REPORT ON ARCHAEOLOGICAL TESTING IN ADVANCE OF FIRE SUPPRESSION SPRINKLER INSTALLATION AT THE MORRIS-JUMEL MANSION WEST 160TH STREET AT JUMEL TERRACE MANHATTAN, NEW YORK

Contract # M073-299

General View of the Morris-Jumel Mansion

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EXECUTIVE SUMMARY

The New York City Department of Parks and Recreation commissioned an archaeological testing program at the Morris-Jumel Mansion associated with the installation of a fire suppression sprinkler system. This project involved excavation of a trench to place a water line connection from the street to the house. Archaeological shovel testing in advance of this excavation was done within the park and untested parts of the trench and the contractor's excavations in the street and sidewalk were monitored. This report presents the results of that work.

Shovel testing identified a buried ground surface in tests near the house. A possible prehistoric artifact was recovered from below this stratum. However, no archaeological features were identified. The shovel testing also demonstrated that bedrock is quite close to the ground surface throughout the park. Similarly, bedrock within the street was also close to the surface in areas where it had not been previously cut to facilitate the installation of utility lines. The pervasive presence of the bedrock led the Parks Department to alter their plans for the trench excavation. They relocated the trench to follow the path of a previously installed sewer line from the street into the house. This meant archaeological monitoring was needed to ensure no potential historic or prehistoric resources were disturbed by excavations extending beyond their intended path. Areas outside of the previously excavated sewer trench were only disturbed twice. Neither time were any archaeological resources encountered.

It was concluded no adverse impacts to archaeological resources resulted from the fire suppression sprinkler project.

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INTRODUCTION

The New York City Department of Parks and Recreations is in the process of conducting a number of improvements to the Morris-Jumel Mansion located in Roger Morris Park on Jumel Terrace between West 160th Street to West 162nd Street in the Borough of Manhattan, New York City. Most of these are improvements within the house itself, a New York City Landmark and a National Register of Historic Places site. Among the improvements called for is the installation of a fire suppression sprinkler system. This installation involves placement of a new water line connecting the house to a water main in Jumel Terrace. The below ground work needed to make a trench for the water line was deemed to have the potential to affect archaeological resources. Therefore a program of archaeological testing was prepared and conducted. The results of that fieldwork are presented in this report. The archaeological scope of work and addendum are attached as Appendix A. The original scope of work was modified because the placement of the water line trench was moved from its originally planned location.

The Morris-Jumel Mansion is one of the few surviving colonial era structures in New York City. Once situated on a larger estate, it is now located within a small city owned property known as Roger Morris Park. The structure consists of a main portion with a portico on its southern side and an octagonal wing extending to the north. These two major wings are linked by a short connecting portion, usually referred to as the "hyphen". The impacts from the water line trench were originally planned to extend from a point in the water main underneath Jumel Terrace perpendicular and straight to a window well on the octagon section of the house (see Figure 1). A series of shovel tests were to be placed along this route within the park and the remainder of the trench excavation conducted by the contractor was to be monitored by the archaeologist. However, as will be described in this report, the bedrock within the area is quite close to the ground surface. In order to make the contractor's excavations less arduous the trench location was changed to a follow the path of an existing utility line. This meant a change from the original plan after the archaeological shovel testing was completed. The actual trench was taken from the same point in the street to the sidewalk and south along the eastern sidewalk of Jumel Terrace to a point in front of the stairs to the park and then directly east into a window well at the main portion of the Morris-Jumel Mansion (see Figure 2).

This report was prepared for Antanas Group, Ltd. by Linda Stone. Archaeological shovel testing was conducted by Ms. Stone and Arnold Pickman on February 22 and 23, 2000. Archaeological monitoring was done by Linda Stone over a period of time from February 22 - March 16, 2000. This report was written by Linda Stone with the section on site history and archaeological potential written by Arnold Pickman based on his 1994 site report and edited by Linda Stone.

The author would like to thank the prime contractor and other project contractors as well as those at the New York City Department of Parks and Recreation (DPR) and the Morris-Jumel Mansion.(MJM) for their support and assistance in facilitating this project. These include, but are not limited to, the following individuals (listed alphabetically) Jonna Carmona, DPR; Chuck Connor, Connor Mgmt.; Paul Eng (DPR); Lester Fisher, L.E.S.; Ken Moss, MJM and Anthony Staknys, Antanas.

SITE HISTORY AND ARCHAEOLOGICAL POTENTIAL

Previous Studies

There have been a number of previous studies concerned with the history and/or archaeology of the Morris-Jumel Mansion. In 1994, in conjunction with the waterproofing of the foundation walls of the main portion of the Mansion, a report was completed (Pickman 1994) which reviewed the history of the property, analyzed the possible archaeological remains which may be present, and presented the results of archaeological testing and monitoring undertaken in association with the waterproofing project. Pickman's 1994 report also reviewed the reports of previous archaeological work conducted on the property by Bolton (1916), and Dublin and Rothschild (1986).

The 1994 report also included the results of a review of prior documentary studies (Greiff n.d., Roberts 1978, Shelton 1916, Steudenroth and Matero n.d.), earlier secondary sources pertaining to the history of the Mansion and the surrounding area (e.g. Anonymous 1881, Bolton 1903, Lossing 1873, Pumpelly 1903, Riker 1904) and an additional review and re-examination of primary documents, including a detailed examination of the history of ownership and occupation of the Mansion.

Primary documents reviewed by the authors of the prior studies include maps, photographs, deeds, wills, newspaper advertisements, tax records, census records, the Jumel Papers (located in the New York Historical Society), Stephen Jumel's business records (located in the New York Public Library), and the records of the American Loyalist Claims Commission. Stokes (1915 - 1927: passim) also includes a summary of the history of the house, texts of newspaper advertisements, and deed citations. Much of this data is also included in the holdings of the Morris-Jumel Mansion Archives.

This report will summarize the history and archaeological sensitivity of the property based on the information presented by Pickman (1994), with the emphasis on that portion of the property west of the octagon to be impacted by the fire suppression sprinkler project. Readers interested in further details of the prior history and archaeology of the property should consult the 1994 report and the other sources cited above.

Historical Summary

In the 17th century the acreage which now surrounds the Jumel Mansion was part of a large tract known as the Great Maize Land. This tract was eventually partitioned by the Town of Harlem, and in the early 18th century the land in the vicinity of the present Morris-Jumel Mansion was acquired by a Dutch settler named Jan Kiersen. Prior to 1707, Kiersen constructed a house on the east side of the Post Road, also known as Kingsbridge Road, which followed the approximate present course of St. Nicholas Avenue. Kiersen's house was apparently located south of the present Mansion property, in the vicinity of the present location of St. Nicholas Avenue and 160th Street.

By 1763, the Kiersen property and other surrounding land, totaling some 100 acres, had been acquired by James Carroll, who actively farmed the land. In June 1765, the Carroll property was purchased by Roger Morris, a then-retired British Army officer. Morris built the existing structure, as well as stables and a coach house, on the property between 1765 and 1770.

During the Revolution the Morris Mansion was used by George Washington as his headquarters between September 14 and November 16, 1776. After Washington's troops withdrew from New York City the Mansion served intermittently as a headquarters for British and Hessian officers until the British evacuation of New York City on November 25, 1783. At some time during this period there may have been a "tent camp" in the vicinity of the Morris Mansion, but there were apparently no fortifications within the bounds of the present property.

After the Revolution, the property of the Loyalist Roger Morris was confiscated and sold by the Commissioners of Forfeiture. Between this time and 1810, the owners of the property apparently never occupied it. Research indicates that it was leased to several different occupants during this period. The Mansion was operated as a tavern for approximately two years beginning in 1785. Subsequently the house was occupied and the surrounding land farmed first by John Bogardus and then by Jacob Meyer.

In 1810 the Mansion and a surrounding tract of some 36 acres was purchased by Stephen Jumel, a prosperous French-born merchant. Jumel had married Eliza Bowne, who figures prominently in the subsequent history of the Mansion, in 1804, prior to his purchase of the Mansion. After purchasing the property, Steven and Eliza Jumel resided in the Mansion periodically. They apparently divided their time

between this residence and another house which they owned, located in lower Manhattan, and also spent time in France. By 1820, Eliza Jumel had adopted as her daughter, a "niece" (actually a distant relative), Mary Bownes.

During a portion of the 1820's Eliza and Stephen Jumel resided in France, and during this period the Mansion was apparently rented to several different persons. By 1830 the family was once again residing in the Mansion.

Steven Jumel died in 1832, and in 1833 Eliza Jumel married Aaron Burr, former Vice-President of the United States. Burr would have resided in the Mansion for only a brief period, as the marriage apparently was not a happy one, and the couple divorced in 1836. For much of the time between the latter year and approximately 1848, the Mansion was apparently occupied by tenants. One of these, named James Monroe, may have been the nephew of the fifth President of the United States.

Prior to 1850, Eliza Jumel once again took up residency in the Mansion, together with Nelson Chase, the husband of Eliza Jumel's adopted daughter Mary Bownes Jumel, who had died in 1843, and the two children of Mary and Nelson Chase.

Eliza Jumel died in 1865. For the next 20 years the house was occupied by the family of Nelson Chase, Eliza Jumel's son-in-law. The family included, at various times, Chase, his daughter Eliza, her first husband, Paul Pery (and after his death her second husband, Jules Henry Caryl), and Nelson Chase's son William Inglis Chase and his wife. During the 1870's Nelson Chase remarried. His second wife, Hattie, also resided in the mansion. After a period of contention over the actual ownership of the property the Mansion tract was eventually deeded to Nelson Chase and his daughter Eliza Caryl in 1882. At that time Jumel Mansion property was reduced to its present boundaries.

The Chase family sold the Mansion and the surrounding property in 1887. From that time until 1894 it was in the possession of absentee owners and was rented for most of this period by the LePrince family. In 1894 the mansion was sold to Ferdinand P. Earle, who occupied the house, together with his family, until his death in 1903 at which time the Mansion property was sold to the City of New York. It was subsequently administered by the New York City Parks Department (now the Department of Parks and

Recreation). In 1907 the "Washington Headquarters Association," founded by the Daughters of the American Revolution, took over the operation of the house as a museum. Today the Parks Department is responsible for Roger Morris Park and an organization called Morris-Jumel Mansion, Inc. oversees the mansion.

Documented Outbuildings and Features

A number of 18th-, 19th- and early 20th-century maps and other documentary sources indicate the presence of outbuildings, landscape features, and other sub-surface features on the Morris-Jumel Mansion property. Most of these were located outside the bounds of the present Roger Morris Park. The subsequent discussion will focus on those buildings and features which were most likely within the present park boundaries. Pickman (1994) plotted the approximate locations of three outbuildings and a well indicated by the various historic maps as being within the present boundaries of the Park on the 1994 site plan (Pickman 1994: Figure 35). His map is reproduced here as Figure 3. None of these features are located in the area to be impacted by the proposed construction.

Outbuildings

Two Revolutionary period maps, published in 1777 and 1782 show the Mansion and other buildings. Both indicate a large structure northwest of the house. Analysis of other documents indicate that this most likely functioned as a coach house and stable (Pickman 1994: 8-15). The location shown on the maps would place this outbuilding north of the present Park boundaries.

The 1782 map also shows an outbuilding east of the southern end of the mansion which was not shown on the 1777 map. Although the map scale precludes precise location of this structure, the scale as shown indicates that it would have been located east of Roger Morris Park at the present location of Edgecombe Avenue.

Two surveys of the property date to the period of its acquisition by Steven Jumel. The first of these, dating to 1810, shows the old coach house which had been depicted on the Revolutionary period maps. The later 1815 survey indicates that Jumel had rebuilt and/or extended this outbuilding, located north and west of the present Roger Morris Park boundaries (Pickman 1994: Figure 6). This survey also shows two small outbuildings north and east of the house which did not appear on the earlier maps and which also

appear to have been constructed by Steven Jumel. The easternmost, apparently a smoke house, was located east of the present Park boundaries, at the present location of Edgecombe Avenue. However, the building north of the house, labeled "ice house" on the 1815 map would appear to be within the Park boundaries (see Figure 3:A). Documents indicate that this structure was replaced by a new ice house ca. 1829 which may have been constructed on the site of the earlier ice house (Pickman 1994: 21-22, 27). The location of the ice house as shown on 19th century maps would place it in the northwest corner of Roger Morris Park. Construction of these outbuildings were among a number of changes made by Jumel after his purchase of the property, including construction of an entrance gate and gate houses on the east side of Kingsbridge Road. The results of archaeological testing on the property, discussed below, suggest that Jumel made additional landscaping changes.

Several historic maps show the configuration of the mansion property in the 1850-1870 period, at the end of the Jumel family occupation. A small outbuilding northeast of the Mansion shown on an 1868 map would appear to be within the boundaries of the Park (see Figure 3:C). Other outbuildings shown east of the house would appear to have been located east of the Park at the present location of Edgecombe Avenue.

Documents cited by Pickman (1994) indicate that Nelson Chase erected a new barn shortly after acquiring title to the property in 1882 (see Figure 3:D). The structure is shown immediately south of 162 Street on the 1893 Sanborn insurance map. The 1909 Sanborn map indicates that this structure had already been demolished.

Other Features

The only documented sub-surface feature on the property was a well which Eliza Jumel contracted for in 1857 (Pickman 1994: 26). Construction of the well involved blasting of bedrock. This is apparently the well shown northeast of the house on an 1887 map (see Figure 3:B). Previous sources of water for the house are uncertain.

