

Belleayre Mountain Ski Center UMP-DEIS

**Appendix AF
Phase 1 Cultural Resources
Investigation**

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Prepared for:

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PROJECT REVIEW COVER FORM

Rev. 10-01

Please complete this form and attach it to the top of any and all information submitted to this office for review.
 Accurate and complete forms will assist this office in the timely processing and response to your request.

This information relates to a previously submitted project.

PROJECT NUMBER PR

COUNTY Ulster

If you have checked this box and noted the previous Project Review (PR) number assigned by this office you do not need to continue unless any of the required information below has changed.

2. This is a new project.

If you have checked this box you will need to complete ALL of the following information.

Project Name Proposed Belle Ayre Expansion

Location Belle Ayre Ski Center

You MUST include street number, street name and/or County, State or Interstate route number if applicable

City/Town/Village Town of Shandaken

List the correct municipality in which your project is being undertaken. If in a hamlet you must also provide the name of the town.

County Ulster

If your undertaking* covers multiple communities/counties please attach a list defining all municipalities/counties included.

TYPE OF REVIEW REQUIRED/REQUESTED (Please answer both questions)

A. Does this action involve a permit approval or funding, now or ultimately from any other governmental agency?

No Yes

If Yes, list agency name(s) and permit(s)/approval(s)

Agency involved	Type of permit/approval	State	Federal
<u>NYSHPA of 1980, 14.09</u>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>

B. Have you consulted the NYSHPO web site at <http://www.nysparks.state.ny.us/shpo> to determine the preliminary presence or absence of previously identified cultural resources within or adjacent to the project area? If yes:

Yes No

Was the project site wholly or partially included within an identified archeologically sensitive area?

Yes No

Does the project site involve or is it substantially contiguous to a property listed or recommended for listing in the NY State or National Registers of Historic Places?

Yes No

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MANAGEMENT SUMMARY

SHPO: Project Review #:

Involved State and Federal Agencies: **DEC, OPRHP**
SEQRA and NYSHPA of 1980, Section 14.09

Phase of Survey: **Phase 1**

Location Information: **These are approximate.**

Survey Area (Metric and English): **Ski Lifts-17,000 linear feet/ c. 5181m**
Existing Water line to be replaced 2000 ft/610 m
Parking-29 acres/11.7 ha
Pond-8 acres/ 3.23 ha
Other construction: 2 acres/. 8 ha

Number of Acres Surveyed: **Approx. 24 acres/ 9.7 hectares**
Number of Square Meters & Feet Excavated (Phase II, Phase III only):

USGS 7.5 Minute Quadrangle Maps: A composite consisting of **Fleischmans (NW), West Kill (NE), Shandaken (SE) and Seager (SW).**

Archaeological Survey Overview

Number and Interval of Shovel Tests: **382 shovel tests at 50 foot (15m)**
Intervals, and some at closer intervals.

Results of Archaeological Survey:

Number & name of prehistoric sites identified: **None**
Number & name of sites recommended for Phase II: **One for Phase 2 Survey (Area F). One additional site consisting of two dairy barns is suggested for further mapping, but no testing (Area D). Three areas are suggested for site avoidance (2 in area C, 1 in Area B).**

Results of Architectural Survey

Number of buildings/structures/cemeteries within project area: **None**
Number of buildings/structures/cemeteries adjacent to project area: **1 cemetery adjacent to project area.**
Number of previously determined NR listed of eligible buildings/structures/cemeteries/districts: **None**
Number of identified eligible buildings/structures/cemeteries/districts: **Two-see Table 1.**

Report Author(s): **Joseph E. Diamond, Ph.D.**

Date of Report: **1/8/2010**

PHASE 1A ARCHAEOLOGICAL SURVEY

1. Introduction

This cultural resource survey was conducted to evaluate proposed changes to the ski Center at Belle Ayre Mountain, along the western edge of Ulster County in the Town of Shandaken, NY (Map 1 and 2). The project area is amorphous in shape, due to the number of improvements proposed (Map 3-Overall Master Plan), as well as their location along the eastern slope of the mountain. The proposed changes range in elevation from c. 1880 ft AMSL at the proposed Information Booth near present day New York State Route 28, to c. 3400 ft AMSL. The latter is the approximate elevation and location for the terminus of the newly proposed Discovery Lift.

The landforms and steepness within the project area vary considerable. For the purposes of this report, it begins in a relatively flat location near Route 28, with increasing steepness as one approaches the current location of ski lodges and parking areas. For specifics, compare the steepness of the terrain on the USGS Map (Map 2) and Map 3, the Overall Master Plan. The proposed changes, with the exception of ski slopes, were labeled from A to K to differentiate them. In the following discussion and in the Tables included here "N/A" indicates no testing due to either previous construction disturbances or extremely steep slope. The proposed changes include from bottom to top: a new parking area for 8 cars, an information booth, and a new entrance sign (Area A), parking areas called East Parking Lot (Area B), a water reservoir for snowmaking with a proposed Lower Pumphouse and salt storage building (Area C), an entrance with two additional parking areas called the North Parking Lot (Area D), changes to the rear of the Discovery lodge (Area E: N/A), the construction of another parking area further up the mountain called Upper Discovery Parking (Area F), a ski lift at the base of the proposed Belleayre West lift (Area G), and another lodge, skier bridge, and compressor building near the Tomahawk base area (Area H: N/A).

There are also five-six new slopes and trails being proposed, four new lifts (Discovery, Belleayre West, Highmount, Spa Village), the proposed replacement of the Novice and Beginners lifts, a proposed summit lodge expansion, the restoration of an existing trail, and a proposed Overlook Lodge Amphitheatre (Area I: N/A). Due to the need for additional water for snowmaking, changes to the water system are proposed. These include the possible replacement of the waterline between the project area and the Pine Hill Pumphouse, modifications to the existing Upper Pumphouse, and modifications to the existing Cathedral Glen Pumphouse (Area J: N/A). Lastly, the Lands of the former Highmount Ski area are to be acquired by New York State (Area K: N/A). For specific locations see Map 3, the Overall Master Plan. In the case of the ski lifts, these are in locations that are in excess of 15 % slope, and with the exception of examination for rockshelters and historic foundations, these areas are thought to be of minimal cultural importance.

In the report that follows, each of these will be discussed by area or by groupings of proposed construction activities. The author was contacted by Mr. Leonid Shmookler of ENE in July of 2006. A literature survey was conducted by the author at the New York State Historic Preservation Office (NYSHPO) on 10/28/08.

2. Environment /Physical Setting

As mentioned above, the land within the project area ranges from relatively flat (near Route 28) to steep, to extremely steep slopes that are in excess of 50 degrees. Much of the proposed construction is in areas that have already been disturbed by cut and fill procedures that have affected the soils to a depth of 15-30 feet in some cases. In other cases, the hillsides have been deforested, probably in the late 18th century, and reforested in some locations, several times. In other locations it is possible that once the hillsides were clear of trees they were then "improved", that is these areas were used for sheep and in lower elevations, cow pasture.

Flora within the project area includes maple, various species of oak, black cherry, ash and hickory, shagbark hickory, mulberry, beech, ironwood, apple, dogwood, white pine, and poplar, as well as field grasses, wild grape, vetch, mountain ivy and poison ivy.

The soils in the project area (Map 4) consist primarily of Wellsboro and Wurtsboro very bouldery soils, gently sloping (WLB), Lackawanna and Swartswood, very bouldery soils, moderately steep (LCD), Lackawanna and Swartswood, extremely bouldery soils, steep (LEE), Oquaga-Arnot Rock outcrop

complex, moderately steep (ORD), Oquaga-Arnot Rock outcrop complex, sloping (ORC) with Oquaga-Arnot Rock outcrop complex, very steep (ARF). On the ski slopes, and several parking areas the soils are noted as "cut and fill" (CF) (Tornes 1976: Soil Survey of Ulster County, New York).

The bedrock geology varies somewhat. Near the bottom of the hill, and down into Pine Hill, the bedrock geology consists of the Upper Devonian lower Walton Formation (Dsw) of shale, sandstone, and conglomerate. As one heads up the hill, the majority of the mountain is composed of the upper Devonian upper Walton Formation (Dwm), which is composed of shale, sandstone and conglomerate. One portion of the project area, approximately halfway up is thought to be composed of the Upper Devonian Slide Mountain Formation (Dws) which, like the other two, is composed of sandstone, shale and conglomerate (Fisher *et al.* 1970: Hudson -Mohawk Sheet).

A walkover of the project from Areas A-K found no indication of any rock face or outcrop large enough to permit use as a prehistoric rockshelter or windbreak. In several very steep locations in the proposed ski runs, boulders were visible and were inspected, but these are not considered possible habitation sites for three reasons. The first is that there are no level areas in front of them on which to camp. Secondly, and this relates to the first fact, they are on slopes in excess of 40 degrees. Lastly, they are not in proximity to a year-round source of water. During the course of the author's studies on rockshelters in the Catskills (Diamond 1995b, n.d), and along the edge of the Catskills (Diamond 2004) there was a noticeable high correlation between rockshelters and proximity to available water. This is corroborated by other studies in the Catskills (Funk 1976, Lindner 1998), as well as areas along the edge of the Catskills (Eisenberg 1989, Funk 1989). Additionally, rockshelters require one other attribute-level ground on which to camp, build a fire, cook (Diamond 1995a) and engage in various activities such as tool maintenance, butchering or hide processing.

There are also no locations or indications of exposed bedrock suitable for making stone tools within the project area. In this case we are referring to cryptocrystalline lithics such as cherts, jaspers, chalcedonies or quartzites. This means that Native Americans, if they were moving into the area for task-specific activities, would of necessity, have had to bring adequate lithics with them or rely on glacially transported lithics in cobble form from streambeds.

3. Background Research

3.1 PREHISTORIC ARCHAEOLOGICAL SITES

A search of the site files at the Office of Parks, Recreation and Historic Preservation (including the New York State Museum's prehistoric site files) on 10/28/08 located no known prehistoric sites listed within a one mile radius of the project area. This is probably due to several factors; the steep terrain, the lack of adequate rockshelter sites near water supplies, and the lack of cryptocrystalline materials for making stone tools.

3.2 A BRIEF HISTORICAL SKETCH

In 1824 Spafford writes of the Town of Shandaken:

Shandaken, a Post-Township in the NW. extremity of Ulster County, 15 to 40 miles W. of *Kingston*; bounded by Woodstock, Marletown and Rochester, southerly by Sullivan County, westerly by Delaware County. It is 20 miles long from NE. to SW., and 12 miles wide. It is a mountainous tract, but thinly inhabited, and the lands are held by lease, principally for 3 lives. The Ulster and Delaware Turnpike leads through it to Delaware County. This town sends many small streams to the Delaware River, through various channels, and several also to the Hudson through Esopus creek, midway between the Delaware and the Hudson. It is separated from Delaware County, by a mountain several miles long, called Pine Hill mountain. Not far from this is Mapleton, a promising situation for hydraulic works, improved as such. Population, 1043; taxable property, \$52473; electors, 195; 8 school districts; acres improved land, 4554; 858 cattle, 578 horses, 1380 sheep: 5306 yards of cloth made in families: 5 grist mills, 4 saw mills, 1 fulling mill, and 1 ironworks. The people of this town are also on the look out for stone coal, as in Woodstock. (1824:487).

