

211 Strand Street

City of Alexandria, Virginia

WSSI #22892.03

Archaeological Evaluation and Excavation Monitoring

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Final Report

Prepared for:

The IDI Group Companies

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ABSTRACT

Thunderbird Archeology, a division of Wetland Studies and Solutions, Inc., of Gainesville, Virginia conducted an *Archaeological Evaluation* of 211 Strand Street, Alexandria, Virginia, for the IDI Group Companies. The work was required under the *City of Alexandria Archaeological Protection Code* in anticipation of the planned construction of an approximately 62,000 square foot building with 16 residential units and ground floor retail at 211 Strand Street, and the addition of a third floor at 205 Strand Street.

The *Archeological Evaluation* followed a Scope of Work (SOW) approved by Alexandria Archaeology (Appendix I) and conformed to City of Alexandria Archaeological Standards dated January 1996 and the *Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation (DOI 1983)*. The purpose of the investigation was to identify and record subsurface features and assess the potential for any buried intact historic surfaces or contexts within the proposed construction impact areas.

Thirty-eight trenches were initially excavated across the project area revealing 27 cultural features that together were recorded as Site 44AX0237. Archeological monitoring was required by Alexandria Archaeology in March and April of 2019 due to overlooked and unanticipated construction impacts, resulting in the identification of an additional 17 features. Site 44AX0237 encompassed the stone and brick foundations of seven buildings, complementing the documentary research previously conducted. Many of the foundations are associated with warehouse foundations depicted on Sanborn Fire Insurance maps. Very few artifacts were observed or recovered from the site and no intact ground surfaces were encountered.

Recent archeological investigations at the adjacent Hotel Indigo property (Site 44AX0229) and Robinson Landing (44AX0235) to the south, have provided tremendous insight into the City of Alexandria's waterfront and maritime history. The archeological work has revealed evidence of historic infilling of the Potomac River to create new land for the expanding port city in the 18th century, bulkhead wharf systems that incorporated repurposed ships, and dwellings and warehouses dating to the 19th century. The evaluation of the building foundations at 211 Strand Street (44AX0237) has been put into temporal and cultural context in large part because of these larger excavations.

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INTRODUCTION

This report presents the results of the *Archaeological Evaluation* at Site 44AX0237, located along the City of Alexandria, Virginia's historic waterfront at 211 Strand Street (Figure 1 and Figure 2). Thunderbird Archeology, a division of Wetland Studies and Solutions, Inc. (WSSI), of Gainesville, Virginia, conducted the study described in this report for The IDI Group Companies of Arlington, Virginia. The archeological fieldwork was completed prior to construction activities in October 2018; subsequent archeological monitoring work was conducted during construction in March and April of 2019.

The work was required under the City of Alexandria Archaeological Protection Code in anticipation of the planned construction of an approximately 62,000 square foot building with 16 residential units and ground floor retail at 211 Strand Street, and the addition of a third floor at 205 Strand Street. As a prerequisite of the archeological investigation, the City of Alexandria required a *Documentary Study* for the 203/205/211 Strand Street properties; the research and assessment revealed a high potential of 18th-20th century archeological features within the study area that could provide additional information and insights into commerce, industry, significant events and daily life along Alexandria's waterfront (Maas and Mullen 2017).

The *Archaeological Evaluation* followed a Scope of Work (SOW) approved by Alexandria Archaeology (Appendix I) and conformed to City of Alexandria Archaeological Standards dated January 1996 and the *Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation (DOI 1983)*. The purpose of the investigation was to identify and record subsurface features and assess the potential for any buried intact historic surfaces or contexts within the proposed construction impact areas.

John P. Mullen, M.A., RPA served as Principal Investigator and edited the report. Edward H. McMullen, M.A., RPA conducted the archeological fieldwork with the assistance of Robin Ramey, M.A., RPA, Daniel Baicy, M.A., RPA, Kathleen Jockel, Angelica Wimer, Caleb Jeck, and Catherine Herring. Elizabeth Waters Johnson, M.A. served as Laboratory Manager and conducted the artifact analysis with the assistance of Amber Nubgaard, M.A.

SETTING AND BACKGROUND

Alexandria is located within the Coastal Plain, which is underlain by sediments that have been carried from the eroding Appalachian Mountains to the west, and includes layers of Jurassic and Cretaceous clays, sands and gravels. These are overlain by fossiliferous marine deposits, and above these, sands, silts and clays continue to be deposited. The Coastal Plain is the youngest of Virginia's physiographic provinces and elevations range from 0 to 200/250 feet above sea level (a.s.l.). It is characterized by very low relief broken by several low terraces. The province runs west to the Fall Line, a low escarpment at ± 200 feet a.s.l., which formed where the softer sedimentary rocks of the Coastal Plain abut the more resistant rocks of the Piedmont. Where rivers cross this juncture, rapids or falls have developed.

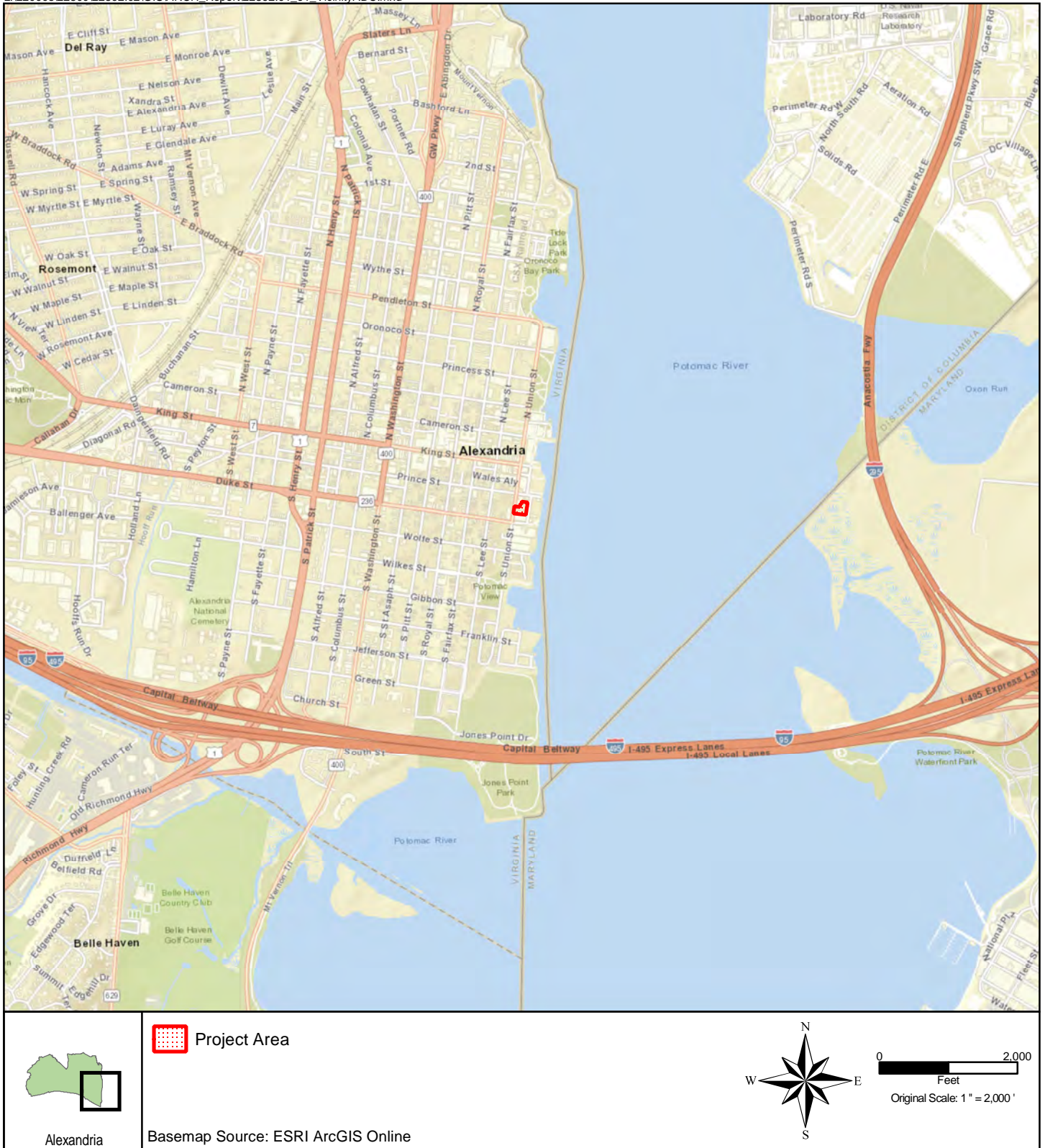


Figure 1: Vicinity Map

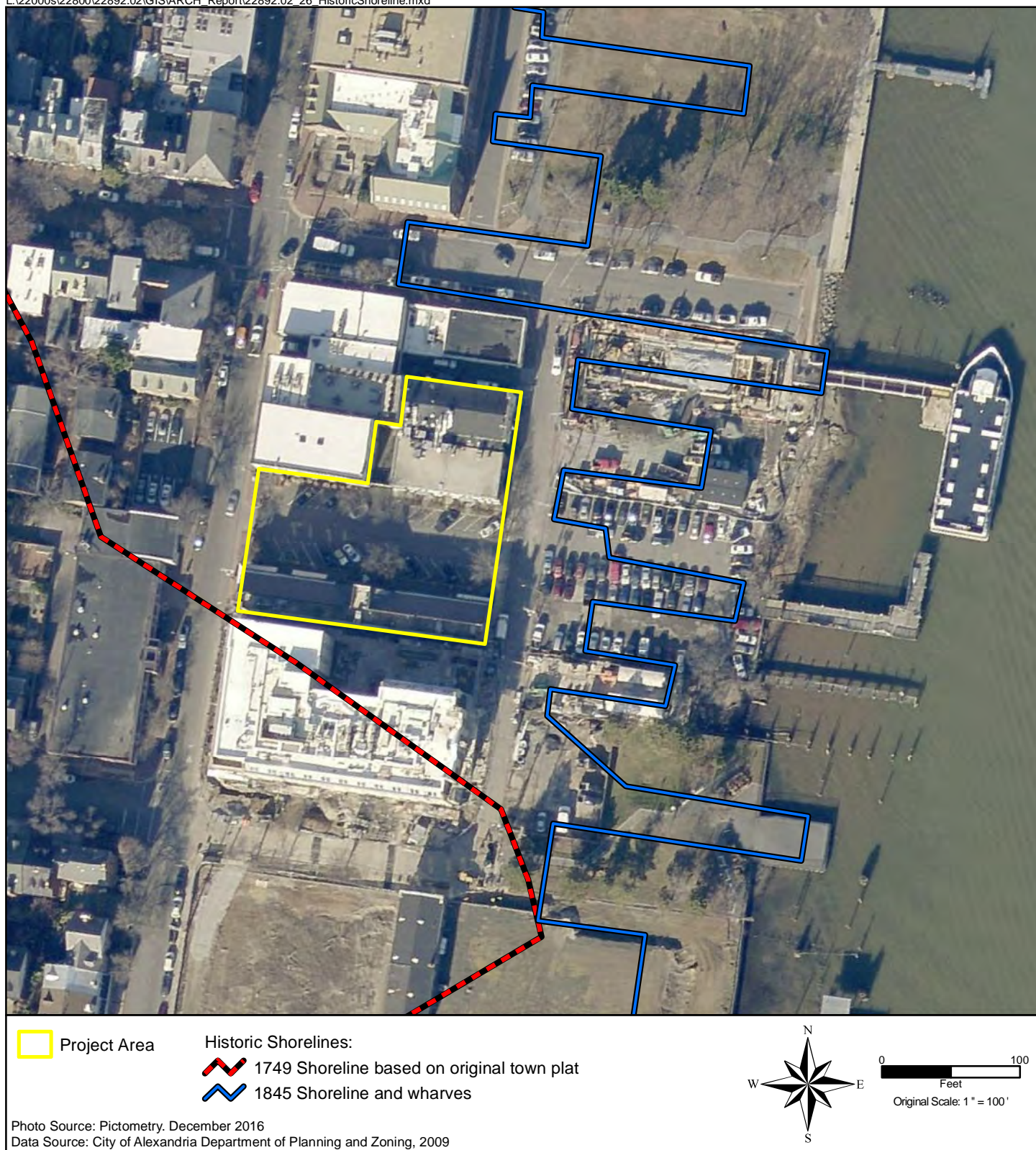


Figure 2: Aerial Map of Project Area

Specifically, the land containing the study area was created in the bay north of Point Lumley in the late 18th century through infilling and extending original Town Lots 62 and 69. At the time of Alexandria's establishment in 1749, the waterfront consisted of high bluffs, perhaps as much as 15-20 feet high, overlooking the river and its tidal flats. A decade later, the trustees authorized waterfront landowners to extend lots or "bank out" into the bay and improve their properties for personal use (City of Alexandria Minutes 1760). To create additional acreage, landowners directed laborers, both free and enslaved, to cut land from the bluffs and spread it out using wharves and other soil retention systems.

Capitalizing on the Trustees 1760 decision to allow banking out, George Gilpin and Jonathan Hall had the high riverbank cut and spread Lot 62 east to expand the quarter-acre wedge into a full-size half block fronting what would become Union Street. Likewise, Richard Arell continued to improve Lot 69 which he had purchased from Nathaniel Harrison and by 1798, the shoreline had reached the western edge of what is now Strand Street (Maas and Mullen 2017) (Figure 3).

The site may have remained undeveloped until 1805 or somewhat later; however, by the early to late 19th century, the study area contained a ship chandlery, plaster mill, a barrel manufactory, and merchant warehouses. Three of the commercial warehouses were mapped on the property by 1877. In the 1880s, George Hewes and DeWilton Aitcheson used the northern side of the parcel for their coal and lumber business; William S. Moore took over the southern section for his machine and pattern shop. After the 1897 fire destroyed the entire block, Aitcheson purchased all of land at 211 Strand Street. Aitcheson Fuel Co. remained in business at this location with successive owners until 1978 (Maas and Mullen 2017). The property contained one circa 1980 building that was demolished prior to the archeological investigations.

Notwithstanding significant construction activities from the late 1970's related to the current uses on the site, our documentary research revealed that the study area should contain early 19th- through 20th- century archeological features that could potentially provide additional information about the commercial development and domestic daily life on the waterfront in Alexandria (Mass and Mullen 2017).

FIELD AND LABORATORY METHODS

Machine Trenching

Using a backhoe with a flat-bladed, smooth bucket, Thunderbird staff archaeologists directed the excavation of trenches at locations of the piling foundation system and associated pile caps. The anticipated depth of construction impacts varied; the piles were driven to an approximate depth of 60 feet below surface but had minimal horizontal impact, while the concrete caps covering the piles would be placed approximately five feet below the surface. Because of the anticipated depth of excavation of the site and horizontal impacts from the pile caps, the trenches measured roughly 10 feet by 10 feet to accommodate the use of trench boxes, as needed.

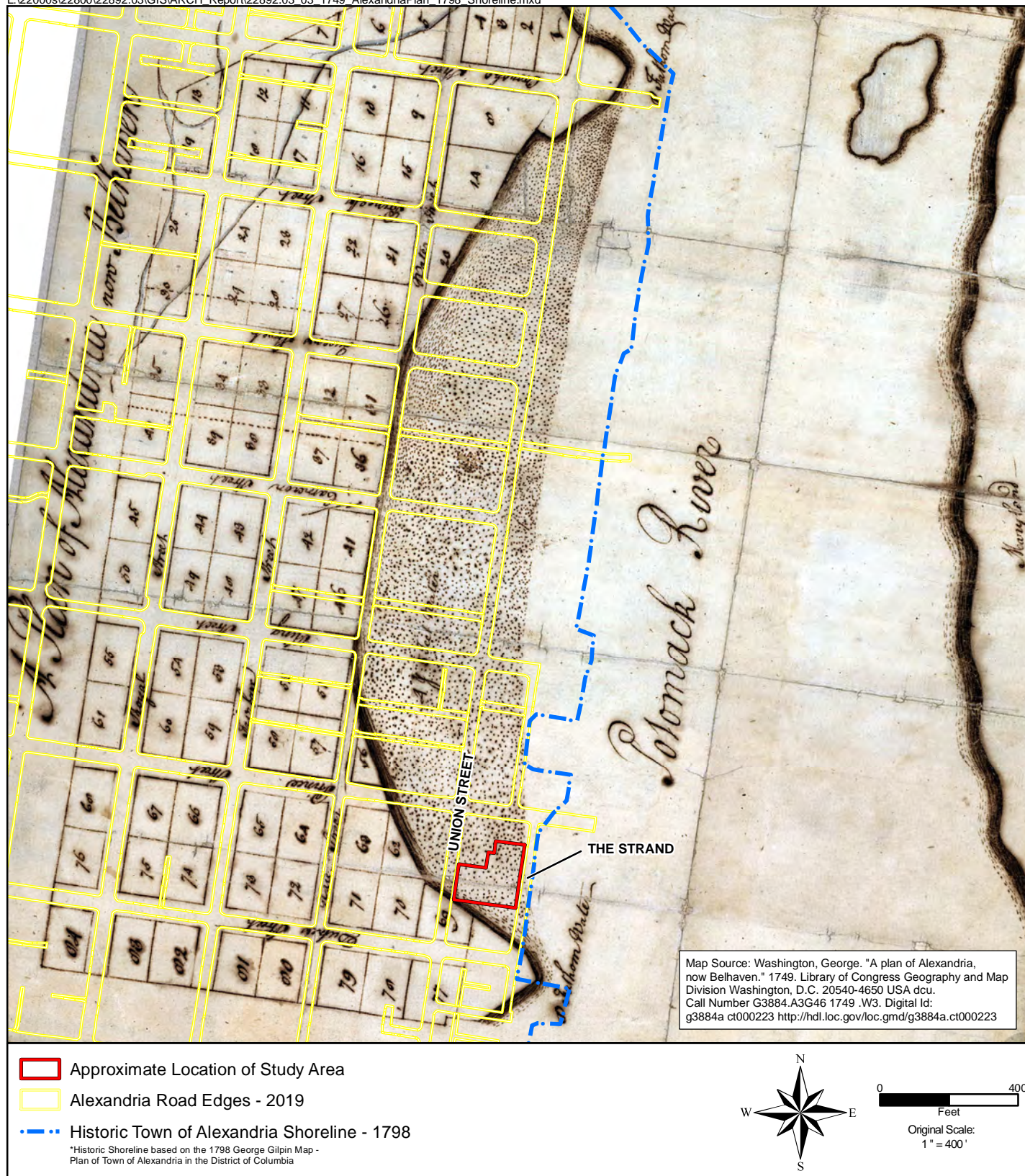


Figure 3: 1749 Plan of Alexandria Showing 1798 Shoreline & Modern Road Edges

Methodological strategies are subject to change based on field results during the course of the archeological work. The completion of the first few test trenches along S. Union Street, revealed the obvious difficulty in deep excavations in wet, sandy soils that were disturbing more archeological resources than the footprint of the designed piling system. Additionally, the client changed the type of pile, in order to have minimal deep impacts on the underlying soil. Therefore, in consultation with Alexandria Archaeology, the depths of the archeological trenches were limited to depths no greater than 5 to 6 feet, or the footprint of the pile caps.

The trench profiles were recorded with photographs and with strata profile drawings where possible. All archeological features exposed during the trench excavations were documented with photographs, notes, plan, and profile drawings. Trenches were backfilled after recordation of the soil profiles and documentation or evaluation of any archeological features.

Archeological Monitoring

Construction impacts that were not included in the original scope of work required the presence of an archeologist to monitor all construction ground-disturbing activities within the property. The archeological monitoring was conducted in concert with the construction schedule. The goal of the archeological monitoring was to document the presence of archeological features. Work ceased in the area of these finds until the archeologist evaluated their significance. All additional features located during in March and April of 2019 were recorded, mapped and photographed.

Laboratory Work and Curation

Artifacts recovered from significant soil layers within the project area were retained, cleaned, cataloged, labeled, and packaged in accordance with the guidelines set forth in the *City of Alexandria Archaeological Standards*. Unless otherwise noted, a representative sample of recovered brick, mortar, oyster shell, charcoal/coal/coke and slag was retained for curation; the remainder was discarded after being counted and weighed. Archeological collections recovered as a result of the *Alexandria Archaeology Resource Protection Code* must be curated at a facility which meets Federal standards for archeological curation and collections management as described by 36CFR Part 79. The Alexandria Archaeology Storage Facility meets these standards, and the property owner was encouraged to donate the artifact collection to the City for curation. At the conclusion of the project, all images, field notes and forms and other field records will be submitted to Alexandria Archaeology in digital format. The full inventory of recovered artifacts is listed in Appendix II.

CONSTRUCTION IMPACTS

The extant one-story retail building and associated parking lot at 211 Strand Street was demolished and was replaced with a ±62,000 gross square foot building with 16 residential units and ground floor retail. The new residential building will include approximately 9,412 square feet of parking on the first floor (no underground parking), with garage and lobby elevations following the existing grade of the site and sloping from +/- 8.0' feet at S. Union Street on the west to +/- 5.5' feet at Strand Street on the east.

The IDI Group Companies' construction plans primarily depended on 104 augercast driven piles in 43 locations that would be driven to depths of 60 feet and provide the building design with an elevated foundation. Piles were driven in clusters ranging from 2 to 5 and clusters were joined by concrete poured caps, which were then laterally tied into nearby clusters with steel grade beams.

Augercast piles are increasingly being used in urban construction projects, especially in waterfront settings, where deep foundation alternatives can avoid subsurface archeological resources. Such foundations are constructed by using a continuous flight hollow stem auger powered by a drill motor suspended from a crane. The auger is drilled to a predetermined depth before grout is pumped under pressure down the hollow stem of the auger flight through a hole at the base of the mechanism. When the grout is being pumped the auger is systematically withdrawn, leaving the grout in place. The drill spoil is gradually lifted to the surface while the grout is being pumped, and then the spoil is removed from the surface flights of the auger. Rebar is then extended vertically throughout the length of each pile. After the grout is set, the cap is tied into the pile and cast to form the foundation of the building.

Several studies on the effects of different piling systems on archeological deposits have been made and distributed for the use of developers and archeologists in order to form a methodology for avoiding and/or minimizing the damage to archeological features in urban contexts (Historic England 2019; CWR Archaeology 2018). Current piling schemes are developed and implemented to achieve preservation in situ of archeological sites. However, the clustering of pile caps at closer intervals will lead to greater destruction of cultural resources, expanding the impact area of such piles.

It was initially understood by Alexandria Archaeology and Thunderbird Archeology that the piling foundation would create a minimal impact plan, avoiding most subsurface features and only disturbing subsurface deposits from 0-5 feet below ground surface in 10 x 10 foot areas where pile caps were to be located.

The original proposed subsurface impacts were *minimal* and included a building foundation: a concrete 4-inch slab on grade supported by approximately 40 footings and wall columns that impact approximately $\pm 2,257$ square feet or about 12% of the 18,783 square feet 211 Strand Street property area. The typical exterior footing was to measure five (5) feet square, while the interior footing six (6) feet square. An elevator pit was located along the eastern end of the building (Figure 4).

