# Phase IB Archaeological Monitoring for the Furnishing and Installing Four Inch Telecommunication Ducts, Associated Pull Boxes and Building Penetration at Various Parks and Recreation Facilities, Citywide (Parks Contract Number: CNYG-1216M), Fort Totten, Queens, Queens County, New York Project

*Prepared for:*

City of New York - Landmarks Preservation Commission
New York, New York

City of New York –Department of Parks and Recreation
New York, New York

JCC Construction Corporation
Long Island City, Queens, New York

*Prepared by:*
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*Edited by:*
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Chrysalis Archaeological Consultants, Inc.

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## I. INTRODUCTION

JCC Construction (JCC) contracted with Chrysalis Archaeological Consultants, Inc., (Chrysalis), on behalf of the City of New York – Department of Parks and Recreation (NYC Parks), to provide Cultural Resource Management (Archaeological) services for work being undertaken within Fort Totten Park, Queens, New York as part of the Furnishing and Installing Four Inch Telecommunication Ducts, Associated Pull Boxes and Building Penetration at Various Parks and Recreation Facilities, Citywide (Parks Contract Number: CNYG-1216M) Project (Map 01).

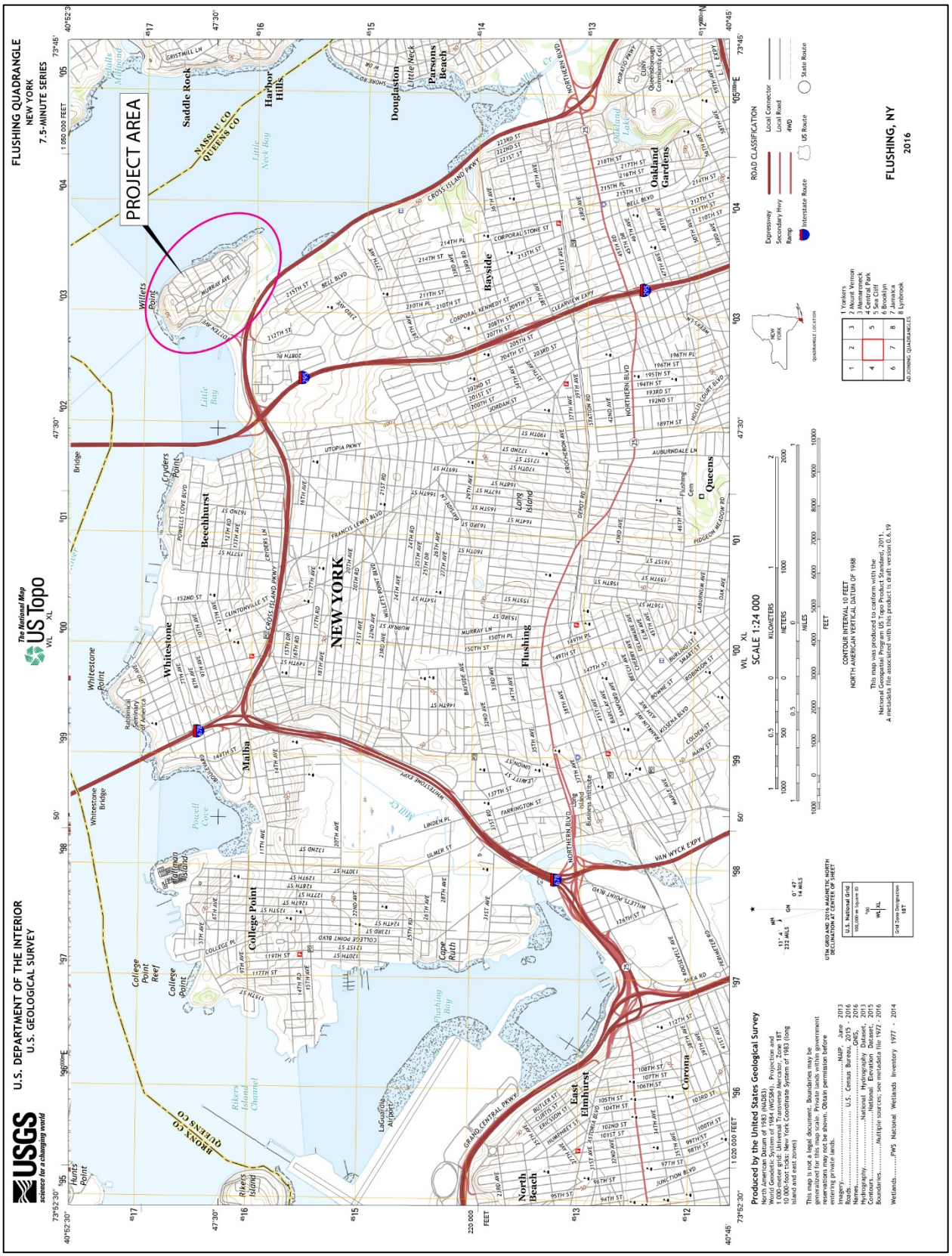
The Scope of Work (SOW) provided by NYC Parks, and in coordination with the City of New York – Landmarks Preservation Commission (NYC LPC), Docket Number: LPC-19-35550, dated January 31, 2019, called for Phase IB Archaeological Monitoring. As noted in the NYC LPC determination "portions of the work are within archaeologically sensitive areas including the segments in the Parade Ground adjacent to the pool and the Presbyterian Church. Excavation in the archaeologically sensitive areas should be archaeologically monitored as per the 2018 LPC Guidelines for Archaeological Work in NYC" (NYC LPC January 31, 2019). NYC Parks established the overall project area and defined the Area of Potential Effect (APE), as the proposed trenching work.

The project consisted of landscape work for the installation of new tele-communications ducts. Excavation occurred alongside the existing street beds of Fort Totten within the grassy unpaved areas.

Fort Totten Park is a former United States Army installation dating to the Civil War era that is located on Willets Point on the north shore of Long Island within Queens County, New York (Map 01). The property is owned by the City of New York (NYC) and is part of the NYC Parks system. Fort Totten includes over 100 buildings and smaller secondary structures built between the 1830s and the 1960s. It is a New York City Landmarked Historic District (NYC LPC 1999).

| | |
|---|---|
| Project Name | Furnishing and Installing Four Inch Telecommunication Ducts, Associated Pull Boxes and Building Penetration at Various Parks and Recreation Facilities |
| Street Address | Fort Totten |
| Borough/Block/Lot | Queens/5917/1 |
| LPC PUID (If Yet Assigned) | LPC-19-35550 |
| Applicant Name | NYC Parks |
| Principal Investigator | Alyssa Loorya, Ph.D., R.P.A. |
| Field Director | Leah Mollin-Kling, M.A.A., R.P.A. |

Alyssa Loorya, Ph.D., R.P.A. served as Principal Investigator, Leah Mollin-Kling, M.A.A., R.P.A. as Field Director and Roseanne Quinn served as Field Technician for this project. Dr. Loorya, and Ms. Quinn authored this report; Lisa Geiger, M.A., R.P.A., Alyssa Loorya, Ph.D., R.P.A. and Christopher Ricciardi, Ph.D., R.P.A edited this report.




Map 1: USGS US Topo 7.5 - minute map for FLUSHING, NY (United States Geological Survey 2016).

## II. SYNTHESIS OF PREVIOUS WORK

There have been several previous archaeological surveys within Ft. Totten. These are summarized in Table 1.

The 1998 -1999 Phase I and II surveys conducted by Tetra Tech determined an overall low sensitivity for extant prehistoric sites due to prior ground disturbance. Only one diagnostic artifact, a Levanna type projectile point dating from the late Woodland Period (ca. 1000 B.C to A.D. 1600) was recovered amongst a total of 9 lithic debitage flakes (3 from the Parade Ground and 6 elsewhere) (Tetra Tech 1998:93) No associated archaeological features were found and the artifacts were not in any discernible pattern. Further Phase 1B testing conducted by Linda Stone in 2005 supported the hypothesis of the limited presence of prehistoric resources. Testing results indicated a significant amount of disturbance limiting the likelihood of intact deposits containing cultural resources.

Although most of the land on Fort Totten reveals prior disturbance, two eligible NRHP areas were uncovered dating from the historic military occupation during the Civil War Era (Geismar 2007:8). Additionally, historic features dating from mid-nineteenth to early twentieth centuries include two intact building foundations, a refuse pit, and possible footers of a building (Tetra Tech 1999:118). The sites were identified in the Parade Ground and in the area directly east. Historic deposits were also found around the chapel, but these were not intact (Tetra Tech 1999:14)

Further archaeological investigations conducted by Geismar in 2016 focused on the Thorne-Wilkins Cemetery, informally know as Willets Cemetery. Speculation remains that the burials have been reinterred elsewhere as the property has transferred owners throughout time. However, the memorial stone marked “Charles Willets, Sr.” may mark the prior burial location (Geismar 2016:2).

Table 1: Previous relevant cultural resources reports.

| AUTHOR | YEAR | REPORT TITLE | RESULTS |
|---|---|---|---|
| Tetra Tech, Inc. | 1998 | Phase IA/B Archaeological Survey of Fort Totten, Queens County, New York City, New York | 210 STPs throughout area – mostly post 1857 material remains – heavily disturbed – monitoring in area of Battery King only in the future. |
| Tetra Tech, Inc. | 1999 | Phase II Archaeological Survey of Fort Totten, Queens County, New York City, New York | No further testing for Native American resources –Parade Ground area contains National Register eligible resources |
| Stone, Linda | 2005 | Report on Phase IB Archaeological Testing at Fort Totten Battery, Located at Willets Point, North of the Cross Island Parkway and Eats of the Throgs Neck Bridge, Queens, New York | No Pre-Contact materials recovered – no further work required. |

| AUTHOR | YEAR | REPORT TITLE | RESULTS |
|---|---|---|---|
| Geismar, Joan | 2007 | Archaeological Potential of Fort Totten in Relation to the Demolition of Structures and Creation of a Passive Landscape | Phase IB testing and/or monitoring should be conducted throughout the area |
| Archaeological Consulting Services | 2010 | Archaeological Monitoring Results – North Parks at Fort Totten, Queens, New York | No Pre-historic materials recovered – mostly late 19th and early 20th century historic materials – highly disturbed – some cluster areas could be refuse disposal areas. |
| Geismar, Joan | 2016 | Thorne/Wilkins/Willets Cemetery, Fort Totten, Queens | Most likely the Thorne-Wilkins Family burial ground remains located in this area |

## III. CONTEXT AND RESEARCH DESIGN

Fort Totten is a 190-acre property situated on a peninsula located in northeast Queens County, New York on the north shore of Long Island (Map 01). The land is bordered by water on three sides: Little Bay, Little Neck Bay and the East River Channel.

This land that is currently known as Fort Totten was acquired by the Dutch from the Matinecoc Indians in 1639 (Tetra Tech 1998:16). Although this land would have been ideal for native groups for procurement of marine resources and lithic material ideal for tool fabrication, limited evidence of such activity has yet to be found. Prior archaeological investigations at Fort Totten have determined that poor preservation and prior ground disturbances indicate a low probability for the recovery of prehistoric resources (Tetra Tech 1998:28).

Following Dutch acquisition, the property was occupied by William Thorne and it was utilized for farming activities until the late 1700's when the property was transferred to William Wilkins. In 1829 the property was purchased by the United States Government to build Fort Totten (Geismar 2016:2). The United States Army occupation lasted until 1974 (Tetra Tech 1998:14). During this time the land was subject to a variety of ground disturbance related to military training and exercises. Fort Totten is currently owned and operated by New York City.

Several previous studies of Fort Totten have identified varying levels of archaeological sensitivity. The majority of the reports indicate that the below ground surfaces within their areas display both disturbed and potentially undisturbed soils, including the 1998 Tetra Tech report which had positive STPs in the area near the swimming pool, along Totten Avenue and the Parade Ground. Geismar's 2007 report describes almost the entire area to be potentially sensitive and Archaeological Consulting Service's 2010 report discusses how several areas could be refuse disposal areas. All recommend consideration of further archaeological work within the Park. It was Geismar's recommendation that any work extending below 2' within the vicinity of 31 identifications cited within that study and/or the North Park area be archaeologically monitored or tested (Geismar in Owens 2010: A20-21).

The APE for this project was located within unpaved grassy areas alongside roadways throughout the project area. It was determined the Project APE had a moderate to low sensitivity for intact deposits within the excavation footprint.

The current project called for the installation of tele-communication lines requiring excavation down to 3.5' (1.06m) below ground surface. In keeping with Geismar's recommendation, archaeological monitoring, per the approved Scope of Work (Appendix A), was undertaken to determine the presence or absence of prehistoric and historical resources, archaeological features, or historic fill deposits.

## IV. PROJECT METHODS

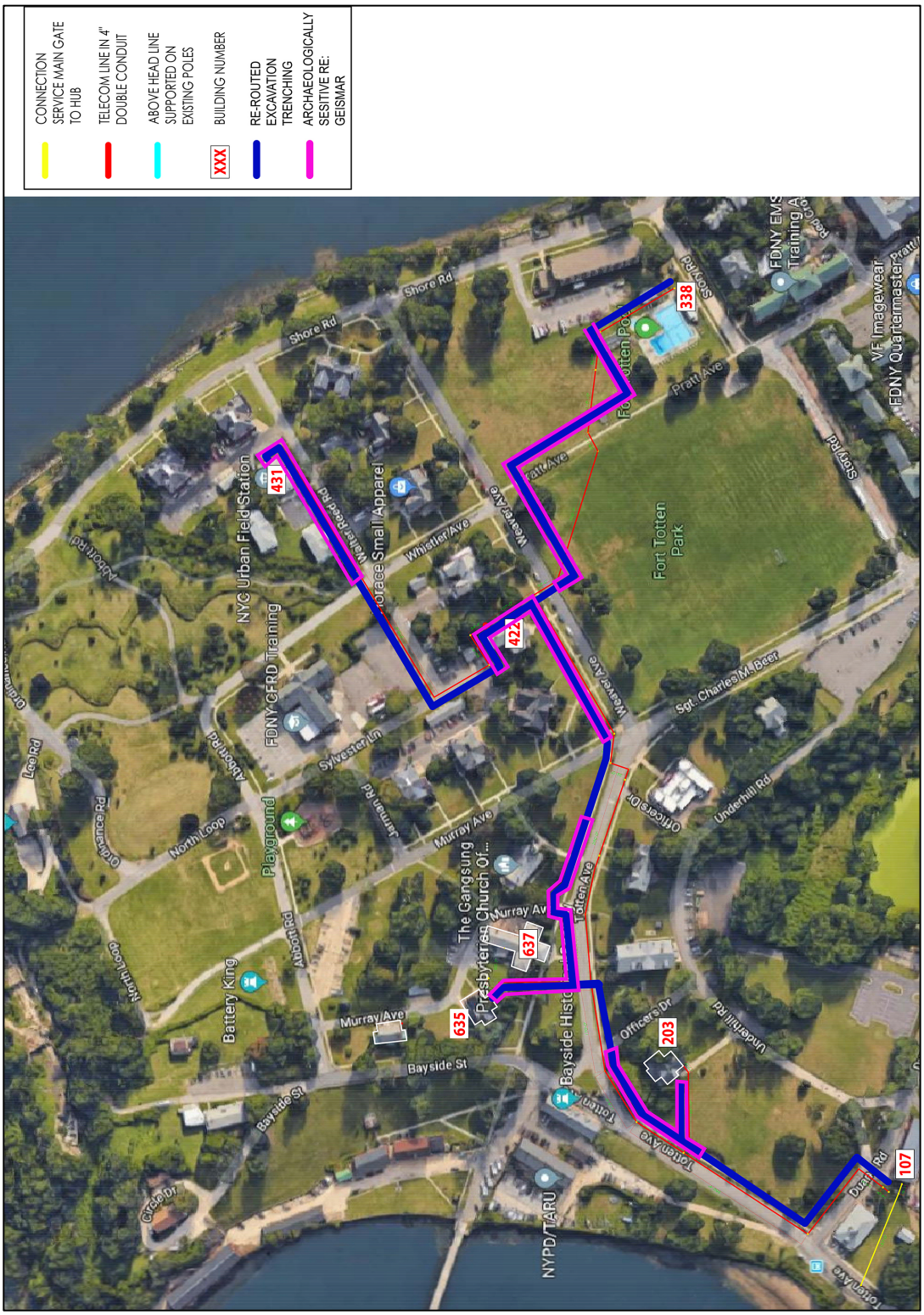
Phase IB archaeological monitoring of construction activities occurred in all areas within the APE except for areas where excavation occurred in previously paved areas or crossed roadways. The roads themselves have been determined "disturbed" by NYC Parks based on the information provided in the Master Plan for Fort Totten undertaken by Nancy Owens Studio (Owens 2010).

Map 2 details the areas that were determined to be archaeologically sensitive and recommended for archaeological monitoring.

