HISTORICAL PERSPECTIVES INC.

ARCHAEOLOGICAL MONITORING

NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION/15DOT010R CAPITAL PROJECT HWR1132B: SOUTH BEACH RECONSTRUCTION AND DRAINAGE IMPROVEMENTS STATEN ISLAND, NEW YORK

ARCHAEOLOGICAL MONITORING

New York City Department of Design and Construction/15DOT010R
Capital Project HWR1132B:
South Beach Reconstruction and Drainage Improvements
Staten Island, New York

Prepared For:

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INTRODUCTION

Planned improvements to storm and sewer services in numerous roadbeds in the South Beach area of Staten Island by the New York City Department of Design and Construction (DDC) required environmental review by the New York City Landmarks Preservation Commission (LPC) (Figure 1). A Phase IA Archaeological Study was conducted by AKRF, Inc. on each of these roadbeds in 2014 and submitted to LPC. LPC concurred with the IA assessment of moderate sensitivity for three resource types in specific road corridors and, additionally, concurred with the recommendation for archaeological monitoring during the planned improvements.

A Monitoring Protocol by Historical Perspectives, Inc. (HPI) was created in compliance with the 2014 recommendation for the South Beach Reconstruction and Drainage Improvements (Capital Project HWR1132B), and was submitted to, and accepted by, LPC (7/14/17). DDC contracted with Arcadis to conduct the planned improvements and installations, including oversight of the archaeological compliance. Once the protocol was accepted, the HPI team met with the Arcadis/DDC team to review the proposed plans and discuss post-2014 design decisions, which eliminated some of the planned disturbances in portions of the roadbeds. HPI prepared *Archaeological APE Revision and Phase 1A Documentary Study Addendum Lamport Boulevard between McClearn Avenue and Kramer Street*, which was submitted and accepted by LPC in September 2017.

The APE for the South Beach Monitoring project was limited to subsurface disturbances within narrow, linear trench excavations. Monitoring was conducted only during construction excavations within the sensitivity zone. The monitoring archaeologist closely observed the construction-related excavation in the monitoring zone while work was in progress, scrutinizing for signs of archaeological features/resources. Monitoring took place during 2018 and 2019.

PROJECT SITE SENSITIVITY

The Phase IA study conducted by AKRF (2014) found that the portions of the project site that were historically inundated by marshland were not expected to contain intact archaeological deposits that would be impacted by the proposed project. In fact, most of the project site was found to have experienced substantial disturbance as a result of construction, grading, street paving, and the installation of utilities. The portions of streetbeds that have been disturbed for utility installation were determined to have no sensitivity for archaeological resources.

However, the portions of the streetbeds and adjacent undeveloped properties that have not been disturbed for the installation of utilities are determined to have moderate sensitivity for archaeological resources associated with the Precontact occupation of the South Beach area. The documentary examination further found that portions of the APE were moderately sensitive for two classes of historic archaeological resources: (1) the remains of a circa seventeenth century historic roadway and (2) portions of four homesteads that were documented partially within the streetbeds of the APE. Archaeological monitoring was recommended for these potential resources in specific locations within the streetbeds (Figure 2).

FIELD METHODOLOGY

The 19 road corridors within the DDC's South Beach Area of Potential Effect (APE) that were identified as moderately archaeologically sensitive are illustrated on Figure 2. The subsurface investigation for archaeological resources is limited to the portion of the project area that has been identified as sensitive. As a result, fourteen areas were identified for archaeological examination. Prior to the initiation of the project, a slight alteration of the protocol called for the archaeological trench excavation for seven (7) locations and archaeological monitoring for the remaining seven (7) restricted project installation sites. HPI recommended, and LPC concurred, that the excavation trenches would be completed in areas where Arcadis' post-2014 collection of utility maps indicated there had been limited or no prior disturbance (2017/2018). The alteration of the protocol to focus on trench excavations were conducted in accordance with the applicable archaeological guidelines.

Excavation Trench Methodology

The objective of the archaeological test trench excavation was to (1) ascertain the presence/absence, type, extent and potential significance of historical archaeological deposits and possible buried backyard features dating to the nineteenth century occupation of the project site; and (2) determine the potential significance of recovered resources.

The determination of potential significance of a project site is directly related to whether the identified resource type can contribute to current knowledge of the history of the time period. The proposed size of each of the seven test trenches would be approximately 10 feet x 18-20 feet, with each trench excavated to subsoil.

Archaeological Trench Monitoring

Archaeological monitoring is the supervision by archaeologists of a construction project's excavation in order to identify, recover, protect and/or document archaeological information or materials. Monitoring is used in cases where there is a possibility that the excavation might uncover archaeological resources but there is no satisfactory way to sample the APE, and consequently, no valid way to determine the exact location or extent of the potential resource(s).

Archaeological monitoring typically adheres to the following tasks:

- Non-intrusive observations completed by the monitoring archaeologist during the excavation of the proposed utility trenches. The trenches would be entered for short term inspection of exposed soils, features, or collection of artifacts without undue interruption of the contractor's work by taking advantage of work halts or breaks.

- If required, a short-term cessation of excavation would be requested in order for the archaeologist to inspect backdirt piles, examine trench profiles, or record any observations in greater detail.

RESULTS OF ARCHAEOLOGICAL FIELD INVESTIGATIONS

In order to maintain site integrity during the trench monitoring, which was conducted intermittently over two years (2017-2018), each separately excavated archaeological trench and each monitoring trench were given a unique trench number (Excavation Trenches 1-7; Monitoring Trenches 1-7) and a field monitoring map that depicts the location of each trench was created (Figure 3).

Excavation Trenches 1-7

Excavation Trench 1

Excavation Trench 1 was a roughly north-south trench, 22 ft (6.7m) by 12 ft (3.6m), that was located on Bionia Avenue north of the intersection with Foch Avenue (Figures 3 and 4). Excavation exposed an abandoned gas main and its surrounding installation trench below the asphalt on the east side of Excavation Trench 1. The utility trench contained several pieces of asphalt and a handful of glass bottle fragments. Testing found that to install the gas line in the streetbed, the utility trench had been excavated well into the subsoil. On the western side, a more typical strata were observed below the asphalt (Photograph 1). Four strata were noted below the asphalt and is this stratigraphic sequence is presented in Table 1 below.

Table 1. Stratigraphy of Excavation Trench 1

Level	Depths	Description
1	0-.75 ft	Asphalt
2	.75-2.3 ft	Very dark gray (5YR 4/3) clay loam
3	1.9-2.3 ft	Reddish brown (7.5YR 4/4) clay loam
4	2.3-3.7 ft	Dark yellowish brown (10YR 4/4) clay loam subsoil
5	3.7-5 ft	Yellowish brown (10YR 5/6) sandy clay loam subsoil

The soils down to 2.3 ft (70cm) were mechanically removed, and what appeared to be the top of the B horizon was shovel shaved in an attempt to expose any potential features. A circular soil stain, about 1.8 ft (0.5m) in diameter

and 0.16 ft (0.04m) thick, was noted within the trench at a depth of 2.3 ft (70 cm). The archaeologists excavated a ST1 in that location and found a limited number of modern artifacts including nails, a fragment of a metal funnel, an iron rod fragment, clam shell fragments, a brick fragment, and a ceramic fuse (Photograph 2). It is likely that this was a modern intrusion, likely from the same time period as the nearby utility trench on the east side of the trench.

No evidence of a historic road or precontact artifacts were identified during the excavation of this trench, which was halted at a depth of 5 ft below the surface.

Excavation Trench 2

Excavation Trench 2 was located in Mallory Avenue, just south of Foch Avenue (Figures 3 and 4; Photograph 3). The trench measured 19 ft (5.75m) north-south by 9 ft (2.7m).

The eastern third of the trench, an area 2.8 ft (85cm) wide, was comprised of disturbed mixed fill. Several fragments of macadam and a few unidentified metal fragments were observed in the fill. Similar to Excavation Test Trench 1, this disturbance was likely the result of buried utilities in the streetbed, although no pipe was exposed. The trench was excavated to a depth of 5 ft (1.5m).

The western side of the trench appeared to be primarily undisturbed beneath the asphalt and upper surface stratum. ST2 was investigated beneath the upper strata and confirmed that Levels 3 and 4 on the west side of the trench were natural strata (Photograph 4). No cultural material or features were noted in Excavation Trench 2. Table 2 presents the profile of the western wall of the trench.

