



Phase 1B Archaeological Testing Report

PS 51/

44th Street and Eleventh Avenue

Block 1073, Lot 1 (Part)

Manhattan, New York County, New York

Prepared for:

The School Construction Authority
30-30 Thomson Avenue
Long Island City, NY 11101

Prepared by:

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New York, New York 10016

September 2009

Management Summary

SHPO Project Review Number: 09PR00143
CEQR Number: 09HPD022M

Involved Agencies: New York School Construction Authority

Phase of Survey: Phase 1B Field Testing

Project Location: Block 1073, Lot 1 (part) New York, New York
Minor Civil Division: 06101
County: New York County

Location Information:

Survey Area Length:	Approximately 100 feet
Survey Area Width:	Approximately 100 feet
Number of Acres Surveyed:	0.022

USGS 7.5 Minute Quadrangle Map: Central Park

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Date of Report: September 2009

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A. INTRODUCTION AND METHODOLOGY

PROJECT OVERVIEW

AKRF has been retained by the New York City School Construction Authority (SCA) to provide environmental consulting services associated with the proposed 44th Street and Eleventh Avenue development project in the Clinton neighborhood of Manhattan (see **Figure 1**). The project site is located on Block 1073 on part of Lot 1, which is bounded by West 44th Street to the south, West 45th Street to the north, Eleventh Avenue to the west, and the existing Amtrak easement to the east. The project site is currently divided into three sections (see **Figure 2**): an existing railroad easement, the property of Public School (PS) 51, and a commercial area containing a street-level parking lot and several commercial structures. This Phase 1B archaeological testing report has been prepared to address field testing methods and procedures for the PS 51 property only.

The proposed project would involve the redevelopment of all of Lot 1 with a mixed-use building containing residential and retail facilities and a below-grade parking garage. Within the property of PS 51, the proposed project would involve the relocation and expansion of the school, which is currently located at 516-520 West 45th Street. As part of the proposed project, a new school would be constructed by the New York City School Construction Authority (SCA) on the southern portion of the block, fronting on West 44th Street. A new playground for PS 51 would occupy an area north and west of the new school. The existing school would remain in operation until the new school is completed and would then be converted for residential use.

The proposed actions would require disposition of the project site from New York City to 44th and 11th LLC and the rezoning of the site from M1-5 to R6 and R8 with a commercial overlay along Eleventh Avenue. These discretionary approvals are subject to review under City Environmental Quality Review (CEQR) and the Uniform Land Use Review Procedure (ULURP). The New York City Department of Housing Preservation and Development will be the lead agency under CEQR. The SCA is an Involved Agency and would be responsible for the design and construction of the school on the project site. Under the terms of its enabling legislation, SCA must comply with the State Environmental Quality Review Act (SEQRA; Part 617 of Title 6 of New York Code of Rules and Regulations) and Section 14.09 of the New York State Historic Preservation Act of 1980.

PROJECT BACKGROUND

As part of the Environmental Impact Statement (EIS) completed for the project site, a Phase 1A Archaeological Documentary Study (“the Phase 1A”) of Block 1073, Lot 1 was prepared by AKRF in November 2008. The study, which incorporated data from an earlier archaeological assessment of a portion of the site, identified several areas of archaeological sensitivity in the area of the parking lot and within the property of PS 51 and recommended field testing in those locations (see **Figure 3**). The findings of the Phase 1A were approved by the New York City Landmarks Preservation Commission (LPC) in comments dated December 18, 2008. The New York State Historic Preservation Office (SHPO) also concurred with the conclusions of the Phase 1A in comments dated May 7, 2009.

LPC requested that a testing protocol be prepared before testing occurred to detail the field and analytical methods to be followed during the course of the field effort and to establish research questions which would be addressed through archaeological testing. A testing protocol for the PS 51 property was prepared by AKRF on August 12, 2009. LPC approved of the testing plan in comments dated August 24, 2009.

RESEARCH DESIGN

The objective of the field testing is to (1) ascertain the presence or absence of historic archaeological deposits on the project site dating from circa 1858 through the early 20th century; and (2) to determine the significance of any recovered resources. According to the guidelines for cultural resources as laid out in the *CEQR Technical Manual*, the determination of significance of a project site is directly related to whether the identified resource type “is likely to contribute to current knowledge of the history of the period in question” (2001 Section 321.2.5: 3F-9)

The determination of significance is largely dependent on the research issues associated with a site and the archaeological resources that may be found there. Therefore, several research issues were developed that are specific to the types of potential archaeological resources that could be encountered within the PS 51 project site. The site could produce data about the children who attended the school in the mid to late 19th century as well as the individuals who may have lived and/or worked on the property. Artifacts recovered from trash or surface deposits

can provide insight into consumption patterns which are strongly influenced by socioeconomic status, occupation, household composition, and ethnicity. What a person buys and/or uses on a routine basis is behavior that reflects the multiple components of that individual's life. Information that could be gathered from a schoolyard could be used to make generalizations about what life was like for children living in the neighborhood during the second half of the 19th century including what they ate, how they learned, and what toys they played with. This information could be compared and contrasted with data associated with similar populations elsewhere in the city. Therefore, the Phase 1B archaeological testing of the PS 51 property was designed to recover the types of archaeological resources that would enable archaeologists to answer these types of research questions.

FIELD METHODOLOGY

As stated in the *CEQR Technical Manual*, although a documentary study determines archaeological potential, “the resources the site actually contains cannot be known until the site is physically tested” (2001 Section 513.1: 3F-16). Therefore, the Phase 1B fieldwork completed on the PS 51 property was designed to determine the presence or absence of archaeological resources in potentially sensitive areas identified in the Phase 1A. Subsurface testing within the PS 51 project site was conducted within three of the school's four former side and rear yards (see Figure 3). Due to the presence of a jungle gym and play area with a rubber mat floor that was bolted to the asphalt, no testing was completed in the location of the school's eastern side yard and instead an additional trench was excavated in the rear yard of the former convent/dwelling to the east of the school.

The subsurface testing consisted of mechanically excavated backhoe trenches. The backhoe was used to remove asphalt and disturbed soils. Archaeologists monitored trench excavation for archaeological features or intact ground surfaces and examined the excavated materials for artifacts. As only disturbed soils were identified during mechanical testing, additional hand excavation was deemed unnecessary.