In 1860, French wrote of Shandaken:

Shandaken was formed from Woodstock, April 9, 1804. A part was annexed from Neversink (Sullivan co.) in 1809. A part of Olive was taken off in 1823, Denning in 1849, and a part of Hardenburgh in 1859.

It is the N.W. corner of the co. its surface is mostly a mountainous upland, broken by deep ravines. The declivities are steep and rocky, and a large share of the surface is too rough for profitable cultivation. The town is not inhabited except along the valleys, the mountain region being left to wild beasts and hunters. The soil in the valleys is a clay and sandy loam. The principal branches of business pursued are lumbering, shingle making, and tanning. **Shandaken**, in the N. part, contains a church, a large tannery, a sawmill, a gristmill, and 20 houses; **Pine Hill** in the N.W. part, a sawmill, gristmill, tannery, and 15 houses (1860:667).

In the same volume French (1860:669) states that the acres of improved land are 12,764, of unimproved land 79,891, with the population being 2452, number of dwellings 451, number of families 454. For livestock, 366 horses, 1252 working oxen and calves, 366 cows, 1578 sheep, 519 swine. For produce, Shandaken yielded 19,159 bushels of grain, 3,369 tons of hay, 8,000 bushels of potatoes, 10,616 bushels of apples, 53,290 pounds of butter, and 2048 yards of domestic cloth. For the last item, the Town of Shandaken was third in the county in cloth production, being behind first place Olive (3058 yards) and second place Marbletown (2778 1/2 yards).

* population of the Town of Shandaken in 1853 was 2307 (Brink and Tillson Map, inset 1853).

3.3 HISTORIC ARCHAEOLOGICAL SITES

The OPRHP files produced evidence of 14 historic archaeological sites within a one mile radius of the project area (Table 1). These are nine domestic or house sites, one reservoir, two springhouses and a historic-era rockshelter that were identified nearby (GCI 2001).

The identification process of these sites was related to the Crossroads Ventures Project. Located on the north side of County Route 49A and across the street from the Belle Ayre facility, this site has had several archaeological studies. The first was the Phase 1A, which was undertaken by Hartgen Archaeological Associates in March of 2000 (HAA 2000). Based on map evidence of MDS, and the possibility of pre-contact sites, HAA suggested further work. The 14 sites discussed above were identified as part of the Crossroads Ventures Phase 1B Archaeological Investigation that was completed in 2001 by Greenhouse Consultants Incorporated (GCI 2001). The Greenhouse Phase 1B was then reviewed in a Letter Report for Crossroad Ventures by Hartgen Archaeological Associates (HAA 2001). This letter report reevaluated a number of the sites that Greenhouse had recommended for Phase 2 Site Evaluations. Their reappraisal suggested monitoring of a utility trench, but no Phase 2 Site Evaluations (HAA 2001:11).

Two other site reports from nearby were also examined. These were by Tracker Archaeological Services (2004), and Sopko *et al.* (1991) Both were located in Pine Hill.

A walkover of the project area located several key indicators of potential historic archaeological sites along Van Loan Road and County Route 49A. The key indicators are 1) very large existing trees or stumps in a row along the road, 2) existing steps, 3) existing metal fence lines, and 4) stone wall supports. These may occur individually, or as a group. In addition, several barns and outbuildings were located and mapped. These are discussed below in relation to historic maps and the areas in which the sites occur.

To assist in attaching names to the sites encountered in the field, an examination of four historical maps of the project area was undertaken. This helps us fill in questions concerning land use, and probable family names of the sites identified during the walkover. The 1853 Brink and Tillson Map of Ulster County (Map 5) shows domiciles in several locations. These are the Mullinez (Area B) and Whispell (Area F) houses. The 1858 French Map of Ulster County (Map 6) shows the same houses in the same locations with the Mullinez house now owned by "H. Johnson" (Area B), and the Whispell house further identified as the home of "W. Whispell" (Area F). The 1875 Beers Map of Ulster County (Map 7) shows the Mullinez/Johnson house (Area B) now owned by "H. Whispell", with "W.W" still in the house in Area F. On the south side of the road, is also shown the house of "J.C. Loomis" (Area C). The 1904 USGS Map (Map 8) does not show a house in Area B, but does show the Loomis domicile (Area C) as well as the Whispell house in Area F. Map 8 also shows three structures within the location of what we are calling Area E, a location that currently is composed of three large parking lots (Lower Discovery) and has been extensively cut and filled (see Map 4).

As usual, the historic maps only show dwellings and do not indicate barns or associated farm structures that might be related to a dwelling and its owner. This leaves us, at least during the Phase 1, with the need to associate barn complexes and water storage facilities with the feature's nearest named neighbor on the landscape (See enclosed OPRHP Historic Archaeological Site Forms). In terms of land use, it is most likely that the families that lived in the houses identified here were probably cattle farmers, with sheep and

pigs as a sideline. It should also be noted that most, if not all of the entire project area, has probably been logged at least 3 times since the early 19th century.

4. Sensitivity Assessment

4.1 PREHISTORIC

The literature search at OPRHP did not produce evidence of known prehistoric sites within a one mile radius of the project area. The lack of sites in this area is probably based on several factors; the elevation of the project area, the large percentage of excessively steep slopes, marginal soils, boulder strewn soils, and restricted varieties of natural resources. The latter would include fauna, flora and also available lithics for stone tool manufacture. As noted above in French's (1860) historical sketch, most of the mountain would be useful only to "wild beasts and hunters", in this case, probably bear and deer. With regard to lithics, the surrounding countryside is replete with sandstones, but has no cherts or quartzites, with the exception of stream gravels. This would mean that Native Americans would have little local stone for tools other than lithics transported in from outside the area.

Due to its steepness of slope in the vast majority of the acreage discussed here, the project area should be considered to have a minimal sensitivity to the presence of prehistoric archaeological sites.

4.2 HISTORIC

Based on an examination of historic maps of the project area, the possibility of encountering historic archaeological resources in the project area is considered high. The historic map evidence coupled with a walkover yielded a total of 3 map documented structures (MDS), as well as several related barns and outbuildings.

4.3 Recommendations

Due to the project area's potentially sensitive location for historic archaeological sites, it is recommended that subsurface testing be initiated to determine the size and extent of the historic sites and also determine if there are any prehistoric artifacts or sites in more level portions of the project area. Hand-excavated shovel tests should be placed at intervals of 50 ft (15m) or less to determine the depth to subsoil, characterize soils and locate historic (or prehistoric) artifacts. Where prehistoric artifacts are identified, additional confirmation tests (8) should be excavated around the initial find spot (as per the 5/5/05 *Regulations*) to determine if the prehistoric artifact is a random/isolated find or part of a larger site.

5. PHASE 1B ARCHAEOLOGICAL RECONNAISSANCE

5.1 Research Design

Field reconnaissance was begun in October of 2008 and completed by mid-November of 2008. Within the project area, the Area of Proposed Affect (APE) was delineated for those locations that were not disturbed, or in excess of 15 percent slope. The research design consisted of taping off and flagging 50 foot transects in those areas to be tested. In most cases we tested at 50 foot intervals, but in Area B these were probably closer to 45 foot intervals in some places.

5.2 Field Methods and Procedures

Field methods including the linear testing of shovel test transects, usually from along the nearest road, which we used a baseline. As mentioned above, shovel tests were placed on a 50 foot (15.2m) grid. All excavated soil was screened through 1/4 inch hardware cloth. A Munsell soil color chart was used to determine soil colors. All soil was screened over 6 ml plastic and replaced in the test after documenting soil colors and textures. The Phase 1B Testing was accomplished by Frank "Eyeballs" Spada (BA, MA, SUNY New Paltz) and Lawrence Roper (BA, SUNY New Paltz).

Appendix 1 is the shovel test record and Appendix 2 consists of the OPRHP Historic Site Forms.

5.3 Lab Methods and Procedures

The artifacts found during the Phase 1B investigation were washed, dried and rebagged in clean labeled bags by archaeological context. Analysis of the ceramics followed the dating scheme utilized by Dr. Meta Janowitz (CRG 1987), while the nails were categorized based on Wells (1998), and the brick based on Kelly and Kelly (1977). The historic glass, probably the most time-sensitive artifact located was dated based on a wide variety of sources from the archaeological literature (Deiss 1981; Munsey 1970; Fike 1987; Jones and Sullivan 1984; Miller and Sullivan 1981; Miller et al 2000; Staski 1984; and Toulouse 1969a, 1969b, 1971).

5.4 Results of Field Investigation

The field investigation can be divided for reporting sake into several main areas. As stated above, these begin with Area A at the base of the hill along New York State 28 and ascend to Area J part way up the mountain. Area J is the waterline to the Pine Hill Pump house. Recent proposed changes that are in locations of prior disturbance or excessive slope (that did not require testing) have been added here in a discussion as Area I. Table 2 is a chart by area, and proposed construction impacts, as well as specific attributes such as soil type, prior disturbance, steepness of slope, shovel tests, shovel tests with historic hits, and Recommendations.

For presentation purposes, the areas that were investigated with subsurface testing are illustrated in Figures 1 through 10. These figures also show photograph number, location and direction. Positive shovel tests, that is tests that yielded historic or modern materials, are shown circled in black. This is particularly helpful for defining horizontal artifact scatters or middens, such as that shown in the southeast corner of Area B. No pre-contact materials were found in any of the shovel tests. The Figures show the entire area that was testable within each APE. Where steep slope was found it is indicated, as is prior disturbance.

Area A (Visitors Booth, Entrance Sign and Parking): Area A is an open area of grass that was completely tested with a total of 34 shovel tests (Figure 1, Photograph 1). In this case we tested beyond the visitors booth and parking because the specific location for the proposed construction was already disturbed (see Figure 1). Of the tests, 9 were positive, and finds consisted of 1 slag, 1 cinder, 10 charcoal, 4 coal, 1 mortar, 1 wood, 1 iron strap fragment, 1 plain whiteware (post-1820), 1 tumbler fragment (c. 1840-1865), and 1 wine/liquor bottle fragment (N=22). The artifacts appear to be scattered across the proposed impact area and were not clustered. No map documented structures exist for this area (see Maps 5-8), and as a consequence, no further work is recommended for this location.

Area B (3 Parking Lots and Entrance Road, East Parking): Area B is a triangularly-shaped forested space that is essentially bisected by a narrow lane (Photograph 2) that begins at Van Loan Road and runs towards the south (Figure 2). It is composed of formal cut stone walls (Photograph 3) and stone posts at its southern end (Photograph 4). The lane ends in front of the structural remains of a house that is on the south side of Old Route 49A and is not considered within the impact area (Figure 2). This is the house of "J.C. Loomis" on the 1875 Beers Map (Map 7). It should also be noted that although the new addition to 49A is called "Old Route 49A" on Figure 2, the original portion of this road is the unmarked section that forms the southern portion of the triangle on Figure 2. The Loomis house is outside of the proposed impact area, but other related portions of it-see Area C below are not.