Table 2. Stratigraphy of West Wall of Excavation Trench 2

Level	Depths	Description
1	0-.6 ft	Asphalt
2	.6-2.8 ft	Brown (10YR 4/3) loamy sand
3	2.8-3.7 ft	Dark yellowish brown (10YR 4/4) clay loam subsoil
4	3.7-5.0 ft	Yellowish brown (10YR 5/6) sandy clay loam subsoil

Excavation Trench 3

Excavation Trench 3 was excavated in Kensington Avenue just south of Foch Avenue (Figures 3 and 5, Photograph 5). This trench was 18 ft (5.5m) north-south by 7 ft (2.1m) in size. A decommissioned gas pipe was exposed on the east side of the trench at a depth of 3.5 ft (1.1m) below surface. The majority of Excavation Trench 3 appears to have been disturbed by the installation of the gas pipe. Several pieces of asphalt were observed in the disturbed fill.

Following the removal of the upper strata, ST3 was investigated in the southwest part of the trench, in order to examine the strata (Photograph 6). The shovel test confirmed that the strata were disturbed by the utility installation trench. The trench was excavated to a depth of 5 ft (1.5m) and no cultural material or features were noted.

Table 3. Stratigraphy of West Wall of Excavation Trench 3

Level	Depths	Description
1	0-.7 ft	Asphalt
2	.7-1.9 ft	Very dark grayish brown (10YR3/2) loamy sand fill
3	1.9-4.4 ft	Dark yellowish brown (10YR 4/6) clay loam fill
4	4.4-5.0 ft	Yellowish brown (10YR 5/6) gravelly sandy loam fill

Excavation Trench 4

Excavation Trench 4 was located in the south end of the project APE, on Olympia Boulevard between Mallory Avenue and Lamport Boulevard (Figures 3 and 5; Photograph 7). The trench measured 20 ft (6.1m) east-west by 7.5 ft (2.3m). Beneath the asphalt road surface, five strata were noted (Table 4; Photograph 8). ST4 was placed in the southeast end of the trench, near the base of Level 3, at a depth of 1.4 ft (0.4m). ST4 was investigated in order to confirm the presence of undisturbed strata. At the top of the shovel test, a few small fragments of brick were noted in what appeared to be the A-horizon. No cultural material was found in the remainder of ST4, which terminated at a depth of 3.4 ft (103cm).

Table 4. Stratigraphy of Excavation Trench 4

Level	Depths	Description
1	0-.5 ft	Asphalt
2	.5-1 ft	Brown (10YR 4/3) silty loam mixed with very dark grayish brown (10YR 3/2) sandy loam
3	1-1.5 ft	Very dark grayish brown (10YR 3/2) silty loam
4	1.5 -2.3 ft	Brown (10YR 4/3) loamy sand
5	2.3-3.9 ft	Dark yellowish brown (10YR 4/6) loamy sand subsoil
6	2.9-4.3 ft	Yellowish brown (10YR 5/4) sandy subsoil

Following the completion of ST4, the remainder of the A horizon was mechanically removed, and the top of the B horizon was shovel shaved in an attempt to expose any potential features. No features were exposed and no artifacts recovered. Excavation in this trench halted at a depth of 4.3 ft (1.3m).

Excavation Trench 5

Excavation Trench 5 was located in the north end of the project APE, on Reid Avenue just east of Oberlin Street (Figures 3 and 6; Photograph 9). The trench measured 19 ft (5.75m) east-west by 7 ft (2.1m). Beneath the asphalt the strata encountered appeared to be disturbed. To confirm, ST5 was placed near the southeast corner of the trench. The hand excavation of ST5 commenced at a depth of 2 ft (60cm) and confirmed that the soils in this location were disturbed (Photograph 10). The only cultural materials noted were fragments of anthracite coal and ST5 terminated at a depth of 3.7 ft (113cm). The remainder of the trench was mechanically excavated and no features were exposed. Subsoil was reached at a depth of 2.6 ft (79cm).

Beneath the asphalt road surface, a fragmentary concrete roadbed was noted. Beneath the asphalt and concrete, four strata were observed and the overall trench terminated at a depth of 3.9 ft (1.18m) (Table 5).

Table 5. Stratigraphy of Excavation Trench 5

Level	Depths	Description
1	0-.7 ft	Asphalt
2	.7-1.2 ft	Concrete Road Sections
3	1.2-1.8 ft	Brown (10YR 4/3) silty loam fill
4	1.8 -2.6 ft	Very dark grayish brown (10YR 3/2) clay loam mixed with brown (10YR 4/3) silty loam and dark yellowish brown (10YR 4/4) sandy loam fill
5	2.6-2.7 ft	Strong brown (7.5YR 5/6) sandy loam subsoil
6	2.7-3.9 ft	Yellowish red (5YR 4/6) gravelly sand subsoil

Excavation Trench 6

Excavation Trench 6 was near the center of the project area, on Norway Avenue between Nugent Avenue and Appleby Avenue (Figures 3 and 6; Photograph 11). The trench measured 22 ft (3.6m) north-south by 12 ft (3.6m). Beneath the concrete road surface, and older layer of macadam was exposed. The majority of Trench 6 was disturbed by previous utility installation, including a deeply buried sanitary sewer.

Only a narrow strip of soil on the western edge of the trench (0.9 ft/0.3m) was more or less intact. To identify the integrity of the soil strata, ST6 was located in the north end of this strip (Photograph 12). Three modern whiteware fragments, two brick spalls, and a small piece of red glass were recovered from the surface fill layer. Following the completion of ST6, the intact strip was mechanically excavated to the top of the subsoil and shoveled and troweled to expose any potential features. No features were found and excavation halted at a depth of 4.5 ft (1.4m). Three distinct soil layers were identified beneath the concrete and macadam road surfaces (Table 6).

Table 6. Stratigraphy of Excavation Trench 6

Level	Depths	Description
1	0-1 ft	Concrete Road Sections
2	1-1.9 ft	Macadam
3	1.9-2.5 ft	Very dark grayish brown (10YR 3/2) clay loam
4	2.5-3 ft	Dark brown (10YR 3/3) silty loam mixed with dark yellowish brown (10YR 4/4) sandy clay loam fill
5	2.6-2.7 ft	Dark yellowish brown (10YR 4/6) sandy clay loam subsoil

The soils noted in Excavation Trench 6 appear to be somewhat similar to wetlands soils, with more clay and less distinct horizon boundaries. This likely reflects the topography of the project area, with this location once occupying lower elevations on the landscape.

Excavation Trench 7

Excavation Trench 7 was located on the south side of Olympia Boulevard, west of Norway Avenue (Figures 3 and 7; Photograph 13). The trench measured 18 ft (5.5m) east-west by 9 ft (2.7m). ST7 was located near the northeast corner of the trench to confirm the stratigraphic sequence (Photograph 14). A few small fragments of clam shell were noted along with fragments of a ceramic drainpipe. Once the depth of subsoil was noted, excavation within the ST7 ended.

Following the completion of ST7, the trench was mechanically excavated and the exposed surface shovel shaved in an attempt to determine if any features were present. During the mechanical removal of the fill, one complete and several pieces of "Mack" firebricks (twentieth century), unidentified iron, and small traces of clam shell were noted (Photograph 15). No features were found. Beneath the asphalt surface, four soil strata were encountered and are presented in Table 7. Excavation halted at a depth of 4.1 ft (1.2m).

Table 7. Stratigraphy of Excavation Trench 7

Level	Depths	Description
1	0-1 ft	Asphalt
2	1-1.9 ft	Dark brown (10YR 3/3) sandy loam fill
3	1.9-2.6 ft	Dark brown (10YR 3/3) silty clay loam
4	2.6-3.4 ft	Dark yellowish brown (10YR 4/4) silty clay loam subsoil
5	3.4-4.1 ft	Dark yellowish brown (10YR 4/6) sandy clay loam subsoil

Monitoring Trenches 1-7

Monitoring Trench 1 (MT1)

Monitoring Trench 1 (MT1) was located on Reid Street to the south of Quintard Street and was excavated for the sanitary sewer replacement in this location (Figures 3 and 8; Photograph 16). The approximately 200 ft (60.1) by 10 ft (3m) trench was initially excavated to a depth of 4.5 ft (1.4m) where several older utilities were observed. The trench contained mixed, disturbed fill that was impacted by the introduction of these utilities, including the former sanitary sewer line and phone/cable lines. Excavation halted at a depth of 12 ft (3.7m). The stratigraphy noted within MT1 is presented in Table 8. No features were noted within MT1.

