HISTORICAL PERSPECTIVES INC.

Summary Report of Archaeological Monitoring

City of New York Department of Parks and Recreation
Sylvan Grove Cemetery (Independence Park)
Block 2767, Lots 9 and 22
Staten Island, Richmond County, New York

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Sylvan Grove Cemetery (Independence Park)
Victory Boulevard and Glen Street
Block 2767, Lots 9 and 22
Staten Island, Richmond County, New York

Prepared For:

Ravine Construction, Inc.
176 Gervil Street
Staten Island, NY 10309

And

City of New York Parks and Recreation
Olmsted Center
Flushing Meadows Corona Park
Flushing, N.Y. 11368

Prepared By:

Historical Perspectives, Inc.
P.O. Box 3037
Westport, CT 06880

Authors:
Christine E. Flaherty, M.A., and Sara Mascia, Ph.D., R.P.A.

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I. INTRODUCTION

The City of New York Department of Parks and Recreation (DPR) proposed improvements to municipal park property on Block 2767, Lots 9 and 22, located on the west side of Staten Island, at the northeast corner of Victory Boulevard and Glen Street (Figures 1 and 2). The DPR parcel is composed of two sections; the small southern tip of the triangular-shaped park and a larger formal cemetery to the north. Proposed improvements were twofold: to create a sitting area at the tip of the parcel, on Lot 22, which will be known as Independence Park, and to restore Sylvan Grove Cemetery (a.k.a. Sylvan Cemetery) on Lot 9, the larger of the two lots (Photographs 1-4). The entire project site is approximately 2.75 acres (1.1 hectares) in size, and is located in the residential community of Travis, formerly referred to as either Long Neck or Deckertown. The entire property is triangular, and is bordered on the west by Glen Street, which now functions as a service road for Route 440/West Shore Expressway but was formerly known as Burying Hill Road, on the southeast by Victory Boulevard, and on the northeast by private residential lots that front onto Melvin Avenue.

The DPR, in cooperation with the Friends of Abandoned Cemeteries of Staten Island (FACSI) and through grant funding arranged by FACSI, proposed undertaking improvements to Sylvan Grove Cemetery (DPR Contract Drawings, #R156-110M, January 2010). At the request of FACSI, the improvements to the cemetery on Lot 9, which included new perimeter fencing, restoration of fallen monuments, felling trees at grade and grinding stumps, and installation of memorial art, were tightly restricted. FACSI requested no new subsurface disturbance of more than 6 to12 inches below grade on Lot 9. In addition, FACSI identified areas of increased sensitivity for possible human remains. Lot 22, which corresponds to the filled southern tip of the triangular shaped parcel, will be transformed into a public sitting area and will be named Independence Park, in honor of the annual parade that passes by the property. In past years the parcel has become an informal gathering place for spectators of the parade. Work at Independence Park includes construction of concrete sidewalks, interior park paths, bluestone stepping stones, new park furniture including benches, trash receptacles, a flagpole, a water fountain (with connections to water lines under Glen Street), and new plantings (including trees, shrubs, bulbs, and sod).

Due to the historic and sensitive nature of the DPR property, Historical Perspectives, Inc. (HPI) was contracted by Ravine Construction to assist DPR in the improvements: to conduct limited archaeological testing, to monitor all construction activities that involved subsurface disturbance, and to monitor restoration efforts in the cemetery. The Area of Potential Effect (APE) is the area that could be affected by project improvements. In this case, the APE includes the entire project site.

A Phase IA Archaeological Documentary Study was prepared by Julie Horn of HPI in December, 2010, to satisfy the requirements of SEQRA/CEQR, and to comply with the standards of the New York State Office of Parks, Recreation, and Historic Preservation (NYSOPRHP) and the Landmarks Preservation Commission (LPC) (New York Archaeological Council (NYAC) 1994; NYSOPRHP 2005; LPC 2002; CEQR 2010). The results of the IA guided the protocol development and field procedures.

The HPI Phase IA Archaeological Documentary Study identified several key issues regarding the sensitivity of the site:

1. Disturbance Record

There has been significant disturbance to the original ground surface on the project site along the Glen Street frontage, specifically from sand quarrying in the 1920s on Lot 9, which may have extended into Lot 22 in places (Photograph 5). This area was excavated to more than 10 feet (3 meters) below grade, and then backfilled. Evidence of this grading and filling is still obvious on the project site in this area (Photographs 6 and 7). As noted in the IA, Lot 22, the smaller of the two lots, once contained a ravine that was filled in by FACSI. It is presumed that this ravine was man-made, as it does not appear on a 1912 topographic map.

2. Precontact Archaeological Sensitivity

The project site is located in an area where precontact period archaeological sites have been recorded. In fact, the entire Long Neck peninsula was noted as containing precontact resources prior to twentieth century development. The project site's original landform with its wide hilltop crest would have been a favorable location for Native

American use, although due to its distance to fresh water, at approximately 1200 feet (366 meters) to the nearest marshland, sensitivity is lowered. Last, it is possible (although there is no clear evidence to support this) that the project site could have begun as a Native American burying ground, which later was continued as a colonial cemetery, a not uncommon practice.

3. Historic Period Archaeological Sensitivity

The project site has a high historic period archaeological sensitivity due to its use as a cemetery that has numerous extant gravestones (Photographs 8 and 9). Sylvan Grove Cemetery is significant as one of the oldest extant cemeteries on Staten Island, and was the burying place of many of the Island's most prominent families (Photographs 10 and 11). In 1923, 235 gravestones or markers representing just over 250 individuals were still visible on the landscape (Davis et al. 1924, Appendix A), and it is assumed that many more graves were never formally marked or the markers were absent by 1923. Although gravestones are located only on Lot 9, it is possible that unmarked graves may have extended into parts of Lot 22 as well.

Lot 9 is clearly sensitive for cemetery resources, including gravestones, markers, and human remains, in areas that have not been disturbed by earthmoving, and may retain sensitivity for disarticulated human remains that may have been redeposited in disturbed areas. Lot 22 has a lessened sensitivity for cemetery resources, especially at its tip, but cannot be discounted completely, especially near its border with Lot 9, as the degree of disturbance is only partially understood. The gravestones themselves are invaluable in reconstructing family relationships for the nineteenth-century Travis community, since many stones noted both parents and spouses of the deceased, and infants and children who might not normally have been recorded in any archival documents (such as the Federal Census, which was only conducted every ten years) are well represented.

As a function of the IA, HPI, in consultation with FACSI, developed a map that detailed the various sensitivities over the APE (Figure 3). These sensitivities guided the monitoring process.

II. METHODOLOGY

There were three components of the proposed DPR improvements that required archaeological monitoring: (A) the installation of below-ground items (e.g., water lines, flagpole base, concrete pillar foundations), in Lots 9 and 22; (B) the installation of a wooden perimeter fence along Glen Street and Victory Boulevard; and, (C) gravestone restoration in Lot 9.

Archaeological monitoring is the supervision by archaeologists of scheduled excavation in order to identify, recover, protect and/or document archaeological information or materials (LPC 2002; NYAC and Professional Archaeologists of New York City 2002). Monitoring is used in cases where there is potential for an excavation to uncover archaeological resources but there is no satisfactory way to sample the site, and consequently, no valid way to determine the exact location or extent of the potential resource(s).

During monitoring, excavation is not under the complete control of the archaeologists but the archaeologists closely observe the installation-related excavation of sensitive areas while work is in progress, scrutinizing for signs of archaeological features/resources. Monitoring is conducted until the below-grade improvements to the archaeologically sensitive portions of the work site are complete. The monitoring also includes tasks undertaken off-site and tasks conducted following the completion of the monitoring, e.g., communication with appropriate review agency(s), report writing, graphics production, and possible lab analysis and artifact conservation.

DPR filed a monitoring protocol with LPC (11/29/10). The protocol stated that at the onset of monitoring, shovel tests would be hand excavated to impact depth at periodic stations within the planned installation to determine and record subsurface integrity and soils. If necessary, soils would be screened using a 1/4 inch mesh. All archaeological monitoring would be conducted according to OSHA regulations and applicable archaeological standards (NYAC 1994, NYSOPRHP 2005; LPC 2002; CEQR 2010).

Monitoring was conducted as construction phases required and weather permitted from the end of 2010 through April 5, 2011. The HPI monitoring team consisted of Christine E. Flaherty, M.A., who monitored the site and wrote

the report; Cece Saunders, M.A., R.P.A., who coordinated the site monitoring with FACSI and the monument restorer; and Sara Mascia, Ph.D., R.P.A., who oversaw the monitoring, managed the project, and provided editorial and interpretive assistance.

It should be noted that monitoring was limited to the extent and depths of disturbance as determined by the construction plans, and that cultural resources may still remain underneath or adjacent to the monitored areas.