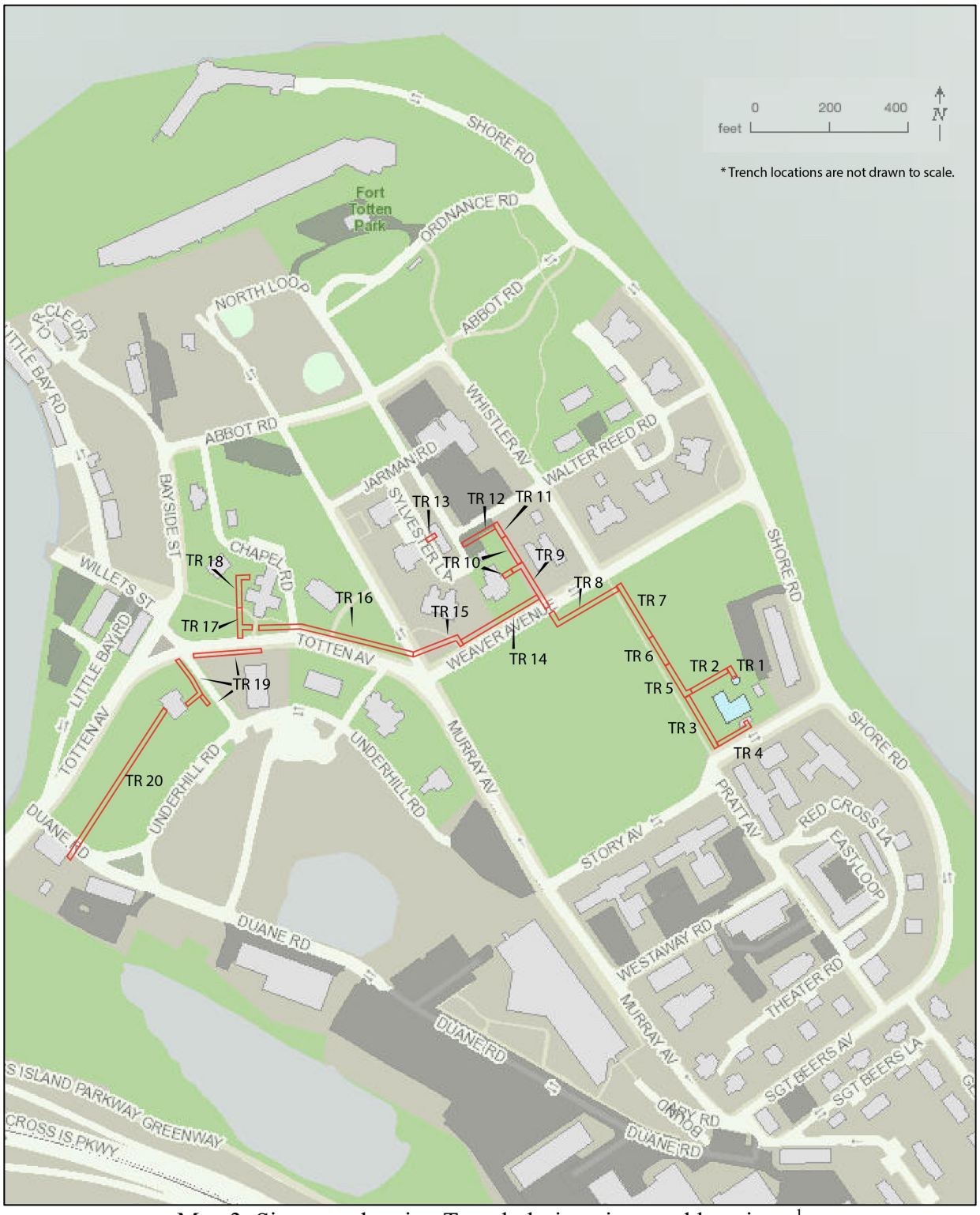
For documentation purposes, excavation trenches were assigned arbitrary numbers (and sections) and were further divided and identified by location. Trench designations and locations are detailed on Map 3. Table 2 correlates Trench numbers with location.

All monitoring activities were compliant with NYC LPC's Guidelines for Archaeological Work in New York City (LPC 2018) and NYAC's Guidelines for the Use of Archaeological Monitoring (NYAC 2002). Chrysalis staff-maintained field drawings, photographs, and descriptions of the soils encountered, and field conditions. An up-to date log of all monitoring activities was kept, including the date, time, and duration of all episodes and an accompanying description of the activity being monitored. All subsurface measurements were tied to the North American Vertical Datum of 1988 (NAVD 88).

Any cultural materials encountered were either noted or documented and saved according to their unique provenience on field forms and in a project FS Log. Recovered artifacts were transported to Chrysalis' laboratory for processing and analysis.




Map 2: Archaeological Monitoring Areas.




Map 3: Site map showing Trench designations and locations.[1]

[1] Due to the narrow trench widths, the widths are not drawn to scale on this map to aid in viewability. Accurate dimensions are provided within the body of the report.

## V. FIELD RESULTS

Excavations for the Fort Totten Utility Line impacted multiple areas throughout the park. As noted, trenches were assigned arbitrary numbers (and sections) for documentation purposes – Table 02 and Map 03 identify these designations and locations. The latitude and longitude in Table 3 represent the starting point of each trench, and the NAVD 88 column represents the beginning surface elevation.

Archaeologically monitored construction excavation began north of the Pool Area May 2019. Excavations continued on the west and south sides of the pool before expanding out along the proposed excavation route. Trenches 1 – 4 were located in the southeast Parade Ground which is also referred to below as the Pool Area. Trenches 5 – 7 were located in the northeast Parade Ground. Trench 8 was located in the northwest Parade Ground. Trenches 9 – 10 were located in the grassy area between Buildings 420 and 422. Trenches 11 and 12 were on the south side of Walter Reed Road and Trench 13 was on the east side of Sylvester Lane. Trench 14 was adjacent to Weaver Avenue in front of Building 422. Trench 15 was in front of Building 410. Trench 16 was in the grassy area between Murray Avenue and Totten Avenue. Trenches 17 and 18 were excavated south of Building 637's front entrance and to the west and northwest of the building. Trench 19 was located in the grassy area on the south side of Totten Avenue. Trench 20 started on the south side of Totten Avenue east of Building 203 and continued southward into the grass. Trench 20 continued southwestward behind Building 203 and proceeded northward for the connection. Trench 20 then continued southwestward through the grassy field towards Building 107. See (and refer to throughout) Map 3 for orientation.

On average, trenches were excavated to 30" (0.8m) below ground surface[2] (bgs) and were 30" (0.8m) wide. Areas for pull boxes were excavated to a depth ranging between 36" – 42" (0.9 - 1.0m) bgs, representing the maximum excavation depth, and measured 4' by 4' (1.2 x 1.2m). Unless, otherwise noted, trenches were excavated mechanically.

Generally, two to three strata were observed throughout the project area – an Ao horizon followed by one or two Fill strata. It was noted that a large part of the project area had been impacted by prior utility work.

Two previously impacted features were identified during the course of excavation. Feature #1 is a partially exposed brick pathway located beneath the sidewalk on the north side of Weaver Avenue between Buildings 420 and 422 (Figure 1). This feature was documented and left in situ.

Feature #2 was a drainage system remnant composed of brick overlain with a tar coating aligning the west curb line of Murray Avenue north of the intersection with Totten Avenue (Figure 2). The feature had been disturbed prior to this excavation. No associated cultural material was present.

The remainder of this section summarizes the excavation trenches including any materials remains or features.

[2] Below ground surface measurements are commonly used throughout the discussion as this was utilized in the field by the construction crew. NAVD 88 measurements are provided in stratigraphic tables.

Table 2: Trench Locations.

| TRENCH # | LOCATION | LATITUDE | LONGITUDE | NAVD 88 (SURFACE) |
|---|---|---|---|---|
| 1 | Parade Ground/Southeast | 40° 47'33.25"N | 73° 46'28.98"W | 45.62 |
| 2 | Parade Ground/Southeast | 40° 47'33.49"N | 73° 46'29.06"W | 45.62 |
| 3 | Parade Ground/Southeast | 40° 47'30.95"N | 73° 46'29.29"W | 45.62 |
| 4 | Parade Ground/Southeast | 40° 47'31.33"N | 73° 46'28.26"W | 45.62 |
| 5 | Parade Ground/Northeast | 40° 47'32.51"N | 73° 46'29.67"W | 45.62 |
| 6 | Parade Ground/Northeast | 40° 47'33.03"N | 73° 46'30.84"W | 45.62 |
| 7 | Parade Ground/Northeast | 40° 47'33.78"N | 73° 46'31.46"W | 45.62 |
| 8 | Parade Ground/Northwest | 40° 47'34.08"N | 73° 46'34.39"W | 45.62 |
| 9 | Between Buildings 420 and 422 | 40° 47'34.19"N | 73° 46'34.71"W | 45.62 |
| 10 | Between Buildings 420 and 422 | 40° 47'35.92"N | 73° 46'36.16"W | 45.62 |
| 11 | South of Walter Reed Road | 40° 47'36.43"N | 73° 46'36.69"W | 45.62 |
| 12 | South of Walter Reed Road | 40° 47'36.43"N | 73° 46'36.69"W | 45.62 |
| 13 | East of Sylvester Lane | 40° 47'37.52"N | 73° 46'38.59"W | 45.62 |
| 14 | Front of Building 422 | 40° 47'33.63"N | 73° 46'36.85"W | 41.17 |
| 15 | Front of Building 410 | 40° 47'33.30"N | 73° 46'38.35"W | 41.17 |
| 16 | Between Murray Avenue and Totten Ave | 40° 47'33.24"N | 73° 46'39.34"W | 41.17 |
| 17 | Front of Building 637 | 40° 47'33.82"N | 73° 46'44.18"W | 41.17 |
| 18 | Northwest side of Building 637 | 40° 47'34.86"N | 73° 46'44.90"W | 41.17 |
| 19 | South of Totten Avenue | 40° 47'33.35"N | 73° 46'45.32"W | 41.17 |
| 20 | East side of Building 203 | 40° 47'29.50"N | 73° 46'48.05"W | 41.17 |

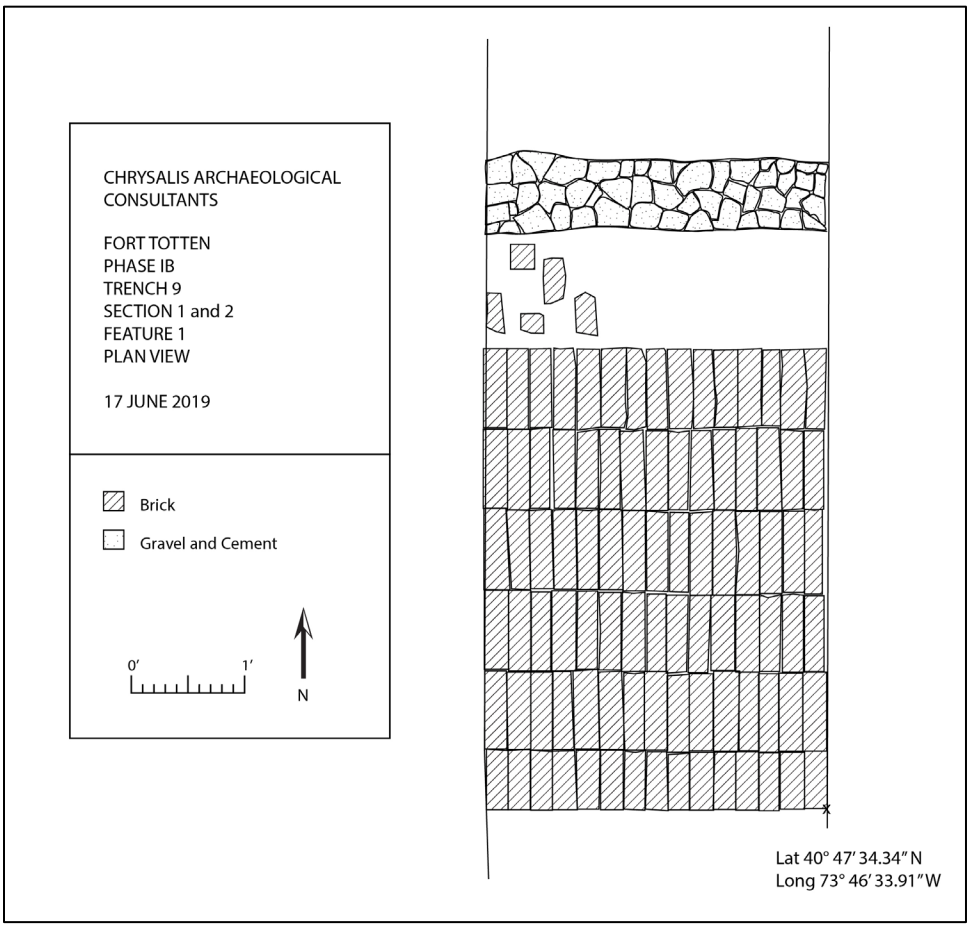



Figure 1: Plan View Feature #1 Trench 09, Section 1 and 2.

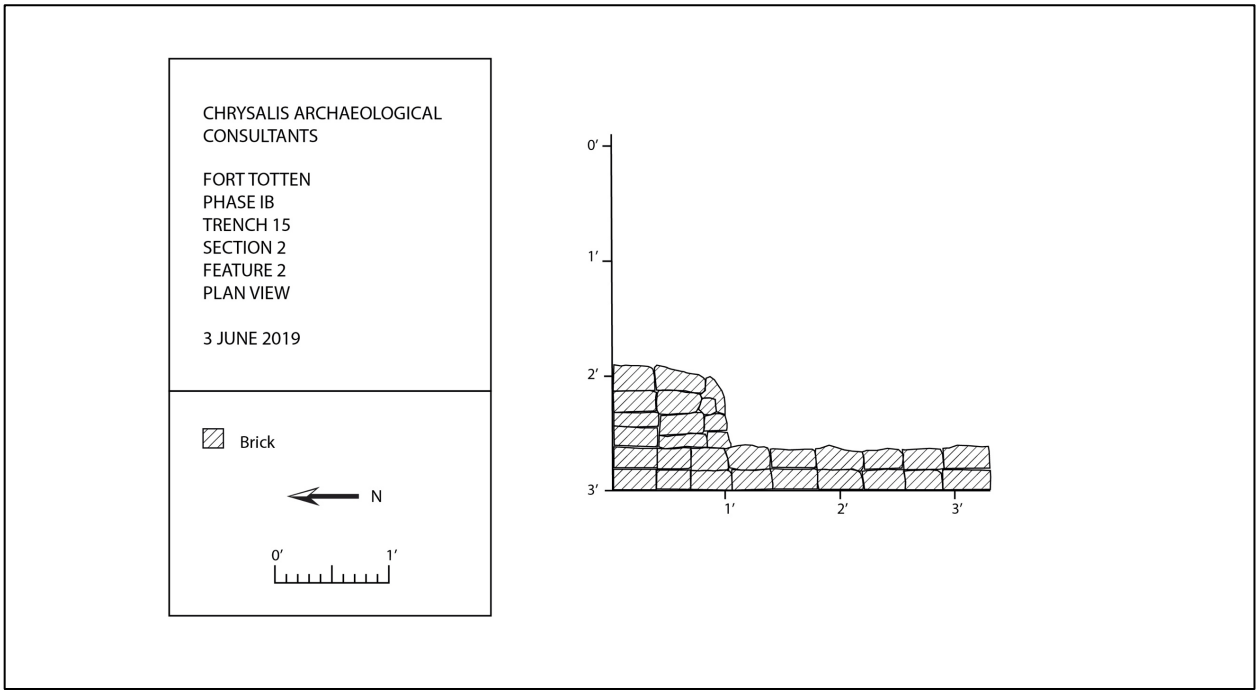



Figure 2: Plan View Feature #2 Trench 15, Section 2.

## PARADE GROUND SOUTHEAST

### *TRENCH 01*

Trench 1 located north of the pool consisted of fill deposits to the maximum excavation depth (Images 1 and 2). Overall the trench was excavated to 2.3' (0.7m) bgs except for the northernmost border of the trench which extended to 3.0' (0.9m) bgs (Table 03). The trench extended 13.8' (4.2m) north-south from the north end of the First Aid Trailer (Image 01) and measured 3.0' (0.9m) wide. A 4' by 4' (1.2m x 1.2m) section was excavated to install the pull box.

Table 3: Stratigraphic Profile – Trench 01

| STRAT | NAVD 88 DEPTH (BGS) | MUNSELL | SOIL TYPE | COMMENTS |
|---|---|---|---|---|
| Ao | 45.62 – 44.62' (0 – 1' bgs) | 10YR 4/3 | SaLo | |
| Fill I | 44.62 – 43.32' (1' – 2.3' bgs) | 10YR 4/3 mottled with 10YR 3/6 | FiSaSI | Cobbles, gravels; 1 brick fragment |
| Fill II | 43.32 – 42.62' (2.3' – 3' bgs) | 10YR 3/2 mottled with 10YR 4/4 | FiSaSI | NCM |


Image 1:Trench 1, Section 1 excavation in progress, facing south.

Image 2: Trench 1, Section 1 west profile.

*TRENCH 2*

Trench 2, north of the pool, abutted the northern end of Trench 1 continuing excavation westward for 130' (40m) (Image 3). The soils were similar to those in Trench 01, consisting of fill deposits to the maximum depth of 3.0' (0.9m) bgs (Table 4) (Image 4). A few ceramic sewer pipe and brick fragments were noted in the fill.

An additional segment of the Trench was located 1.3' (0.4m) east of the sidewalk that runs through the Parade Ground (northwest of the pool). This was hand excavated to expose a possible vault system that was partially visible on the ground surface. It was composed of two 4' by 4' (1.2m x 1.2m) slabs of concrete overlying one another and extending to 3' (0.9m) bgs (Image 5). No other cultural material was encountered.

Table 4: Stratigraphic Profile – Trench 02.

| STRAT | NAVD 88 DEPTH (BGS) | MUNSELL | SOIL TYPE | COMMENTS |
|---|---|---|---|---|
| Ao | 45.62 – 44.72’ (0’ – 0.9’ bgs) | 10YR 4/3 | FiSaSi | |
| Fill I | 44.72’ – 43.42’ (0.9’ – 2.2’ bgs) | 10YR 4/3 and 10YR 3/6 | FiSaSi | Cobbles, gravels; 1 brick fragment, few sewer pipe fragments. Unidentified composite construction material. |
| Fill II | 43.42 – 42.62’ (2.2’ – 3.0’ bgs) | 10YR 3/2 mottled with 10YR 4/4 | FiSiSa | NCM |

Image 3: Intersection of Trenches 1 and 2, facing south.

Image 4: Trench 2 north profile wall.

Image 5: Trench 2, Section 2 vault, facing southeast.

*TRENCH 3*

Located west of the pool, Trench 3 was excavated for a length of 135' (41m), 3' (0.9m) wide, and oriented at 340 degrees north-south (Image 6) (Figure 3). Boulders were encountered throughout the first 110' (34m). Soil deposits north of the boulders contained gravel and small cobbles. Two brick fragments were noted but not retained.