Table 8. Stratigraphy of Monitoring Trench 1

Level	Depths	Description
1	0-.7 ft	Asphalt
2	.7-3.5ft	Brown (10YR 4/3) sandy loam fill
3	3.5-6.5 ft	Reddish brown (5YR 4/3) sandy clay loam subsoil
4	6.5-12 ft	Brown (7.5YR 4/4) gravelly sandy clay loam subsoil

Monitoring Trench 2 (MT2)

Monitoring Trench 2 (MT2) was located on McClean Avenue to the west of Kensington Avenue and was excavated for the sanitary sewer replacement in this location (Figures 3 and 8; Photograph 17). The approximately 80 ft (9.1m) by 10 ft (3m) trench was initially excavated to a depth of 4 ft (1.4m) when a shoring box was installed for safety. Similar to MT1, this trench also contained mixed, disturbed fill. Excavation halted at a depth of 7.6 ft (2.3m). The stratigraphy noted within MT2 is presented in Table 9. No features were observed during monitoring.

Table 9. Stratigraphy of Monitoring Trench 2

Level	Depths	Description
1	0-.6 ft	Asphalt
2	.6-3 ft	Brown (10YR 4/3) loamy sand fill
3	3-6 ft	Yellowish brown (10YR 5/6) gravelly sand subsoil
4	6.5-7.6 ft	Yellowish brown (10YR 5/6) gravelly sand subsoil (partially obscured by Shoring Box

Monitoring Trench 3 (MT3)

Monitoring Trench 3 (MT3) was located on McClean Avenue to the west of Bionia Avenue (Figures 3 and 9). The approximately 20 ft (9.1m) by 10 ft (3m) trench was initially excavated to a depth of 4 ft (1.4m) when a shoring box was installed for safety. Similar to MT1, this trench also contained mixed, disturbed fill. Excavation halted at a depth of 10 ft (3.04m). The stratigraphy noted within MT3 is presented in Table 10.

Table 10. Stratigraphy of Monitoring Trench 3

Level	Depths	Description
1	0-.6 ft	Asphalt
2	.6-4 ft	Brown (10YR 4/3) loamy sand mixed with very dark grayish brown (10YR 3/2) gravelly sand and yellowish brown (10YR 4/4) clayey sand fill
3	4-10 ft	Dark yellowish brown (10YR 4/6) gravelly sand subsoil

No features were observed during the monitoring of MT3.

Monitoring Trench 4 (MT4)

Monitoring Trench 4 (MT4) was located at the northeast corner of Jerome and McClean Avenues (Figures 3 and 9; Photograph 18). The approximately 20 ft (6.1m) by 10 ft (3m) trench was initially excavated to a depth of 4 ft (1.4m) when a shoring box was installed for safety. Similar to MT1, this trench also contained mixed, disturbed fill. Excavation halted at a depth of 10 ft (3.04m). The stratigraphy noted within MT4 is presented in Table 11. No features were observed during the monitoring of MT4.

Table 11. Stratigraphy of Monitoring Trench 4

Level	Depths	Description
1	0-.6 ft	Asphalt
2	.6-1.5 ft	Brown (10YR 4/3) loamy sand mixed with yellowish brown (10YR 4/4) clayey sand fill
3	1.5-4 ft	Dark yellowish brown (10YR 4/4) sandy clay loam with some pockets of brown (10YR 4/3) loamy sand fill
4	4-10 ft	Dark yellowish brown (10YR 4/6) gravelly sand subsoil

Monitoring Trench 5 (MT5)

Monitoring Trench 5 (MT5) was located on Lamport Boulevard to the south of McClean Avenue (Figures 3 and 10). The trench measured approximately 50 ft (6.1m) by 10 ft (3m). This trench was placed in the location of the former foundation extension of a dwelling noted on the 1874 Beers Atlas (Figure 11). The trench was excavated in three sections (from south to north) in order to move the shoring box within the trench when they reached the depth of 4 ft (1.4m) in each section.

The southernmost section revealed a stratum of mixed fill and architectural demolition debris (e.g., bricks, concrete, utility pipe fragments) beneath the asphalt. The second section encountered the extreme edge of partially demolished stone foundation in the trench wall, likely the easternmost extension of the former residence noted on Figure 11 (Photograph 19). This small portion of the foundation appears to have been partially destroyed during demolition and there were numerous brick and pipe fragments in the surrounding fill. Several brick fragments with a partial unidentified mark “EBO” were noted. MT5 continued northward to the east of the foundation for the third and final section. This section also contained demolition debris in the fill and a handful of artifacts (e.g., brick fragments, unidentified metal, modern whiteware). The stratigraphy noted within MT5 is presented in Table 12. Although MT5 extended to a depth of 10 ft, only the upper 4.5 ft was visible for profiling due to the presence of the shoring box. No additional features were observed during the monitoring of MT5.

Table 12. Stratigraphy of Monitoring Trench 5

Level	Depths	Description
1	0-.6 ft	Asphalt
2	.6-3 ft	Very dark gayish brown (10YR 3/2) loamy sand fill
3	3-4.5 ft	Yellowish brown (10YR 4/4) silty sand

Monitoring Trench 6 (MT6)

Monitoring Trench 6 (MT6) was located on Reid Avenue to the northwest of Quintard Street (Figures 3 and 12). The approximately 50 ft (15.2m) by 10 ft (3m) trench was initially excavated to a depth of 4 ft (1.4m) when a shoring box was installed for safety (Photograph 20). This trench was also excavated in sections in order to move the shoring box within the trench.

Excavation halted at a depth of 10 ft (3.04m), although only the uppermost 8.2 feet could be documented for the profile. The stratigraphy noted within MT6 is presented in Table 13. Although three defunct utility pipes were noted during the excavation, no features or artifact concentrations were observed during the monitoring of MT6 (Photograph 21).

Table 13. Stratigraphy of Monitoring Trench 6

Level	Depths	Description
1	0-.25 ft	Cement
2	.25-.9 ft	Asphalt
3	.9-1.7 ft	Dark grayish brown (10YR 4/2) gravelly sandy loam
4	1.7-8.2 ft	Yellowish brown (10YR 5/8) gravelly sand subsoil

Monitoring Trench 7 (MT7)

Monitoring Trench 7 (MT7) was located on Winfield Street to the north of Olympia Boulevard (Figures 3 and 12). The approximately 160 ft (50m) by 10 ft (3m) trench was initially excavated to a depth of 4 ft (1.4m) when a shoring box was installed for safety. This trench was also excavated in sections from south to north in order to move the shoring box within the trench.

Excavation halted at an approximate depth of 10 ft (3.04m) and stratigraphy noted within MT7 is presented in Tables 14 and 15, as the strata were slightly different at the north and south ends of MT 7 (Photographs 22 and 23).

Table 14. Stratigraphy of Southeast Half of Monitoring Trench 7

Level	Depths	Description
1	0-.5 ft	Asphalt
2	.5-1.6 ft	Black (7.5YR 2.5/1) gravel and compact sand
3	1.6-2.8 ft	Brown (7.5YR 5/4) medium silty sand
4	2.8-10.1 ft	Brown (7.5YR 4/4) coarse sand subsoil

Table 15. Stratigraphy of Northwest Half of Monitoring Trench 7

Level	Depths	Description
1	0-.5 ft	Asphalt
2	.5-1.6 ft	Black (7.5YR 2.5/1) gravel and compact sand
3	1.6-7.2 ft	Brown (7.5YR 5/4) medium silty sand subsoil
4	7.2-10.6 ft	Brown (7.5YR 4/4) coarse sand subsoil

During the excavation of MT7, the former sewer line was observed in a couple of locations. In addition, fragments of wood shoring, likely used for the installation of the original pipe, were noted in the fill. The upper fill contained very little diagnostic material; primarily brick and utility pipe fragments were observed as well as some twentieth century bottle glass. No features or artifact concentrations were noted within the trench.