III. RESULTS OF FIELD MONITORING

III.A. Subsurface Installations

Monitoring began with the installation of two bluestone-faced concrete pillars at the entrance to the cemetery along Victory Boulevard, in Lot 9 (Figure 4, Photograph 9). Each pillar required a 2x2 meter (m) (6.6x6.6 foot) trench to a depth of 1.5 m (4.9 feet) for the pouring of a concrete foundation. Initially an 85x85 centimeter (cm) (2.8 ft) test unit on the west side of the cemetery entry path was first hand excavated to a depth of 1.5 m (4.9 ft) to determine the stratigraphy in this location, and this soil was screened (Shovel Test 1). Four levels of soil were encountered in Shovel Test (ST) 1. The topmost was a shallow two centimeter layer of sod/topsoil (Figure 5). The next was a layer of dark grayish brown (10YR 4/2) and brown (10YR 4/3) silty sandy fill, that extended from 2-33 centimeters (1-13 inches) below surface (cmbs). Artifacts encountered were mostly modern, and included bottle glass, nails, styrofoam, a crown bottle cap, clam shell, and a porcelain insulator. The next level, extending from 33-82 cmbs (13-32 inches), was a stratum of strong brown (7.5YR 4/6) clayey silty sand. Fewer artifacts were recovered from this level, but were still modern in date. They included bottle glass, a rubber ball, a pop-top for a can, bolts and screws, styrofoam, and plastic trash bag fragments. The lowest level, from 82-132 cmbs (32-52 inches), was a layer of red (2.5YR 4/6) clayey silt with rocks. There were a few modern artifacts (bottle glass) found in this level. The hand-excavated unit was then extended to a machine-excavated trench, approximately 180 cm (5.9 feet) square, to the same depth as the ST. In Level 3, at approximately 80 cmbs (32 inches), a curved metal plate (50x20 cm, 20x8 inches) was found, possibly for attachment to a utility pole. It was embossed "No. 620 5/8 /Never Keep." Currently the function of this plate is unknown. A second similarly sized machine-excavated trench (Trench 2) was monitored on the east side of the walkway (Photograph 12). This trench contained three layers of soil. The top level was a very dark gray to black (10YR 3/1 to 10YR 4/1) silty loam, from 0-8 cmbs. The next level, from 8-57 cmbs, was a layer of very dark grayish brown (10YR 3/2) silty sand. Level 3, from 57-132 cmbs, contained a dark red (2.5YR 3/6) clayey sand. Modern artifacts were noted in all three levels. No evidence of features or burials was observed during this trenching operation.

The installation of a concrete foundation for a flagpole in Lot 22 required excavation of a large trench (Trench 3). As was done for the pillar installations, prior to the machine trenching, a 1x1 meter (3.3x3.3 foot) excavation unit was first hand excavated to determine the stratigraphy for the flagpole location (Test Unit 1, Figure 6). After the excavation unit revealed that the area appeared to be extremely disturbed, the unit was extended by machine to 3.6 m (11.8 feet) wide north/south and 3.2 m (10.5 feet) wide east/west, and a maximum depth of 80 cmbs (2.6 feet). At about 50 cmbs (20 inches), a layer of concrete was encountered (Photograph 13). This layer was later found to extend over much of the southwestern tip of the site (Independence Park). The concrete may have been deposited when the tip of the site was used as an unauthorized dumping ground in the past. The concrete layer in Trench 3 ranged from 20-30 cm (8-12 inches) in thickness.

Trench 4, located near Glen Street, was excavated for the installation of a large concrete utility box for water connections (Figure 4, Photograph 14). A hand-excavated shovel test was conducted first to ascertain the stratigraphy. Numerous fill layers were present. The trench was 2 m (6.6 feet) wide north/south and 2.8 m (9.2 feet) wide east/west, and was 2.2 m (7.2 feet) deep. It showed the same concrete layer, along with some macadam, at 25-30 cmbs (10-12 inches).

Trench 5 was a long narrow trench for a water pipe connecting the utility box to a proposed water fountain in Independence Park (Figure 4, Photographs 15-17). It was 80 cm (2.6 feet) wide and 14 m (46 feet) long, with a slight curve, running nearly across the width of the proposed Independence Park. The depth of the trench ranged from 80-110 cmbs (31.5-43 inches). The concrete layer present in Trenches 3 and 4 was visible in the western half of the trench, and was present at 10-40 cmbs (4-16 inches). Because of the length of Trench 5, soil profiles were noted at 2, 4, 7, 9 and 11 m (6.6, 13, 23, 29.5 and 36 feet) east of Trench 4, and are listed in Appendix B.

Trench 6, at the eastern end of Trench 5, was excavated for the proposed water fountain's concrete utility box. It was 2x3 m (6.6x9.8 feet) and reached a depth of 1.3 m (4.3 feet) below surface (Photograph 15). An adjoining trench, Trench 7, was excavated as a dry well for the fountain. It was 1.1x2.2 m (3.6x7.2 feet) and was excavated to a depth of 1.2 m (3.9 feet). Both of these trenches showed similar stratigraphy to the eastern end of Trench 5, with a layer of very dark brown (10YR 2/2) sandy silt/topsoil from 0-10 cmbs (0-4 inches), a layer of dark brown (7.5YR 2/2) silty sand from 10-30 cmbs (4-12 inches), and finally a very dark gray (7.5YR 3/1) sand layer from 30-80 cmbs (12-31.5 inches) that contained some pockets of clayey sand.

Trench 8 was excavated as a dry well for the utility box in Trench 4 (Photograph 16). It was located 1.4 m (4.6 feet) east of Trench 4 and adjoined Trench 5. It was 1x2.4 m (3.3x7.9 feet), and was 1.57 m (5.2 feet) deep. It had a similar stratigraphy to Trench 5 at the 2-meter mark. Trench 5 at the 2-meter mark contained a layer of dark brown (7.5YR 3/2) topsoil/silty sand from 0-10 cmbs (0-4 inches), a layer of dark brown (7.5YR 3/4) coarse silty sandy fill with gravel from 10-25 cmbs (4-10 inches), a layer of concrete from 25-40 cmbs (10-16 inches), a layer of dark brown (7.5YR 3/4) silty sand from 40-65 cmbs (16-26 inches), and a layer of strong brown (7.5YR 4/6) sand from 65-100 cmbs (26-39 inches).

Trench 9, located 6.2 m (20 feet) east of Trench 4, and also adjoining Trench 5, was excavated for a ground hydrant (Photograph 16). The trench was 1.3 m (4.3 feet) long and 80 cm (2.6 feet) wide, and was excavated to a depth of 98 cmbs (3.2 feet). It had a similar stratigraphy to Trench 5 at the 4-meter mark. It contained a layer of dark brown (7.5YR 3/2) topsoil with woodchips and fill from 0-10 cmbs (0-4 inches), a layer of concrete from 10-23 cmbs (4-9 inches), a layer of very dark gray (7.5YR 3/1) sandy silt with roots from 23-30 cmbs (9-12 inches), a layer of dark brown (7.5YR 3/3) silty sand with roots from 30-50 cmbs (12-20 inches), and a layer of strong brown (7.5YR 4/6) sand from 50-98 cmbs (20-39 inches).

Trench 4 was later extended to the sidewalk and into Glen Street, in order to connect to the public water main. Although the sidewalk and street portion were outside the project boundaries, the trenching activities were observed, and the original road surface, predating the installation of the water main, was identified approximately one meter (39 inches) below the current street grade (Photograph 18). The street level was probably raised during the construction of Route 440 to the west. This observation, in conjunction with the known quarrying activities dating to the 1920s along the west side of the project site, may explain the depth of the fill found all over the southern and western portions of the site.

III.B. Perimeter Fence Installation

The installation of a wooden perimeter fence required posthole excavations at eight-foot (244 cm) intervals (Figure 4). These were mostly excavated by an auger attached to a small trackhoe (Photograph 19), with additional hand-finishing, but some fence postholes along Victory Boulevard were completely hand excavated because of the proximity to buried electrical utilities. The postholes were 40-50 cm (16-20 inches) in diameter, and ranged from 90-140 cm (35-55 inches) deep (Photographs 20 and 21). Excavation began along Glen Street, at the northernmost point of the project site, and proceeded south, and then proceeded east along Victory Boulevard. The fence line then turned north along the property line between Lot 9 (the cemetery), and Lot 4, a private residence, and once the location of the Long Neck Church and later a school (HPI 2010). There were 82 postholes excavated.