The field testing was completed in compliance with the guidelines established by the New York Archaeological Council (NYAC, 2000), LPC (2002), and SHPO (2005). Artifacts were recorded in field notes and placed in labeled plastic bags. All fieldwork was documented through notes, photographs, and drawings. All artifacts recovered during field testing were processed in AKRF's archaeology laboratory. The small number of collected artifacts were washed with a mild, non-ionic detergent using soft-bristle brushes and were then air-dried on racks.

B. ENVIRONMENTAL AND HISTORICAL CONTEXTS

TOPOGRAPHICAL SETTING

The island of Manhattan is found within a geographic bedrock region known as the Manhattan Prong of the New England (Upland) Physiographic Province. The vicinity of the project area is composed mostly of metamorphic rock known as Manhattan Schist (Reeds 1925). Bedrock is relatively shallow in the vicinity of the project site. Historic tax assessments refer to several historic properties within the project site along Eleventh Avenue as “rock” and shallow bedrock is visible in the railroad right-of-way at the eastern end of the project site (AKRF 2008). The 1865 Viele map (Figure 3) depicts large hills with possible bedrock outcrops near the western end of the project site (the areas identified as “rock” in tax assessments). Finally, shallow bedrock is visible along the walls of the adjacent railroad right-of-way. The project site is characterized by urban soils with more than 80 percent of the surface covered by impervious pavement and buildings (New York City Soil Survey Staff 2005). The soils are made up of glacial till with 0 to 5 percent slopes (ibid).

PROJECT SITE HISTORY

The complete background history of the project site was outlined in the 2008 Phase 1A Documentary Study and is summarized below.

PRECONTACT CONTEXT

The precontact sensitivity of project sites in the New York City is generally evaluated by their proximity to high ground (but not exceeding 30 percent slopes), fresh water courses, well-drained soils, and previously identified precontact archaeological sites. The project site was to the north of the Great Kill, a large marshy confluence where several small streams converged and emptied into the Hudson River. The Great Kill and the marshland that bordered it would have provided a wide variety of resources for Native Americans to exploit. Although no previously

identified Native American sites have been identified in the vicinity of the project site, its proximity to running water courses, sources of fresh water, and elevated hills, would have made it ideal for short-term hunting and processing locations and camp grounds.

However, precontact archaeological sites are generally shallowly buried, usually within 5 feet of the original ground surface. Therefore, the preparation of the lot for the construction of the original school building and the construction of the building's foundation walls, utility lines, subsurface tunnels, etc. as well as the demolition of the school and its conversion into a parking lot/playground likely generated disturbance of any precontact archaeological resources that may have been located there at one time. Therefore, the PS 51 project site was determined to have low sensitivity for precontact archaeological resources.

HISTORIC CONTEXT

The PS 51 property currently includes an existing school on the northern side of the property and a paved playground to the south. As described in the Phase 1A study, the property was historically divided into numerous lots. An earlier school was constructed circa 1858 on the southern portion of the current school property, approximately one year after the installation of sewer lines in West 44th Street. The original school building was H-shaped although it was continuously expanded throughout the 19th century. In the late 1870s the school purchased and expanded onto an additional lot to the east that had been occupied by a structure formerly used as a convent and a store selling various items such as curled hair and sisal. Documentary evidence shows that the school's janitors lived on the school property in apartments located within the original school building.

By the early 1890s, the increasing neighborhood population forced the school to purchase lots to the north so that the school could be expanded further. The northern half of the school property was purchased at this time and the existing PS 51 was constructed soon after. These lots were formerly occupied by the coal sheds of an adjacent iron foundry. There does not appear to have ever been any residential occupation of these lots. The two buildings were connected via a bridge and a subsurface tunnel.¹

The original structure remained on the school property until the mid-20th century, when it was demolished and converted into a playground and parking lot. Although the original school building was expanded several times, the school's side yards were never developed. The areas to the rear (north) of the original school building's northern wings were also never developed with structures with basements. Building plans of similar schools built in New York City in the 1850s identify those areas as the locations of the school's water closets.

With respect to historic period archaeological resources, based on the lack of residential occupation and the construction of the school after the installation of water and sewer networks in the area, the Phase 1A determined that it was not likely that domestic shaft features such as privies, cisterns, and wells would be located within the PS 51 property. However, it was determined possible that surficial deposits associated with the children who attended the school could be located in the open yard areas on east and west of the original school. Therefore, the side and rear yards of the original PS 51 were determined to have moderate sensitivity for historic period archaeological resources.

C. RESULTS OF FIELD TESTING

Fieldwork was conducted in early September 2009 by a crew of two archaeologists, a backhoe operator, and several individuals in charge of cutting asphalt and site maintenance. Fieldwork consisted of the excavation of four backhoe trenches (Trenches 1 through 4) and resulted in the recovery of a small number of historic and modern artifacts collected from the excavated soils.

¹ The subsurface tunnel connecting the two buildings was located near the northwest corner of the original school structure. The existence of the tunnel was discovered after the completion of the Phase 1A and was partially located in the area originally identified as sensitive for archaeological resources in the Phase 1A. Therefore, the area of sensitivity as identified on Figure 3 in this report has eliminated the location of the tunnel as a sensitive area.

TRENCH 1

Trench 1 was oriented from west to east and was excavated in the location of the original school's western side yard. The southwest corner of this trench was 42.5 feet north of the fence lining the southern end of the property and 2.5 feet east of the cement wall lining the western side of the property. The trench measured 15 feet in length and 6 feet in width. A small concrete foundation was located along the northern side of this trench which supported a fence separating three parking spaces from the remainder of the playground area. The profile of the western wall of the trench was mapped and is included as **Figure 4**.