This forested triangle, which is bordered by County Route 49A to its west, Van Loan Road to its north, and a short portion of the original 49A to its south has the remains of a tennis court located within it, as well as a debris scatter that may be related to an MDS in the southeast corner that relate to the Mullinez, H. Johnson and H. Whispell families on the 1853, 1858 and 1875 maps respectively. A thorough walkover of this area did not produce indications of a cellar hole, suggesting that the MDS might be a frame structure on a shallow stone foundation. (Note: an OPRHP form was not filled out for the tennis court.) Near the triangle's western terminus, or where the two roads come together, is a relatively steep portion that was walked, but not tested. Similarly, to the east and north of the tennis courts are two relatively large areas of disturbance (see Figure 2). Overall, area B was tested with 149 shovel tests (Photograph 5), of which 26 had positive hits of historic and/or modern materials. Except for those disturbances and steep sections noted above, the entire APE within the triangle was tested. No pre-contact items were found.

Artifacts (N=137) from Area B can be broken down into categories such as building and structural materials, food remains/kitchen related, personal, furniture hardware and modern items. Building materials consist of 2 mortar, 26 window glass, 1 plate glass, 4 slag, 5 cinder, 9 coal, 8 charcoal, 3 wire nails, 1 hand wrought nail, 2 machine cut nails, 1 machine cut lathe nail, and 2 iron lumps. Food remains/kitchen related consists of 1 oyster, 1 clam, 1 bone fragment, 1 tooth, 32 unidentified bottle, 1 red earthenware, 21 whiteware, 5 iron can fragments, 2 Pepsi fragments, 1 flower pot frag, and 1 soda closure. Personal items consist of 1 whiskey flask fragment, 1 glass button, and 1 cream/pomade. Furniture hardware is represented by one item—a file cabinet attachment to hold a label. Modern artifacts consist of 2 plastic items.

Area C (A Water Reservoir for Snowmaking, a Salt Storage Building and a proposed Lower Pumphouse); Area C is mostly disturbed by construction impacts relating to the maintenance garage (Figure 3). These extend from the garage to the road (Photographs 6 and 7), to the south and downhill approximately 150 feet from the garage (Photographs 8 and 9). The proposed salt storage building is in a location that has had extensive disturbance (see Photographs 6 and 7), as is the Proposed Lower Pumphouse. The proposed water reservoir for snowmaking is about 8 acres in extent.

Those areas that were not disturbed and were less than 12% slope were minimal in this area. However, a walkover and testing found two structures that may be related to the "J.Loomis" house mentioned for Area C and shown on Figure 2. The Loomis house is shown on Figure 2 as a generalized circle because a foundation outline was not present at the surface.

The first of these is a set of structures associated with a foundation (Foundation #1, and other features) inside of the impact area down in the woods. The structures include a stone foundation (Photograph 10), a circular foundation that is probably a silo foundation (Photograph 11), a trench with historic debris, and a small rectangular grouping of stone that is possibly a foundation, and a possible well (see Figure 4, Photograph 12). Of 21 shovel tests excavated around these, 5 produced artifacts (N=8). These include 2 machine cut nails, 2 unidentifiable bottle, 1 iron can, and 3 window glass.

The second structure is composed of stone that was mostly buried under a pile of large pipes near the proposed Lower Pump house (Figure 5, Photograph 13). Of two shovel tests that were squeezed in among the pipes, one encountered artifacts. Four concrete fragments with attached robins egg blue paint were found indicating that this structure was probably associated with water storage or a swimming pool.

Area D (An Entrance with Two Additional Parking Areas, North Parking): This location is a wooded relatively level portion of the project area (Photograph 14) located between the maintenance garage and the small cemetery along County Route 49A (Figure 6). A total of 92 shovel tests were placed here, with 2 producing artifacts (N=30). These include 1 stoneware, 9 coal, 1 window glass, 1 split ring, 5 iron can frags., 3 paneled glass mug, 9 jelly jar fragments, and 1 Rheingold Extra Dry can. Area D was subjected to testing, but in some areas, amounts of material culture on the surface made a simple list of materials more propitious. Along the southern edge of Area D, there is a pair of barn foundations (one with stone ramp) that are typical of cattle barns in the Catskills (see Figure 7). One of the barns has manure drains similar to those shown in Halsted (1983:63) for an Orange County dairy barn. Both barn foundations were roughly sketched in the field and three dumps were examined for clues as to their time brackets. For locations and a general plan view see Figure 7 and Photographs 15-17. It is recommended that these structures be cleaned off and mapped in more detail to record them before construction activities destroy them. Here, I am unsure if Phase 2 shovel testing will tell us more that we already know about them.

Rather than collect large amounts of material culture from these dumps, the author spent about two hours making a detailed list of the remains that can be found on the surface. Dump #1 consisted of screw top bottles, amber Clorox bottles, blue screw cap Milk of Magnesia bottles, magnum-sized champagne bottles, fruit jars from c. 1910-1940, Guldens mustard (c. 1940's-1960's), green beer bottles (Rolling Rock/Molson), Ball Mason jars (c. 1930-1960's), paint cans, 1 gallon vinegar jugs, porcelain toilets, pink depression glass, College Inn broth bottles, and a number of whiskey bottles embossed "Federal Law Forbids sale or reuse of this Bottle", an embossing common on whiskey bottles from 1933 to 1964 (Munsey 1970:126).

Dump #2 consisted of paint cans, some crockery (salt-glazed stoneware), buckets, syrup bottles, vinegar jugs, screw top bottles of various sorts, "Lavoris" mouthwash bottles, amber Clorox bottles, "Hotelware" with green stripes, and porcelain toilets.

Dump #3 had numerous screw top bottles, paint cans, buckets, numerous porcelain toilets and a number of handled syrup or vinegar jugs.

For each of these dumps, no further work is recommended. They appear to date from the 1930's through the 1970's. The large number of toilets with attached toilet tanks suggests that this is a dump from a remodeling episode at Belle Ayre or Highmount.

The Cemetery. The small cemetery between Area D and the existing large parking lots (area E) on Old Route 49A appears to have served several families during the time period c. 1848-into the 1890's. These include the Thompson, Deunslyne, Symond, Cure, Tyler and Whitney families. Several Civil War veterans are buried here as several of the graves are decorated with GAR (Grand Army of the Republic) memorial pins. The cemetery will not be impacted by construction. Recommendations include a to-be-determined buffer with orange snow fence between the proposed construction and the cemetery.

Area E (changes to the rear of the Discovery Lodge): Area E encompasses what was proposed as a parking lot expansion just above the historic cemetery (Photograph 18), as well as an addition to the rear of the Lodge. The work in the parking area is no longer part of the improvement plan although I have left the E on Map 3. The location at the rear of the Discovery lodge is in an area that have been extensively cut and filled. No Phase 1B archaeological work was undertaken in this area. Note: Photograph 18 is one of two photographs that are not on Figures. This image was taken from the edge of the uppermost existing lot and shot downhill. The location is shown on Map 3, the Overall Master Plan, as well as the area of "cut and fill" noted on the soils map (Map 4). The cemetery is just below it in the woods.

Area F (The Construction of the Upper Discovery Parking Lot): Area F is a partially wooded, partially open area that was tested both in the woods, and in an open clearing (Figure 8). Shovel tests 1-14 essentially tested the only area that was less than 15% slope, even though it was a boulder field with little soil development. No artifacts of any kind were found there. Downhill from these shovel tests, and to the east of a substantial stone wall, is an area that displays all of the hallmarks of a domestic site location. It has large trees along the main road, several stone walls, a driveway, and an iron fence enclosing the front yard (Figure 9). There is also a small foundation, probably a small barn or outbuilding, on the hill behind the clearing, as well as several apple trees. A total of 49 shovel tests were excavated in the open area, 15 of which yielded historic artifacts. Figure 9 shows the scale drawing and location of the shovel tests where historic artifacts were found. Photographs 19 and 20 illustrate the open area from two directions during the shovel testing procedure.

Artifacts (N=144) from Area F can be broken down into categories such as building and structural materials, food remains/kitchen related, lighting, arms-related, and modern. Building materials consist of 7 mortar, 17 brick fragments, 3 plaster, 11 window glass, 5 plate glass, 3 melted window glass, 7 coal, 3 charcoal, 30 wire nails, 1 hand wrought nail, 16 machine cut nails, 10 machine cut lathe nail, 1 iron sash weight, 1 iron fragment, 3 carbonized/burned board, 5 board fragments, 1 board fragment w/attached paint, and 2 iron lumps. Food remains/kitchen related consists of 1 oyster, 5 unidentified bottle, 1 whiteware, 1 Union Oval medicine/pharmacy bottle fragment. Lighting-related items consist of 1 lamp chimney fragment. The arms group is represented by 1 .22 caliber brass cartridge. Modern artifacts consist of 2 plastic items, 3 hydraulic rubber hose frags, and 3 burned asphalt lumps.

This site appears to be the location of the Whispell house, which is shown on the USGS maps. Based on the large amounts of charcoal, and the fact that there is no cellar hole, it is thought that this structure burned down and the cellar hole was filled in with rubble. A Phase 2 Site Evaluation is Recommended for this site.

Area G (A Ski Lift terminal): Area G is a about a 1-2 acre wooded triangle at the confluence of Old Route 49A and the Upper Belle Ayre Entrance Driveway (Figure 10, Photograph 21). It was tested with 35 shovel tests, 2 of which located evidence of cultural material (N=16). These are 15 fragments of charcoal and 1 bottle glass. No further work is recommended.

Area H (Tomahawk Lodge, new compressor building and skier bridge to be constructed near Tomahawk Base area): Area H is on the side of the mountain, in a location that has already had extensive cutting and filling episodes (Photograph 22). It is presently the site of a three-tiered asphalt parking lot. A proposed new lodge and skier bridge will have no impacts on cultural resources. No work is recommended for this area. Note: Photograph 22 is not shown on any of the Figures. Its location can be found on Map 3, the Overall Master Plan by following the header for the Tomahawk Base Lodge to the three-tiered parking lot. Photograph #22 was taken from the bottom or northerly lot and shot uphill to the south. The proposed compressor building is in the extreme upper corner of the parking lots.

Area I (Four new ski lifts consisting of the Discovery lift, Belleayre West lift, Highmount lift, and Spa Village lift and the proposed lift replacements of the Novice and Beginners lifts, Summit Lodge Expansion, restoration of an existing trail, Overlook Lodge Ampitheatre): The six lift locations are in areas of extremely steep slope, suggesting their function as ski slopes rather than habitation areas for Native Americans. They were each examined for the possibility that they might contain rockshelters, but none were found. The westernmost of the lifts is in an area that abuts A111.16.0085, the Springhouse Ruin #2. This ruin is deemed National Register Eligible. Although its position on the OPRHP maps shows it to be downhill of the proposed construction area, this site should be flagged and avoided during construction activities for the Spa Village lift, as well as trails or runs that might come near it.

The Summit Lodge Expansion, trail restoration and Overlook Lodge Ampitheatre are all in locations of extreme slope or cut and fill situations.

Area J (Water line to Pine Hill Pumphouse, Cathedral Glen pumphouse, modifications to existing Upper pumphouse): The waterline to the Pine Hill Pumphouse is an existing line that runs along the right-of-way of the railroad tracks from the Cathedral Glen pumphouse to Pine Hill. Any work undertaken here will be simply replacing the line in its present location (Andy Niles DEC personal communication 8/17/09). From the proposed pond to the Cathedral Glen pumphouse, the line is in an area of extreme slope, as are the Cathedral Glen and Upper pump houses. As a consequence of being located in extremely steep terrain, these proposed changes were not tested.

