	0	15	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-1	2	15	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-2	1	0	20	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-2	2	20	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-3	1	0	17	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-3	2	17	51	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-4	1	0	12	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-4	2	12	45	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-5	1	0	11	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-5	2	11	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-6	1	0	14	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-6	2	14	45	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-7	1	0	21	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-7	2	21	51	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-8	1	0	20	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-8	2	20	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-9	1	0	18	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-9	2	18	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-10	1	0	14	10YR 3/2 brownish black loamy sand	A Horizon	N	

STP	Lvl	from (cm)	to (cm)	Soil Description	Soil Interpretation	Artifacts (Y/N)	Comments
D-10	2	14	48	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-11	1	0	18	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-11	2	18	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-12	1	0	20	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-12	2	20	51	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-13	1	0	19	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-13	2	19	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-14	1	0	26	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-14	2	26	54	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-15	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-15	2	23	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-16	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-16	2	22	51	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-17	1	0	20	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-17	2	20	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-18	1	0	16	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-18	2	16	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-19	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-19	2	22	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-20	1	0	24	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-20	2	24	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-21	1	0	20	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-21	2	20	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-22	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-22	2	25	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-23	1	0	21	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-23	2	21	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-24	1	0	20	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-24	2	20	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-25	1	0	19	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-25	2	19	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-26	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-26	2	22	51	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	

STP	Lvl	from (cm)	to (cm)	Soil Description	Soil Interpretation	Artifacts (Y/N)	Comments
D-27	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-27	2	23	53	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-28	1	0	26	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-28	2	26	55	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-29	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-29	2	22	53	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-30	1	0	24	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-30	2	24	55	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-31	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-31	2	22	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-32	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-32	2	25	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-33	1	0	27	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-33	2	27	56	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-34	1	0	26	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-34	2	26	55	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-35	1	0	19	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-35	2	19	48	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-36	1	0	19	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-36	2	19	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-37	1	0	24	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-37	2	24	53	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-38	1	0	20	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-38	2	20	48	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-39	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-39	2	22	53	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-40	1	0	24	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-40	2	24	55	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-41	1	0	12	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-41	2	12	45	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-42	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-42	2	23	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-43	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	

STP	Lvl	from (cm)	to (cm)	Soil Description	Soil Interpretation	Artifacts (Y/N)	Comments
D-43	2	25	54	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-44	1	0	26	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-44	2	26	56	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-45	1	0	27	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-45	2	27	55	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-46	1	0	19	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-46	2	19	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-47	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-47	2	25	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-48	1	0	19	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-48	2	19	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-49	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-49	2	22	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-50	1	0	24	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-50	2	24	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-51	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-51	2	23	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-52	1	0	24	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-52	2	24	53	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-53	1	0	19	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-53	2	19	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-54	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-54	2	23	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-55	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-55	2	23	53	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-56	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-56	2	22	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-57	1	0	30	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-57	2	30	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-58	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-58	2	25	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-59	1	0	27	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-59	2	27	53	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	

STP	Lvl	from (cm)	to (cm)	Soil Description	Soil Interpretation	Artifacts (Y/N)	Comments
D-60	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-60	2	23	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
D-61	1	0	26	10YR 3/2 brownish black loamy sand	A Horizon	N	
D-61	2	26	54	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-1	1	0	17	10YR 3/2 brownish black loamy sand	A Horizon	N	
E-1	2	17	44	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-2	1	0	16	10YR 3/2 brownish black loamy sand	A Horizon	N	
E-2	2	16	45	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-3	1	0	11	10YR 3/2 brownish black loamy sand	A Horizon	N	
E-3	2	11	44	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-4	1	0	9	10YR 3/2 brownish black loamy sand	A Horizon	N	truncated
E-4	2	9	40	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-5	1	0	20	10YR 3/2 brownish black loamy sand	A Horizon	N	
E-5	2	20	46	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-6	1	0	13	10YR 3/2 brownish black loamy sand	A Horizon	N	
E-6	2	13	44	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-7	1	0	20	10YR 3/2 brownish black loamy sand	A Horizon	N	
E-7	2	20	47	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-8	1	0	12	10YR 3/2 brownish black loamy sand	A Horizon	N	
E-8	2	12	45	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-9	1	0	12	10YR 3/2 brownish black loamy sand	A Horizon	N	
E-9	2	12	45	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-10	1	0	11	10YR 3/2 brownish black loamy sand	A Horizon	N	truncated
E-10	2	11	45	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-11	1	0	17	10YR 3/2 brownish black loamy sand	A Horizon	N	
E-11	2	17	48	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-12	1	0	17	10YR 3/2 brownish black loamy sand	A Horizon	Y	1 shotgun shell reburied
E-12	2	17	47	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-13	1	0	18	10YR 3/2 brownish black loamy sand	A Horizon	N	
E-13	2	18	45	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-14	1	0	20	10YR 3/2 brownish black loamy sand	A Horizon	N	
E-14	2	20	47	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-15	1	0	19	10YR 3/2 brownish black loamy sand	A Horizon	N	

