APPENDIX D2

PHASE IB ARCHAEOLOGICAL SURVEY
PREFERRED ALTERNATIVE
LIMITS OF DISTURBANCE

D.C. TO RICHMOND SOUTHEAST HIGH SPEED RAIL

May 2018

DC TO RICHMOND
SOUTHEAST HIGH SPEED RAIL

Phase IB Archaeological Survey for the Washington, D.C. to Richmond Southeast High Speed Rail (DC2RVA) Project

Preferred Alternative Limits of Disturbance

DRPT
Virginia Department of Rail and Public Transportation

U.S. Department of Transportation
Federal Railroad Administration

Phase IB Archaeological Survey for the Washington, D.C. to Richmond Southeast High Speed Rail (DC2RVA) Project Preferred Alternative Limits of Disturbance

DHR #2014-0666

by

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May 2018

May 14, 2018

Kerri S. Barile, Principal Investigator — Date

ABSTRACT

The proposed Washington, D.C. to Richmond (DC2RVA) segment of the Southeast High Speed Rail project was examined through a Phase IB archaeological survey. The proposed project is being completed under the auspices of the Federal Rail Administration (FRA) in conjunction with the Virginia Department of Rail and Public Transportation (DRPT). Because of the FRA's involvement, the undertaking is required to comply with the National Environmental Policy Act of 1969 (NEPA) and Section 106 of the National Historic Preservation Act of 1966, as amended. The project is being completed as Virginia Department of Historic Resources (DHR) File Review #2014-0666.

The current archaeological study included a Phase IB survey of portions of the Preferred Alternative limits of disturbance (LOD) (Arlington [Area 1] through Richmond [Area 6]) of the DC2RVA corridor. The DC2RVA corridor has been the subject of ongoing cultural resource investigations from 2014 to the present, including a Phase IA archaeological background review and archaeological predictive model (Klein at al. 2015) and a Phase IB archaeological survey of the mainline based on modeling (McCloskey et al. 2016). Since the conclusion of the previous Phase IB archaeological work, a draft environmental impact statement resulting in the selection of a Preferred Alternative has been completed. Additionally, engineering and design work has been completed for the corridor resulting in the definition of the physical footprint of improvements for the selected Preferred Alternative, including all road modifications, straightening of curves, the addition of wyes, proposed station locations, parking areas, etc. As such, the area of potential effects (APE) studied as part of the current report was defined by the LOD of the Preferred Alternative, including the footprint of physical improvements associated with the project, inclusive of both the rail modifications and any associated roadwork, which had not been surveyed during the previous IB effort.

The archaeological study consisted of a pedestrian survey and subsurface testing, supplemented by metal detector survey, throughout the APE beyond the limits of previous Phase IB investigations. Based on the pedestrian survey, subsurface testing (and, where necessary, metal detection) was carried out in locations deemed to have potential for intact subsurface deposits. Additionally, all sites within the APE not addressed by the previous DC2RVA Phase IB archaeological study and determined eligible or potentially eligible for listing in the National Register of Historic Places (NRHP), as well as those previously recorded sites that had not been evaluated by the DHR, were examined regardless of their location within areas identified for archaeological testing. The archaeological areas subjected to Phase IB study, inclusive of pedestrian and subsurface testing, encompass 158.8 acres (64.3 ha).

Phase IB survey included a pedestrian survey and photo documentation followed by systematic subsurface testing, and metal detector survey when warranted, in locations deemed to have the potential for subsurface deposits. Pedestrian survey found that the majority of the archaeological APE was disturbed by buried utility corridors, modern development, and grading associated with the railroad. Following the pedestrian survey, a total of 511 shovel test pits (STPs) were

excavated across the APE. The excavation of shovel test pits and metal detector hits resulted in the recovery of 140 artifacts that date predominantly to the historic period.

Phase IB survey resulted in the identification of 23 archaeological sites and 5 isolated finds within the surveyed portions of the APE. Of these 23 archaeological sites, 17 were previously identified archaeological sites and 6 were newly recorded. Based on this survey it is **recommended that one site, 44CF0680, remains eligible for listing in the NRHP under Criteria A and C. However, the portion of site 44CF0680 within the APE does not contribute to overall site eligibility.** The survey identified **nine archaeological sites (44HE0357, 44HE1097, 44HE1098, 44HE1094, 44SP0187, 44SP0468, 44SP0687, 44SP0688, and 44ST1223) that are recommended potentially eligible for listing in the NRHP under Criterion D.** It is further **recommended that nine sites (44CF0022, 44CF0123, 44CF0260, 44HE1203, 44HE1204, 44PW1008, 44ST0011, 44ST0270, and 44ST0271) are or remain unevaluated for the NRHP, but that the portions of all these sites within the APE do no contribute to their overall site eligibility**. The remaining **four archaeological sites (44HE1202, 44SP0767, 44SP0768, and 44ST1224,) are all recommended not eligible for listing in the NRHP**. However, sites 44ST1224 and 44SP0786 are both small family cemeteries that have not been fully delineated, so they should be avoided or their boundaries defined.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

1 INTRODUCTION

Dovetail Cultural Resource Group (Dovetail), a member of the DC2RVA Project Team, and on behalf of the Virginia Department of Rail and Public Transportation (DRPT), conducted a Phase IB archaeological survey of the Arlington (Area 1) through Richmond (Area 6) areas of the Washington, D.C. to Richmond (DC2RVA) high speed rail Preferred Alternative. The project is being completed as Virginia Department of Historic Resources (DHR) File #2014-0666.

The Federal Railroad Administration (FRA) and DRPT propose passenger rail service and rail infrastructure improvements in the north-south travel corridor between Washington, D.C. and Richmond, VA. These passenger rail service and rail infrastructure improvements are collectively known as the DC2RVA project (Project). The Project will deliver higher speed passenger rail service, increase passenger and freight rail capacity, and improve passenger rail service frequency and reliability in a corridor shared by growing volumes of passenger, commuter, and freight rail traffic, thereby providing a competitive option for travelers going between Washington, D.C. and Richmond and those traveling to and from adjacent connecting corridors. The Project is part of the larger Southeast High Speed Rail (SEHSR) corridor (Figure 1-1), which extends from Washington, D.C. through Richmond, VA, and from Richmond continues east to Hampton Roads (Norfolk), VA and south to Raleigh, NC, and Charlotte, NC, and then continues west to Atlanta and south to Florida. The Project connects to the National Railroad Passenger Corporation (Amtrak) Northeast Corridor (NEC) at Union Station in Washington, D.C.

The purpose of the SEHSR program, as stated in the 2002 Tier I Final Environmental Impact Statement (EIS) completed for the full SEHSR corridor, is to provide a competitive transportation choice to travelers within the Washington, D.C. to Charlotte travel corridor. The purpose of the current Washington, D.C. to Richmond SEHSR project described here is to fulfill the purpose of the SEHSR Tier I EIS within this segment of the larger SEHSR corridor. The Project, by increasing rail capacity and improving travel times between Washington, D.C. and Richmond, will improve passenger train performance and reliability in the corridor, enabling intercity passenger rail to be a competitive transportation choice for travelers between Washington, D.C. and Richmond, and beyond.