CONCLUSIONS

The archaeological field investigation and monitoring examined a total of 14 trenches, including seven excavation trenches and seven archaeological monitoring trenches of varying sizes. The stratigraphy within all of the trenches exhibited large amounts of disturbance (fill) from the numerous utilities that had been placed beneath the streetbed. These included gas lines, water lines, and sanitary sewer lines. In addition, the presence of numerous buried cables running along the edges of the sanitary sewer trenches also impacted the observable strata.

Subsequent to the archaeological monitoring of trenches MT1-MT7, HPI completed the examination of seven Excavation Trenches. Each of these trenches were thoroughly examined to determine if any potential features were present. A combination of machine and hand excavation was conducted and no features or discreet artifact concentrations were discovered.

During the archaeological monitoring, the monitor was able to observe the excavation and record the basic stratigraphy within each trench. Although the typical installation of the new sanitary sewer via shoring boxes did obscure some of the exposed strata, the archaeologists were able to examine most of the profile above the subsoil and therefore were able to determine if any potential features were present.

Based on construction trench monitoring and the examination of Excavation Trenches, HPI was able to assess the archaeological potential of the deposits beneath the streets of the South Beach project area. It is clear that much of the project area, particularly those parts around deeply buried sanitary sewers, lacks sufficient integrity to produce significant archaeological resources. Only the extreme edge of a potential foundation was noted in MT5. There was a significant degree of demolition debris within the location of this small section of the foundation, which appears to have been impacted during the demolition of the superstructure. No historical artifacts were observed in or around the foundation section. It is possible that the main part of the dwelling foundation is still present outside of the project APE.

Within the trenches examined and monitored, the majority of the artifact fragments date to the twentieth century and do not have research potential and are not considered potentially significant. No Precontact or early historic artifacts or features were found. Due to the apparent lack of potentially significant cultural resources, no further archaeological investigations or monitoring is recommended within the APE.

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Figure 1. Project APE on The Narrows, NY 7.5 Minute Quadrangle (USGS 2019).

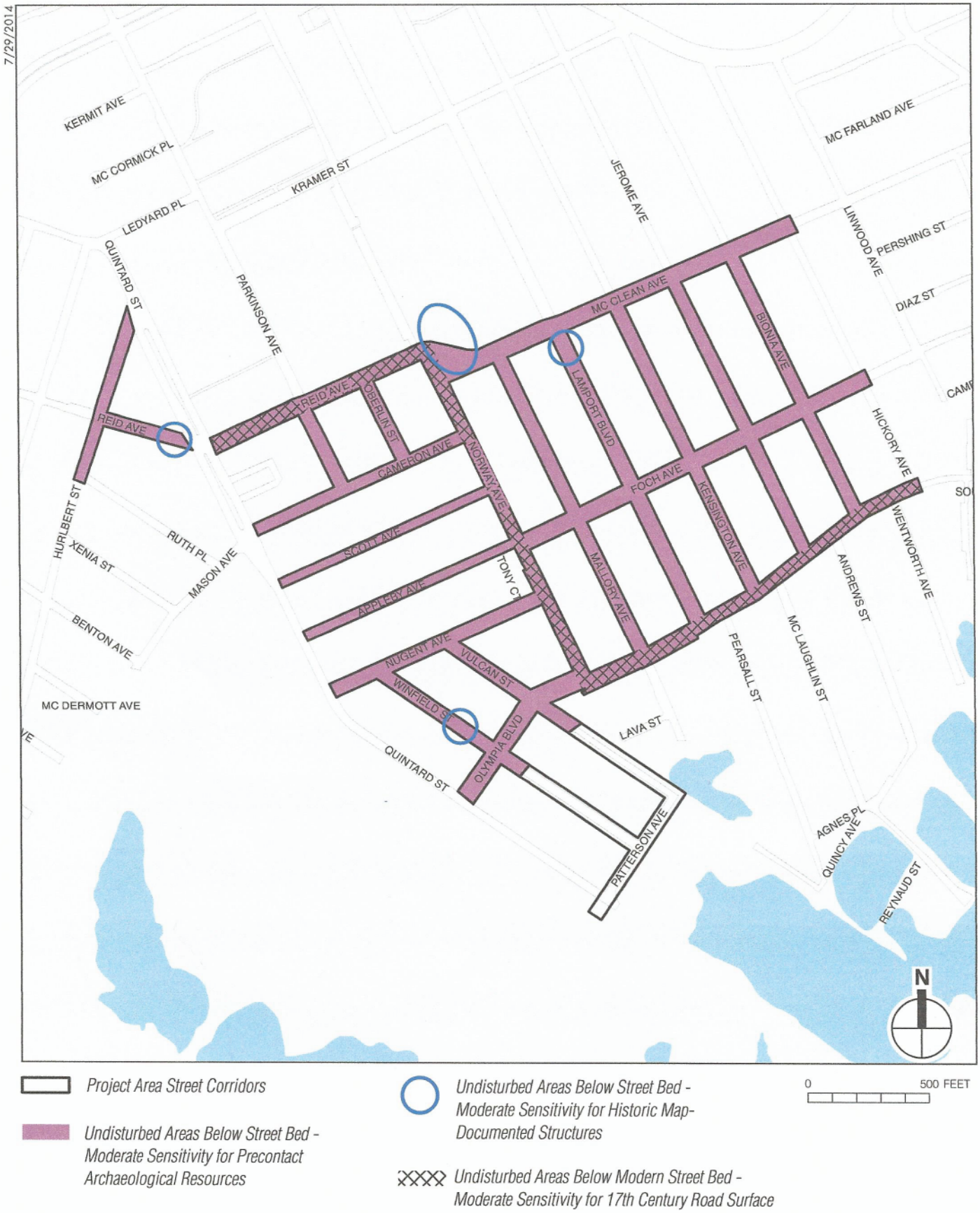

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Figure 2: Archaeological Sensitivity Map for Project Area (AKRF 2014).

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Figure 3: Locations of Excavation Trenches (ET) and Archaeological Monitoring Trenches (MT) in the Project APE (base map: Google Maps 2020).