Construction impacts that were not included in the original scope of work are shown on (Figure 5). They include the excavation of a crane pad foundation (Figure 6), the addition of nine augercast piles and associated concrete pile caps (see Figure 5), an increase in the size/extent of pile cap excavation pits (Figure 7 and Figure 8), the removal of two abandoned utilities, the excavation and placement of grade beams (Figure 9), the excavation of an underground electrical conduit (Figure 10) and plumbing impacts across the central portion of the site (Figure 11). These new impacts affected an estimated 80-90% of the site to an approximate depth of 3-5 feet below the surface.



Figure 4: Proposed Construction Impacts



Figure 5: Additional Construction Impacts

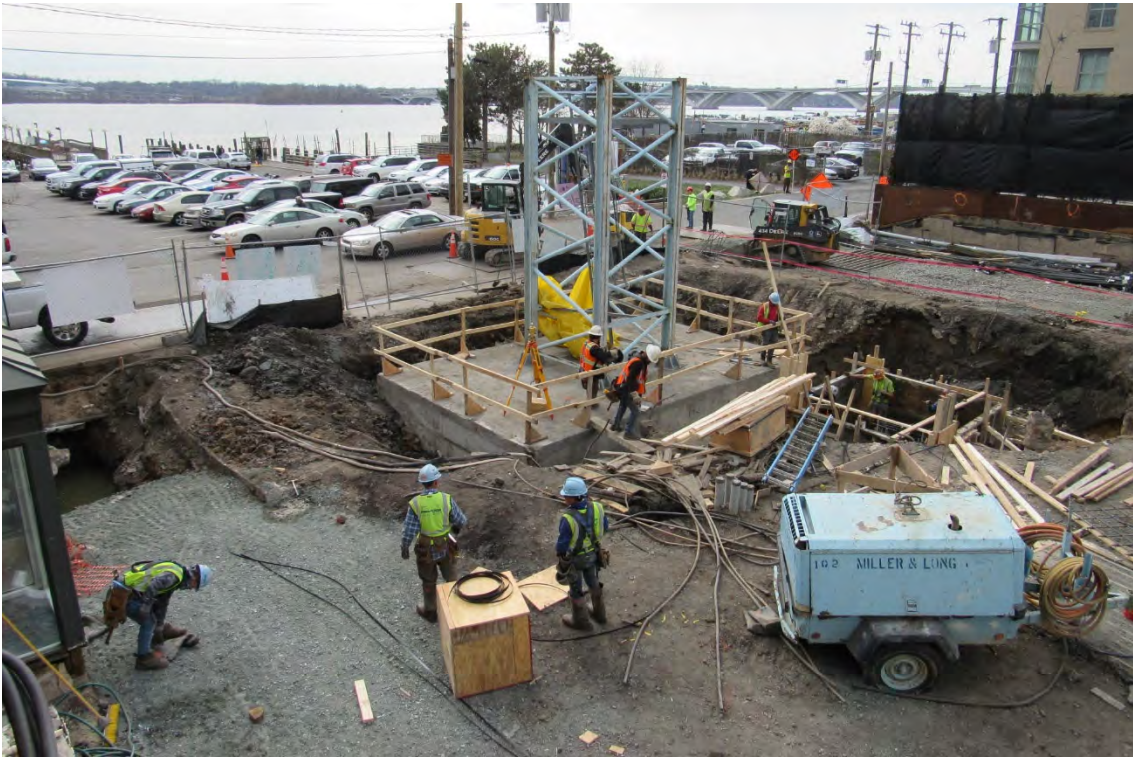


Figure 6: Crane Pad Foundation



Figure 7: Excavation Around Augercast Piles Prior to Pile Cap Installation



Figure 8: Concrete Form for Pile Cap



Figure 9: Example of Pile Cap and Grade Beam Trenching View West



Figure 10: Electric Conduit



Figure 11: Representative Plumbing Impacts

RESULTS OF ARCHEOLOGICAL INVESTIGATIONS

Although the proposed subsurface construction impacts, and therefore the archeological investigations, were not as extensive as the work previously conducted at the adjacent Hotel Indigo (Site 44AX0229) and Robinson Landing (44AX0235) sites, the excavations at the 211 Strand Street site nonetheless uncovered evidence of the commercial, industrial, and possibly domestic use of this portion of the city block. The identified features, primarily foundations of historically mapped warehouses and a few structures not shown on historic maps, revealed how the residents of Alexandria used this portion of the city's waterfront from the late 18th century through to the mid-20th century.

Thirty-eight trenches were initially excavated across the project area revealing 27 cultural features that together were recorded as Site 44AX0237 (Figure 12). An additional 17 features were identified during subsequent archeological monitoring of additional and unanticipated construction impacts; the features are depicted on Figure 12 and are discussed later in this report.

Feature 1/1A

The southeast corner of a stone foundation, designated Feature 1, was exposed approximately 2 feet below ground surface in Trench 9 (see Figure 12). The southern wall of the foundation extended westward into Trenches 6 and 7 but was reduced in size to only the last few courses, as revealed in Trenches 3 and 4 near S. Union Street. Overall the estimated length of the southern foundation wall that was exposed in the five trenches was 27 linear feet. The eastern foundation wall, exposed in the profile of Trench 9, was not found in the subsequent test trenches to the north. No evidence of the northern foundation wall was exposed.

The southern and western foundation walls were poorly preserved in Trenches 3 and 4; disturbances along S. Union Street were apparent throughout the archeological excavation of the trenches that directly abutted the sidewalk. The southern wall was much better preserved in Trench 7, where it extended approximately 6 feet deep (Figure 13). The width of this mortared schist foundation was approximately 1.2 feet but was only 7 feet in length and did not extend across the trench. A brick component of the wall or a surface may have been present in the structure at one time, represented by red stained soil within the eastern profile of Trench 7.

A wood plank floor or builder's platform was located at the base of the foundation within Trench 7. The plank feature (Feature 1A) extended on the north side, the probable interior of the building. The exposed floor consisted of 14 wood planks oriented east-west (Figure 14). The first five planks on the southern end of the trench measured at least 14.5 feet in length, which was the width of the test trench. The boards abutted the foundation wall but did not appear to extend beneath or onto the other side of the wall. The northwest exposed portion of the floor appears to have been purposely "cut out" and removed; this appears to continue to the west of the trench out of the unexcavated area (Figure 15). The planks were laid directly on a sandy surface, which is interpreted as historic infilling.



Figure 12: Location of Archeological Features Within Site 44AX0237



Figure 13: Feature 1, East Profile, in progress

The Trench 9 soil profile was similar to that of Trench 7 with five fill soils, including a thick layer of asphalt and roughly 2.8 feet of fill overburden covering Feature 1. Fill 3 is interpreted as destruction fill, but no buried ground surfaces were identified within the interior of the structure. The excavation was terminated within Fill 5, at the base of the north side of the foundation. This 10YR 4/3 coarse sand is likely the first infilling event, covering the plank floor or platform surface, after the construction and/or use of the building.

No artifacts were recovered from soils in any of the trenches in association with Feature 1.



Figure 14: Plan Feature 1 Within Trench 7 View to South

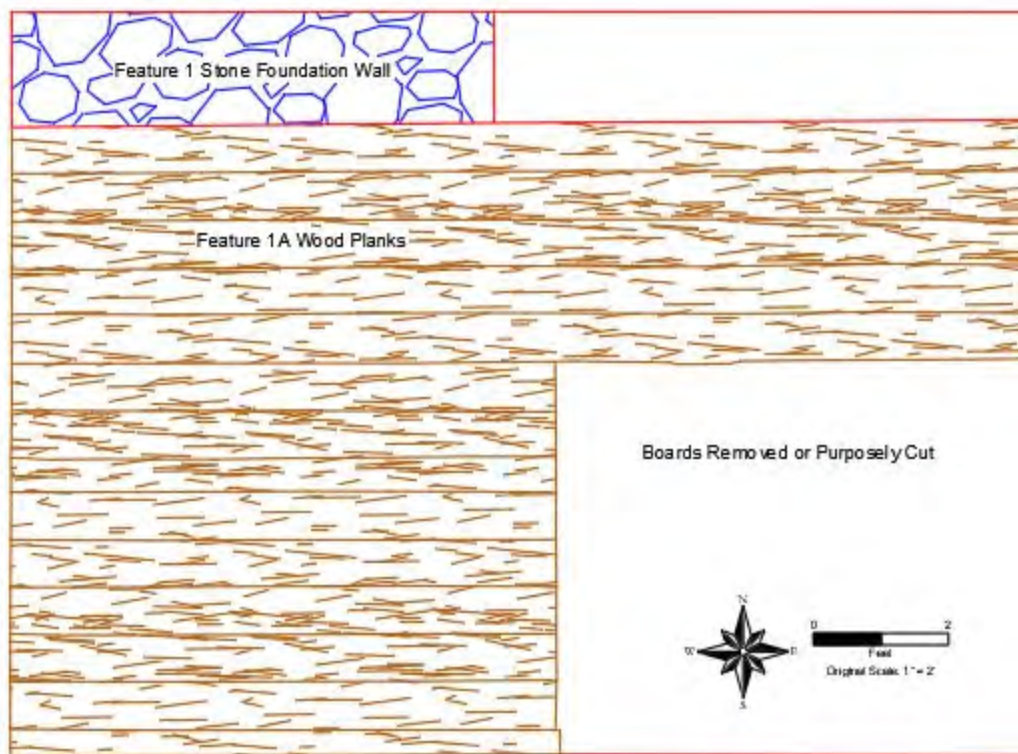


Figure 15: Plan Feature 1 and 1A Within Trench 7

Feature 2

The southern and eastern foundation of a second building was located north of Feature 1 (see Figure 12 and Figure 16). The southern foundation wall extended through Trenches 10 and 12 and terminated in Trench 14 at the southeast corner of the building. The exposed portion of the eastern wall extended only a few feet to the north, but presumably continues into the unexcavated areas of the site. Like Feature 1, this foundation was composed of mortared schist stone, but varied in width from 1.5 feet to 2 feet. Exposed only one foot below the surface, the corner of the building was better preserved and was 4.5 feet in height. The wall sections in Trenches 10 and 12 were found 3.5 feet below the surface. The structure, which likely fronted S. Union Street, extended east for 40 feet, but included 26 linear feet of the exposed southern wall and an eight foot section of the eastern wall.



Figure 16: Feature 2, In Progress, Plan, View to West

A shovel test pit was excavated within the interior feature of Trench 14 in order to determine if intact surfaces were present. The test pit profile revealed approximately two feet of sandy brick rubble (destruction fill) before trapped groundwater infilled the pit. No artifacts were observed in the fills associated with the exterior of the feature or the overlying fills of Feature 2.

All five trenches (Trenches 10-15) in the northeastern end of the site were excavated to the maximum depth of the reach of the backhoe or about 12 feet below the surface and exposed several wood beams or logs within the historic infilling. The wooden support structure beneath the foundation walls was laid in a grillage style with planks laid atop one another in an alternating perpendicular orientation with the stones laid atop the wooden foundation. As these features could not safely be investigated, and a change in methodology for trench excavation was discussed and implemented.

Feature 3/3A

Several wooden beams, sills and posts were exposed in Trench 16 and 18 at approximately 3 to 4 feet below ground surface. Trench 16 contained two sill beams running parallel to each other with three perpendicular boards extending from the southern sill beam (see Figure 12 and Figure 17). The remains of two posts were located on either side of the boards. The wooden sills were resting on a grey sand infilling level that continued down to the maximum depth of each trench. A compacted clay surface directly to the south of the beams and posts in Trench 16 at the southern edge of the excavation trench could be the extent of a floor surface or possibly a builder's trench for an unknown feature. An extension of the feature was located to the east in Trench 18 (Feature 3A) and could likely be the northern beam of Feature 3 continuing at 4 feet below ground surface of each trench (see Figure 12).

A total of 13 artifacts were recovered from the fill that the sill beams of Feature 3 were laid into including wrought nails, white earthenware, stoneware, manganese mottled, and Aastbury-type ceramics (Table 1 and see Appendix I). The general temporal range for these artifacts is the mid to late 18th century. However, the provenience of these artifacts is somewhat indeterminate as some could have derived from the overlying fills and were displaced during the mechanical excavation and monitoring of the pile cap location. The wrought nails were removed from the sill beams which were cleaned in situ. The excavation did not extend into the underlying fill as the impacts at the time of the investigation were halted at an elevation of about -5 to -6 feet below ground surface.

Table 1: Artifacts Recovered from Feature 3

Artifact Description	Feature Fill
Ceramics	
manganese mottled (1680-1780)	1
Aastbury-type (1727-1750)	1
refined white earthenware	5
stoneware	1
Metal	
nail, wrought	4
Miscellaneous	
bone	1
Total Feature 3	13



Figure 17: Feature 3, Trench 16

Feature 4

Feature 4 was the remnant of a schist foundation that was exposed in the southern profile of Trench 19 (Figure 18). The top of the foundation was found two feet below the surface and consisted of two to three courses of stone totaling roughly two feet in height. The stones were resting on wooden planks that appeared to be in relatively good condition towards the southwestern corner of the trench, but in poor condition on the eastern end of the exposed wall, consisting of only dark stains instead of wood. The planks were resting within a brown [10YR5/3] sandy clay loam.

The visible portion of the foundation was seven feet in length, reaching about halfway across the trench profile; it is possible that the feature continues to both the east and west into unexcavated areas, but was not investigated further as it was outside of the impact area for the proposed pile cap in this location. Feature 4 may be associated with Feature 1, but the construction techniques, size, and alignment appear to be different.

No artifacts were recovered in association with the exposed portion of the foundation and no intact ground surfaces or builder's trench were present.



Figure 18: South Profile of Trench 19 showing Feature 4

Features 5/5A

Feature 5 was identified within the southern wall of Trench 22 directly under the existing asphalt and bedding material and was damaged as it was mechanically uncovered (Figure 19). The fill soils in Trench 22 primarily consisted of brick rubble, presumably destruction fill from this building, which also made it difficult to identify the intact portion of the feature. The brick foundation as it was eventually exposed was comprised of ten courses of brick (about three feet in height). The brick foundation was resting on wood planks. The southeast corner of the building may have existed in the trench, but the eastern wall was no longer present to confirm this.

A stepped brick pier, designated Feature 5A, was located at the opposite end of the trench, within the northeast corner (see Figure 12). The brick pier was located two feet beneath the surface and measured approximately two feet square. The relationship to Feature 5 is unknown.



Figure 19: South Profile of Trench 22 Showing Feature 5

Feature 6

Feature 6 was exposed in Trench 25 roughly 1.5 feet beneath the layer of asphalt and bedding material fill associated with the construction of the parking lot (Figure 20 and see Figure 12). This dry-laid schist foundation wall consisted of four to five courses of stone and measured approximately three feet in width by eleven feet in length. The stones were not resting on wood planks, but rather were laid directly on the underlying brown sand (7.5YR 6/8), which is interpreted as historic infilling material. The foundation was oriented north-south and presumably continues into unexcavated areas; however, was not located in additional trenches to the north.



Figure 20: Feature 6, Trench 25

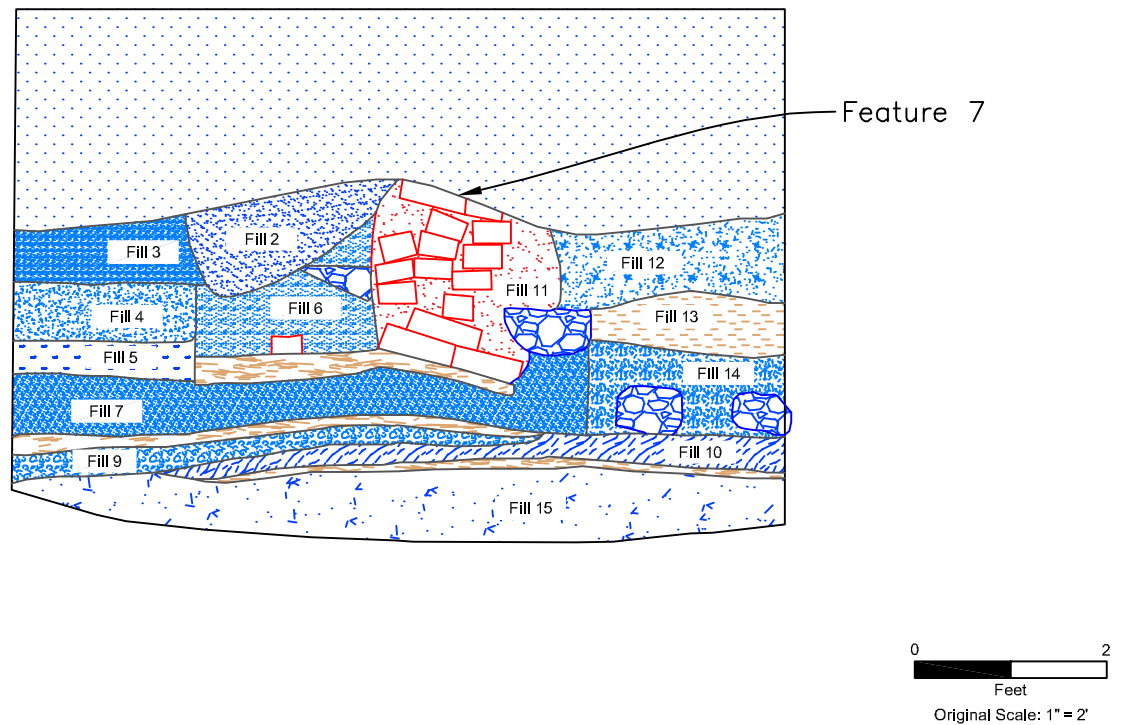
Feature 7

Feature 7 was discovered at 1.8 feet below ground surface directly beneath the asphalt layer of the current parking lot in Trench 28 (Figure 21 and see Figure 12). This brick wall foundation was 7-8 courses in height and a brick and one-half wide (1.0 feet). The base of the foundation was constructed on top of a wooden plank, which was sitting within a light brownish gray (2.5Y 6/2) sandy fill. The wooden plank footer extended south of the brick wall and was roughly 3.5 feet in length.

The western profile of Trench 7 exhibited fill soils with brick rubble, stone, decayed wood, and dark mottles to the north and cleaner sandy fill to the south, suggesting that the interior of the building to the north had been infilled with destruction rubble (Figure 22).



Figure 21: Feature 7, Trench 28, East Profile



	Modern parking lot/ asphalt layer		Fill 9: 10YR 5/3 brown clay loam
	Fill 2: Intrusive asphalt, mortar, and brick		Fill 10: 10YR 7/1 light gray sand
	Fill 3: 2.5Y 4/1 dark gray sand mottled with 2.5Y 2.5/1 black sand		Fill 11: Brick and brick/mortar rubble
	Fill 4: 2.5Y 6/1 gray sand		Fill 12: 10YR 5/3 brown sandy clay loam
	Fill 5: 2.5Y 3/1 very dark gray sand		Fill 13: Black/decayed wood
	Fill 6: 2.5Y 4/1 dark gray clay loam		Fill 14: 10YR 5/6 yellowish brown sandy clay loam with rubble
	Fill 7: 2.5Y 6/2 light brownish gray sand		Fill 15: 2.5Y 4/2 dark grayish brown sand
	Fill 8: Decayed wood		Stone

Figure 21: Trench 28 West Profile Showing Feature 7

Feature 8

Feature 8 was a brick and schist foundation wall located one foot beneath the asphalt and fill overburden in the southern profile wall of Trench 29 (Figure 23 and see Figure 12). The stone portion of the feature was constructed of five courses of cut and dressed stone, with smaller cut and flat stones filling in the irregular gaps. Two courses of brick capped the stone foundation, which overall measured about three feet in height and at least 1.5 feet in width (Figure 24). The stone foundation was stepped in two places; the base of the foundation was roughly a foot wider than the top course, and the next two courses of stone were offset from than that last two courses, creating a 0.5 foot ledge. The foundation was not resting on any apparent wood planks, but a dark sandy lens was apparent above the light olive brown (2.Y 5/3) sandy base of the trench.

The soils in the trench to the north of the foundation consisted of fill overburden and bedding material overlying a yellowish brown (10YR 5/6) sandy clay with a large amount (60%) of cobbles and a light yellowish brown (2.5Y 6/4) coarse sand mixed with gravel (Figure 25). The gravel layer and overlying fills appear to be associated with a utility trench disturbance that was documented in the adjacent trench (Trench 34).



Figure 23: South Profile of Feature 8, Trench 29

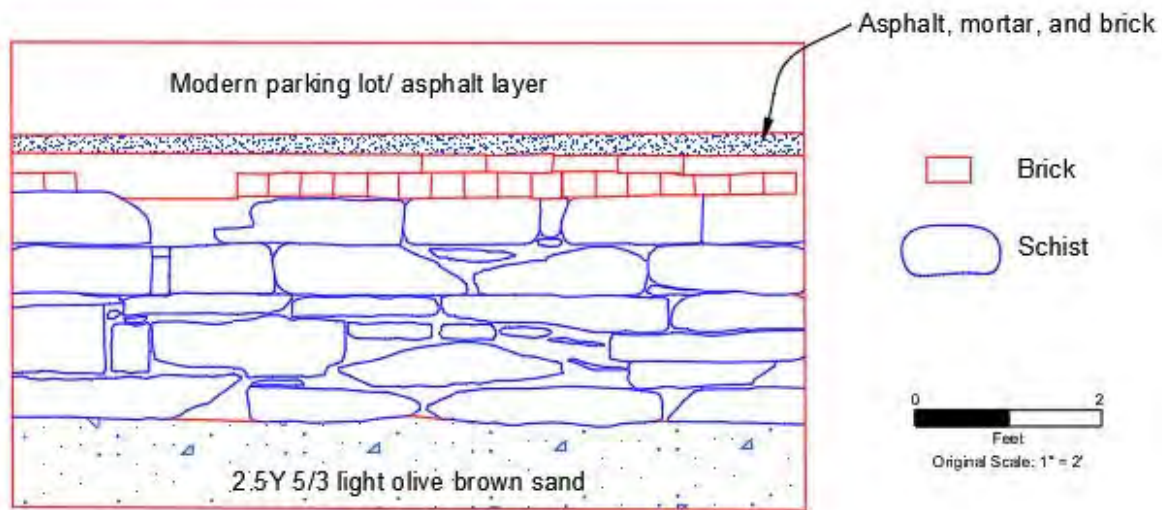


Figure 24: Trench 29 North Profile of Feature 8

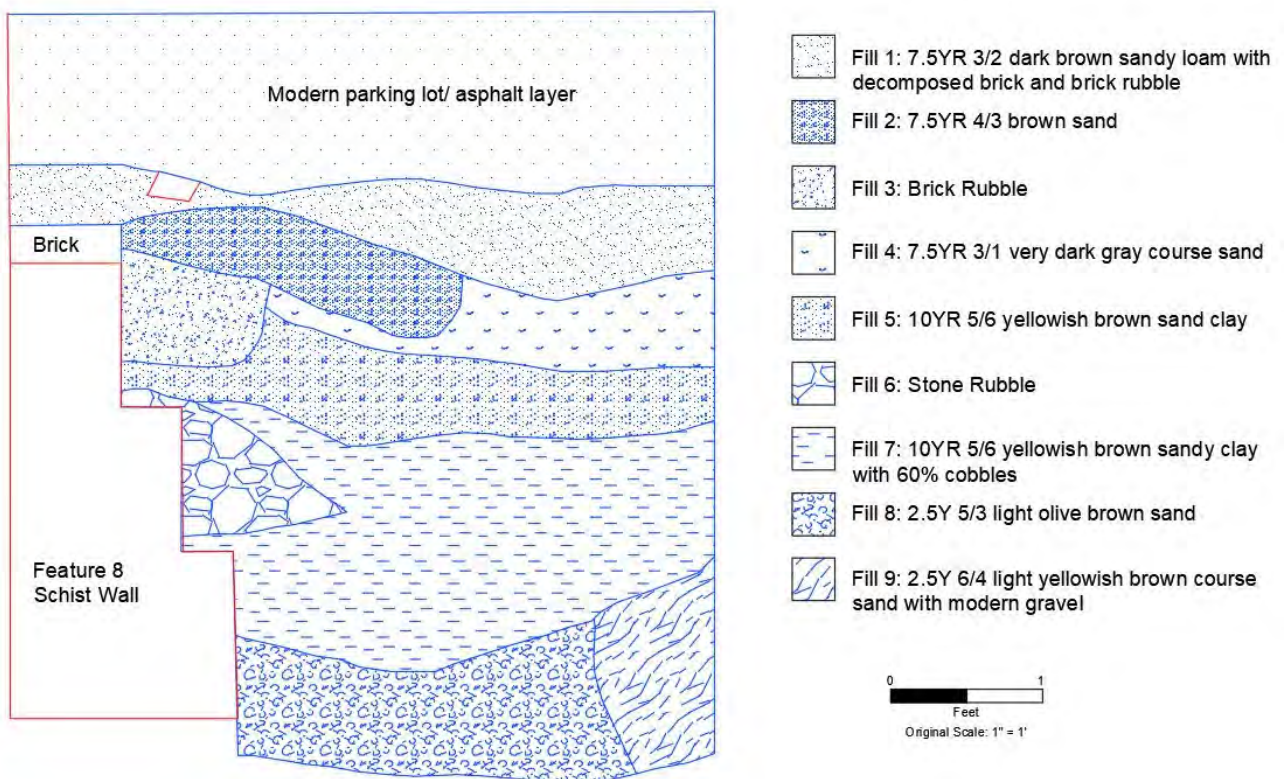


Figure 25: Trench 29 West Profile at Feature 8

Feature 9

The foundation designated Feature 9 had may have extended across Trench 21 but was only discernable in the northwestern profile wall after the trench was excavated, because of the large amount of brick rubble fill on the east side of the feature (Figure 26). The top of the brick foundation was 0.7 feet beneath the asphalt parking lot and was constructed five courses of brick and may have been resting on a large stone footer (schist) that was not clearly visible in profile and could not be safely investigated further.