Given FRA's funding involvement and permitting through various other federal agencies, the Project is required to comply with Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulations under 36CFR800. Additionally, all cultural resource work was designed to comply with the Virginia Antiquities Act (Code of Virginia § 10.1-2300) and guidelines and regulations promulgated by the DHR as necessary.

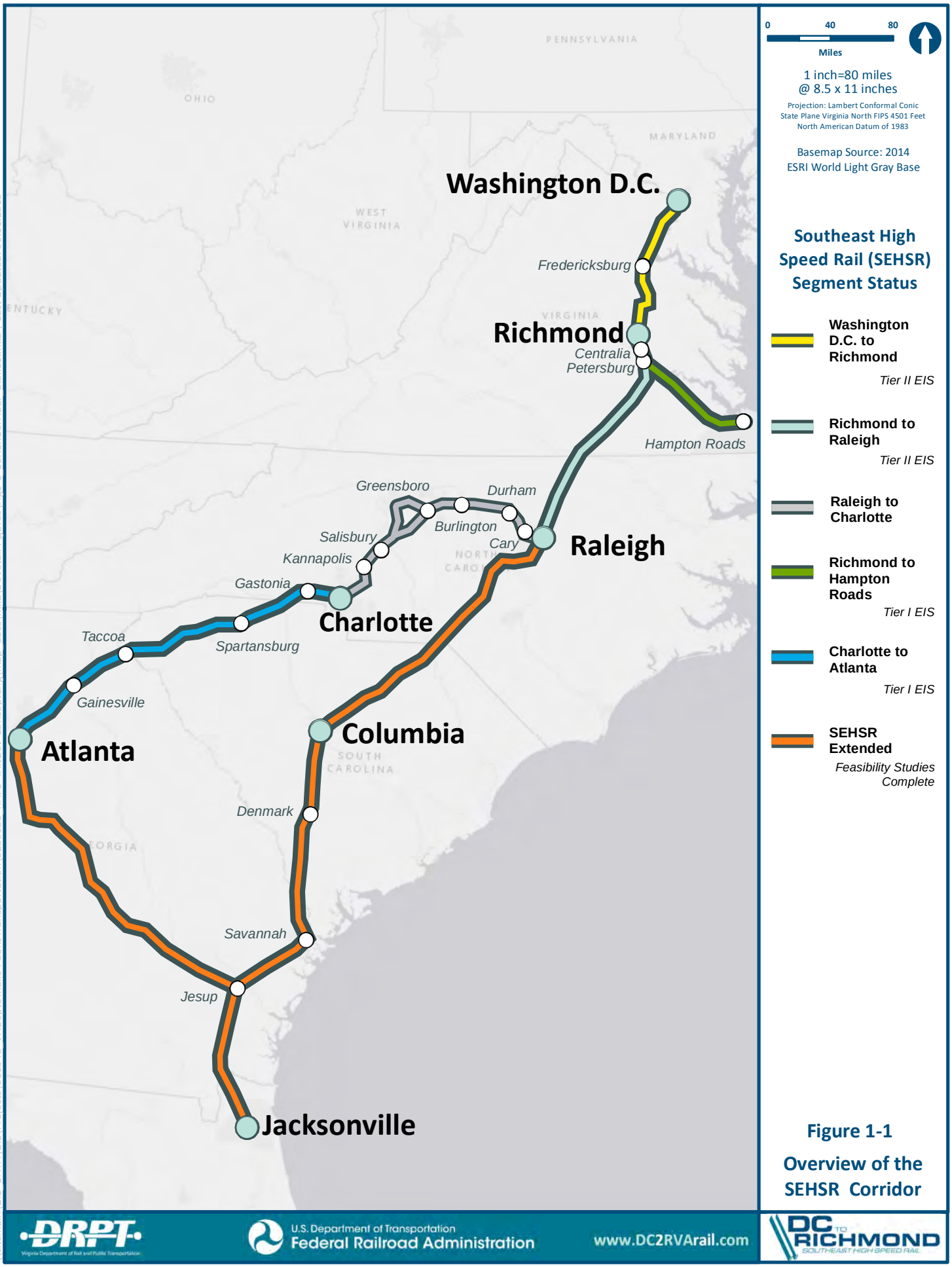

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Figure 1-1

Overview of the SEHSR Corridor

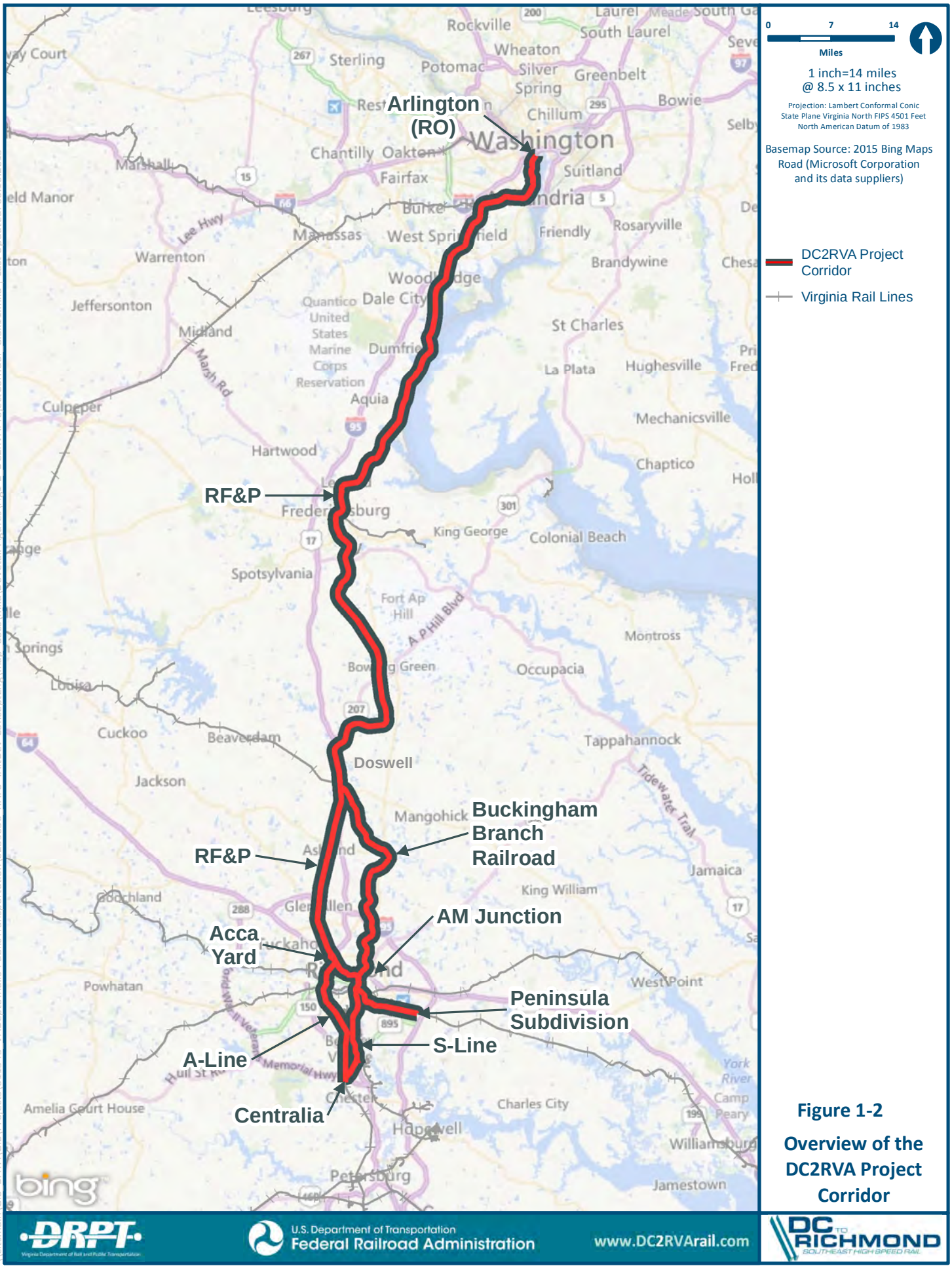
1.1 PROJECT LOCATION

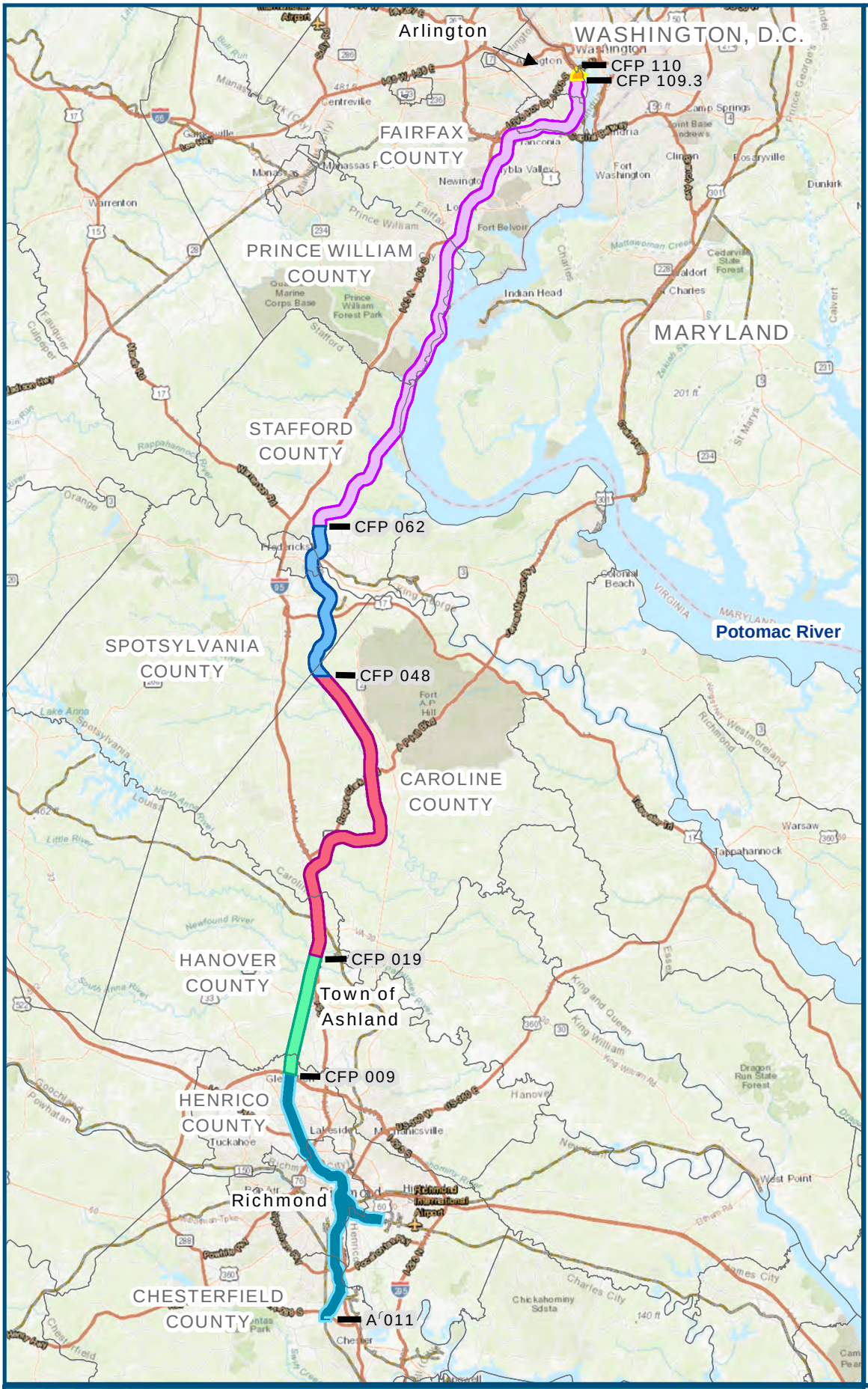
The Washington, D.C. to Richmond corridor spans 123 miles (198 km) along an existing rail corridor owned by CSX Transportation (CSXT) between Control Point RO (milepost [MP] CFP 110) in Arlington, VA to the CSXT A-Line and S-Line junction at MP A-11 in Centralia, VA (Chesterfield County) (Figure 1-2). For the purposes of engineering and environmental planning, the Preferred Alternative has been subdivided into six areas that correspond with improvements and have been named and numbered 1–6 from north to south (Figure 1-3). In previous archaeological reports associated with the DC2RVA corridor (Klein at el. 2015; McCloskey et al. 2016) the corridor was subdivided into 22 segments. These 22 divisions have since been reorganized and incorporated into the existing 6 areas; in an effort to be consistent with the Tier II draft EIS and the impending Tier II final EIS these 6 areas have been used for the purposes of the current archaeological investigation.