There is no documentary evidence indicating the location of privies on the property. However the occupation of the house by large numbers of persons, including families of the owners and tenants, as well as slaves/and or servants, would have required facilities for the disposal of quantities of human waste. There is no mention in the records of the construction of privy pits. It should be noted that the presence

of bedrock fairly close to the surface on portions of the property would have limited the areas in which it would have been feasible to install such features. While wells could be blasted out of bedrock, construction of privies in such a manner would have not allowed for the drainage of liquids. Any features so constructed would have been in the nature of septic tanks, which would have had to be frequently emptied. Pickman (1994) speculates that privies or septic tanks would most likely have been located east or northeast of the house, out of sight of visitors (Pickman 1994: 47-49). It is possible that such features would have been located on what was then the eastern edge of the property at the present site of Edgecombe Avenue (i.e. at least ca. 120-130 feet east of the house). However, unless chamber pots, to be emptied by the servants, were utilized at all times, not just at night, it could be assumed that such features would have been located closer to the house where they would have been more readily accessible to the occupants of the Mansion. Therefore, there is a substantial possibility that privy pits are located somewhere within the boundaries of Roger Morris Park.

Twentieth Century Modifications

Several "improvement" projects have been undertaken at the Morris Jumel Mansion during the 20th century. A series of such "improvements" made in the early 20th century included the addition of the "Colonial Revival" flower garden northeast of the house, and other modifications adjacent to the eastern side of the main portion of the house.

A major modification project was undertaken ca. 1935 by the Department of Parks and conducted as a W.P.A. Project. These modifications, which affected much of Roger Morris Park included:

- Realignment and reconstruction of the basement stairs and stairwell on the east side of the main portion of the house.
- Construction of five "areaways" or window wells on the west side of the main portion of the house. Prior to these modifications the basement windows were the same type of narrow above-ground windows as still exist in the octagon wing.
- Removal of a kitchen wing constructed after the property was purchased by the Earle family in 1894. It was located adjacent to the north wall of the house east of the hyphen and southern portion of the octagonal wing.
- Relaying of the gutter stones adjacent to the house. It is uncertain whether these date to the original construction of the house, but they are known to have been present at the beginning of the 20th century, and other data indicate that they predate the 1860 period (see Pickman 1994:36). The 1994 archaeological project indicated that the 1935 modifications involved excavation to enable the

installation of a concrete supporting "beam" beneath the gutter stones.

- Installation of the bluestone patio at the front of the mansion, replacing a previous flagstone entrance way and a lawn area south of the house.
- Replacement of the fence and entrance gate surrounding Roger Morris Park.
- Construction of the walled sunken garden northeast of the house. This construction modified the flower garden which had been installed at the beginning of the 20th century.
- Excavation for the installation of drainage, water and sewage pipes, as well as an oil tank located northwest of the octagon wing.
- Plans for the 1935 project specify replacement of the then-existing paths by "Telford" walks, a type constructed of broken stone or gravel. It is uncertain if these paths were actually constructed, but by 1954 the Roger Morris Park pathways were of brick construction.
- Excavation of the area under the portico at the front of the house and installation of a cement floor.

Two more recent episodes of modification have occurred. In the early 1980's, additional modifications of the basement stairwells on the east side of the house were undertaken. Finally, in 1994, the foundations of the main portion of the mansion and the hyphen were exposed and waterproofed, and drainage pipes were laid next to the foundation and extended south of the house to two large dry wells which were installed at that time (Pickman 1994: Figure 1).

Jumel Mansion Archaeology

Bolton's Explorations and Discussion of Possible Midden Locations

In the second decade of the twentieth century, Reginald Pelham Bolton undertook limited archaeological explorations at the Morris-Jumel Mansion. These apparently included a surface examination of at least a portion of the area east of the house and possibly some sub-surface examination, although his account (Bolton 1916) does not describe the number, extent or depth of any sub-surface tests conducted. Bolton's description also does not indicate that his examination encountered any midden deposits, although he does report the presence "at several places east of the house under the present grass lawn and flower beds...[of]...more or less broken or scattered debris, some of which consists of crockery and chinaware" (Bolton 1916:52, cited in Pickman 1994: 40).

Pickman (1994) noted that the occupation of the Mansion by large numbers of people, including owners or tenants and their families as well as their slaves and/or servants would have resulted in the production of a correspondingly large amount of refuse. Pickman speculates that refuse middens would most likely

have been located east of the house, since the basement entrance to the kitchen area was located on this side. In addition, since the presence of the main entranceway to the Mansion was on its west side, refuse would most likely have been deposited in areas not traversed by or visible to visitors.

Pickman also notes that the topography of the area suggests the possibility that the main area of refuse disposal may have been located east of the present property boundary, at the edge of a sharp drop in grade which was located at the present location of Edgecombe Avenue or slightly to the east. The present drop in grade at the eastern edge of the Park was created when Edgecombe Avenue was cut through the then-existing grade in the late 19th century. It is possible that refuse would have been discarded over the edge of the original drop-off in grade. The presence of midden deposits at other locations within the boundaries of the present Park, cannot be ruled out, however.

The results of the previous archaeological testing suggest that repeated episodes of landscaping on most of the property may have resulted in the disturbance of surface middens and the incorporation of artifacts from such middens into grading "fill" redeposited elsewhere in the Park.

Results of the 1986 and 1994 Archaeological Projects

Professional archaeological investigations at the Morris Jumel Mansion were conducted in 1986 by Susan Dublin and Nan Rothschild and in 1994 by Arnold Pickman and Eugene Boesch in association with the "improvements" discussed above. Locations of these archaeological tests are depicted on Figure 4.

The 1986 work involved the excavation of two test units, one located adjacent to the eastern wall of the main portion of the house and the second adjacent to the eastern wall of the octagon (Dublin and Rothschild 1986). The 1994 project included the excavation of a test unit adjacent to the north wall of the main portion of the house and east of the hyphen, and excavation of 14 additional tests which included shovel tests and a two by two foot unit, as well as monitoring of the construction excavations (Pickman 1994). None of the previous projects included testing of the area west of the octagon or from the Jumel Terrace entrance stairs to the house, areas impacted by the present project.

The results of the 1986 and 1994 archaeological projects have provided information on stratigraphic sequences and landscaping features in the southern portion of Roger Morris Park, data on the construction

of the foundation of the main portion of the Mansion, and indication of the utilization of the property by prehistoric Native Americans.

Pickman (1994) offered a tentative reconstruction of the original topography of the Morris Jumel Mansion site, based on the results of the archaeological projects. Consideration of the elevations of the bedrock as encountered in the excavations, as well as observation of the present surface topography, indicates that two bedrock ridges extend roughly in a north-south orientation along the east and west sides of the main portion of the Morris-Jumel Mansion, but further to the east and west at the locations of hyphen and octagon wing. During the prehistoric and early historic periods the bedrock apparently outcropped in large portions of these ridge areas, with a thin layer of humic material overlying the bedrock in other portions.

One or both of these ridges at least partially underlies the main wing of the Mansion, and rock removed during the excavation of the cellar hole was probably used to construct the foundation. A north-south oriented "gully" with a bedrock elevation some four feet or more lower than the elevation as noted along the sides of the Mansion probably extended beneath the eventual Mansion site.

The east and west foundation walls of the main portion of the mansion rest on bedrock. The hyphen foundation, which was apparently constructed at the site of the "gully" noted above, rests on subsoil. The only observation of the octagon foundation walls was made at the site of 1986 Test Unit 2. Here, the foundation wall of the octagon was observed resting directly on the bedrock surface, which was approximately 1½ to 2 feet above the bedrock elevation at the north wall of the mansion (at the location of 1994 Test Unit A).

Monitoring observations in 1994 also indicate that the ground south of the Mansion sloped downward toward the present location of 160th St. More steeply than at present. It would appear that fill was deposited in this area to raise the grade in order to create a more gentle slope. This may have been done as part of the landscaping after purchase of the property in 1810 by Steven Jumel. This fill, which includes refuse from the earlier occupation of the Mansion, was supported by a stone retaining wall located approximately 30-40 feet north of 160th St. This retaining wall was shown in an 1872 drawing of the property (see Pickman 1994: Figure 18), and a portion of this wall was exposed in 1994 during excavation for the installation of one of the drywells south of the mansion. A weakly developed ground surface which

apparently developed after this fill was deposited was noted immediately overlying the fill. This surface did not appear to contain any dense deposits of primary refuse.

Observation of the various archaeological test units and waterproofing trenches indicated that at least the lower portion of the ground surface which existed prior to construction of the Morris-Jumel Mansion remains intact beneath later fill deposits at most locations exposed except in the areas of higher bedrock elevations along the east and west sides of the main Mansion wing and at the location of bedrock outcrops southwest of the mansion. However, in the area adjacent to the southeast corner of the Mansion this surface appears to have been removed during its construction.

North of the main Mansion wing the color and texture of this ground surface appears to be consistent with interpretation of the stratum as the base of a plow zone. The documentary evidence suggests that a least some of the land surrounding the Mansion was cultivated during the 18th century. In the area south of the Mansion, the appearance of this ground surface is consistent with that of an uncultivated "A horizon." This suggests that the northern portion of the property was cultivated prior to construction of the Mansion, while the area of steeper slope to the south remained uncultivated.

A laminated, water-deposited stratum, which apparently accumulated during construction of the Mansion, was present on the eastern side of the mansion, overlying the pre-construction ground surface. This deposit may have accumulated during a short period of time after excavation of the cellar hole for the Mansion, and before the foundation walls and superstructure of the house were constructed. In the vicinity of the mansion, a deposit of 18th-century "construction" fill overlies the preconstruction ground surface and/or the water laid deposit. This deposit contains brick, mortar and pieces of schist which most likely represents debris from the stone removed from the bedrock underlying the mansion and used to construct the foundation wall. After the foundation walls were constructed this construction waste was apparently mixed with soil which probably derived from the excavation of the cellar hole. This fill deposit served to raise the ground surface in the immediate vicinity of the Mansion so that it was nearer to the top of the foundation walls.

After deposition of the 18th century construction fill, ground surfaces must have developed over the area. Such surfaces may have included midden deposits consisting of refuse from the occupation of the house.

In the areas near the house which were archaeologically tested and observed in 1986 and 1994, these surfaces and deposits have apparently been removed as a result of later episodes of landscaping and/or construction. However, surface refuse may have been incorporated into fill deposited during such landscaping activities.

One such episode, which may have occurred after purchase of the property by Stephen Jumel, was apparently associated with the construction of a cobble walkway which began as a wider cobbled area in front of the hyphen porch on the west side of the Mansion and extended to the west along the north wall of the building. This feature was exposed by 1994 Tests 7, 9 and 14 (see Figure 4 and Pickman 1994: Figure 40). It is likely that the walkway originally continued to the south along the west wall of the main wing of the mansion. This portion was apparently removed during the 1935 "improvement" project. A relatively high density of 18th and early-19th century artifacts was also recovered from a fill stratum which overlaid this feature and was apparently associated with a later 19th century landscaping episode which apparently involved replacement of the earlier cobble walkway. The deposits encountered in Tests 7, 9 and 14 are approximately 15-20 feet south of the route of the trench originally planned for the present project.

A similar cobble walkway also extended east of the hyphen and continued to the south along the east side of the main mansion wing. However, it would appear that this walkway was installed at the end of the 19th century, during the Chase or LePrince occupations of the Mansion. It may however, have represented a reconstruction of an earlier walkway built at the same time as the one on the west side of the hyphen.

During the excavation of 1986 Unit 2 east of the octagon wing, prehistoric artifacts consisting of a quartz tool and 17 pieces of lithic debitage (waste material from the manufacture of stone tools), were recovered from what appears from the description provided by Dublin and Rothschild (1986: 23-34) to have been undisturbed contexts encountered approximately 2 1/2 - 5 feet below the present surface. Two additional pieces of lithic debitage and a Brewerton side-notched projectile point dateable to the Archaic period were recovered from fill and other disturbed contexts in this unit. Another Archaic period "Lamoka-type" projectile point and additional debitage were recovered from fill and disturbed contexts. The stratigraphic contexts which yielded the prehistoric material also appeared to have been present in Unit A excavated in 1994, south of 1986 Unit 1 (see Figure 4 for the location of these units). However, no prehistoric artifacts

were recovered from the 1994 unit. A total of ten additional fragments of prehistoric stone tools or debitage were recovered from fill deposits encountered in 1994 shovel tests 6, 7, 8 11, and 13. During the construction monitoring a prehistoric tool fragment and an additional piece of debitage were recovered from a stratum immediately overlying the bedrock on the west side of the Mansion which was interpreted as a ground surface existing prior to its construction.

It would appear that one or more prehistoric sites were located on the Mansion property. Some of these deposits were apparently disturbed during episodes of landscaping which occurred subsequent to construction of the Morris-Jumel Mansion. However, some prehistoric deposits on the property would appear to be intact. Pickman (1994) suggests that the Roger Morris Park prehistoric sites may have represented hunting/lookout camps which were located near local heights of land (Pickman 1994:93).