The postholes along Glen Street showed heavy disturbance, with modern bottle glass and asphalt appearing occasionally throughout fill strata (Photograph 22). A typical posthole in this area (Postholes 1-19) had an uppermost layer of very dark brown (7.5YR 3/2 or 7.5YR 2.5/2) sandy silt or silt, from 0-40 cmbs (0-16 inches) (Figure 7). The next layer was a brown (7.5YR 4/4) or strong brown (7.5YR 5/6) silty sand or sand, from 40-60 cmbs (16-24 inches). The bottom layer was a strong brown (7.5YR 4/6 or 5/8) coarse to very coarse sand, at 60-130 cmbs (24-51 inches). Some postholes had clumps of gley mixed in with the sand in the lower level (Photograph 21). Postholes 20-29 were similar except that the second layer was a dark red (2.5YR 3/6) coarse sandy silty clay. Postholes 30-44 appeared to have similar stratigraphy to the preceding postholes, with frequent modern fill in the top two levels, and occasionally in the bottom level. Posthole 44 was located just north of Trench 4. Posthole 45 was approximately 15 m (49 feet) south of Posthole 44 to accommodate the extension of Trench 4 to Glen Street and the installation of a park walkway. The remaining postholes along Glen Street, and continuing around the corner to

Victory Boulevard, showed highly disturbed soils, some containing fill with no discernible stratigraphy other than a very shallow topsoil layer (Photograph 23).

Posthole 50 was located at the approximate border between Lots 9 and 22 (Figure 4). The postholes in this area were all hand excavated because of a concern for encountering subsurface electrical conduits. Postholes 52 and 54 were relatively close to a group of graves in the southeast corner of the cemetery, and were hand excavated and screened. Posthole 52 had a topmost layer of black (10YR 2/1) silty sand to a depth of 50 cmbs (20 inches), then a layer of brown (10YR 3/6) sandy fill from 50-70 cmbs (20-28 inches), with some mottling from the upper layer, and finally a layer of dark yellowish brown (10YR 4/6) sand from 70-97 cmbs (28-38 inches) (Photograph 24). Posthole 54 had the same stratigraphy at similar depths. Both postholes contained modern artifacts, including bottle glass, plastic, and foil. The remaining postholes were again excavated by auger. Postholes 56 and 57 contained chunks of dark red (2.5YR 3/6) clay and silty clay in Level 2 as seen in the postholes along Glen Street.

Posthole 63 was the last posthole to the west of the concrete pillars surrounding the main cemetery walkway and fell within the area excavated for Trench 1, and Posthole 64 was to the east of the walkway, and within Trench 2. While no grading was originally planned for any part of the cemetery, in order for the fence to remain reasonably level, and to be able to stay within the boundaries of Lot 9, a slight amount of grading was done to the hillside along Victory Boulevard, closest to the southeast corner of the property (Photograph 25). A few tree stumps were also removed in this area, after screening of a sampling of postholes showed that disturbance was extensive in the area nearest the sidewalk on Victory Boulevard. The stumps were highly decayed and had shallow roots. All loose soil from the tree stump removal was screened and found to contain only modern trash. The decision to slightly grade the hillside was done in consultation with HPI, Joseph Izzo of Ravine Construction, Inc., and Tara Valenta, Landscape Architect for the project from the DPR.

Posthole 67, which fell within the graded area, was screened and contained modern bottle glass in Level 2. This posthole contained a layer of dark brown (7.5YR 3/3) sandy silt from 0-25 cmbs (0-10 inches), then a layer of dark red (2.5YR 3/6) sandy clay fill from 25-63 cmbs (10-25 inches), and finally a layer of dark reddish brown (2.5YR 3/4) silty sandy clay from 63-96 cmbs (25-38 inches). Similar soil profiles were seen in all of the remaining postholes along Victory Boulevard. Posthole 73 was adjacent to the recently surveyed property boundary marker. The excavation revealed a boulder (approximately one meter wide) that was possibly the original boundary marker between Lot 9 and Lot 4.

Posthole 73 was the easternmost posthole on Victory Boulevard. The fence line then turned north and continued along the border of the cemetery and the adjacent residential property next door (Photograph 26). An active driveway, used by the residents of Lot 4, actually falls partially within the borders of Lot 9, as does part of what appears to be the rear yard of this house (Figure 4, Photograph 27). Because of the long history of the property on Lot 4, dating to the early 1840s, the unusual triangular shape of the lot, and the very narrow rear yard of this property, the postholes in this area were very carefully observed for any potential historical subsurface shaft features such as wells, privies, or cisterns. The soil from Posthole 82, located adjacent to the rear yard of Lot 4, was hand excavated and screened. The top layer contained a dark brown (7.5YR 3/3) sandy silt from 0-20 cmbs (0-8 inches), then a layer of strong brown (7.5YR 5/6) sand was present from 20-78 cmbs (8-31 inches), and finally a layer of red (7.5YR 4/6) sandy clay mixed with sand was present from 78-97 cmbs (31-38 inches). After hand excavation, the auger was used to deepen the hole, and brought up a pink (7.5YR 7/3) compact sandy clay, believed to be the natural subsoil. Glimpses of this pink clay were seen in the auger in a few previous postholes. The first two levels contained window glass and coal, but no other artifacts, and nothing was found in the third level. The remaining postholes along the driveway contained similar soil profiles (Photograph 28). No evidence of subsurface features was observed, nor was there any concentration of artifacts possibly representing yard scatter. It is possible that grading of the driveway at some point in the past removed any evidence of past land use.

III.C. Cemetery Restoration

The remainder of monitored activities in Lot 9 entailed gravestone restoration, as many of the stones had been broken and/or toppled in the past, mainly due to vandalism. A team of monument restorers was selected by Lynn Rogers, President of FACSI, to perform repairs. These repairs resulted in some subsurface disturbance which was monitored. The restoration cases mainly fell into three groups.

Stone Bases
First were those headstones that had a marble (or other stone) rectangular base, upon which the engraved stone had been mounted. Many of these had been broken off at the joint between the base stone and the headstone. In these cases, the base was carefully removed from the ground. Generally the bases had initially been installed at a depth of 20-30 cmbs (8-12 inches), often with a brick foundation providing support for the base (Photograph 29). The original rectangular hole was lined with boards, and a new concrete base was poured, into which the original headstone was set (Photographs 30 and 31).

Single Slabs
Second were those gravestones that were single slabs installed directly into the ground, which had been broken off at some part above the ground. Some stones were too badly broken to be repaired and were left *in situ* (Photograph 32). If the stone had been broken off at the bottom, a new rectangular cavity was excavated directly in front of the original location, usually to a depth of about 20 cmbs (8 inches). Then a concrete base was poured, into which the headstone was set (Photograph 33). If the gravestone had been broken midway, then a new base would be constructed adjacent to the original location, and the top part of the stone installed facing out (Photograph 34).

Large Monuments
Third were those gravestones, mainly some of the largest ones present in the cemetery, which had been knocked over, but could be reset upon their original bases. For the larger monuments, it was necessary to bring in a small trackhoe to reposition them (Photograph 35). All movement of the trackhoe was monitored to ensure that no gravestones or plantings were damaged.

Some gravestones had been completely removed from their original placement in the ground (Photograph 36). In these cases, the document entitled *Staten Island Gravestone Inscriptions From The Sylvan Grove, Merrell and Hillside Cemeteries in the former town of Northfield…* (Davis, Leng, and Vosburgh 1924) proved enormously helpful in finding the correct location for the gravestones. While the map of the cemetery that was apparently originally attached to the document is no longer available, the descriptions of the monuments were arranged by rows. Although some of the original 12 rows were difficult to discern because of missing and damaged monuments, as well as heavy overgrowth, the verbatim epitaph transcriptions meant that even a small fragment could be identified, and matched to a specific plot or at least a general location. As a result, broken portions of stones that were far from their original location were able to be reunited with the rest of the monument. A number of footstones had also been pulled out of their original locations, and probably because of their smaller size, were often found far from the matching headstone. Luckily many of the footstones had engraved initials, and were able to be returned to their correct location. During the course of monitoring, the 1924 gravestone list was annotated to note the existence and condition of the remaining monuments (Appendix C). A map identifying the location of the rows was also created (Figure 8).

IV. CONCLUSIONS

Monitoring of posthole excavations for the perimeter fence around Lots 9 and 22 confirmed the documentary research that nearly all of the area bordering Glen Street had been disturbed in the past, to a minimal depth of one meter (39 inches). Additionally, monitoring of subsurface trenching on Lot 22 showed that extensive disturbance was present throughout most of the southern half of the lot, again to a minimal depth of one meter, and in a few areas, to two meters. Much of the Lot 9 Glen Street and Lot 22 disturbance was caused by prior sand quarrying, parking of heavy vehicles, unauthorized dumping, and unknown grading events. Monitoring along Victory Boulevard on Lot 9 revealed that subsurface disturbance was present, which may have resulted from previously existing fencing, prior hillside grading events, plantings, and unchecked tree growth. No evidence of precontact or historic features was noted during any subsurface excavations. However, both precontact and historic cultural resources have the potential to remain intact below these depths in those areas, and to exist within Lot 9 in areas not impacted by historic grave shafts. The cemetery itself should continue to be considered highly sensitive for human remains, including areas that are not currently marked by gravestones.