At the northern terminus in Arlington, VA, the Project limit ends at the southern approach to Long Bridge, a double-track rail bridge taking the rail corridor over the Potomac River; however, the northern terminus of Union Station in Washington, D.C. will be used for ridership and revenue forecasting, as well as service development planning within the Project corridor. The southern terminus in Centralia is the junction of two CSXT routes that begin in Richmond and rejoin approximately 11 miles (17.7 km) south of the city. Proposed improvements are along CSXT-owned track, generally parallel to the I-95 corridor between northern Virginia and Richmond. From north to south, the project travels through the following counties and cities:

- Arlington County
- City of Alexandria
- Fairfax County
- Prince William County
- Stafford County
- City of Fredericksburg
- Spotsylvania County
- Caroline County
- Hanover County
- Henrico County
- City of Richmond
- Chesterfield County

In Arlington, the Project connects to existing CSXT track extending across the Potomac River on the Long Bridge into Washington, D.C. and Union Station, the southern terminus of Amtrak's NEC. At Centralia, the Project connects to both the Richmond to Raleigh segment of the SEHSR corridor and the Richmond to Hampton Roads segment of the SEHSR corridor. The Washington, D.C. to Richmond segment is an integral part of the overall Washington, D.C. to Charlotte SEHSR corridor and provides a critical link between high speed intercity passenger service from Boston to Washington, D.C. and the southeastern United States.