METHODOLOGY

Field Testing

The testing program at the Morris-Jumel Mansion associated with the fire suppression sprinkler project involved two field techniques applied to address the archaeological research potential in the impact areas. The first technique was shovel testing and the second was archaeological monitoring of the contractor's excavations. It was considered possible to identify precontact period archaeological materials or features throughout the project area as well as historic midden refuse from portions of the project impact area close to the house (Pickman 1994:47, 89). Monitoring of the contractor's excavations of the street, sidewalk, and untested areas along the shovel tested transect in the park was considered the most efficient way to evaluate those areas for the presence of archeological features. Archaeological documentation of any such features was recommended.

Shovel Tests

Upon arrival at the site to conduct shovel testing it was noted the line was marked out at a slightly different location than shown on the plan. A single trench was to be placed in the park with a staging area located in the street. Therefore shovel tests were placed at varying intervals in and around the planned trench as marked. A total of eight tests were placed (see Figure 5). The test intervals ranged from three to fifteen feet. Each test was about one to one and a half feet in diameter, except Shovel Test 1 which was expanded from a circular shovel test to a two to two and a half foot square test pit. Most tests were excavated to the depth of bedrock. Exceptions were tests which were located over unmarked utility line disturbances. All soils excavated from the tests were screened through 1/4 inch hardware mesh for the recovery of artifacts. Soils, stratigraphy and artifact inclusions were recorded on forms. The shovel test stratigraphy is attached as Appendix B. Changes in soil color or texture were recorded as separate levels. Soil color descriptions were made using comparisons to the Munsell Soil Color Charts. Photo documentation and drawings were done as appropriate. Measurements were done in feet and tenths of feet.

Monitoring

Monitoring of contractor excavations was done as applied to the project schedule. All contractor excavations of soil were done by hand. Excavations were done in approximately twenty foot sections within the street and sidewalk. Once a segment was completed the contractor would lay pipe and backfill

before commencing with the subsequent segment. Excavations within the yard were done differently. Three segments of the trench measuring about five to seven feet in length were simultaneously excavated (see Figure 6). Once they reached the required depth a high pressure air gun was used to loosen the soil between segments, thus tunneling between the segments.

The archaeologist was present only during excavations. This included excavation of the street, sidewalk, trench pits in the yard and tunneling. The archaeologist was not present during excavation for the siamese connection within flower beds located directly south of the entrance gate because this earth was determined to be added topsoil, based on a 1954 photograph found in the Morris-Jumel Mansion Archives showing the construction of the flower bed. Furthermore, the contractor's probes of this area revealed bedrock at depths from only seven to twenty-two inches below the ground surface. It was assumed this soil was added in or after 1954. All monitored contractor's excavations were recorded in photograph and/or measured drawings.

Artifact Processing

Artifacts known in the field to be non-diagnostic modern materials or to be associated with modern fill deposits were noted in the field records but generally either sampled or not retained. They are marked in Appendix B with a parenthetical "d" or "s" for discarded in the field or sampled. Retained artifacts were also marked on these forms as identified in the field. All artifacts listed on the field records are included in the stratigraphy summary (see Appendix B). The inventory of retained artifacts is attached as Appendix C.

All recovered artifacts were washed and rinsed in tap water and left to air dry before labeling and rebagging in clean zip-lock bags. Most artifacts, with the main exception being metal, were individually labeled with the provenience. Labels were not applied to pieces smaller than ½ inch in diameter. Provenience labels contained the project location abbreviation (MJM) and the test number and stratum from which it came, separated by a decimal point. All zip bags were also labeled with the provenience information.

All ceramic and glass artifacts are considered sherds, unless otherwise noted in the inventory. Ceramic identifications and date ranges of manufacture for white-bodied refined earthenwares were based on style

of decorations, when available, and are referred to in the inventory as "refined earthenwares". If identifications were also based on ware type, such as creamware/pearlware/whiteware, then these types are used as identifiers in the inventory.

RESULTS AND DISCUSSION

Shovel Tests

A total of eight tests were done in the yard area of the planned water line trench. Seven of these were standard shovel tests and one was expanded to a larger unit. The actual test locations are depicted on Figure 5. A summary of the depths, soil colors, textures and artifact inclusions is attached in Appendix B. All tests, except three, reached the depth of bedrock. The bedrock is schist. Shovel Test 2B contained an unmapped utility line at a depth of about 0.7 feet below the ground surface and Shovel Test 6 revealed another unmapped utility at 1.2 feet down. Shovel Test 1 also contained an unmapped utility line at about 0.6 feet deep and was then moved one foot to the south and expanded to a small square unit. Another test, Shovel Test 5, also exposed an unmapped utility line. It was 0.7 feet below the ground surface and was uncovered in the northern part of the test. Shovel Test 5 was excavated to the depth of bedrock in the southern side.

The average depth of all tests was two feet below the ground surface. The average depth of bedrock in the seven tests where it was reached was 1.9 feet below the ground surface. The topsoil was recorded as a dark brown to very dark gray brown sandy silt. It was an average of 0.6 feet thick. The topsoil was underlain by a dark yellowish brown sandy silt, often containing a component of clay. This stratum was generally 1.1 feet thick and was sometimes mottled with the topsoil stratum. This dark yellowish brown soil was generally the basal stratum and was directly on top of the bedrock. However a stratum of decaying rock was sometimes present just above the bedrock. Exceptions to this stratigraphy were in Tests 1 and 2A where a buried surface was found. It was at 2 feet deep in Test Pit 1 and at 1.5 feet deep in Shovel Test 2A. This very dark gray brown loamy soil was similar to the topsoil found in this and other tests.

Shovel test artifacts were analyzed in light of the soil strata from which they came in order to provide dates of deposition for the major strata identified. This was done by using the artifact inventory (Appendix C) in conjunction with the shovel test stratigraphy (Appendix B). The data was sorted to yield a *terminus post quem* (*tpq*), the earliest date at which the most modern artifact could have been manufactured. The *tpq* is also the earliest date which a soil stratum could have been deposited. The topsoil *tpq* comes from plastic which was not retained from Shovel Tests 6 and 7. The *tpq* of the dark yellowish brown stratum comes

from a 1920 penny found in Shovel Test 2A. It is possible this stratum was fill deposited during the major renovations done in the 1930s. The only diagnostic artifact found in the buried surface which was present in Tests 1 and 2A was a piece of creamware which was found in Stratum 5 of Test 1. This ceramic type may dated as early as 1762 (Noel Hume 1991:125, South 1978:72). It is possible this stratum may have been deposited at the time the house was built. It could represent an earlier ground surface which was covered up in Tests 1 and 2A and possibly or removed during the 1930s in other test locations.

Test Pit 1

As discussed above Shovel Test 1 was expanded into a small unit measuring about two feet north to south and two and a half feet east to west. It abutted the stone gutter (see Figure 5). The unit was excavated stratigraphically in eight strata to a total depth of 5.2 feet below the ground surface at the eastern side of the unit, adjacent to the gutter. The eight recorded strata represent four actual changes in stratigraphy. The two uppermost recorded strata represent the topsoil. The second two strata represent the fill deposit described as the dark yellowish brown soil in the other test. The buried ground surface was represented by Strata 5 and 6 in the field. These strata exhibited a gradation in color and texture from a very dark brown loamy silt to a dark brown loamy clay and became wetter and stickier with depth. Plate 1 is a view of the unit after it was completed. Strata 1 and 2 are seen above the level of the measured stick. The buried ground surface is the dark colored stratum seen at the top of the measured stick in the Plate 1. The lower two and a half feet, Strata 7 and 8, can be seen against most of the measured stick in Plate 1.

Figure 7 is a drawing of the east and south profiles of the unit. A thin stratum of mica was observed in the eastern profile of the unit at a depth below the fill deposit and above what has been described as the buried ground surface. The mica may represent a remnant of the bedrock which had been removed during the reconstruction of the gutters in the 1930s. Artifacts found below the depth of the mica deposit were mainly slag. Several brick fragments and coal were also contained in this deposit. Only one diagnostic artifact was found, a wire nail which could have been manufactured after 1890. However, the most notable artifact was a possible prehistoric artifact (see Plate 2). The identification of this piece is tentative because it is not intact. The artifact has some of the morphological characteristics indicating it may be part of a stone tool such as a biface or a scraper. The presence of historic period material with a possible prehistoric artifact in the stratum found below what has been described as a buried ground surface may at first seem contradictory. However there are two possible explanations for this. It is possible Stratum

7 may also represent a fill deposit, one which dates from the time prior to the gutter reconstruction of the 1930s. Although the strata identified as a buried surface had a *tpq* of 1762, it may actually date from a later time, notably the 1930s. However the more likely explanation is that the wire nail was intrusive and actually came from a higher level within Test Pit 1. This is a more likely scenario based on the findings of the two prior archaeological reports which identified a buried surface dating from the period of construction of the house and found prehistoric material below that level.

It is of interest to note the bedrock at the base of the unit sloped down dramatically toward the basement of the house (see Figure 7). It is not clear if this represents a natural depression in which the octagon wing was constructed or if it were chipped away during the construction of the house or later reconstruction of the gutter.

Monitoring

Monitoring had been recommended as a follow up precaution during the contractor's excavations in the park portion of the trench and as the only archaeological documentation of the excavations of the street and sidewalk portions of the trench. The width of the trench varied from about three to four and a half feet at various places throughout its length and was excavated to an average depth of three to four feet. The contractor began in the street by uncovering the water main to which the fire suppression sprinkler line was to be connected.

A profile of the northern side of the street segment of the trench is attached as Figure 8. The road and road bed represented close to a foot at the top of the excavation. It was underlaid by fill for about an additional foot and a half. This soil was similar to the dark yellowish brown soil recorded in the shovel tests with the addition of large chunks of bedrock. These chunks represent parts of the bedrock which were removed to install utility lines and then used as part of the backfill. As seen in the shovel tests, bedrock in the street was similarly close to the surface. In addition to the water main, two other utility lines can be seen in the profile drawing of the street segment of the trench. A sewer line was also present in the street in this area at a depth below the depth of excavation. The trench for it is indicated as a dashed line on Figure 8 extending below the base of excavation. This sewer line was the same line for which the trench excavation was redirected, enabling the contractor to excavate through fill rather than bedrock within the park. Plate 3 shows the western part of the street segment of the trench. The water main is

seen crossing the trench in the middle of the photograph. Bedrock can be seen both to the east and west of the water main, or above and below it in the photograph. A gas line is also seen crossing the trench just above the level of the bedrock to the west of the water main.

Figure 9 is a drawing of the eastern profile of the sidewalk segment of the trench. The bluestone on the sidewalk was underlain by a clean fill for a depth of about 0.8 feet. This in turn was underlain by an ashy gravel. The ashy gravel stratum was about one foot thick. It was underlain by a rocky dark yellowish brown silty clay for about one and a half feet and then by bedrock. The bedrock beneath the sidewalk was approximately three feet below the bluestone.

Figure 10 is a plan view of the trench within the park from the house to the brick walkway. As stated above the trench was excavated in several segments which were connected by tunneling. Segment 1 was within the sidewalk adjacent to the base of the stairs. Segment 2 was located directly to the east of the brick walkway in the park. The trench was slightly off alignment with the sewer trench it was meant to follow, exposing some of the shallowly buried bedrock. The only archaeological feature found during the excavations for this project was also found in this segment (see Plate 4). It was a conglomerate of brick and concrete found buried just below the topsoil. The feature was uncovered and removed by the contractor and proved to be a footing for a wooden post. Research in the archives at the Morris-Jumel Mansion identified a photograph dating from 1978 showing a sign post in this location. The museum director said this sign is still in the collection of the museum. Although no documentation was forthcoming as to the sign's date of installation or removal, it is considered a modern artifact and it's footing contains no inherent archaeological value and was discarded with the backdirt.

Telephone and gas lines were uncovered as part of the excavation of Segment 3 within the park. Additional bedrock was exposed in Segment 4 (see Figure 10). The gutter is set back from the bedrock by about a foot where waterproofing was installed.

CONCLUSIONS AND RECOMMENDATIONS

Archaeological investigations in advance of fire suppression sprinkler installation at the Morris-Jumel Mansion revealed information which can be used to plan for future work in the park. Most particularly, identification of bedrock relatively close to the ground surface to the west of the house will allow the Parks Department to better manage future below ground installations, as well as identification of previously unmapped utilities.

As part of the archaeological work, specific research questions were addressed and all still remain unanswered. One of the previous archaeological reports hypothesized there may be historic midden deposits present buried throughout parts of the park near to the house (Pickman 1994:47). No such deposits were found. However, it is of interest that a buried historic ground surface was identified in tests closest to the house. The presence of this surface provides more credibility to the hypothesis regarding midden deposits and their presence in other untested parts of the park should not be ruled out.

Only one possible prehistoric period artifact was recovered during this project from a mixed context. It is a piece of worked chert which may represent a partial tool. No specific use for it can be ascribed, nor is the artifact diagnostic of any time period. Therefore it cannot be related to other prehistoric artifacts recovered during previous episodes of archaeological testing at the site.

The majority of the areas monitored as part of the trench excavations represented fill deposits. Much of the trench segment within the street contained fill to the top of the bedrock resulting from previous utility line installations. The bedrock increases sharply in elevation from the sidewalk to the park. It is possible part of the bedrock was cut back during the construction of the retaining wall. Therefore excavations within the sidewalk may represent fill from that time period. Within the park, monitoring was done to ensure the trench excavations were within known sewer line fill. The excavations were outside of this footprint only in a couple of areas and no archaeological features were identified within them.