STP	Lvl	from (cm)	to (cm)	Soil Description	Soil Interpretation	Artifacts (Y/N)	Comments
E-15	2	19	47	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-16	1	0	20	10YR 3/2 brownish black loamy sand	A Horizon	N	
E-16	2	20	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-17	1	0	17	10YR 3/2 brownish black loamy sand	A Horizon	N	
E-17	2	17	47	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-18	1	0	16	10YR 3/2 brownish black loamy sand	A Horizon	N	
E-18	2	6	47	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-19	1	0	17	10YR 3/2 brownish black loamy sand	A Horizon	N	
E-19	2	17	47	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-20	1	0	18	10YR 3/2 brownish black loamy sand	A Horizon	N	
E-20	2	18	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-21	1	0	20	10YR 3/2 brownish black loamy sand	A Horizon	N	
E-21	2	20	48	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-22	1	0	20	10YR 3/2 brownish black loamy sand	A Horizon	N	
E-22	2	20	47	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-23	1	0	21	10YR 3/2 brownish black loamy sand	A Horizon	N	
E-23	2	21	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-24	1	0	24	10YR 3/2 brownish black loamy sand	A Horizon	N	
E-24	2	24	51	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-25	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
E-25	2	25	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-26	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
E-26	2	23	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-27	1	0	24	10YR 3/2 brownish black loamy sand	A Horizon	N	
E-27	2	24	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-28	1	0	20	10YR 3/2 brownish black loamy sand	A Horizon	N	
E-28	2	20	48	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-29	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
E-29	2	23	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-30	1	0	21	10YR 3/2 brownish black loamy sand	A Horizon	N	
E-30	2	21	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-31	1	0	20	10YR 3/2 brownish black loamy sand	A Horizon	N	
E-31	2	20	47	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	

STP	Lvl	from (cm)	to (cm)	Soil Description	Soil Interpretation	Artifacts (Y/N)	Comments
E-32	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
E-32	2	23	48	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-33	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
E-33	2	22	48	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-34	1	0	24	10YR 3/2 brownish black loamy sand	A Horizon	N	
E-34	2	24	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-35	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
E-35	2	23	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-36	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
E-36	2	25	32	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	stopped by roots
E-37	1	0	24	10YR 3/2 brownish black loamy sand	A Horizon	N	
E-37	2	24	51	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-38	1	0	20	10YR 3/2 brownish black loamy sand	A Horizon	N	
E-38	2	20	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-39	1	0	21	10YR 3/2 brownish black loamy sand	A Horizon	N	
E-39	2	21	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-40	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
E-40	2	25	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-41	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
E-41	2	23	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-42	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
E-42	2	22	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-43	1	0	48	10YR 3/2 brownish black loamy sand	A Horizon	Y	3 brick fragments reburied
E-43	2	18	48	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-44	1	0	21	10YR 3/2 brownish black loamy sand	A Horizon	N	
E-44	2	21	48	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-45	1	0	18	10YR 3/2 brownish black loamy sand	A Horizon	N	
E-45	2	18	48	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-46	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
E-46	2	25	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-47	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
E-47	2	23	56	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-48	1	0	30	10YR 3/2 brownish black loamy sand	A Horizon	N	

STP	Lvl	from (cm)	to (cm)	Soil Description	Soil Interpretation	Artifacts (Y/N)	Comments
E-48	2	30	55	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-49	1	0	31	10YR 3/2 brownish black loamy sand	A Horizon	N	
E-49	2	31	55	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-50	1	0	28	10YR 3/2 brownish black loamy sand	A Horizon	Y	2 brown glass reburied
E-50	2	28	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-51	1	0	36	10YR 3/2 brownish black loamy sand	A Horizon	N	
E-51	2	36	60	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-52	1	0	35	10YR 3/2 brownish black loamy sand	A Horizon	N	
E-52	2	35	60	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-53	1	0	29	10YR 3/2 brownish black loamy sand	A Horizon	N	
E-53	2	29	59	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
E-54	1	0	30	10YR 3/2 brownish black loamy sand	A Horizon	N	
E-54	2	30	58	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
F-1	1	0	13	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-1	2	13	45	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
F-2	1	0	14	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-2	2	14	45	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
F-3	1	0	10	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-3	2	10	40	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
F-4	1	0	19	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-4	2	19	51	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
F-5	1	0	11	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-5	2	11	46	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
F-6	1	0	15	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-6	2	15	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
F-7	1	0	13	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-7	2	13	47	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
F-8	1	0	12	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-8	2	12	45	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
F-9	1	0	21	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-9	2	21	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
F-10	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-10	2	23	55	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	

STP	Lvl	from (cm)	to (cm)	Soil Description	Soil Interpretation	Artifacts (Y/N)	Comments
F-11	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-11	2	22	51	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
F-12	1	0	20	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-12	2	20	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
F-13	1	0	21	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-13	2	21	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
F-14	1	0	21	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-14	2	21	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
F-15	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-15	2	23	53	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
F-16	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-16	2	25	54	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
F-17	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-17	2	22	55	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
F-18	1	0	20	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-18	2	20	53	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
F-19	1	0	18	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-19	2	18	47	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
F-20	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-20	2	22	51	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
F-21	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-21	2	23	53	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
F-22	1	0	20	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-22	2	20	48	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
F-23	1	0	32	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-23	2	32	60	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
F-24	1	0	21	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-24	2	21	48	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
F-25	1	0	18	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-25	2	18	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
F-26	1	0	19	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-26	2	19	48	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
F-27	1	0	20	10YR 3/2 brownish black loamy sand	A Horizon	N	