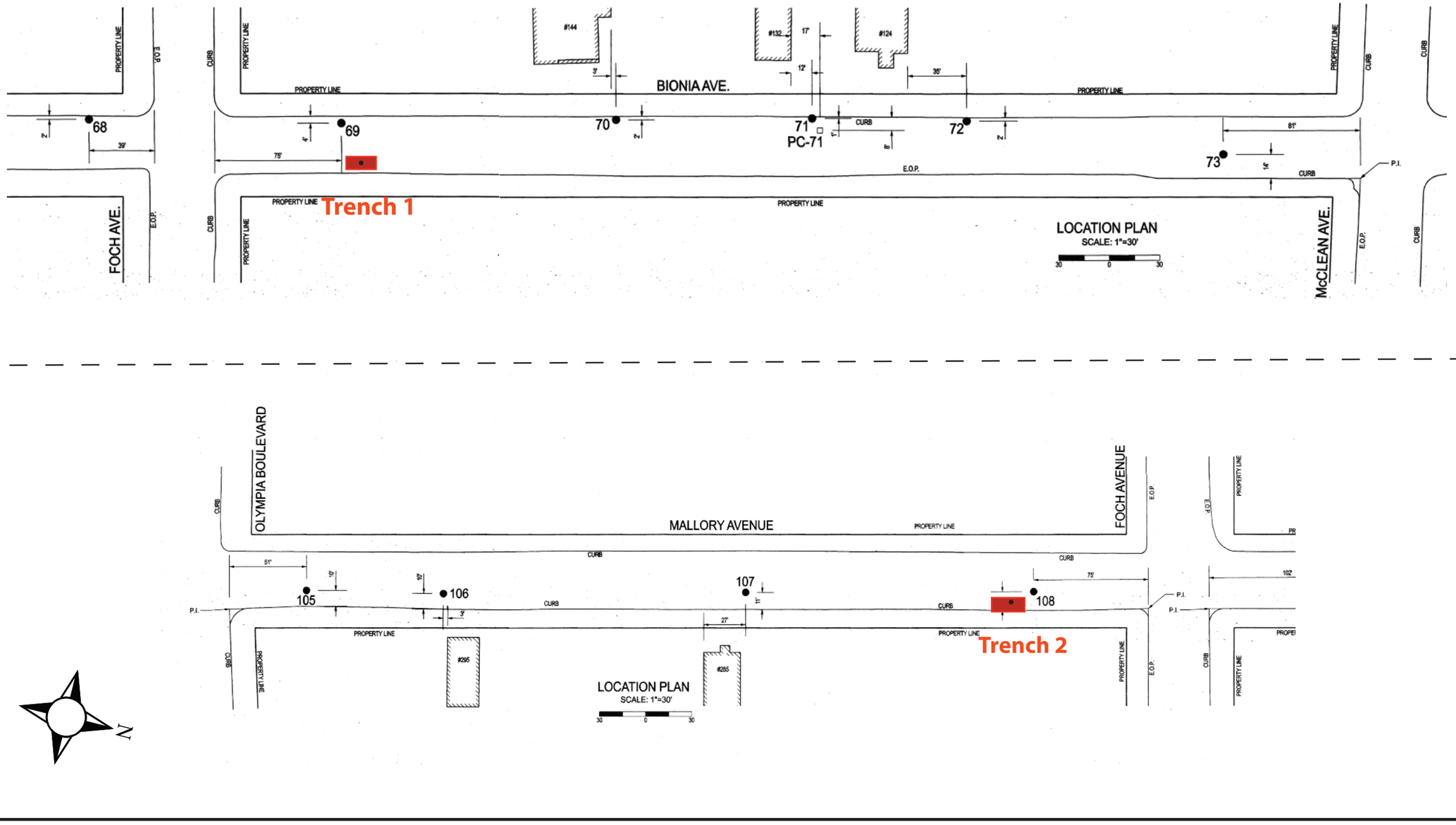

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Figure 4: Locations of Excavation Trenches 1 and 2 (base map: Pillori Associates 2005).

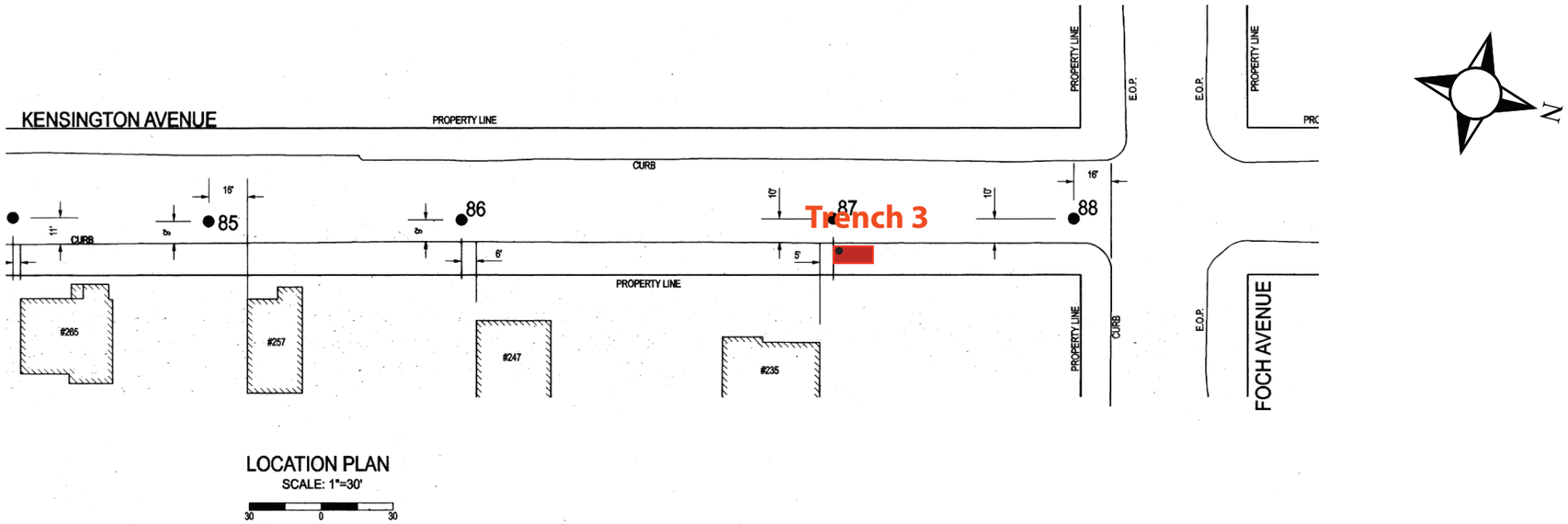

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Figure 5. Locations of Excavation Trenches 3 and 4 (base map: Pillori Associates 2005).

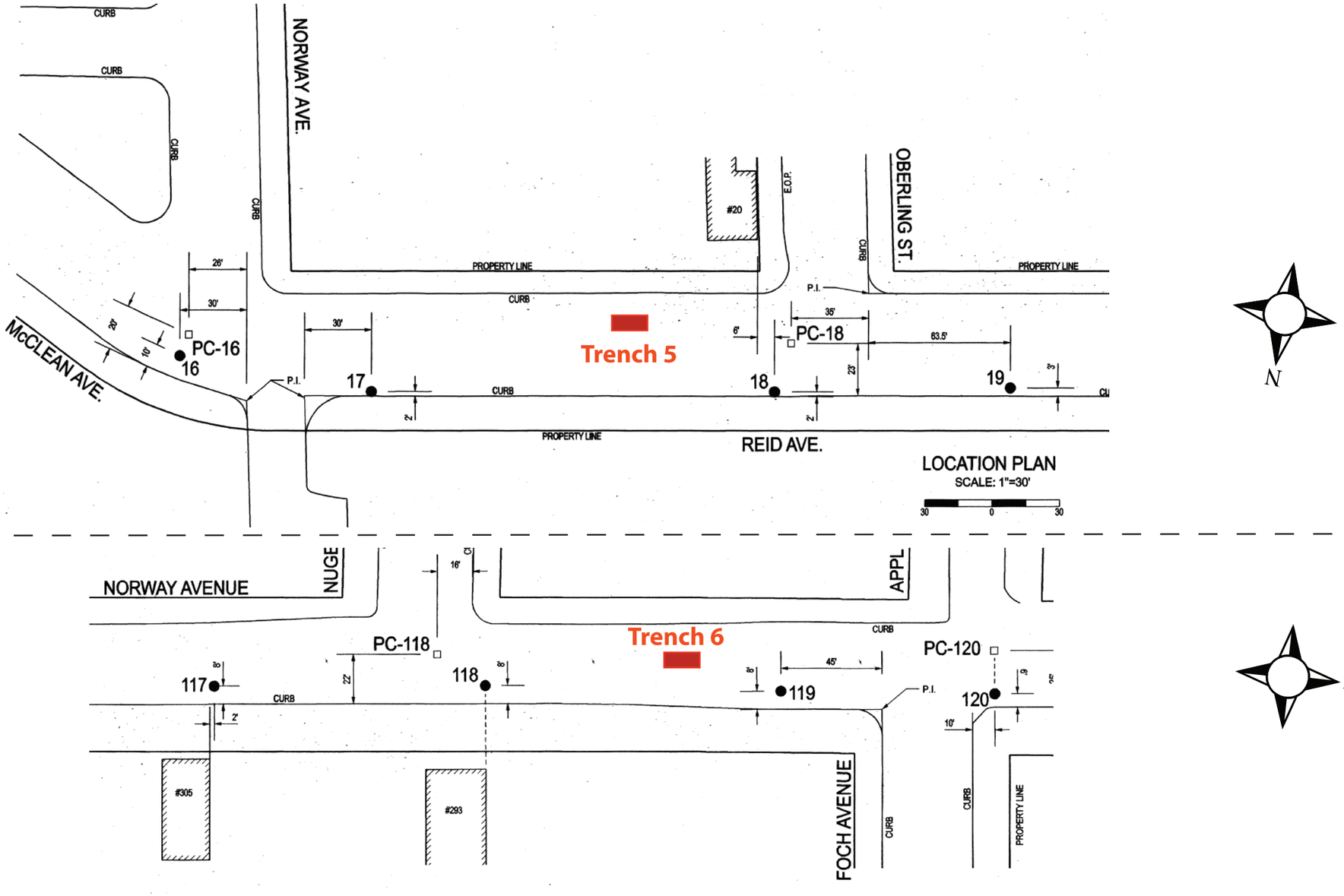

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Figure 6: Locations of Excavation Trenches 5 and 6 (base map: Pillori Associates 2005).