No adverse impacts to archaeological resources will result from the completion of this project. However, other areas of the park may contain the types of resources which were sought after during this project, historic middens or prehistoric period material or features. In future Parks Department projects within

the Roger Morris Park, excavation within previously excavated trenches would be optimal. This would not only avoid potential archaeological resources, but would also be more efficiently excavated because bedrock would have already been cut.

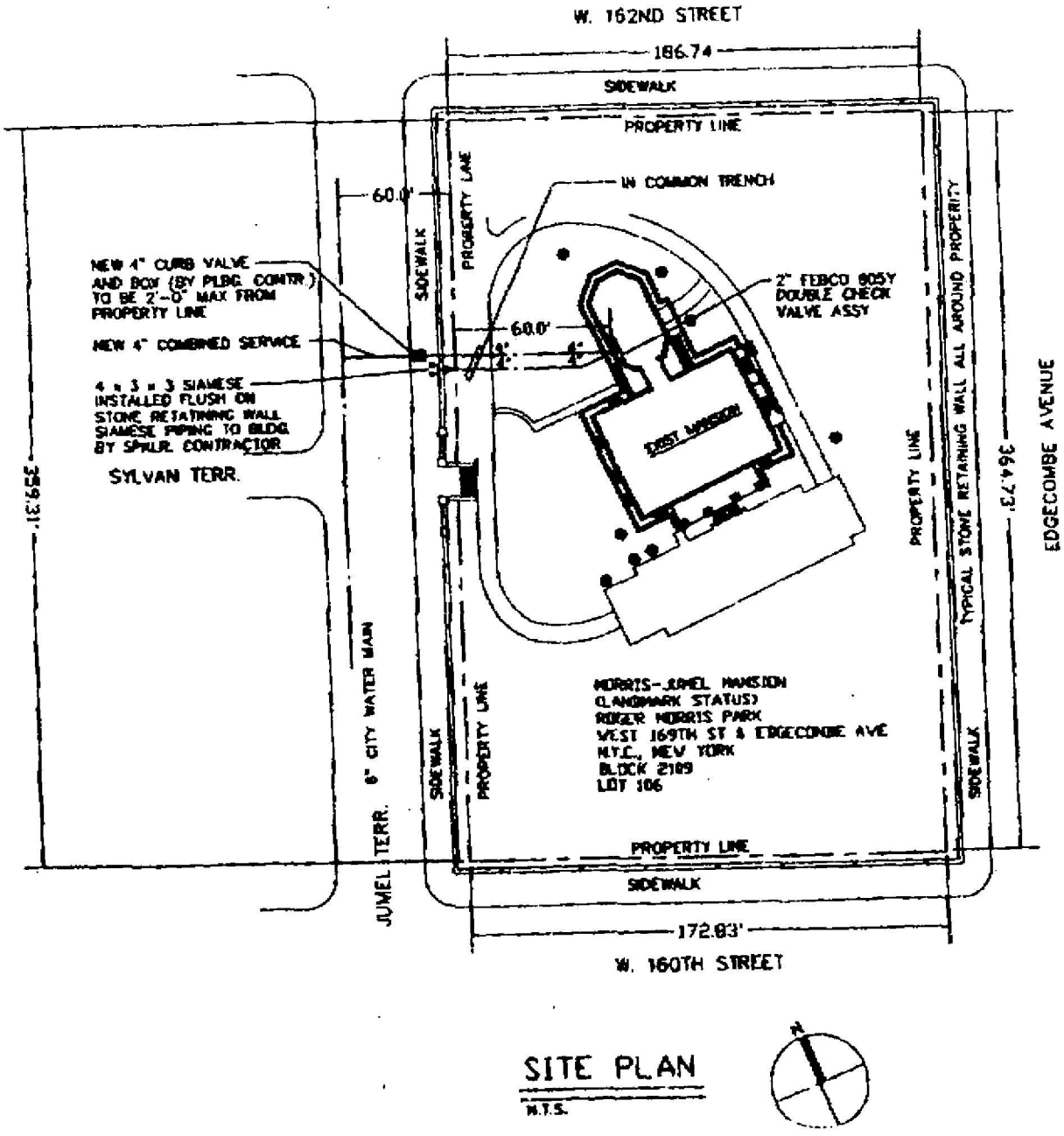


Figure 1 Site plan showing the location of the planned water line from Jumel Terrace to the Mansion.

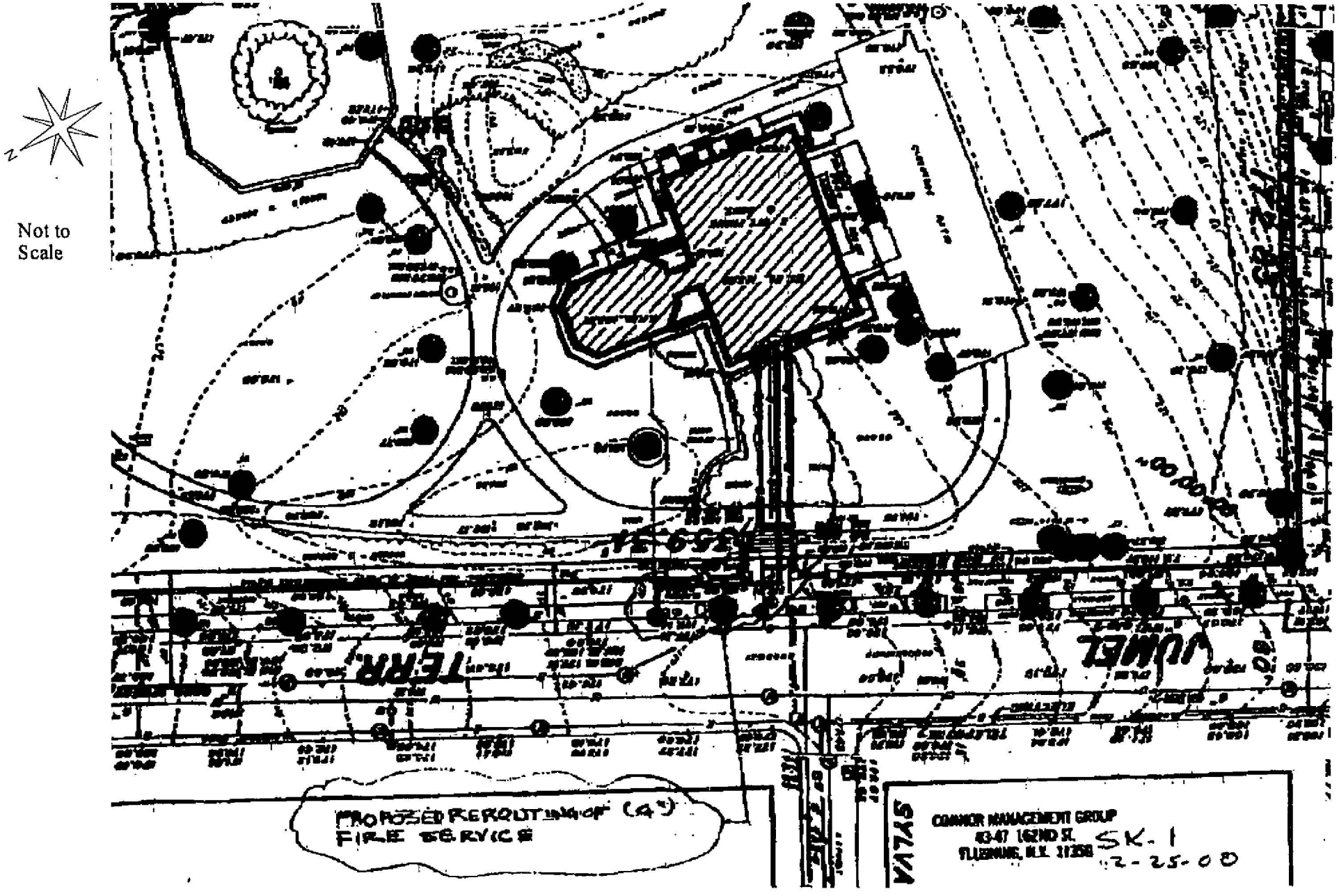
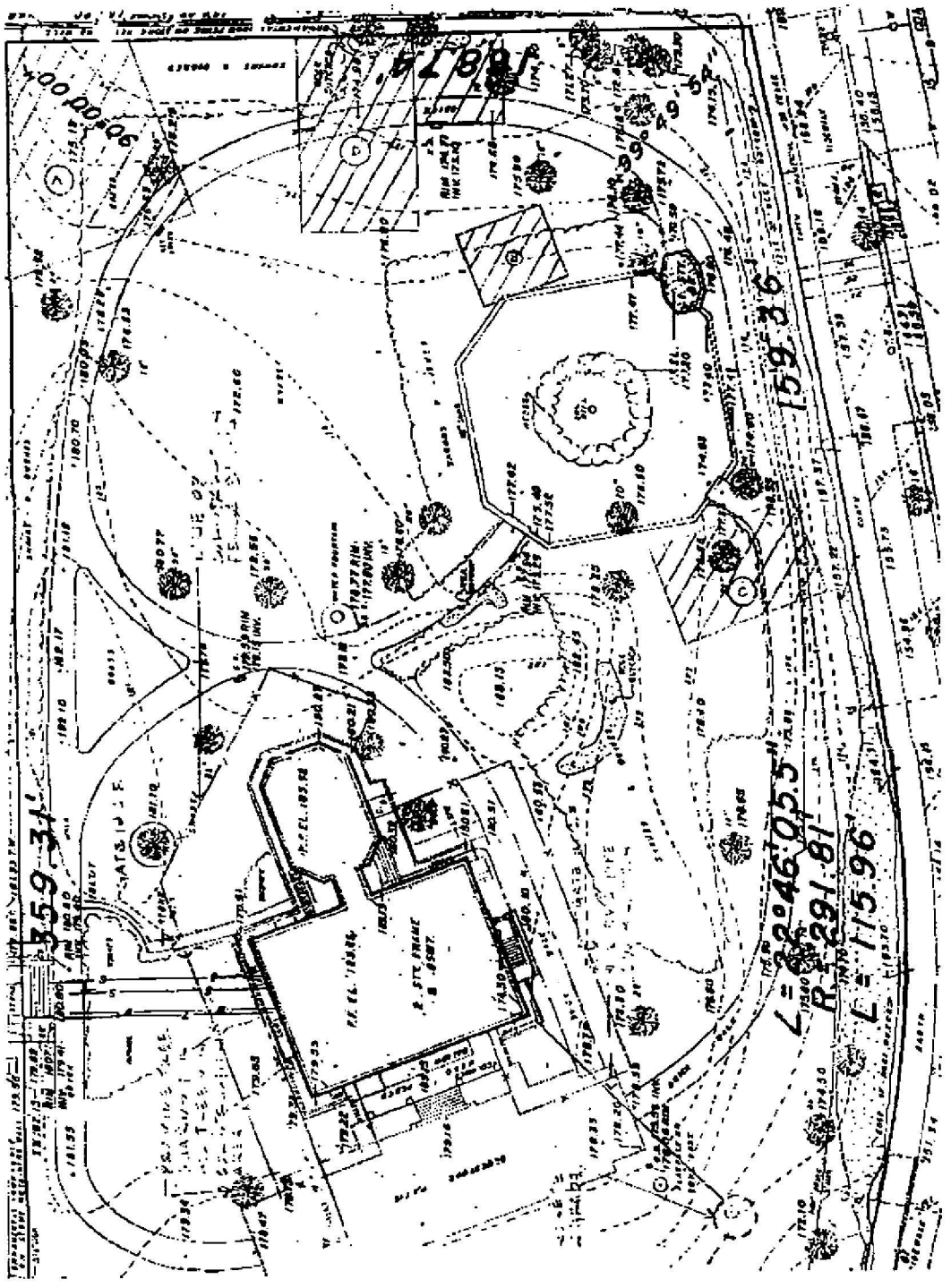


Figure 2 Revised site plan showing the location of the water line into the main portion of the Morris-Jumel Mansion.



40 feet = 1 inch

A. Approximate Location of Ice House
B. Approximate Location of Well
C. Approximate Location of mid-19th Century Outbuilding
D. Chase Barn

Figure 3 Pickman 1994:Figure 35 showing outbuilding/feature locations.