Area K (Lands of former Highmount Ski Area to be Acquired by the State of New York): This area was not tested due to the fact that it is in areas of extreme slope coupled with prior disturbance from the Highmount Ski Area.

6. Conclusion and Recommendations

A total of about 24 acres (9.7 hectares) of surface area was examined in the locations of the proposed construction activities that were in testable areas. Testable in this case means areas of less than 15% slope, and locations that have not been subjected to prior disturbance. Recommendations in order of testing from the bottom of the hill to the top are:

Area A: No further work for this location.

Area B: No further work is recommended.

Area C: No further work is recommended.

Area D: Two barns below the cemetery should be documented on a scale drawing.

Area E: No further work recommended. The area behind the lower lodge have been extensively disturbed.

Area F: A data retrieval or avoidance is recommended for this location.

Area G: No further work recommended.

Area H: No further work recommended. This location has been extensively disturbed by cut and fill activities.

Area I: No further work for these four new lift locations, and two replacements. Flagging and avoidance of the National Register Eligible Springhouse Ruin #2 (A111.16.0085) is recommended prior to construction of the westernmost Spa Village lift.

Area J: No further work is recommended. If the water line is to be replaced it will be done within its existing impact area. Existing buildings are either in previously disturbed areas, or in locations characterized by extreme slope.

Area K: No further work is recommended. This location has existing trails and lifts in areas in excess of 40% slope. It is likely that rehabilitation will not impact cultural resources, but will be in previously disturbed locations or areas of extreme slope.

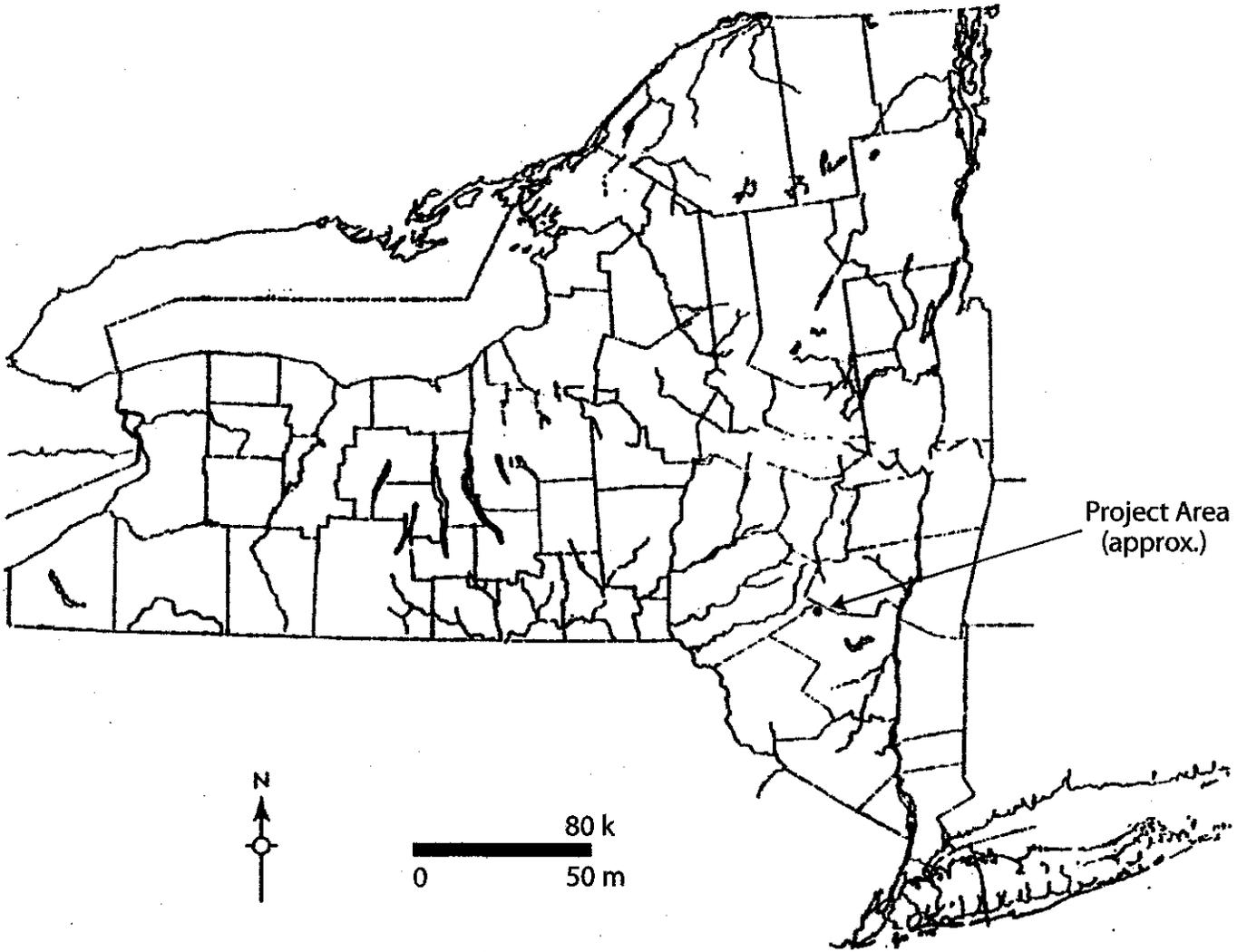
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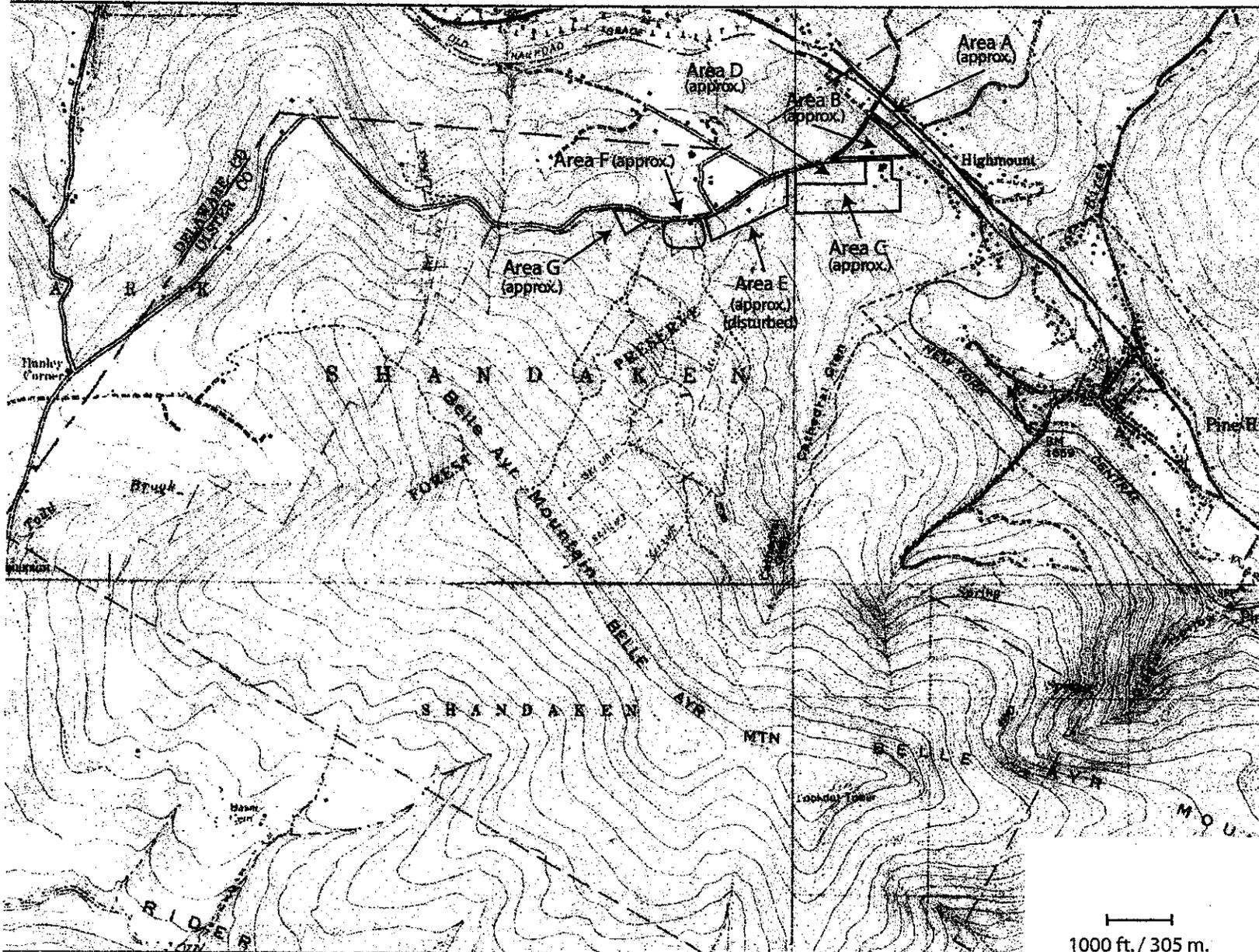
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1904 Phoenicia and Margaretville Quadrangles. Copyright-University of New Hampshire Library Digital Collections Initiative.
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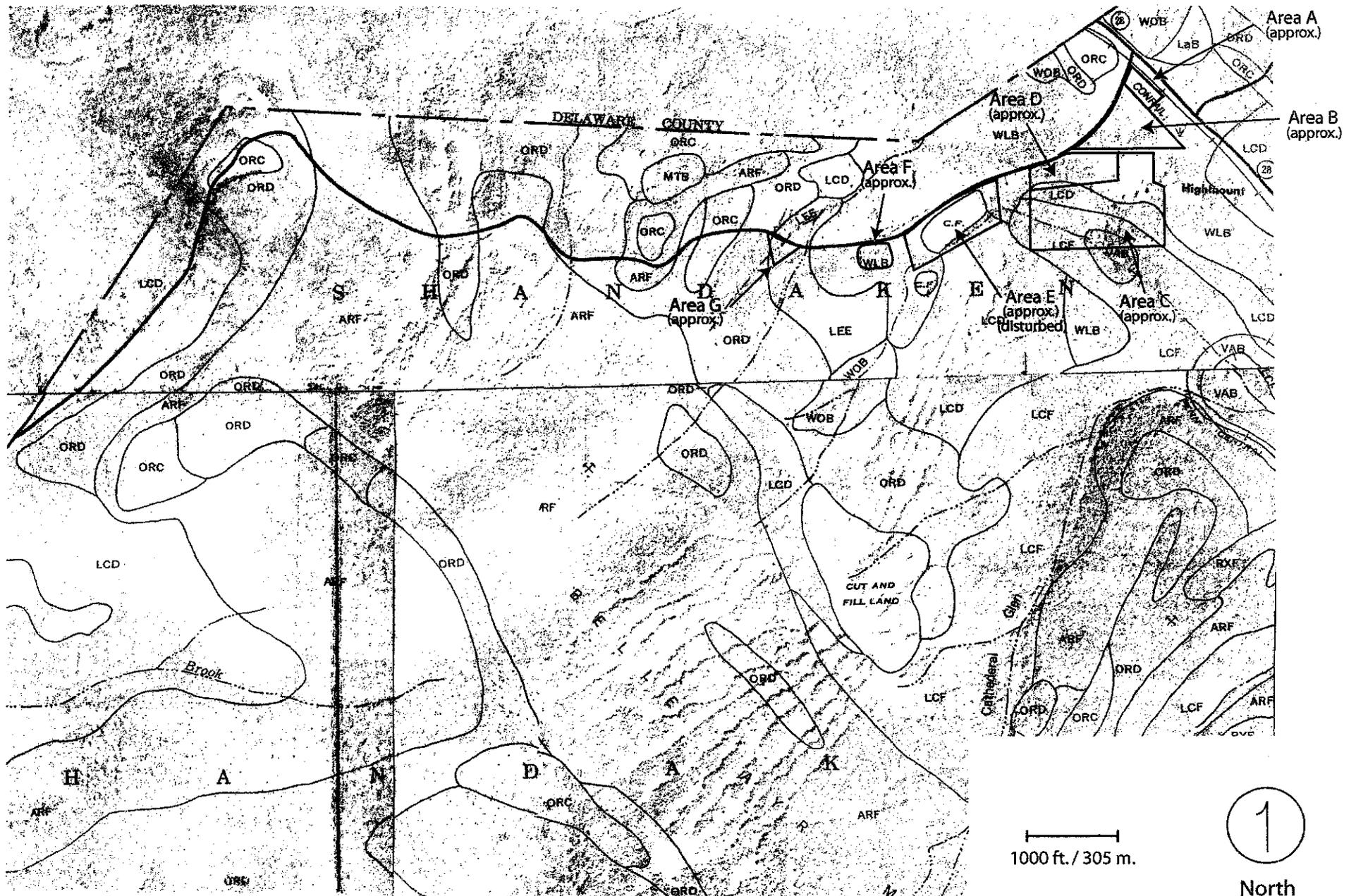
MAPS