STP	Lvl	from (cm)	to (cm)	Soil Description	Soil Interpretation	Artifacts (Y/N)	Comments
F-27	2	20	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
F-28	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-28	2	23	51	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
F-29	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-29	2	25	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
F-30	1	0	20	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-30	2	20	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
F-31	1	0	24	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-31	2	24	53	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
F-32	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-32	2	23	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
F-33	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-33	2	25	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
F-34	1	0	18	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-34	2	18	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
F-35	1	0	24	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-35	2	24	51	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
F-36	1	0	20	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-36	2	20	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
F-37	1	0	26	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-37	2	26	51	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
F-38	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-38	2	22	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
F-39	1	0	24	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-39	2	24	53	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
F-40	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-40	2	22	51	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
F-41	1	0	21	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-41	2	21	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
F-42	1	0	17	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-42	2	17	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
F-43	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-43	2	22	51	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	

STP	Lvl	from (cm)	to (cm)	Soil Description	Soil Interpretation	Artifacts (Y/N)	Comments
F-44	1	0	18	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-44	2	18	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
F-45	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-45	2	25	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
F-46	1	0	27	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-46	2	27	56	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
F-47	1	0	26	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-47	2	26	55	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
F-48	1	0	21	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-48	2	21	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
F-49	1	0	27	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-49	2	27	55	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
F-50	1	0	21	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-50	2	21	51	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
F-51	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-51	2	23	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
F-52	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-52	2	25	51	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
F-53	1	0	26	10YR 3/2 brownish black loamy sand	A Horizon	N	
F-53	2	26	53	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
G-1	1	0	10	10YR 3/2 brownish black loamy sand	A Horizon	N	truncated
G-1	2	10	45	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
G-2	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
G-2	2	23	51	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
G-3	1	0	13	10YR 3/2 brownish black loamy sand	A Horizon	N	
G-3	2	13	46	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
G-4	1	0	15	10YR 3/2 brownish black loamy sand	A Horizon	N	
G-4	2	15	45	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
G-5	1	0	19	10YR 3/2 brownish black loamy sand	A Horizon	N	
G-5	2	19	47	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
G-6	1	0	15	10YR 3/2 brownish black loamy sand	A Horizon	N	
G-6	2	15	45	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
G-7	1	0	20	10YR 3/2 brownish black loamy sand	A Horizon	N	

STP	Lvl	from (cm)	to (cm)	Soil Description	Soil Interpretation	Artifacts (Y/N)	Comments
G-7	2	20	46	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
G-8	1	0	21	10YR 3/2 brownish black loamy sand	A Horizon	N	
G-8	2	21	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
G-9	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
G-9	2	22	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
G-10	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
G-10	2	23	48	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
G-11	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
G-11	2	22	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
G-12	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
G-12	2	22	48	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
G-13	1	0	24	10YR 3/2 brownish black loamy sand	A Horizon	N	
G-13	2	24	40	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
G-14	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
G-14	2	25	51	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
G-15	1	0	28	10YR 3/2 brownish black loamy sand	A Horizon	N	
G-15	2	28	55	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
G-16	1	0	27	10YR 3/2 brownish black loamy sand	A Horizon	N	
G-16	2	27	51	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
G-17	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
G-17	2	25	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
G-18	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
G-18	2	25	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
G-19	1	0	30	10YR 3/2 brownish black loamy sand	A Horizon	N	
G-19	2	30	60	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
G-20	1	0	28	10YR 3/2 brownish black loamy sand	A Horizon	N	
G-20	2	28	60	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
G-21	1	0	27	10YR 3/2 brownish black loamy sand	A Horizon	N	
G-21	2	27	57	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
G-22	1	0	10	10YR 3/2 brownish black loamy sand	A Horizon	N	on trail, truncated
G-22	2	10	43	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
G-23	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
G-23	2	35	37	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	stopped by roots

STP	Lvl	from (cm)	to (cm)	Soil Description	Soil Interpretation	Artifacts (Y/N)	Comments
G-24	1	0	26	10YR 3/2 brownish black loamy sand	A Horizon	N	
G-24	2	26	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
G-25	1	0	26	10YR 3/2 brownish black loamy sand	A Horizon	N	
G-25	2	26	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
G-26	1	0	21	10YR 3/2 brownish black loamy sand	A Horizon	N	
G-26	2	21	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
G-27	1	0	27	10YR 3/2 brownish black loamy sand	A Horizon	N	
G-27	2	27	56	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
G-28	1	0	27	10YR 3/2 brownish black loamy sand	A Horizon	N	
G-28	2	27	57	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
G-29	1	0	28	10YR 3/2 brownish black loamy sand	A Horizon	N	
G-29	2	28	53	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
G-30	1	0	27	10YR 3/2 brownish black loamy sand	A Horizon	N	
G-30	2	27	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
G-31	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
G-31	2	25	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
G-32	1	0	21	10YR 3/2 brownish black loamy sand	A Horizon	N	
G-32	2	21	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
G-33	1	0	24	10YR 3/2 brownish black loamy sand	A Horizon	N	
G-33	2	24	54	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
G-34	1	0	26	10YR 3/2 brownish black loamy sand	A Horizon	N	
G-34	2	26	53	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
G-35	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
G-35	2	25	55	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
G-36	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
G-36	2	25	55	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
G-37	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
G-37	2	25	41	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	stopped by roots
G-38	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
G-38	2	22	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
G-39	1	0	27	10YR 3/2 brownish black loamy sand	A Horizon	N	
G-39	2	27	55	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
G-40	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	