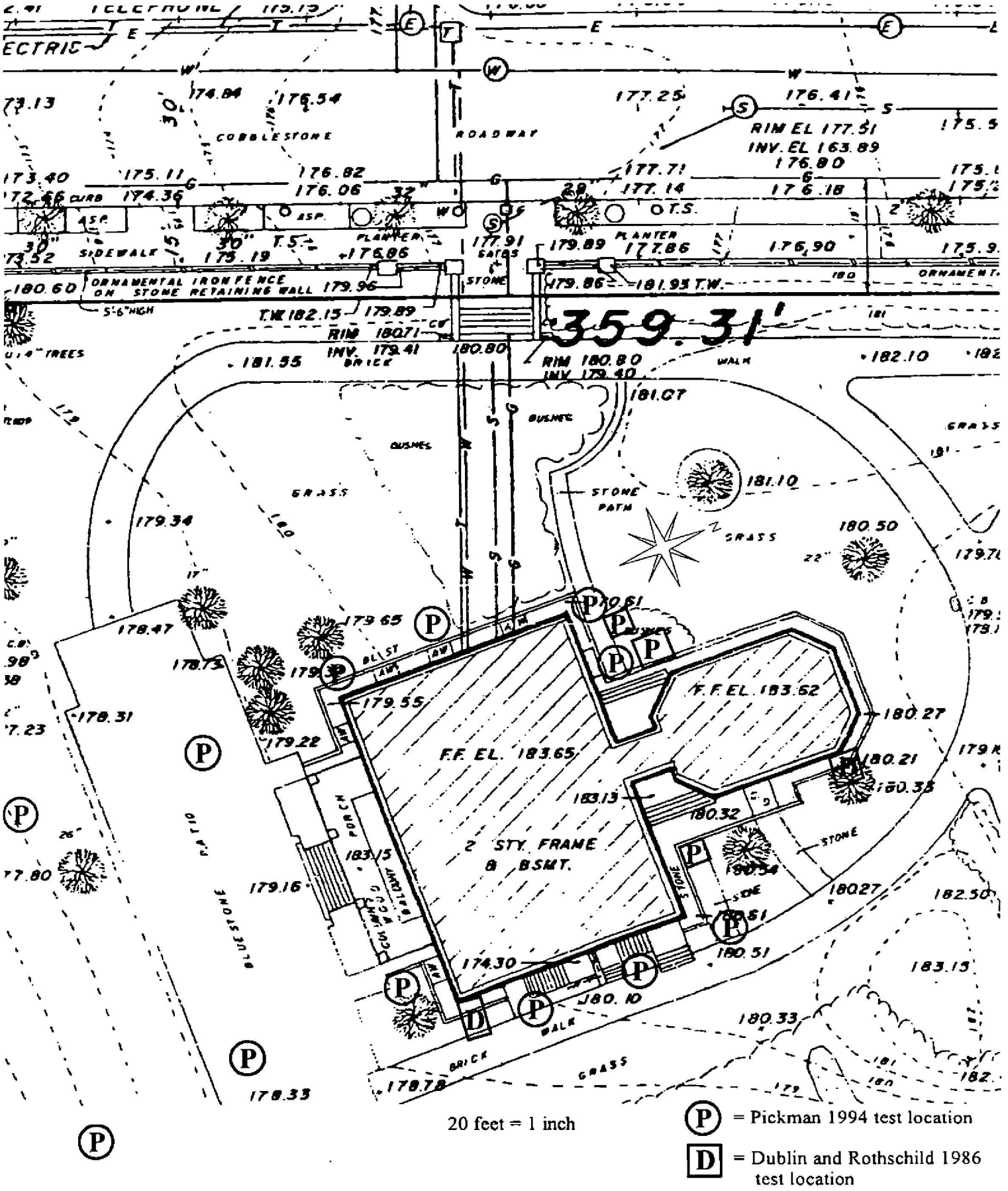


Figure 4 Location of earlier archaeological tests at Roger Morris Park depicted on a section of the 1987 topographic survey.

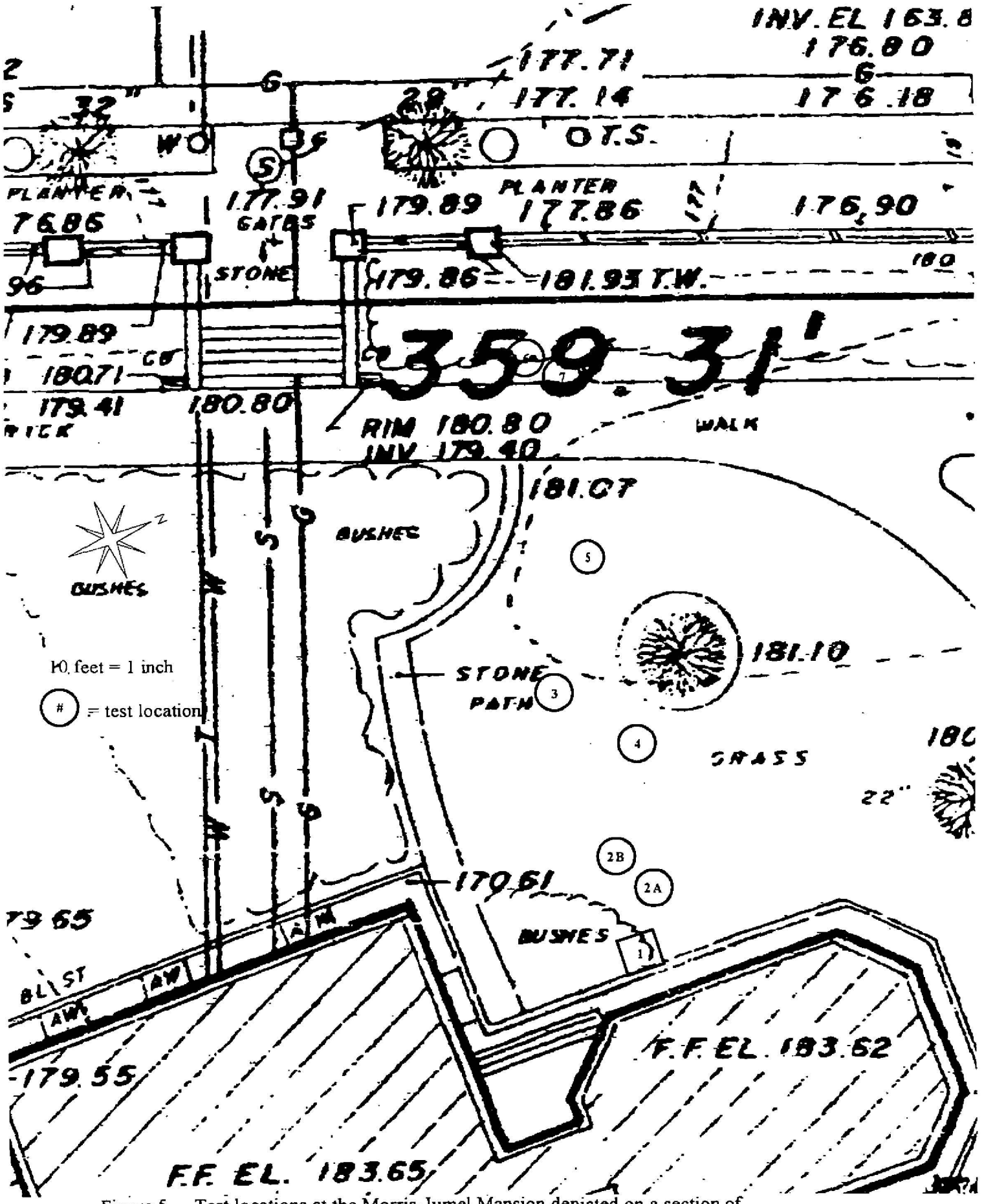


Figure 5 Test locations at the Morris-Jumel Mansion depicted on a section of the 1987 topographic survey.

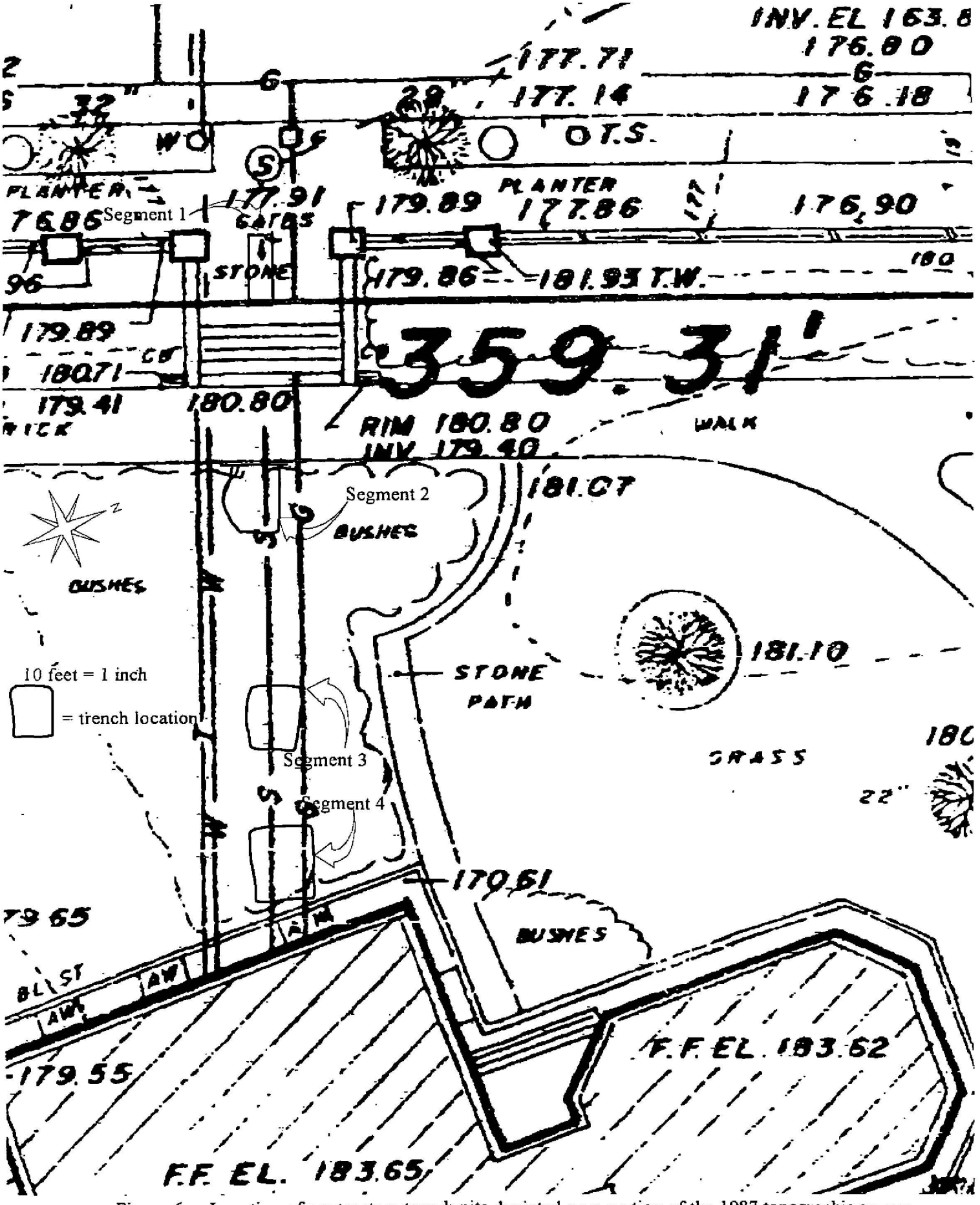


Figure 6 Location of contractors trench pits depicted on a section of the 1987 topographic survey.

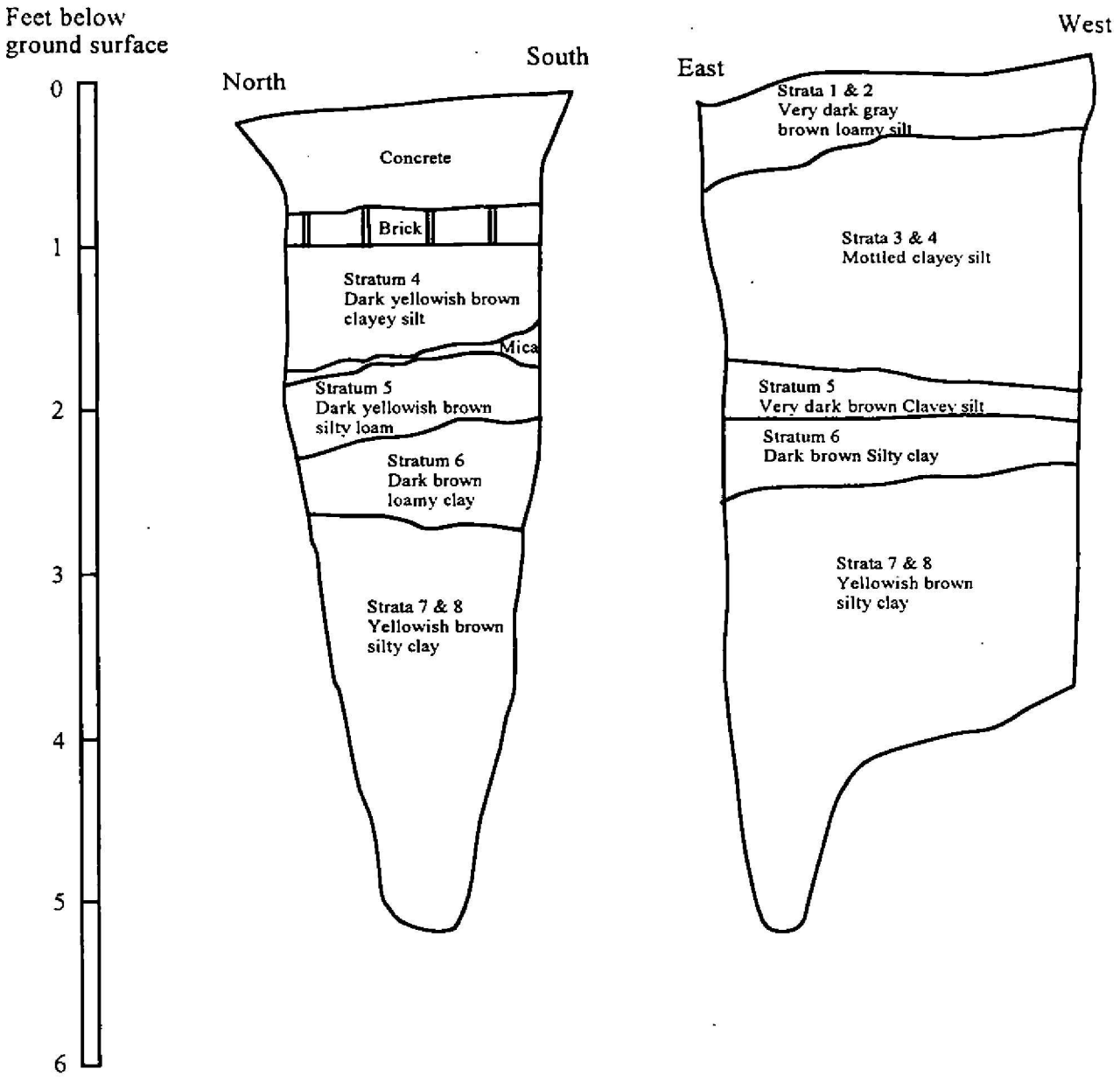


Figure 7 Profiles of the east and south walls of Test Unit 1.