0 5 10
Miles
0 10 20
Kilometers

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983
Base Mapping: 2015 USGS Topographic Map

Legend

- Area 1: Arlington (Long Bridge Approach) (CFP 110 - CFP 109.3)
- Area 2: Northern Virginia (CFP 109.3 - CFP 62)
- Area 3: Fredericksburg (CFP 62 - CFP 48)
- Area 4: Central Virginia (CFP 48 - CFP 19)
- Area 5: Ashland (CFP 19 - CFP 9)
- Area 6: Richmond (CFP 9 - A 011)

Figure 1-3
DC2RVA Project Areas of the Preferred Alternative

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1.2 DC2RVA PROJECT DESCRIPTION

The Project will include specific rail infrastructure improvements and service upgrades intended to improve the travel time, service frequency, and on-time performance of passenger trains operating between Washington, D.C. and Richmond, VA. Specific improvements to the existing rail infrastructure between Arlington, VA, and Centralia, VA include:

- Corridor-wide upgrades to existing track and signal systems to achieve higher operating speeds, including curve realignments, higher-speed crossovers between tracks, passing sidings, and grade crossing improvements.
- Corridor-wide improvements to train operating capacity to achieve higher passenger train service frequency and reliability, including an additional main track along most of the corridor, and additional controlled sidings, crossovers, yard bypasses and leads, and other capacity and reliability improvements at certain locations.
- Station and platform improvements for Amtrak and Virginia Railway Express (VRE) stations.

Environmental studies (the Tier II EIS) in support of the Project continue to assess the environmental impacts of these improvements and identify ways to avoid, minimize, or otherwise mitigate such impacts.

Studies in support of the Project will address passenger and freight rail operations and service between Union Station in Washington, D.C. and Richmond and beyond, but the Project does not include physical improvements to the Long Bridge across the Potomac River or to rail infrastructure within Washington, D.C. Other projects will address improvements to the rail infrastructure north of Arlington and south of Centralia along the SEHSR corridor.

1.3 PREVIOUS SURVEYS AND CURRENT STUDY

The DC2RVA Team has been conducting Phase I-level cultural resource studies for the entire 123-mile (198 km) DC2RVA corridor since December 2014. These include Phase IA and Phase IB archaeological surveys and reconnaissance-level architectural studies. To date, the findings have been detailed in two archaeology reports and 16 architectural reports. The current study included a Phase IB archaeological survey of LOD expansion areas within the Preferred Alternative of the DC2RVA corridor in any part of the APE that was not included in a previous document. Environmental Context, Historic Context, and Background Review sections for the overall project corridor are not included, as this information was presented in previous DC2RVA project reports (e.g., Klein at al. 2015; McCloskey et al. 2016). The results of the architectural survey, examining all above-ground resources, spanning the entire 123-mile (198 km) corridor are discussed in separate documents (e.g., Anderson and Staton 2016; Manning et al. 2016; Manning and Salvato 2016; Peckler 2016; Staton et al. 2016a; Staton et al. 2016b; Staton and Lesiuk 2015; Sylvester and Staton 2016)

The current archaeological study comprises a Phase IB survey of the DC2RVA corridor based on the results of previous Phase IA (Klein at al. 2015) and Phase IB (McCloskey et al. 2016) archaeological studies of the corridor, including predictive modeling. The archaeological APE for the DC2RVA project, as defined in consultation with the DHR, includes the footprint of physical improvements associated with the project, inclusive of both the rail modifications and any

associated roadwork. Since the conclusion of the previous Phase IB archaeological work, a draft EIS resulting in the selection of a Preferred Alternative has been completed. Additionally, engineering and design work has been completed for the corridor resulting in the definition of the physical footprint of improvements for the selected Preferred Alternative, including all road modifications, straightening of curves, the addition of wyes, proposed station locations, parking areas, etc. As such, the APE studied as part of the current report was defined by the LOD of the Preferred Alternative and is located generally along the existing 123-mile (198-km) CSXT rail corridor.

The cultural resource survey was conducted from February to April 2018. The fieldwork was conducted by Kevin McCloskey, Emily Calhoun, Kerry González, Mike Klein, Jonas Schnur, Theresa Ulrich, Bryce Matheny, and Jordan Scott, with Kerri S. Barile serving as Principal Investigator. Drs. Barile and Klein, as well as Ms. Calhoun and Ms. González, meet or exceed the standards established for Archaeologists by the Secretary of the Interior (SOI).

2 ARCHAEOLOGY PROJECT ORGANIZATION

The DC2RVA corridor spans 123 miles (198 km) along an existing rail corridor owned by CSXT between Control Point RO (MP CFP 110) in Arlington, VA to the CSXT A-Line and S-Line junction at MP A-11 in Centralia, VA (Chesterfield County). The corridor generally parallels the I-95 corridor between Northern Virginia and Richmond, traversing twelve cities and counties (Arlington County, City of Alexandria, Fairfax County, Prince William County, Stafford County, City of Fredericksburg, Spotsylvania County, Caroline County, Hanover County, Henrico County, City of Richmond, and Chesterfield County).

For the purposes of engineering and environmental planning, the DC2RVA corridor has been subdivided into six areas. Locations within these six areas were designated for archaeological survey through a review of modern aerial imagery, comparisons to DHR's site files, and in light of the predictive model created for the 2015 DC2RVA archaeological APE (Klein et al. 2015). Based on this analysis, the six DC2RVA project areas were further subdivided for the purposes of the current archaeological study, corresponding to discrete locations identified for archaeological survey. The archaeological areas subjected to Phase IB study encompassed 158.8 acres (64.3 ha). These subdivided locations, referred to as Phase IB archaeological areas, were given alphabetical letter designations within each of the larger six DC2RVA project areas (Table 2-1; Figure 2-1 through Figure 2-5).

TABLE 2-1: PHASE IB ARCHAEOLOGICAL AREAS

Project Area	Phase IB Archaeological Areas	
Area 1, Arlington	Archaeological Areas	n/a
	Total Acreage	0
Area 2, Northern Virginia	Archaeological Areas	2a, 2b, 2c, 2d, 2e, 2f, 2g, 2h ,2i, 2j, and 2k
	Total Acreage	60.9 acres
Area 3, Fredericksburg	Archaeological Areas	3a, 3b, 3c, 3d, 3e, and 3f
	Total Acreage	29.5 acres
Area 4, Central Virginia	Archaeological Areas	4b, 4c, 4d, 4e, and 4f
	Total Acreage	3.9 acres
Area 5, Ashland	Archaeological Areas	5a, 5b, and 5c
	Total Acreage	31.7 acres
Area 6, Richmond	Archaeological Areas	6a, 6b, 6c, 6d, 6e, 6f, 6g, and 6h
	Total Acreage	32.8 acres

Note: Revisions to the LOD during the course of fieldwork eliminated the need for archaeological survey in Archaeological Area 4a, so it is not discussed or addressed within these results. Source: Dovetail 2018