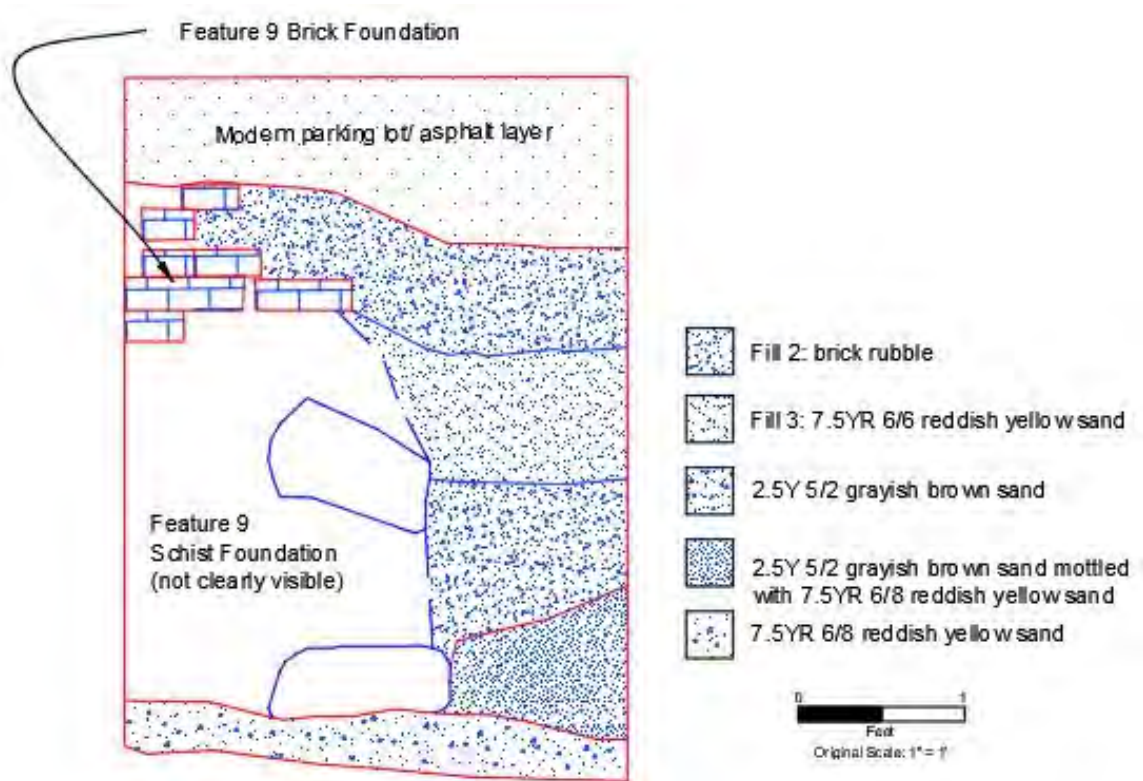


Figure 26: Trench 21 North Profile Showing Feature 9

Feature 10

Similarly, Feature 10 was located three feet below the asphalt ground surface but was only discernable in the south and east wall profiles of Trench 13 (Figure 27 and see Figure 12). The brick wall in each profile was about 2 feet in height (6-7 courses) by 0.7 feet wide (one brick width). The feature appears to have extended 1.4 feet to the south before turning to the west and forming the southwest corner of a building (Figure 29). This brick wall appears to originate from the southeast corner of Feature 2 and may be a later addition to the building, but the relationship is not clear. The west profile of Trench 13 included a one-foot-thick layer of brick rubble stratigraphically contemporary with the two sections of the feature. The brick rubble capped the light brownish gray (2.5Y 6/2) sandy fill that was typical of the historic infilling at this site. No artifacts were visible within the rubble layer or within the sandy soils.



Figure 27: Feature 10, Trench 13, South Profile

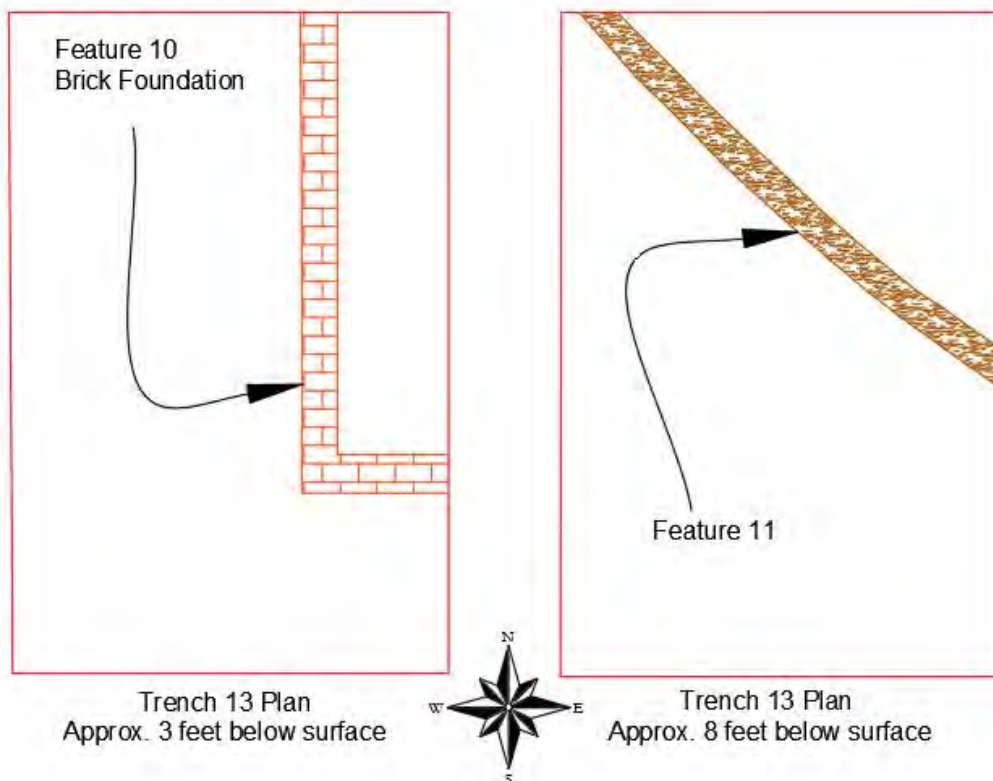


Figure 28: Trench 13 Plan View Showing Features 10 and 11 (not to scale)

Feature 11

Feature 11 was a large timber found approximately 8 feet below the surface in Trench 13 (Figure 29). The tree trunk was laid diagonally (NW-SE) across Trench 13 and extended into the east and west profiles (see Figure 28). No other beams or planks associated with the tree were observed at the same level; however, more wood was exposed at 10 feet below ground surface. This appeared to be infilling of smaller saplings and brush within the light brownish gray (2.5Y 6/2) sandy clay fill, similar to what was documented at the Robinson Landing site. No evidence of wharf structures was observed. The larger wood beam could be interpreted as a tie back; however, these features were not fully investigated, and excavation of the trench was terminated at approximately 12 feet below surface.



Figure 29: Feature 11

Feature 12 and Feature 13

Feature 12 was the remnants of a brick wall located directly beneath the parking lot asphalt and collapsing out of the southern profile wall of Trench 29. The foundation wall appears to have been disturbed previously by the construction of an adjacent parallel utility line and disarticulated wooden beam (Figure 30). The foundation was at least two courses high and appeared to be constructed directly on sandy fill. No artifacts were recovered in association with the feature.

Features 13A and 13B were two vertically-driven posts spaced about 8.0 feet apart, located in Trench 23 directly south of a brick wall foundation (Feature 12) but at a depth of five feet below ground surface (see Figure 30 and Figure 12). The posts were driven into the grey sandy clay that was found beneath the brick and stone buildings across the site. The posts were removed and were only 2 -3 feet in length and 0.5 feet in diameter. No artifacts were found associated with the posts. Based on the proximity to Feature 12, the posts may represent a building addition or porch supports; however the features could not be fully investigated due to the limited nature of the investigation.



Figure 30: Figure: Feature 13A/B with Feature 12 in the Background, View South

Feature 14

Feature 14 was discovered at 5.0 feet below ground surface in Trench 17 and consisted of a wooden board oriented east-west and two posts driven into the underlying light olive brown (2.5Y 5/3) sand (Figure 31). The feature was removed after it was photographed and recorded in situ. The south profile of Trench 17 was recorded and showed several possible construction and/or destruction layers associated with a building in this location (Figure 32). No artifacts were recovered in association with the feature.



Figure 31: Feature 14, Trench 17, Plan in Progress, View to South

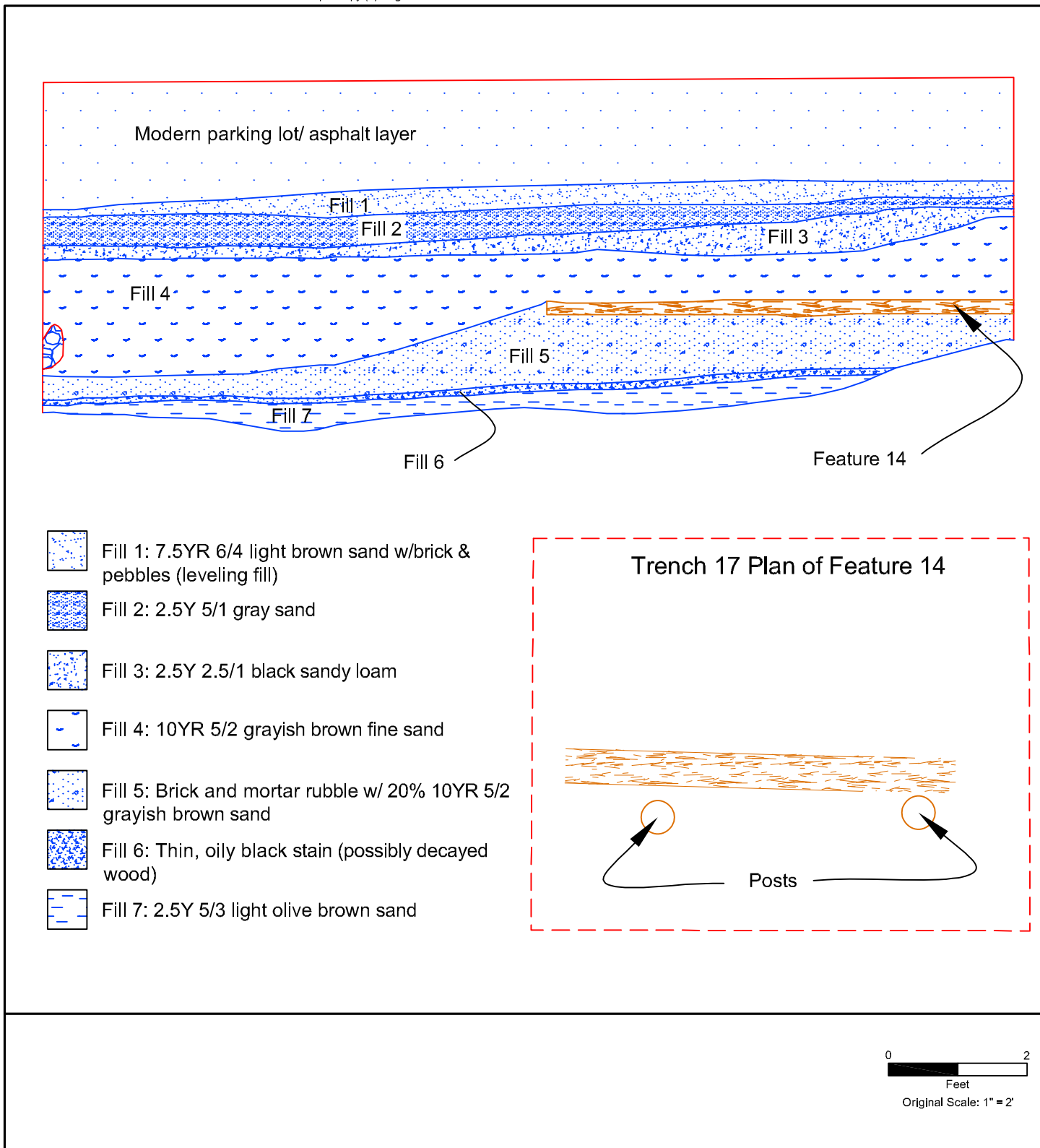


Figure 32: Trench 17 South Profile and Plan of Feature 14

Feature 15

Feature 15 was exposed in the northwest corner of Trench 27 within a fill of brick rubble to the north of the wall exposed in the west profile of the Trench at 3.0 feet below ground surface (Figure 33 and see Figure 12). The wall appeared to be oriented north south in the west profile and was about four courses thick. The section of the wall was directly beneath the parking lot levelling layers and laid atop grey sand. The evaluation of Feature 15 was limited due to the unstable soils in the trench and its proximity to the street to the east. Photographs were taken of the trench profile, including Feature 15, prior to backfilling.



Figure 33: Feature 15, Trench 27, West Profile

Feature 16

Feature 16 was a layer of branches and saplings at a depth of 8.5 feet below ground surface in the southern half of Trench 15 (Figure 34 and see Figure 12). Within the relatively small window of Trench 15 and gradual rising of the groundwater table increasing with the depth of excavation it was not possible to full examine the feature, but similar to wood exposed within Trench 13 to the west, and to those exposed in archeological excavations at Robinson Landing. The branches and small tree trunks were located within the light brownish gray (2.5Y 6/2) sandy fill that is interpreted as the historic infilling along this portion of the Alexandria waterfront. The maximum depth of the trench was taken to 13 feet below ground surface, where subsoil was not reached but the feature wood was still visible.



Figure 34: Feature 16, Trench 15

Feature 17

Feature 17 was exposed in the east profile of Trench 30 about 1.5 feet below ground surface, underlying sand beneath the current asphalt layer in the parking lot (Figure 35, Figure 36 and see Figure 12). This mortared brick foundation, oriented north-south, was 12 courses in height. The foundation was constructed on top of cut wooden planks which were laid perpendicular to the brick wall and extended to the west from the wall by one foot. A separate board was laid against the wall and wedged into place between the wooden footer boards and the brick wall forming a lip at the base of the wall where the wood meets the brick. The wood was resting on top of the light brownish gray (2.5Y 6/2) sandy fill.

The trench was infilled without the removal of the feature as the location of the pile cap will likely miss this feature.



Figure 35: Feature 17, East Profile

Feature 18

Located opposite of Feature 17 within the northwest corner of Trench 30 was a brick pier, designated Feature 18. The pier was exposed 1.5 feet beneath the asphalt parking lot surface and measured 3.0 by 3.0 feet square and was 3.0 feet high (Figure 37 and see Figure 36).

Both Features 17 and 18 were left in situ and the trench was backfilled.

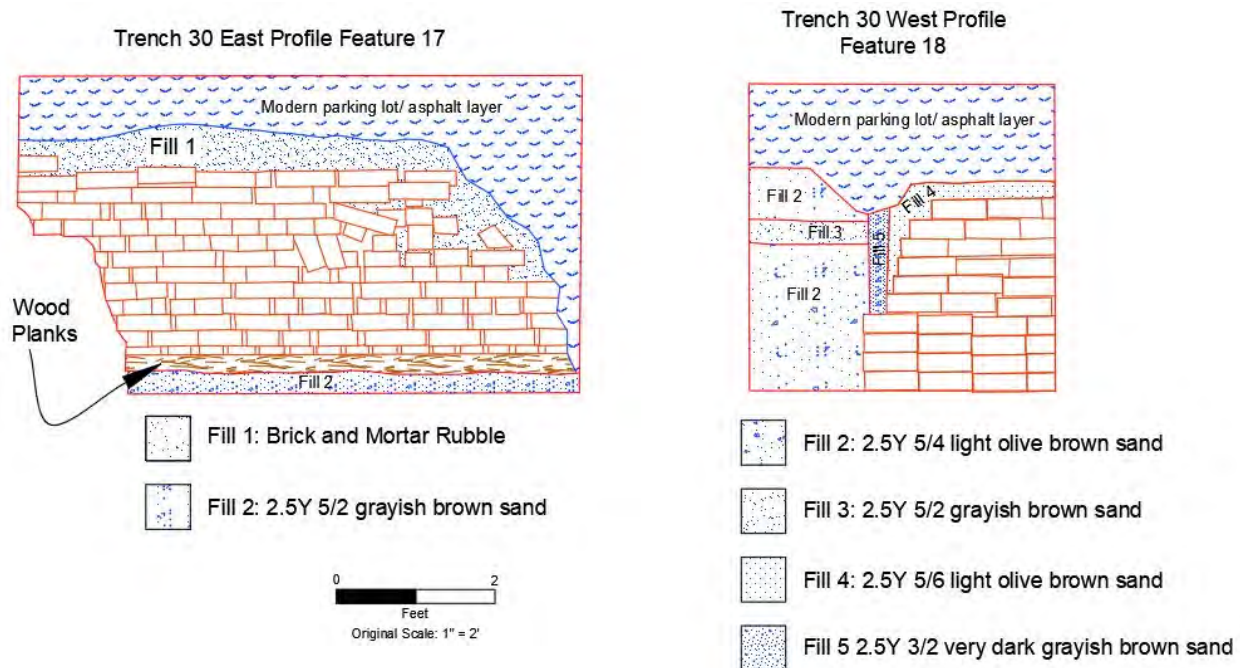


Figure 36: Trench 30 Profiles Showing Features 17 and 18



Figure 37: West Profile of Feature 18

Feature 19 and Feature 20

Two features were recorded within Trench 31: Feature 19, a box conduit, and Feature 20, a brick foundation (see Figure 12). Trench 31 measured 14 by 10 feet and was excavated to a depth of five feet below the surface.

Feature 19 was a wooden box conduit nearly three feet away from and running parallel (east-west) to the brick foundation; the feature was found at a depth of 2.6 feet below ground surface (Figure 38). The box was constructed of four cut boards, roughly 0.2 feet in width, that were fastened together forming a hollow rectangular conduit/drain. The box was roughly 0.8 feet high by 1.0 foot wide and was sitting on a dark gray (10YR 4/1) clay loam with many brick inclusions.



Figure 38: South Profile of Feature 19 (foreground)

Feature 20 was a stepped brick foundation constructed on thick wooden planks that were laid perpendicular to the foundation (Figure 39). The eastern end of the foundation contained 15 courses of brick; the western end “stepped” up in elevation and contained only 11 brick courses. The feature was exposed directly beneath the asphalt layer (one foot below ground surface) and extended to 3.6 feet below the surface. The trench was excavated to a total depth of five feet below the surface. No artifacts were found in association with the foundation wall.



Figure 39: Feature 20, South Profile

Feature 21

Trench 33 was excavated directly south of Trench 30 and revealed what appears to be another brick foundation likely associated with the foundation (Feature 17) found in Trench 30 (Figure 40). Feature 21 includes not only a north-south wall section (likely the southern extension of Feature 17), but an east-west wall component and what appears to be a three-foot square pier in what would be the southeastern corner of this building. The wall contained about 8-9 courses of mortared brick and was constructed on wood planks oriented east-west (in a similar fashion as Feature 17). The foundation was not visible in the west trench wall profile and may have been disturbed by the modern utility corridor that was present in the remainder of the trench floor. The feature also extended eastward from the apparent corner of the building and may represent another building addition.



Figure 40: Plan of Feature 21, looking East

Feature 22

Feature 22 was a brick foundation remnant exposed in the northeastern corner of Trench 34 (see Figure 12). The brick foundation was visible only in the eastern wall profile at 1.5 feet below the surface. It is not clear if the foundation once extended across the trench to the west and connected with Feature 21 (in Trench 33) as it was not visible within the western wall profile nor was found in Trench 29 (see Figure 12). It is possible that Feature 22 was a north-south aligned wall, but it may have been destroyed by the modern disturbance – the utility duct bank covered in compact gravel that was exposed running east-west through Trenches 33, 29 and 34.

The remnants of wood planks oriented north-south were also exposed in the floor of the trench at 4.8 feet below ground surface (Figure 41). These planks, designated Feature 22A may have been the footer for the brick foundation, however it is speculative.



Figure 41: Plan of Feature 22 Within Trench 34

Feature 23

Feature 23 was discovered at 2.0 feet below the asphalt/gravel fill ground surface in Trench 35 (Figure 42 and see Figure 12). The brick foundation walls (Feat. 23-1 and 23-2) formed the southeast corner of a structure, with a third brick wall (Feat. 23-3) extending eastward from the structure and may be a building addition. A possible builder's trench was apparent on the interior of the building, along the west side of Feature 23-2 (Figure 43).

The southeast corner of the structure was resting on four large wood planks that were oriented east-west, but the planks changed direction around the corner to a north-south alignment (see Figure 42). The planks did not continue under the remainder of the wall (Feat. 23-2). The brick foundation was approximately 2 feet high and extended to roughly 4.0 feet below the surface (Figure 44).