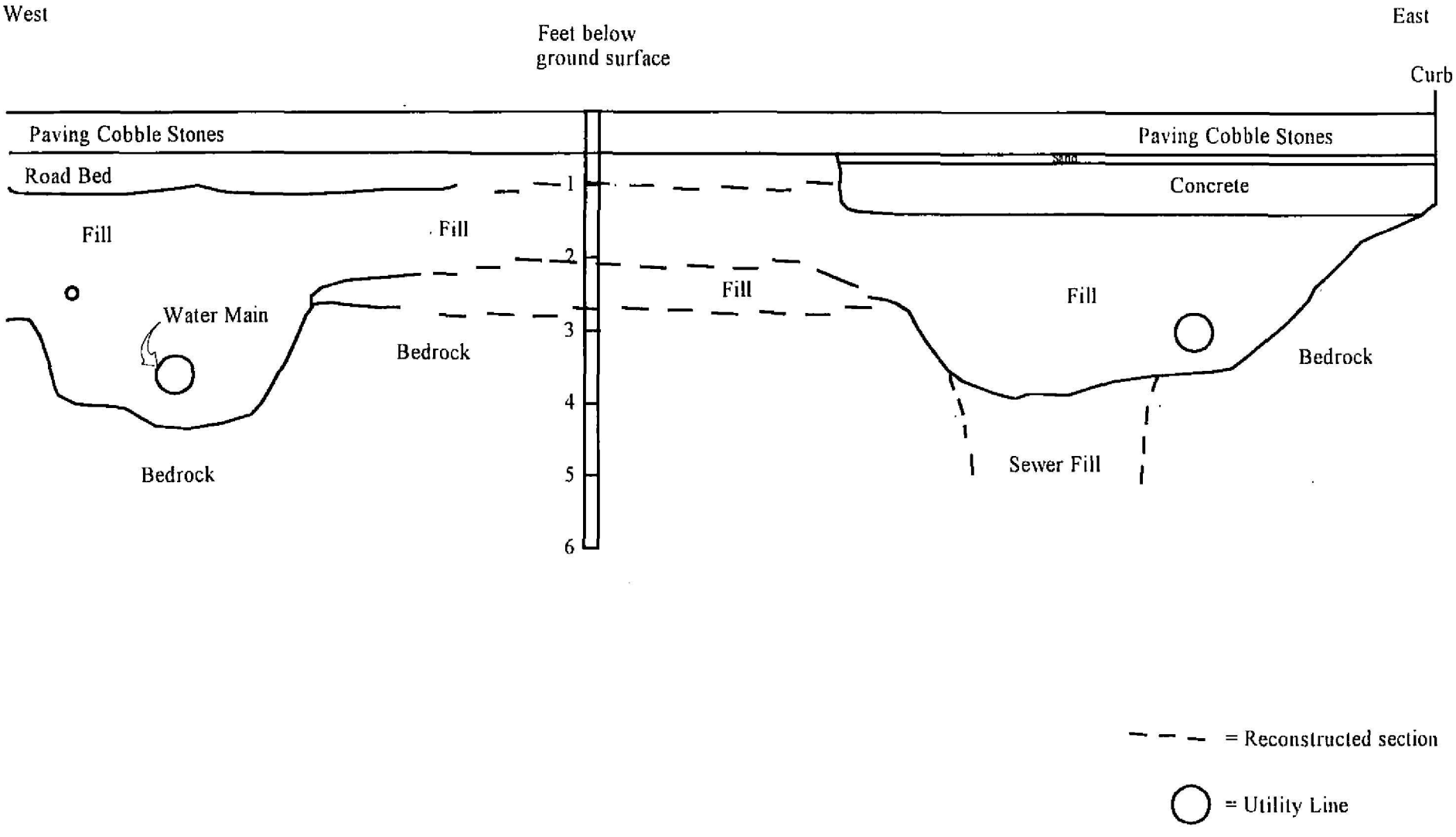


Figure 8 North profile of the street segment of the trench.

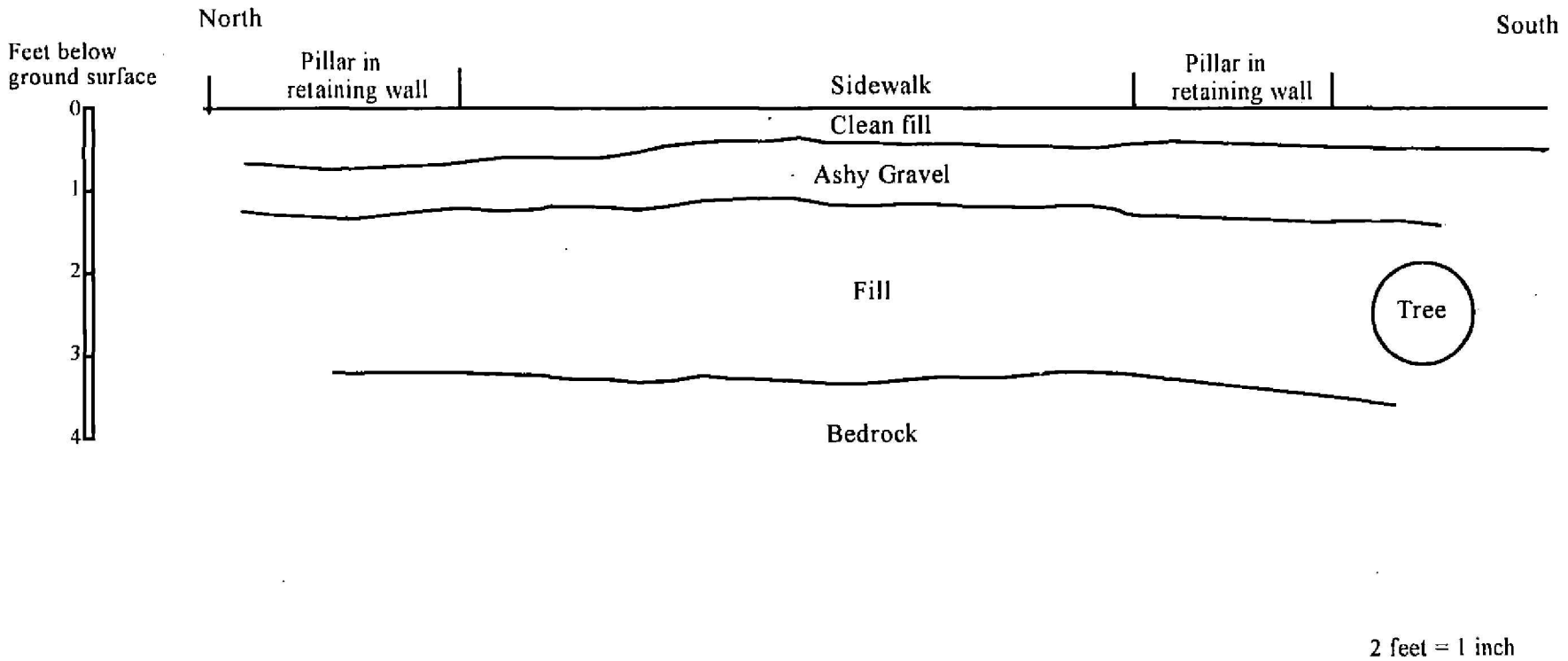
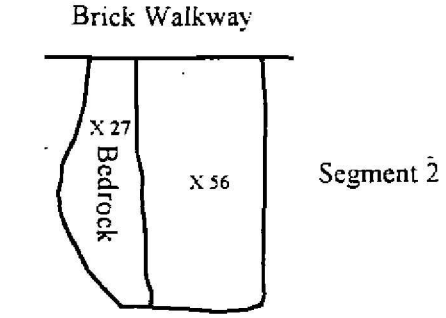
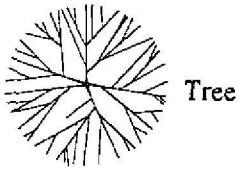
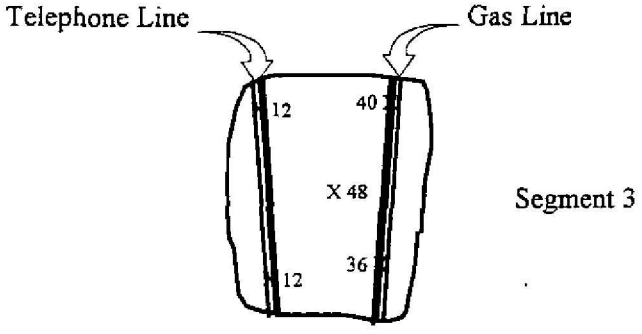
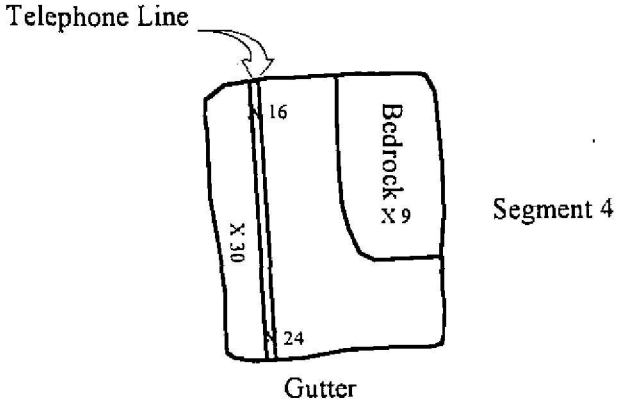


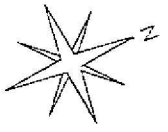
Figure 9 East profile of the sidewalk segment of the trench.











4 feet = 1 inch

X = inches below ground surface

Figure 10 Plan view of the park segment of the trench.

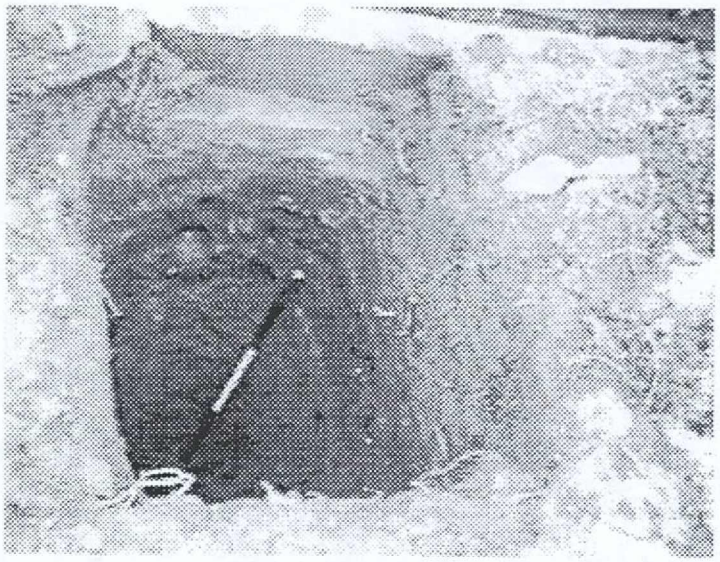


Plate 1 Test Unit 1 at completion of excavation facing southeast with a three foot marked stick in the corner.

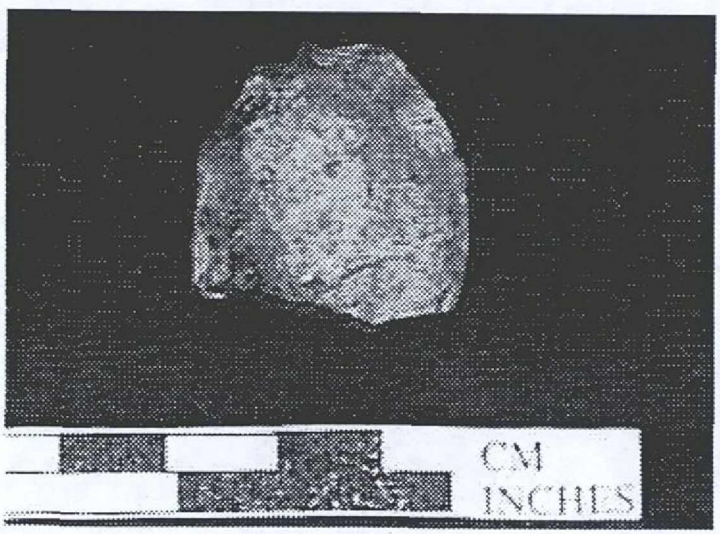


Plate 2 Possible prehistoric artifact found in Test 1 Stratum 7.

Plate 3 Street segment of the trench after the soil was removed, facing west.