Immediately below the asphalt (which was 2 inches in thickness) was a layer of asphalt bedding composed mostly of crushed gravel. Below the asphalt bedding were two layers of sandy fill; the upper layer extending between approximately 8 and 16 to 20 inches below grade and the lower layer extending to depths of 25 to 34 inches below grade. These loose fill levels were yellow brown and dark yellow brown and contained a large amount of rock, brick debris, and artifacts (see **Figure 5**). The artifacts found in the fill levels represented a mix of 19th and 20th century items, including whiteware chamber pot fragments, bottle glass, ceramic floor tiles, construction debris, candy bar wrappers, oyster and quahog shells, animal bone, a clay pipe bowl, clay pipe stems, and a plastic ketchup packet. The artifacts also included a rim fragment of a stoneware vessel with a brown interior slip that was stamped:

...LIAM BOGGS & CO
...SHINGTON ST NY

Historic directories show that William Boggs was a tobacconist who maintained a store at 247 and/or 249 Washington Street between at least 1851 and 1867.

Two stamped bricks were also identified in the upper fill layers of Trench 1. The first was stamped "SSBCO," referring to the Sutton & Suderly Brick Company based in Coeyman's Landing, near Albany, New York (Ries 1900). The other brick was fragmented and stamped "...RKWAY."

Below the upper fill levels was a layer of coarse, sandy fill which was discontinuous in the trench's south wall. This level contained fewer artifacts and was visibly disturbed by large pipes, including a 6-inch pipe that ran southwest-northeast through the western portion of the trench and was located approximately 3 feet 7 inches below ground surface within the south wall. The artifacts in this level included several whiteware fragments—some were undecorated while others had blue transfer prints and one a hand-painted blue fleur-de-lis pattern—several pieces of broken animal bone, a clay pipe stem, and construction rubble.

Below the coarse fill layer was a level of sandy fill that was situated directly atop the schist bedrock, the top of which was exposed at approximately 4 feet 5 inches below grade. Few artifacts were present in this level and those recovered included porcelain dish fragments and a stoneware vessel fragment.

No artifacts clearly associated with the school or its students were recovered.

TRENCH 2

North-south oriented Trench 2 was excavated in the northwestern rear yard of the original school building. It was thought that the school's water closets may have been located in this area. A large shipping container occupied much of the area identified as potentially sensitive in the Phase 1A. Trench 2 was opened immediately east of the container, and its west side was 20.5 feet east of the cement and brick wall lining the western side of the property and immediately south of the wall lining the northern side. The trench measured 15 feet in length and 6 feet in width (see **Figure 3**). A plan drawing of this trench and a profile drawing of its eastern wall are included as **Figures 6A** and **6B**.

Historic maps depict a 1-story (without basement) structure in this area that was built many years after the original school was constructed. A tunnel was also constructed after the original school was built to connect the existing PS 51 with the original building to the south. This tunnel was presumed to have been located to the east of the area of sensitivity.

A concrete foundation wall was identified along the eastern wall of the trench approximately 1 foot below grade. This wall was separated from the asphalt by an approximately 8-inch layer of sandy fill. This fill level contained brick rubble and rocks as well as some artifacts (see **Figure 7**). The artifacts were a mix of 19th and 20th century

items, including green glass machine-made bottle necks and body fragments, a green glass fragment with the remnants of an enameled label, a stoneware fragment, a piece of whiteware with a blue transfer print, and a circa 1982 mini beer bottle embossed with the Anheuser-Busch logo.

Similar artifacts were recovered from a second fill level from the western side of the trench, west of the foundation wall. This sandy silt fill layer was also filled with brick rubble and contained at least three pipes, one which appeared to have been a drain connection and one that was identified by on-site contractors as an electrical line. The fill in this area included floor tiles still cemented together and large porcelain fragments, suggesting that this area was redeveloped as a bathroom in later years, likely disturbing the entire area and removing any trace of the water closets which may have been located there at one time. A slate fragment was recovered from the eastern wall of the trench from a depth of approximately 5.5 feet below ground surface, although it is not clear if it was associated with the original school or if it was used as construction material or if it was simply naturally occurring.

Below the fill/rubble level were several closely packed layers of natural clays and sands. These layers were situated directly on top of the bedrock, which was identified at a depth of approximately 5 feet below ground surface. The bedrock in this area was not the same schist seen in Trench 1. No artifacts clearly associated with the school or its students were recovered.

TRENCH 3

Trench 3 was excavated in the former rear yard of the structure located at 515 West 44th Street, a former convent, dwelling, and store which was later connected as a wing of the original school. A 4-story addition to the main dwelling was located in the area surrounding Trench 3, which measured approximately 6 feet by 8 feet. A profile drawing of the northern wall of Trench 3 is included as **Figure 8**.

The original foundation walls of the structure that was situated on this lot were visible in Trench 3. These foundation walls were made of brick laid on top of large boulders. The surviving portion of the brick wall consisted of three courses of brick with thick concrete mortar that appeared to be constructed directly on top of the large boulders. Natural sand deposits were identified below the boulders.

Few artifacts were located within this trench (see **Figure 9**). From the fill levels above the brick foundation wall, several pieces of whiteware were recovered—most were undecorated but one had a blue transfer print—as well as a broken animal bone and a piece of clear glass. The fill level present below the brick wall included a broken quahog shell, a rusted nail, undecorated whiteware, a piece of whiteware with a hand painted floral pattern, and a piece of dipped whiteware with a blue and brown motif. In addition, a piece of an ironstone saucer with a blue transfer print was also recovered from Trench 3. The ironstone fragment included a portion of a maker's mark on the back; a phoenix with the word "SIAM" written underneath. The pattern and mark are consistent with English potter Joseph Clementson's Siam pattern. Clementson's pottery was open between 1839 and 1864 (Birks n.d.).

No artifacts clearly associated with the school or its students were recovered.

TRENCH 4

North-south oriented Trench 4 was located within with northeastern rear yard of the original school and measured 15 feet by 6 feet. A profile drawing of the western wall of Trench 4 is included as **Figure 10**.

In this area, the asphalt measured 4 inches in thickness. Below that was a layer of very dark grayish brown fill. This layer was succeeded by several layers of mottled fill containing brick and rock inclusions and layers of natural sands and clay directly over bedrock. The bedrock was decomposing and very shallow in the eastern portion of this trench, located at approximately 21 inches below ground surface. The remnants of a brick wall with concrete mortar and a concrete pad were located in the northeast corner of the trench. It was not clear if this wall was in situ or if it had been knocked into its current location during the demolition of the school.