STP	Lvl	from (cm)	to (cm)	Soil Description	Soil Interpretation	Artifacts (Y/N)	Comments
G-40	2	25	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
G-41	1	0	21	10YR 3/2 brownish black loamy sand	A Horizon	N	
G-41	2	21	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
G-42	1	0	24	10YR 3/2 brownish black loamy sand	A Horizon	N	
G-42	2	24	54	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
G-43	1	0	24	10YR 3/2 brownish black loamy sand	A Horizon	N	
G-43	2	24	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
G-44	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
G-44	2	25	55	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
G-45	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
G-45	2	25	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
G-46	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
G-46	2	22	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
G-47	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
G-47	2	23	53	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
G-48	1	0	24	10YR 3/2 brownish black loamy sand	A Horizon	N	
G-48	2	24	53	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
G-49	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
G-49	2	25	51	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
G-50	1	0	30	10YR 3/2 brownish black loamy sand	A Horizon	N	
G-50	2	30	54	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
G-51	1	0	32	10YR 3/2 brownish black loamy sand	A Horizon	N	
G-51	2	32	55	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
G-52	1	0	30	10YR 3/2 brownish black loamy sand	A Horizon	N	
G-52	2	30	57	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
G-53	1	0	35	10YR 3/2 brownish black loamy sand	A Horizon	N	
G-53	2	35	67	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
H-1	1	0	11	10YR 3/2 brownish black loamy sand	A Horizon	N	
H-1	2	11	46	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
H-2	1	0	12	10YR 3/2 brownish black loamy sand	A Horizon	N	
H-2	2	12	44	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
H-3	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
H-3	2	23	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	

STP	Lvl	from (cm)	to (cm)	Soil Description	Soil Interpretation	Artifacts (Y/N)	Comments
H-4	1	0	11	10YR 3/2 brownish black loamy sand	A Horizon	N	
H-4	2	11	41	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
H-5	1	0	17	10YR 3/2 brownish black loamy sand	A Horizon	N	
H-5	2	17	48	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
H-6	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
H-6	2	25	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
H-7	1	0	21	10YR 3/2 brownish black loamy sand	A Horizon	N	
H-7	2	21	47	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
H-8	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
H-8	2	22	45	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
H-9	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
H-9	2	23	48	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
H-10	1	0	20	10YR 3/2 brownish black loamy sand	A Horizon	N	
H-10	2	20	47	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
H-11	1	0	17	10YR 3/2 brownish black loamy sand	A Horizon	N	
H-11	2	17	43	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
H-12	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
H-12	2	23	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
H-13	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
H-13	2	25	51	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
H-14	1	0	24	10YR 3/2 brownish black loamy sand	A Horizon	N	
H-14	2	24	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
H-15	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
H-15	2	25	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
H-16	1	0	24	10YR 3/2 brownish black loamy sand	A Horizon	N	
H-16	2	24	48	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
H-17	1	0	19	10YR 3/2 brownish black loamy sand	A Horizon	N	
H-17	2	19	47	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
H-18	1	0	19	10YR 3/2 brownish black loamy sand	A Horizon	N	
H-18	2	19	45	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
H-19	1	0	28	10YR 3/2 brownish black loamy sand	A Horizon	N	
H-19	2	28	54	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
H-20	1	0	19	10YR 3/2 brownish black loamy sand	A Horizon	N	

STP	Lvl	from (cm)	to (cm)	Soil Description	Soil Interpretation	Artifacts (Y/N)	Comments
H-20	2	19	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
H-21	1	0	17	10YR 3/2 brownish black loamy sand	A Horizon	N	
H-21	2	17	45	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
H-22	1	0	19	10YR 3/2 brownish black loamy sand	A Horizon	N	
H-22	2	19	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
H-23	1	0	26	10YR 3/2 brownish black loamy sand	A Horizon	N	
H-23	2	26	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
H-24	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
H-24	2	23	53	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
H-25	1	0	20	10YR 3/2 brownish black loamy sand	A Horizon	N	
H-25	2	20	48	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
H-26	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
H-26	2	23	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
H-27	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
H-27	2	22	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
H-28	1	0	28	10YR 3/2 brownish black loamy sand	A Horizon	N	
H-28	2	28	54	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
H-29	1	0	20	10YR 3/2 brownish black loamy sand	A Horizon	N	
H-29	2	20	46	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
H-30	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
H-30	2	23	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
H-31	1	0	24	10YR 3/2 brownish black loamy sand	A Horizon	N	
H-31	2	24	51	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
H-32	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
H-32	2	23	53	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
H-33	1	0	18	10YR 3/2 brownish black loamy sand	A Horizon	N	
H-33	2	18	45	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
H-34	1	0	24	10YR 3/2 brownish black loamy sand	A Horizon	N	
H-34	2	24	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
H-35	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
H-35	2	23	48	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
H-36	1	0	19	10YR 3/2 brownish black loamy sand	A Horizon	N	
H-36	2	19	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	