Table 5: Stratigraphic Profile – Trench 3

| STRAT | NAVD 88 DEPTH (BGS) | MUNSELL | SOIL TYPE | COMMENTS |
|---|---|---|---|---|
| Ao | 45.62 – 45.12' (0' – 0.5' bgs) | 10YR 3/2 | SiLo | Many small roots |
| Fill I | 45.12 – 43.22' (0.5' – 2.4' bgs) | 10YR 3/4 | SaLo | Boulders, stones and cobbles; 2 brick fragments from north end |
| Fill II | 43.22 – 42.62' (2.4' – 3.0' bgs) | 10YR 4/6 | SaCl | Few gravels |


Image 6: Trench 3, Sections 1 and 2 facing north.

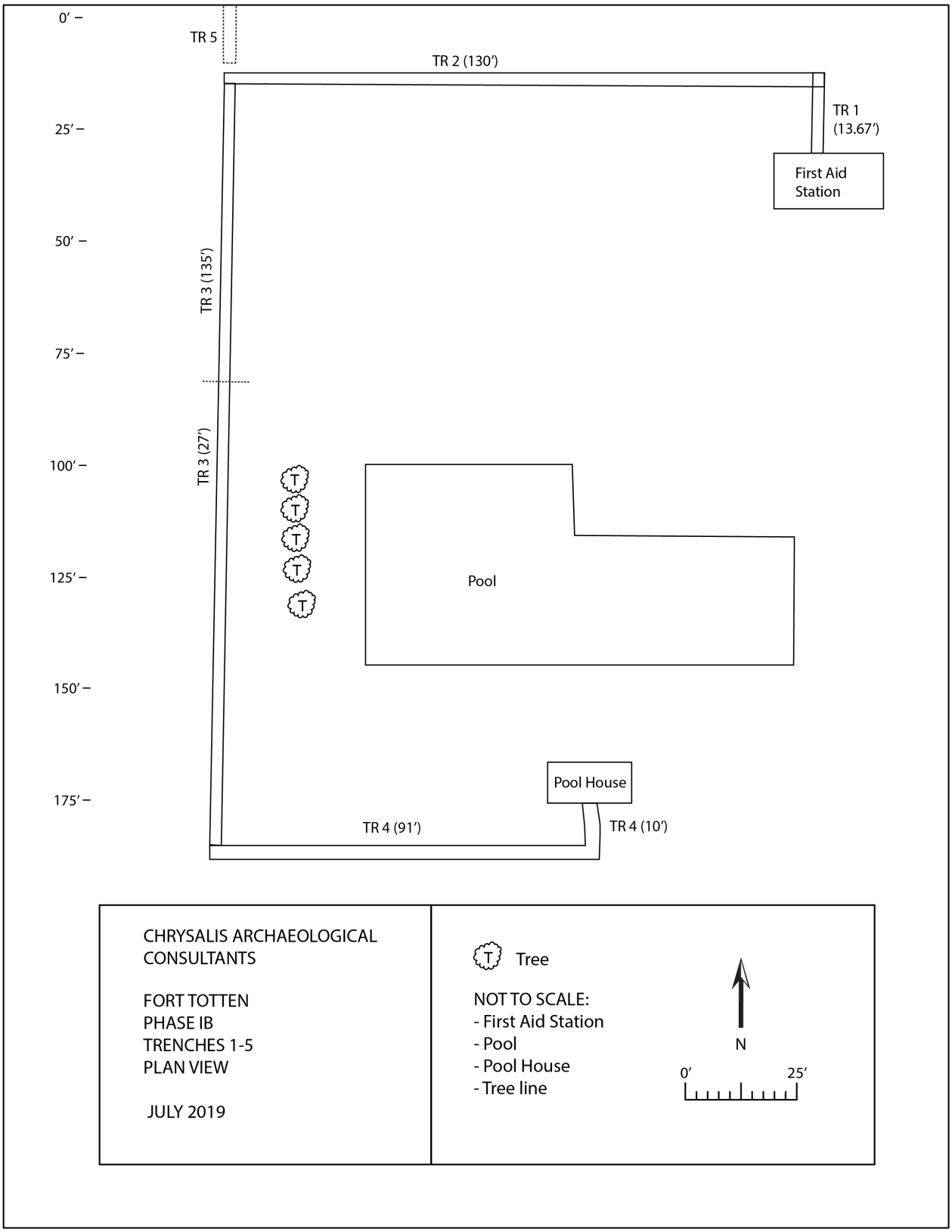



Figure 3: Plan View Trenches 1 – 5.

*TRENCH 4*

Trench 4, south of the pool, was recorded in three sections. Section 1 began at the south wall of the Pool House and continued southward for 10' (3m) (Figure 3) (Image 7). Excavation turned westward for 91' (28m) and labelled Section 2 (Image 8). The width measured 3' (0.9m) for both sections. The stratigraphy of Sections 1 and 2 was relatively consistent with 10YR 3/3 dark brown silty loam topsoil underlain with 10YR 5/8 yellowish-brown silty loam Fill containing cobbles and boulders to the base of excavation (Figure 4).

Section 3 was designated as the excavation turned northward on an upslope for a length of 27' (8m) to connect with Trench 03 (Image 9). There was a slightly higher percentage of boulders present in Section 3.

Table 6: Stratigraphic Profile – Trench 4.

| STRAT | NAVD 88 DEPTH (BGS) | MUNSELL | SOIL TYPE | COMMENTS |
|---|---|---|---|---|
| Ao | 45.62' – 44.72' (0' – 0.9' bgs) | 10YR 3/3 | SiLo | Gravels |
| Fill I | 44.72 – 43.12' (0.9' – 2.5' bgs) | 10YR 5/8 | SiLo | Boulders and cobbles |

Image 7: Trench 4, Section 1 west profile.


Image 8: Trench 4, Section 2 facing west.


Image 9: Trench 4, Section 3 facing south.

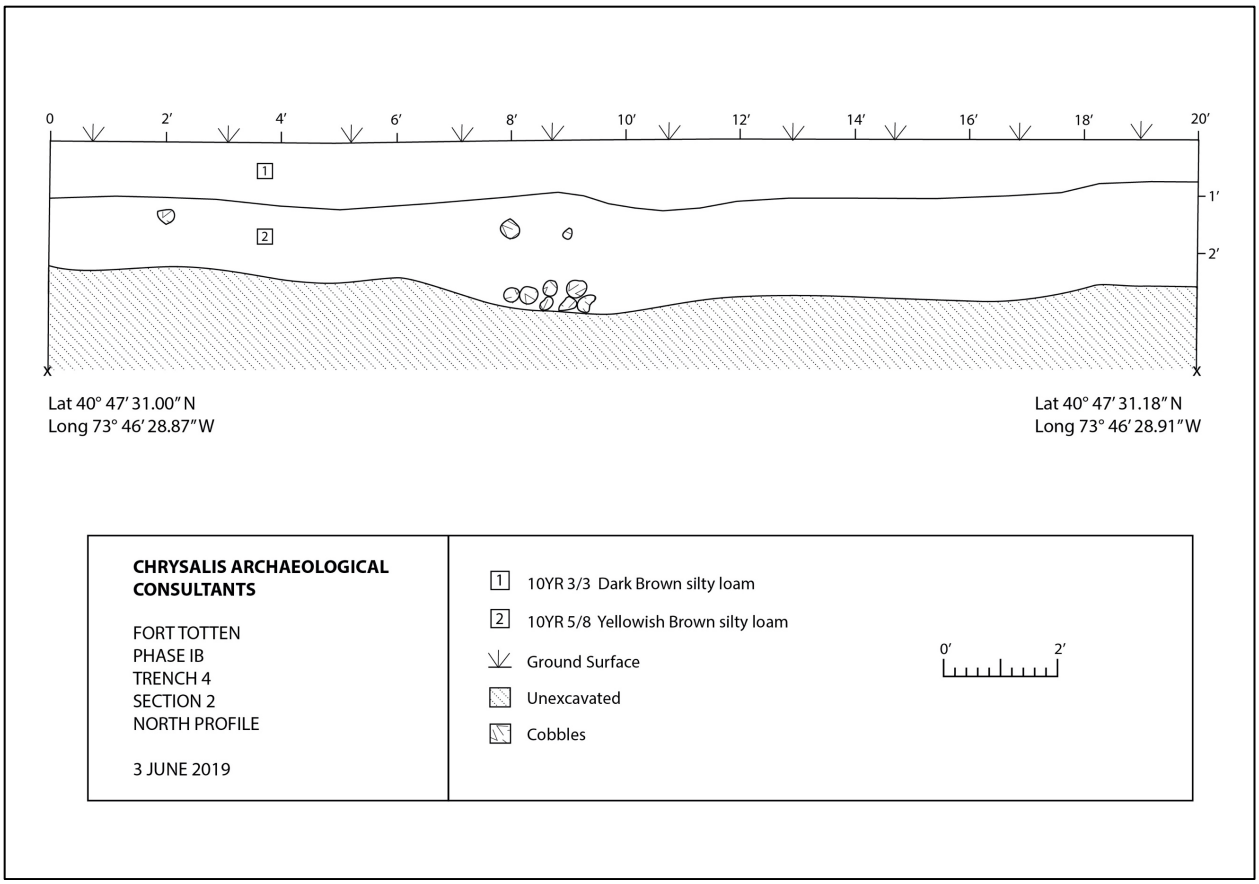


Figure 4: Trench 4, Section 2 North Profile.

*TRENCH 5*

The first section of Trench 5 was located northwest of the Pool, and continued excavation 340 degrees northward from the north end of Trench 3 for a length of 29' (9m) (Map 3). The trench then extended eastward for 9' (3m) (Section 2) to connect to Trench 1. These two sections were excavated to 3.4' (1m) bgs (Figure 3). Section 3 connected to the north end of Section 1 and excavation continued northward at a 330° bend to avoid the concrete slabs that were exposed in Trench 2 during exploratory hand excavation (Image 5). The total length of Trench 5 measured 76' (23m) (Image 10).

Stratigraphy was consistent throughout the trench except for the presence of brick, in addition to rock and cobbles, in the Fill II Stratum of Section 3. These were part of the fill and did not represent a feature or deposit. There were 4 whole bricks and 16 brick fragments. These appear to be modern (i.e. post- mid-nineteenth century) brick and none had any identifying features or marks.

One aqua glass bottle base and one bottleneck along with four clam shell fragments were found in the back-dirt post excavation. These artifacts, also from Section 3, were not retained due to lack of provenience.

Table 7: Stratigraphic Profile – Trench 5.

| STRAT | NAVD 88 DEPTH (BGS) | MUNSELL | SOIL TYPE | COMMENTS |
|---|---|---|---|---|
| Ao | 45.62 – 45.12' (0' – 0.5' bgs) | 10YR 3/3 | SaClLo | |
| Fill I | 45.12' – 43.72' (0.5' – 1.9' bgs) | 10YR 3/4 | SaLo | Gravels, rocks and cobbles |
| Fill II | 43.72 – 42.92' (1.9' – 2.7' bgs) | 10YR 4/6 | SaCl | Rocks and cobbles; Brick was noted in Section 3 |

Image 10: Trench 5, Sections 1, 2 and 3, overview facing north.

**PARADE GROUND/NORTHEAST**

*TRENCH 6*

Trench 6 began 3-degrees north of Trench 5, Section 3 and continued at a slight bend (up to 5-degrees) as it proceeded along the northeast edge of the sidewalk in the Parade Ground towards Weaver Avenue. The trench was excavated for a total length of 85' (26m) at 3' (0.9m) wide (Image 11).

The south end extended to 3.3' (1m) bgs over the course of 4' (1.2m). As the trench continued north, the excavation depth became more shallow ranging between 2.5' – 2.7' (0.76– 0.8m) bgs. Boulders were encountered between 50' – 65' (15 – 20m) north of the concrete slabs exposed in Trench 02.

A high concentration of stone and brick fragments were noted 85' (26m) north of the concrete slabs. Though they extended for a length of approximately 4' (1.2m), there was no discernible pattern or any indicators that a feature may have once been present.

Table 8: Stratigraphic Profile – Trench 6.

| STRAT | NAVD 88 DEPTH (BGS) | MUNSELL | SOIL TYPE | COMMENTS |
|---|---|---|---|---|
| Ao | 45.62 – 44.92' (0' – 0.7' bgs) | 10YR 3/2 | SaLo | Cobbles and gravels |
| Fill I | 44.92 – 44.22' (0.7' – 1.4' bgs) | 10YR 4/4 | FiSaClLo | Cobbles, gravels, stones and boulders |
| Fill II | 44.22 – 42.92' (1.4' – 2.7' bgs) | 10YR 4/6 | SaCl | Cobbles, stones and boulders |

Image 11: Trench 06, Section 1 facing south.

*TRENCH 7*

Trench 7 continued northward from the end of Trench 6 for 146' (45m) along the east side of the Parade Ground. It terminated 11' (3m) south of Weaver Avenue (Map 3). Stratigraphy remained consistent with that observed in Trench 6.

A high concentration of stone that extended for 30' (9m) north of the north end of Trench 6 was noted (Image 12). Larger stones were present 60' (18m) from the south end of Trench 7.

Three artifacts were noted and retained. These were an embossed glass bottle, a bottle base, and a bullet casing (FS# 2, 3 and 4 respectively). The soda/water bottle is labelled "Bolden & Byrne/ East 54$^{th}$ St./ New York" and dates 1879 – 1904, the years when Bolden and Byrne operated at this location (New York City Directories). As observed elsewhere, brick fragments were noted in Strata 2 and 3. Ceramic sewer pipe fragments were also noted in Stratum 2.

Table 9: Stratigraphic Profile – Trench 7.

| STRAT | NAVD 88 DEPTH (BGS) | MUNSELL | SOIL TYPE | COMMENTS |
|---|---|---|---|---|
| Ao | 45.62 – 44.92' (0' – 0.7' bgs) | 10YR 3/2 | SaLo | Cobbles, stones and gravels; FS#2, FS#3, FS#4, 1 vessel glass fragment, 1 window glass fragment, 10 brick fragments and sewer pipe fragments |
| Fill I | 44.92 – 42.92' (0.7' – 2.7' bgs) | 10YR 4/4 | FiSaClLo | Cobbles and stones; approximately 10 brick fragments |
| Fill II | 42.92 – 42.12' (2.7' – 3.5' bgs) | 10YR 4/6 | SaCl | Cobbles and stones; appropriately 10 brick fragments |

Image 12: Trench 07, Section 1 facing north.

**PARADE GROUND WEST**

*TRENCH 8*

Excavation of Trench 8 began across the street from Building 420, south of Weaver Avenue in the Parade Ground. The trench extended 16.5' (5m) north-south (Section 1) at which point it turned eastward for 190' (58m) (Section 2) to connect to Trench 7 (Image 13). The eastern portion of Section 2 was hand excavated to avoid multiple tree roots.

An 8.5' (3m) segment of a wooden duct bank was exposed beneath a gravel fill deposit from 1.9' – 2.3' (0.6 -0.7m) bgs. It crossed the trench diagonally and continued northwest to southeast beyond the boundaries of the excavation (Image 14) (Figure 5). The duct bank was left in situ.

Table 10: Stratigraphic Profile – Trench 08.

| STRAT | NAVD 88 DEPTH (BGS) | MUNSELL | SOIL TYPE | COMMENTS |
|---|---|---|---|---|
| Ao | 45.62 – 45.02' (0' – 0.6' bgs) | 10YR 3/2 | SaLo | |
| Fill I | 45.02 – 44.22' (0.6' – 1.4' bgs) | 10YR 4/4 | SiClLo | Few gravels and large roots; |
| Fill II | 44.22 – 42.92' (1.4' – 2.7' bgs) | 10YR 4/6 | ClLo | Cobbles, gravels and small stones |

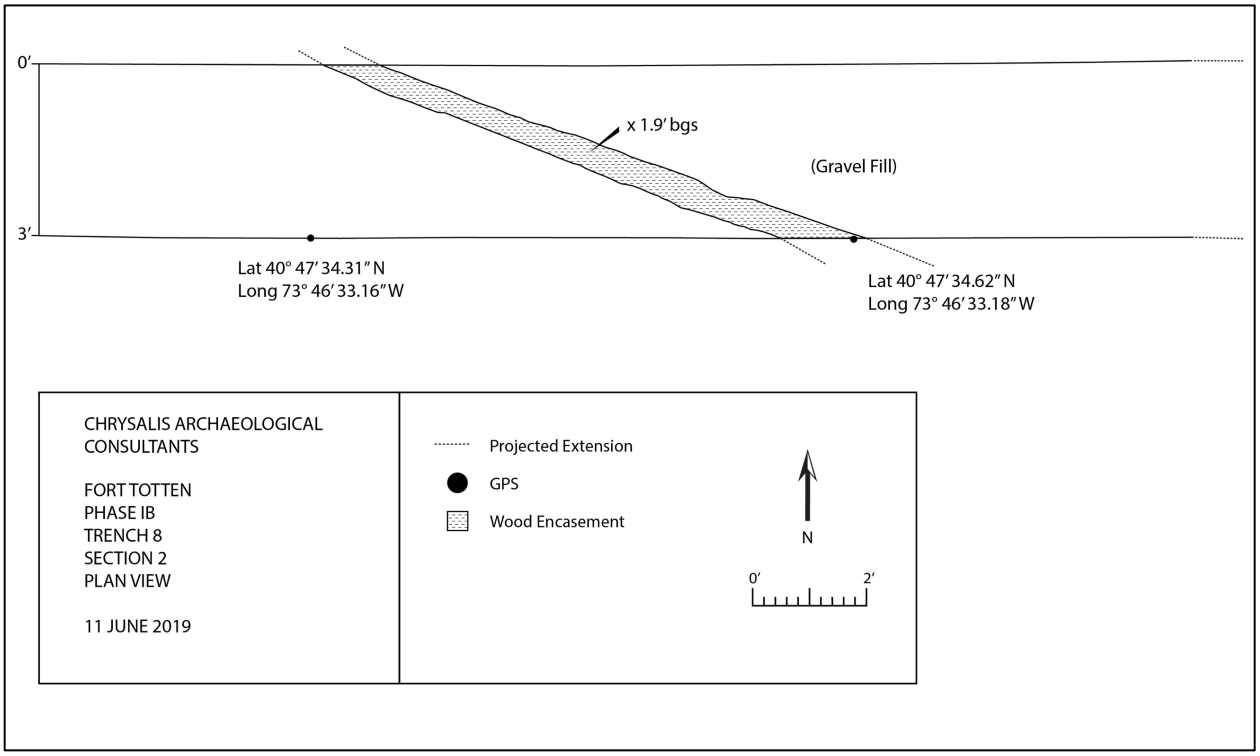



Figure 5: Trench 08, Section 2 Plan View with wooden duct bank.