A small number of artifacts were recovered from this trench. In the top 1 to 2 feet of fill, artifacts included broken undecorated whiteware fragments, a fragment of redware, an animal bone, an oyster shell fragment, and two embossed pieces of clear glass (one with a star pattern and one with unidentifiable letters). The artifacts from the top fill levels also included a ceramic smoking pipe bowl in the form of a hand holding a beer stein. Portions of the pipe still retain the original silver paint that once covered it. The fill from approximately 3 to 4 feet below grade contained the same types of artifacts: whiteware fragments and the clear glass with the star pattern, as well as

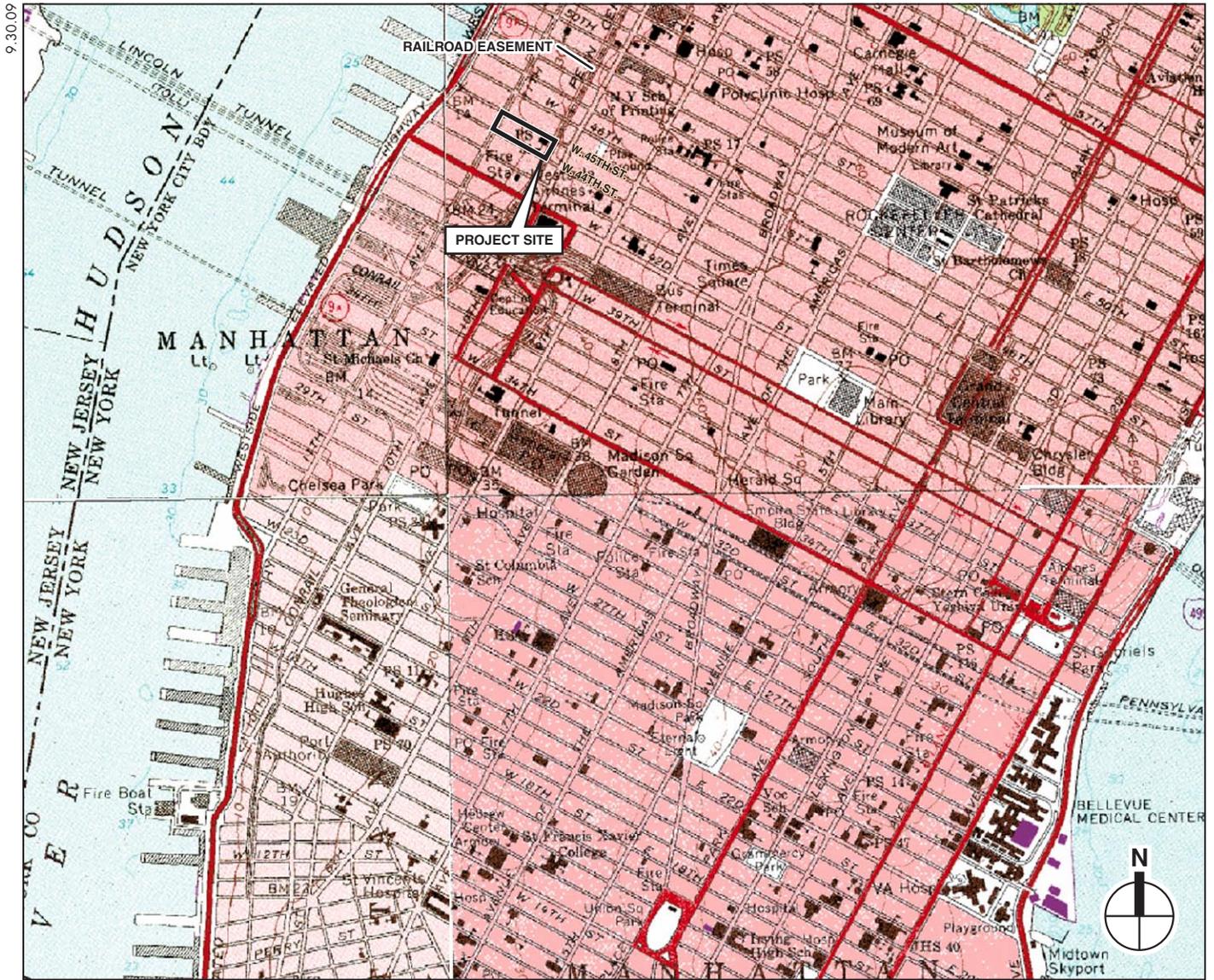
ceramic floor tiles (see **Figure 11**). No artifacts clearly associated with the school or the activities of its students were recovered.

D. CONCLUSIONS

None of the four excavated trenches presented any evidence associated with the original PS 51 building that formerly stood on the southern half of the property. It appears that the school's rear and side yards were heavily disturbed during the construction of the school and installation of pipes and utility lines and again during the mid-20th century demolition of the school and the construction of the existing playground. Historic fill may have been introduced or redeposited throughout the site during construction/demolition. All of the artifacts recovered during Phase 1B testing appear to have come from these fill levels. It does not appear that any intact archaeological resources are present on the PS 51 property. Therefore, no further archaeological work is recommended for the site.