The brick portion of Feature 23-3 was also 2.0 feet high, however, was found to have been constructed on top of a stone foundation that extended another two feet below the brick. The base of the foundation was not reached as the trench excavation was terminated at 6.0 feet below surface (Figure 45).



Figure 42: Feature 23, Plan, In Progress

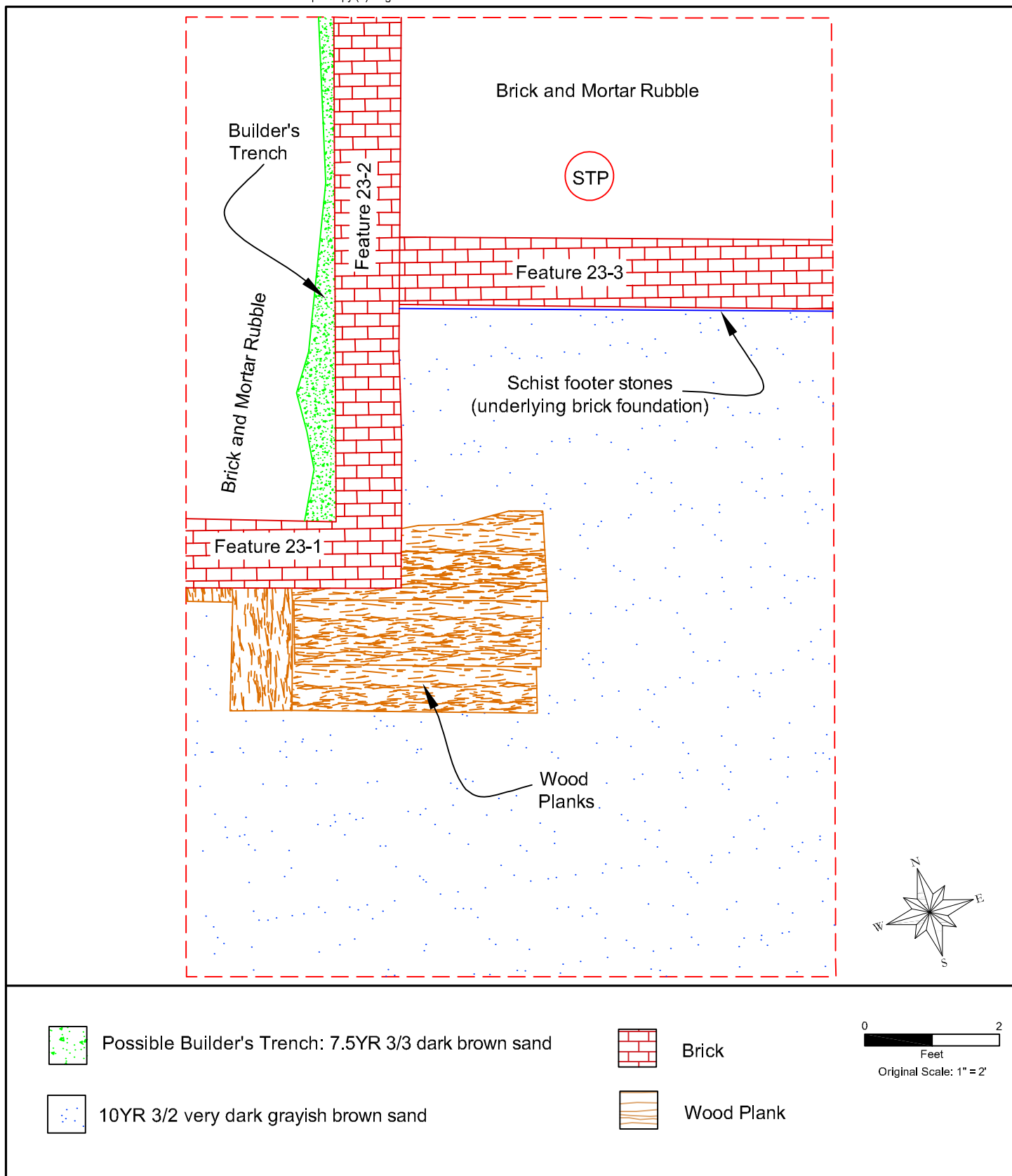


Figure 43: Trench 35 Plan of Feature 23



**Figure 44: Trench 35 West Profile Showing Feature 23-1
(after removal of foundation)**



Figure 45: Feature 23-3 North Profile

Feature 24

Trench 38 was excavated a few feet east of Trench 35 and it was anticipated that the east-west brick foundation (Feature 23) would extend into this trench (see Figure 12). A brick foundation was located about one foot below ground surface in the east and west profiles of the trench, but no intact foundation was apparent across the trench during the excavation. The brick foundations were resting on stone footers. Although it is likely that this is a continuation, the foundation remnants in Trench 38 were designated Feature 24 (Figure 46).

A utility drainpipe ran through this section of the site and could have disturbed a large portion of the foundation. The trench was excavated to the depth of impacts for the pile cap (five feet below surface). It is possible that intact stone footers are located at a greater depth and will not be impacted by the pile construction.



Figure 46: Feature 24, View North

RESULTS OF ARCHEOLOGICAL MONITORING

Archeological monitoring was required by Alexandria Archaeology in March and April of 2019 due to overlooked and unanticipated construction impacts. As previously mentioned, these impacts included the excavation for a concrete crane pad that was not included within the original plans, the addition of nine augercast piles and associated concrete pile caps, the removal of two abandoned utilities, the excavation and placement of grade beams, the excavation of an underground electrical conduit and plumbing impacts across the central portion of the site. Eleven features were identified during the archeological monitoring.

Feature 25

Feature 25 was a brick foundation exposed in the eastern profile wall of the crane pad excavation pit. The rebar form for the crane pad foundation had been constructed prior to the archeological work, making documentation difficult (Figure 47).



Figure 47: Feature 25 Overview

The brick and mortar foundation sat on wooden planks, which in turn rested on alternating layers of sand and clay (Figure 48). The exposed portion of the foundation measured 2 by 3 feet and extended eastward under Strand Street; it is unknown how far the foundation had extended westward, before it had been impacted by construction (Figure 49). The remaining foundation consisted of four remaining courses of brick (1.2 feet in height), however ten additional courses of brick were visible in profile (Figure 50).

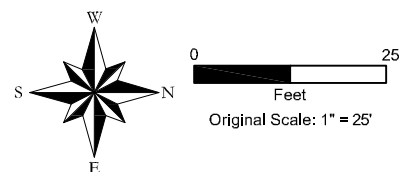
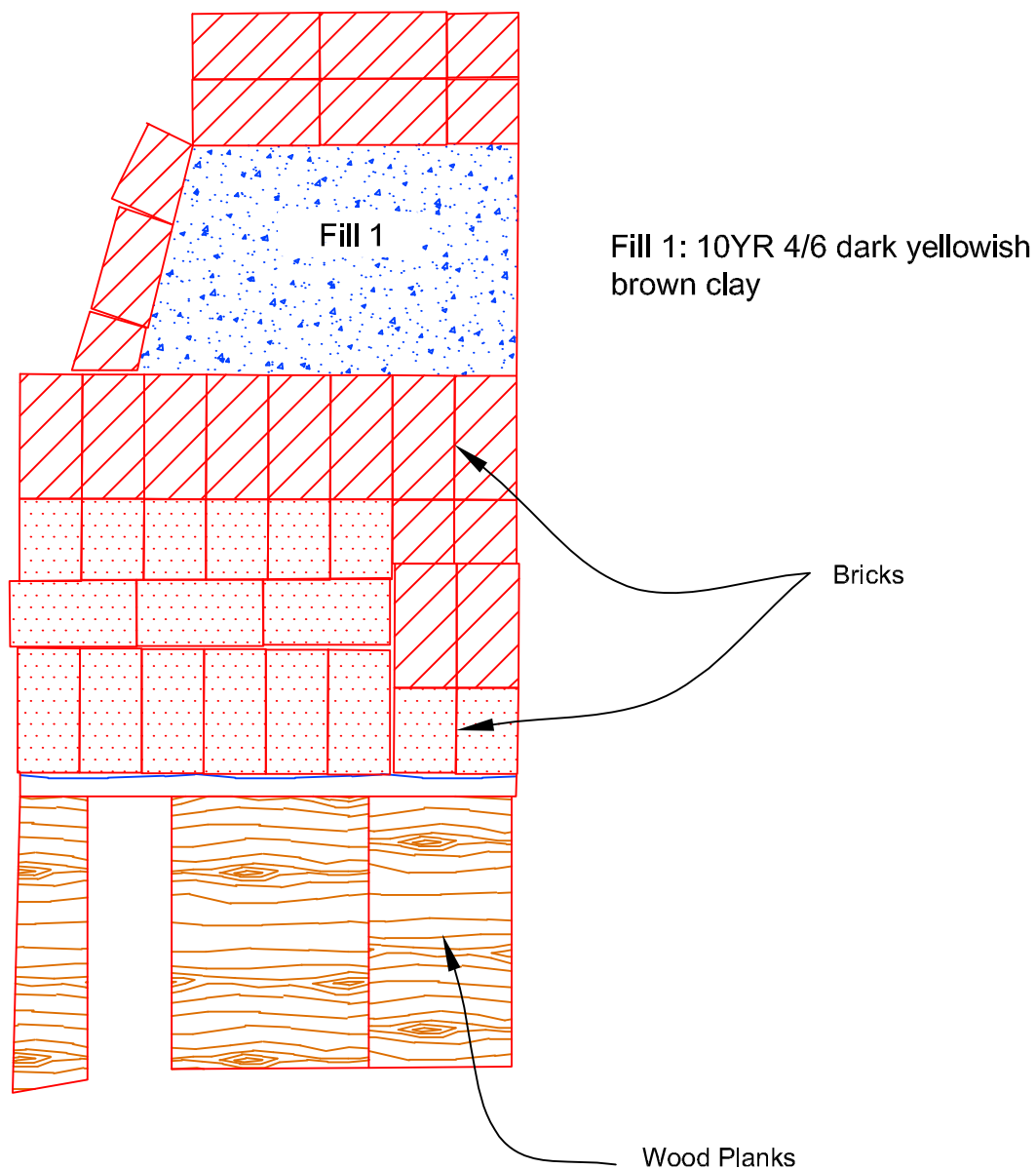


Figure 48: Feature 25 Plan



Figure 49: Feature 25 Plan View



Figure 50: Feature 25, East Profile

The foundation sat on top of two courses of planks: the first course ran parallel underneath the brick wall and rested on a lower set of planks that were laid perpendicular to the foundation (Figure 51). Overall, the foundation wall was approximately 4.8 feet in height.

A second parallel foundation located roughly 1.2 feet to the north was visible in plan and profile and was connected to the main foundation by a single course of brick stretchers (however, the bricks may have been moved out of their original location)(see Figure 48 and Figure 49). This wall was eight courses high (2.4 feet) overall and was one brick (0.7 feet) in width. The foundation was not resting on plank footers and its function and association with the main building foundation is unknown.

One complete brick and several mortar samples were taken from the feature at the request of the City of Alexandria for analysis.



Figure 51: Feature 25, North Profile

Feature 26 / 26A

Two additional brick foundation walls were exposed in the profile walls of the construction pit, which had been excavated to construct the crane pad foundation and expanded to include the area around the elevator pit. The excavation pit expanded in size due to erosional wall slump during the heavy rains that occurred during the archeological documentation. Both features eventually slumped into the pit after recordation.

Feature 26 was located along the southern profile of the pit in the approximate location of Feature 17 and measured roughly 2.3 feet in height by 2.1 feet width (Figure 52). The seven courses of mortared brick and the wood plank footer were set atop a one-foot thick layer of sand, which was overlying a layer of wood chip debris. The wood chips are significant as it likely represents a ground surface around the time the foundation was constructed. A possible builder's trench, or section of wall that have been previously removed, is evident on the east side of the foundation.

A second brick foundation was also observed in the western wall profile just north of Feature 26. In profile, this foundation consisted only of three courses of brick and measured approximately 0.9 feet in height and 0.7 feet in width (Figure 53). The foundation was found within the same sandy fill matrix above the wood chips as Feature 26. No evidence of a builder's trench was apparent.



Figure 52: Feature 26, South Profile



Figure 53: Feature 26A West Profile

Feature 27

Feature 27 consisted of a schist foundation wall that was removed during construction excavation without the direction of WSSI archeologist (Figure 54). This area was believed previously excavated by WSSI archeologists, but a new pile/pile cap that was not shown in the original work plan had been placed to the north of Trench 3. Only a portion of the foundation wall was left in profile. Based on its location, the foundation may have been the northern wall of Feature 1; an additional section of the wall was exposed and documented at Feature 34. The adjacent brick pier that was also exposed in the profile to the east of the schist wall; this brick feature was documented as Feature 33 in these subsequent monitored excavations to the north.



Figure 54: Feature 27 in North Profile Wall

Feature 28

Two wooden posts, designated Feature 28, were exposed during the construction excavation of the crane pad foundation and elevator pit (Figure 55). The posts measured roughly 0.5 feet in width and were approximately five feet apart, at roughly eight feet below ground surface. The posts were under water and were only documented with rough measurements and photographs.



Figure 55: Feature 28, Looking East

Feature 29

Feature 29 was a brick foundation that was exposed in the grade beam trench excavation connecting pile caps in Trenches 12 and 14 (see Figure 12). The foundation was located roughly 1.5 feet below ground surface, directly beneath the asphalt parking lot and associated bedding gravel fills. The foundation measured 2.5 feet in width by 4.5 feet in length (Figure 56 and Figure 57). Overall, the feature was 1.7 feet in height, although portions of wall appear undercut and the feature was not exposed in its entirety to the south. The feature does not appear to have extended any further eastward.

The central portion of the foundation consisted of four courses of brick resting on two courses of wood planks and what appears to be a wooded beam (Figure 58). The foundation wall rose in height another four courses along the southern excavation wall (**Figure 59**), but its underlying lower courses of brick and the wooden plank footers were not visible in profile under this section, as they had been undercut. Finally, the northern side of the feature consisted of six courses of mortared brick, measuring 1.5 by 5 feet, which appear to be articulated “wall fall” (see Figure 56 and Figure 60). The northern edge of the articulated brick is bordered by a wooden beam that has deteriorated into primarily a soil stain. Mortar is visible between the last course of brick and the board.



Figure 56: Feature 29 Plan Looking South

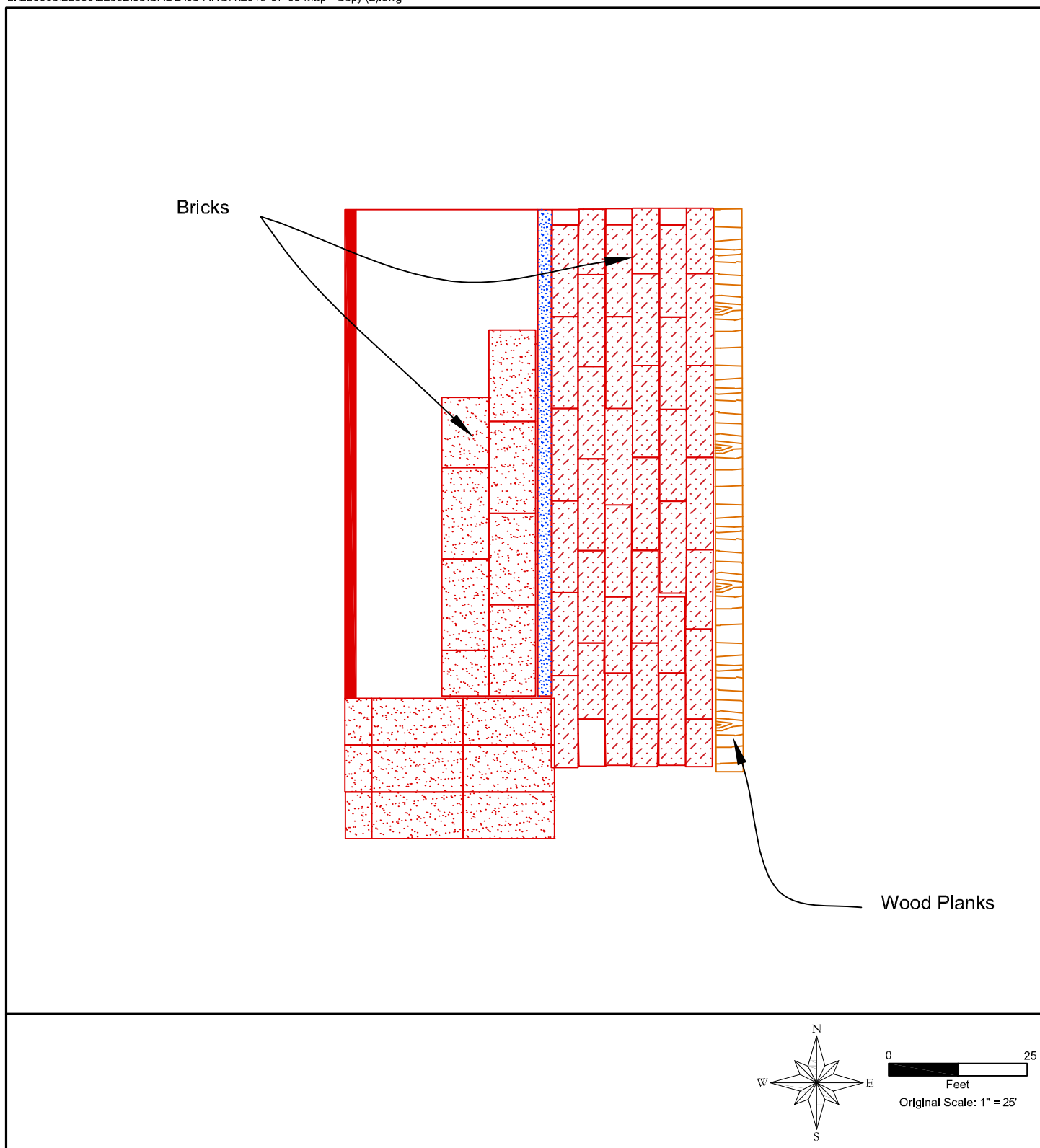


Figure 57: Feature 29 Plan



Figure 58: Feature 29 West Profile



Figure 59: Feature 29 South Profile

A total of 18 artifacts were recovered from the vicinity of Feature 29, including one kaolin pipe stem, one tin glazed earthenware, sherd, and coal, brick and mortar samples. No artifacts were recovered from contexts with integrity.



Figure 60: Detail of Feature 29 Suspected Articulated Wall Fall

Feature 30 / 30A

A schist foundation wall was uncovered in the southern portion of Trench 17 during the construction excavation for the pile cap (see Figure 12 and Figure 61). The trench measured 3 by 6 feet and had expanded from its original location approximately one foot to the south, exposing the east-west aligned feature. The foundation section was one of the few features located across the site which was preserved in situ and not destroyed by the pile cap construction; however, the upper course of the north face of the wall partially damaged (Figure 62 and Figure 63).

The schist stone was stacked roughly six courses tall, slightly over two feet in height, and the top course of the wall was found one foot below ground surface beneath the asphalt and compacting layer of the parking lot. The foundation was constructed on a wooden plank, which was resting on grey sandy fill. Artifacts were collected at the base of the foundation wall from Fill 3 beneath the wooden sill with the hope of dating the construction of the wall; however most artifacts could not be dated (see Appendix I).



Figure 61: Feature 30, South Profile



Figure 62: Feature 30 in Relation to Footers



Figure 63: Feature 30 in Relation to Form for Pile Cap

A post/post hole was exposed in profile in the northeastern corner of the trench adjacent to the foundation (Figure 64). Designated Feature 30A, the post was roughly a foot long and half that in diameter. The post hole was filled with a 10YR 5/6 yellowish brown silty clay. The feature was not bisected, and no artifacts were collected. Feature 62A was also not further impacted by the pile cap construction.



Figure 64: Feature 30A

Feature 31

A schist foundation wall was uncovered in the southwest corner of the property during pile cap and grade beam construction (see Figure 12). The dimensions of Trenches 5 and 8 were expanded to an area measuring 16 by 35 feet, and Feature 31 was exposed in a bench on the side of the excavation trench.

The wall measured 17 feet in length and was about 2.3 feet in width (Figure 65). The top course of stone was found directly beneath the modern fill and asphalt for the parking lot, at a depth of 0.8 feet below ground surface and the feature extended to approximately 2.6 feet in depth. As with most other foundations at the site, the base of the foundation was constructed within a sandy fill that was two feet above the bark and wood chips layer; the soils represent the historic infilling of this lot prior to the construction of the buildings.



Figure 65: Feature 31, North Profile

Feature 32

Feature 32 was located within Trench 10 during construction excavation of the pile cap foundation (see Figure 12). This brick foundation wall lay directly beneath modern construction fill and asphalt from the parking lot (Figure 66). The foundation wall consisted of 10 courses of brick and was roughly 2-feet wide. The wall itself was constructed within a sandy fill matrix; no builder's trench was apparent.



Figure 66: Feature 32 North Profile

Feature Complex (33, 34, 34A, 34B)

Four new features were exposed in the construction excavation and expansion of Trenches 4 and 7 to include new piles (that were not included on the original construction plans) and the grade beam trench excavation connecting pile caps in Trenches 3, 4 and 6 (see Figure 12). The features appeared to form the northeast corner of a building or interior room and may be associated with Feature 1.

Feature 33

Feature 33 was a large brick foundation the appeared to have been partially destroyed during the re-excavation of the pile cap location. The section that remained measured 6 feet (north-south) by 2 feet (east-west) and was 3.5 feet in height (Figure 67). The remaining portion of the feature appeared to be a three sided structure with one foot thick walls and an interior that was filled in with mortared stone rubble. The entire brick feature was resting on stone footers, but it was unclear how deep the stone extended below the ground surface. A wood plank extended from the northernmost stone footer toward, and connected to, Feature 34A (Figure 68).



Figure 67: Feature 33 East Profile



Figure 68: Detail of East Wall Profile between Features 33 and 34B

The soils in the eastern profile wall above the wood plank consisted of what appeared to be destruction fill (Figure 69). Fill 1 was a (10YR 4/3) brown sandy fill with large schist stone and brick rubble. Fill 2 consisted of a (10YR 7/2) light gray sand. The southern end of the eastern wall profile exhibited three fills. Fill 1 was a brick rubble destruction layer, which overlay the (10YR 7/2) light gray sand (Fill 2) and a (10YR 5/4) yellowish brown silty sand (Fill 3).

Feature 34

Feature 34 was a foundation that extended across the entirety of the northern wall of the newly excavated and expanded Trench 4 (see Figure 12). The 12-foot long schist stone wall was oriented east-west and was five feet in height (Figure 70). The wall was located directly beneath modern construction fill associated with the asphalt parking lot and sat on a wooden plank footer. However, the base of the foundation was not completely exposed, as excavation was terminated at the depth of construction impacts. This section of the wall was preserved *in situ* after the pile caps were framed and the concrete poured.

Two brick piers were located adjacent on the western and eastern ends of the stone foundation. Feature 34A was approximately 3.8 feet in height and was a least 1.5 feet square (Figure 71). Feature 34B was located roughly 10 feet to the east but consisted of only a few remaining courses of brick (Figure 72). The pier was 1.5 feet in width (east-west) but only about 1.0 feet from north to south. This feature has obviously been disturbed and the original dimensions are unknown.