STP	Lvl	from (cm)	to (cm)	Soil Description	Soil Interpretation	Artifacts (Y/N)	Comments
H-37	1	0	18	10YR 3/2 brownish black loamy sand	A Horizon	N	
H-37	2	18	48	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
H-38	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
H-38	2	22	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
H-39	1	0	19	10YR 3/2 brownish black loamy sand	A Horizon	N	
H-39	2	19	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
H-40	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
H-40	2	22	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
H-41	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
H-41	2	25	55	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
H-42	1	0	18	10YR 3/2 brownish black loamy sand	A Horizon	N	
H-42	2	18	47	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
H-43	1	0	20	10YR 3/2 brownish black loamy sand	A Horizon	N	
H-43	2	20	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
H-44	1	0	27	10YR 3/2 brownish black loamy sand	A Horizon	N	
H-44	2	27	54	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
H-45	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
H-45	2	22	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
H-46	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
H-46	2	22	51	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
H-47	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
H-47	2	23	53	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
H-48	1	0	26	10YR 3/2 brownish black loamy sand	A Horizon	N	
H-48	2	26	54	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
H-49	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
H-49	2	25	51	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
H-50	1	0	24	10YR 3/2 brownish black loamy sand	A Horizon	N	
H-50	2	24	51	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
H-51	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
H-51	2	23	51	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
H-52	1	0	41	10YR 3/1 brownish black loam w/gravel	A Horizon	N	fill
H-52	2	41	77	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	fill
I-1	1	0	15	10YR 3/2 brownish black loamy sand	A Horizon	N	

STP	Lvl	from (cm)	to (cm)	Soil Description	Soil Interpretation	Artifacts (Y/N)	Comments
I-1	2	15	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
I-2	1	0	16	10YR 3/2 brownish black loamy sand	A Horizon	N	
I-2	2	16	48	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
I-3	1	0	15	10YR 3/2 brownish black loamy sand	A Horizon	N	
I-3	2	15	45	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
I-4	1	0	21	10YR 3/2 brownish black loamy sand	A Horizon	N	
I-4	2	21	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
I-5	1	0	18	10YR 3/2 brownish black loamy sand	A Horizon	N	
I-5	2	18	48	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
I-6	1	0	24	10YR 3/2 brownish black loamy sand	A Horizon	N	
I-6	2	24	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
I-7	1	0	19	10YR 3/2 brownish black loamy sand	A Horizon	N	
I-7	2	19	45	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
I-8	1	0	18	10YR 3/2 brownish black loamy sand	A Horizon	N	
I-8	2	18	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
I-9	1	0	13	10YR 3/2 brownish black loamy sand	A Horizon	N	
I-9	2	13	43	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
I-10	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
I-10	2	22	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
I-11	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
I-11	2	23	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
I-12	1	0	20	10YR 3/2 brownish black loamy sand	A Horizon	N	
I-12	2	20	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
I-13	1	0	20	10YR 3/2 brownish black loamy sand	A Horizon	N	
I-13	2	20	48	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
I-14	1	0	21	10YR 3/2 brownish black loamy sand	A Horizon	N	
I-14	2	21	53	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
I-15	1	0	19	10YR 3/2 brownish black loamy sand	A Horizon	N	
I-15	2	19	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
I-16	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
I-16	2	23	51	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
I-17	1	0	18	10YR 3/2 brownish black loamy sand	A Horizon	N	
I-17	2	18	47	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	

STP	Lvl	from (cm)	to (cm)	Soil Description	Soil Interpretation	Artifacts (Y/N)	Comments
I-18	1	0	21	10YR 3/2 brownish black loamy sand	A Horizon	N	
I-18	2	21	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
I-19	1	0	19	10YR 3/2 brownish black loamy sand	A Horizon	N	
I-19	2	19	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
I-20	1	0	17	10YR 3/2 brownish black loamy sand	A Horizon	N	
I-20	2	17	48	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
I-21	1	0	21	10YR 3/2 brownish black loamy sand	A Horizon	N	
I-21	2	21	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
I-22	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
I-22	2	23	53	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
I-23	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
I-23	2	22	51	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
I-24	1	0	20	10YR 3/2 brownish black loamy sand	A Horizon	N	
I-24	2	20	48	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
I-25	1	0	21	10YR 3/2 brownish black loamy sand	A Horizon	N	
I-25	2	21	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
I-26	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	Y	roofing slate reburird
I-26	2	23	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
I-27	1	0	20	10YR 3/2 brownish black loamy sand	A Horizon	N	
I-27	2	20	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
I-28	1	0	21	10YR 3/2 brownish black loamy sand	A Horizon	N	
I-28	2	21	51	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
I-29	1	0	19	10YR 3/2 brownish black loamy sand	A Horizon	N	
I-29	2	19	48	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
I-30	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
I-30	2	22	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
I-31	1	0	48	10YR 3/2 brownish black loamy sand	A Horizon	N	
I-31	2	19	48	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
I-32	1	0	21	10YR 3/2 brownish black loamy sand	A Horizon	N	
I-32	2	21	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
I-33	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
I-33	2	22	48	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
I-34	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	