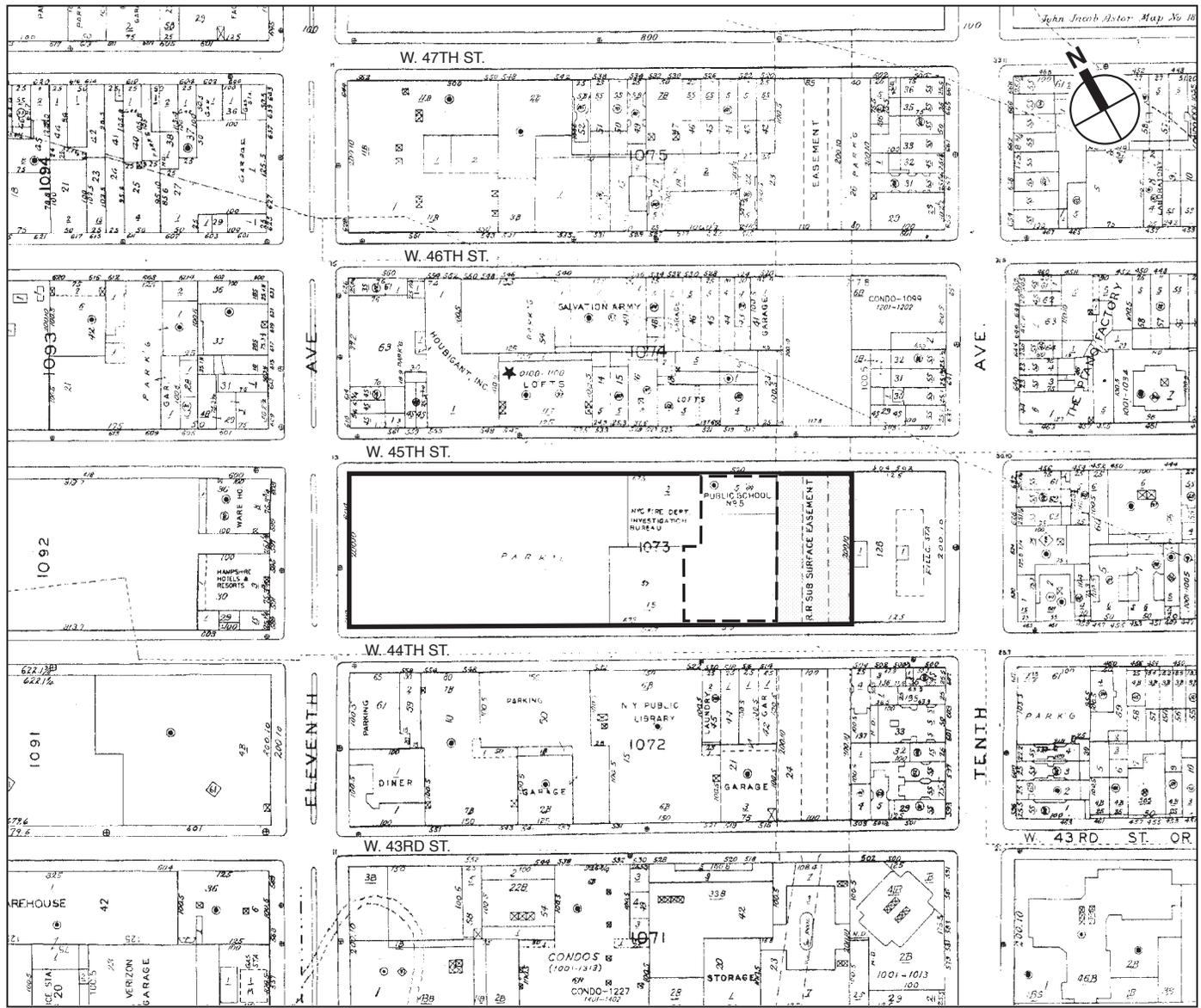
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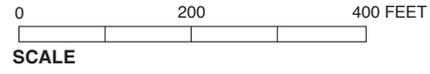


**Project Site Location
USGS Maps, Central Park, Jersey City,
Brooklyn and Weehawken Quadrangles**

Figure 1



- P.S. 51 Property
- 44th Street and Eleventh Avenue Project Site
- Railroad Easement



Project Site Boundaries
Figure 2

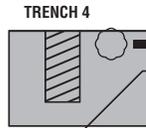


W. 45TH ST.

EXISTING SCHOOL
(P.S. 51)

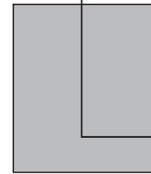
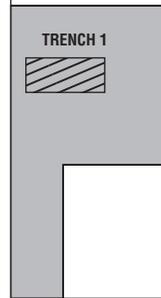


TRENCH 2



TRENCH 3

PLAY AREA
WITH MAT FLOOR



BASKETBALL HOOP

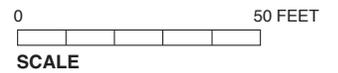
W. 44TH ST.