Image 13: Trench 08, Section 1 facing north.


Image 14: Trench 08, Section 2 facing east.

## AREA BETWEEN BUILDINGS 420 AND 422

### *TRENCH 9*

The first section extended 9.5' (2.9m) north of the Weaver Avenue curb line within the grassy area before extending 6' (1.8m) beneath the sidewalk in front of Building 420. A brick pathway (Feature 1) was partially exposed beneath the sidewalk extending from 2.7' – 3.1' (0.8 – 0.9m) bgs.

The brick path sloped downward towards Weaver Avenue and continues, possibly southward, beyond the bounds of the excavation. The exposed portion of the path measured 3' (0.9m) east-west and 4' (1.2m) north-south. The bricks measured 0.7' by 0.2' (0.21 x 0.06m) and were oriented longitudinally north-south (Figure 01 above). No makers marks, or other identifying information was observed in the bricks, which appear to be modern. A few dislodged bricks were present north of the path. The path was left in situ

1' (0.3m) north of the brick pathway an east-west running concrete and bluestone duct bank was encountered along with two utility cables directly above the duct bank. The duct bank extended 1.4' – 2.4' (0.4 – 0.7m) bgs (Image 15) (Figure 6). No cultural material was encountered.

The second section of the trench continued excavation northward for 60' (18m). Section 3 extended north-south for 62' (19m) before making a 258-degree bend westward towards Building 422 for 36' (11m) (Image 16). A 4' x 4' (1.2m x 1.2m) section, at the east end intersecting with Section 2, was excavated to 3.0' (0.9m) bgs. As the trench proceeded westward, excavation depths terminated at 2.5' (0.8m) bgs.

Artifacts documented include an ironstone rim (FS#5) found 115' (35m) north of the Weaver Avenue curb line at 1.8' (0.5m) bgs, and modern ceramic tile (FS# 6) found 103' (31m) north of the Weaver Avenue interior curb line at 1.9' (0.6m) bgs. A modern corroded plyer was found at the top of Stratum 2, approximately 1' (0.3m) bgs, but was not retained.

Table 11: Stratigraphic Profile – Trench 9, Sections 1 and 2.

| STRAT | NAVD 88 DEPTH (BGS) | MUNSELL | SOIL TYPE | COMMENTS |
|---|---|---|---|---|
| Ao | 45.62 – 44.82' (0' – 0.8' bgs) | 10YR 3/2 | SaLo | |
| Fill I | 44.82 – 43.32' (0.8 – 2.3' bgs) | 10YR 5/6 | SaClLo | Cobbles, gravels and boulders; few brick, brick fragments and an unidentified nail |

Table 12: Stratigraphic Profile – Trench 9, Section 3.

| STRAT | NAVD 88 DEPTH (BGS) | MUNSELL | SOIL TYPE | COMMENTS |
|---|---|---|---|---|
| Ao | 45.62 – 45.22' (0' – 0.4' bgs) | 10YR 3/2 | ClLo | |
| Fill I | 45.22 – 43.12' (0.4 – 2.5' bgs) | 10YR 5/6 and 10YR 6/4 | SiLo | Cobbles, gravels, stones and rots; FS#5, FS#6, window glass and 5 brick fragments |

Image 15: Trench 09, Section 2 facing south.

Image 16: Trench 09, Section 3 overview at bend towards Building 422, facing southwest.

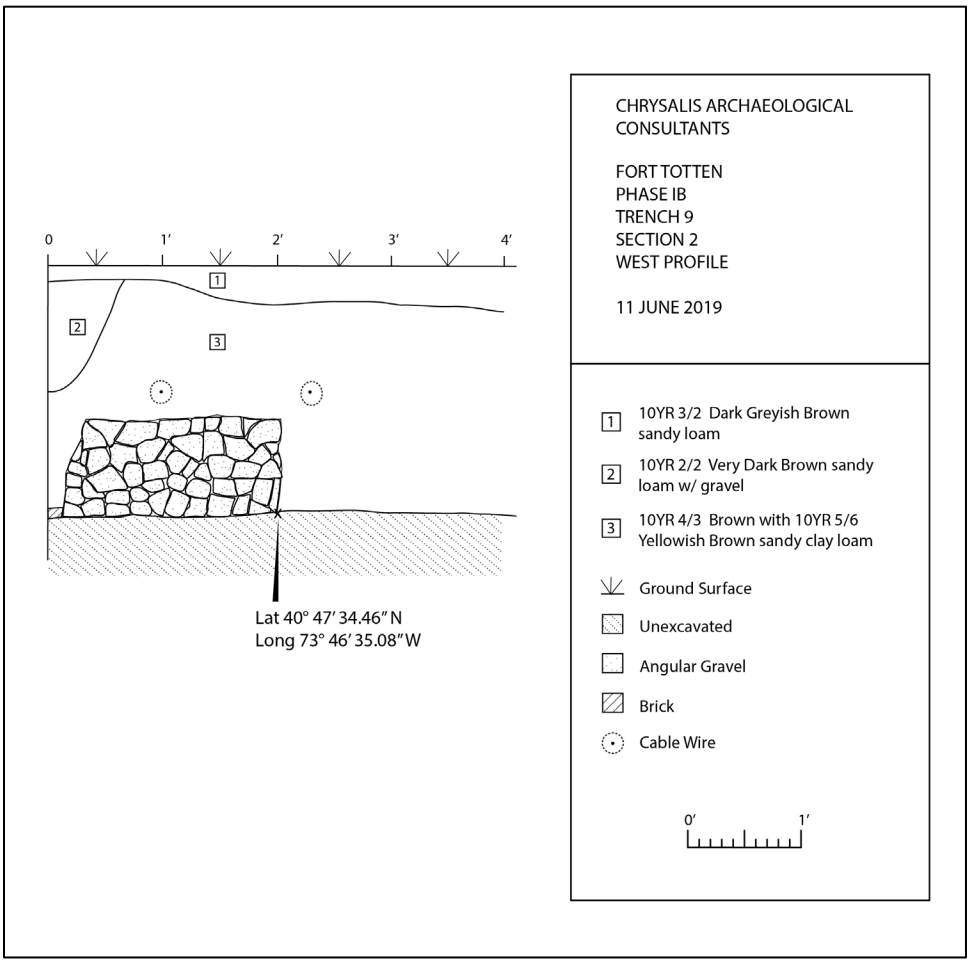


Figure 6: Trench 09 Section 2 west profile.

*TRENCH 10*

Trench 10, Section 1 extended 83' (25m) north from the north end of Trench 9, Section 3 and terminated 34' (10m) south of the southern interior curb line of Walter Reed Road (Image 17). The trench width was 2.4' (0.7m) and it was excavated to 2.9' (0.9m) bgs. Three strata were observed consistently throughout the trench (Table 13). A 10YR 3/2 very dark grayish brown silty loam was underlain with 10YR 4/3 brown and 10YR 5/4 yellowish-brown silty clay loam. The base stratum was 10YR 5/4 yellowish-brown mottled with 10YR 5/6 yellowish-brown silty loam (Table 13). The north end of Section 1 contained multiple utilities.

Section 2 branched westward from Trench 09, Section 3 and extended 13.5’ (4m) to the east wall of Building 422 (Image 18) and abutted the wall for a 4.5' (1.3m) length. The trench width was 2.4' (0.7m). and excavation depth ranged from 2.9' (0.9m) to 3.1' (0.9m) bgs.

The top of a water main pipe was exposed on the east side of the walkway at 2.3' (0.7m) bgs crossing north – south. Within Section 1 two ceramic sherds and a milk glass fragment (FS#7) were found at 1.4' (0.4m) bgs, located 33' (10m) north of Trench 09, Section and 3 5' (1.5m) north of the above-mentioned utility cables. Additionally, one modern brick, marked "A.B.C." was found at the base of Stratum 2 but not retained. No cultural material was observed or recovered in Section 2.

Table 13: Stratigraphic Profile – Trench 10.

| STRAT | NAVD 88 DEPTH (BGS) | MUNSELL | SOIL TYPE | COMMENTS |
|---|---|---|---|---|
| Developing Ao | 45.62 – 44.82' (0 – 0.8' bgs) | 10YR 3/2 | SiLo | Extensive roots |
| Fill I | 44.82 – 43.62' (0.8 – 2.0' bgs) | 10YR 4/3 brown and 10YR 5/4 | SiClLo | |
| Fill 2 | 43.62 – 42.72' (2.0 – 2.9' bgs) | 10YR 5/4 yellowish brown mottled with 10YR 5/6 | SiLo | |

Image 17: Trench 10, Section 1 facing north towards Walter Reed Road.

Image 18: Trench 10 Section 2 for connection to Building 422, facing east.

**SOUTH OF WALTER REED ROAD**

*TRENCH 11*

This trench extended 32' (9.8m) north from the end of Trench 10, Section 2 towards Walter Reed Road and measured 2.8' (0.9m) wide. Two strata were observed (Table 14).

As the trench progressed northward towards Walter Reed Road., the ground surface transitioned from a grassy area into a loose gravel overlying coarse sand with silt (Image 19). This segment was excavated to the maximum depth of 2.4' (0.7m) bgs. The trench extended another 6' (1.8m) westward and was excavated to 4.1' (1.2m) bgs in a 3' (0.9m) wide area. No cultural material was encountered.

Table 14:Stratigraphic Profile – Trench 11.

| STRAT | NAVD 88 DEPTH (BGS) | MUNSELL | SOIL TYPE | COMMENTS |
|---|---|---|---|---|
| Ao | 45.62 – 44.52' (0 – 1.1' bgs) | 10YR 2/1 | LoSa | |
| Fill I | 44.52 – 43.22' (1.1 – 2.4'' bgs) | 10YR 5/6 | Si Cl | Gravels and small stones; 2 brick fragments |

Image 19: Trench 11 Section 1 towards Walter Reed Road curb line, facing north.

*TRENCH 12*

This trench extended 82' (25m) westward, with a 253-degree bend, from the north end of Trench 11. The north profile of the trench was 2.2' (0.7m) south of the curb line along Walter Reed Road and continued westward towards Sylvester Lane. The trench measured 2.5' (0.8m) wide and was excavated to 2.4' (0.7m) bgs.

The uppermost stratum consisted of loosely packed gravels in a 10YR 2/1 black loamy sand to 0.6' (0.2m) bgs underlain with 10YR 4/1 dark gray clay loam. The base stratum was 10YR 5/6 yellowish-brown sandy loam with cobbles, small stones and gravels (Table 15). No cultural material was encountered (Image 20).

Table 15: Stratigraphic Profile – Trench 12.

| STRAT | NAVD 88 DEPTH (BGS) | MUNSELL | SOIL TYPE | COMMENTS |
|---|---|---|---|---|
| Ao | 45.62 – 45.02' (0 – 0.6'' bgs) | 10YR 2/1 | LoSa | Asphalt and gravels |
| Fill I | 45.02 – 44.62' (0.6 – 1.0' bgs) | 10YR 4/1 | ClLo | |
| Fill 2 | 44.62' – 43.22' (1.0 – 2.4' bgs) | 10YR 5/6 | SaLo | Cobbles, small stones and gravels |


Image 20: Trench 12, Section 1 south profile.

## EAST OF SYLVESTER LANE (WEST OF BUILDING 405)

### *TRENCH 13*

Excavated on a downslope from east-west, Trench 13 extended 9' (0.3m) into the grassy area east of Sylvester Lane. Excavation of the 2.5' (0.8m) wide trench extended to a depth ranging between 2.4’ to 4.1' (0.7 – 1.2m) bgs (Image 21). Two strata were observed (Table 16). No cultural material was encountered.

Table 16: Stratigraphic Profile – Trench 13.

| STRAT | NAVD 88 DEPTH (BGS) | MUNSELL | SOIL TYPE | COMMENTS |
|---|---|---|---|---|
| Ao | 45.62 – 44.12’ (0 – 1.5' bgs) | 10YR 3/2 | SiLo | |
| Fill I | 44.12– 43.22’ (1.5 – 2.4' bgs) | 10YR 5/6 | SiClLo | |


Image 21: Trench 13, Section 1 overview facing east.

## FRONT OF BUILDING 422

### *TRENCH 14*

Sections 1 and 2 extended east-west for 135' (41m) and measured 2.5' (0.8m) wide. Depth of excavation increased from 2.2' (0.8m) on the north side to 2.8' (0.7 – 0.9m) on the south side due to ground slope (Image 22). Soils were relatively consistent to other excavation trenches (Table 17). One modern brick marked "ABC" and 2 fragmented bricks were noted but not retained.

Section 3 extended westward towards Murray Avenue from the western end of Section 1 for 136' (41m). Stratigraphy differed slightly from Sections 1 and 2 (Table 18). Brick was present in the north profile wall from 0.7 – 0.9' (0.2 – 0.3m) bgs and associated with a rubble fill deposit at the west end of the trench (Image 23). No cultural material was retained.

Table 17: Stratigraphic Profile – Trench 14, Sections 1 and 2.

| STRAT | NAVD 88 DEPTH (BGS) | MUNSELL | SOIL TYPE | COMMENTS |
|---|---|---|---|---|
| Ao | 41.17 – 40.57' (0 – 0.6' bgs) | 10YR 3/2 | SiLo | |
| Fill I | 40.57 – 39.47' (0.6' – 1.7' bgs) | 10YR 4/3 and 10YR 5/4 | SiClLo | Cobbles, small stones and gravels; 1 marked brick and 2 fragmented bricks |
| Fill II | 39.47' – 38.37 (1.7' – 2.8' bgs) | 10YR 5/6 | SaLo | |

Table 18: Stratigraphic Profile – Trench 14, Section 3.

| STRAT | NAVD 88 DEPTH (BGS) | MUNSELL | SOIL TYPE | COMMENTS |
|---|---|---|---|---|
| Ao | 41.17 – 40.37' (0 – 0.8'bgs) | 10YR 3/3 | SaLo | |
| Fill I | 40.37'– 38.37 (0.8 – 2.8' bgs) | 10YR 5/8 | SiLo | |

Image 22: Trench 14, Sections 1 and 2 facing east from front of Building 422.

Image 23: Trench 14, Section 3 north profile with brick.

**FRONT OF BUILDING 410**

*TRENCH 15*

Trench 15 was excavated in two sections. Excavation began north of Trench 14, Section 3. A 6' (1.8m) section of the trench was burrowed beneath the sidewalk and excavation continued 13' (4m) north of the sidewalk adjacent to Weaver Avenue. A concrete and bluestone duct bank was exposed crossing the trench east-west within this 13' section. The duct bank extended from 0.8' to 2.3' (0.2 – 0.7m) bgs (Image 24) (Figure 7) and had a similar composition and the same east-west orientation as the one found in Trench 9, Section 2. A rubble fill deposit composed primarily of stone with some loose brick and crushed mortar fragments extended north of the duct bank for 8' (2.4m) extending from 1.5 – 3.0' (0.5 – 0.9m) bgs.

The trench turned northwestward for 52' (16m). The west face of a 3.0' (0.9m) wide concrete duct bank was exposed from 1.5 to 3.0' (0.5 – 0.9m) bgs. It was underlain with a 0.1' (.03m) thick layer of mortar (Image 25) (Figure 7).

An additional segment of duct bank was exposed another 3.0' (.9m) westward (Figure 8). The 3.8' (1.15m) length segment was exposed from 0.9' – 1.9' (0.3 – 0.6m) bgs. It was also composed of concrete and stone (Image 26). All three duct banks were demolished to facilitate current project plans. The trench continued westward towards the sidewalk adjacent to Murray Avenue. Multiple utility disturbances were observed directly east of the sidewalk.

Two strata present in Section 1 – 10YR 4/2 dark grayish brown sandy loam overlying a 10YR 4/6 dark yellowish-brown sandy clay loam fill deposit with stone and loose brick (Table 19).

The second section of the trench extended beneath the sidewalk adjacent to Murray Avenue for 6' (1.8m) and continued 9.5' (2.9m) in the grassy area to the west end of the Murray Avenue curb line. In this section a series of aligned bricks topped with a 0.1' (.03m) thick tar coating was exposed and labelled Feature 2.

Located along the curb line, Feature 2 extended north-south for 3.3' (1m) and was present from 1.6' – 1.9' (0.48 – 0.57m) bgs. The north edge of the feature extended eastward 1.1' (0.3m) and the southern edge extended 0.4' (0.1m) eastward (Figure 9). The feature was previously disturbed but based on the tar coating this may have been part of drainage system or catch basin. (Image 27). The feature was demolished during excavation.

Three strata were observed in Section 2 (Figure 10). A 10YR 4/2 dark grayish brown sandy loam underlain with 10YR 3/3 dark brown clay loam. The base stratum was 10YR 5/8 yellowish-brown silty clay loam (Table 20).

Table 19: Stratigraphic Profile – Trench 15, Section 1.

| STRAT | NAVD 88 DEPTH (BGS) | MUNSELL | SOIL TYPE | COMMENTS |
|---|---|---|---|---|
| Ao | 41.17– 40.47' (0 – 0.7'' bgs) | 110YR 4/2 | SaLo | |
| Fill I | 40.47' – 38.67 (0.7 – 2.5' bgs) | 10YR 4/6 | SaClLo | Few cobbles and stones |

Table 20: Stratigraphic Profile – Trench 15, Section 2.

| STRAT | NAVD 88 DEPTH (BGS) | MUNSELL | SOIL TYPE | COMMENTS |
|---|---|---|---|---|
| Developing Ao | 41.17 – 40.47' (0 – 0.7'' bgs) | 10YR 4/2 | SaLo | |
| Fill I | 40.47 – 39.47' (0.7 – 1.7' bgs) | 10YR 3/3 | ClLo | Loose brick, gravels and stone. |
| Fill II | 39.47 – 37.67' (1.7 – 3.5'' bgs) | 10YR 5/8 | SiClLo | |

Image 24: Trench 15, Section 1 bluestone duct bank #1 facing east.