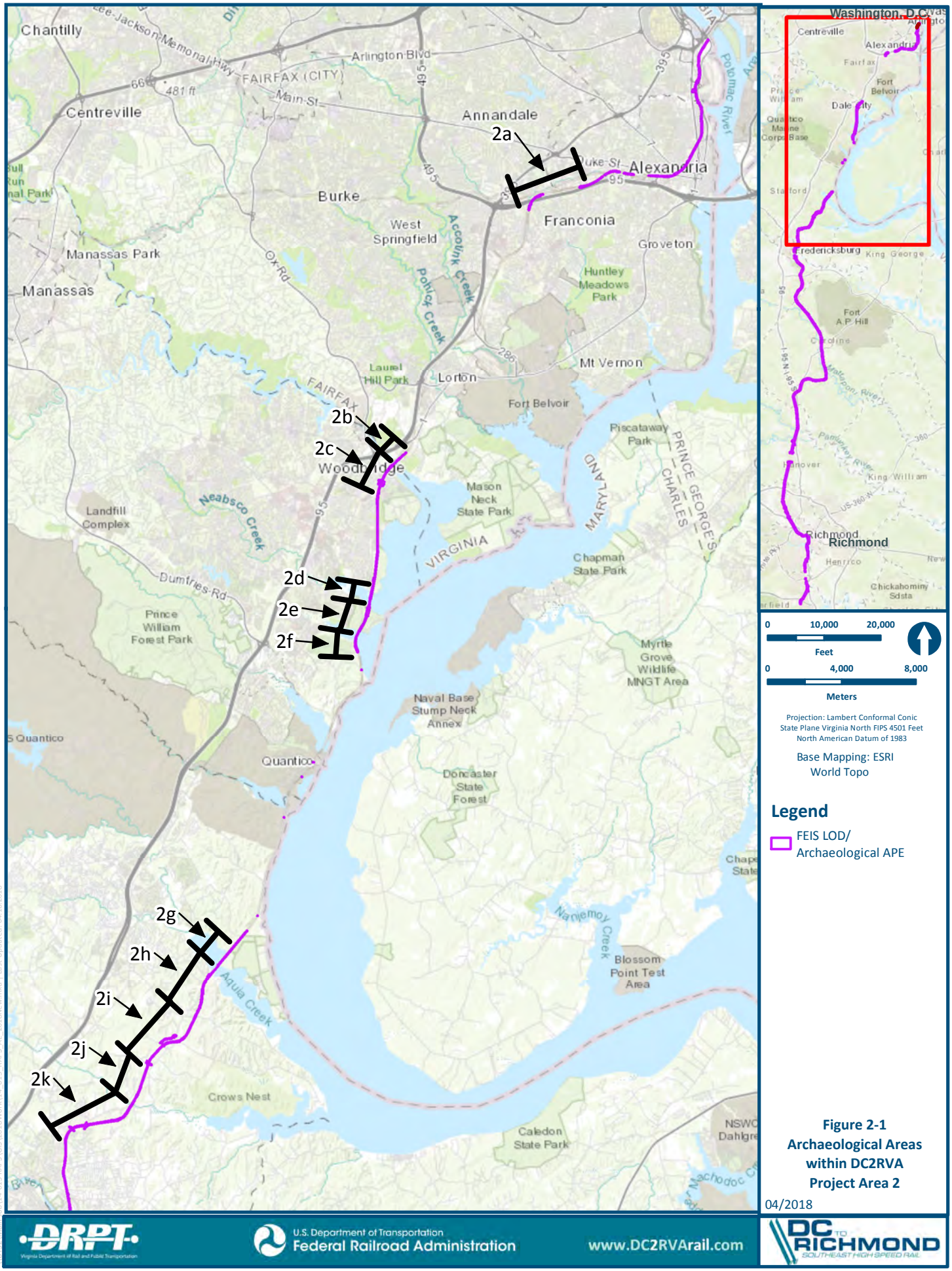

Figure 2-1
Archaeological Areas within DC2RVA Project Area 2

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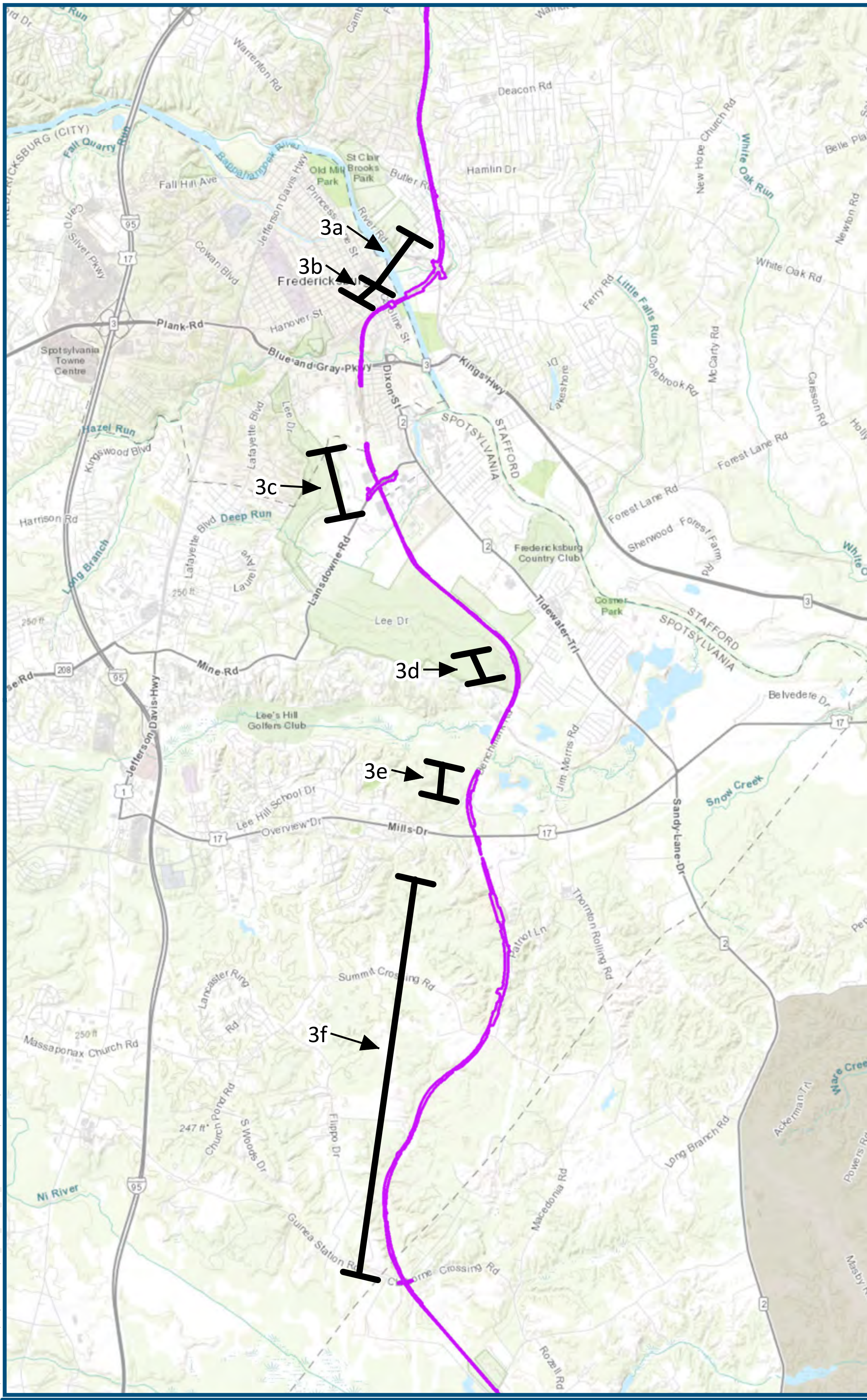