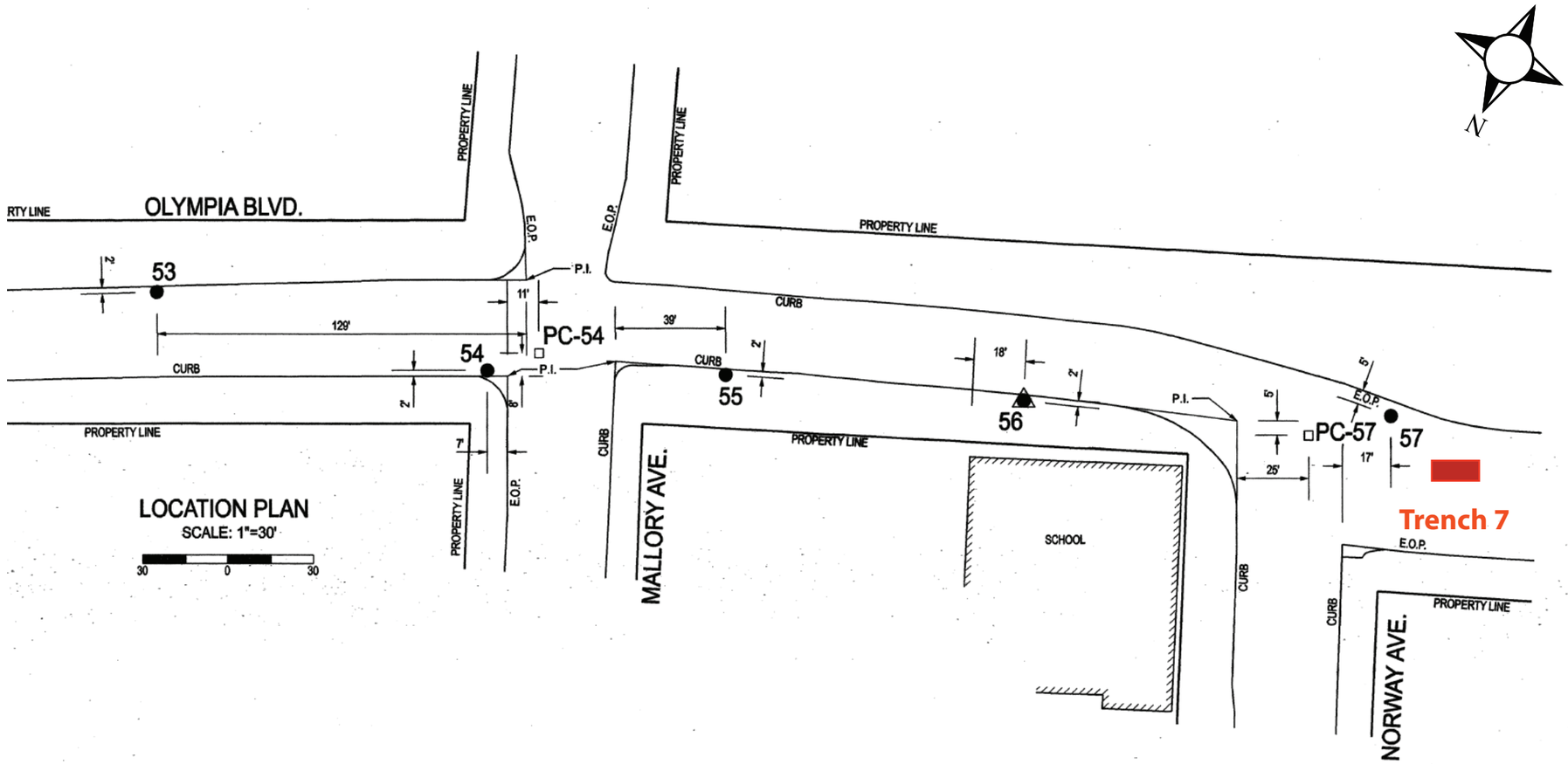

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Figure 7: Location of Excavation Trench 7 (base map: Pillori Associates 2005).

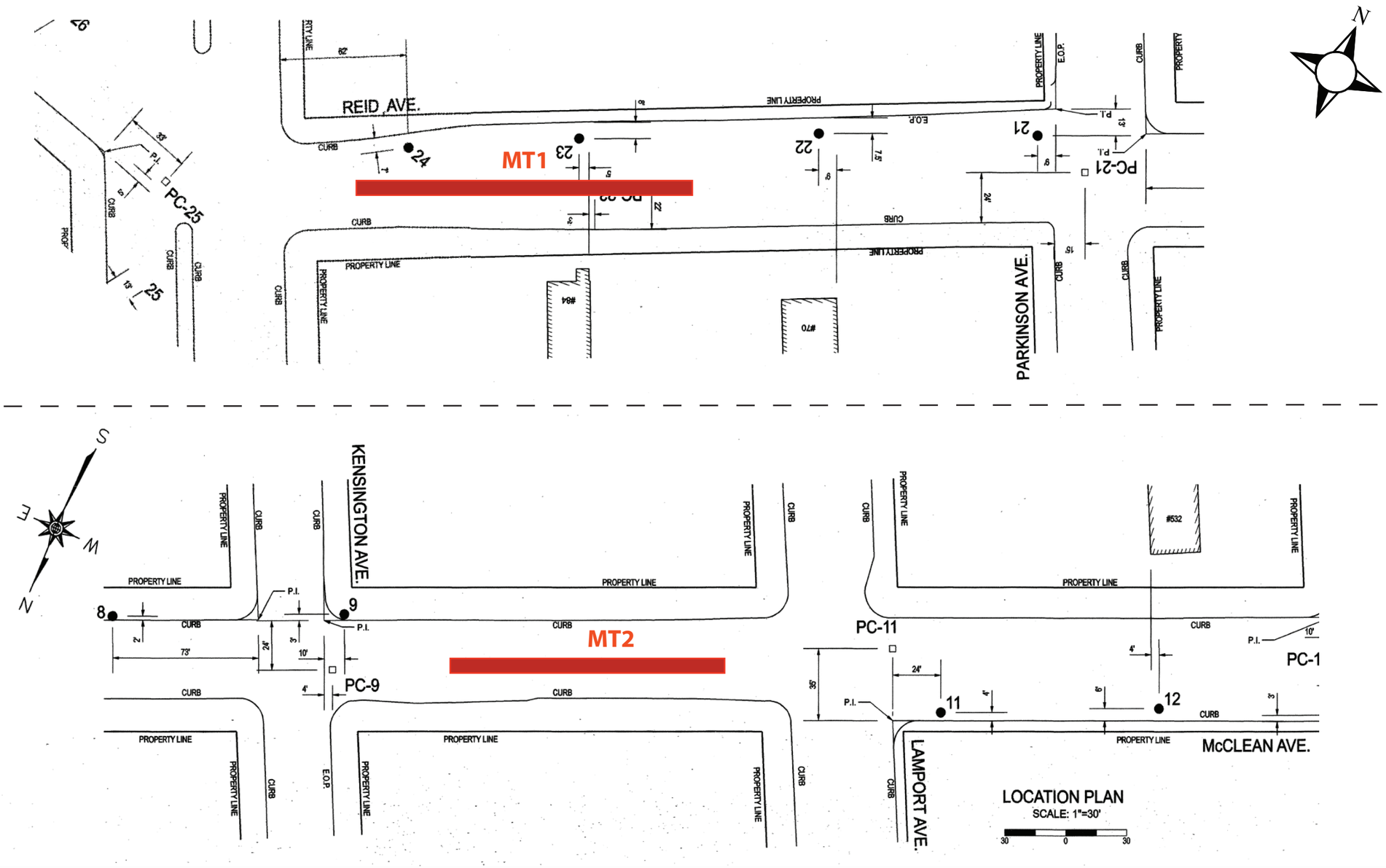

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Figure 8: Locations of Archaeological Monitoring Trenches 1 and 2 (MT1 and MT2) (base map: Pillori Associates 2005).