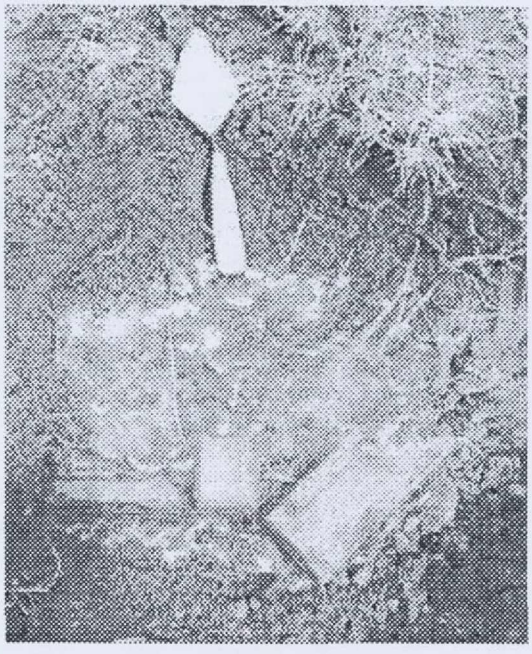


Plate 4 Brick and concrete footing found east of the brick walkway in the park.

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Appendix A

Scope of Work

SCOPE OF WORK FOR
ARCHAEOLOGICAL TESTING
IN ADVANCE OF FIRE SUPPRESSION SPRINKLER INSTALLATION
AT THE MORRIS-JUMEL MANSION
MANHATTAN, NEW YORK
Contract M73-299

September 1, 1999

The New York City Department of Parks and Recreation is currently planning the installation of a fire suppression sprinkler system at the Morris-Jumel Mansion in New York City, a New York City Landmark property within the Jumel Terrace Historic District (see attached Figure 1). The impact to potential archaeological resources exists in all areas of planned below ground work. For the sprinkler project, this includes the excavation of two sixty foot lines from the western side of the octagon section of the house out to Jumel Terrace as well as a small staging area of about 900 square feet to be identified by the contractor. Realizing its obligation, the Parks Department requested their contractor solicit proposals for a five-part archaeological study. An agreement to conduct the archaeological work was made between the Antanas Group Ltd. and Linda Stone, RPA. This scope of work has been prepared to comply with environmental review regulations. All activities indicated below shall be conducted in a manner consistent with the LPC *Guidelines for Archaeology* (1987) and the *City Environmental Quality Review Technical Manual* (1993). The work will be directed by an archaeologist certified by the Register of Professional Archaeologists (RPA).

The five-part study requested by the Parks Department included A) research and documentation, B) preconstruction field testing, C) construction monitoring, D) laboratory analysis, and E) final report. The Parks Department recommends the research and documentation portion of the work include four parts. Only the first part, review and analysis of previous historic research and archaeological work on the property, will be done for this project. This is because a thorough review of primary and secondary data has already been done, as demonstrated by two previous archaeological reports; A Report on the Archaeological Investigation at the Morris-Jumel Mansion, Washington Heights, New York City - 1986 (Dublin and Rothschild) and Archaeological Investigations - Foundation Waterproofing Project at Morris-Jumel Mansion - ca. 1994 (Arnold Pickman). This project will include a review and analysis of these previously conducted reports focusing on the areas to be affected by the sprinkler project.

The other components of the research and documentation phase are "2) An extensive and through [sic] program of archival research focusing on primary documents pertaining to the site, 3) Creation of a comprehensive site inventory which will place all structural features and known archaeological remains in their historic context and layout areas of known disturbance and areas of potential archaeological sensitivity, and 4) Development of a predictive survey, based on the research, identifying areas where previously undetected archaeological remains may be located." In seems likely a similar boiler plate request was sent out in preparation of the 1994 work since step two was quoted on page 1 of the Pickman report and it included the same typographical error found in the current request.

The potential impacts to archaeological resources at the Morris-Jumel Mansion site were addressed in the two earlier reports. Both of these reports were done in preparation of the same project and included extensive investigations of documentary data and some archaeological excavation. With regard to archaeological site documentation and site prediction, both reports contain key information. Dublin and

Rothschild presented data from two test cuts done on the eastern side of the mansion. One at the northeast corner and the other at the southeast corner. They found what appeared to be an intact prehistoric deposit at the northeast corner of the house (Pickman 1994:50). Pickman suggests this site may have extended "westward beneath the site of the octagon wing" (1994:89). He also notes that other prehistoric camp site loci may exist elsewhere on the property.

Potential historic period archaeological remains are predicted for many areas of the park. However most of these are outside the planned impacts from the sprinkler project. Pickman hypothesizes midden refuse deposits would most likely be found east of the house, however "the disposal of midden deposits at other locations within the boundaries of the present Park, cannot be ruled out" (Pickman 1994: 47). The testing done in 1994 was all near the house and, on the western side, to the south of the area of planned impacts from the sprinkler installation project.

This scope of work addresses the potential for identification of archaeological resources in the specific area of the sprinkler lines and 900 square foot staging area. Testing will be performed prior to construction excavation, to evaluate the presence or absence of archaeological resources. Potential archaeological resources include remains of prehistoric Native American use and possible historic period midden deposits. As with any archaeological testing, it is also possible to uncover remains of previously unknown and undocumented features or deposits.

Some questions which could be asked of prehistoric archaeological data include:

1) Can the prehistoric material remains be associated with a particular period of usage, either a phase in prehistory or a season of the year?
2) Do recovered artifacts or excavated features fall within a pattern of use types which could indicate what the Roger Morris park site was used as or for during prehistory?
3) Is there a relationship demonstrated through the recovered materials between the Roger Morris Park site and other documented prehistoric sites in this part of New York City, most particularly the previously identified site at the northwest corner of the Morris-Jumel Mansion?

Should historic period midden deposits be identified, potential research questions would include:

1) Can the midden deposits be dated to a particular period of occupation?
2) Can the midden deposits be associated with particular residents of the mansion?
3) Do the deposits provide any information of refuse disposal as it relates to a particular time in history?

These questions cannot be answered through the literature, or can only be alluded to. Only through the analysis of actual archeological findings can assertions be made regarding prehistoric site use.

Shovel testing is recommended for evaluating the presence or absence of archaeological materials. Two lines of tests with intervals of fifteen feet are recommended with additional tests spaced out within the staging area. The shovel tests will be about one to one and a half feet in diameter and excavated to the depth of non-artifact bearing subsoil or to bedrock, to evaluate the nature of the soils and the presence or absence of archaeological remains. All soils excavated from the shovel tests will be screened through 1/4 inch mesh for the recovery of artifacts. Soils, stratigraphy and artifact inclusions will be recorded on forms. Shovel test locations will be mapped on the site plan. Photodocumentation and drawings will be done as appropriate.

In addition to shovel testing, the contract requires archeological monitoring of contractor

excavations. Antanas Group Ltd. has estimated these excavations will take just one day. Any further monitoring is not included as part of this scope or work. If additional days are required, a budget will be submitted and approved prior to scheduling contractor excavations. The archaeologist will be present to observe the contractor excavations and document any findings. This may require the contractor temporarily halt excavations while the archaeologist enters the trench to collect artifacts, document stratigraphy, or take photographs. Should the contractor's trenches contain no archaeological features, this component of the project should proceed according to the contractor's schedule.

Standard methods of artifact processing, labeling, identification, evaluation and documentation will be done on the recovered materials. Within one month of completion of all archaeological work specified in this scope, the consultant will provide a written report to Antanas Group Ltd. setting forth the results of the field testing. The report shall include a summary of the previously completed documentary research, and indicate how the research questions and fieldwork activities described above have been addressed. It shall also include; a record of stratigraphy within shovel tests and trenches, a complete catalogue of artifacts recovered, and an assessment of the locations of archaeological resources for which data recovery, if needed, is recommended. Map(s) at a scale of 1"=20' will be provided indicating results from such investigations with locations of shovel tests and trenches and showing locations of archaeological sensitivity with an indication of resource type, if any. Any artifacts recovered from this testing will be given to the Morris-Jumel Mansion archives upon acceptance of the final report.

Should any archaeological resources or any soils with the potential to contain archaeological resources be identified, archaeological evaluation and mitigation excavations may be recommended at that time. This may come at a time after the completion of shovel testing and before contractor's excavations are begun. Such recommendations would further assess eligibility for the National Register of Historic Places and/or mitigate impacts to the site and be commensurate with the significance of the find and potential for impact to the resource. This additional evaluation of archaeological resources would define their significance and extent within the planned impacts. This additional work is not currently planned for by the Parks Department and would require a written change order to commence. The archaeologist would develop a research design and scope of work for archaeological data recovery, analysis, and curation, based upon the findings from the archaeological field testing. The scope of work would specify at a minimum:

A) the information important in the prehistory or history of New York City that the archaeological resources could potentially provide and the research questions the information could answer;
B) why these research questions cannot be addressed using the existing literature and/or other resources (and listing the resources consulted);
C) the proposed methods for archaeological mitigation, with an explanation of their relevance to the research questions;
D) the professional standards that the archaeological team shall use in implementing the field work, laboratory analysis, and data management; and
E) a written protocol for conservation, curation and disposition of archaeological collections.

The consultant would then provide a copy of the research design and scope of work for archaeological data recovery, analysis, and curation to Antanas Group Ltd. for review and approval, with consultation with the Parks Department and the Landmarks Preservation Commission. After such review

and approval, the archaeologist would implement the research design and scope of work. This research design and scope of work would also specify the field excavation program, reporting, and artifact curation and repository issues.

Should results of this testing program reveal no finding of effect or impact to significant archaeological remains, then no further archaeological work would be recommended.

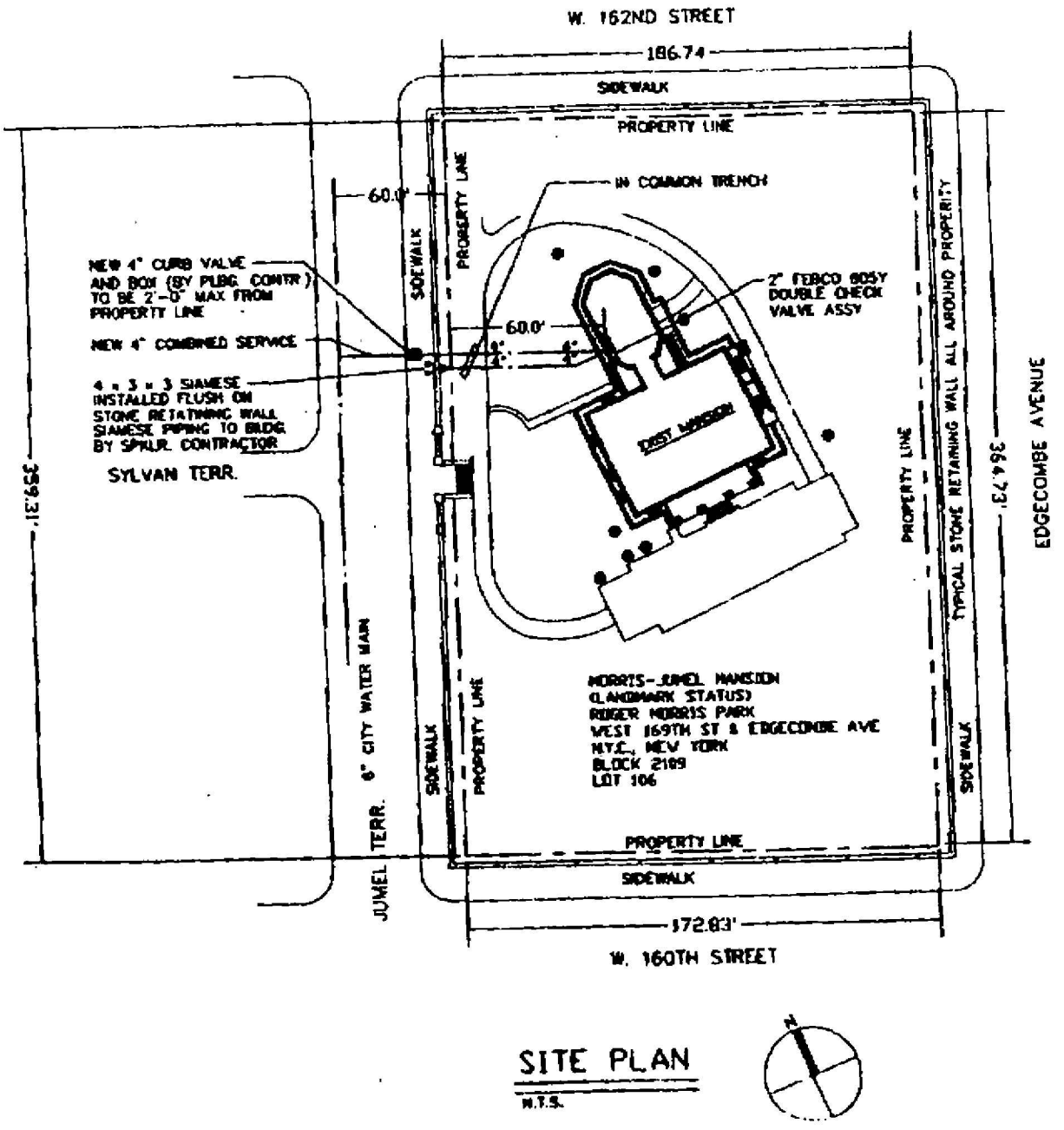

Figure 1 Location of the New Sprinkler Lines for Contract M73-199

LINDA STONE, MA, RPA
Archaeological Consulting

249 East 48th Street, #2B
New York, New York 10017
Phone or Fax: (212) 888-3130

March 1, 2000

Mr. Anthony Staknys
Antanas Group Ltd.
1350 Forest Glen Court
Toms River, New Jersey 08755

Dear Tony,

I have just received word that the path of the utility trench at the Morris-Jumel Mansion site will be changed from the original plans due to the pervasive bedrock. As you know I encountered bedrock at two feet deep or less in the shovel tests I placed in the park and intact bedrock deposits were found at similar depths in undisturbed sections of the street during archaeological monitoring there. The new path of the utility trench will be the same within the street and then extend south under the sidewalk to a point where it will meet with a previously excavated sewer trench. It will then head east through the park to the house, on top of the old sewer trench. A plan showing these locations will be provided by the Parks Department. The idea is that this will minimize exposure to both bedrock and to archaeological resources. Therefore, I am recommending completing the project with additional archaeological monitoring along the path of the newly designed trench rather than additional manual testing. Although the new trench will overlay the path of the old sewer trench, I am still recommending monitoring because the property is an historic site, both a New York City Landmark and a National Register of Historic Places site. The New York City Landmarks Preservation Commission has required archaeological monitoring in similar situations in other locations and I would recommend contacting them for their approval on this change in plans for the Morris-Jumel project. The proposed archaeological monitoring will be conducted in the manner described in my originally approved scope of work.