0 3,000 6,000
Feet
0 1,000 2,000
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI World Topo

Legend

FEIS LOD/ Archaeological APE

Figure 2-2 Archaeological Areas within DC2RVA Project Area 3

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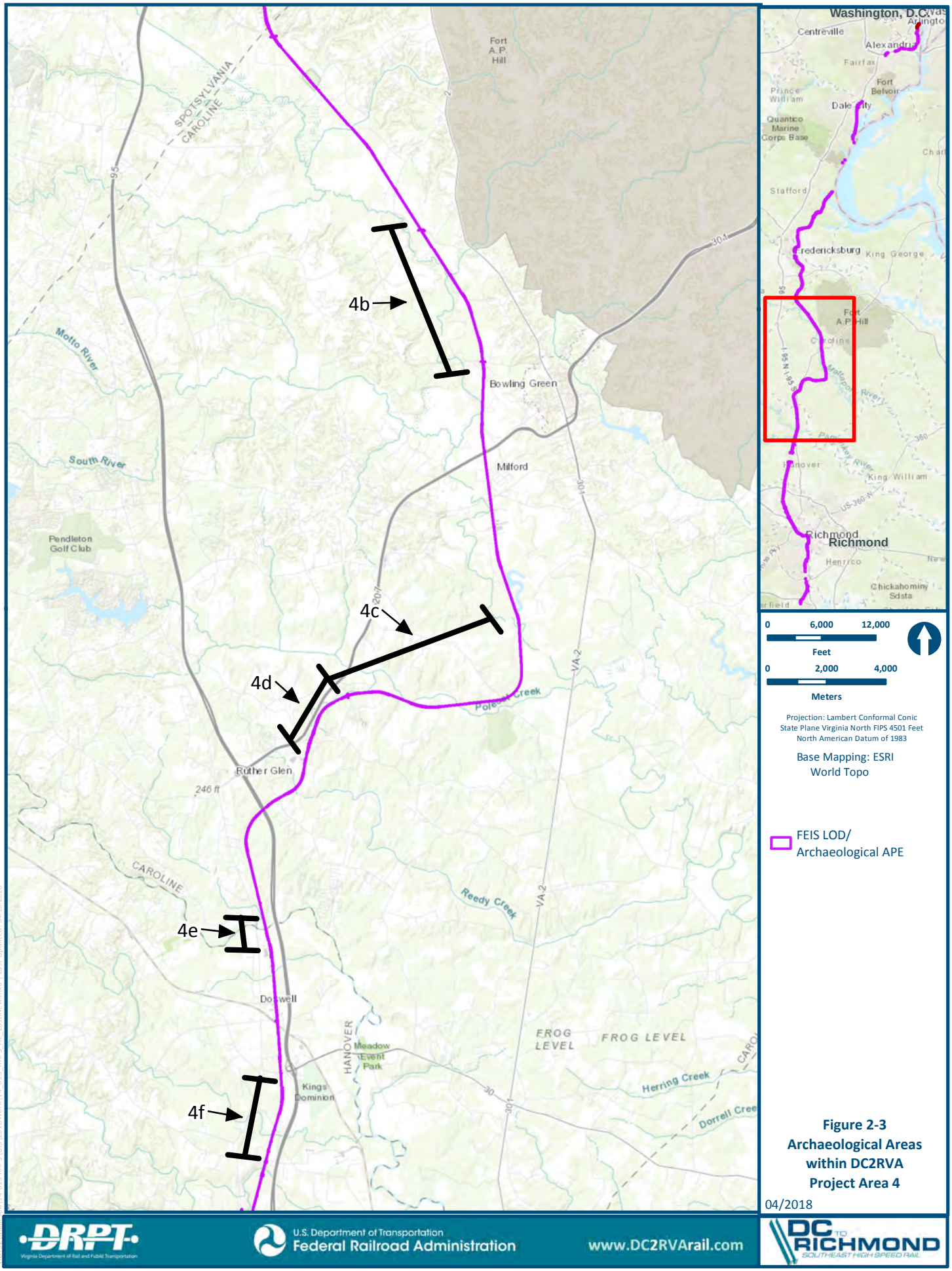

Figure 2-3
Archaeological Areas within DC2RVA Project Area 4

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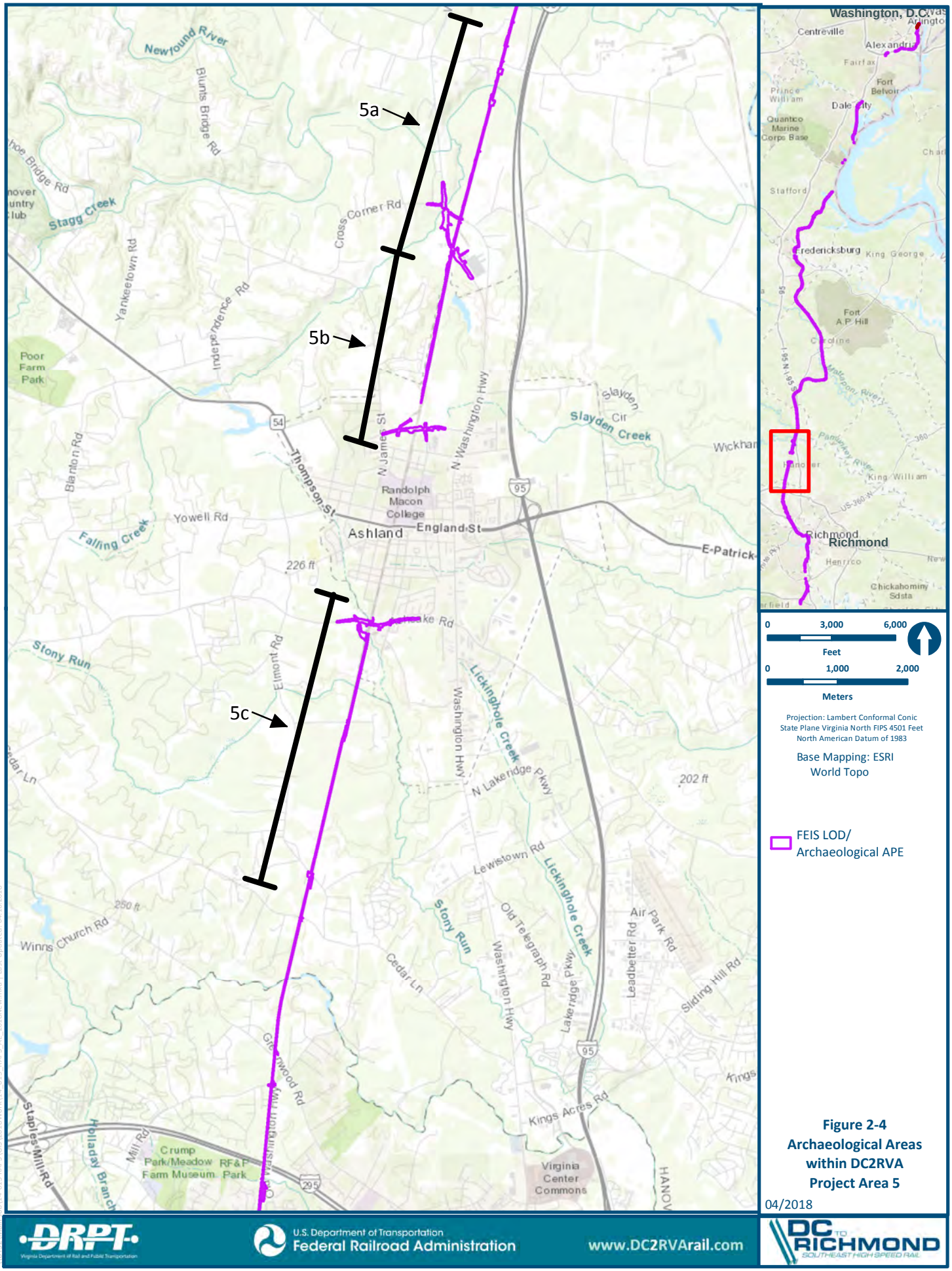