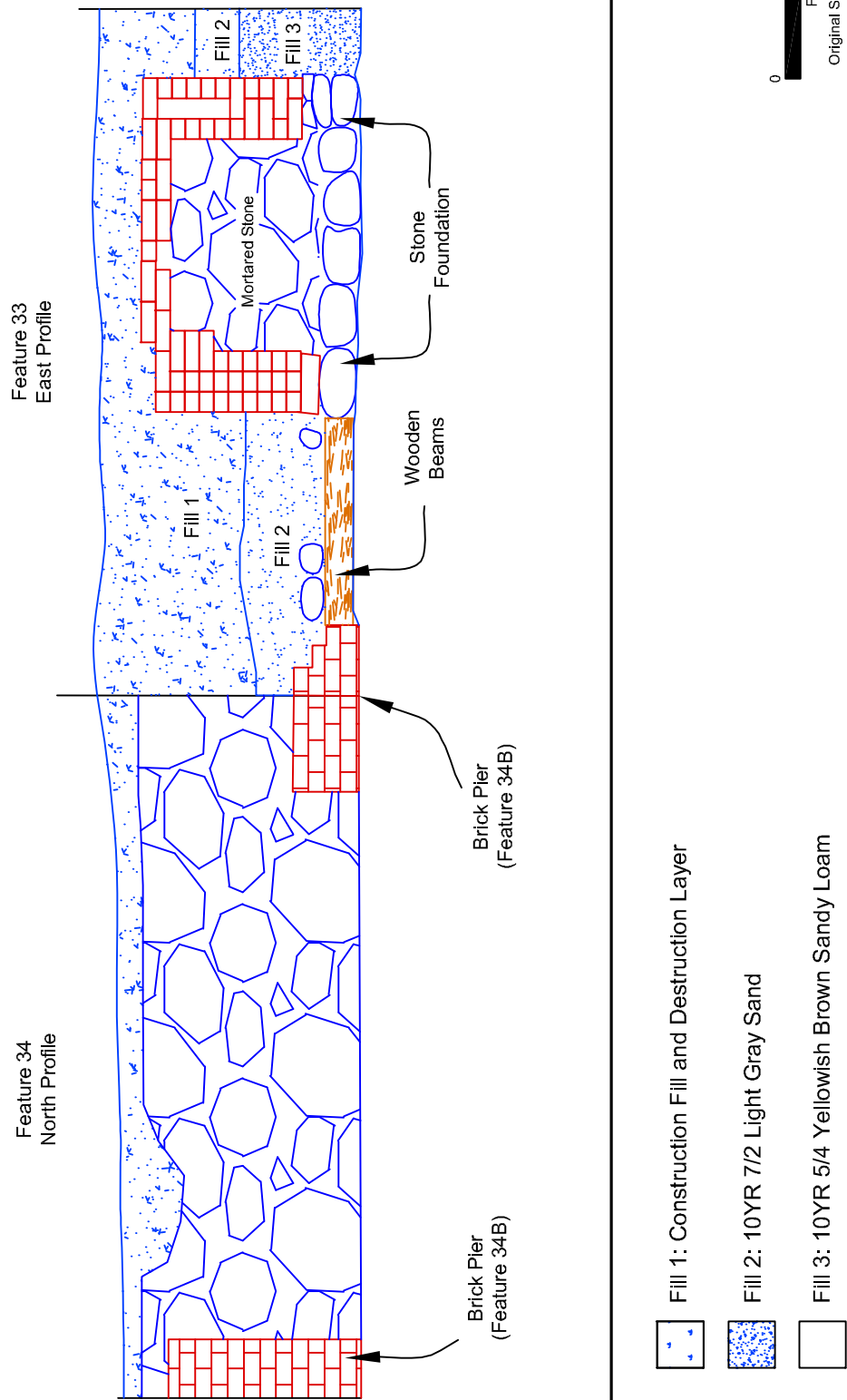


Figure 69: Feature 34 North Profile and Feature 33 East Profile



Figure 70: Feature 34, North Profile



Figure 71: Feature 34A, Looking West



Figure 72: Feature 34B, Facing North

Feature 35

Several sections of brick wall beneath the sidewalk of Strand Street were uncovered during the excavations of pile cap locations (Figure 73). However, due to safety concerns, field archaeologists could not get close enough to properly investigate the foundations. The sections running parallel to the Strand, were about 10 courses deep surrounded by modern fills. Approximately two-and-a-half feet of fill was atop the foundation when it was uncovered. The bricks appeared to be machine made and a lack of planks or other wooden or stone footers also suggests that these sections were 20th century. The entire length (N-S) of the excavated crane pad contained the wall in the east profile directly beneath the sidewalk of the Strand. The wall was left in place beneath the sidewalk on the eastern limits of the site as it would not be affected by the current construction plan.



Figure 73: Feature 35, Facing East

DISCUSSION AND INTERPRETATION

Forty-three features were identified during the archeological evaluation of the 211 Strand property (Site 44AX0237) and are interpreted as the remains of seven buildings (Figure 74). Mid-19th-century maps and Civil War-era photographs show that the real estate was primarily used for industrial and commercial warehouses, and based on its location on the Alexandria waterfront, earlier use of the property in late 18th-century and 19th-century was similar.

Capitalizing on the Trustees 1760 decision to allow ownership of new land created through banking out, George Gilpin and Jonathan Hall extended their land eastward into the river around 1769, creating a full-size half block fronting what would become Union Street. Likewise, Richard Arell continued to improve Lot 69, which he had purchased from Nathaniel Harrison. By 1798, Gilpen's map of the town showed the shoreline on both lots had reached the western edge of what would later become the Strand.

The discussion below addresses the interpretation of results of the archeological work at 211 Strand Street as it intersects with the documentary record as currently understood. The discussion is presented by land parcel following the Documentary Study (Maas and Mullen 2017). Parcels 3-6 included in the documentary study include the current property of 211 Strand Street (Table 2).

Table 2: Historic Parcel Divisions

Parcel	Historic Address	Current Address
1	13 The Strand	203 Strand St
2	15 The Strand	205 Strand St
3	32 S Union St	211 Strand St (North Half of Parking Lot)
4	34 S Union St	211 Strand St (South Half of Parking Lot)
5	The Strand / 212 S Union St	211 Strand St (East Half of Building)
6	36 S Union St / 212 S Union St	211 Strand St (West Half of Building)

Parcels 3 and 4

Gilpin subdivided his land in 1794, selling portions to prominent merchants, Benjamin Shreve and James Lawrason. Two years later, William Harper & Josiah Hewes Davis occupied a two-story frame warehouse and two-story brick warehouse located on Shreve & Lawrason's land (Parcel 3, but possibly Parcel 4 of the project area). The Harper & Davis partnership dissolved around 1800; Harper briefly created a partnership with Dixon, a baker, but Josiah H. Davis eventually ended up owning Parcels 3 and 4.



Figure 74: Projected Locations of Buildings

Harper and Dixon were taxed in 1810 for multiple buildings and a lot, valued at \$5000, stretching between Union Street and the River. The 1813 tax records indicate a drop in value, documenting only one building and wharf valued at \$4,500; the frame building may have been lost as a result of the 1810 fire on the waterfront. However, Harper was also taxed that year for an adjacent lot valued at \$3000 that he was using as lumber yard.

James Lawrason insured his 3-story warehouse located at present day 203 Strand Street with the Mutual Fire Insurance Company in 1811, 1815 and 1823. A copy of the 1815 policy describes eleven additional buildings within the vicinity, including six “houses” with brick walls and slate roofs, four brick buildings with wooden roofs, and one house constructed entirely of wood. Two of the adjacent brick warehouses with slate roofs are mapped on the policy and include Thomas Lawrason’s warehouse at 205 Strand Street and Peter Sadiuunder’s warehouse on 2 Prince Street. Presumably the other nine buildings include those located on Parcels 3-6.

Building 1

Building 1 (Feature 2) is located within the northwest corner of Parcel 3 and may represent one of Harper and Dixon’s warehouses (Figure 75). The southern wall of Feature 2 was exposed in three sections, terminating in the southeastern corner of the building. The western wall along Union Street could have been present underneath the sidewalk; however, it could not be evaluated due to safety condition and without undermining the integrity of the sidewalk and street. The northern wall of the building was not impacted by the proposed construction. Based on the location of the building corner, the estimated dimensions of the building are 20 feet (north-south) by 40 feet (east-west). Excavation within Trench 13 revealed that the walls were likely constructed on historic infilling soils mixed with logs and brush, laid akin to grillage although no formal cribbing structure was visible.

A second feature, Feature 29, was exposed in the grade beam trench between Trench 12 and 14 but was not found in excavated areas to the east or the west. The function is unknown but may represent a hearth foundation.

Building 2

A possible brick addition to Building 1, or possibly a separate warehouse, was located off the southeast of the corner of Building 1. Building 2 may represent the second of Harper and Dixon’s warehouses (see Figure 75). Feature 10 was the southwest corner of a building that was captured in the northern and eastern profile walls of Trench 13. The foundation was found at approximately the same level at Feature 2 and a one-foot-thick layer of brick rubble stretched between the two visible portions of the foundation. This brick destruction layer also extended eastward through Trenches 15-18, where several wood sills, beams and posts at roughly the same depth below the asphalt, were also documented. Feature 3, 3A and 14 may be remnants of this same building, which is estimated to measure 20 feet (north-south) by 50 feet (east-west).



Figure 75: Location of Buildings 1, 2 and 3 on 1877 Hopkins Overlay

The two buildings could be contemporary with one another and as neither match the configuration of buildings appearing on historic maps, they must predate the construction barrel manufactory the shown on the 1877 Hopkins map.

Building 3

Building 3 is located at the western end of Parcel 4 on the property, to the south of Buildings 1 and 2. The exposed portions of Building 3 consisted of the southeastern corner (Feature 1), a section of the southern wall with a wood plank floor (Feature 1A) that were exposed 20 feet to the west, and a portion of the northern wall (Features 27 and 34) (see Figure 75). The western wall is presumed to be located beneath the sidewalk along Union Street, however it could not be safely evaluated and without undermining the integrity of the sidewalk and street. Several other brick foundations/structural elements were also located within the building.

A substantial brick foundation (Feature 33) was found within the eastern third of the building. The four sides of the rectangular brick feature were constructed on top of stone footers and the interior was filled with stone and mortar. It is possible that the was a hearth or smokestack foundation. An exposed wooden plank floor (Feature 1A) was exposed a few feet west of Feature 33, at the base of the southern schist wall. A section of the floor in the northwest corner has been intentionally cut, perhaps to serve as a sump in order to mitigate flooding in the lower level of the building.

The building measures approximately 20 feet (north-south) by 67 feet (east-west) and the southern wall appears to neatly align with the north side of the alley that historically ran between Union Street and the Strand. Similar to Buildings 1 and 2, this structure appears does not align with any building on known historic maps and may represent one of the earliest buildings on the site, possibly a warehouse constructed by Arrell's heirs (Jenkins). As the schist foundation is similar to Building 1 (Feature 2), it is also likely that Building 1 is the second warehouse occupied by William Harper & Josiah Hewes Davis in 1810.

Buildings 4 and 5

In the following decades, Josiah Davis was again taxed for multiple buildings on Parcels 3 and 4; however, documentary evidence suggests that they were not in the same configuration as the earlier ones. Depicted on mid and late-19th century lithographs, photographs and maps, and as described in 1873, Parcel 3 included "all the property lying north of the alley which runs through from Union street to the Strand and consists of the smaller warehouse" on the Strand and a lot on Union Street. Parcel 4 included "all the property lying south of the alley which runs through from Union street to the Strand, consisting of the larger warehouse" on the Strand and a lot on Union Street and a wharf and dock (Chancery Court Cause 1894-009, Alexandria City Court Records).

Charles Magnus's 1863 *Birds Eye View of Alexandria, Va.* and Andrew Russell's 1865 *View from Pioneer Mill* depicts a small two-story, side-gabled building on Parcel 3 and a three-story side-gabled (larger) warehouse on Parcel 4, separated by an alley (Figure 76). Both buildings are fronting the Strand, rather than Union Street. No other buildings are depicted on the 1863 lithograph behind the building on Parcel 3 or within the adjacent alley to the south; however, a train car is visible in the background on the tracks along Union Street.

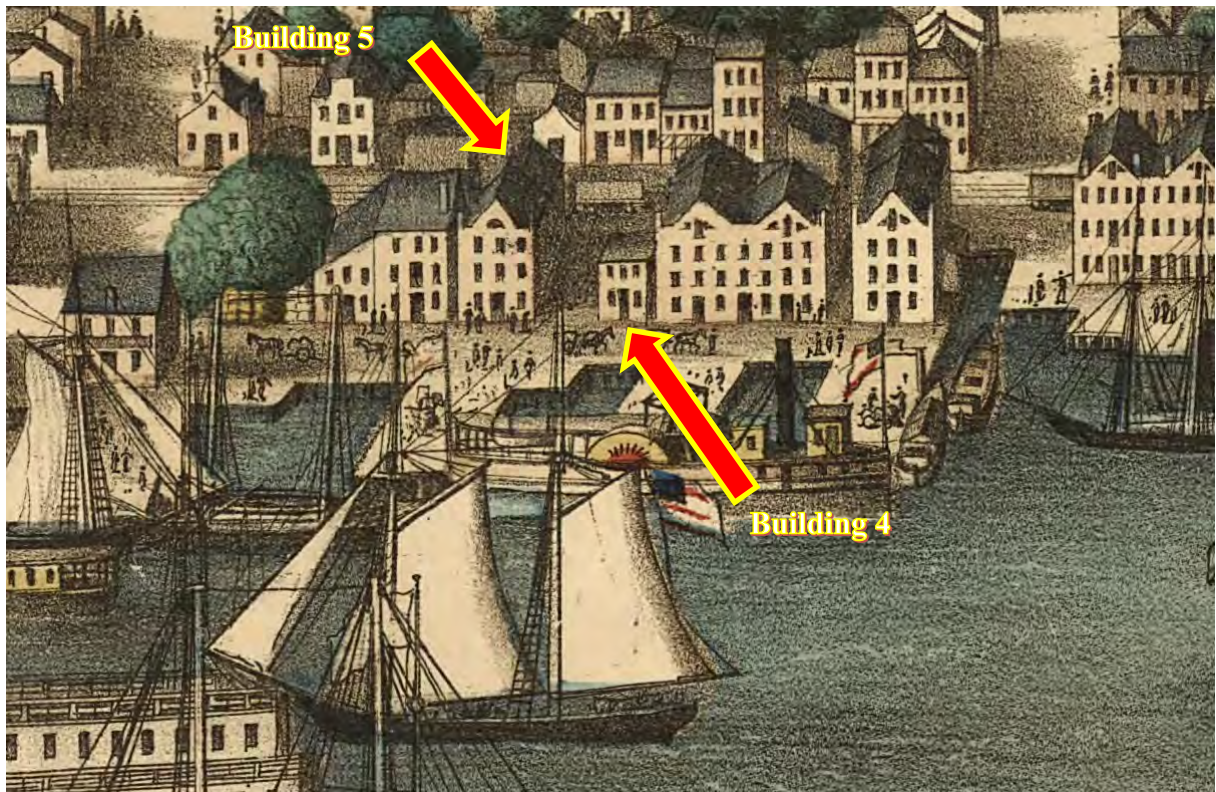


Figure 76: Magnus's 1863 *Birds Eye View* Showing Buildings 4 and 5

The Civil-War era photographs show little detail of the buildings beyond their rooflines; however, a large side gable roofline may represent the larger addition to the rear of the small building or Building 4 (Figure 77). On May 8, 1875, the *Alexandria Gazette and Virginia Advertiser* reported, "Mr. Washington Blythe has leased the lot and buildings known as the Davis warehouse, on the strand, between Prince and Duke streets, and will soon establish there a barrel factory, the machinery of which will be capable of turning out eight hundred barrels a day."

The 1877 Hopkins map also indicates that Blythe was utilizing the property for manufacturing barrels (see Figure 75). The "Barrel Mfg" warehouse is an L-shaped warehouse fronting the Strand. The smaller of the two (Building 4) measures roughly 25 by 50 feet; the dimensions of the rear building (Building 4A) are approximately 25 by 1000 feet. The second "Blythe" warehouse to the south of the alley (Building 5) is also approximately 25 by 1000 feet in size (see Figure 75).



Figure 77: Russell's 1865 Photograph Showing possible Roofline for Building 4 Addition

Archeological evidence of these two warehouses designated Buildings 4 and 5, were identified during this investigation (Figure 78). Features 7, 23 and 24 (Building 4) correlates with the southern wall of the smaller building on Parcel 3, but no archeological evidence of the larger rear portion of the building was located. The 1885 Sanborn shows in greater detail that the smaller building was divided into two bays measuring 25 by 30 feet and 20 by 30 feet respectively (Figure 79). Features 7 and 24 align closely with the southern exterior walls of either bay; Feature 23 consists of the southeastern corner of the western room and a portion of the interior wall dividing the two bays. The building was vacant in 1885 and by 1891 was demolished. By 1896 a small office building was constructed in this location, encroaching on the Strand right-of-way (Figure 80).

Several foundation remnants were identified as evidence of Building 5 (see Figure 78). Features 4, 5, 17, 21 and 22 correlates with the southern wall of this building; Feature 20, 12, and 30 appear to represent segments of the northern wall of Building 5. The 1885 and 1896 Sanborn maps show that the building was divided into three bays (see Figure 79 and Figure 80). The first bay fronting the Strand was three-stories; the remainder of the warehouse was two-stories. Feature 17 appears to be the western wall of the three-story building. Features 5A and 18 were brick piers that may be structurally related to the middle bay of the warehouse.



Figure 78: Location of Buildings 4 and 5 on 1877 Hopkins Overlay

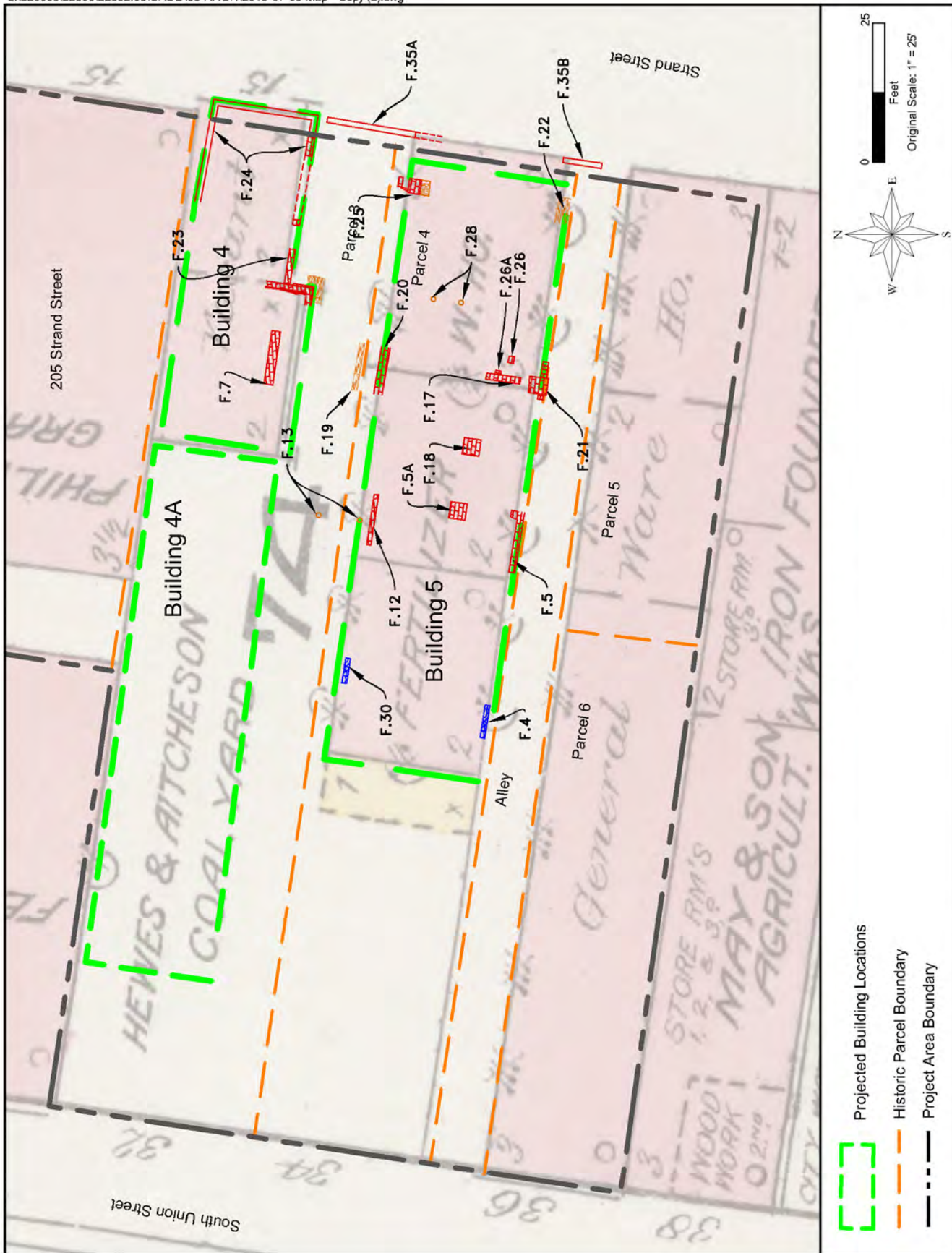


Figure 79: Location of Buildings 4 and 5 on 1885 Sanborn Overlay

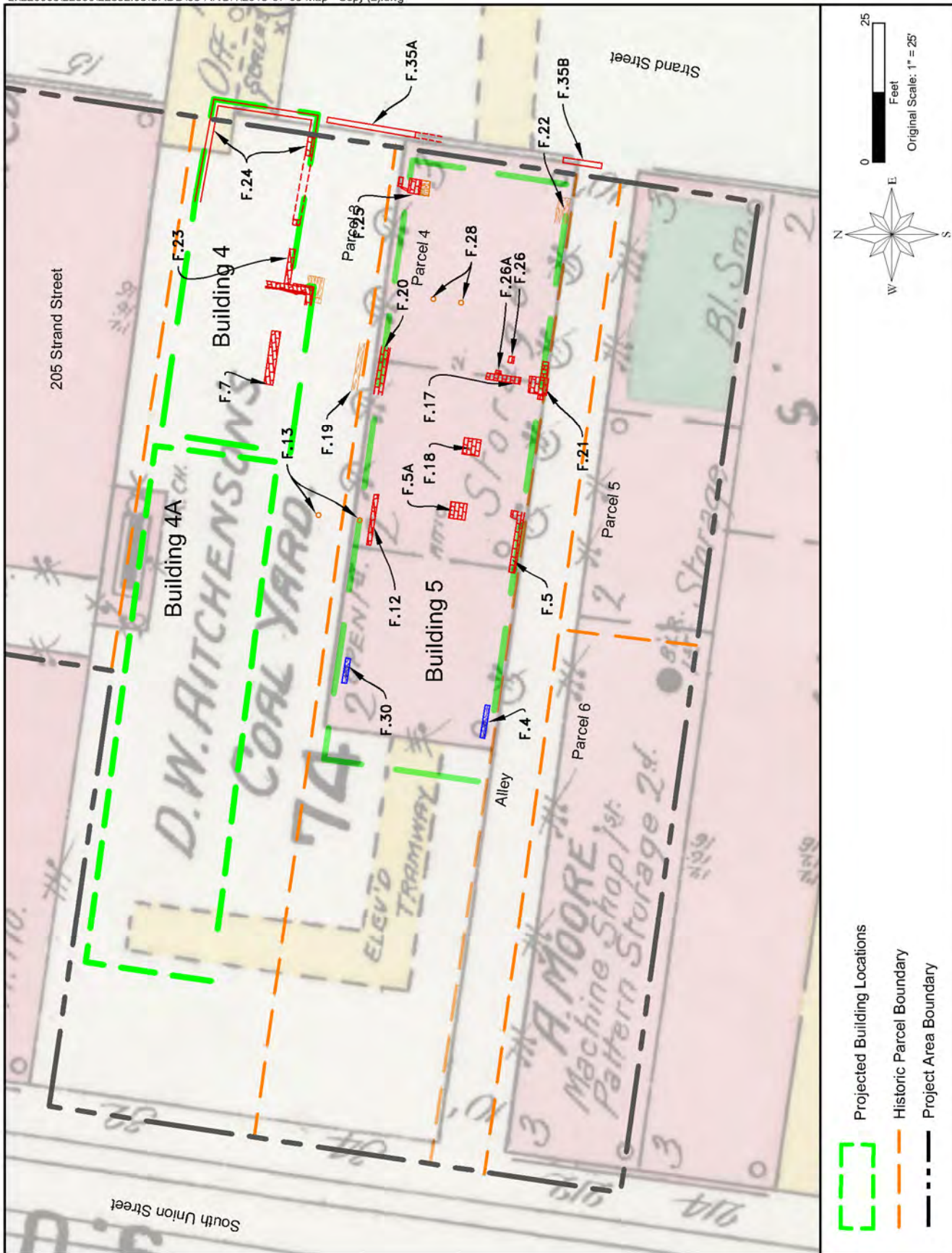


Figure 80: Location of Buildings 4 and 5 on 1896 Sanborn Overlay

Parcels 5 and 6

Parcels 5 and 6 were historically attached to 214 South Union Street, now the courtyard of Hotel Indigo, when first banked out. As previously mentioned, this land was first improved by Richard Arell. Arell died in 1796, but his estate wasn't divided until 1810, following a chancery cause (*Lowe vs. the Administrators of Richard Arell. Chancery Cause 1810-014, Arlington County Court Records*). Records regarding how every lot was divided in the 1810 lawsuit have not yet been identified; however, it is known that they were sold or leased to a variety of merchants engaged in the international trade business. Christiana Copper (one of Arell's granddaughters) and her husband Philip G. Marsteller, and her sister Elizabeth and her husband John Muncaster, acquired land south of the subject area including the present-day Hotel Indigo.