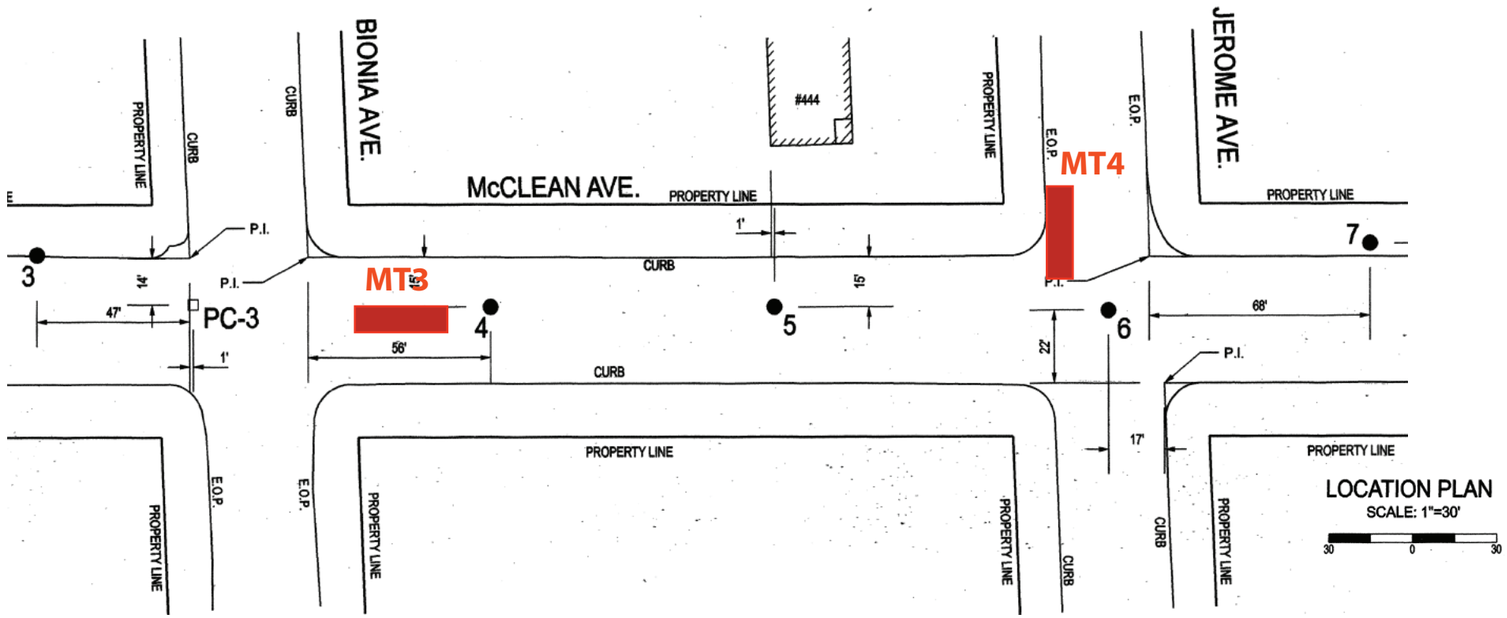

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Figure 9: Locations of Archaeological Monitoring Trenches 3 and 4 (MT3 and MT4) (base map: Pillori Associates 2005).

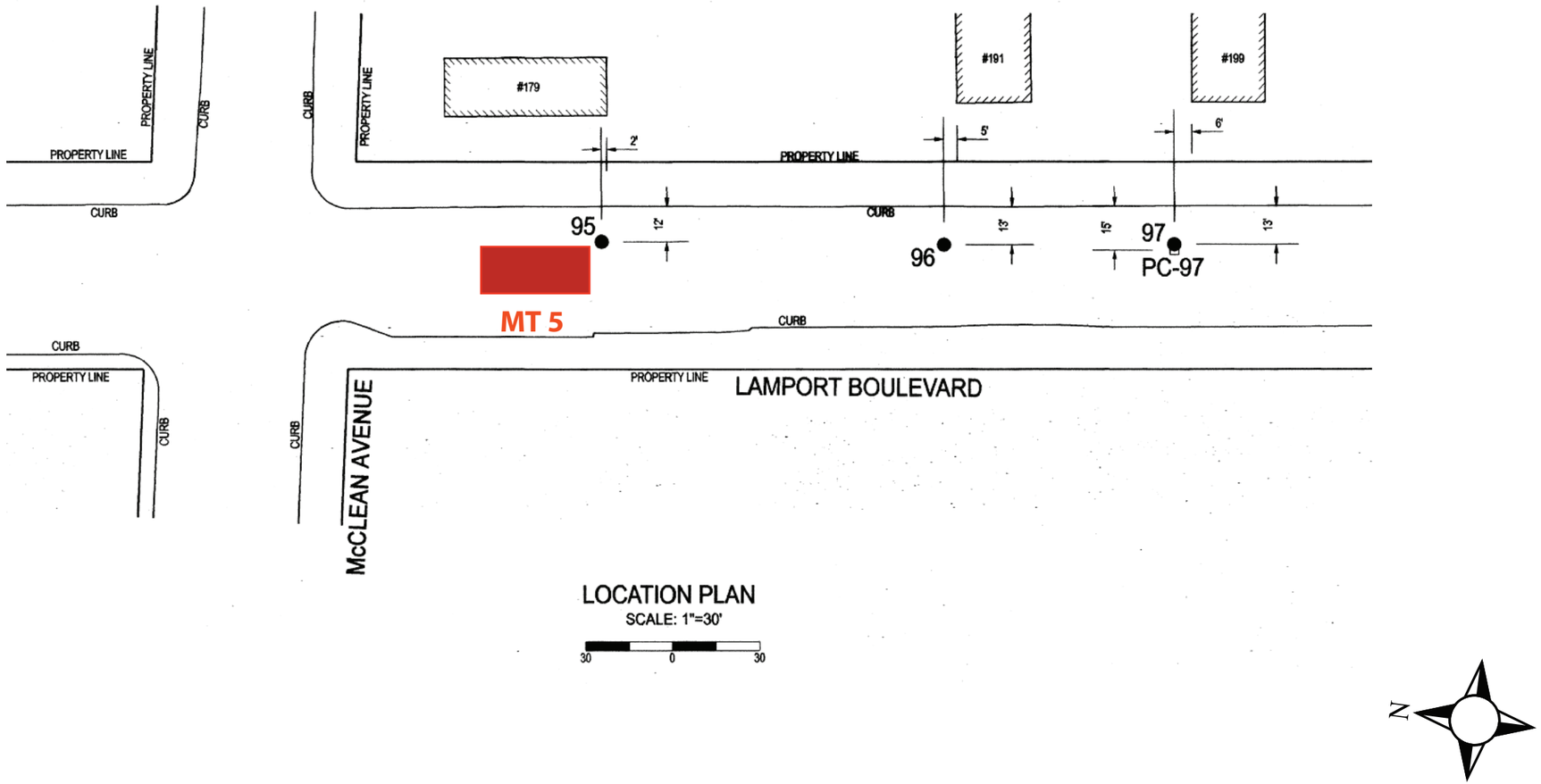

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Figure 10: Location of Archaeological Monitoring Trench 5 (MT5) (base map: Pillori Associates 2005).