Figure 2-4
Archaeological Areas within DC2RVA Project Area 5

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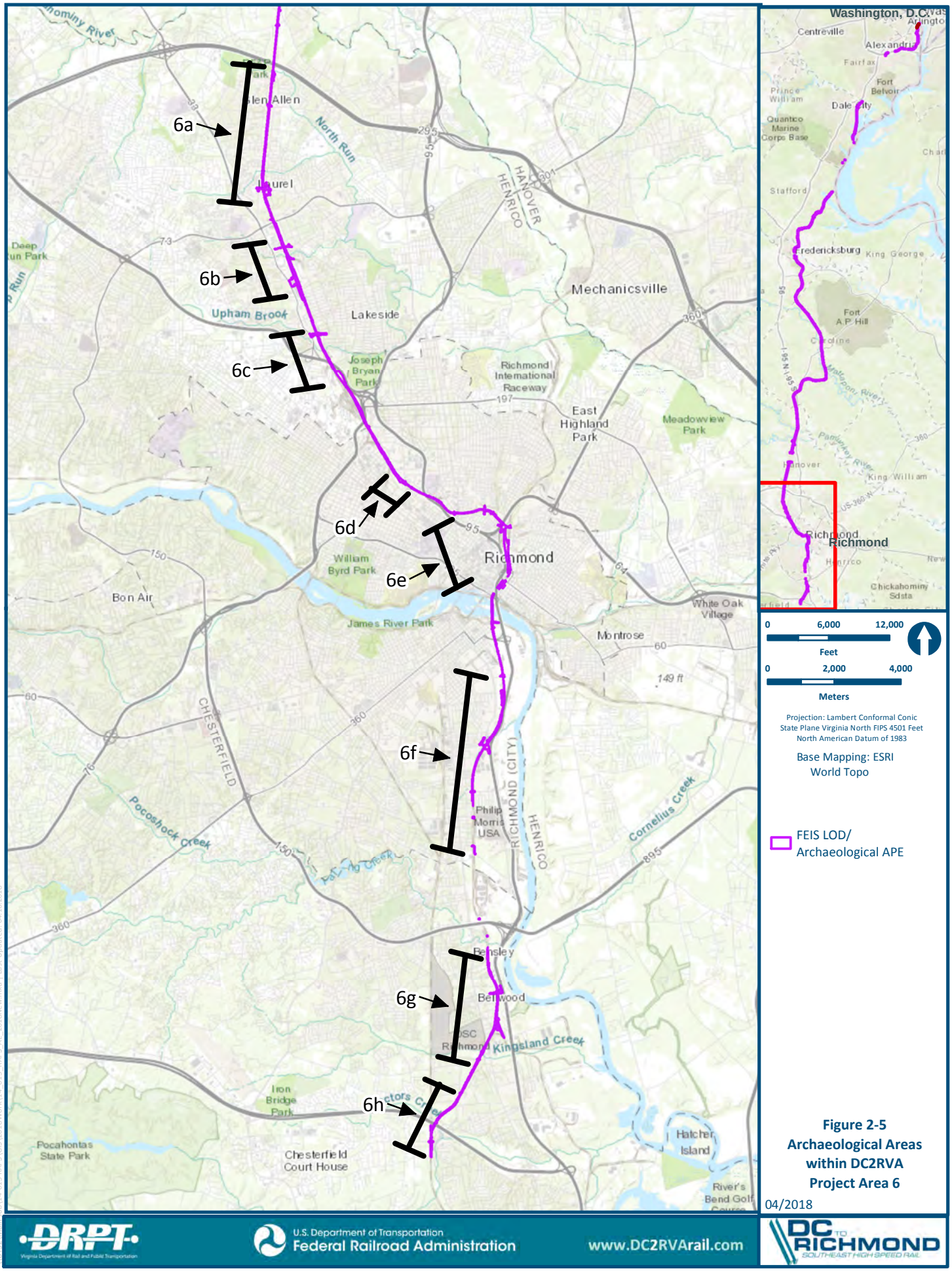

Figure 2-5
Archaeological Areas within DC2RVA Project Area 6

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3 SURVEY METHODOLOGY

The goal of the archaeological survey was to identify any archaeological sites within the archaeological APE that are listed in or eligible for the NRHP. The survey methods employed to meet this goal were chosen with regard to the project's scope (i.e., the project's potential to affect significant resources, should they be present), the potential of the project area to contain significant resources, local field conditions, documented prior disturbance, the limits of previous Phase IB survey, and the results of prior predictive modeling of the APE.

3.1 PHASE IB ARCHAEOLOGICAL AREA SELECTION

As previously noted, the DC2RVA corridor has been the subject of ongoing cultural resource investigations from 2014 to present, including a Phase IA archaeological background review and archaeological predictive model (Klein at al. 2015) and a Phase IB archaeological survey of the mainline based on modeling (McCloskey et al. 2016). This previous Phase IB investigation examined the output locations from the predictive modeling efforts within the APE, defined at the time as 50 feet (15.2 m) on both sides of the center of the existing 123-mile (198-km) project corridor. This investigation found that the overwhelming majority of the APE was disturbed by buried utility corridors, modern development, and grading associated with the railroad. The field observations and results from this previous Phase IB investigation helped to inform the selection of areas warranting archaeological survey within the LOD of the Preferred Alternative, which serves as the APE for the current investigation. The results of this survey combined with additional locational and disturbance factors were used to select the areas subjected to Phase IB survey within the scope of this project and they include:

- Proximity and relative location to areas previously identified by predictive modeling to have high, medium, and low potential for archaeological deposits
- Proximity and relative location to previously recorded archaeological sites and battle-related architectural resources
- Location relative to the limits of the previous Phase IB APE
- Topography
- Location within utility corridors as defined from the previous Phase IB survey
- Modern disturbance noted on aerial imagery and documented during the previous Phase IB survey

These factors were analyzed and delineated during an intensive GIS-based desktop analysis of the Preferred Alternative LOD. The analysis rendered discrete locations throughout the length of the corridor that warranted archaeological survey within the scope of the current Phase IB investigation. These discrete locations were then grouped for ease of survey, as discussed in the following section (3.2 Archaeological Survey).