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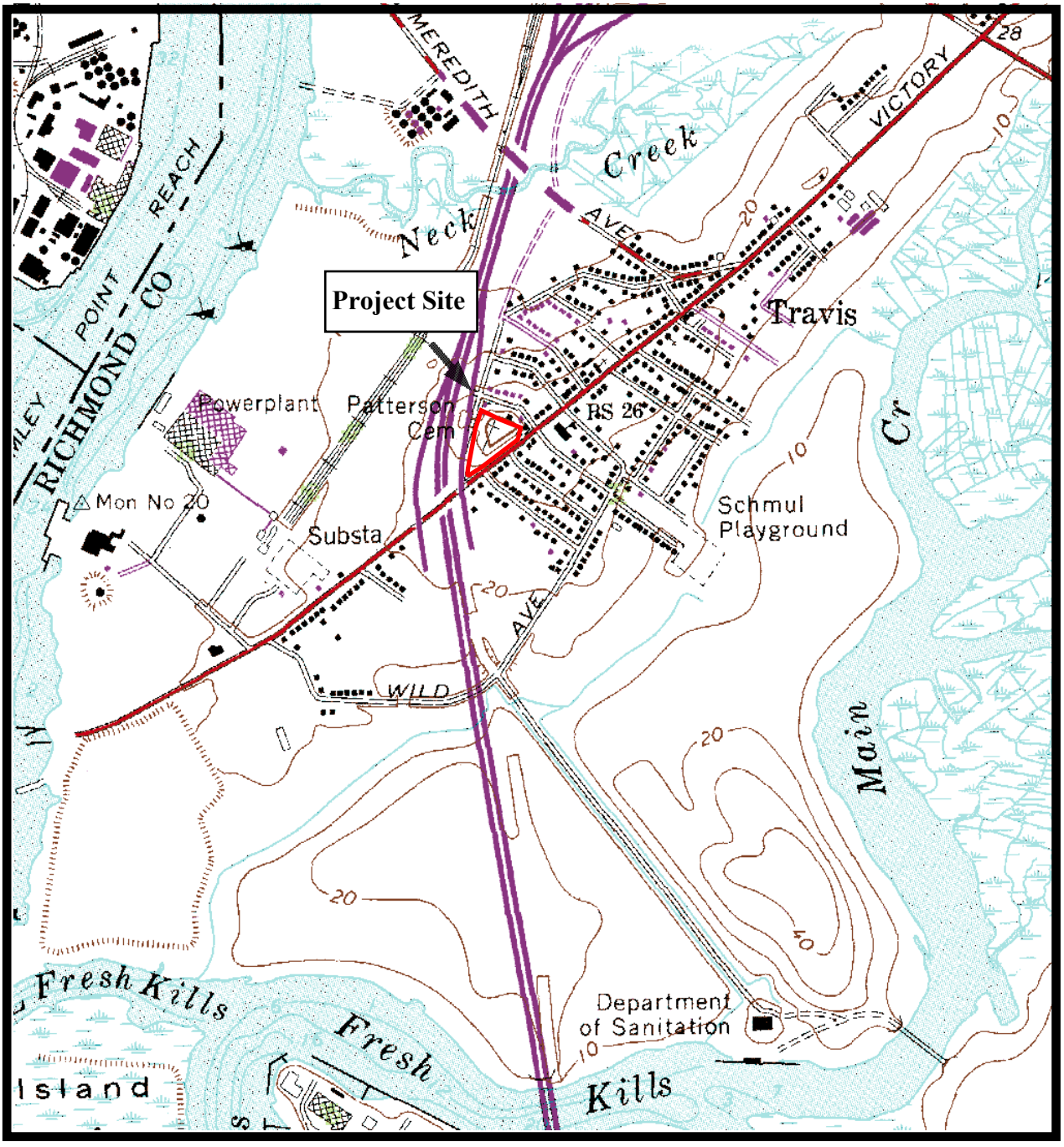

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Figure 1: Project site on *Arthur Kill, N.Y-N.J.* topographic quadrangle (U.S.G.S. 1976).

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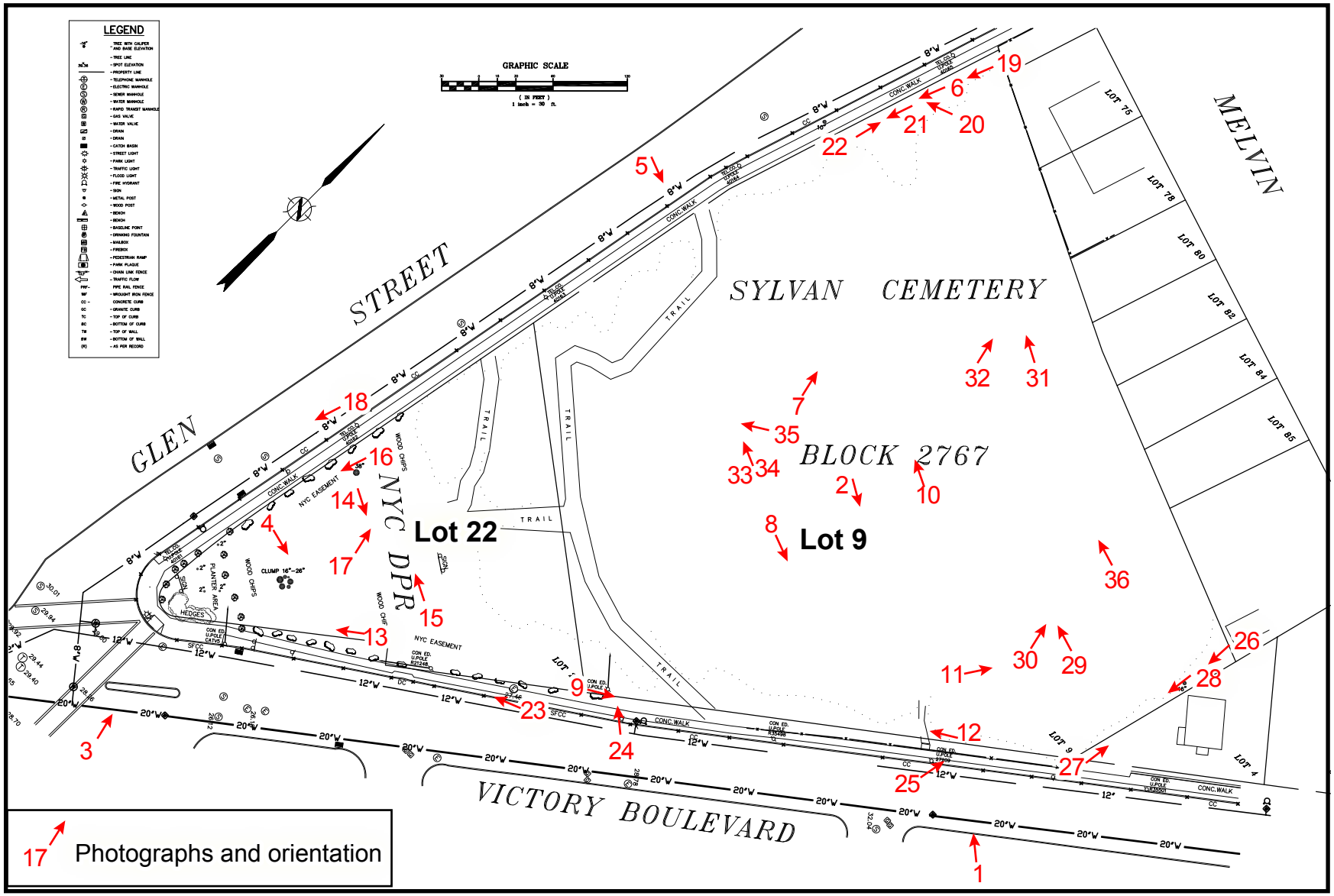
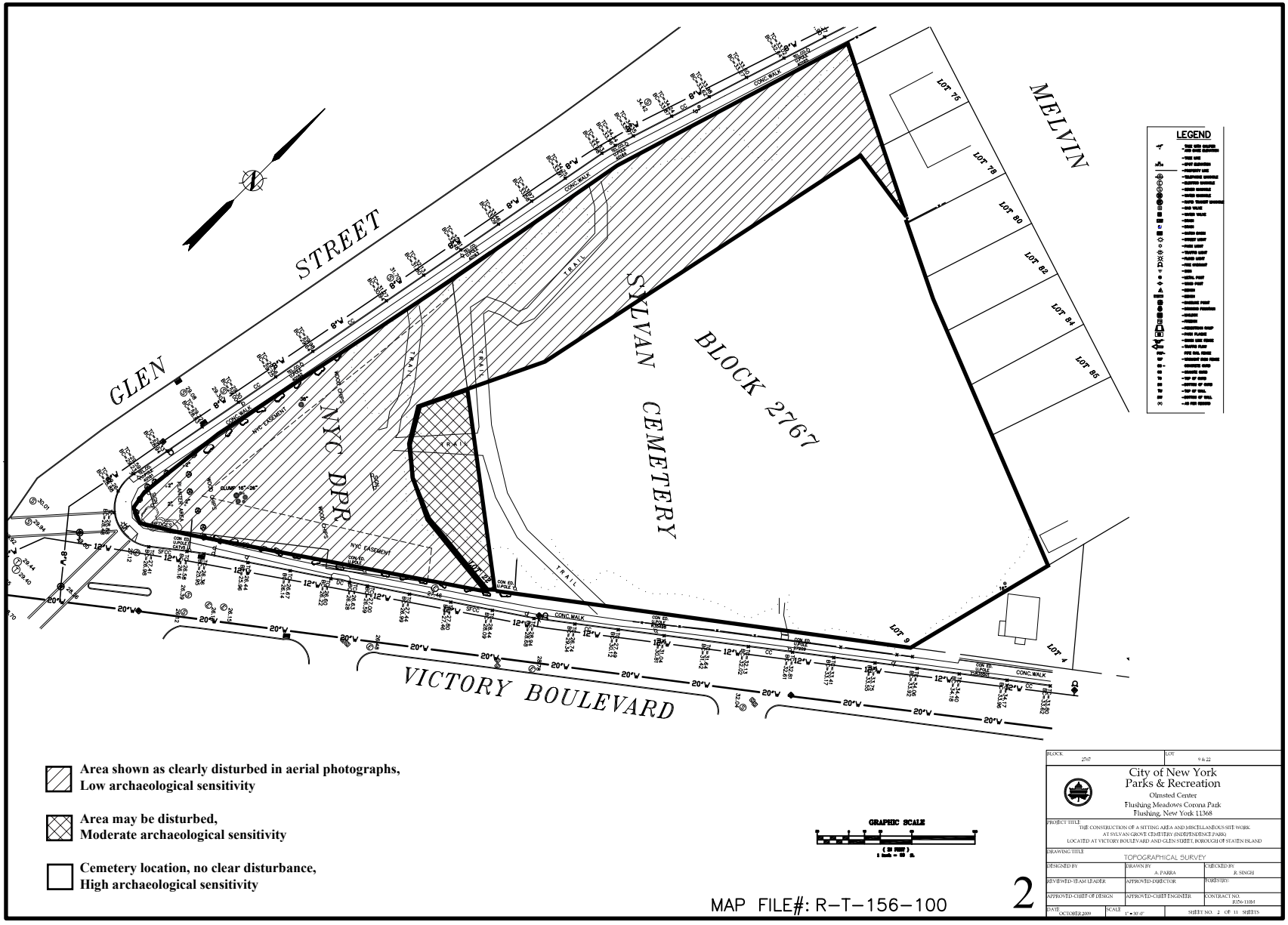