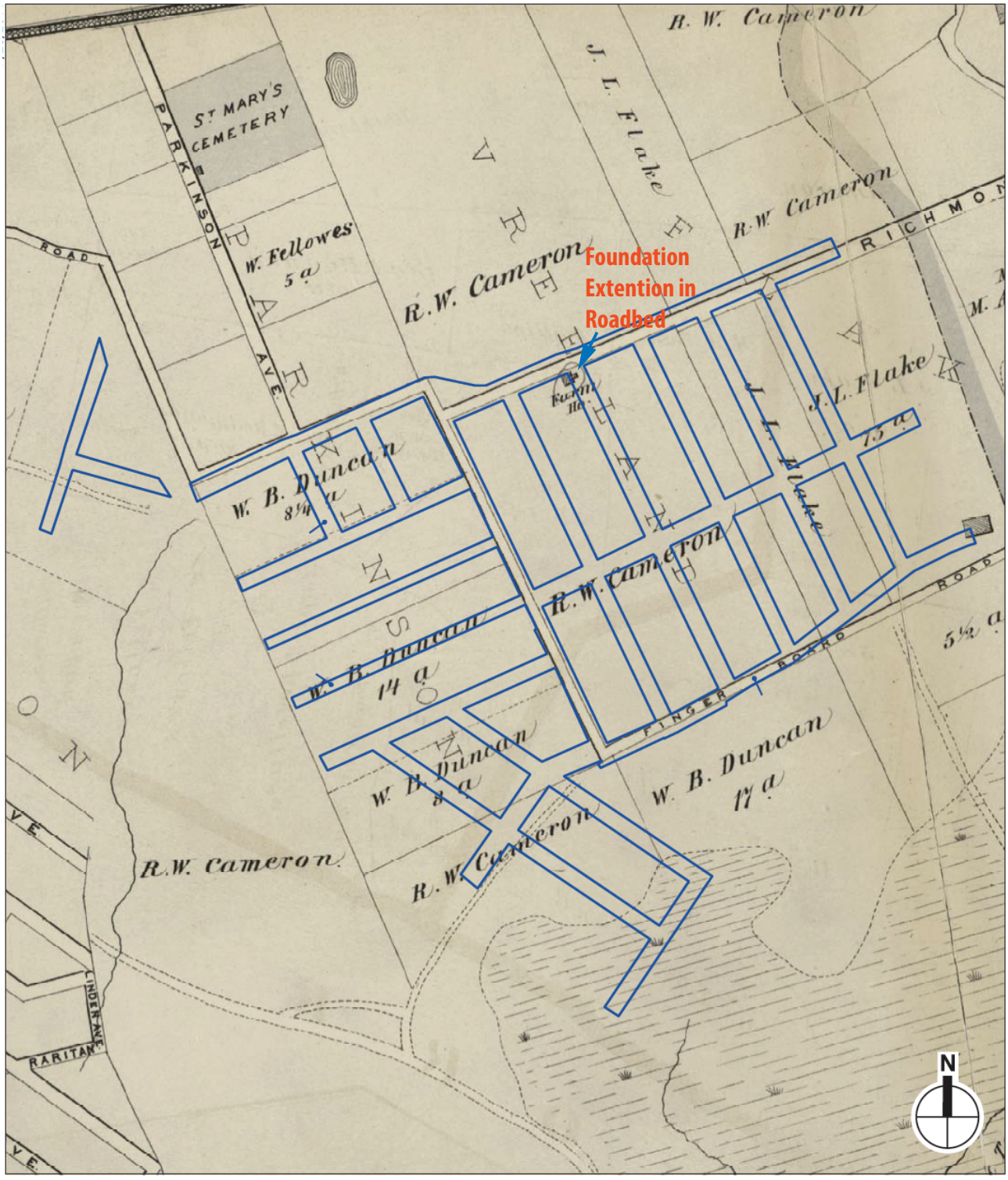

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Figure 11: Project APE on the 1874 Beers Altas (Based on AKRF 2014).

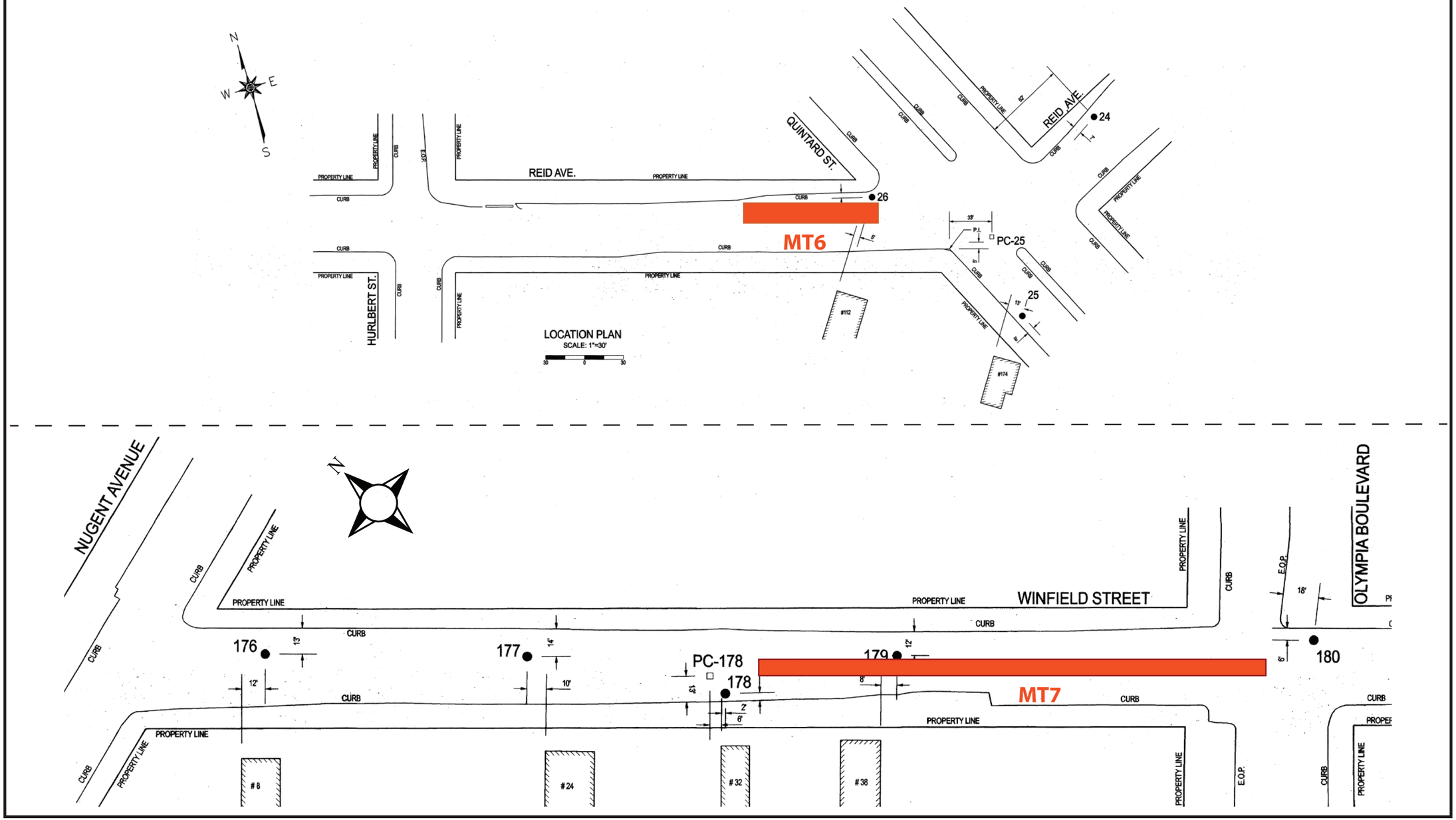

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Figure 12: Locations of Archaeological Monitoring Trenches 6 and 7 (MT6 and MT7) (base map: Pillori Associates 2005).

Photograph 1. West Wall Profile of Excavation Trench 1.

Photograph 2.Soil Stain and Completed ST 1 in Excavation Trench 1.

Photograph 3. View looking northwest at Excavation Trench 2 in Mallory Avenue south of Foch Avenue.

Photograph 4. West Wall Profile and Completed ST2 in Excavation Trench 2.

Photograph 5. View looking northwest Excavation Trench 3 in Kensington Avenue, south of Foch Avenue.

Photograph 6. West profile with ST3 in Excavation Trench 3.

Photograph 7. View looking west Excavation Trench 4, located in Olympia Boulevard east of Mallory Avenue.

Photograph 8. North Profile of Excavation Trench 4

Photograph 9. Overview of Excavation Trench 5, facing north.

Photograph 10. West profile of ST5 in Excavation Trench 5, located in Reid Avenue east of Oberlin Street.

Photograph 11. View looking southwest at Excavation Trench 6 in Norway Avenue, south of Foch Avenue.

Photograph 12. West profile of ST6 in Excavation Trench 6.

Photograph 13. View looking west at the top of the B horizon in Excavation Trench 7. ST7 is shown partially backfilled in the foreground.

Photograph 14. East profile of ST7 in Excavation Trench 7.

Photograph 15. MACK Firebrick from fill in Excavation Trench 7.

Photograph 16. Monitoring Trench 1, facing northeast.

Photograph 17. Monitoring Trench 2, facing southeast.

Photograph 18. Monitoring Trench 4, during excavation.

Photograph 19. Section of partially demolished foundation exposed in west wall of Monitoring Trench 5 during excavation.

Photograph 20. .Shoring Box in Monitoring Trench 6, during excavation.

Photograph 21. Exposed Pipe and profile of East Wall in Monitoring Trench 6, during excavation.

Photograph 22. Profile of north wall in northeast half of Monitoring Trench 7.

Photograph 23. Profile of north wall in southeast half of Monitoring Trench 7.