STP	Lvl	from (cm)	to (cm)	Soil Description	Soil Interpretation	Artifacts (Y/N)	Comments
I-34	2	23	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
I-35	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
I-35	2	22	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
I-36	1	0	21	10YR 3/2 brownish black loamy sand	A Horizon	N	
I-36	2	21	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
I-37	1	0	26	10YR 3/2 brownish black loamy sand	A Horizon	N	
I-37	2	26	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
I-38	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
I-38	2	22	51	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
I-39	1	0	27	10YR 3/2 brownish black loamy sand	A Horizon	N	
I-39	2	27	55	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
I-40	1	0	27	10YR 3/2 brownish black loamy sand	A Horizon	N	
I-40	2	27	53	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
I-41	1	0	20	10YR 3/2 brownish black loamy sand	A Horizon	N	
I-41	2	20	47	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
I-42	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
I-42	2	23	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
I-43	1	0	24	10YR 3/2 brownish black loamy sand	A Horizon	N	
I-43	2	24	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
I-44	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
I-44	2	25	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
I-45	1	0	26	10YR 3/2 brownish black loamy sand	A Horizon	N	
I-45	2	26	54	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
I-46	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
I-46	2	23	51	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
I-47	1	0	27	10YR 3/2 brownish black loamy sand	A Horizon	N	
I-47	2	27	55	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
I-48	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
I-48	2	22	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
I-49	1	0	26	10YR 3/2 brownish black loamy sand	A Horizon	N	
I-49	2	26	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
I-50	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
I-50	2	25	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	

STP	Lvl	from (cm)	to (cm)	Soil Description	Soil Interpretation	Artifacts (Y/N)	Comments
I-51	1	0	24	10YR 3/2 brownish black loamy sand	A Horizon	N	
I-51	2	24	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
J-1	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
J-1	2	22	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
J-2	1	0	20	10YR 3/2 brownish black loamy sand	A Horizon	N	
J-2	2	20	48	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
J-3	1	0	18	10YR 3/2 brownish black loamy sand	A Horizon	N	
J-3	2	18	44	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
J-4	1	0	20	10YR 3/2 brownish black loamy sand	A Horizon	N	
J-4	2	20	45	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
J-5	1	0	18	10YR 3/2 brownish black loamy sand	A Horizon	N	
J-5	2	18	46	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
J-6	1	0	12	10YR 3/2 brownish black loamy sand	A Horizon	N	
J-6	2	12	45	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
J-7	1	0	17	10YR 3/2 brownish black loamy sand	A Horizon	N	
J-7	2	17	45	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
J-8	1	0	18	10YR 3/2 brownish black loamy sand	A Horizon	N	
J-8	2	18	48	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
J-9	1	0	20	10YR 3/2 brownish black loamy sand	A Horizon	N	
J-9	2	20	46	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
J-10	1	0	21	10YR 3/2 brownish black loamy sand	A Horizon	N	
J-10	2	21	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
J-11	1	0	20	10YR 3/2 brownish black loamy sand	A Horizon	N	
J-11	2	20	46	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
J-12	1	0	21	10YR 3/2 brownish black loamy sand	A Horizon	N	
J-12	2	21	40	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	stopped by roots
J-13	1	0	20	10YR 3/2 brownish black loamy sand	A Horizon	N	
J-13	2	20	47	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
J-14	1	0	19	10YR 3/2 brownish black loamy sand	A Horizon	N	
J-14	2	19	45	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
J-15	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
J-15	2	22	46	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
J-16	1	0	47	10YR 3/2 brownish black loamy sand	A Horizon	N	

STP	Lvl	from (cm)	to (cm)	Soil Description	Soil Interpretation	Artifacts (Y/N)	Comments
J-16	2	19	47	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
J-17	1	0	20	10YR 3/2 brownish black loamy sand	A Horizon	N	
J-17	2	20	47	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
J-18	1	0	23	10YR 3/2 brownish black loamy sand	A Horizon	N	
J-18	2	23	45	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
J-19	1	0	21	10YR 3/2 brownish black loamy sand	A Horizon	N	
J-19	2	21	48	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
J-20	1	0	27	10YR 3/2 brownish black loamy sand	A Horizon	N	
J-20	2	27	35	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	stopped by roots
J-21	1	0	16	10YR 3/2 brownish black loamy sand	A Horizon	N	
J-21	2	16	47	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
J-22	1	0	21	10YR 3/2 brownish black loamy sand	A Horizon	N	
J-22	2	21	47	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
J-23	1	0	20	10YR 3/2 brownish black loamy sand	A Horizon	N	
J-23	2	20	48	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
J-24	1	0	20	10YR 3/2 brownish black loamy sand	A Horizon	N	
J-24	2	20	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
J-25	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
J-25	2	22	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
J-26	1	0	25	10YR 3/2 brownish black loamy sand	A Horizon	N	
J-26	2	25	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
J-27	1	0	24	10YR 3/2 brownish black loamy sand	A Horizon	N	
J-27	2	24	53	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
J-28	1	0	28	10YR 3/2 brownish black loamy sand	A Horizon	N	
J-28	2	28	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
J-29	1	0	27	10YR 3/2 brownish black loamy sand	A Horizon	N	
J-29	2	27	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
J-30	1	0	24	10YR 3/2 brownish black loamy sand	A Horizon	N	
J-30	2	24	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
J-31	1	0	27	10YR 3/2 brownish black loamy sand	A Horizon	N	
J-31	2	27	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
J-32	1	0	27	10YR 3/2 brownish black loamy sand	A Horizon	N	
J-32	2	27	53	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	