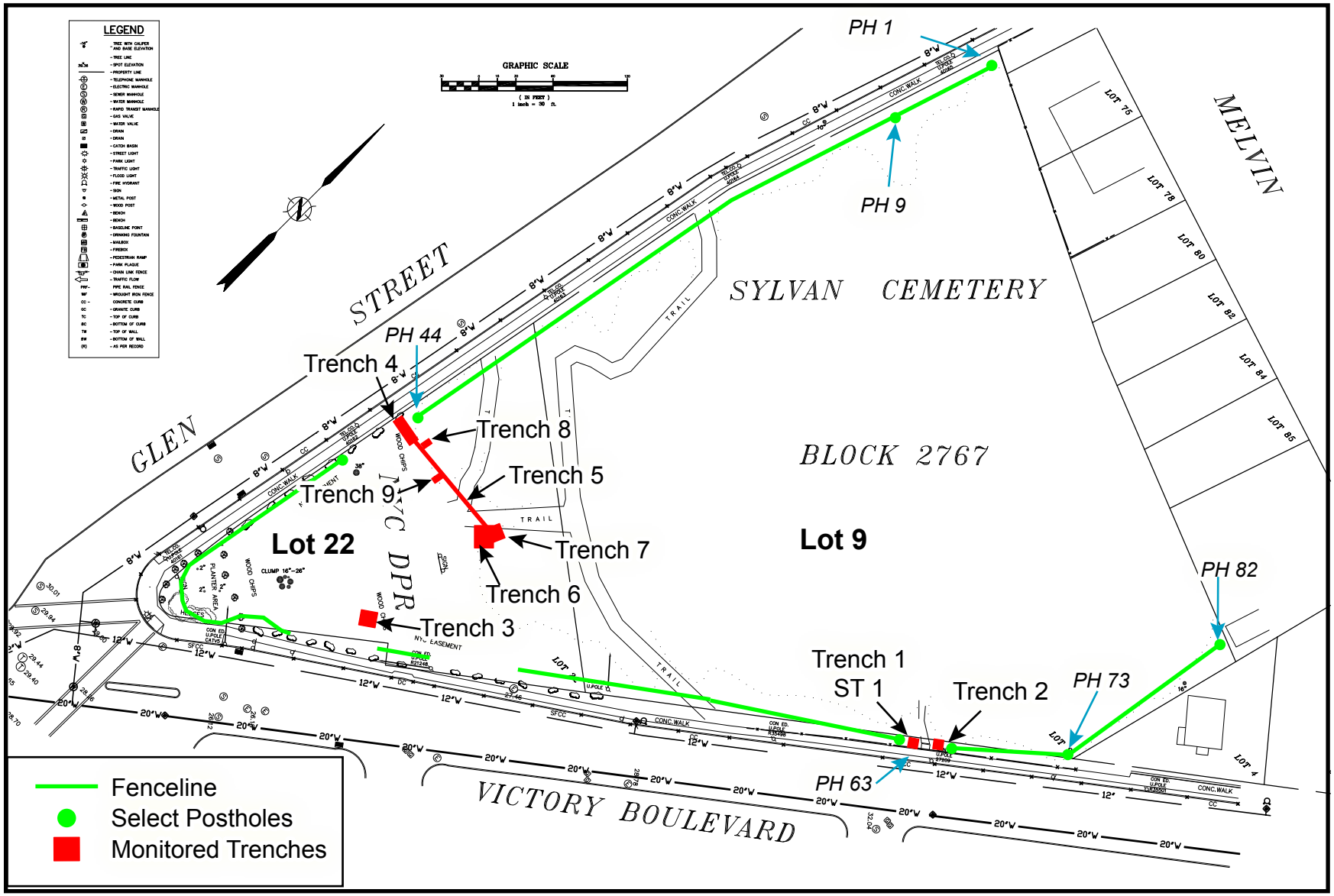
SYLVAN GROVE CEMETERY, Staten Island, Richmond County, New York

FIGURE 2: Project Site and Photograph Locations on Modern Survey Map.
Base map: City of New York Parks & Recreation, 2009



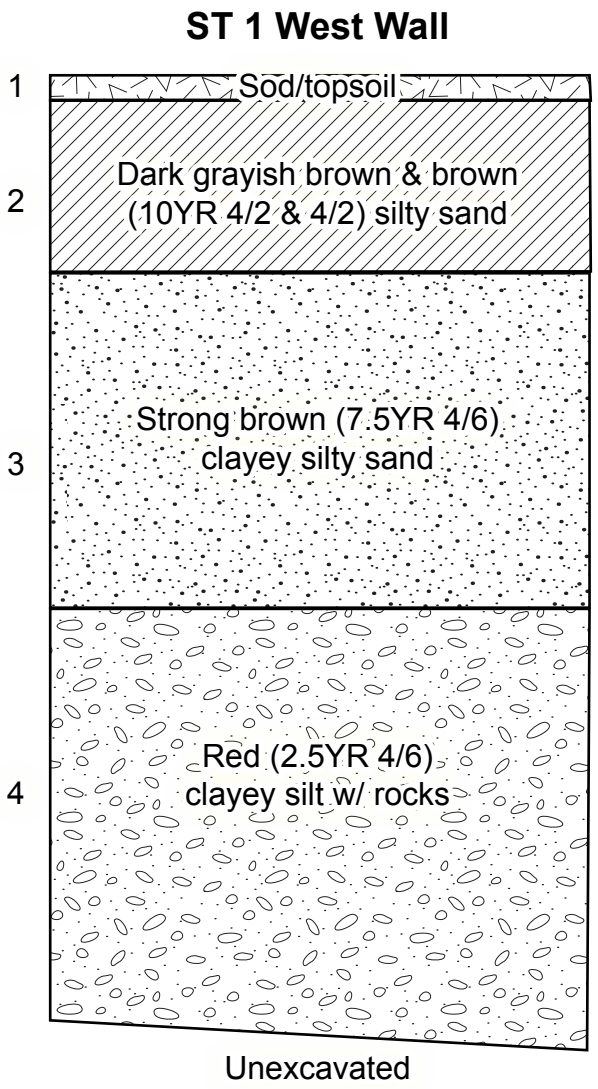
SYLVAN GROVE CEMETERY, Staten Island, Richmond County, New York