Image 25: Trench 15, Section 1 duct bank #2 facing west.

Image 26: Trench 15, Section 1 facing east.

Image 27: Trench 15, Section 2 Feature #2 facing north.

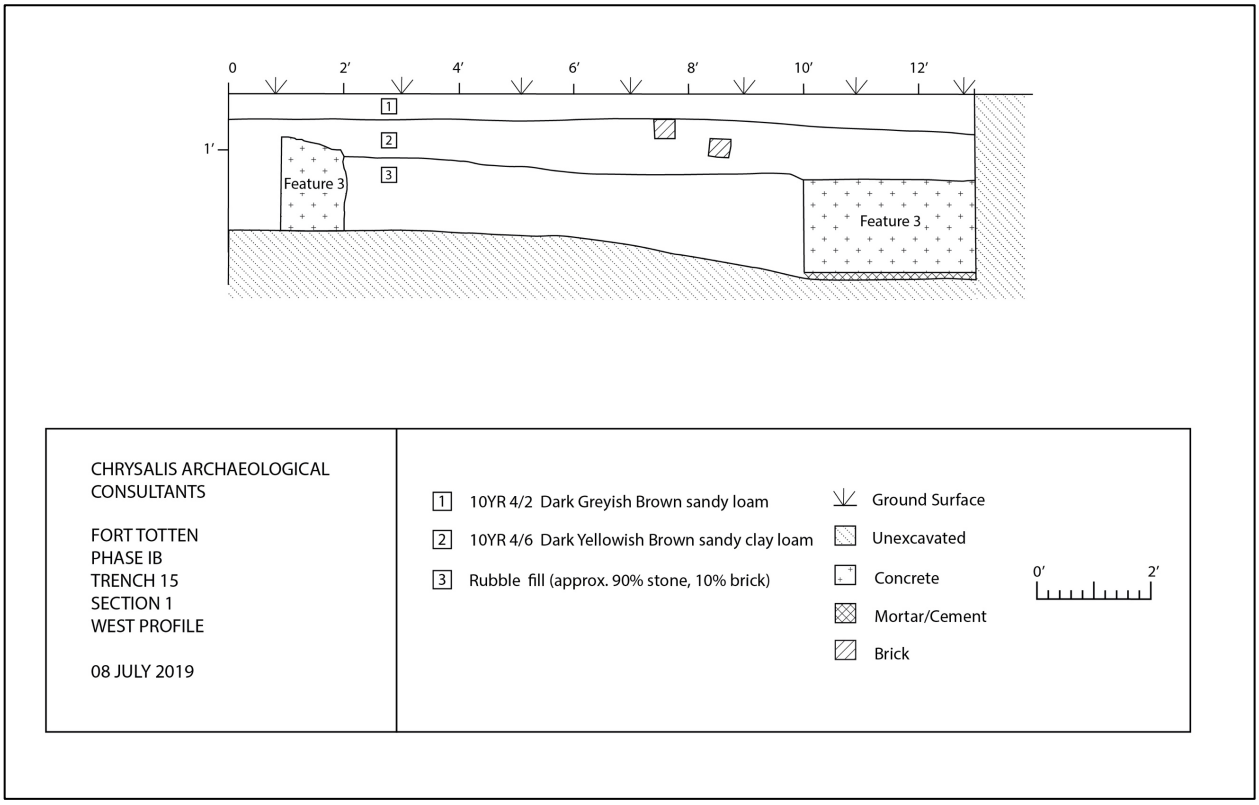



Figure 7: Trench 15, Section 1 west profile with duct banks 1 and 2.

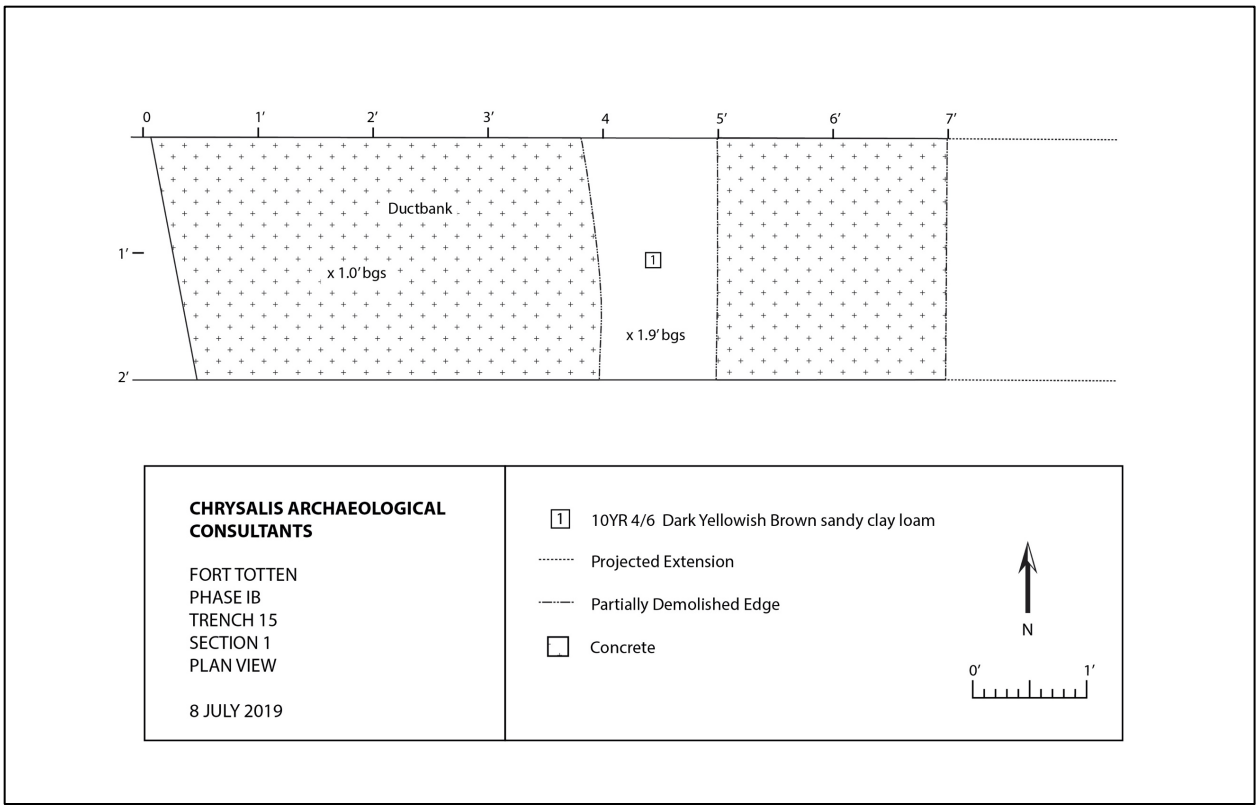



Figure 8: Trench 15, Section 1 Plan View.

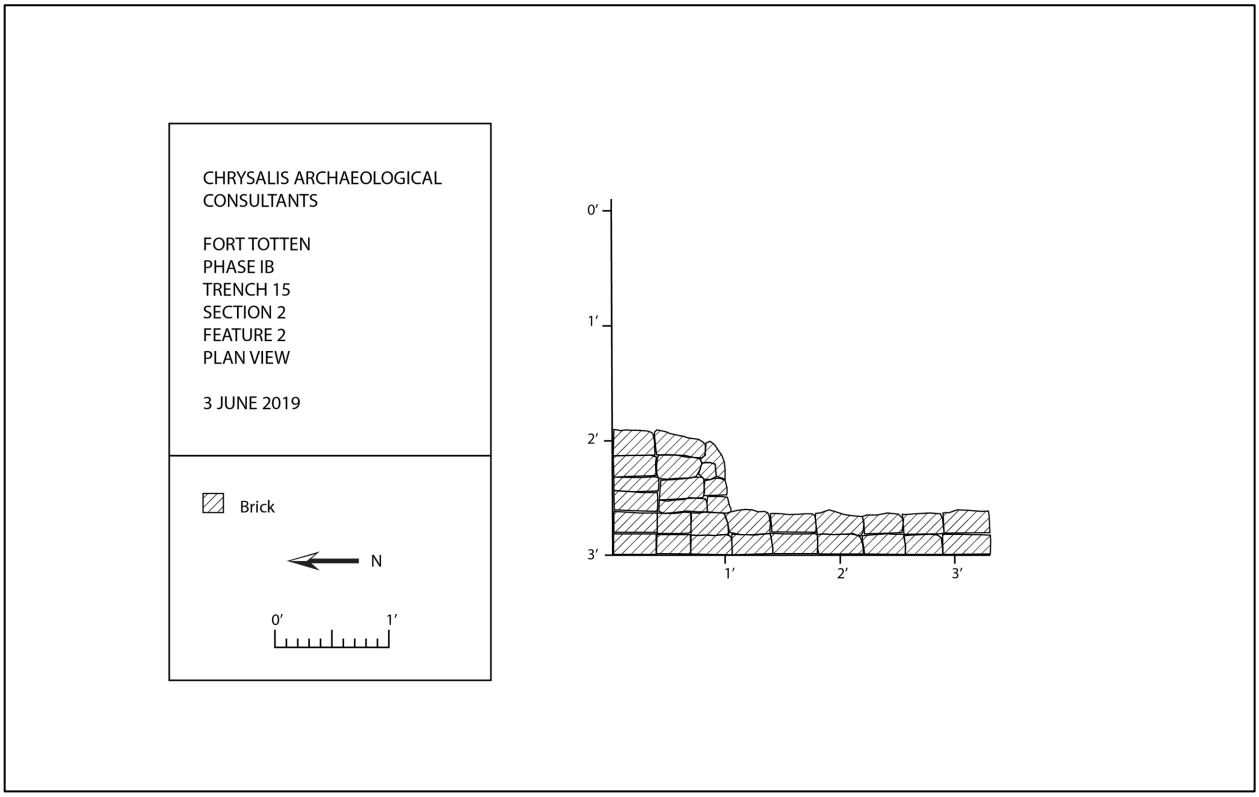



Figure 9: Trench 15, Section 2 Plan View Feature #2.

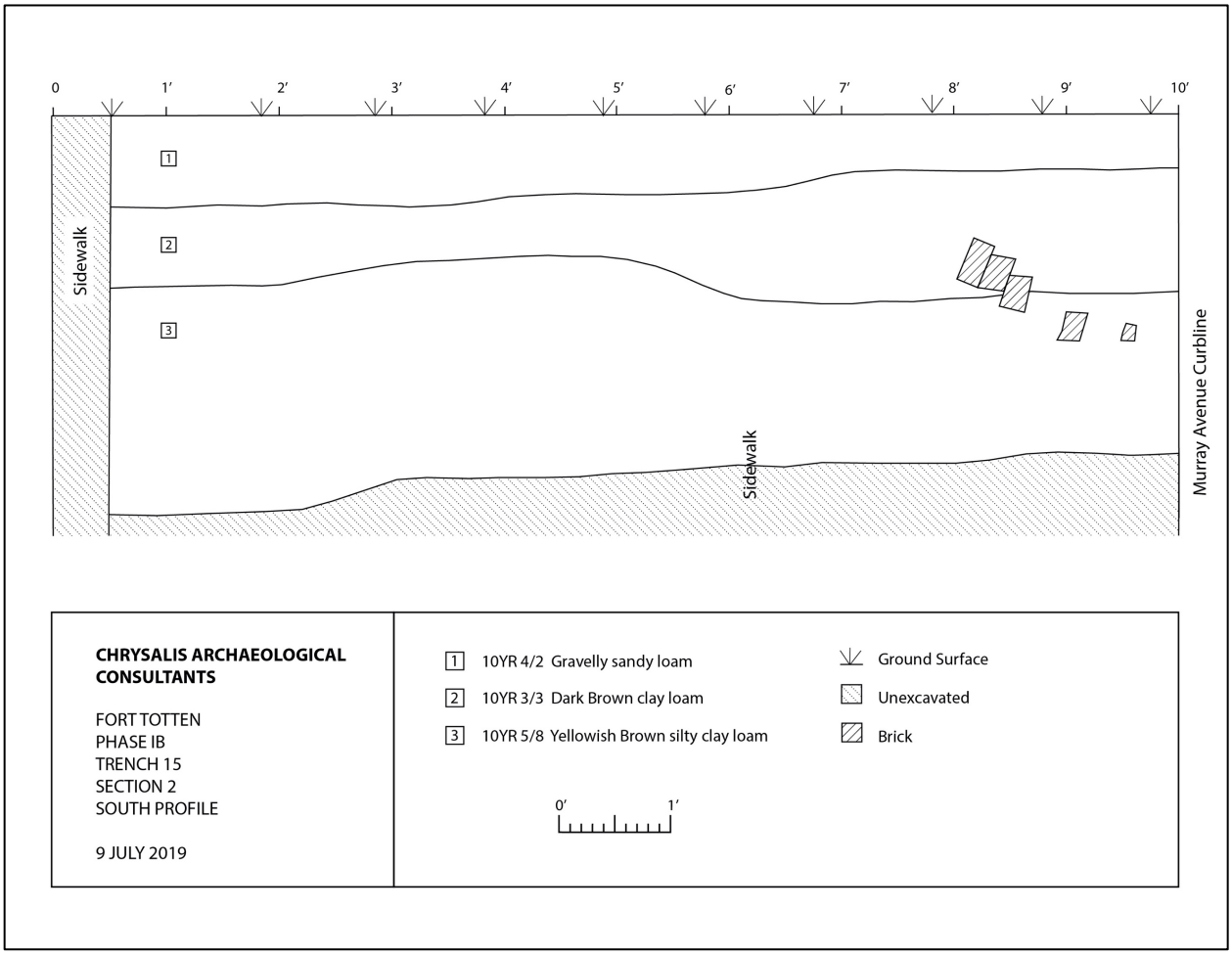



Figure 10: Trench 15, Section 2 south profile.

## BETWEEN MURRAY AVENUE AND TOTTEN AVENUE

### *TRENCH 16*

Trench 16 was documented in three sections. Section 1 extended 16' (5m) east-west through the grassy area between Murray Avenue and Totten Avenue with an additional 6' (1.8m) beneath the sidewalk adjacent to Totten Avenue (Image 28). The trench was 2.4' (0.7m) wide and excavated to 2.6' (0.8m) bgs. The uppermost stratum was 10YR 4/2 dark grayish brown sandy loam underlain with 10YR 3/3 dark brown sandy clay loam. Stratum 3 was 10YR 4/6 dark yellowish-brown silty clay loam underlain with 10YR 3/3 dark brown sandy clay loam to the base of excavation (Table 21). A whiteware rim sherd and aqua glass bottle fragment were found in Stratum 4 at 2.2’ – 2.5' (0.7 – 0.8m) bgs (FS#8).

Section 2 excavation extended 5' east-west and turned 306-degrees northwestward. Excavation extended to 3.5' (1m) bgs. Clam shell fragments were present from 3.1’ – 3.5' (0.9 – 1m). As the trench continued northwestward along Totten Avenue, the excavation depth decreased to 2.6' (0.8m) bgs. Section 2 was excavated for a total length 175' (53m) ending at the northwest edge of

the walkway in front of Building 638. The last 60' (18m) of Section 2 consisted of a rubble fill deposit with natural and cut stones in a matrix of 10YR 4/6 dark yellowish-brown sandy loam (Image 29).

Three strata were observed in Section 2. The uppermost stratum was 10YR 4/2 dark grayish brown sandy loam underlain with 10YR 3/3 dark brown silty loam with pebbles and gravels. A 10YR 4/6 dark yellowish-brown silty clay loam with gravels and small stones continued to the base of excavation (Table 22). A porcelain base was found in the back dirt but not retained. No other cultural material was observed.

Section 3 continued beneath the walkway in front of Building 638 (The Chapel) and the rubble fill deposit continued for approximately 20' (6.m) northwestward of the walkway. The cut stones varied in size with the largest measuring 1.9’ by 2.3' (0.6 by 0.7m) although the majority measured 0.5’ by 1.5' (0.2 by 0.5m). No cultural material was retained from the rubble fill though a few brick and clear glass vessel fragments were noted. The trench continued for 80' (24m) to the east curb line of Chapel Road. A brick marked "JJJ" was found in a fill deposit at the east end of Chapel Road (Image 30).

Section 3 then continued another 96' (29m) westward from the west curb line of Chapel Road to the front of Building 637. Four defunct electric cables crossed the trench on a north-south diagonal at 1.5' (0.5m) bgs overlying a large boulder that extended beyond the base of excavation (Image 31)) (Figure 11).

Three strata noted in Section 3. A 10YR 3/2 very dark grayish brown sandy loam was underlain with 10YR 4/3 brown silty loam. The base stratum was 10YR 5/8 yellowish- brown silty clay loam (Table 23).

An embossed United States Army general service brass jacket button (FS#9) was found 6' west of electric cables at 1.3' (0.4m) bgs. This button design was introduced in 1902 and the rimmed shank was common during World War II. The back of the button is too corroded and damaged to identify a makers mark (Albert 1997; Cole 2007). Two coal fragments were found in the same context but not retained. Additionally, a cut metal spike (FS#10), was also recovered in Section 3.