George Jenkins (widower of Arell's daughter Mary) gained possession of buildings on a lot from Union to the river within the interior of the block. Jenkins leased the building, valued at \$3000, to Joseph Dean that year but may have lost the building in the devastating 1810 fire, as he is taxed in 1813 for only a lumberyard lot valued at \$2500; this lot may have been purchased by William Harper, who is taxed in subsequent years on a lot used as a lumberyard, while Jenkins dropped out of the rolls in later years.

Davis died in 1862, but the division of his estate, including the parcels in the study area, became the subject of two chancery causes. On September 31, 1873, Commissioners of the Corporation Court of Alexandria "by authority of a decree passed at the February term, 1872," in the suit of Dyer and wife vs. Davis sold two lots of the late Josiah H. Davis (Chancery Court Cause 1891-031, Alexandria City Court Records). However, the sale of his property wasn't resolved until the final decree in the cause Harry Pullin and wife vs. Sumner J Hewes et.al. was issued on December 8, 1894 (Chancery Court Cause 1894-009, Alexandria City Court Records).

Parcels 3 and 4 were described in 1894 as essentially "one lot" and were "used as such by Hewes and Aitcheson" (Chancery Court Cause 1894-009, Alexandria City Court Records). Specifically, the parcels were described as follows and shown in the accompany plat (Figure 81):

[No. 1 on Plat] a lot (between Prince and Duke Streets) fronting 29 feet at the east side of Union street and running back east 69 feet 61/2 inches to the rear of the lot and warehouses next hereinafter described having 10 feet alleys on either side and running through from Union street to the strand.

[No.2 on Plat] Brick warehouse and lot of ground fronting 30 feet 1 1/2 inches on the strand and running back westwardly 111 feet 1 inch to the lot next above described with the said 10 feet alleys on either side running from the strand to Union Street, together with 14 feet 1 1/3 in. of that part of the strand next to and adjoining the wharf and dock in front of the said warehouse and also the wharf or pier 141 feet long and 22 feet 4 inches wide at the strand with a dock right or water privilege 47 feet wide in the northern

side of the said wharf and the exclusive use of the eastern end of said wharf and the water privileges thereto belonging: the dock on the south of said wharf being now the property of Wm S. Moore.

[No.3 on Plat] a lot of ground (between Prince and Duke Streets) on which there was formerly a small brick house fronting 31 feet on the strand and running back westward by 90 feet 7 inches with a 10 feet alley on the south side extending from Union Street through to the Strand together with the space of ground 24 feet 7 ½ inches and 41 feet 1 inch in front on the Strand next and adjoining the dock in front of the space formerly occupied by the small brick warehouse.

[No. 4 on Plat] a lot of ground fronting 31 feet 1 inch on the east side of Union Street and running eastwardly 90 feet 2 ½ inches to the rear of the lot of ground last described with a 10 feet alley on the south side running from Union street to the strand.

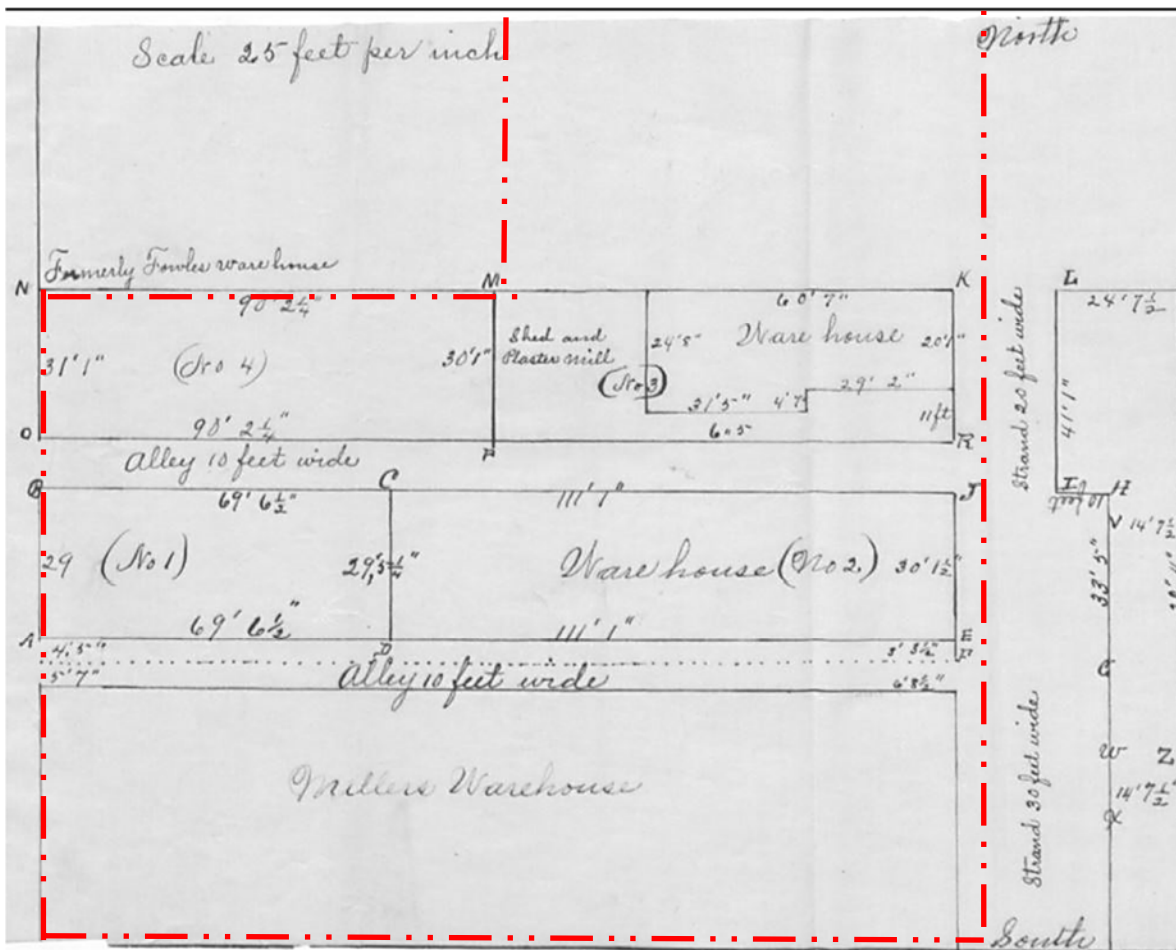


Figure 81: Detail of 1891 Plat Copy Showing Study Area

Buildings 6 and 7

Buildings 6 and 7 were located along the southern project area boundary within Parcels 5 and 6 and were separated by a narrow alley from Building 5 (Figure 82). According to our documentary research, Parcels 5 and 6 were leased to Thomas Howland in 1822 with buildings valued at \$6,000.

Charles Magnus's 1863 *Birds Eye View of Alexandria, Va.* shows Building 7 on Parcel 6 as a three-story, side-gabled building separated from Building 5 by a narrow alley (Figure 83). Again, the buildings are fronting the Strand, rather than Union Street. Andrew Russell's 1865 *View from Pioneer Mill* shows the roofline of Building 6 (on Parcel 5) above that of the adjacent McKenzie warehouse (Figure 84).

The northern exterior foundation wall of a warehouse (Building 6) was investigated during the expansion of several previously excavated trenches in the southwestern corner of the property. Feature 31 was the only section of an exterior wall found in Parcels 5 and 6, but likely forms the exterior footprint for the McKenzie warehouse as shown on the 1877 Hopkins map (see Figure 82). The southern extent of Building 6 (site 44AX0229: Feature 28), was previously exposed during the archeological investigation of the adjacent Hotel Indigo property (Figure 85 and Figure 86). This foundation was adjacent to the Hooff Warehouse foundation. Feature 32 is the only exposed segment of a possible internal partition within Building 6; however, the results of the investigation were inconclusive.

Features 6, 8, 9 and 15 align with the mapped location of foundations of the three-story Building 7, which fronted the Strand. Features 6, 9, and 15 represent structural foundation walls of both external and internal functions oriented north-south, while Feature 8 is the only exposed segment of the northern wall of Building 7.

Alley

An alley separating Parcel 4 from Parcels 5 and 6 to the south appears on period maps connecting Union Street to the west and Strand Street to the east of the property (see Figure 85 and Figure 86). The alley is clearly demarcated by the various segments of schist and brick foundation walls of the buildings that we located.

The northern boundary of the alley can be defined by the southern foundation walls of Building 3, identified in the southwestern corner of Parcel 4 as Feature 1. Following the same orientation to the east Features 4, 5, 21, and 22 border the alley to the north connecting it with Strand Street. Historic alleyways would have given waterfront access to merchants occupying buildings across the property.



Figure 82: Location of Buildings 6 and 7 on 1877 Hopkins Overlay

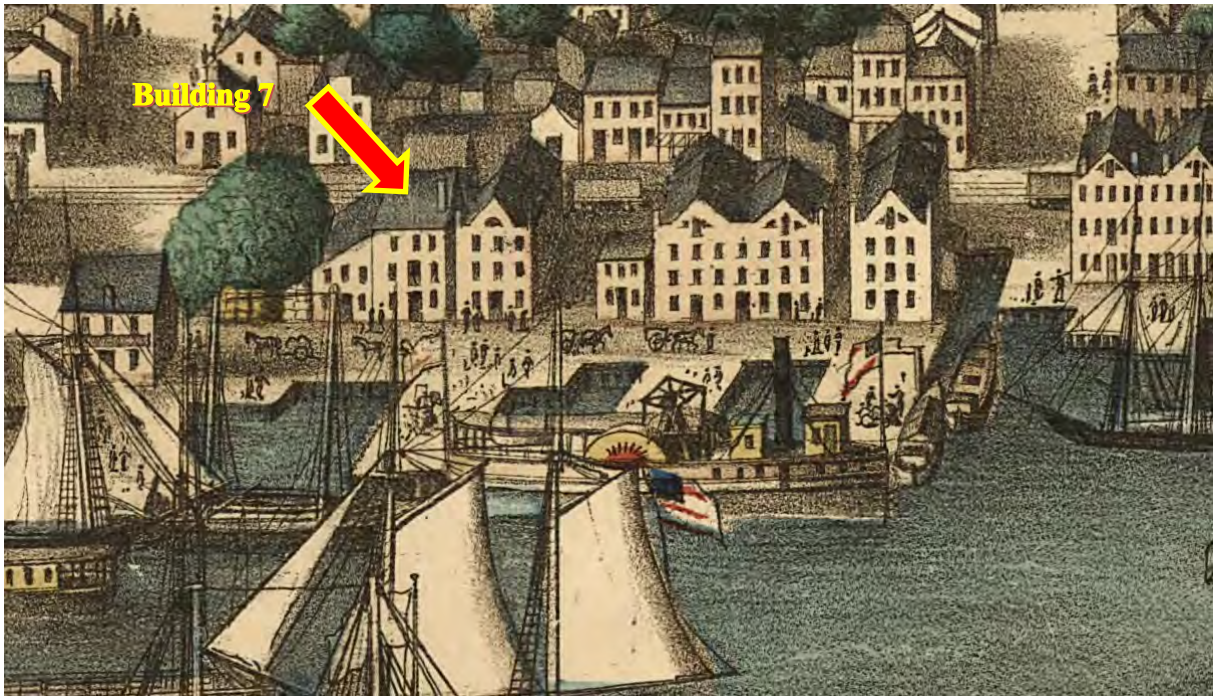


Figure 83: Magnus's 1863 *Birds Eye View* Showing Building 7

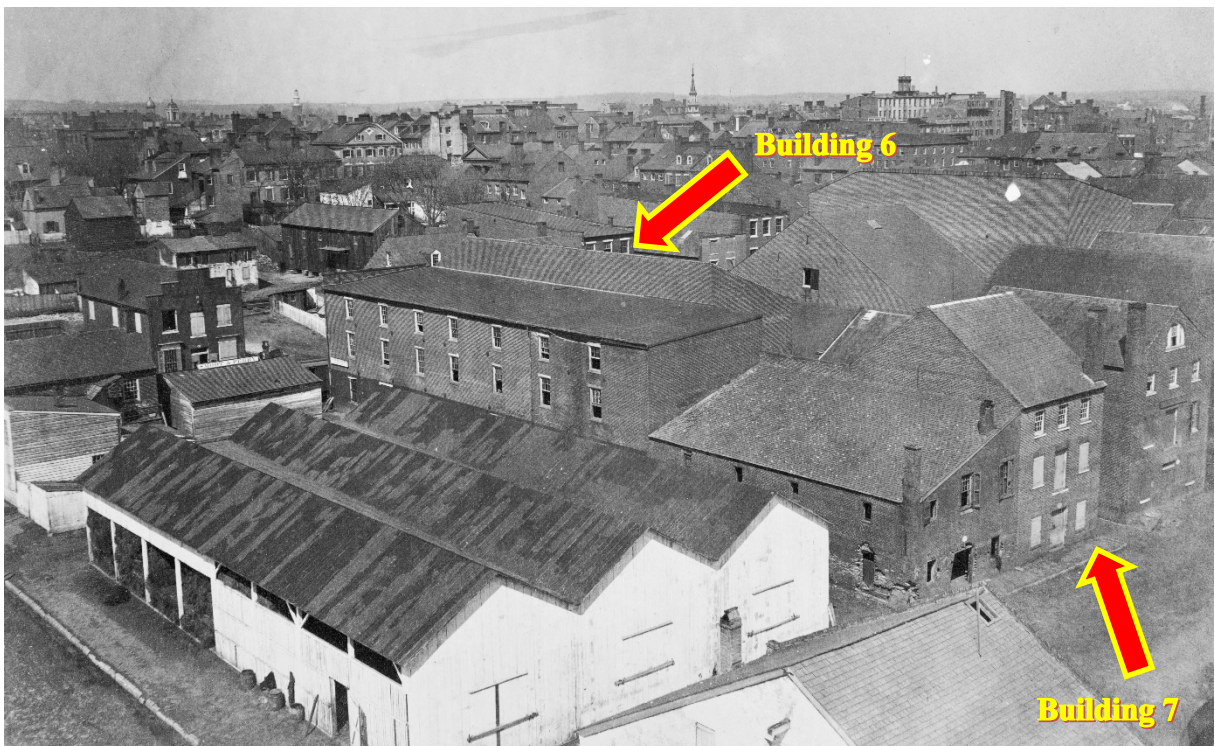


Figure 84: Russell's 1865 Photograph Showing Building 6 and 7



Figure 85: Location of Buildings 6 and 7 on 1885 Sanborn Overlay

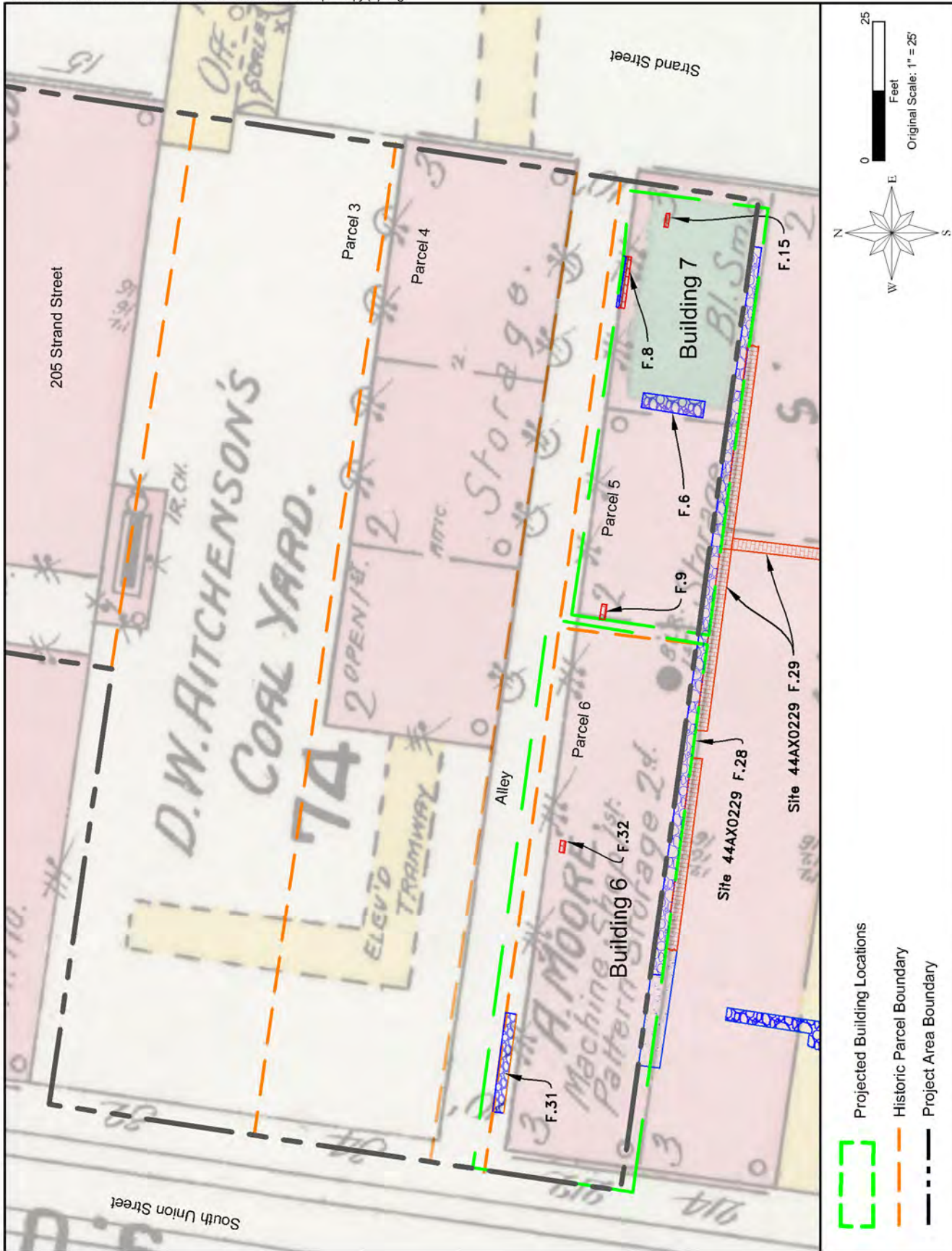


Figure 86: Location of Buildings 6 and 7 on 1896 Sanborn Overlay

SUMMARY AND CONCLUSIONS

Thunderbird Archeology, a division of Wetland Studies and Solutions, Inc., of Gainesville, Virginia conducted an archeological investigation of 211 Strand Street, Alexandria, Virginia, ahead of the construction of an approximately 62,000 gross square foot residential and retail building by The IDI Group Companies. The archeological fieldwork was completed prior to construction activities in October 2018. Subsequent archeological monitoring work was conducted during construction in March and April of 2019, for additional impacts that were not part of the original scope.

The archeological work resulted in the identification of one archeological site, 44AX0237, which encompassed the stone and brick foundations for seven buildings. Documentary research indicated that the first buildings constructed on the site in the early 19th century were along S. Union Street, and the archeological evidence supported this supposition. The stone foundations for two buildings (Buildings 1 and 3) fronted S. Union Street and along with a possible third building in this area, do not appear on mid-to-late 19th-century maps, lithographs or photographs. The foundations for the other five buildings were also located, which correspond to the mapped locations of warehouses depicted on mid-to-late 19th-century maps and imagery. Very few artifacts were observed in the fills or recovered in the excavated shovel test pits associated with any of the features at the site and no intact ground surfaces were encountered.

Recent archeological investigations at the adjacent Hotel Indigo property (Site 44AX0229) and Robinson Landing (44AX0235) to the south, have provided tremendous insight into the City of Alexandria's waterfront and maritime history. The archeological work has revealed evidence of historic infilling of the Potomac River to create new land for the expanding port city in the 18th century, bulkhead wharf systems that incorporated repurposed ships, and dwellings and warehouses dating to the 19th century. The evaluation of the warehouse foundations at 211 Strand Street (44AX0237) has been put into temporal and cultural context in large part because of these larger excavations.

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APPENDIX I

Scope of Work

Scope of Work
For Archeological Evaluation
211 Strand Street
City of Alexandria, Virginia

January 25, 2018
Revised February 7, 2018
Revised September 15, 2018

A Documentary Study of 203/205/211 Strand Street properties was completed by Thunderbird Archeology June 2017 in anticipation of the planned redevelopment of the property. Based on our review of the history and archeology of Alexandria's waterfront, it is likely the study area may contain evidence of 18th-20th century archeological features that would provide additional information and insights into commerce, industry, significant events and daily life along Alexandria's waterfront. This Scope of Work is for conducting an **Archeological Evaluation** (Phase I/II Excavations) within the 211 Strand Street parcel (Figure 1).