FIGURE 3: Project site showing areas of archaeological sensitivity.
Base map: City of New York Parks & Recreation, 2009



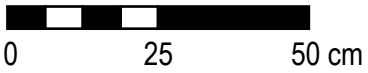
SYLVAN GROVE CEMETERY, Staten Island, Richmond County, New York

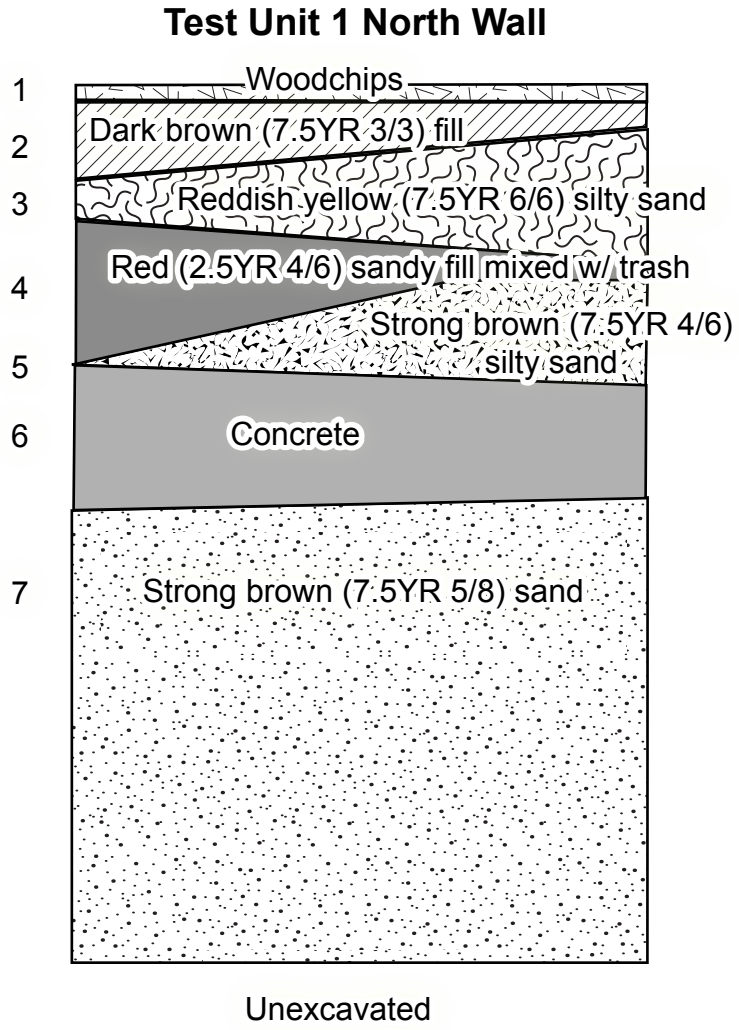
FIGURE 4: Monitored Construction Trenches at Project Site.
Base map: City of New York Parks & Recreation, 2009



SYLVAN GROVE CEMETERY , Staten Island, Richmond County, New York

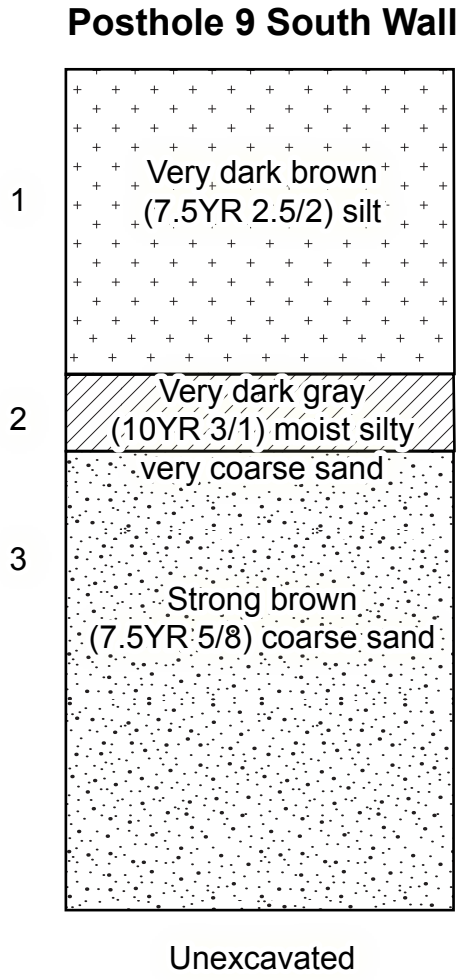
FIGURE 5: Soil profile, Shovel Test 1, West Wall.





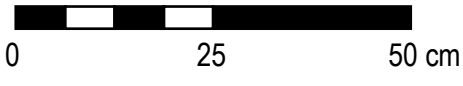
SYLVAN GROVE CEMETERY , Staten Island, Richmond County, New York

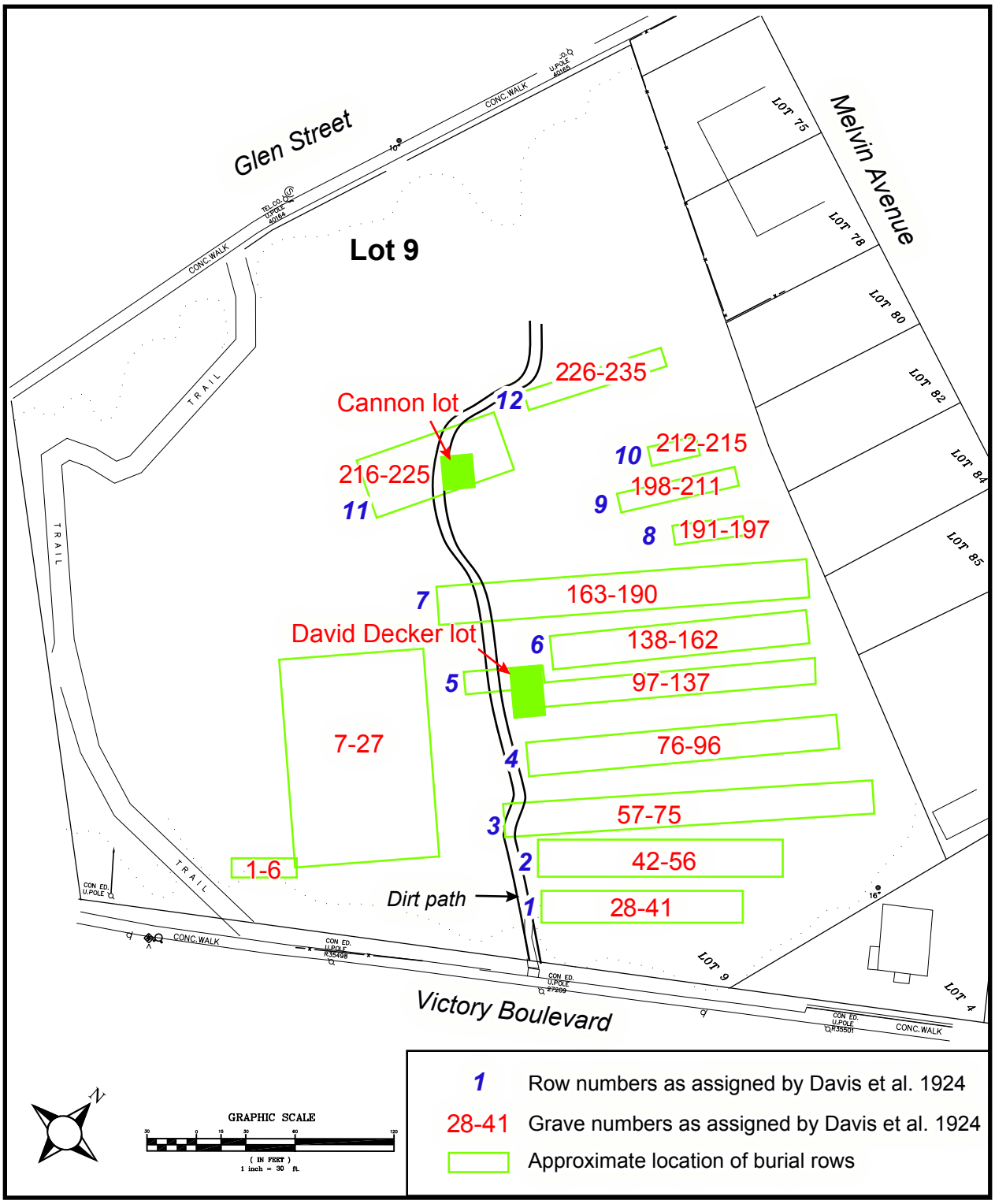
FIGURE 6 : Soil profile, Test Unit 1, North Wall.