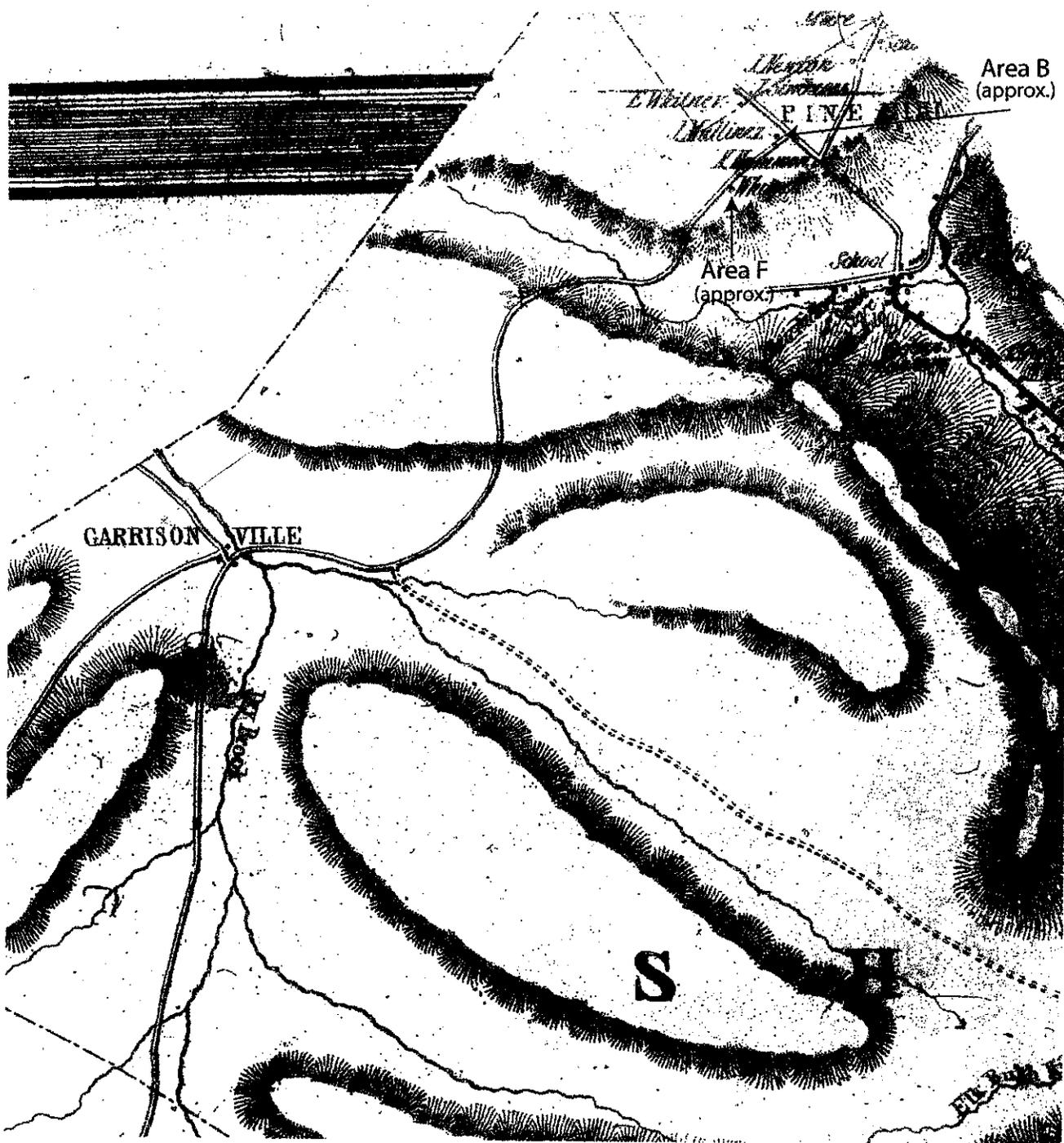
Map 1. New York State



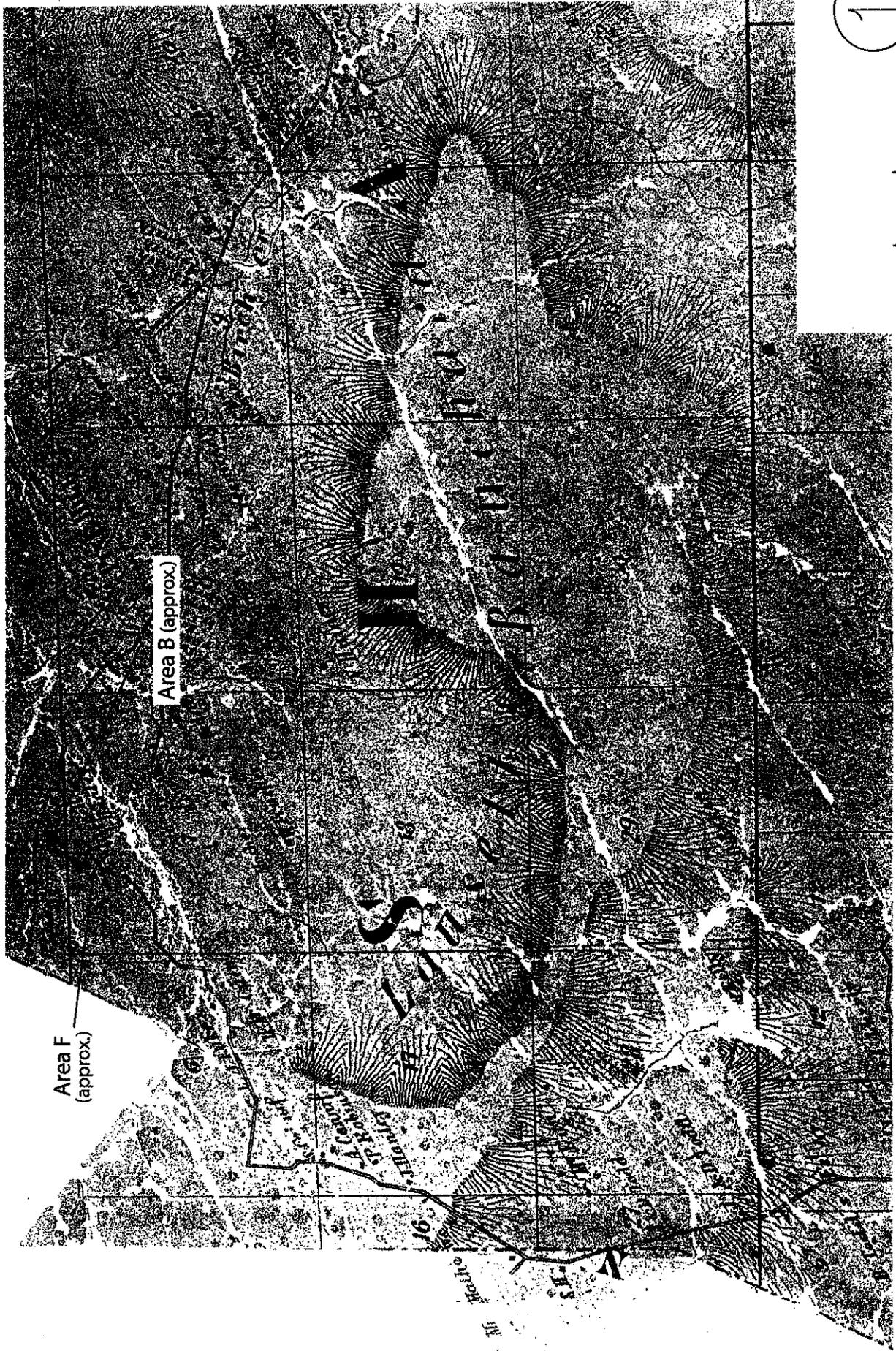
Map 2. USGS Fleischmans, West Kill, Seagar and Shandaken Quadrangles