This work will be conducted prior to the onset of construction activities on the property and calls for a combination of machine trenching, backhoe stripping of soils, and possibly the excavation of test units, in order to determine if significant archeological resources are present within the project area. If significant resources are found, a Resource Management Plan will be prepared.

All significant archeological sites identified will be registered with the Virginia Department of Historic Resources and copies of the site form registration will be sent to Alexandria Archaeology. Any additional archeological investigations beyond the backhoe trenching and scraping (i.e. Phase III mitigation excavations), if required, will be conducted under a separate scope of work.

All personnel must be approved in advance by Alexandria Archaeology. Alexandria Archaeology staff will conduct site inspections throughout the course of the fieldwork. All aspects of this investigation will adhere to OSHA regulations and will comply with the *City of Alexandria Archaeological Standards* dated January 1996 and the *Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation*. Miss Utility must be informed before excavations are begun.

Background

The land in the subject area was created in the bay north of Point Lumley in the late 18th century from Lots 62 and 69 of the original plan of Alexandria (1749). The property may have remained undeveloped until 1805 or somewhat later. However; throughout the early to late 19th century, the 211 Strand Street property included a ship chandlery, plaster mill, a barrel manufactory, and merchant warehouses. Three warehouses are recorded on the

property by 1877. In the 1880s, George Hewes and DeWilton Aitecheson used the northern side of the parcel for their coal and lumber business; William S. Moore took over the southern section for his machine and pattern shop. After the 1897 fire destroyed the entire block, Aitecheson purchased all of 211 Strand Street. Aitecheson Fuel Co. remained in business at this location with successive owners until 1978.

Notwithstanding significant construction activities from the late 1970's related to the current uses on the site, the study area has the possibility of containing early 19th- through 20th- century archeological features that could potentially provide additional information about the industrial development and domestic daily life on the waterfront in Alexandria during these periods. Additionally, 18th-century fill and other potential 18th-century deposits associated with activities not documented in the archival record are possible throughout the study area. Because of the possibility of subsurface features within the study area, following the demolition of the superstructure at 211 Strand Street we recommend the mechanical excavation of test trenches in areas of the site to be impacted by excavation, in order to identify and classify archeological deposits and determine if the research questions posed can be addressed archeologically.

Research Goals

The primary goal of the initial testing is to determine the presence/absence of archeological features including remnants of 19th century wharves and commercial and domestic structures. The planned impacts incorporate less than 15% of the site area and are localized in various small areas scattered across the property. If significant subsurface remnants of early wharves and structures are intact, an important research goal for the Archaeological Evaluation will be assessing the data potential of the limited samples. Similarly, as feature excavation is expected to be relatively minimal, due to the limited scale of impacts, it is unclear if the data yielded from feature excavations will be statistically viable to allow for useful archeological analysis.

If several historic strata and features are found intact in various portions of the site, a secondary goal will be to examine the cross-site stratigraphic profile in order to understand and interpret the “banking out” process of land creation along the waterfront. Was the land banked out and infilled in a similar method as was located on the adjacent Point Lumley properties, including the use of cribbing, bulkheads, and derelict ships? How can comparisons with similar nearby archeological excavations on the Alexandria waterfront contribute to present knowledge and interpretation of late 18th century land construction?

If significant subsurface remnants of 18th-19th century wharves and structures are intact and sample sizes are great enough to warrant evaluation, additional research goals can be addressed, regarding the extent and effects of the 1897 fires, Civil War occupation of the waterfront, and the daily lives of the various laborers and manufacturers working at the warehouses and wharves. Efforts will be made to attribute any historic remains (features or artifacts) to the various industries on the block and those people working within the ship chandlery, plaster mill, a barrel manufactory, merchant warehouses, and/or on the associated wharves. If such features are identified and yield adequate data from sample,

new information about the everyday workings of 18th-19th century peoples and their livelihoods along the waterfront may become available.

Proposed Construction

The extant one-story retail building and associated parking lot at 211 Strand Street will be demolished and replaced with a 64,654 gross square foot building with 16 residential units and ground floor retail (Figure 2). The proposed residential building will include approximately 9,412 square feet of parking on the first floor, with garage and lobby elevations following the existing grade of the site and sloping from +/- 8.0' feet at South Union Street on the west to +/- 5.5' feet at Strand Street on the east. The planned subsurface impacts are minimal and will include a building foundation: a concrete 4-inch slab on grade supported by approximately 40 footings and wall columns that impact approximately ±2,257 square feet or about 12% of the 18,783 square feet 211 Strand Street property area. The typical exterior footing will measure five (5) feet square, while the interior footing will measure six (6) feet square. An elevator pit will be located along the eastern end of the building (see Figure 2). No underground parking is planned.

The location of the footers and the elevator shaft will be archeologically excavated within a machine trench prior to the proposed construction, as described in detail below.

Safety and Environmental Procedures

Project engineering, construction, and archeological staff will work to mitigate, to the degree possible, engineering challenges that might hinder the investigation (e.g. dewatering and deep trench-box excavations). Groundwater will be mitigated onsite with the use of localized dewatering pumps and an onsite water storage tank. Archeological staff will wear appropriate PPE and follow procedures in accordance with a Health and Safety Plan to be submitted to the city with the final site plan. In addition, all archeological staff have completed HAZWOPER Hazardous Materials technician training.

Trench boxes will be set for archeological investigations in deep trenches in the eastern portion of the site or where conditions warrant due to high water table or unconsolidated soils. If necessary, excavations will be stepped/ expanded following OSHA guidelines.

Archeological Evaluation Fieldwork

The planned location of trenches is shown on Figure 2 and is designed to investigate proposed impacts. The 211 Strand Street property is tied to six (6) historic parcels (Figure 3). Historic overlay maps, including the 1877 Hopkins map (Figure 4), the 1885 Sanborn map (Figure 5), and the 1896 Sanborn map (Figure 6) show the proposed archeological trenching plan in relation to the late historic built environment on the site.

Machine Trenching

Using a backhoe equipped with a flat-bladed, smooth bucket, Thunderbird staff archeologists will direct the excavation of the series of trenches as depicted in Figure 2. The trenches will be approximately four feet in width and will vary in depth according to anticipated impacts of the proposed construction. The proposed trenches will impact approximately $\pm 3,250$ square feet, or about 17% of the 211 Strand Street property. If possible, at least one soil strata column profile will be drawn for every trench. Photographs will be taken.

At any point in the sequence described above, the staff archeologist will stop the machine excavation if intact buried surface layers or any features are exposed. Work will temporarily halt in this area until the assessment of the feature's significance is complete but can proceed in other areas. The assessment may require additional work (i.e. the hand excavation of test units). For investigation of the buried surface and/or features, see below.

Trenches may be backfilled after recordation of the soil profiles if features/buried surfaces are not located, if necessary to facilitate easier movement within the project area and/or due to safety concerns.

Archeological Features

All archeological features exposed during the trench excavation will be documented with photographs and notes, and as warranted, will be evaluated and mitigated under a Resource Management Plan approved by Alexandria Archaeology. Preservation measures presented in the Resource Management Plan will be implemented to address areas of below grade disturbance. Generally, if less than 25% of a portion of a significant feature visible within a trench will be impacted by proposed construction, WSSI will recommend that no mitigation of said feature will be needed. If more than 25% of a portion of a significant feature visible within a trench will be impacted by proposed construction, a Resource Management Plan for mitigation will be developed in consultation with Alexandria Archaeology. In all cases, the site owner will reserve the right to avoid or minimize impacts through redesign.

As noted above, the project's planned subsurface impacts are minimal; however, as recent work along the waterfront has shown, archeological resources are highly intact and significant. Thunderbird Archeology staff will seek to avoid disturbing features or archeological deposits that would not be impacted by planned building foundation, footings, and/or other subsurface elements. A paramount goal of the project will be to minimize unnecessary disturbance to any archeological deposits that will not be otherwise impacted by development.

Test Unit Excavations

The manual excavation of 3 x 3-foot test units may be required to test and evaluate potentially significant archeological features or buried ground surfaces. The need for test unit excavation will be at the discretion of the Thunderbird staff archeologist, in consultation with Alexandria Archaeology staff. The test units will be excavated stratigraphically by natural or cultural levels or by arbitrary sub levels. All soils will be screened through ¼-inch mesh hardware cloth. Representative soil profiles will be drawn using the Munsell Soil Color Chart designation. All work will be documented by field notes, sketch plans, and photographs.

Laboratory Work and Curation

Archaeological artifacts recovered from significant strata within the project area will be retained, cleaned, stabilized (if necessary), cataloged, labeled and packaged in accordance with the guidelines set forth in the *City of Alexandria Archaeological Standards*. A professional conservator will consult during artifact recovery on all sites involving water-logged artifacts. Organic materials that may require conservation may be recovered; however, this cost proposal does not include conservation services. Conservation may be added as an additional service.

Field stabilization and pre-conservation methodology shall be as follows:

Organic materials: If organic materials are found dry, they should remain dry; if they are found wet, they should remain wet.

Leather and faunal materials: Damp or wet leather and faunal materials shall be stabilized by spraying a plastic bag with an anti-fungal, such as Lysol, wrapping the artifact in wet paper towels, and placing the wrapped artifact into thick plastic or multiple plastic re-closeable zip top bags to prevent drying out (note: Artifacts should never come into direct contact with the anti-fungal).

Textiles: Damp or wet textiles shall be removed along with the surrounding soil, wrapped in thick plastic or multiple re-closeable zip top plastic bags to prevent drying out (note: anti-fungal such as Lysol should NOT be used on these materials).

Wood: Damp or wet wooden artifacts shall be wrapped in black sheeting (3-4 MIL) and secured with duct tape/zip ties/etc. (note: anti-fungal such as Lysol should NOT be used on wood).

Leather and textile materials shall then be kept in a refrigerator until further treatment is possible.

Metals: Damp or wet metal should be kept wet until processed in the lab.

Archeological collections recovered because of the Alexandria Archaeological Protection Code should be curated at a facility which meets Federal standards for archeological curation and collections management as described by 36CFR Part 79. The Alexandria Archaeology Storage Facility meets these standards, and the property owner is encouraged to donate the artifact collection to the City for curation. The archeological consultant is responsible for arranging for the donation of the artifacts with the owner and will deliver the artifacts and signed forms to the appropriate storage facility.

At the end of the project, all images, field notes and forms, and other field records will be submitted to Alexandria Archaeology in digital format on a CD, along with the original hard copies of all field notes, forms, and other field records. In addition, the artifacts, if they are to be donated to the City, and associated documentation will be delivered to Alexandria Archaeology.

Archeological Evaluation Report and Resource Management Plan

The Archeological Evaluation Report will include the following: a public summary; a map of the project area; a map with trench locations and significant features; a summary of the procedures; results of the field investigation and artifact analysis, including a distribution map or other graphics which indicate potentially significant archeological areas; an integration of the field and analysis data with the historical record; and recommendations for additional work, if needed. The Resource Management Plan will present any further preservation measures which may be necessary on the site.

When the fieldwork is completed, two draft copies of the full Archeological Evaluation Report will be submitted to Alexandria Archaeology, as is required by Alexandria Archaeology. Once the report is approved by the City Archaeologist, revisions will be made, and four copies of it, one unbound with original graphics, will be submitted to Alexandria Archaeology. The report will also be submitted on a CD. All site maps and drawings will be inked or computer-generated to produce sharp and clear images that will result in clear photocopies or microfilms.

Public Interpretation

The *City of Alexandria Archaeological Standards* require that a public summary be prepared as part of an Archeological Evaluation Report. The public summary will be approximately 4 to 8 pages long with a few color illustrations. This should be prepared in a style and format that is reproducible for public distribution and use on the City's web site. Examples of these can be seen on the Alexandria Archaeology Museum website.

A draft of the summary should be submitted to Alexandria Archaeology for review along with the draft of the Archeological Evaluation Report¹. Upon approval, a master copy (hard copy as well as on CD or computer disk) will be submitted to Alexandria Archaeology. The summary and graphics should also be e-mailed to Alexandria Archaeology for publication on our web site.

In addition, if determined to be warranted by the City Archaeologist, the developer will be required to erect a historical marker on the property. The archeological consultant will supply the written text and graphics for the marker. The consultant will coordinate with the City Archaeologist before writing the text and selecting images. The text should be up to 200 words in length with a paragraph on the historical significance of the site and a paragraph on findings from the documentary study and archeological evaluation. The graphics (minimally four, with captions) need to be high-quality copies (scanned at a minimum of 600 dpi and saved separately as jpeg or tiff files) of line drawings (e.g., site maps, feature drawings), historic photographs and maps, or other illustrations (e.g., site or artifact photos) in black and white or color. All copyright releases need to have been obtained and credit provided for each graphic. The text and graphics must be submitted to Alexandria Archaeology on a CD.

Tasks

The following is a summary of the tasks to be completed:

1. Meet with Alexandria Archaeology staff to finalize the field strategy based on the results of the Documentary Study.
2. Notify Alexandria Archaeology of the demolition monitoring start date. Conduct the field monitoring and trench excavation. Note that an **Archeological Certification** may be needed from the city if the site is not yet under construction.
3. If significant finds are made, produce a Resource Management Plan that will include an executive summary of fieldwork, to-scale maps showing features and excavated areas and a scope of work for the next phase of fieldwork. Meet with Alexandria Archaeology to present the results.
4. Register all sites with DHR and submit copy of the registration forms to Alexandria Archaeology.
5. Process all significant artifacts and complete the analysis.
6. If no significant resources are discovered, produce and submit two draft copies of the Archeological Evaluation Report to Alexandria Archaeology, including the

¹ If additional archeological work is required, production of these public documents can be delayed until the completion of all archeological investigations. As a result, these tasks should be budgeted separately and not included in the overall budget for this phase of work.

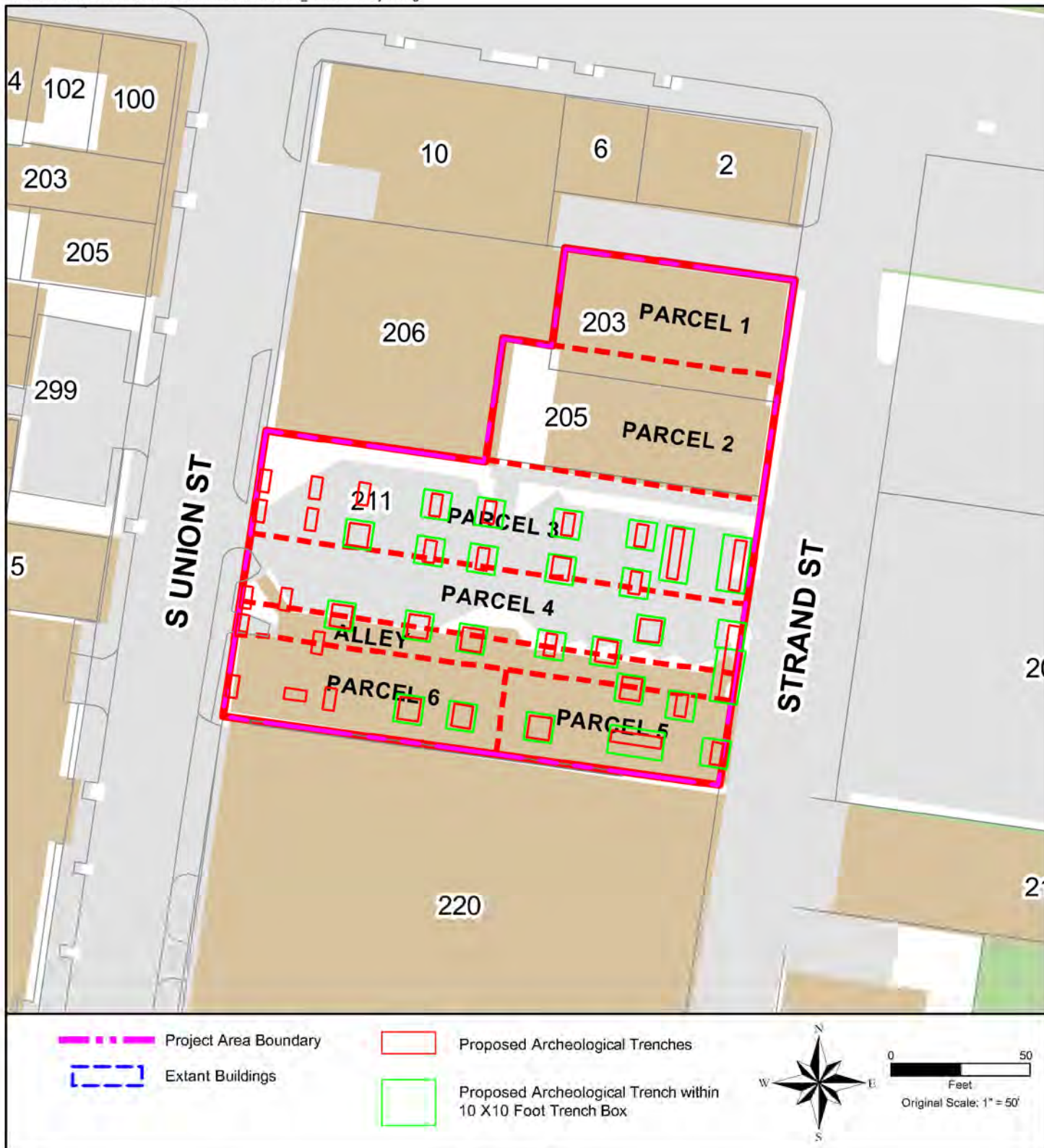
public summary document and the text and graphics for the historic marker, if warranted. If significant resources are discovered, the Evaluation Report may be incorporated into the final report that includes implementation of all preservation actions stipulated in the Resource Management Plans.

7. Deliver to Alexandria Archaeology four copies (including one unbound copy) and CD of the final report, final versions and CDs of the public summary and historic marker text and graphics, plus all original field notes, copies of historic documents, photographs, slides, digital images, cassette tapes, transcriptions, forms and associated records. In addition, arrange for the donation and delivery of the artifacts to an appropriate storage facility. Alexandria Archaeology is the preferred repository and requires a City of Alexandria Deed of Gift form.

Formats for Digital Deliverables:

- | | |
|--------------------------------|--|
| 1. Photographs: | .jpg. |
| 2. Line Drawings: | .gif or .jpg as appropriate. |
| 3. Final Report/Public Summary | Word, PageMaker and/or PDF |
| 4. Oral History | Word |
| 5. Catalogue: | Word, Access or Excel |
| 6. Other Written material: | Word, Access, Excel, PageMaker or PDF as appropriate |

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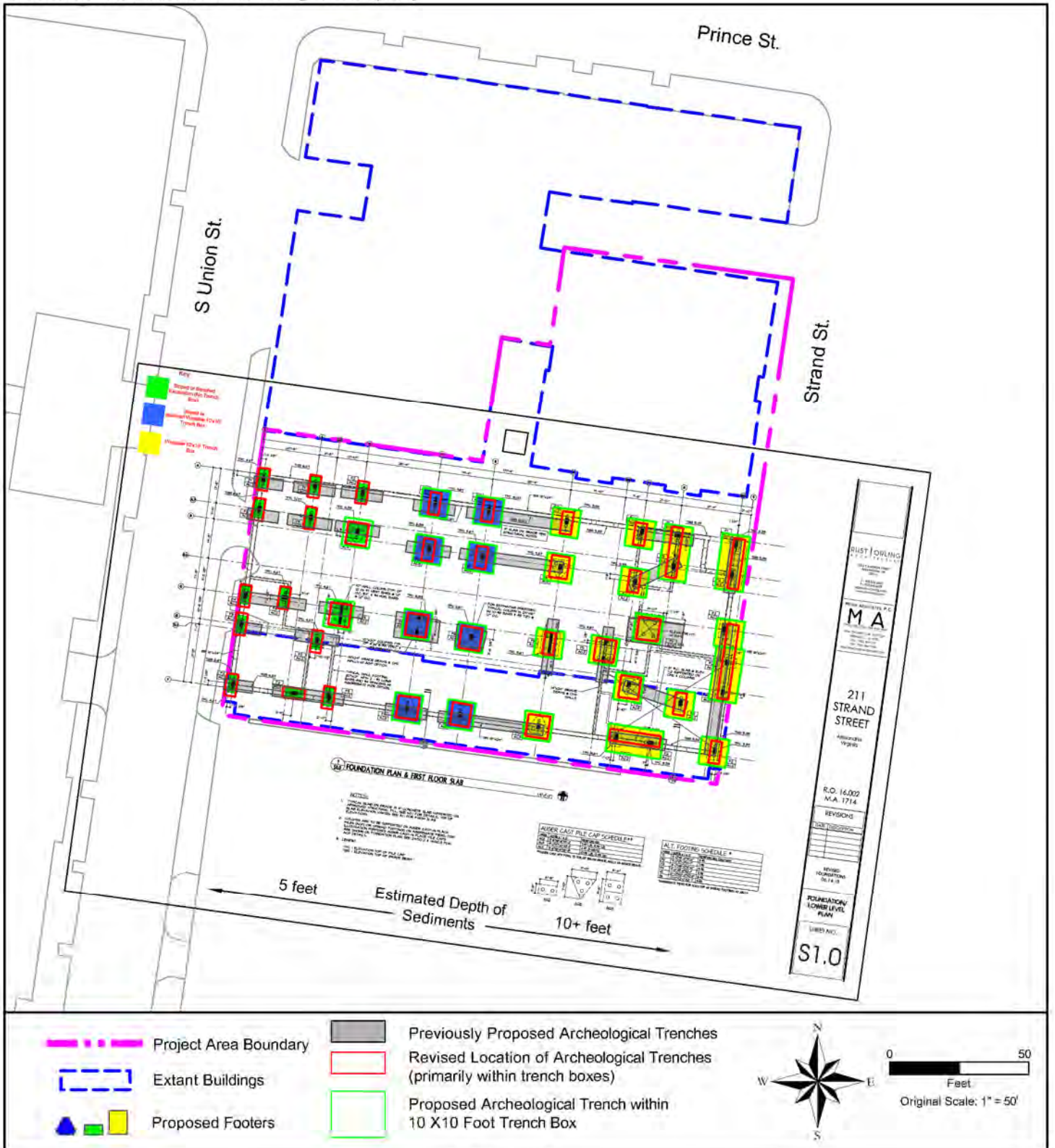