SYLVAN GROVE CEMETERY , Staten Island, Richmond County, New York

FIGURE 7: Soil profile, Posthole 9, South Wall.





SYLVAN GROVE CEMETERY, Staten Island, Richmond County, New York

FIGURE 8: Schematic of Burials at Sylvan Grove Cemetery.
Base map: City of New York Parks & Recreation, 2009

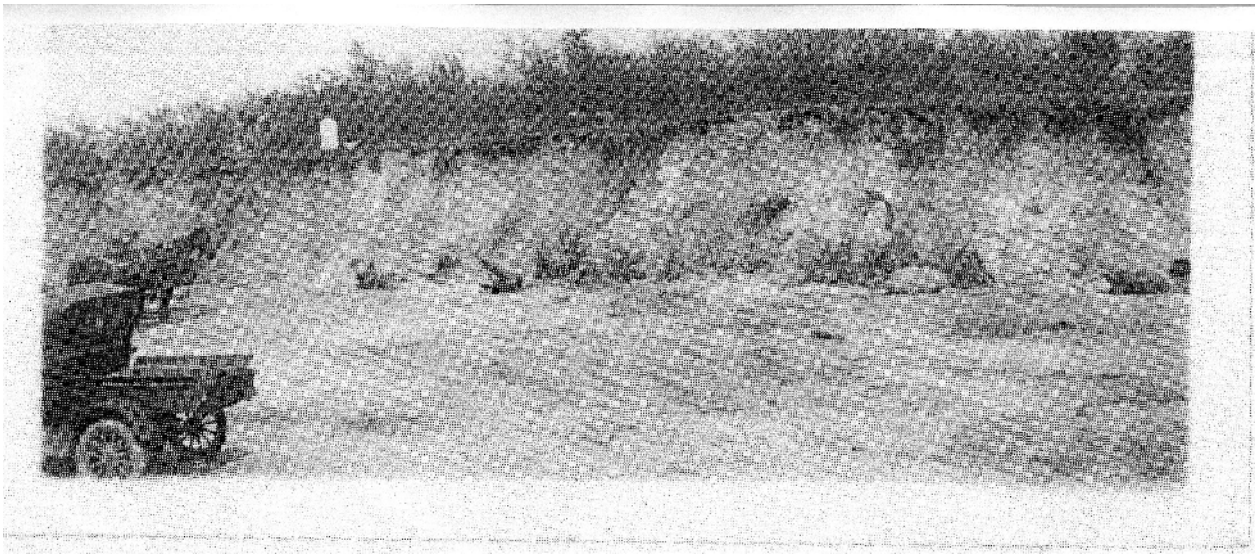
PHOTOGRAPHS

Photograph 1: Lot 9, the main cemetery property, showing gravestones on the slope of the hill. View looking northwest from Victory Boulevard.

Photograph 2: Lot 9, the main cemetery property, at the top of the hill, with Victory Boulevard in the background. View looking southeast from interior of property.

Photograph 3: Lot 22 showing the small landscaped area at the extreme tip of the lot, Independence Park, and a sign indicating the use of the property as a cemetery. View looking north from Victory Boulevard.

Photograph 4: Lot 22 prior to renovations, being used as a DPR construction staging area. View looking east from Glen Street.



Photograph 5: Historic photograph from 1923 showing sand mining on Lot 9. Note gravestones in left background. View looking northeast from Glen Street. Courtesy Staten Island Museum.

Photograph 6: Previously mined area on Lot 9 today. Note artificially flat topography from backfilling. View looking south from Glen Street.

Photograph 7: Highest point of Lot 9, with quarried ridge at left, and westernmost extant gravestones in center of photo. Looking north-northwest.

Photograph 8: Orientation of gravestones facing Victory Boulevard, with backs of gravestones shown. View looking southeast from interior of property.

Photograph 9: Lot 9 looking northeast from Victory Boulevard. Newly installed concrete pillars (Trenches 1 and 2) can be seen near telephone pole on right side of photo.

Photograph 10: David Decker family plot from 1870. View looking northwest from interior of property.

Photograph 11: Northeastern area of cemetery, showing empty plot with Sylvanus Decker family burials in rear, looking north-northeast.

Photograph 12: Trench 2, in Lot 9 along Victory Boulevard, west wall profile.

Photograph 13: Trench 3 on Lot 22, for flagpole base in Independence Park, showing layer of concrete, looking west.

Photograph 14: Trench 4 (trenches were renumbered after photo was taken) showing concrete and other fill layers, looking south.

Photograph 15: Trench 5, looking west from Trench 6 to Trench 4 in Independence Park (Trenches 4 and 6 have concrete utility boxes in place).

Photograph 16: Trench 5, looking southeast from Trench 4 to Trenches 6 and 7. Trench 8 is on the near left, and Trench 9 is center right. Note concrete layer in western half of trench.

Photograph 17: North wall of Trench 5, looking northwest from Trench 9. Trench 8 is at left.

Photograph 18: Extension of Trench 4 into Glen Street, showing original asphalt road surface approximately one meter below current surface, cut by utility trench for water main. Looking south.

Photograph 19: Start of fence construction (Posthole 1) along Glen Street on Lot 9, looking south.

Photograph 20: Posthole 3, looking southwest.

Photograph 21: Posthole 7, showing chunks of gley in lowest level, looking south.


Photograph 22: Construction of fence on Lot 9, looking north from Posthole 12.

Photograph 23: Fence construction along Victory Boulevard, Lot 22, looking southwest.

Photograph 24: Posthole 52, along Victory Boulevard, Lot 9, looking northwest.

Photograph 25: Fence construction along Victory Boulevard, Lot 9, looking northeast. Building on left behind trackhoe is on Lot 4.

Photograph 26: Border between cemetery on Lot 9 to right, and Lot 4, to left, looking south. Boat and plywood on left are actually on Lot 9. .

Photograph 27: Border between cemetery on Lot 9 at top left, and Lot 4,bottom right, looking north. Taut string line represents property line. Shed in rear belongs to house on Melvin Avenue.

Photograph 28: Posthole 78, Lot 9 adjacent to Lot 4, looking south.

Photograph 29: Brick foundation upon which stone base (in rear) had originally been set.

Photograph 30: Reset gravestones with original bases at right.


Photograph 31: New concrete base for gravestone.


Photograph 32: Badly broken gravestone left *in situ*.

Photograph 33: Reset gravestone.

Photograph 34: Reset broken gravestone.

Photograph 35: Resetting a large monument upon the original base.

Photograph 36: Gravestone that was able to be relocated to its original burial plot.

APPENDIX A
STATEN ISLAND GRAVESTONE INSCRIPTIONS

Due to copyright issues, Appendix A has been removed.
The original document may be seen at the Staten Island Museum.

Appendix B: Trench 5 Soil Profile Data

2 meters North Side

Centimeters below surface	Soil texture	Soil color
0-10	Topsoil, silty sand	7.5YR 3/2 dark brown
10-25	Coarse silty sand with gravel (fill)	7.5YR 3/4 dark brown
25-40	Concrete	
40-65	Silty sand	7.5YR 3/4 dark brown
65-110	Sand	7.5YR 4/6 strong brown

4 meters North Side

Centimeters below surface	Soil texture	Soil color
0-10	topsoil, woodchips, fill	7.5YR 3/2 dark brown
10-23	decaying concrete	
23-30	sandy silt with roots	7.5YR 3/1 very dark gray
30-50	silty sand with roots	7.5YR 3/3 dark brown
50-98	sand	7.5YR 4/6 strong brown

7 meters North Side

Centimeters below surface	Soil texture	Soil color
0-2	topsoil, sandy silt	7.5YR 3/2 dark brown
2-20	silty sand w/ gravel	7.5YR 3/4 dark brown
20-30	concrete	
30-85	sand	7.5YR 4/6 strong brown

9 meters North Side

Centimeters below surface	Soil texture	Soil color
0-10	topsoil, sandy silt	10YR 2/2 very dark brown
10-30	silty sand	7.5YR 3/3 dark brown
30-80	sand	7.5YR 3/1 very dark gray

11 meters North Side

Centimeters below surface	Soil texture	Soil color
0-12	topsoil, sandy silt	10YR 2/2 very dark brown
12-31	silty sand	7.5YR 3/3 dark brown
31-80	sand	7.5YR 3/1 very dark gray

APPENDIX C
Sylvan Cemetery Gravestone List

This list uses the grave numbering system devised by Davis et al. 1924 (Appendix A). Because of the heavy ground cover in some areas of the cemetery, it is possible that some broken markers were not visible.