Map 4. Ulster County Soils



Map 5. 1853 Brink & Tillson Map

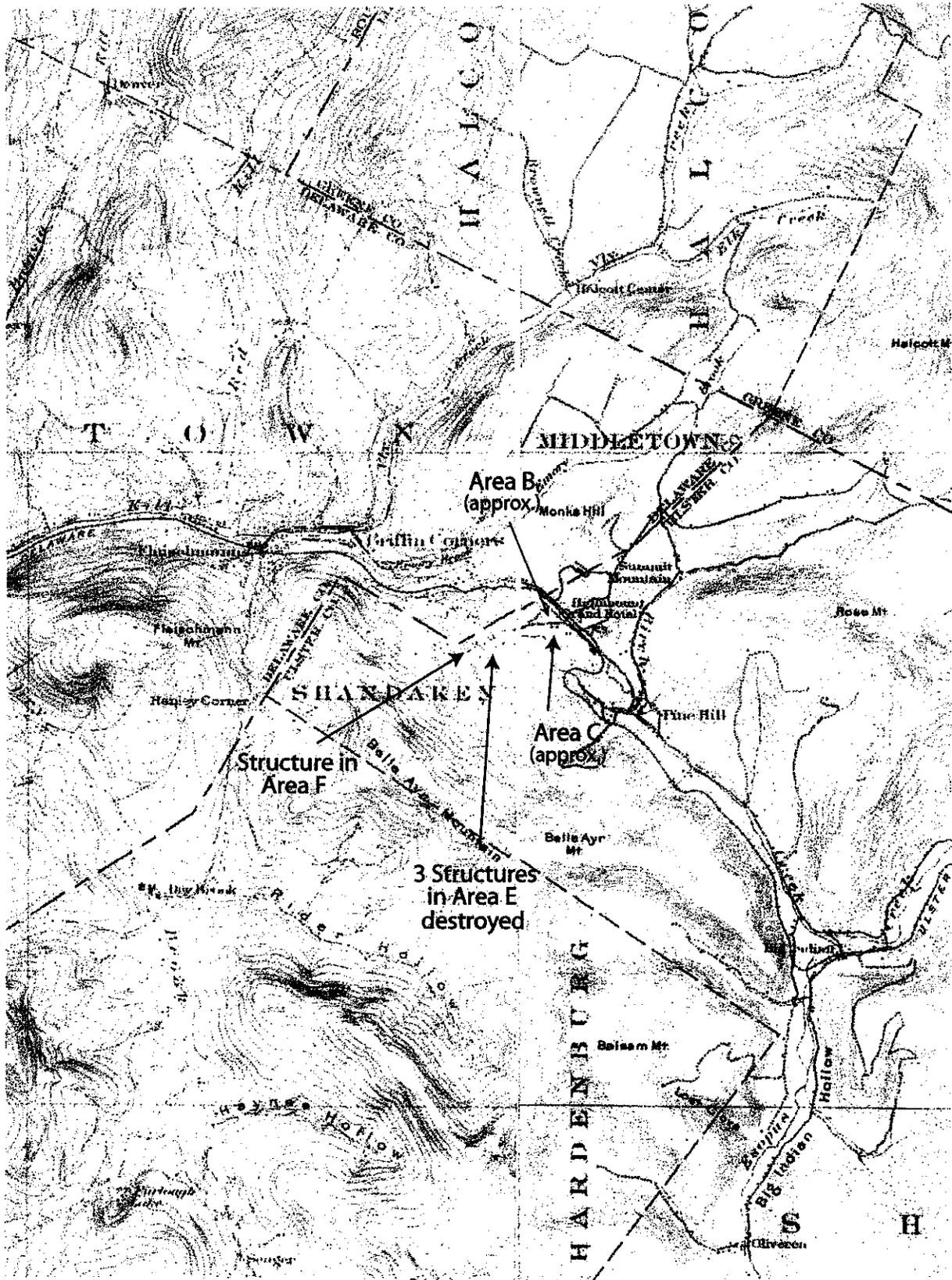


1

2000 ft. / 610 m.

North

Map 6. 1858 French Map

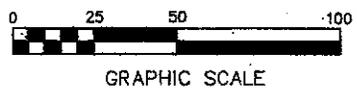
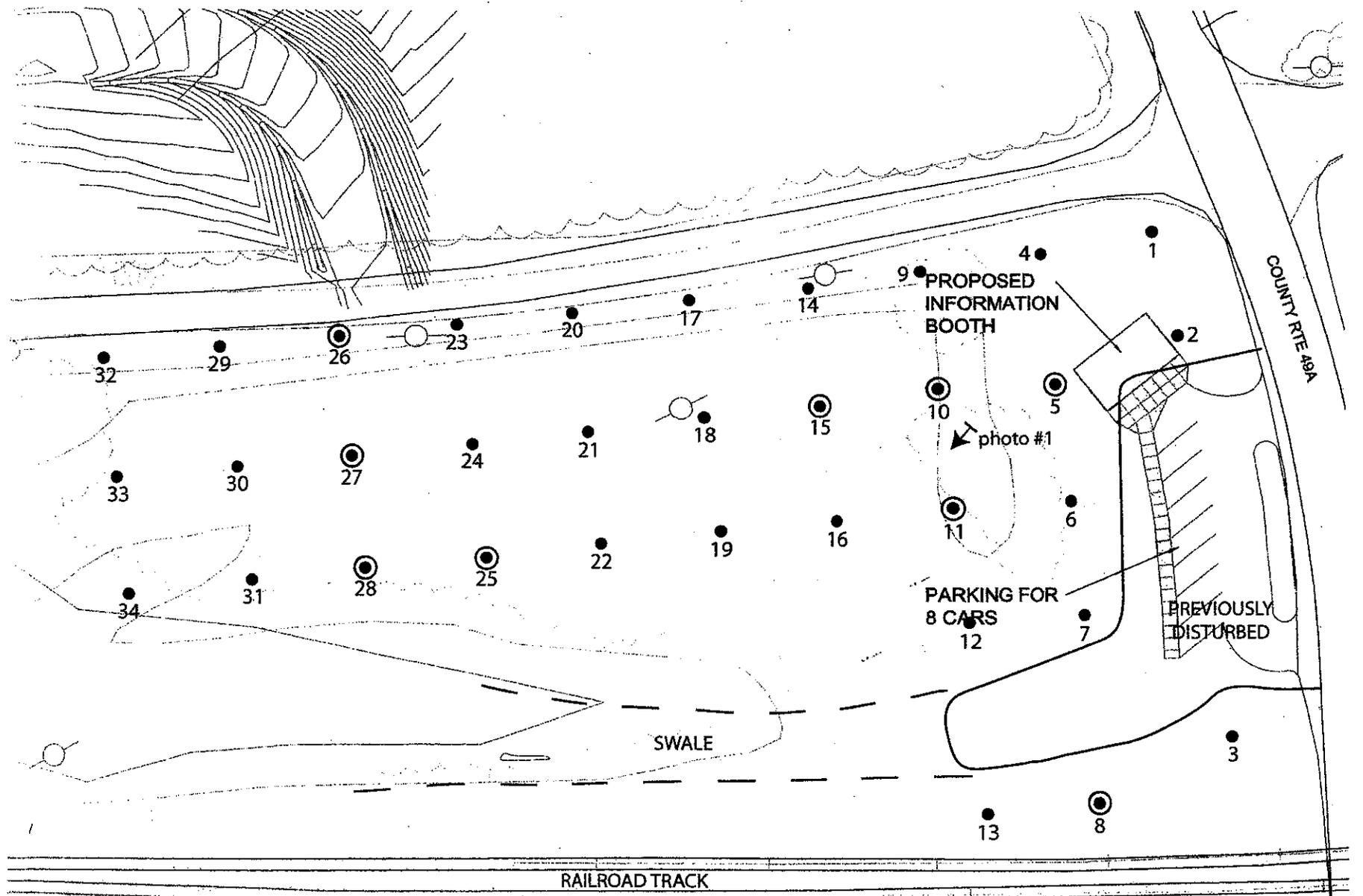


1000 ft. / 305 m.



Map 8. 1904 USGS Margaretville & Phoenicia Quadrangles

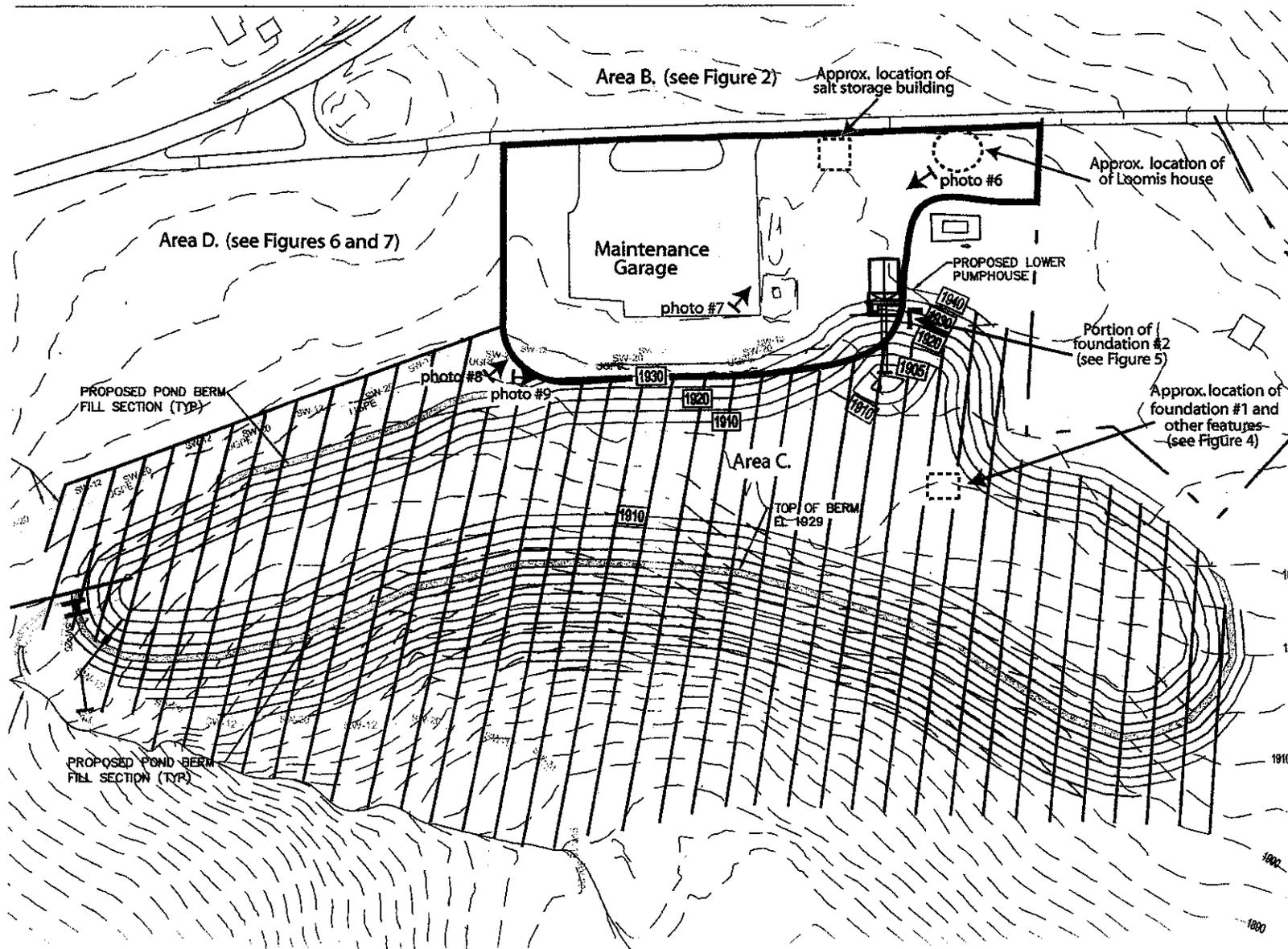
FIGURES



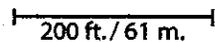
- = Historic artifact(s)
- ↑ = Photograph location

← RT. 28 (APPROX.) →





= Not tested slope in excess of 15%



200 ft. / 61 m.



= Area outlined in gray is disturbed



= Photograph location



North

Figure 3. Area C.