Please let me know if I can be of further assistance.

Thank you.

Sincerely,

Linda Stone

Linda Stone

cc: J. Carmona, NYCDPR
C. Connor, Connor Management

Appendix B

Shovel Test Stratigraphy

MORRIS-JUMEL MANSION FIRE SUPPRESSION SPRINKLER PROJECT
TEST STRATIGRAPHY

TEST	LEVEL	DEPTH	MUNSELL	COLOR	TEXTURE	ARTIFACTS
1	1	0.2			sod	
	2	0.5	10YR3/2	very dark gray brown	clayey loam	nails, brick, mortar, ceramic
	3	1.1	10YR4/3	brown/dark brown	clayey loam	buffalo nickel, ceramic, mortar(s), coal(s), metal(s)
	4	2.0	10YR4/4	dark yellowish brown	sandy clay	ceramic, mortar(s), glass(s), brick(s), marble(s)
	5	2.3	10YR2/2	very dark brown	loamy silt	caramic, brick(s)
	6	2.6	10YR3/3	dark brown	loamy clay	
	7	3.6	10YR5/4	yellowish brown	wet silty clay	chert, slag, nail
	8	5.2	10YR5/6	yellowish brown	silty clay	slag
2A	1	0.3	10YR3/2	very dark gray brown	sod with clayey loam	ceramic
	2	1.0	10YR3/3	dark brown	mottled clayey silt	marble, ceramic, penny, celophane(d), brick(d)
	3	1.5	10YR4/4	dark yellowish brown	wet silty clay	1 brick frag(d)
	4	2.0	10YR3/2	very dark gray brown	silty loam	
	5					
	6					
	7					
	8					
2B	1	0.2			sod	
	2	0.7	10YR3/3	dark brown	sandy silt	2 flat glass(d)
	3					
	4					
	5					
	6					
	7					
	8					
3	1	0.8	10YR2/2	dark brown	sandy silt	1 nail
	2	1.3	10YR3/4	dark yellowish brown	mottled sandy silt	ceramic, class, coin
	3	1.7	10YR4/4	dark yellowish brown	sandy silt	ceramic, coal
	4	1.8	10YR3/1	very dark gray	decaying rock	
	5					
	6					
	7					
	8					
4	1	0.2	10YR3/2	very dark gray brown	sod with loam	1 ceramic, 1 coal(d)
	2	0.8	10YR3/3	dark brown	mottled silty clay	1 ceramic
	3	1.8	10YR4/3	brown/dark brown	wet silty clay	1 ceramic, 1 brick, decayed marble
	4					
	5					
	6					
	7					
	8					
5	1	0.9	10YR2/2	very dark brown	sandy silt	brick
	2	0.0				
	3					
	4					
	5					
	6					
	7					
	8					

MORRIS-JUMEL MANSION FIRE SUPPRESSION SPRINKLER PROJECT
TEST STRATIGRAPHY

TEST	LEVEL	DEPTH	MUNSELL	COLOR	TEXTURE	ARTIFACTS
6	1	0.6	10YR2/2	very dark brown	sandy silt	glass, ceramic, plastic
	2	1.4	10YR3/4	dark yellowish brown	mottled sandy silt	1 rusty metal(d)
	3					
	4					
	5					
	6					
	7					
	8					
7	1	0.8	10YR2/2	very dark brown	sandy silt	plastic, brick
	2	0.9	10YR2/2	very dark brown	pebbly sandy silt	
	3	1.6	10YR3/4	dark yellowish brown	mottled sandy silt	
	4	2.2	10YR4/4	dark yellowish brown	clayey silt	
	5					
	6					
	7					
	8					

Appendix C

Artifact Inventory

MORRIS-JUMEL MANSION - MANHATTAN, NEW YORK CITY
FIRE SUPRESSION SPRINKLER PROJECT - SHOVEL TEST ARTIFACT INVENTORY

TEST	STRAT	MATERIAL	IDENTITY	FORM	COUNT	WT(G)	COLOR	DESCRIPTION	DATE RANGE
SHOVEL TEST 1									
1	2	Ceramic		brick	9	120	red		
1	2	Ceramic	creamware ?		3		white	spalls	
1	2	Ceramic	redware	flower pot	2		red		1825-present
1	2	Coal			3	5			
1	2	Concrete			1	145	white		
1	2	Glass		curved	5		clear		
1	2	Glass		flat	9		clear		
1	2	Metal		nail	1			whole; wire; 2 1/2"	c.1890-present
1	2	Metal		nail	1			whole; corroded; round shank; 3"	c.1890-present
1	2	Metal		strip	1			2" x 1/2"	
1	2	Metal	iron	nail	1			corroded	
1	2	Metal	iron	nail	1			whole; wire; 3"	c.1890-present
1	2	Metal	iron	nail	1			whole; corroded; round shank; 3 1/2"	c.1890-present
1	2	Mortar			8	35	white		
1	2	Slag			15	230			
1	3	Bone	faunal		4				
1	3	Ceramic		brick ?	2	5	red		
1	3	Ceramic	creamware		3		white		1762-1820
1	3	Ceramic	kaolin	pipe stem	1		white		
1	3	Ceramic	pearlware		2		white		1779-1820+
1	3	Ceramic	whiteware		5		white	spalls	early 19th C.-1900
1	3	Ceramic	refined earthenware		1		white	blue transfer print; spall	1783-c.1900
1	3	Coal			5	15			
1	3	Glass		curved	1		clear		
1	3	Glass		curved	1		green tint		
1	3	Glass		flat	8		clear		
1	3	Metal		coin	1			nickel; buffalo	
1	3	Metal	alloy	nail	1			whole; wire; 1 1/2"	c.1890-present
1	3	Metal	iron		1			badly corroded	
1	3	Metal	iron	hardware	1			badly corroded	
1	3	Metal	iron	nail	1			whole; badly corroded; 2"	
1	3	Metal	iron	nail	5			badly corroded	
1	3	Mortar			3	10	white		
1	3	Shell	oyster		2	< 5			

MORRIS-JUMEL MANSION - MANHATTAN, NEW YORK CITY
FIRE SUPRESSION SPRINKLER PROJECT - SHOVEL TEST ARTIFACT INVENTORY

TEST	STRAT	MATERIAL	IDENTITY	FORM	COUNT	WT(G)	COLOR	DESCRIPTION	DATE RANGE
1	4	Bone	faunal		1			butchered	
1	4	Ceramic		brick	8	115	red		
1	4	Ceramic	creamware		3		white	spalls	1762-1820
1	4	Ceramic	ironstone	rim ?	1		white		early 19thC.-pres
1	4	Ceramic	pearlware		1		white	spall	1779-1820+
1	4	Ceramic	refined earthenware		1		white	molded exterior; red and green glaze exterior	1820s-present
1	4	Ceramic	refined earthenware		1		white	blue transfer print both sides	1783-c.1900
1	4	Coal			1	80			
1	4	Glass		bottle base	1		clear		
1	4	Glass		curved	1		clear		
1	4	Glass		curved	1		green		
1	4	Glass		flat	6		clear		
1	4	Metal	iron	nail	6			badly corroded	
1	4	Mortar			6	90	white		
1	4	Shell	oyster		1	5			
1	5	Ceramic		brick	1	455	red		
1	5	Ceramic	creamware		1		white		1762-1820
1	5	Mortar			1	< 5	white		
1	7	Coal			1	< 5			
1	7	Metal		nail	1			whole: wire: 2"	c.1890-present
1	7	Mortar			1	< 5	white		
1	7	Slag			4	25			
1	7	Stone	chert	tool ?	1			possible prehistoric artifact	
1	8	Ceramic		brick	2	5	red		
1	8	Coal			1	< 5			
1	8	Glass		curved	1		green		
1	8	Slag			4	20			

TOTAL ARTIFACTS RETAINED FROM ST 1 = 167

SHOVEL TEST 2

2	2	Ceramic	creamware		5		white		1762-1820
2	2	Ceramic	creamware	rim	1		white	molded	1762-1820
2	2	Ceramic	porcelain	rim	1		white	partial blue underglaze design	
2	2	Ceramic	porcelain	tile	1		pink		

MORRIS-JUMEL MANSION - MANHATTAN, NEW YORK CITY
FIRE SUPRESSION SPRINKLER PROJECT - SHOVEL TEST ARTIFACT INVENTORY

TEST	STRAT	MATERIAL	IDENTITY	FORM	COUNT	WT(G)	COLOR	DESCRIPTION	DATE RANGE
2	2	Ceramic	redware	flower pot	1		red		1825-present
2	2	Ceramic	whiteware		1		white		early 19th C.-1900+
2	2	Glass		flat	2		clear		
2	2	Glass		marble	1		clear & blue		early 20thC.-presen
2	2	Metal		coin	1			penny: 1920	1920
2	2	Metal		strip	1			2" x 3/8"	
2	2	Mortar			3	< 5	white		
			TOTAL ARTIFACTS RETAINED FROM ST 2 = 18						
SHOVEL TEST 3									
3	1	Metal	iron	nail	1			whole; badly corroded; 2"	
3	2	Ceramic	creamware		1		white	spall	1762-1820
3	2	Ceramic	pearlware	rim	1		white	blue transfer print	c.1795-1840
3	2	Ceramic	pearlware	rim	1		white		1779-1820+
3	2	Ceramic	refined earthenware		1		white	blue transfer print; spall	1783-c.1900
3	2	Coal			2	< 5			
3	2	Glass		flat	3		clear		
3	2	Metal		coin	1			penny	
3	2	Stone	marble		1	< 5	white		
3	3	Ceramic	creamware		1		white	spall	1762-1820
3	3	Ceramic	pearlware		1		white	spall	1779-1820+
3	3	Charcoal			1	< 5			
3	3	Coal			1	5			
			TOTAL ARTIFACTS RETAINED FROM ST 3 = 16						
SHOVEL TEST 4									
4	2	Ceramic	refined earthenware	rim	1		white	brown banded underglaze both sides; burned	1790s-early 20th C.
4	3	Ceramic		brick	1	2255	red	whole; unmarked; mortar adhered; 8" x 3 1/3" x 2 3/8"	
4	3	Ceramic	pearlware		1		white		1779-1820+
4	3	Ceramic	porcelain		1		white		
4	3	Ceramic	porcelain	rim	1		white		
4	3	Ceramic	refined earthenware		1		white	blue transfer print; spall	1783-c.1900
4	3	Ceramic	white granite		1		white		1840s-c.1900
4	3	Coal			3	5			

MORRIS-JUMEL MANSION - MANHATTAN, NEW YORK CITY
FIRE SUPRESSION SPRINKLER PROJECT - SHOVEL TEST ARTIFACT INVENTORY

TEST	STRAT	MATERIAL	IDENTITY	FORM	COUNT	WT(G)	COLOR	DESCRIPTION	DATE RANGE
4	3	Glass		flat	3		clear		
4	3	Stone	marble		1 <	5			
			TOTAL ARTIFACTS RETAINED FROM ST 4 = 14						
SHOVEL TEST 5									
5	1	Ceramic		brick	3	70	red		
			TOTAL ARTIFACTS RETAINED FROM ST 5 = 3						
SHOVEL TEST 6									
6	1	Ceramic	redware		1		red	clear glaze exterior; white slip interior	1825-1875
6	1	Ceramic	redware		1		red	spall	
6	1	Ceramic	white granite		1		white	spall	1840s-c.1900
6	1	Coal			1 <	5			
6	1	Glass		curved	4		clear		
6	1	Glass		curved	1		green		
6	1	Mortar			3 <	5	white		
			TOTAL ARTIFACTS RETAINED FROM ST 6 = 12						
SHOVEL TEST 7									
7	1	Ceramic		brick ?	1 <	5	red		
			TOTAL ARTIFACTS RETAINED FROM ST 7 = 1						

TOTAL ARTIFACTS RETAINED FROM SHOVEL TESTING = 231