Table 21: Stratigraphic Profile – Trench 16, Section 1.

| STRAT | NAVD 88 DEPTH (BGS) | MUNSELL | SOIL TYPE | COMMENTS |
|---|---|---|---|---|
| Ao | 41.17 – 40.47’ (0 – 0.7' bgs) | 10YR 4/2 | SaLo | |
| A | 40.47 – 39.87' (0.7 – 1.3'’ bgs) | 10YR 3/3 | SaClLo | Gravels and stones |
| Fill I | 39.87– 39.57’ (1.3 – 1.6' bgs) | 10YR 4/6 | SiClLo | |
| Buried A Horizon | 39.57– 38.57 (1.6 – 2.6’ bgs) | 10YR 3/3 | SiClLo | FS#8 |

Table 22: Stratigraphic Profile – Trench 16, Section 2.

| STRAT | NAVD 88 DEPTH (BGS) | MUNSELL | SOIL TYPE | COMMENTS |
|---|---|---|---|---|
| Ao | 41.17 - 40.67' ('0 – 0.5' bgs) | 10YR 4/2 | SiLo | Pebbles and gravels |
| Fill I | 40.67' – 39.77' (0.5 – 1.4' bgs) | 10YR 3/3 | SiLo | Pebbles and gravels (higher concentration of pebbles on east end 0.9 – 1.3' (0.3 – 0.4m) bgs; 2 brick fragments and 1 clam shell fragment |
| Fill II | 39.77 – 38.57' (1.4 – 2.6' bgs) | 10YR 4/6 | SiCl Gravels and small stones | |

Table 23: Stratigraphic Profile – Trench 16, Section 3.

| STRAT | NAVD 88 DEPTH (BGS) | MUNSELL | SOIL TYPE | COMMENTS |
|---|---|---|---|---|
| Ao | 41.17– 40.27' (0 – 0.9' bgs) | 10YR 3/2 | SaLo | |
| Fill I | 40.27 – 38.67' (0.9 – 2.5' bgs) | 10YR 4/3 | SiLo | FS#9 and FS#10 |
| Fill II | 38.67 – 38.07' (2.5 – 3.1' bgs) | 10YR 5/8 | SiClLo | |

Image 28: Trench 16, Section 1 location overview facing west.

Image 29: Trench 16, Section 2 facing northwest.

Image 30: Trench 16, Section 3, brick marked “JJJ”.

Image 31: Trench 16, Section 3 facing west.

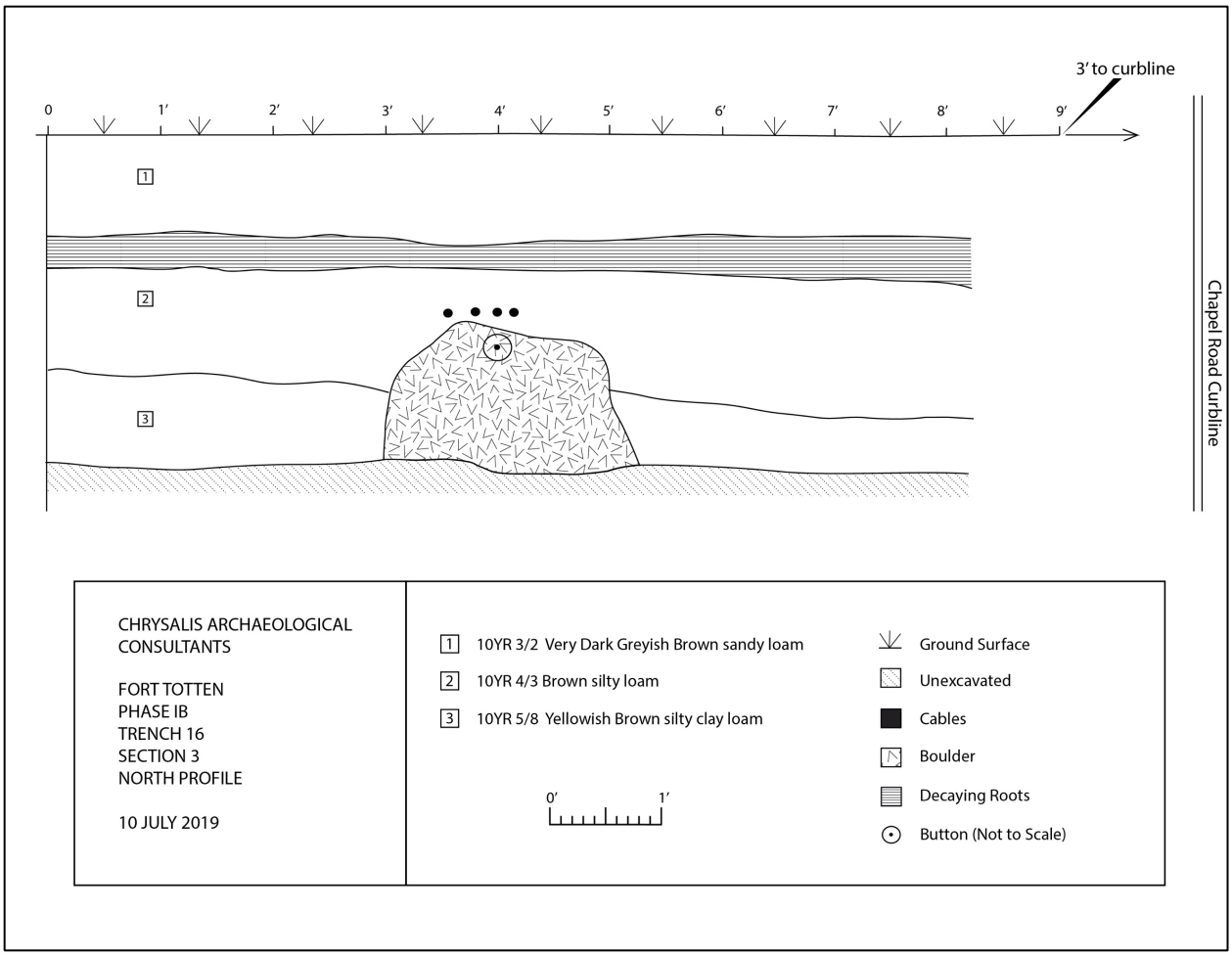



Figure 11: Trench 16, Section 3 north profile.

## IN FRONT OF BUILDING 637

### *TRENCH 17*

Excavation began on the east end of the concrete walkway that leads to the front entrance of Building 637. The trench extended westward for 69' (21m) into the grassy area and was 2.4' (0.7m) wide. However, the trench width was extended north-south to 4.3' (1.3m) at the western most 4' (1.2m) of the trench. This 4' (1.2m) segment was excavated to 3.2' (1m) bgs (Image 32).

Two strata were observed in Section 1. The uppermost stratum was 10YR 4/2 dark grayish brown sandy loam underlain with 10YR 5/6 yellowish-brown sandy clay loam fill with few cobbles and small stones (Table 24). Artifacts recovered from Stratum 2 included a cut metal spike (FS#11) found 1' (0.3m) west of the west end of the concrete walkway at 1.3' (0.4m) bgs. A horseshoe (FS#12) was found 14' (4.3m) west of the west edge of the walkway at 0.5’ – 1.0' (0.2 – 0.3m) bgs.

The trench turned 11 degrees north for 60' (18m), this was documented as Section 2. Multiple utilities were present at the south end and large tree roots dominated the northernmost 20' (6m) of the trench. The stratigraphy strongly resembled that of Section 1 however, no cultural material was present (Image 33).

Section 2 extended an additional 9' (2.7m) southward into the grassy area adjacent to Totten Avenue before crossing Totten Avenue and continuing westward (Map 03).

Table 24: Stratigraphic Profile – Trench 17, Section 1.

| STRAT | NAVD 88 DEPTH (BGS) | MUNSELL | SOIL TYPE | COMMENTS |
|---|---|---|---|---|
| Ao | 41.17 – 40.47' (0 – 0.7' bgs) | 10YR 4/2 dark | SaLo | |
| Fill I | 40.47 – 38.67' (0.7 – 2.5' bgs) | 10YR 5/6 | SaClLo | Few cobbles and small stones; brick in north profile, FS#11 and FS#12 |

Table 25: Stratigraphic Profile – Trench 17, Section 2.

| STRAT | NAVD 88 DEPTH (BGS) | MUNSELL | SOIL TYPE | COMMENTS |
|---|---|---|---|---|
| Ao | 41.17 – 40.47' (0 – 0.7' bgs) | 10YR 4/2 | SaLo | |
| Fill I | 40.47 – 38.67' (0.7 – 2.5' bgs) | 10YR 5/6 | SaClLo | Few cobbles and large roots; 2 brick frags. |

Image 32: Trench 17, Section 1 overview facing northeast.

Image 33: Trench 17, Section 2 excavation in progress, facing north.

## SIDE OF BUILDING 637

### *TRENCH 18*

Documented in two sections, Section 1 extended 6' (1.8m) beneath the sidewalk on the west side of Building 637 and continued 52' (15.9m) northwards in the grassy area. The width of the trench measured between 2.0' – 2.4' (0.6 – 0.7m). Excavations extended to 2.6' (0.8m) bgs, however the northern most 4' (1.2m) length was excavated to 3.2' (1m) bgs.

Three strata were observed in Section 1. The uppermost stratum was 10YR 4/2 dark grayish brown sandy loam underlain with 10YR 4/3 brown and 10YR 4/6 dark yellowish-brown silty clay loam with large roots and few gravels. The base stratum was 10YR 5/8 yellowish-brown and 10YR 4/6 dark yellowish-brown silty clay loam with pebbles and cobbles (Table 26) (Image 34). There was coal flecking in Stratum 2 and 3 (Figure 12). No cultural materials were encountered. However, the presence of ceramic sewer pipe fragments in Stratum 3 indicates prior disturbance.

The trench turned eastward for 31' (9.4m) with an additional 6' (1.8m) length of excavation beneath the walkway abutting the west wall of Building 637 (Section 2) (Image 35). The trench was widened to 2.4 (0.7m) for a 4' (1.2m) length east-west at the intersection with Trench 18, Section 1; it then continued at a width of 2.0' (0.6m). The western most 4' (1.2m) length of the trench was excavated to 3.2' (1m) bgs.

Two strata were observed in Section 2. The uppermost stratum was 10YR 4/2 dark grayish brown sandy loam underlain with 10YR 4/6 yellowish-brown clay loam to the base of excavation (Table 27). A bullet casing (FS#13) was found in Stratum 2 at 1.3' (0.4m) bgs. Two unidentified corroded nails and one window glass fragment were found in the back dirt but not retained due to lack of provenience.

Table 26: Stratigraphic Profile – Trench 18, Section 1.

| STRAT | NAVD 88 DEPTH (BGS) | MUNSELL | SOIL TYPE | COMMENTS |
|---|---|---|---|---|
| Developing Ao | 41.17 – 40.47' (0 – 0.7'' bgs) | 10YR 4/2 | SaLo | |
| Fill I | 40.47 – 40.07' (0.7 – 1.1'' bgs) | 10YR 4/3 and 10YR 4/6 | SiClLo | Large roots |
| Fill II | 40.07 – 38.57 (1.1 – 2.6" bgs) | 10YR 5/8 | SiClLo | Pebbles and cobbles; coal flecking; 1 brick fragment, and sewer pipe fragments |

Table 27: Stratigraphic Profile – Trench 18, Section 2.

| STRAT | NAVD 88 DEPTH (BGS) | MUNSELL | SOIL TYPE | COMMENTS |
|---|---|---|---|---|
| Ao | 41.17 – 40.47' (0 – 0.7'' bgs) | 10YR 4/2 | SaLo | Gravels |
| Fill I | 40.47'– 38.97' (0.7 – 2.2' bgs) | 10YR 4/6 | ClLo | Cobbles, gravels and pebbles; FS#13; 2 unidentified corroded nails, 1 window glass fragment, 3 brick frags, sewer pipe frags and 1 coal |

Image 34: Trench 18, Section 1 east profile.

Image 35: Trench 18, Section 1 and 2 overview facing southeast.

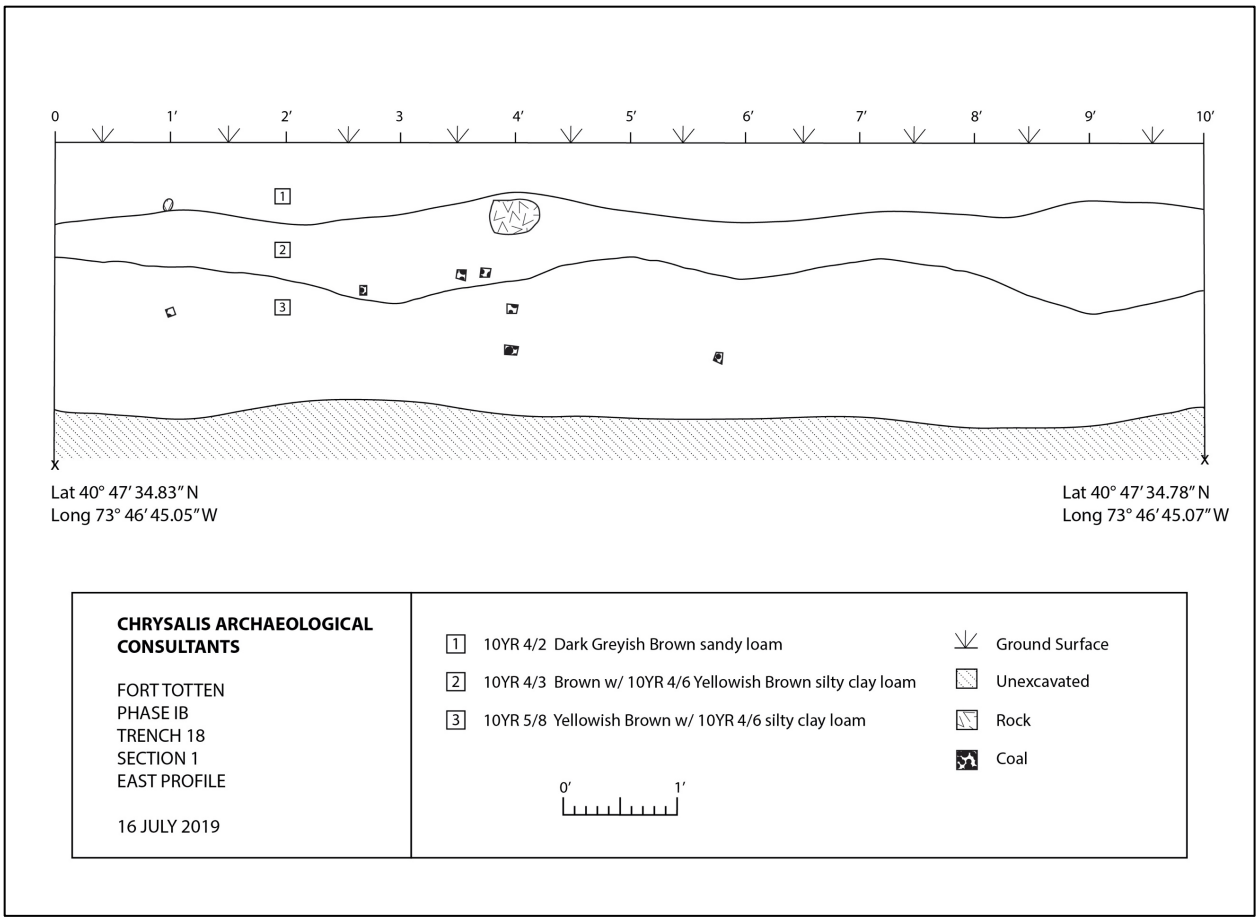


Figure 12: Trench 18, Section 1 east profile.

## SOUTH OF TOTTEN AVENUE (WEST OF BUILDING 206)

### *TRENCH 19*

Trench 19 was documented in three sections. Section 1 began on the south side of Totten Avenue across the roadway from where Trench 17, Section 2 terminated (Map 03). Excavations continued westward for 93' (28m) on the south side of Totten Avenue in the grassy area adjacent to the road towards Building 203 (Image 36). The easternmost 4' (1.2m) length of trench was excavated to 4.1' (1.2m) bgs but the remainder of the trench was only excavated to 2.1' – 2.4' (0.6 – 0.8m) bgs. The trench measured 2.2' (0.7m) wide.

Overall, the excavation area was disturbed from prior sidewalk and roadway construction. A few brick fragments were noted, but not retained, in Stratum 2, from 0.7' – 1.3' (0.2 – 0.4m) bgs on the west end of the trench. A utility pipe crossed the trench diagonally 48' (15m) east of the Willet Street east curb line.

Four strata were exposed in Section 1. The uppermost stratum was 10YR 2/2 very dark brown silty clay loam underlain with 10YR 6/6 brownish-yellow silty loam. Stratum 3 was 10YR 5/8 yellowish-brown and 10YR 4/4 dark yellowish-brown clay loam and extended to the base of excavation (Table 28).

Section 2 began as the trench turned southward into the grassy area on the east side of Building 203 (Image 37). Excavation proceeded from the south curb line of Totten Avenue through the grass and under the sidewalk totaling 10' (3m) in length. From that point, the trench continued 171-degrees southward for 100' (30m). The trench burrowed beneath a 3' (0.9m) length pathway that was crossing the trench and continued 177-degrees south for 29' (8.8m). The total length of Section 2 measured 142' (43m). Excavation extended to a depth of 2.4' (0.7m) bgs except for the southernmost 4' (1.2m) length of trench which was excavated to 3.3' (1m) bgs.

Only two strata were observed in Section 2. The uppermost stratum was 10YR 2/2 very dark brown sandy loam underlain with 10YR 5/8 yellowish-brown sandy clay loam (Table 29). Six glass electrical insulator fragments (FS#14) were found 18' (5m) south of the south curb line of Totten Avenue in Stratum 2 at 0.7' – 1.3' (0.2 – 0.4m) bgs. A horseshoe (FS#15) was also recovered in Stratum 2. Two utility disturbances between 19' and 22' (5.8 – 6.7m) south of the south curb line of Totten Avenue from 0.8' – 1.3' (0.2 – 0.4m) bgs were noted.

The third trench section extended westward for 52' (16m) behind Building 203 (Image 38). The trench continued northward for 34' (10m) where it connected to Building 203.

In general, there were two strata observed throughout in Section 3, 10YR 2/2 very dark brown sandy clay loam overlying 10YR 5/8 yellowish-brown sandy clay loam. (Table 30). The northernmost 4' segment abutted the rear foundation of Building 203 and consisted four strata. The uppermost stratum was 10YR 2/2 very dark brown sandy clay loam underlain with 10YR 3/3 dark brown sandy loam. Stratum 3 was 10YR 3/3 very dark grayish brown sandy loam with clam shell flecking. The base stratum was 10YR 5/8 yellowish-brown sandy clay loam (Figure 13)) (Image 39).