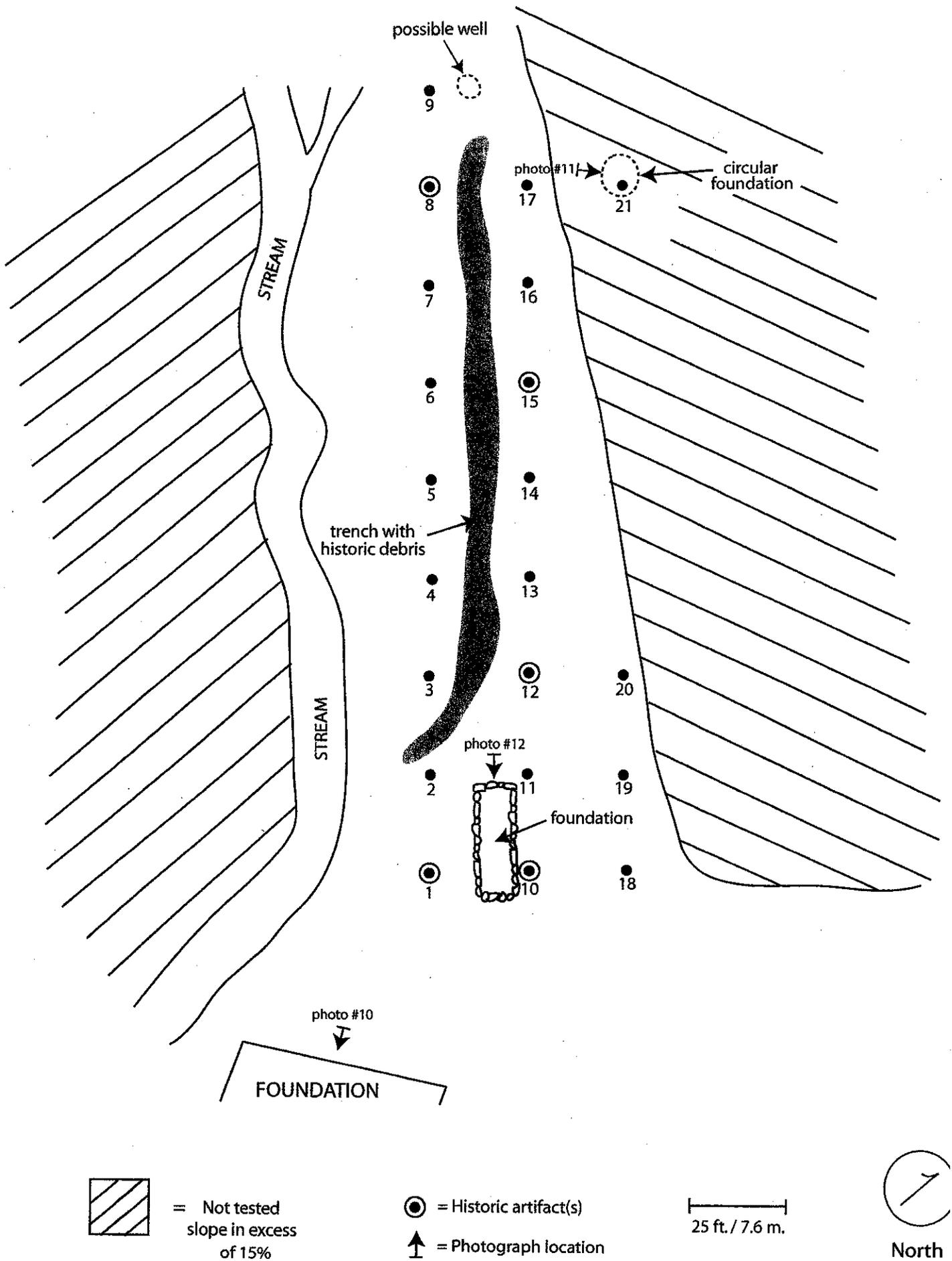


Figure 4. Area C. Foundation #1 (and other Features in Area C.)

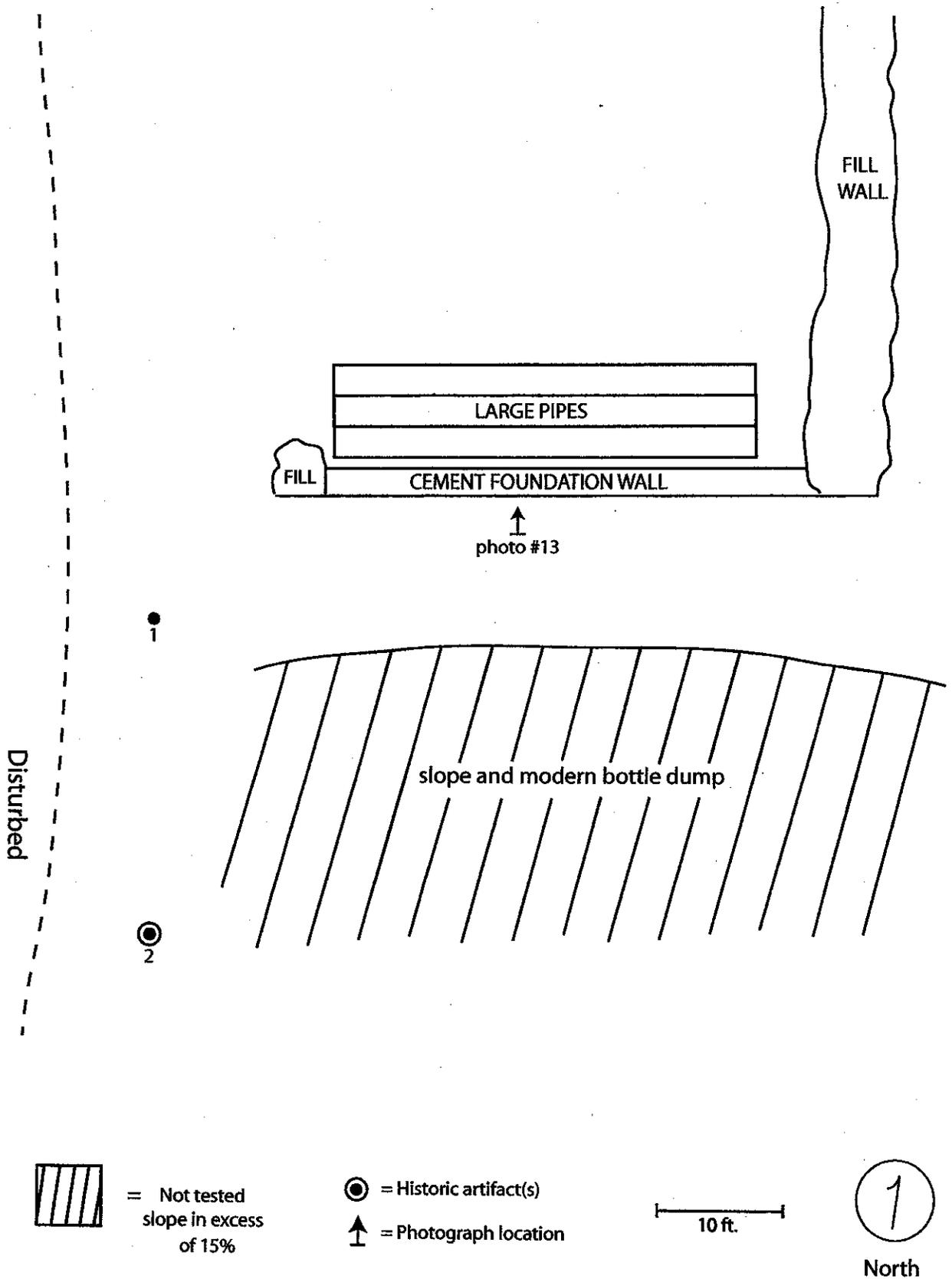
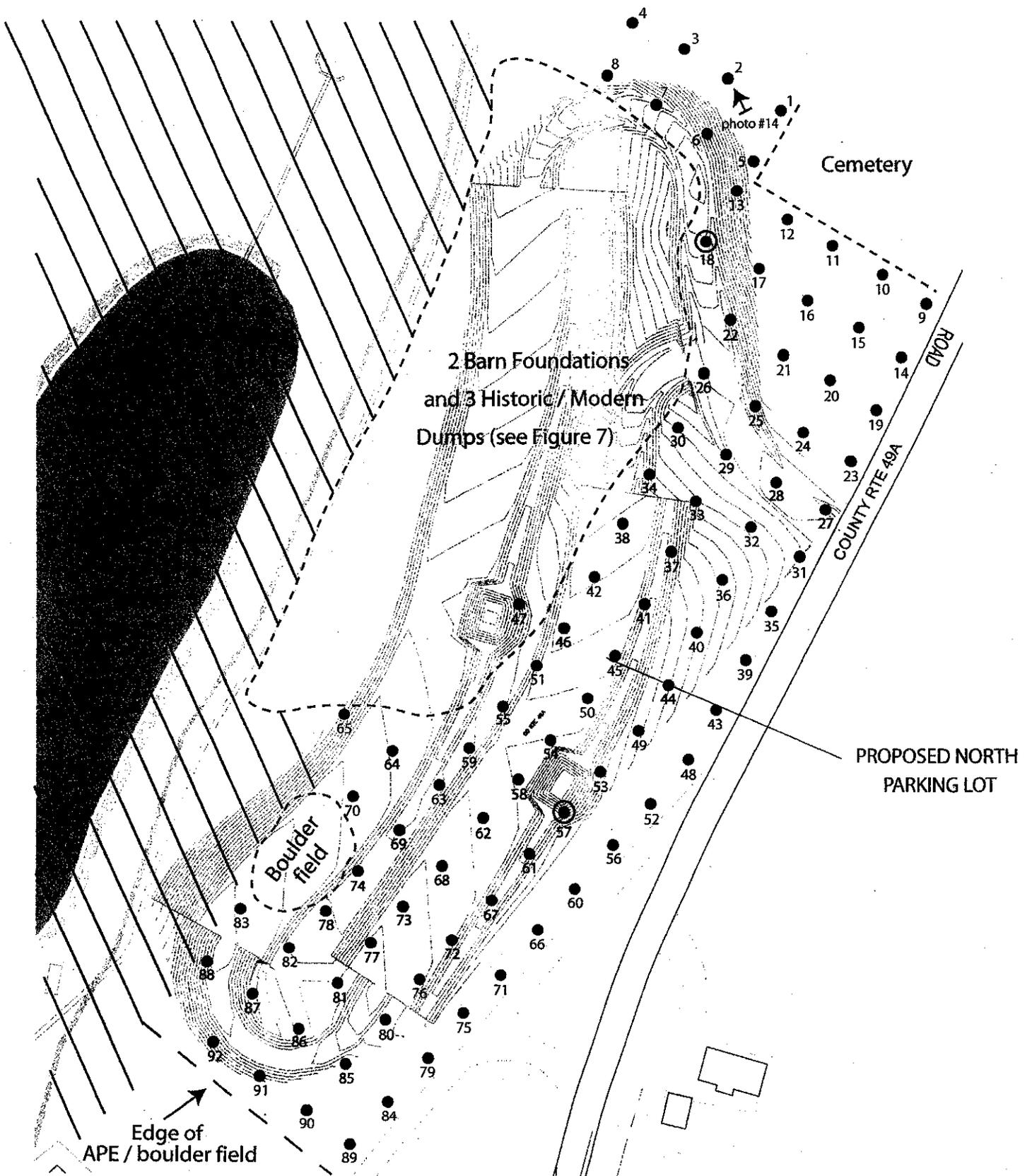


Figure 5. Area C. Foundation #2 (near proposed Lower Pump House)



= Not tested
slope in excess
of 15%



= Historic artifact(s)