 Areas identified as sensitive in the Phase 1A

 Trench

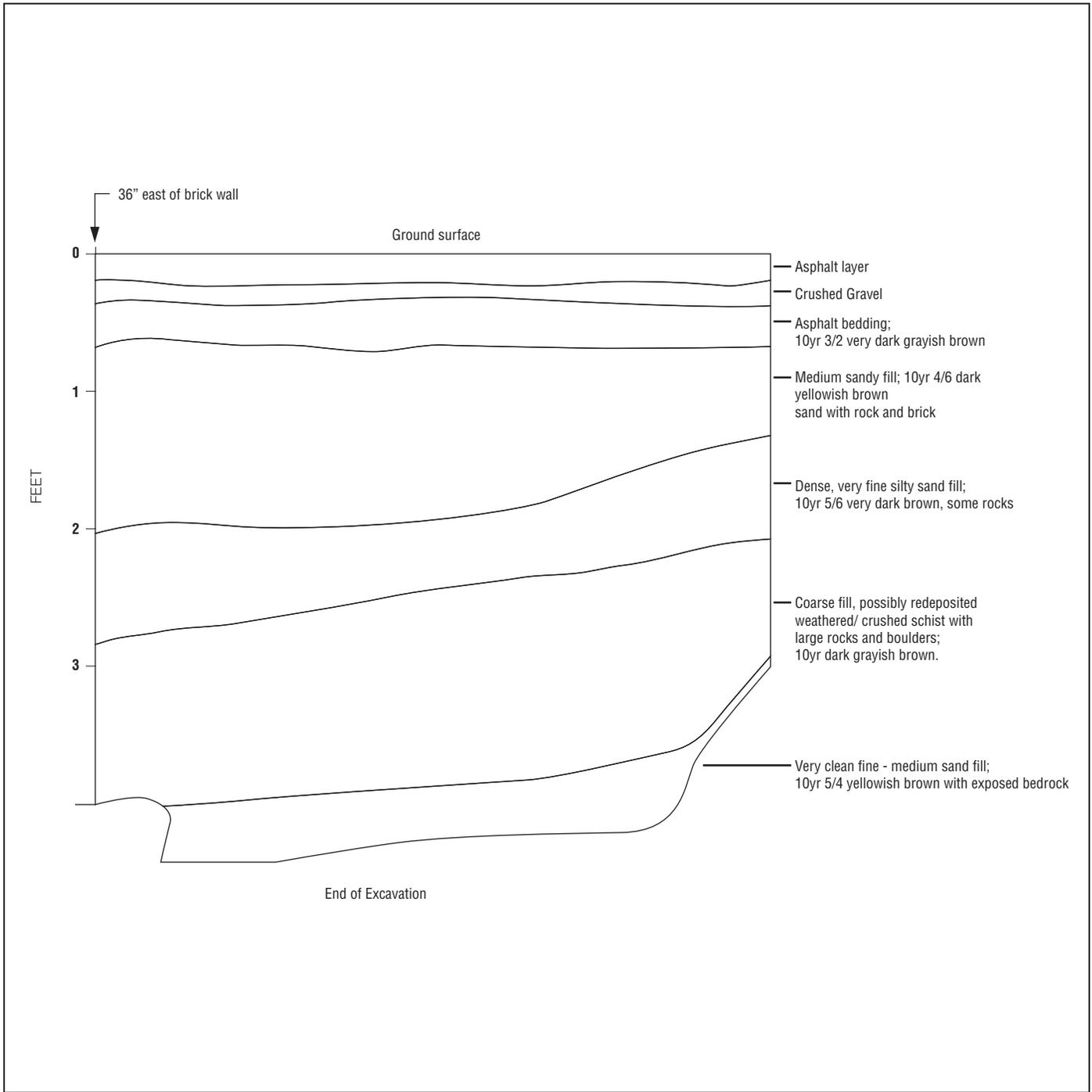
 Tree

 Bench

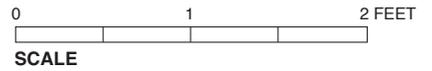


Plan Drawing of P.S. 51 Property Showing Testing Locations

Figure 3



NOTE: Drawing begins at northwestern corner of trench, 36" east of brick wall

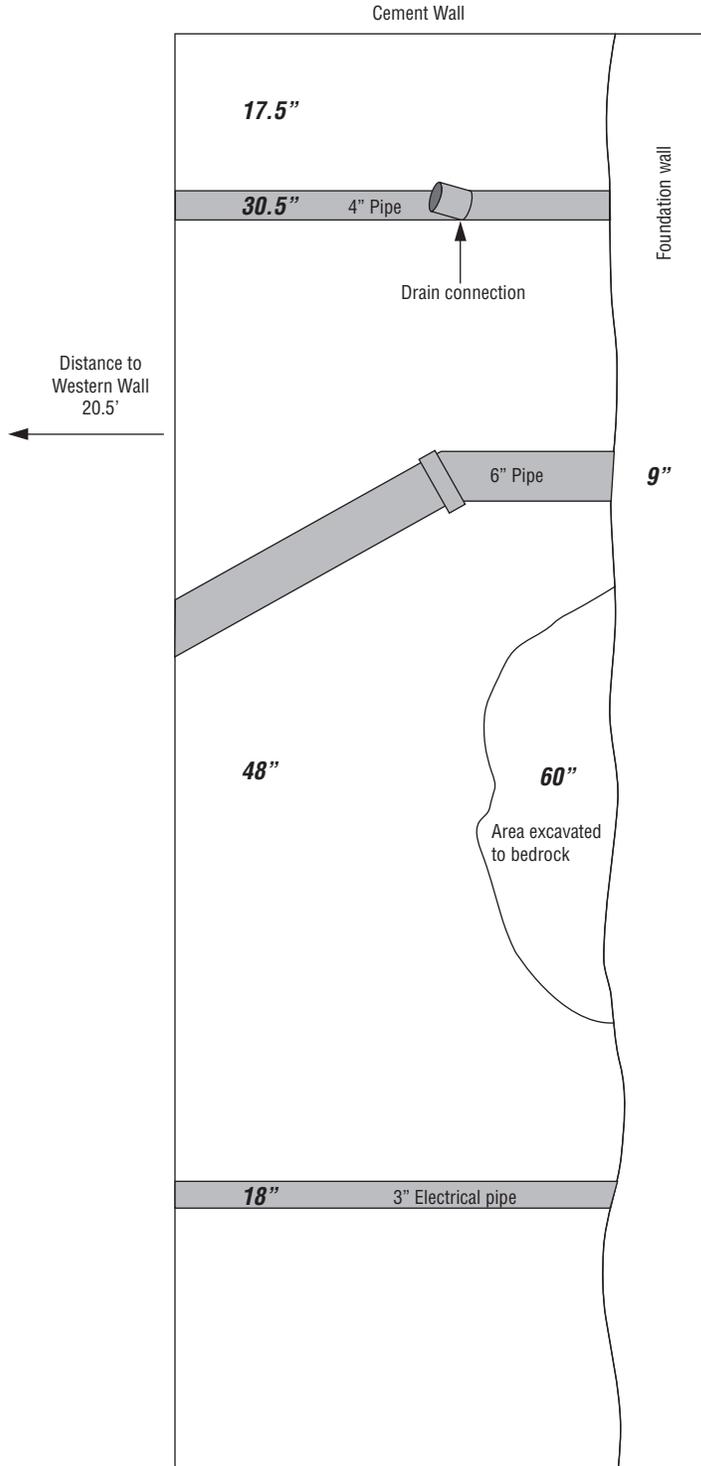




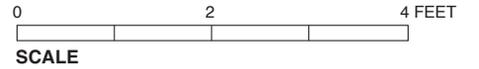
Trench 1, West Wall Profile. Trowel is resting on exposed schist bedrock 1