STP	Lvl	from (cm)	to (cm)	Soil Description	Soil Interpretation	Artifacts (Y/N)	Comments
J-33	1	0	28	10YR 3/2 brownish black loamy sand	A Horizon	N	
J-33	2	28	54	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
J-34	1	0	27	10YR 3/2 brownish black loamy sand	A Horizon	N	
J-34	2	27	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
J-35	1	0	27	10YR 3/2 brownish black loamy sand	A Horizon	N	
J-35	2	27	51	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
J-36	1	0	30	10YR 3/2 brownish black loamy sand	A Horizon	N	
J-36	2	30	59	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
J-37	1	0	29	10YR 3/2 brownish black loamy sand	A Horizon	N	
J-37	2	29	56	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
J-38	1	0	31	10YR 3/2 brownish black loamy sand	A Horizon	N	
J-38	2	31	56	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
J-39	1	0	22	10YR 3/2 brownish black loamy sand	A Horizon	N	
J-39	2	22	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
J-40	1	0	7	10YR 3/2 brownish black loamy sand	A Horizon	N	truncated
J-40	2	7	48	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
J-41	1	0	28	10YR 3/2 brownish black loamy sand	A Horizon	N	
J-41	2	28	49	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
J-42	1	0	30	10YR 3/2 brownish black loamy sand	A Horizon	N	
J-42	2	30	55	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
J-43	1	0	24	10YR 3/2 brownish black loamy sand	A Horizon	N	
J-43	2	24	52	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
J-44	1	0	37	10YR 3/2 brownish black loamy sand	A Horizon	N	
J-44	2	37	99	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
J-45	1	0	33	10YR 3/2 brownish black loamy sand	A Horizon	N	
J-45	2	33	51	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
J-46	1	0	32	10YR 3/2 brownish black loamy sand	A Horizon	N	
J-46	2	32	56	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
J-47	1	0	37	10YR 3/2 brownish black loamy sand	A Horizon	N	
J-47	2	37	57	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
J-48	1	0	43	10YR 3/2 brownish black loamy sand	A Horizon	N	
J-48	2	43	71	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
J-49	1	0	20	10YR 3/2 brownish black loamy sand	A Horizon	N	

STP	Lvl	from (cm)	to (cm)	Soil Description	Soil Interpretation	Artifacts (Y/N)	Comments
J-49	2	20	57	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
J-50	1	0	28	10YR 3/2 brownish black loamy sand	A Horizon	N	
J-50	2	28	58	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
J-51	1	0	21	10YR 3/2 brownish black loamy sand	A Horizon	N	
J-51	2	21	58	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
K-1	1	0	17	10YR 2/1 black loamy sand	A Horizon	N	
K-1	2	17	50	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
K-2				Not excavated; garage building			
K-3				Not excavated; garage building			
K-4	1	0	20	10YR 2/1 black loamy sand w/ gravel	A Horizon	N	
K-4	2	20	48	10YR 6/4 dull yellow orange loamy sand	B Horizon	N	
L-1				Not excavated; parking lot			
L-2				Not excavated; parking lot			
L-3				Not excavated; parking lot			
L-4				Not excavated; parking lot			

PROPOSED SITE
32.8± ACRES

ROUTE 197

ADIRONDACK NORTHWAY I-87

US ROUTE 9

SELFRIDGE ROAD

GRAPHIC SCALE

1000 0 500 1000 2000 4000

(IN FEET)

1 INCH = 1000 FT.

ENVIRONMENTAL DESIGN PARTNERSHIP, LLP.
900 Route 146 Clifton Park, New York 12065
(518) 371-7621 edpllp.com

PLANNED UNIT DEVELOPMENT DISTRICT

RESIDENCE AT 1345 ROUTE 9

SCHERMERHORN REAL ESTATE HOLDINGS

1345-1347 US ROUTE 9
TOWN OF MOREAU
SARATOGA COUNTY, NEW YORK

TAX MAP. No. 63.-4-9.12
JUNE 2024

REVISION	DATE	BY

SCALE: 1" = 1000'

SHEET TITLE: AERIAL VICINITY MAP

SHEET NO. EXHIBIT 2.11

LEGEND:

- RESOURCE PROTECTION ZONE (RP)
- PUD #1
- ONE & TWO–FAMILY RESIDENTIAL (R2)
- AGRICULTURE AND ONE–FAMILY RESIDENTIAL (R3)
- GENERAL COMMERCIAL (C1)
- COMMERCIAL AND COMMUNICATIONS (CC–1)
- AGRICULTURE AND ONE–FAMILY RESIDENTIAL (R–5)

PROPOSED SITE
27.19 ACRES

GRAPHIC SCALE

1000 0 500 1000 2000 4000

(IN FEET)

1 INCH = 1000 FT.

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PLANNED UNIT DEVELOPMENT DISTRICT

RESIDENCE AT 1345 ROUTE 9

SCHERMERHORN REAL ESTATE HOLDINGS

1345-1347 US ROUTE 9
TOWN OF MOREAU
SARATOGA COUNTY, NEW YORK

TAX MAP. No. 63.-4-9.12
JUNE 2024

REVISION	DATE	BY

SCALE: 1" = 1000'