Table 28: Stratigraphic Profile – Trench 19, Section 1.

| STRAT | NAVD 88 DEPTH (BGS) | MUNSELL | SOIL TYPE | COMMENTS |
|---|---|---|---|---|
| Developing Ao | 41.17 – 40.47' (0 – 0.7' bgs) | 10YR 2/2 | SiClLo | |
| Fill I | 40.47 – 39.87' (0.7 – 1.3' bgs) | 10YR 6/6 | SiLo | Brick fragments |
| Fill II | 39.87 – 39.07' (1.3 – 2.1' bgs) | 10YR 5/8 | ClLo | |
| Fill III | 39.07 – 38.67' (2.1 – 2.5' bgs) | 10YR 4/4 | ClLo | |

Table 29: Stratigraphic Profile – Trench 19, Section 2.

| STRAT | NAVD 88 DEPTH (BGS) | MUNSELL | SOIL TYPE | COMMENTS |
|---|---|---|---|---|
| Developing Ao | 41.17 – 40.47' (0 – 0.7' bgs) | 10YR 2/2 | SaLo | |
| Fill I | 40.47 – 38.77' (0.7 – 2.4' bgs) | 10YR 5/8 | SaClLo | Cobbles and gravels; FS#13 and FS#14 |

Table 30: Stratigraphic Profile – Trench 19, Section 3.

| STRAT | NAVD 88 DEPTH (BGS) | MUNSELL | SOIL TYPE | COMMENTS |
|---|---|---|---|---|
| Ao | 41.17' – 40.47' (0 – 0.7' bgs) | 10YR 2/2 | SaClLo | |
| Fill I | 40.47 – 38.67' (0.7 – 2.5' bgs) | 10YR 5/8 | SaClLo | Gravels and cobbles; clam shell fragments and window glass |

Image 36: Trench 19, Section 1 mid excavation facing west.

Image 37: Trench 19 Section 2 mid-section, facing south.

Image 38: Trench 19, Section 3 facing north towards the back end of Building 203.

Image 39: Trench 19, Section 3 east profile abutting rear of Building 203.

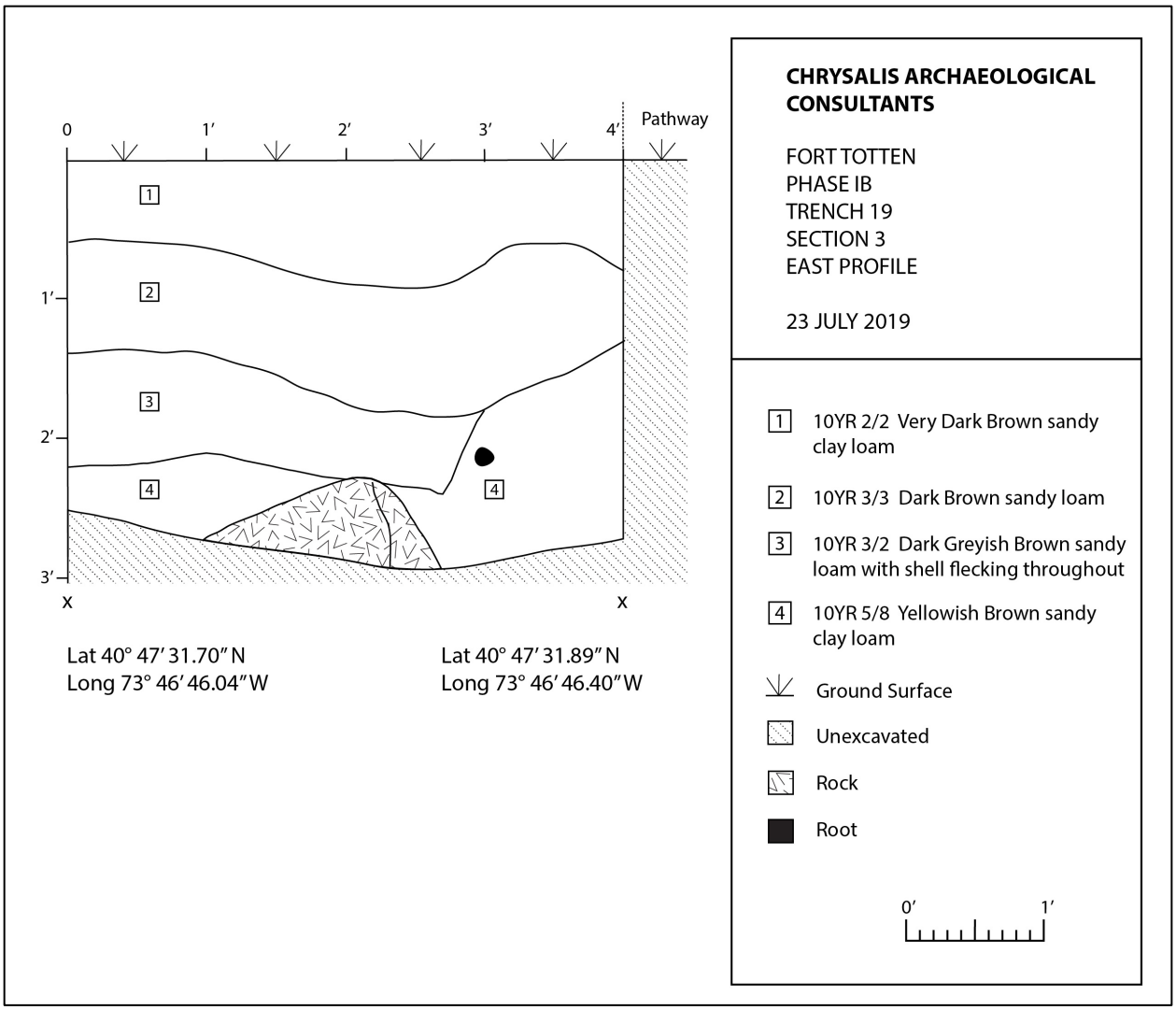


Figure 13: Trench 19, Section 3 east profile.

## BETWEEN BUILDINGS 203 AND 107

### *TRENCH 20*

Trench 20 was documented in two sections. Section 1 began at the intersection of Trench 19, Section 3 and continued 19' (6m) southwestward through the grassy area on the south side of Building 203 and continued within the driveway and continued for 223' (68m) (Image 40) (Map 3). The trench measured 3' (0.9m) wide and was excavated to 2.5' (0.8m) bgs. The final 3.5' (1m) length at the southwestern edge was excavated to 3.0' (0.9m) bgs.

In general, there were three strata in this section. The uppermost stratum was 10YR 3/2 very dark grayish brown sandy loam underlain with 10YR 4/3 brown sandy clay loam. The base stratum was 10YR 5/8 yellowish-brown silty loam (Table 31).

A variation in the stratigraphy between 3’ – 4' (0.9 - 1.2m) southwest of the southwest curb line of the Building 203 driveway had a fill deposit with a high concentration of pebbles from 0.8’ – 1.4' (0.2 – 0.4m) bgs, underlain with a high concentration of cobbles from 1.4’ – 2.3’ (0.4 – 0.7m). This deposit did not continue southwestward. Few boulders were present in the last 20' (6m) of Section 1. No cultural material was encountered.

Section 2 continued southwestward from Section 1 for 171' (52m) towards the interior (northeast) curb line of Duane Road. The trench was 3.2' (1m) wide and was excavated to 2.4' (0.7m) bgs. Utilities were encountered in the last 27' (8m) northeast of the curb line (Image 41). Excavation continued through Duane Road for 64' (20m). Excavation work in the roadway was not monitored.

The excavation for the connection to Building 107 measured 8' (2m) northwest and 6' (2m) southeast from the northwest side of Building 107 and terminated at 3.1' (0.9m) bgs (Map 3).

There were three strata in the grassy area northeast of Duane Road. The uppermost stratum was a 10YR 3/2 very dark grayish brown sandy loam underlain with a 10YR 4/3 brown sandy clay with boulders, small stones and cobbles. A 10YR 5/8 yellowish-brown silty loam with cobbles and gravels extended to the base of excavation (Image 42). Some artifacts were noted in Stratum 3 but not in any clear concentration or number. Among them were four whole bricks marked "SSBCO" and two brick fragments marked "...JJ", and one clear bottle glass fragment. (Image 43). These were not retained.

Table 31: Stratigraphic Profile – Trench 20, Section 1.

| STRAT | NAVD 88 DEPTH (BGS) | MUNSELL | SOIL TYPE | COMMENTS |
|---|---|---|---|---|
| Developing Ao | 41.17 – 40.37’ (0 – 0.8' bgs) | 10YR 3/2 | SaLo | |
| Fill I | 40.37 – 39.67’ (0.8 – 1.5' bgs) | 10YR 4/3 | SaClLo | Gravels, small stones, cobbles and pebbles. |
| Fill II | 39.67 – 38.67' (1.5 – 2.5' bgs) | 10YR 5/8 | SiLo | |

Table 32: Stratigraphic Profile – Trench 20, Section 2 (NE side of Duane Road).

| STRAT | NAVD 88 DEPTH (BGS) | MUNSELL | SOIL TYPE | COMMENTS |
|---|---|---|---|---|
| Ao | 41.17 – 40.47’ (0 – 0.6’ bgs) | 10YR 3/2 | SaLo | |
| Fill I | 40.47 – 39.77’ (0.6 – 1.4' bgs) | 10YR 4/3 | SaClLo | Gravels; brick and brick fragments |
| Fill II | 39.77 – 38.77’ (1.4 – 3.1’ bgs) | 10YR 5/8 | SiClLo | |

Table 33: Stratigraphic Profile – Trench 20, Section 2 (NW connection To Bldg 107).

| STRAT | NAVD 88 DEPTH (BGS) | MUNSELL | SOIL TYPE | COMMENTS |
|---|---|---|---|---|
| Ao | 41.17 – 40.57' (0 – 0.6' bgs) | 10YR 3/2 | SaLo | |
| Fill I | 40.57 – 39.77' (0.6 – 1.4' bgs) | 10YR 4/3 | SaClLo | Gravels; brick and brick fragments |
| Fill II | 39.77 – 38.07' (1.4 – 3.1 bgs) | 10YR 5/8 | SiLo | |

Image 40: Trench 20, Section 1 overview facing northeast with Building 203.

Image 41: Trench 20, Section 2 mid excavation facing southwest towards Duane Road.

Image 42: Trench 20, Section 2 connection to Building 107, northeast profile.


Image 43: Trench 20, Section 2 marked brick “SSBCO”.

## VI. CONCLUSIONS

Excavation throughout the project area was located within unpaved areas across Ft. Totten Park and exposed a fairly consistent stratigraphic profile that exhibited evidence of fill deposits. Two or three fill strata were identified throughout the project. These were likely associated with previous utility or infrastructure works that have occurred on the property.

No intact features or deposits were identified within the project area. Of the two features exposed during this project, only one was left in situ. Feature 1 was a segment of brick pathway located beneath the sidewalk on the north side of Weaver Avenue between Buildings 420 and 422. The feature continued beyond the boundaries of the excavation trench; its full extent remains unknown.

The few artifacts collected during the project were all from disturbed contexts (see Appendix A for the artifact inventory). While individually some may be representative of the history of the property, for example the mid-twentieth century military button, they all lack clear or significant provenience. These are not recommended for curation at the New York City Archaeological Repository.

In general, excavation within the project area demonstrates previous disturbance. However, it is noted that overall, excavation depths were relatively shallow and intact soils and archaeologically sensitive levels of materials may exist at greater depths.

## VII. RECOMMENDATIONS

No further work is recommended in this area. Previous recommendations regarding archaeological sensitivity of the property, e.g. Geismar 2007, should continue to be followed.

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# APPENDIX A - ARTIFACT CATALOG

| FS | cat no | Quantity | Category | Object | Material | Ware type | Color | Date Range | Notes |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | 1 | Indeterminate | Indeterminate | Composite | | | | round core - cement with finished dark gray exterior coating, modern construction material |
| 2 | 1 | 1 | Household | Hollowware | Refined Earthenware | Whiteware | | 1850-present | |
| 2 | 2 | 1 | Household | Bottle | Common Glass | | Aqua | | |
| 3 | 1 | 1 | Household | Bottle, Beer/Soda | Common Glass | | | 1879-1904 | BOLDEN & BYRNE/ EAST 54TH ST./NEW YORK |
| 4 | 1 | 1 | Arms | Artillery Shell | Metal | | | | |
| 5 | 1 | 1 | Household | Hollowware | Refined Earthenware | Whiteware | | 1815-present | |
| 6 | 1 | 1 | Architectural | Tile, Wall | Coarse Earthenware | | | | clouded glazed tile |
| 7 | 1 | 1 | Household | Plate | Refined Earthenware | Whiteware | | 1850-present | |
| 7 | 2 | 1 | Household | Hollowware | Milk Glass | | | | |
| 7 | 3 | 1 | Indeterminate | Indeterminate | Porcelain | | | | Finished edge, material similar to that of porcelain bath fixture. |
| 8 | 1 | 1 | Household | Plate | Refined Earthenware | Whiteware | | 1850-present | |
| 8 | 2 | 1 | Household | Bottle, Beer/Soda | Common Glass | | Blue-Green | | "D" "W" |
| 9 | 1 | 1 | Clothing | Button | Brass | | | 1902-present | U.S. Army general service uniform; loop/shank button |
| 10 | 1 | 1 | Tools & Equipment | Spike | Iron | | | | 6" |
| 11 | 1 | 1 | Tools & Equipment | Spike | Iron | | | | |
| 12 | 1 | 1 | Tack | Horseshoe | Iron | | | | |
| 13 | 1 | 1 | Arms | Artillery Shell | Metal | | | | |
| 14 | 1 | 6 | Electrical | Insulator | Common Glass | | | | |
| 15 | 1 | 1 | Tack | Horseshoe | Iron | | | | |

# APPENDIX B – PROJECT PERSONNEL

# Alyssa Loorya, Ph.D., R.P.A.
## President, Principal Investigator

Chrysalis Archaeological Consultants

Ms. Loorya is founder and president of Chrysalis Archaeological Consultants. For more than twenty years she has worked in cultural resource management and public education devoted to preserving cultural resources and communicating their value to local communities. She has completed over sixty technical and academic reports and has delivered dozens of presentations concerning preservation compliance, New York City historical development, and educational curricula. Her extensive experience lends itself to her roles in developing and executing research and excavation plans, project management, regulatory compliance and report production.

### PROJECTS BY STATE

New York:

Brooklyn:

63/65 Columbia Street – Phase IA (2004)
102 Franklin Avenue Project – Phase IA (2006)
147 Hicks Street – Phase IB (1998)
265 Front Street – Phase I (2016)
1019-1029 Fulton Street – Phase IB/Monitoring (2019)
1662 Bergen Street – Phase IA (2019)
Bond Street and Pacific Street – Phase IA (2018)
Brooklyn Navy Yard (Steiner Studio) – Phase IB (2017-2018)
Coney Island Utility Upgrade – Phase IB/Monitoring (2017-2018)
Downtown Brooklyn Reconstruction – Phase IB/Monitoring (2012)
Elias Hubbard House – Phase IB (2001)
Gravesend Cemetery – Phase IB (2001)
Greenpoint Project – Phase IA (2013)
Gowanus Canal Study – Phase IA (2012)
Hendrick I. Lott House – Phase IB/Monitoring (2004, 2013)
Floyd Bennett Field – Phase IB/Monitoring (2014)
Marine Park – Phase IB/Monitoring (1997, 2003)
Myrtle Avenue - Ingersol Senior Housing—Phase I/II (2016-2020)
Pieter Claesen Wyckoff House – Phase IB/Monitoring (2004)
Shell Road – Phase IA (2019)
Sponge Park, Gowanus Canal – Phase IB/Monitoring (2017)

### AREAS OF EXPERTISE

National Historic Preservation Act Section 106 Compliance

Material Collections Analysis

Archaeological Survey and Excavation

Public Outreach

### EDUCATION

Ph.D., Anthropology and Archaeology: 2018, CUNY Graduate School

M.A., Anthropology and Archaeology: 1998, Hunter College

### CERTIFICATIONS

Register of Professional Archaeologists

10-Hour OSHA Construction Safety

30-Hour OSHA Construction Safety

40-Hour OSHA HAZWOPER

SWAC - Secure Worker Access Consortium

### PROFESSIONAL EXPERIENCE

1995-2001: Brooklyn College Archaeological Research Center

2001-Present: Chrysalis Archaeological Consultants, President and Principal Investigator

2006-2010: URS Corporation, Principal Investigator

2007-2010: Gray & Pape, Supervisory Consultant

**CONTACT INFORMATION**

aloorya@chrysalisarchaeology.com

Manhattan:

50 Bowery – Phase I (2014-2015)
156 Rivington Street – Phase IA (2012)
204 Avenue A – Phase I (2019-2020)
235 Lafayette Street – Phase IA (2013)
246 Front Street – Phase I (2012)
311 Broadway – Phase IA (2005)
79 Christopher Street Burial Vault Project – Phase II (2008)
Chambers Street – Phase IB (2005)
City Hall Reconstruction Project – Phase IB and II (2010-2015)
Columbus Park – Phase I (2007)
Consolidated Edison Project – Phase IA (2006)
Dyckman Farmhouse Project – Phase IB/Monitoring (2007)
Ellis Island – Phase IB/Monitoring (2001)
Fortune Society Project – Phase IA (2007)
Fulton Street Reconstruction – Phase I and II (2009-2018)
High Bridge Park – Phase IB/Monitoring (2014-2015)
John Street - Phase IB/Monitoring (2011)
Liberty Island – Phase IB/Monitoring (2001)
Major Deegan Express Bridge – Phase IA (2016)
Peck Slip – Phase I and II (2011-2018)
Randall's Island – Phase IB/Monitoring (2018)
Roger Morris Park – Phase IB/Monitoring (2005)
South, South Street – Phase IB/Monitoring (2017-2018)
Stone Street – Phase IB/Monitoring (1998)
Wall Street Water Main Project – Phase I (2007-2008)
Washington Square Park – Phase IB/Monitoring (2015-2020)
Warren Street/John Street – Phase IB/Monitoring (2017)
West Village Housing – Phase IA (2007)
Worth Street—Phase I/Monitoring (2018 to 2020)

Queens:

C.C. Moore Homestead Park – Phase IB /Monitoring (2019)
John Bowne House – Phase IB/Monitoring (2016)
John Bowne House – Phase II – Phase IB/II/Monitoring (Cistern) (2014)
John Bowne House – Phase IB (Foundation Work) (2019-2020)
Elmhurst Cemetery – Phase IA (1997)
Fort Totten – Phase IB (2019)
Kosciuszko Bridge Replacement – Phase IB (2016-2017)
Little Bay Park – Phase I (2013-2014)
Martin's Field Phase I Project - Phase IB/Monitoring (2006)
Martin's Field Phase II Project - Phase IB/Monitoring (2006)
Newtown Playground – Phase IB/Monitoring (2018-2019)

Queens County Farm Museum – Phase IB/Monitoring (2004)
Rockaway Beach Boulevard – Phase IB/Monitoring (2018)
Riis Park Boathouse – Phase IB/Monitoring (2019-2020)
Rufus King Park – Phase IB/Monitoring (Tree Planting) (2006)
Rufus King Park – Phase IB/Monitoring (Utility Upgrade) (2007)
Saint George's Church – Phase IB/Monitoring (2010)
South Jamaica Urban Renewal Project – Phase I – Phase IB (2007)
South Jamaica Urban Renewal Project – Phase II – Phase IB (2008)
Wayanda Park – Phase IB/Monitoring (2003)

The Bronx:

174th Street (Dutch Broadway) Bridge Replacement – Phase IA (2019-2020)
Bartow-Pell Mansion – Phase IB/Monitoring (Barn) (2008, 2012)
Bartow-Pell Mansion – Phase IB/Monitoring (Barn) (1993)
Bartow-Pell Mansion – Phase IB/Monitoring (Cemetery) (2004)
Bronx River Greenway – Phase IB/Monitoring (2015-2016)
City Island Bridge Replacement – Phase IB/Monitoring (2014-2016)
Fort Independence – Consultation (2012)
Hart Island – Phases I and II (2017 to 2020)
Hunts Point – Phase IA (2019)
Major Deegan Expressway – Phase IA (2016-2017)
Monsignor Del Valle Square – Phase IA (2016)
Pelham Bay Park – Phase IB/Monitoring and II (2015)
Saint Peter's Church – Phase I (2019-2020)
Van Cortlandt Park Dog Run – Phase I (2016)

Staten Island:

210 Board Street - Phase I (2009)
Block 7792, Page Avenue – Phase I (2005)
Alice Austen House – Phase IB (2018)
Conference House Pavilion, - Phase IB (2018-2020)
Farm Colony of NYC – Phase IB (2014)
Fort Wadsworth – Phase IB/Monitoring (Utility Line) (2014)
Fort Wadsworth – Phase IB/Monitoring (Security Perimeter) (2016)
Midland Beach Boulevard – Phase IB/Monitoring (2018)
Ocean Breeze Park – Phase IA (2008)

Nassau County:

545 Arlington Road, Cedarhurst – Phase IB/Monitoring (2014)
Long Beach/Island Park – Phase IA (2019)
Long Island Rail Road Expansion – Phase IA (2018)
OEHL Residential Facility, Cedarhurst – Phase IB (2014)
U.S. Merchant Marine Academy – Phase IB/Monitoring (2010)

Suffolk County:

221 Main Street, Sag Harbor – Phase I (2016)
Brightview Senior Living at Port Jeff Station – Phase IA (2019)
404 Littleworth Lane, Sea Cliff – Phase IB/Monitoring (2016)
Artesian Way, Nissequogue – Phase II (2016-2017)
Carll's River, Town of Babylon – Phase IA (2017)
Fire Island National Seashore – Phase IB/Monitoring (2014)
Forge River Sewer Line Project – Phase IB/Monitoring (2017-2018)
Hubbard County Park – Phase I (2016)
MacArthur Airport – Phase IA (2018-2020)
Old House, Cutchogue – Phase IB (2018)
The Edwards Homestead; Sayville – Phase IB (2001)

Ulster County:

NYC DEP Water Tunnel – Catskill and Delaware (2013)
Interconnection Replacement – Phase IB/Monitoring (2012)
The Village of Ellenville – Phase IB (2014)

Westchester County:

Charles Point Park, Peekskill – Phase IB (2016)
Consolidated Edison Project – Phase IA (2006)
Memorial Field, Mt. Vernon, NY – Phase I (2010)
Tappan Zee Bridge Replacement – Phase I/Monitoring (2014-2016)
Timothy Knapp House; Rye – Phase IB (1997)

Rockland County:

Village Hall, Village of Grand View on Hudson, NY—Documentation Package/Phase IA (2015-2015)

St. Lawrence County:

Alcoa Powerhouse—Phase IA (2016)

New Jersey:

Atlantic Coastal Mitigation Bank Site, Block 270, Lots 12-13, City of Pleasantville—Phase IA (2014)
Elizabeth River Mitigation Site, Union Township, Union County – Phase IA (2010)
Cranbury Wetland Mitigation Site – Phase I (2009)
Deep Run Preserve, Block 8003, Lot 7 and 11, Old Bridge Township – Phase IA (2014)
Hunterdon County Bridge Replacement – Phase IA (2006)
Jamesburg County Park, Block 18, Lots 5, 6, 6.05, and 7, Helmetta Borough – Phase IA (2014)
Lenape Farms, Atlantic County – Phase I (2015)
Mullica River Mitigation, (Pinelands) Evesham Township, Burlington County – Phase IA (2013)
New Bridge Landing Park – Documentation Plan (2019-2020)
Oldmans Creek Mitigation Site, Pilesgrove Township, Salem County – Phase I (2014, 2015)
Oradell Reservoir Site, Bergen County – Phase I (2012)
Overpeck Creek Park; Englewood – Phase IA (2009)
Pin Oak Forest Conservation Area, Block 1020.01, Lot 1.03, Woodbridge Township – Phase IA (2014)
Pleasant Grove, Jackson Township – Phase I (2012)
Southard Avenue, Howell Township – Phase I (2012)
Spotswood Road; Township of Monroe – Phase I (2012)
Thompson Park Extension, Block 20, Lot 28.06 and 28.08, Monroe Township – Phase I (2015)
Trestle Replacement, Gloucester County – Phase IA (2009)

Vermont:

Richmond, VT – Phase IB (2013)
Weathersfield, VT – Phase IB (2013)

New Hampshire:

Fitzwilliam, NH – Phase IB (2015)

Connecticut:

Audubon Society of Greenwich, CT – Phase IB (2001)
West Haven, CT – Phase IB (2015)

Pennsylvania:

Sharswood-Blumberg, Philadelphia Housing Authority – Phase IA (2018)

**EMPLOYMENT – EDUCATION-PRESERVATION-CONSULTATION:**

BROOKLYN COLLEGE AND DEPARTMENT OF EDUCATION, STAR HIGH SCHOOL
Archaeological-Education Consultant, July 2004 to 2005
Teaching special content classes and grant writing.

CITY UNIVERSITY OF NEW YORK'S – RESEARCH FOUNDATION/GOTHAM CENTER
Educational Consultant - Archaeology and Historic Preservation - City Hall Academy September 2003 – June 2004 and November 2004 to 2005

DIG MAGAZINE
Archaeological-Education Consultant and Contributor, 2000 to 2005

HENDRICK I. LOTT HOUSE PRESERVATION ASSOCIATION, INC.
Program Development, January 2005 to present
Developed the Interpretive-Educational-Curriculum Plan for the Hendrick I. Lott House.

INSTITUTE FOR ARCHAEOLOGICAL EDUCATION AT MANHATTANVILLE COLLEGE
Curriculum Developer and Archaeological Educator, September 1997 to December 1998
PS 134, New York, NY, Scarsdale Elementary School, Scarsdale, NY, Congregation Emmanuel of Harrison, NY, Temple Israel of New Rochelle, NY

NEW JERSEY INSTITUE OF TECHNOLOGY
Educational Consultant, March 2001 to December 2004, February 2007 and May 2008 to 2009
Developing special content curriculum for NYC Department of Education to meet national and state standards using primary resource historic preservation material. Teacher development and classroom teaching.

PIETER CLAESEN WYCKOFF HOUSE MUSEUM
Archaeological-Educator – Curriculum Development Consultant, 2003 to 2008
Responsibilities include the creation and implementation of Teacher Workshops throughout the school year.

GREATER RIDGEWOOD HISTORICAL SOCIETY
Program Development, January 2016 to present
Developed and implemented an Archaeological Education Curriculum for the Vander-Ende Onder Donk House. Created web and print based media presentations, including several museum displays.

SOUTH STREET SEAPORT MUSEUM
Archaeological Educator, September 1999 to June 2001

**PUBLICATIONS:**

Over 100 publications in CRM and popular magazines published. For full listing see:

www.chrysalisarchaeology.com

**Conference Papers/Lectures/Teacher Workshops:**

Over 100 Conference Papers presented since 1997. For full listing see: www.chrysalisarchaeology.com

**PROFESSIONAL SERVICES:**

1999 to 2006 Board of Trustees – The Hendrick I. Lott House Preservation Association
2003 to 2007 Member – Historic House Trust Educators Alliance
2002 to 2007 Advisory Board – Pieter Claesen Wyckoff House Museum
2002 to 2007 Advisory Board - Brooklyn Heritage Inc.
2005 to 2007 Board of Trustees - Salt Marsh Alliance
2010 to 2016 Advisory Board – Historic Districts Council of New York City
2012 to 2013 Vice President – Professional Archaeologists of New York City
2013 to 2014 President – Professional Archaeologists of New York City
2016 to present Advisory Board – Pieter Claesen Wyckoff House Museum
2016 to present Board of Trustees – Historic District Council of New York City
2015 to present Vice President - The Hendrick I. Lott House Preservation Association

**MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS:**

The Council for Northeast Historical Archaeology (CNEHA)
Historic District Council (HDC)
New York Archaeological Council (NYAC)
The Professional Archaeologists of New York City (PANYC)
The Register of Professional Archaeologists (ROPA)
The Society for Historical Archaeology (SHA)

**REFERENCES (ARCHAEOLOGICAL):**

| | |
|---|---|
| Project: | City Hall and Park, New York, NY |
| Prime: | Beyer Blinder Belle Architects |
| POC: | Richard Southwick, (212) 777-7800, RSouthwick@BBBARCH.com |
| Year Completed: | 2013 |
| Approx. Cost: | $725,000 |
| Services: | Archaeological – Phase IB, II and III Monitoring and Excavation |

| | |
|---|---|
| Project: | Peck Slip Reconstruction Project, New York, NY |
| Prime: | Tectonic Engineering |
| POC: | Peter Roloff, (718) 391-9200, PRoloff@tectonicengineering.com |
| Year Completed: | 2015 |
| Approx. Cost: | $650,000 |
| Services: | Archaeological – Phase IA, IB and II Monitoring and Excavation |

| | |
|---|---|
| Project: | Fulton Street Reconstruction Project, New York, NY |
| Prime: | HAKS Engineering |
| POC: | Hashem Kotby, (212) 747-1997, hkotby@haks.net |
| Year Completed: | 2015 |
| Approx. Cost: | $625,000 |
| Services: | Archaeological – Phase IA, IB and II Monitoring and Excavation |

| | |
|---|---|
| Project: | Gowanus Canal Historic District Survey, Brooklyn, NY |
| Prime: | Gregory Dietrich Preservation |
| POC: | Gregory Dietrich, (917) 828-7926, ggdietrich@msn.com |
| Year Completed: | 2011 |
| Approx. Cost: | $20,000 |
| Service: | Archaeological – Phase IA – including National Register building survey |

**REFERENCES (EDUCATIONAL):**

Linda Monte, President
Greater Ridgewood Historical Society/Vander-Ende Onder Donk House
1820 Flushing Avenue
Ridgewood, Queens, New York 11385
Phone: (718) 456-1776
Email: lindabmonte@yahoo.com

Mary Delano and Kate Ottavino
Center for Architecture and Building Science Research
New Jersey Institute of Technology
323 Dr. Martin Luther King Boulevard
Campbell Hall, Room 335
Newark, New Jersey 07102
Phone: (973) 596-3097
E-mail: mdelano@njit.edu

# Roseanne Quinn, B.A. | Archaeologist

Chrysalis Archaeological Consultants

Ms. Quinn has over 14 years of experience working in all phases of archaeological excavation. Her specializations include both prehistoric and historic contexts in the Northeast, West and Mexico. Her professional focus centers on historic urban infrastructure and consumer culture. She has extensive knowledge of field methodologies for prehistoric and historic sites.

## SELECTED PROJECT EXPERIENCE BY STATE

**New York**

Fort Totten – Phase IB (2019 to present)
**Queens, NY**
Field monitoring within the historic Army Base. Uncovered 19th century remains dating to the Fort's military period.

Inwood – Phase IB (2018)
**New York, NY**
Preconstruction testing for precontact, colonial and/or historic period deposits. Report preparations and writing contributions.

Lower Hudson Valley – Phase 1B (2018)
**Westchester County**
Prehistoric and historic archaeological testing within the National Historic Landmark (NHL) boundary. Conducted shovel test excavations, mapping, artifact analysis, report preparations and writing contributions.

Sailfish – Phase IB and Phase 11 (2018 to 2019)
**Montgomery, New York**
Conducted shovel testing and subsequent excavation units in areas that tested positive for historic and prehistoric cultural material and archaeological features.

Staten Island – Phase IB (2017 to 2018)
**Staten Island, NY**
Historic and prehistoric archaeological investigations. Conducted field testing, artifact analysis and field logs.

## AREAS OF EXPERTISE

Archaeological Survey and Excavation

Public Outreach and Education

Prehistoric and Historic Materials Identification

## EDUCATION

B.A., Archaeology: 2006
Hunter College, CUNY

## CERTIFICATIONS

10-Hour OSHA Construction Safety Training (2019)

## PROFESSIONAL EXPERIENCE

2019 - Present: Chrysalis Archaeological Consultants

2018 – 2019: Archaeology and Historic Resource Services, LLC (AHRS)

2018: Burns & Mc Donnell

2017 – 2018: AKRF Environmental Planning and Engineering Consultants

2016 – 2017: Landmark Archaeology, Inc

2012- 2016: Linda Stone, RPA

2013: Emal Archaeological Project

Essex County – Phase IB (2016)
**Ticonderoga, NY**
Historic and prehistoric archaeological investigations.

Orange County – Phase III (2017)
**Goshen, NY**
Conducted Phase III archaeological investigations of a Late Archaic site including excavations, mapping, feature identification and soil profiles.

Governors Island Redevelopment Project (2012 to 2016)
**Governors Island, NY**
Monitored construction activities in areas of historical interest on Governors Island. Identification, photographic and map documentation of historic structures and cultural material. Conducted shovel test pits, hand excavation, screening and artifact recovery. Laboratory work included artifact analysis, report preparation and writing contributions.

**World Trade Center PHR Phase III (2010 and 2013)**
**Staten Island, New York**
Sifting Operations; Conducted screening operations directed towards the recovery of human remains and personal effects.

North American Archaeology/ AMNH (2012)
**New York, NY**
Laboratory: Processing artifacts (ceramic and lithic analysis, cataloging, database management). Excavations on St. Catherines Island, Georgia: mapping, probe surveys, screening artifacts, surface collections, field notes. Native American prehistoric/historic and European historical artifact recovery and analysis

**New Jersey**

Courses Landing Road Phase IB (2019)
**Carneys Point Township, NJ**
Historic and prehistoric archaeological investigations. Conducted field testing, artifact analysis and field logs.

Cranbury - South River Road Phase IB ( 2019)
**Monroe Township, NJ**
Historic and prehistoric archaeological investigations. Conducted field testing, artifact analysis and field logs.

2012: SWCA Environmental Consultants

2012: North American Archaeology/American Museum of Natural History

2011: Central Yucatecan Archaeological Cave Project

2010 and 2013: NYC Dept of Health and Mental Hygiene, Office of the Chief Medical Examiner

2005: Hawaii Scientific Drilling Project

2005: University of Hawaii @ Hilo/ Archeology Internship

**CONTACT INFORMATION**

rquinn@chrysalisarchaeology.com

(917) 576-3279

**Pennsylvania**

Transmission Pipeline Phase I (2018)
**York, PA**
Conducted pedestrian surveys and shovel testing in York County.

**South Dakota**

Wind Farm Survey Phase I (2018)
**Hand County, SD**
Conducted pedestrian surveys and shovel testing with tribal monitors investigating and mapping areas of prehistoric and historic sensitivity.

**Wyoming**

AECOM Greencore Pipeline Phase I (2012)
**Campbell County, Wyoming**
Monitored construction activities, conducted open trench inspections and conducted inventory of cultural materials. Trimble XT GPS, photographic documentation, and site testing excavations. Identification of cultural resources and features. Resources encountered include archaic to late prehistoric and expansion era historics.

Riley Ridge Pipeline, Segment I Class III (2012)
**Sweetwater County, Wyoming**
Conducted intensive surveys, site recording, and site testing excavations. Evaluation of eligibility of prehistoric and historic sites. Resources encountered include archaic to late prehistoric and expansion era historics.

**Hawaii**

Hawaii Scientific Drilling Project (HSPD) Phase II (2005)
**Hilo, Hawaii**
Assembled recovered core into trays aligning fracture faces, recorded composition and type of rock from Mauna Kea volcano core and determined what each stratigraphic section represents. Conducted rock slicing and shrink wrapping in preparation for core archival.

University of Hawaii (2005)

**Hilo, Hawaii**

Recovery and analysis of lithic artifacts from the eastern portion of the Pohakuloa Military Training Area on the island of Hawaii, calibration of Electron Dispersive X-Ray Fluorescence Spectrometer (EDXRF) to obtain trace element concentrations for volcanic glass flakes, geochemical characterization of basaltic and volcanic glass artifacts to determine particular volcanic source compared with data from Mauna Kea adze quarry on the island of Hawaii. Conducted studies on the extent of adze trade and exchange patterns on the island of Hawaii

**Mexico**

Emal Archaeology Project (2013)

**Yucatan, Mexico**

Archaeological Survey: mapping, surface collections, soil testing, artifact processing and analysis on a Mayan coastal site.

Central Yucatecan Archaeological Cave Project (2011)

**Yucatan, Mexico**

Excavations in 8 caves investigating ritual in regards to sociopolitical and religious power among the ancient Maya Laboratory: Processing artifacts (identification, cleaning, sorting, data entry).