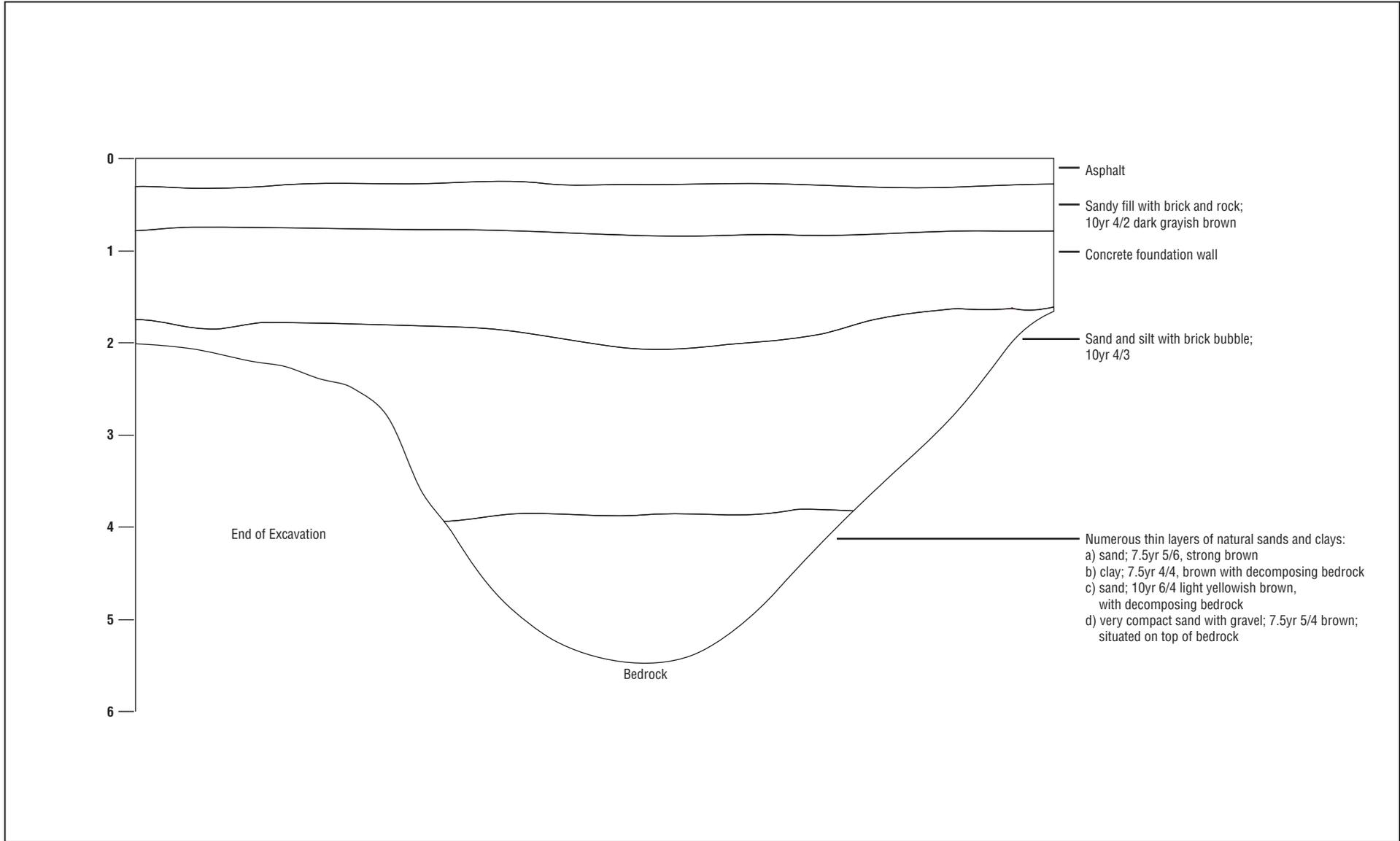


Representative artifact sample from Trench 1 2

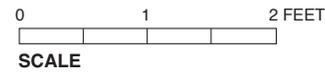


17.5" Depth below ground surface





NOTE: Drawing begins 2'4" south of trench's north wall





Location of Trench 2, looking north 1



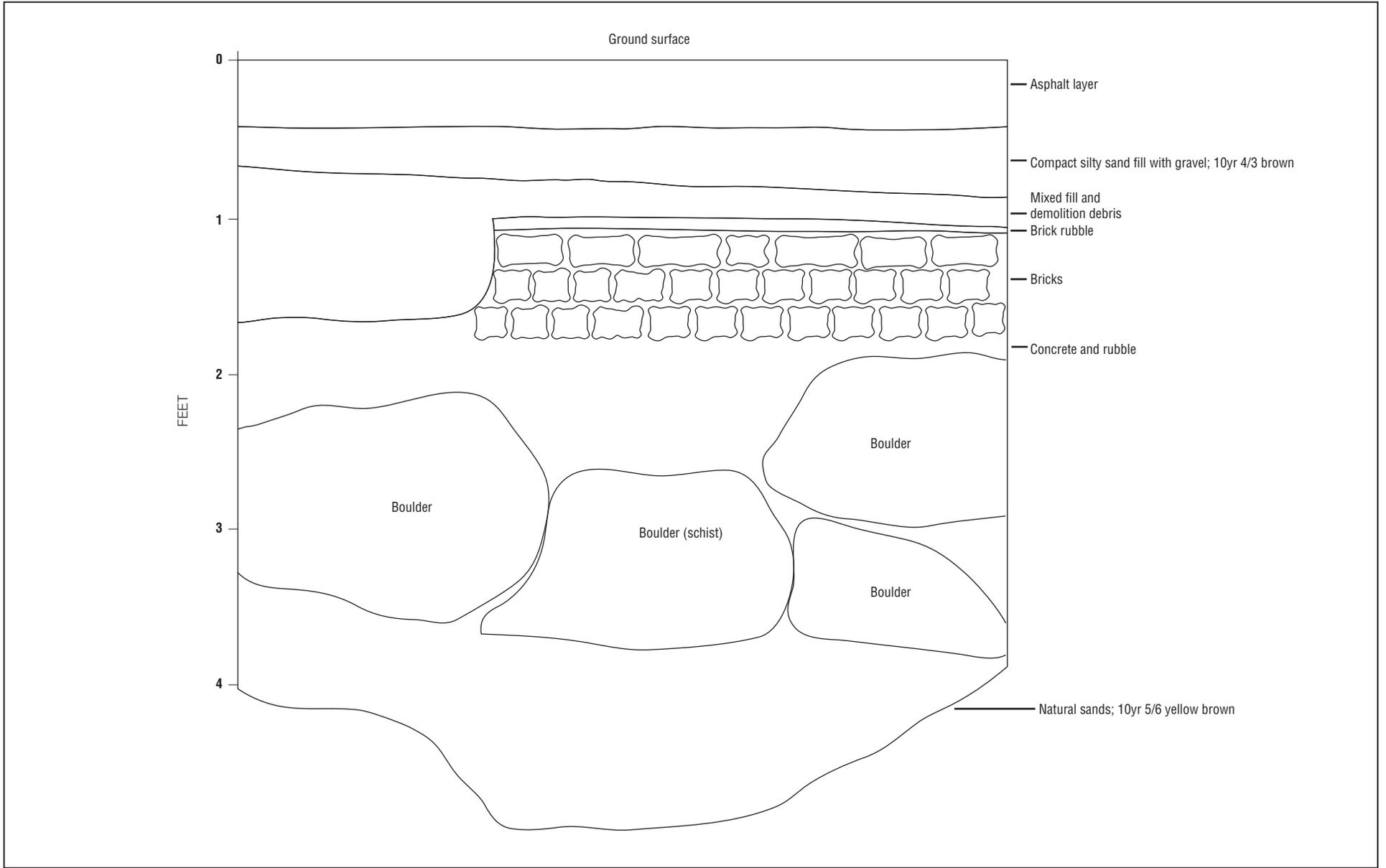
Trench 2, Eastern Wall 2



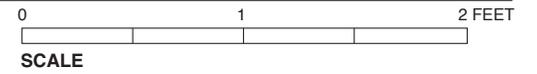
Representative artifacts from Sand Fill level, Trench 2 3



Slate Fragment recovered from Trench 2, approximately 5.5 feet below ground surface 4



NOTE: Drawing begins 1 foot east of Trench's western wall