= Photograph location



North

Figure 6. Shovel Testing of Area D

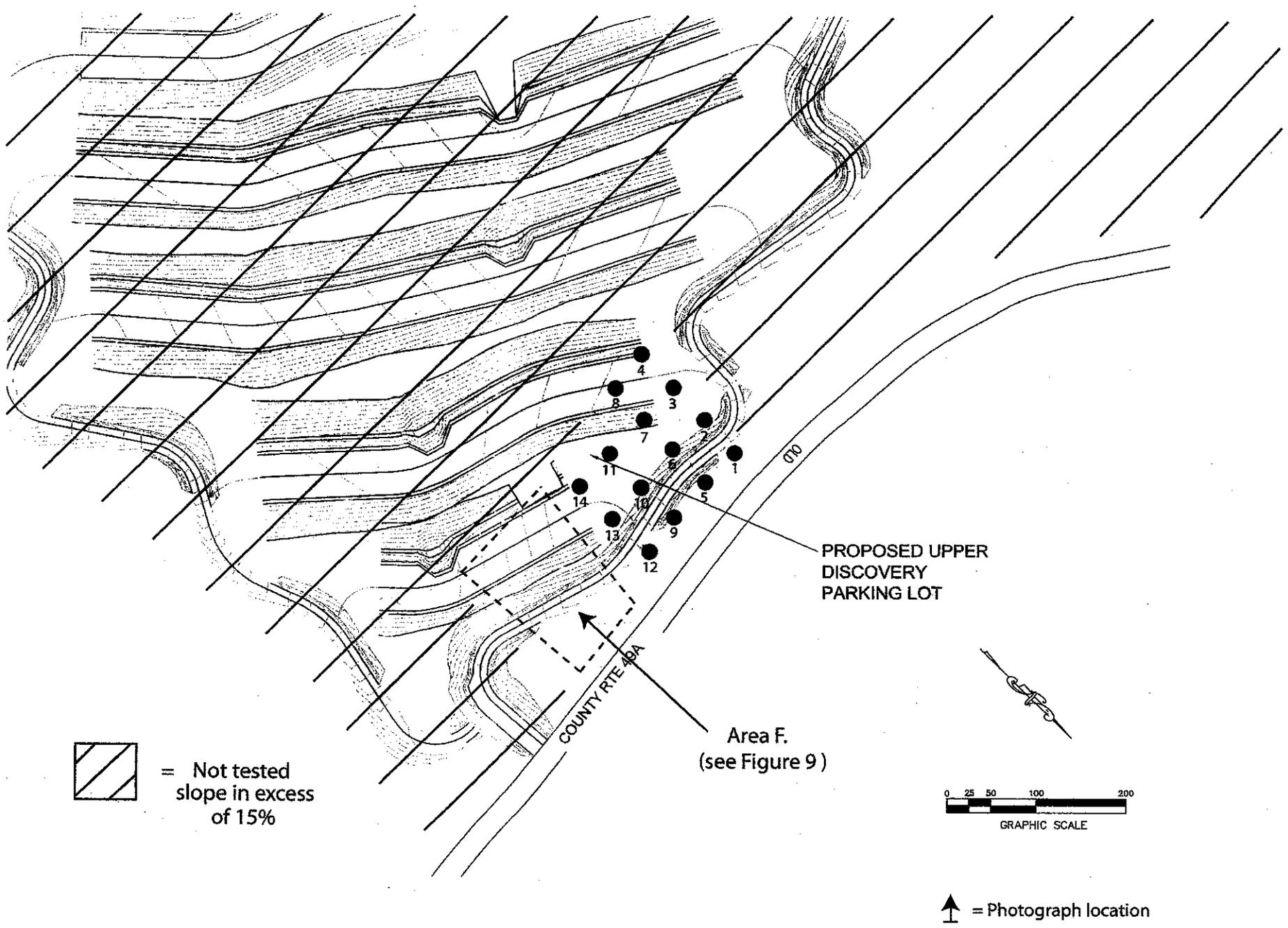


Figure 8. Investigation of Area F

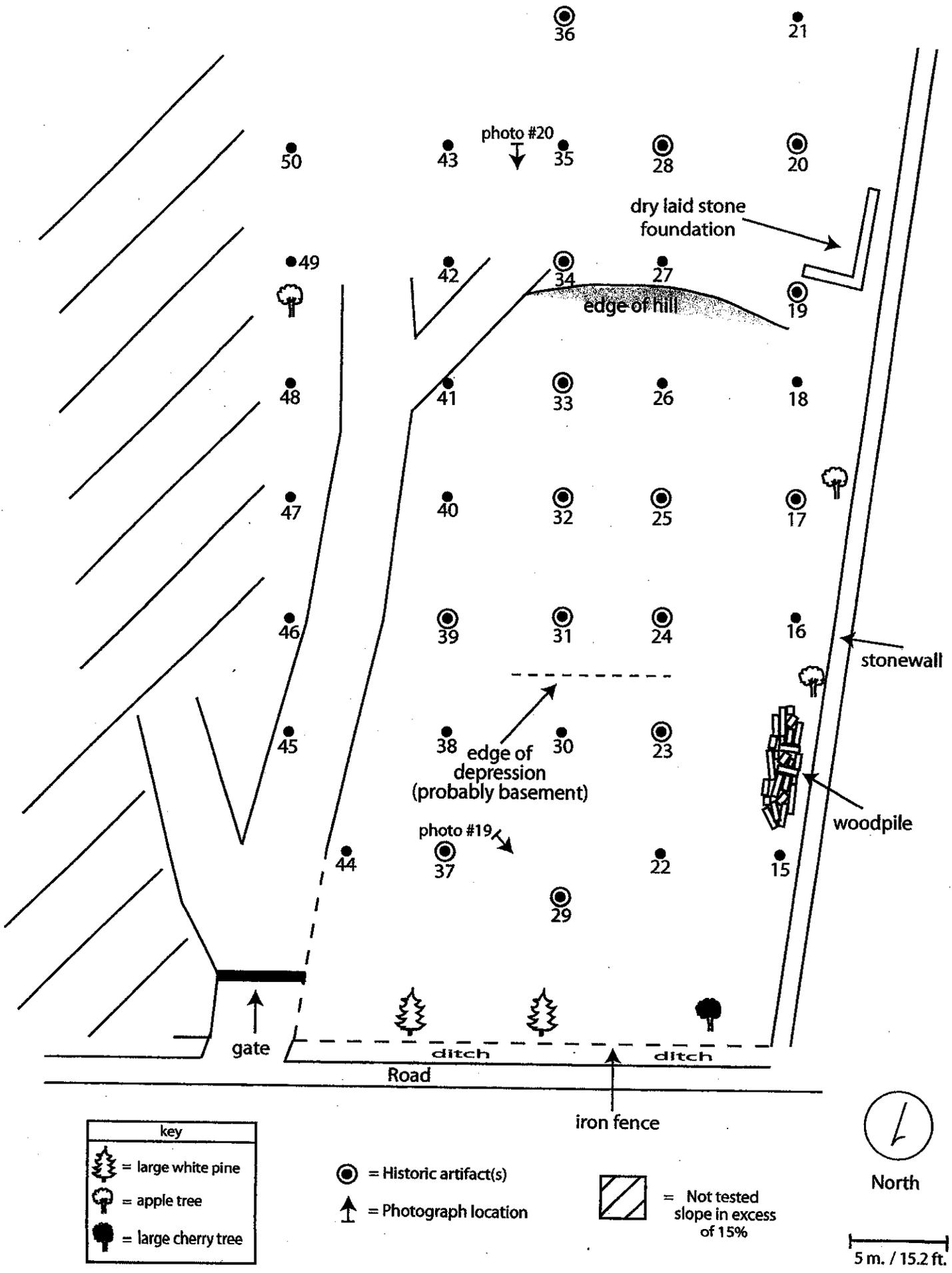


Figure 9. Area F. Inset. Shovel testing of Whispell House and yard

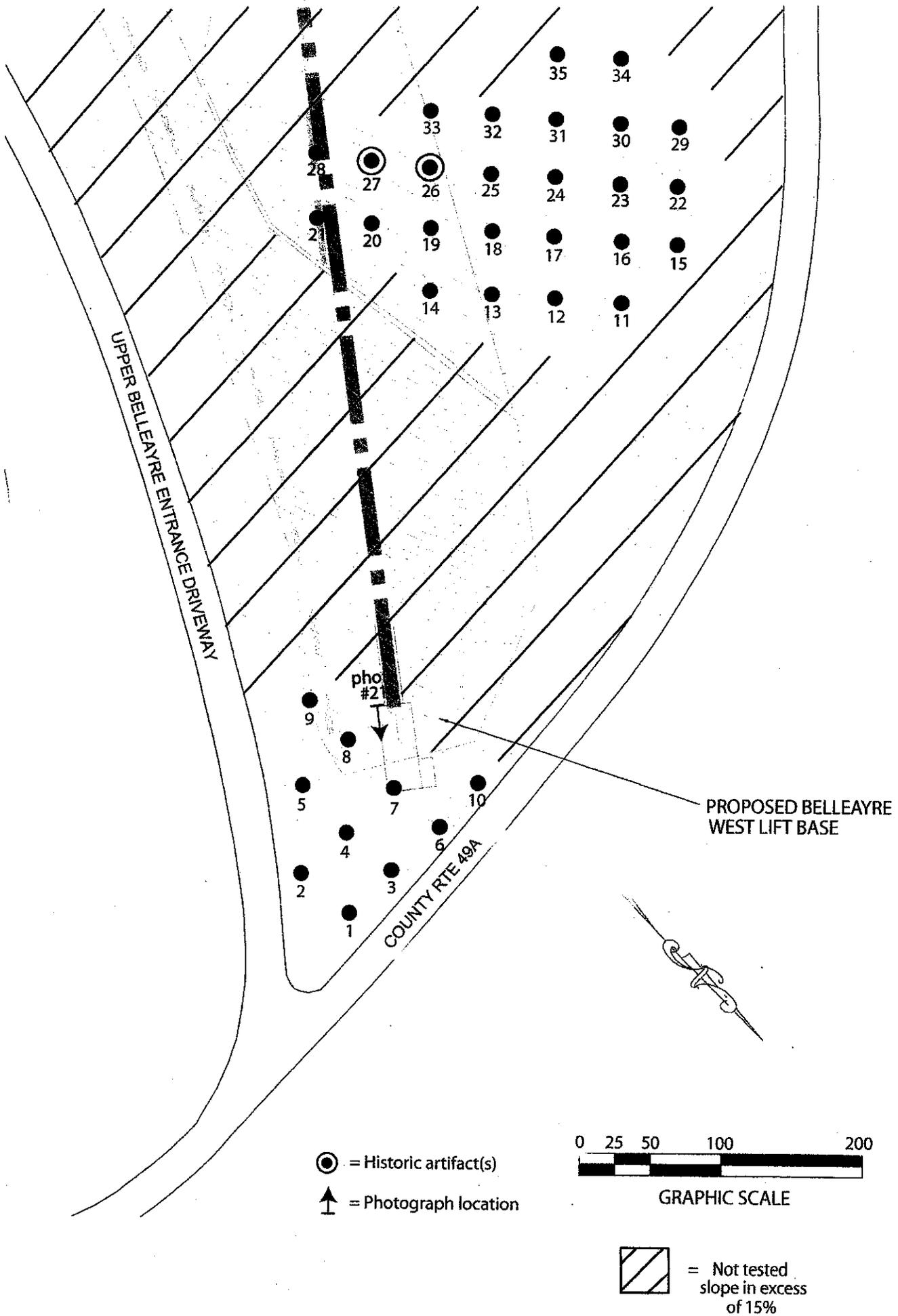


Figure 10. Shovel Testing of Area G