Figure 2
Proposed Locations of Building Footers and Archeological Trenches

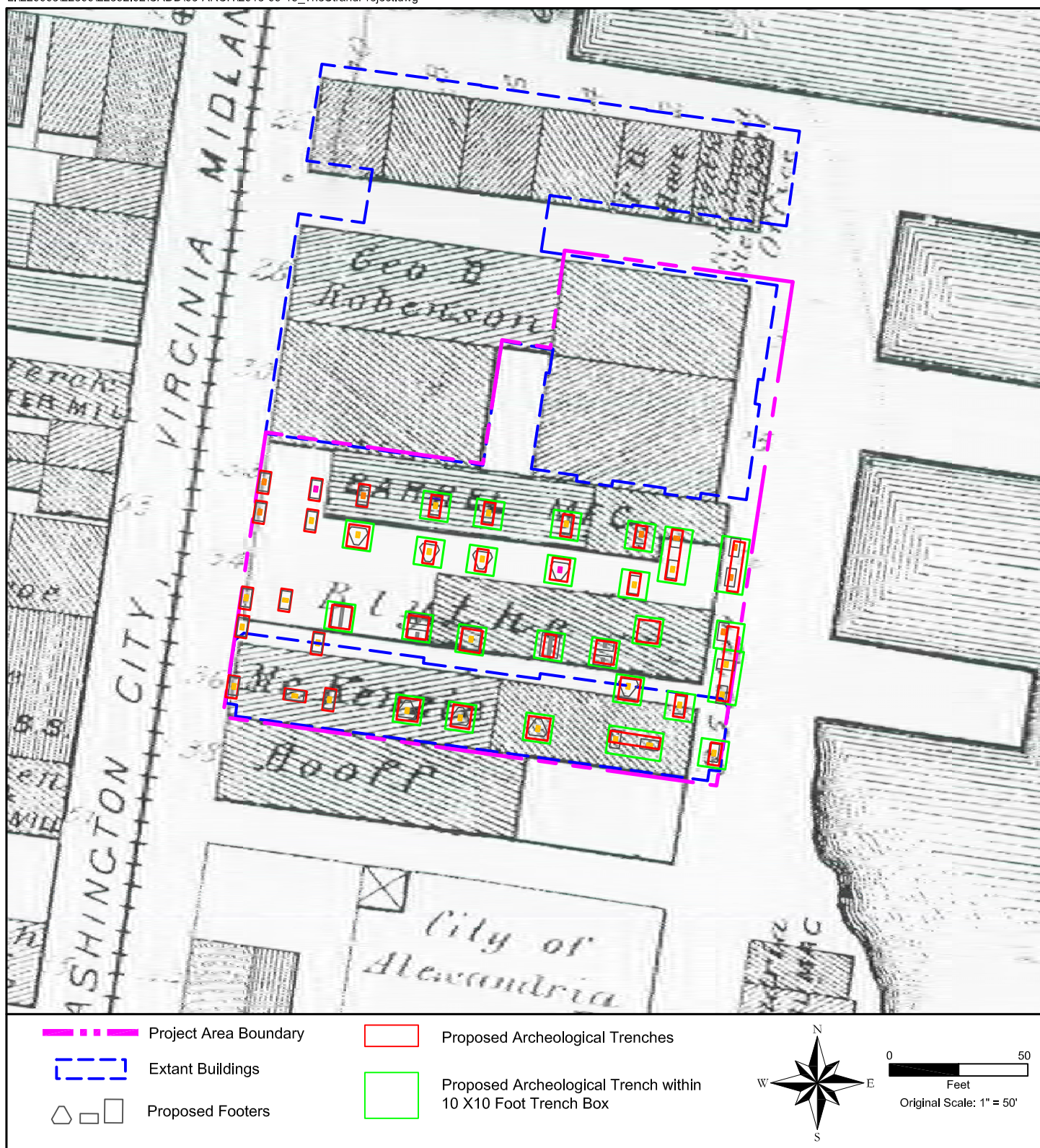


Figure 4
Proposed Locations of Archeological Trenches with 1877 Hopkins Map

211 Strand Street - Scope of Work for Archaeological Evaluation

WSSI #22892.02 - February 2018; Revised September 2018

Thunderbird
Archeology

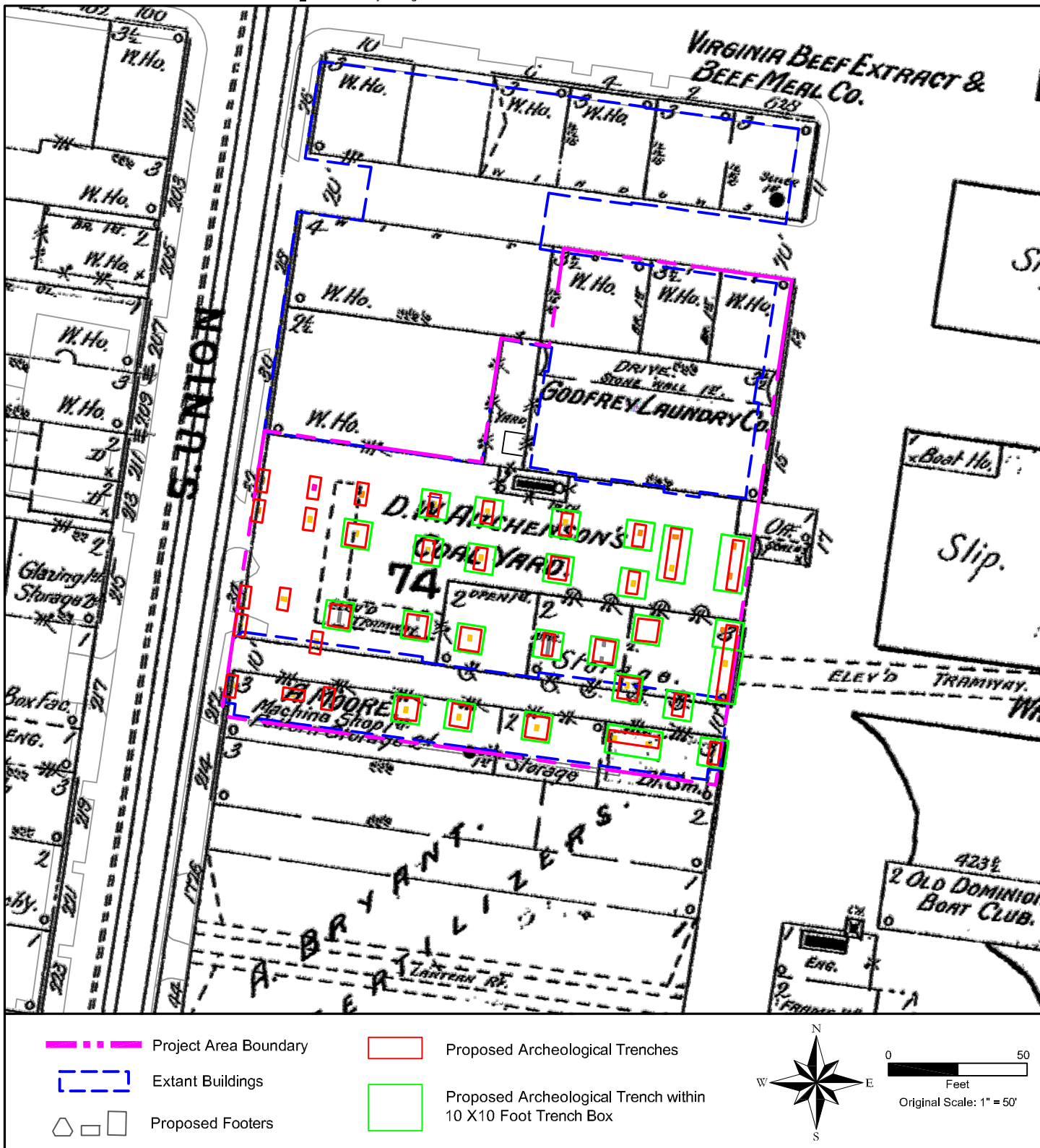


Figure 6
Proposed Locations of Archeological Trenches with 1896 Sanborn Map

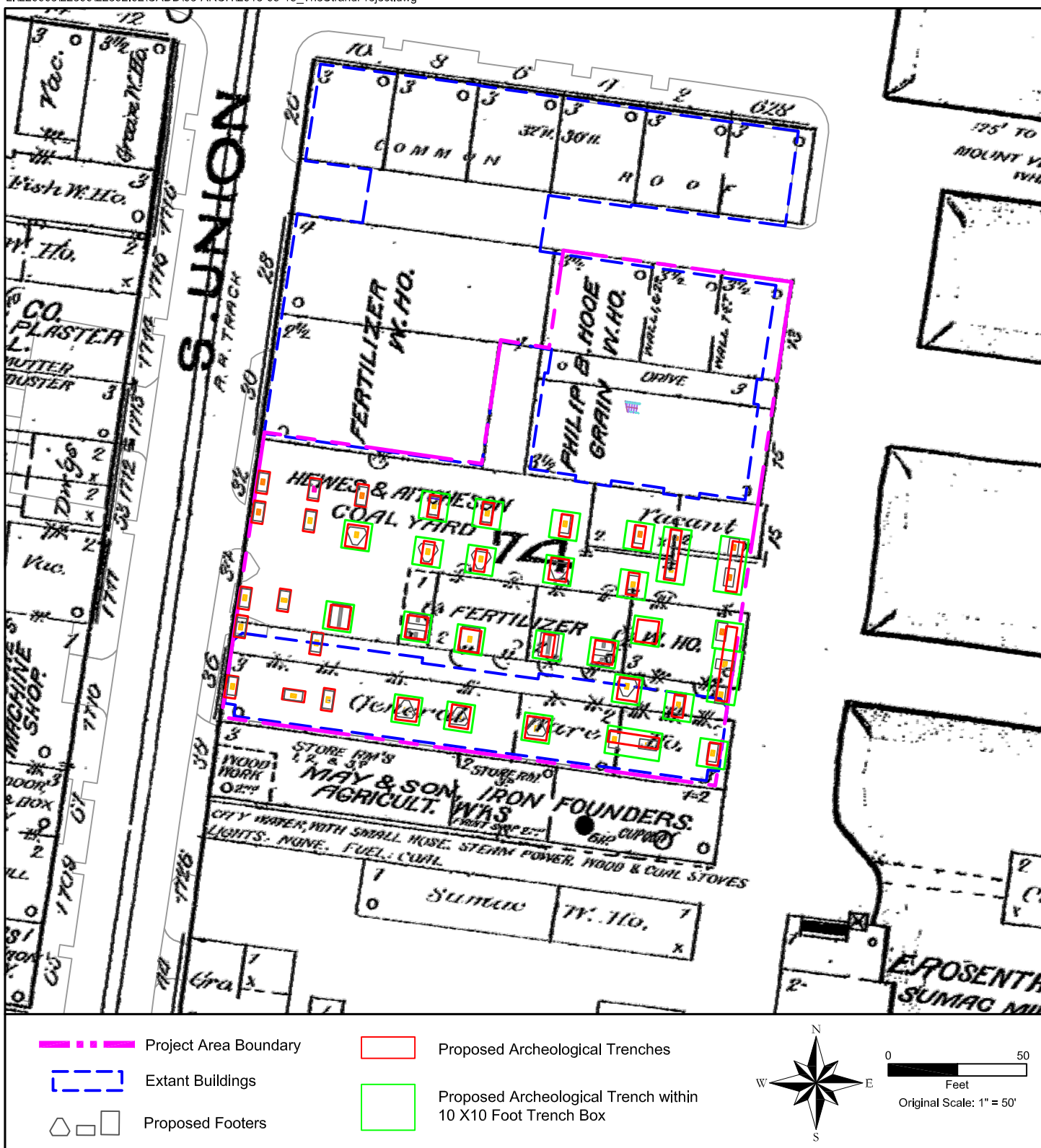


Figure 5
Proposed Locations of Archeological Trenches with 1885 Sanborn Map

211 Strand Street - Scope of Work for Archaeological Evaluation

WSSI #22892.02 - February 2018; Revised September 2018

Thunderbird
 Archaeology

APPENDIX II

Artifact Inventory

211 STRAND STREET PROPERTY ARTIFACT INVENTORY

Site 44AX0237

Trench 16, Feature 3, Feature Fill, Lot 1

Ceramics

- 1 Astbury-type sherd, rim fragment, incised horizontal line decoration, tea pot fragment, 2.5 inch rim diameter (1727-1750, MACL 2018)
- 1 buff bodied coarse stoneware sherd, unglazed interior, brown glazed exterior, hollow vessel
- 1 manganese mottled sherd, undecorated, collared rim fragment, hollow vessel, 1 inch rim diameter (1680-1780, MACL 2018)
- 5 refined white earthenware sherds, undecorated, indeterminate vessel shapes, heavily stained

Metal

- 1 wrought 10d nail, hand headed, pulled
- 1 wrought nail fragment, rosehead, point tip
- 2 wrought nail fragments, roseheads, spatulate tips

Miscellaneous

- 1 bone fragment, sawed, 16.5 grams

Trench 29, Fill 1, Lot 2

Ceramics

- 1 pearlware sherd, blue transfer printed decoration, hollow vessel (1795-1840, South 1977; 1787-1830, Miller 1992)

Trench 30, General Collection, Lot 3

Ceramics

- 1 creamware sherd, undecorated, flat vessel (1762-1820, South 1977; Miller 1992)
- 3 gray bodied coarse stoneware sherds (mend), brown glazed interior, clear salt glazed exterior with incised line, hollow vessel
- 1 pearlware sherd, neoclassically-inspired symmetrical scalloped rim fragment, plate, indeterminate rim diameter, stained (1780-1830, South 1977; Miller 1992; 1800-1830s, MACL 2017)
- 1 pearlware sherd, undecorated, hollow vessel, stained (1780-1830, South 1977; Miller 1992)
- 1 whiteware sherd, blue transfer printed decoration, base fragment, hollow vessel, 3 inch base diameter, stained (1820-1900+, South 1977; 1830-1865+, Miller 1992)

Trench 31, Feature 19, Feature Fill, Lot 4

Metal

- 1 wrought 40d nail, rosehead, pulled
- 1 wrought nail fragment, rosehead, pulled

Trench 35, Feature 23, Feature Fill, Lot 5

Miscellaneous

- 1 brick, whole, mortar attached, 8.25 inches x 4 inches x 2.5 inches, 2622.0 grams

Feature 25, General Collection, Lot 6

Miscellaneous

- 1 brick bat, mortar attached, 7.5 inches x 4 inches x 2 inches, 169.6 grams
- 14 mortar fragments, 130.2 grams

Feature 29, General Collection, Lot 7

Ceramics

- 1 kaolin pipe stem fragment- 3/32 inch bore hole diameter
- 1 tin glazed earthenware tile fragment, blue hand painted decoration interior, mortar attached (1700-1800, South 1977; Miller 1992)

Miscellaneous

- 1 brick fragment, 169.7 grams
- 1 coal fragment (discarded in lab), 0.4 grams
- 12 mortar fragments, 51.0 grams

Feature 29, Fill 1, Lot 8

Miscellaneous

- 2 mortar fragments (mend), 53.2 grams

Feature 30, Trench 17, Feature Fill 3, Lot 9

Ceramics

- 1 gray bodied coarse stoneware sherd, clear glazed interior, clear salt glazed exterior, base fragment, hollow vessel, 8 inch base diameter
- 1 redware sherd, mottled dark brown glazed interior, unglazed exterior, base fragment, hollow vessel, indeterminate base diameter
- 1 refined white earthenware sherd, undecorated, base fragment, hollow vessel, indeterminate foot ring diameter, burned
- 2 refined white earthenware sherds, undecorated, hollow vessels, burned

Glass

- 1 olive green cylindrical bottle sherd, base fragment, 8 inch base diameter, heavily patinated
- 1 olive green cylindrical bottle sherd, heavily patinated

Metal

- 1 cut 40d nail, unidentified head, burned (post-1790)

Feature 33, General Collection, Lot 10

Miscellaneous

- 1 brick bat, mortar attached, 8 inches x 4 inches x 2.25 inches, 169.7 grams
- 2 brick fragments, 397.6 grams
- 1 mortar fragment, 96.2 grams

Trench 4, Feature 33, General Collection, Lot 11

Ceramics

- 1 creamware sherd, undecorated, hollow vessel, stained (1762-1820, South 1977; Miller 1992)
- 1 kaolin pipe stem fragment- 1/16 inch bore hole diameter
- 1 pearlware sherd, blue transfer printed decoration interior, base fragment, hollow vessel, indeterminate base diameter (1795-1840, South 1977; 1787-1830, Miller 1992)
- 1 redware sherd, dark brown glazed interior, unglazed exterior, rim fragment, hollow vessel, 14 inch rim diameter

Glass

- 1 clear cylindrical bottle/jar sherd, automatic bottle machine (1910-present)

Trench on Strand Street South of manhole cover, General Collection, Lot 12

Miscellaneous

- 1 leather shoe fragment - 10.5 inches x 4 inches (conservation necessary), 121.9 grams

APPENDIX III

Qualifications

John P. Mullen, M.A., RPA

Principal Archeologist / Assistant Manager

Contract Role:

Principal Archeologist
/ Assistant Department
Manager

Years of Experience:

With this firm: 15

With other firms: 15

Education:

M.A. - Anthropology,
The Catholic University
of America

B.A. - Anthropology,
University of
Massachusetts, Amherst

Registrations & Certifications:

Registered Professional
Archaeologist

HAZWOPER

Mr. Mullen currently serves as Principal Archeologist and Assistant Manager for the Archeology department of Wetland Studies and Solutions, Inc. and has nearly 30 years of experience in conducting archeological research projects within Virginia and the Middle Atlantic region. He has spent most of his career working on some of the largest and most complicated urban archeological sites in the City of Richmond, such as the Richmond Floodwall, and Tredegar Iron Works, and in the City of Alexandria, where over the last 25 years he has directed such projects as: the Orange & Alexandria Railroad yard (Old Town Village), which became the operational headquarters of the U.S. Military Railroads during the Civil War; the Hotel Indigo site, which contained the remains of the 1755 Carlyle warehouse and the remnants of an 18th-century sailing ship; and most recently at Robinson Landing, which contained the well-preserved remains of an entire late 18th to early 19th century city block. His current responsibilities include management of department staff, overseeing projects at all stages, and interaction with clients and regulatory agencies.

Relevant Experience:

Hotel Indigo (220 South Union) – City of Alexandria, Virginia

Mr. Mullen served as Principal Investigator for the Documentary Study and Archaeological Investigations that were required prior to the construction of this boutique five-story hotel along the historic waterfront of Old Town Alexandria. The archeological work resulted in the discovery of the oldest structural remains found to date in Alexandria: the 1755 public warehouse on Point Lumley; four privies dating to the late 18th to early 19th century, a brick-lined well, and late 19th and 20th century factory and warehouse foundations. The remnant of a colonial-era ship that had been used as the framework to create new land along the Potomac waterfront was found deeply buried in one corner of the site. Mr. Mullen worked closely with the site developer, the City Archaeologist, maritime archeologists from the United States Navy, and the Maryland Archaeological Conservation Lab to prepare the ship and warehouse timbers for specialized analysis and conservation. Mr. Mullen co-authored both the Documentary Study report and the results of the archeological fieldwork.

National Museum of African American History and Culture (NMAAHC) – Washington, District of Columbia

Mr. Mullen provided archeological monitoring services for the Smithsonian Institution (under subcontract to AECOM) during the relocation of a 24-inch Washington Gas line and the documentation of an abandoned water intake tunnel that bisects the NMAAHC site. While the gas line relocation monitoring was not specifically required, the documentation of the intake tunnel was a stipulation of the 2011 Programmatic Agreement (PA). The gas line was in the northern portion of Site 51NW203, along the approximate southern edge of Tiber Creek/the Washington Canal, which was infilled in the 1870s. Two wood features, which may have served as shoring along the Canal, were located during the archeological monitoring. Avoidance was recommended. In accordance with Stipulation 10 of the 2011 PA, the Water Intake Tunnel was mapped, photographed and a representative profile was sketched. No further work was recommended for the intake tunnel.

Mary E. Switzer Building Improvements – Site 51SW021 – Washington, District of Columbia

In consultation with the Washington D.C. Office of Planning and Historic Preservation Office (DC HPO), the U.S. General Services Administration (GSA) determined that part of the Mary E. Switzer Building improvements had the potential to disturb archeological resources. Conditions stipulating the need for "phased archeological investigation and evaluation" were covered under a 2010 Memorandum of Agreement (MOA). Geoarcheological testing resulted in the identification of site 51SW021. Mr. Mullen supervised the Phase I investigation/Phase II archeological evaluation of Site 51SW021. This site encompassed the remains of several row houses that were constructed between 1857 and 1888 within Lot 17, Square 535, of the District of Columbia. The contexts at the site were limited, and most of the artifacts were recovered from disturbed contexts. Because of the extensive disturbance surrounding the site and the limited research potential of the features at the site, site 51SW021 was not recommended eligible to the National Register of Historic Places under Criterion D, and the DC HPO concurred with the recommendation.

Ed McMullen, M.A., RPA

Senior Archeologist

Contract Role:

Field Director

Years of Experience:

With this firm: 2

With other firms: >1

Education:

M.A. - Archaeological
Excavation, University
College Cork

B.A. - Higher Diploma -
Archaeology,
University College Cork

Registrations & Certifications:

Registered Professional
Archaeologist

Mr. McMullen has two years of professional experience in archeological research and fieldwork in the Middle Atlantic and Northeast regions of the United States, as well as Ireland. His current work as a crew chief archeologist for WSSI has enabled him to gain experience writing technical reports, becoming proficient with computer drafting programs such as AutoCAD, as well as leading teams of archeologists in field projects, such as his recent work on one the largest and more complex archeological excavations in Alexandria, Virginia.

Mr. McMullen received his M.A in Archaeological Excavation from the University College Cork, which required students to complete pre-excavation research and survey work (including geophysical surveys), a month-long excavation of a late Iron Age round house within a royal site, two weeks of lab work, and completion of an excavation report. Mr. McMullen completed this training in archeological techniques at the trivallate ring fort at Garranes, County Cork, Ireland, following a week-long training excavation of a nearby archaeological feature and subsequent lab work. Mr. McMullen assisted within a supervisory role at times, overseeing feature excavation, recording, and documentation.

Relevant Experience:

Robinson Landing – City of Alexandria, Virginia

Mr. McMullen served as served in a supervisory role on the Archaeological Evaluation, Data Recovery Excavations, and Phase II/III Investigations of this project that sprawled an entire city block in Old Town Alexandria. The block contained the well-preserved remains of late 18th to early 19th century residential and commercial building foundations, a paved cobblestone alleyway, and a brick sidewalk with stone curbs. Underlying these features was a network of bulkhead wharves (stacked and interlocked timbers) that incorporated the remnants of three late 18th century ships. Mr. McMullen assisted in the excavation, photogrammetry documentation, and dismantling and removal the ships. He has presented preliminary results on the early 18th-19th century wharf construction at several professional conferences.

Sunrise Old Town – City of Alexandria, Virginia

Mr. McMullen supervised the Geotechnical and Archaeological Evaluation (Phase I/II excavations) at 400 N. Washington Street in Alexandria, Virginia. The property had a high probability for containing mid-19th through 20th-century archeological resources; of interest to the City were deposits and features related to the use of the property as a Civil War hospital. The work involved a combination of hand excavation of shovel test pits and machine trenching/stripping. No evidence of Civil War use of the property was identified; however, mitigation was conducted on a brick cistern, which contained artifacts from the 19th and 20th centuries.

Antigone Property (Washington Dulles Gateway) – Loudoun County, Virginia

Mr. McMullen assisted as a Crew Chief conducting a Phase I survey along Broad Run creek ahead of the construction of a data center near the intersection of Loudoun County Parkway and the Dulles Greenway. No archaeological sites or architectural resources were found or recorded.

Little Elk Creek Stream Restoration – Cecil County, Maryland

Mr. McMullen supervised the fieldwork and coauthored the report for this Phase I cultural resources investigation around the recorded location of a historic saw mill (CE-680) in Elkton, Cecil County, Maryland. The work was conducted to meet requirements under Section 106 of the National Historic Preservation Act; additionally, the Maryland Historical Trust recommended testing within the mapped location of the historic resource. Archeological work and additional research revealed that the resource was not located within the project area; rather the more likely location for the recorded site was further north along Church Road. The Maryland Historical Trust concurred with the recommendation of no further work within the immediate area of investigation.