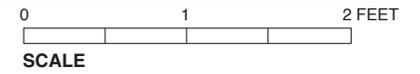
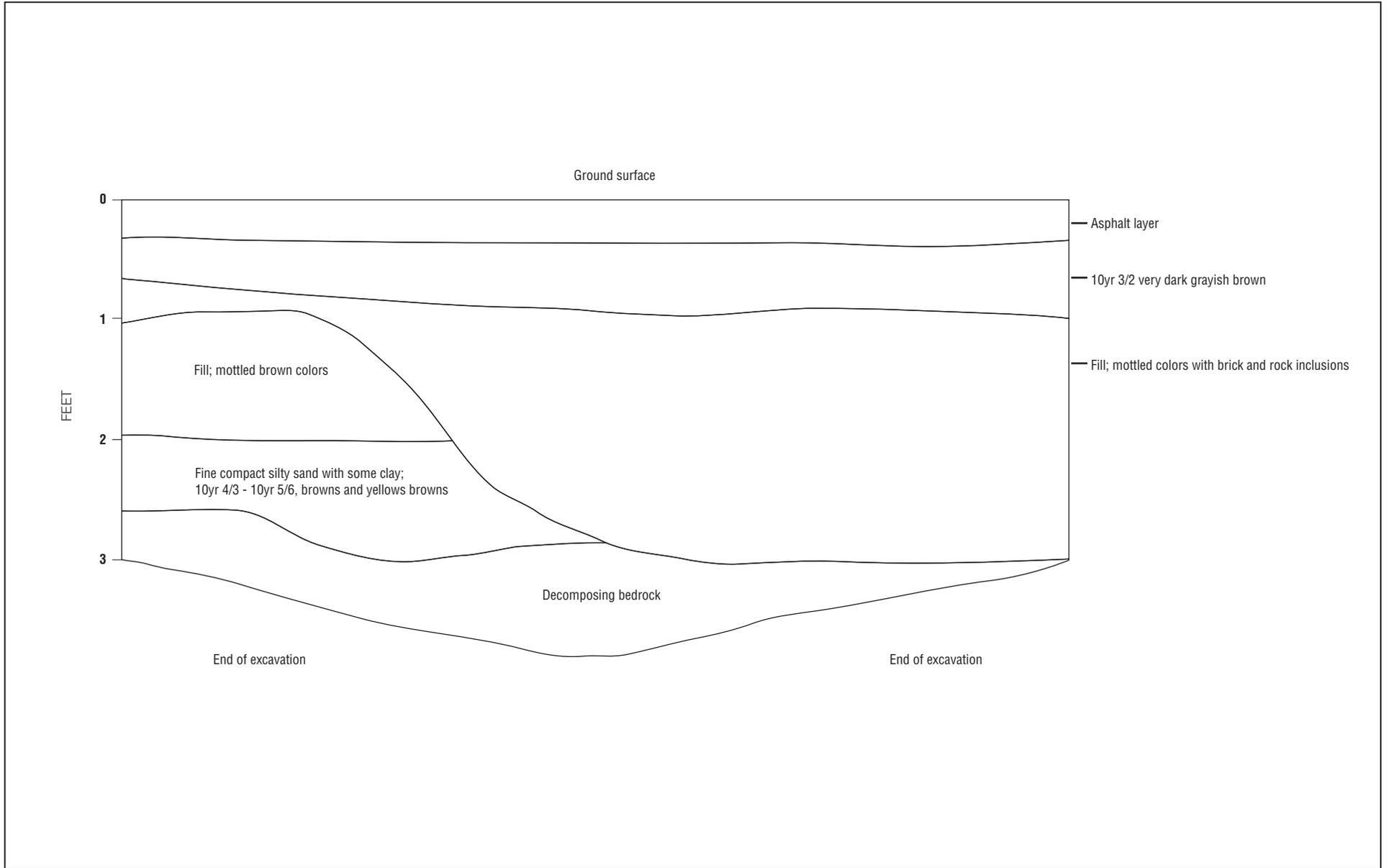




Trench 3, north wall profile. Note brick wall and boulder foundation 1



Representative Sample of artifacts recovered from Trench 3. Ceramic fragment at bottom right is from a saucer with J. Clementson's "Siam" pattern transfer print 2





Trench 4 location, looking northeast; note brick wall remnant in northeast corner of trench 1



Trench 4, west wall profile 2



Representative artifact sample from Trench 4; note ceramic pipe bowl in lower left corner 3