Abbreviations:
hs=headstone
fs=footstone
ws=western half of cemetery

1924 Grave Number	Row	Present?	Reset?	Comments
1	ws	fs only		hs missing in 1924
2	ws	broken		top half missing
3	ws	hs & fs		
4	ws	yes		
5	ws	yes		
6	ws	yes		missing piece on top
7	ws	flat		broken in half, on ground
8	ws	no		
9	ws	no		
10	ws	yes	yes	
11	ws	yes	yes	
12	ws	yes	yes	
13	ws	yes	yes	
14	ws	yes		
15	ws	no		
16	ws	broken		missing most of stone, 1924 ref to 2 nearby unmarked graves
17	ws	broken		broken in 4 pieces
18	ws	broken		top half missing
19	ws	yes		
20	ws	yes	yes	
21	ws	yes	yes	
22	ws	broken	yes	broken in half
23	ws	no		was child's metal monument
24	ws	no		was metal marker, surrounding lot fence also gone
25	ws	no		was metal marker, surrounding lot fence also gone
26	ws	yes	yes	relocated
27	ws	yes	yes	relocated
28	1	broken		closest grave to path and Victory Blvd, only bottom with a few letters remain
29	1	yes		Lot 45, also contained 3 unmarked graves, no longer visible
30	1	broken		Lot 45, flat
31	1	broken		Lot 45, broken at bottom
32	1	hs & fs, broken		broken in half
33	1	hs & fs	yes	
34	1	broken		no writing remains
35	1	hs & fs	yes	rails and gate of lot gone
36	1	hs & fs	yes	rails and gate of lot gone
37	1	hs & fs, broken	yes	top part missing
38	1	hs & fs, broken		broken stump, appears restoration attempted in past, was flat in 1924, top portion now gone
39	1	hs & fs		
40	1	yes		

1924 Grave Number	Row	Present?	Reset?	Comments
41	1	hs & fs		
42	2	flat		broken
43	2	broken		top half missing
44	2	fs only		
45	2	broken	yes	
46	2	yes		
47	2	broken	yes	broken in half
48	2	flat		broken in half, writing worn
49	2	fs only		hs flat in 1924
50	2	hs & fs	yes	hs flat in 1924
51	2	no		may be base stone remaining
52	2	yes		
53	2	yes	yes	
54	2	broken		top half missing except for loose fragment with "MILLER"
55	2	broken		top half missing
56	2	no		base remains, was flat in 1924
57	3	no		missing, should be where path is currently
58	3	yes		adjacent to path
59	3	no		
60	3	yes	yes	
61	3	flat	yes	
62	3	broken	yes	only fragment of top remains
63	3	broken	yes	broken in half
64	3	yes	yes	flat in 1924
65	3	yes	yes	no post or rails of lot remaining, hs flat in 1924
66	3	yes	yes	no post or rails of lot remaining, hs flat in 1924
67	3	yes	y	no post or rails of lot remaining, hs flat in 1924
68	3	broken		stump only, no lot markers remaining
69	3	fs only		found fragment of hs w/ verse elsewhere, no lot markers remaining
70	3	no		found fragment of hs w/ verse elsewhere, no lot markers remaining
71	3	yes		not in correct location, lying loose
72	3	broken		no lot posts remaining, 1 stump and fs, but could be for No. 73
73	3	no		see note for No. 72
74	3	yes		
75	3	no		flat and loose in 1924, possibly not in correct location
76	4	yes	yes	
				marked lot, still present; contained no markers in 1924 but had 1 "sunken" grave
77	4			broken in 3 pieces
78	4	hs & fs	yes	flat in 1924
79	4	yes	yes	was lying on side in SW crnr of lot which was location in 1924, reset in NE corner
80	4	broken		flat stone, writing illegible
81	4	yes		
82	4	no		
83	4	no		flat in 1924
84	4	no		flat in 1924
85	4	no		
86	4	no		
87	4	no		
88	4	yes		

1924 Grave Number	Row	Present?	Reset?	Comments
89	4	hs & fs		
90	4	hs & fs, broken		broken in half
91	4	yes	yes	flat in 1924
92	4	broken	yes	bottom half found elsewhere, reset
93	4	yes	yes	flat in 1924
94	4	yes	yes	flat in 1924
95	4	yes	yes	flat in 1924
96	4	yes		
97	5	broken		top half missing
98	5	broken		stump only
99	5	hs & fs		hs standing against tree
100	5	yes	yes	fs now missing
101	5	yes	yes	
102	5	hs & fs	yes	
103	5	hs & fs		
104	5	broken		broken in half
105	5	broken		flat broken stone in NW crnr of lot, unreadable, could also be No. 106
106	5	no		see note for No. 105, was flat and broken in 1924
107	5	broken		writing illegible, top third missing
108	5	broken		top half missing, no writing remains
109	5	no		
110	5	no		
111	5	no		child's grave, originally w/ Nos. 112 & 113
112	5	broken		top of stone found elsewhere, relocated
113	5	broken		top half missing
114	5	no		flat and broken in 1924
115	5	no		
116	5	no		
117	5	no		
118	5	no		
119	5	no		
120	5	no		
121	5	no		
122	5	broken		most of stone gone
123	5	no		
124	5	no		
125	5	no		
126	5	no		
127	5	no		
128	5	fs only		
129	5	no		
130	5	no		
131	5	no		
132	5	no		
133	5	no		Nos. 133-137 were in lot, w/ first 4 markers along single base, which remains
134	5	no		see note for No. 133
135	5	no		see note for No. 133
136	5	no		see note for No. 133
137	5	no		
138	6	no		
139	6	no		
140	6	broken		top half missing

1924 Grave Number	Row	Present?	Reset?	Comments
141	6	no		flat in 1924
142	6	no		resting against tree in 1924
143	6	broken		bottom half missing, not in correct location
144	6	broken		top half missing
145	6	no		flat in 1924
146	6	fs only		flat in 1924
147	6	yes		
148	6	flat		
149	6	no		
150	6	no		
151	6	no		
152	6	no		
153	6	no		
154	6	no		
155	6	yes		
156	6	yes		
157	6	yes		
158	6	yes		
159	6	hs & fs	yes	flat in 1924
160	6	hs & fs	yes	
161	6	yes		
162	6	yes		
163	7	hs & fs	yes	flat in 1924, fs for "E.P."
164	7	hs & fs	yes	flat in 1924
165	7	hs & fs, broken		broken in 3 pieces
166	7	hs & fs, broken	yes	broken in half
167	7	hs & fs, broken		top half missing
168	7	hs & fs, broken	yes	broken in half
169	7	broken	yes	broken in half
170	7	yes	yes	large monument, reset on base
171	7	no		
172	7	no		
173	7	fs only		
174	7	no		
175	7	broken		stump only, brownstone
176	7	no		
177	7	broken		very top gone
178	7	broken		top half missing
179	7	no		
180	7	no		
181	7	flat	yes	flat in 1924
182	7	broken		top half missing
183	7	hs & fs	yes	flat in 1924
184	7	no		
185	7	no		
186	7	fs only		fs unmarked
187	7	broken		last marker next to hill at northern edge of lot
188	7	no		
189	7	no		small fragment found elsewhere
190	7	no		
191	8	flat		flat stone adjacent to No. 192, unreadable
192	8	hs & fs		
193	8	no		
194	8	no		

1924 Grave Number	Row	Present?	Reset?	Comments
195	8	yes		
196	8	flat		unreadable, but probably No. 196
197	8	broken		top and right side missing
198	9	hs & fs, broken		stump w/ verse fragment, fs "A.S."
199	9	yes		found elsewhere, obelisk w/ book on top
200	9	no		
201	9	no		
202	9	broken		stump only
203	9	broken		stump only
204	9	no		
205	9	no		small fragment found elsewhere
206	9	no		
207	9	no		flat in 1924
208	9	no		flat in 1924
209	9	no		flat in 1924
210	9	broken		stump only
211	9	broken		top of stone leaning against tree
212	10	broken		stump only
213	10	broken		stump only
214	10	yes		
215	10	broken		top half missing
216	11	broken		broken in half, flat in 1924
217	11	yes		
218	11	hs & fs, broken		only fs and base of hs remain
219	11	no		metal monument, partially broken in 1924
220	11	broken		large monument, one fragment is down hill near Glen St.
221	11	broken		stump only
222	11	broken		stump only
223	11	broken		stump only
224	11	yes		
225	11	yes		
226	12	broken		stump only
227	12	broken		stump only
228	12	broken		most of stone gone w/ some of verse remaining
229	12	no		
230	12	no		flat and broken in 1924
231	12			no entry in 1924 for this number
232	12	fs only		flat and broken in 1924, sharp slope to right
233	12	no		flat and broken in 1924
234	12	no		flat in 1924
235	12	no		
No number				only known burial after 1924, near No. 10: Theodore Snow US Army World War II 1905-1958