SHEET TITLE: EXISTING ZONING MAP

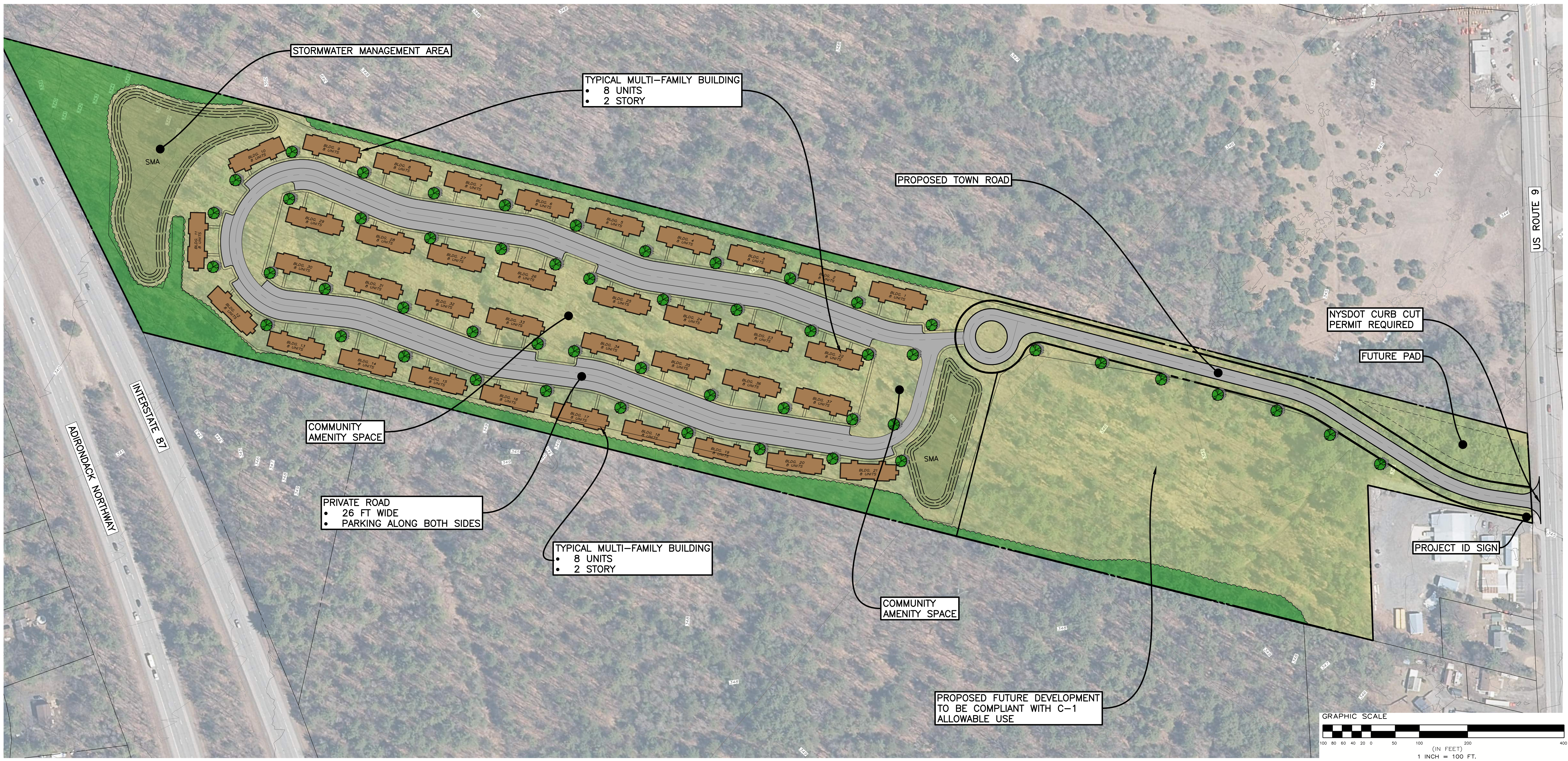
SHEET NO. EXHIBIT 3.1

SITE STATISTICS

EXISTING ZONING	C–1: GENERAL COMMERCIAL DISTRICT
PROPOSED ZONING	PUD: PLANNED UNIT DEVELOPMENT
PARCEL AREA	32.85± ACRES
PROPOSED USE:	MULTI–FAMILY RESIDENTIAL
TOTAL UNITS	296 UNITS
DENSITY RATIO	9.01± UNITS PER ACRE
PARKING	520± SPACES
PARKING RATIO	1.75 SPACES/UNIT
GREEN SPACE	60%±
UTILITIES:	
WATER PROVISIONS	TOWN OF MOREAU WATER
SANITARY PROVISIONS	TOWN OF MOREAU SEWER
STORMWATER MANAGEMENT	ONSITE
SETBACKS:	
FRONT	TBD
SIDE	25 FT
REAR	100 FT

SITE LOCATION MAP

SCALE: 1" = 2,000'



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RESIDENCE AT 1345 ROUTE 9

OWNER/APPLICANT: SCHERMERHORN RESIDENTIAL HOLDINGS

1348 US ROUTE 9
TOWN OF MOREAU
SARATOGA COUNTY, NEW YORK

JUNE 28, 2024

DRAWN BY	CD
CHECK BY	JD
EDP PROJECT NUMBER	

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REVISION	DATE	BY

SCALE: 1"=100'

NOT FOR CONSTRUCTION

SHEET TITLE: PUD CONCEPT-2

SHEET: C-2