During the desktop review discussed above, it became apparent that certain locations along the corridor required additional historic map analysis. The predictive model developed by Klein et al. (2015) and implemented by McCloskey et al. (2016) consulted and incorporated historic maps which shaped the model development and thus were reflected in the output probability locations. To mirror this methodology, a variety of historic maps were georeferenced using GIS software and used to identify additional locations for archaeological survey in the Fredericksburg and Richmond areas of the APE. These locations were targeted for historic map analysis because the Preferred Alternative LOD extended well beyond the previous Phase IB APE and a multitude of map resources were available for analysis. Other historic locations considered but eliminated from analysis due to a lack of LOD modifications/track improvements outside the 2016 Phase IB APE (in that their historic map analysis was completed as part of the predictive model), were Ashland and Alexandria.

Historic maps consulted in Fredericksburg included Ferguson (1909), Gray (1878), and Sanborn Map Company (1886, 1891, 1896, 1902, 1912, 1919, and 1927). In Richmond maps georeferenced included Baist (1889), Bates (1835), Beers (1877), Ludwig (1865), Randal (1922), and Sanborn Map Company (1905). These maps were used to note areas within the APE that reflected a historical occupation and could yield intact archaeological deposits. Locations identified through this analysis were flagged for archaeological survey and in some locations, this analysis resulted in the identification of archaeological site boundaries, based purely on historic map projections.

3.2 ARCHAEOLOGICAL SURVEY

As previously discussed, locations within the six DC2RVA project areas were designated for archaeological survey through a review of modern aerial imagery, comparisons to DHR's site files, analysis of the Phase IA study and predictive model, and evaluating the results of the prior Phase IB survey. The locations indicated by this review, referred to as Phase IB archaeological areas, were given alphabetical letter designations within each of the larger six DC2RVA project segments. The archaeological areas were designated first by their DC2RVA area number and then by their lettered designation assigned as part of this study, for example Archaeological Area A in Area 2, Northern Virginia, is notated within this report as "2a". Shovel test pits (STPs) were excavated at 50-foot (15.2-m) intervals along transects across these Phase IB archaeological areas within the larger APE. Given the highly disturbed nature of the APE, judgmental shovel testing (shovel tests placed not on transect but judgmentally placed given field conditions) was also employed in order to maximize subsurface sampling and to verify subsurface integrity.

Each STP within the archaeological area was given a numerical designation. The provenience information for each STP included the archaeological area alphabetical designation, lettered transect designation, and the sequential numerical designation. For example, STP 2a-A-1 refers to the first STP on the first transect excavated within Area A of Area 2, Northern Virginia. STPs were not excavated in areas of obvious modern disturbance. STPs measured approximately 1.3 feet (38.1 cm) in diameter and were excavated to penetrate at least 0.3 feet (10.2 cm) into sterile subsoil where possible. Shovel test radials were excavated at 25-foot (7.6-m) intervals in cardinal directions from shovel tests that produced cultural materials.

All soils excavated from STPs were passed through 0.25-inch (0.6-cm) hardware mesh cloth. Each distinct soil horizon was given a stratum designation (e.g., I, II) in order to delineate stratigraphic relationships. All artifacts were recovered and bagged by stratum. The project name, area designation, transect, STP, stratum, excavator, date, and material recovered were recorded on

field tags for each level. Soil conditions, weather information, and notations on disturbances were recorded in field notes.

Metal detector survey was carried out within the American Battlefield Protection Program's (ABPP) potential National Register (PotNR)-established boundaries of all Civil War battlefields that intersect the Phase IB archaeological areas within the APE. Additionally, judgmental metal detector survey was completed in areas deemed to have high probability for containing Civil War resources. This assessment of probability was based on the evidence of recent metal detecting activity by amateurs and other surface features identified during the pedestrian survey.

The metal detector surveys were only completed in areas deemed through pedestrian survey to have the potential for intact subsurface deposits and thus overlapped the STP survey transects within potential Civil War sites. The metal detector surveys were conducted by staff who have received specialized training in using metal detectors at Civil War sites, using a Fisher Gold Bug and a Tesoro Cibola metal detector. Metal detecting was conducted in a zig-zag pattern along transects spaced at 6-foot (1.8-m) intervals. The discriminating function of the metal detector was turned off and any positive contacts were identified with pin flags. The locations of all positive contacts were excavated to determine if the contact was positive for historic ferrous and/or non-ferrous metal artifacts. All contacts positive for artifacts were mapped and, if need be, were used to produce artifact distribution maps that show and discriminate between locations of military and non-military and possible dual use artifacts.

3.3 LABORATORY METHODS

Any archaeological specimens collected during the Phase IB survey were transported to Dovetail's laboratory in Fredericksburg, VA, for processing and analysis. Prior to artifact washing, each bag was cross-referenced with the field log to confirm provenience information and contents. Stable objects were washed with tap water and a soft brush with special attention paid to edges of ceramics and glass to better aid in identification. After washing, the artifacts were grouped by provenience and placed on a drying rack.

Once dry, the artifacts were cataloged for analysis. Specific characteristics were described using currently accepted terminology and were entered into an Access database. After cataloging, diagnostic artifacts were pulled and directly marked with their provenience information or accession number.

Specific ware types and manufacture dates were identified using Adams (2002), Bartoviks (1980), Greer (1970), Nelson (1968), Noël Hume (1991), Pittman et al. (1987), and South (1977). Non-tool prehistoric lithics were identified using Andrefsky (1998), Odell (2004), and Whittaker (1994). Hafted bifaces and prehistoric ceramics, if recovered, were assigned types using standard regional typologies (i.e., Coe 1964; Custer 1989; Ritchie 1971).

4 RESULTS OF ARCHAEOLOGICAL SURVEY

The archaeological areas subjected to Phase IB study, inclusive of pedestrian and subsurface testing, encompass 158.8 acres (64.3 ha). For purposes of this report, areas of archaeological testing will be described by their orientation to the existing rail, as that rail is oriented at the specific segment location in each area.

The following discussion first presents a general summary of the extensive disturbance noted throughout the APE. Following this discussion, the survey results from each area within the DC2RVA preferred alternative corridor are presented inclusive of location, noted disturbance, and general results. Within each segment description is a detailed presentation of the archaeological areas that warranted subsurface testing, and all of the identified sites are described in detail, including NRHP eligibility recommendations. Maps of archaeological areas surveyed within the APE are not presented within the body of this results section; instead these are presented in Appendix A. Also presented as appendices are the shovel test catalog (Appendix B), the artifact catalog (Appendix C), archaeological State Lands Permit (Appendix D), and newly recorded archaeological site forms (Appendix E).

The significance of each site within this survey was evaluated in relation to the NRHP eligibility criteria. Sites were evaluated in regards to Criterion A, for their association with events that have made a significant contribution to the broad patterns of our history; Criterion B, for their association with people significant in our nation's history; Criterion C, for their embodiment of the distinctive characteristics of a style, type, or period of construction; and Criterion D, for their potential to yield information important to our understanding of history or prehistory. The seven aspects of integrity (location, design, setting, materials, workmanship, feeling, and association) were also examined, as they pertain to subsurface deposits and particularly in relation to NRHP assessment under Criterion D.

4.1 DISTURBANCE

As expected within a project corridor that is so closely aligned with an existing major railroad corridor, the archaeological areas subjected to Phase IB survey within the DC2RVA corridor contained substantial portions in which subsurface archaeological testing was not warranted (for detailed photographs of disturbance within the corridor as a whole, see McCloskey et al. 2016). Substantial subsurface disturbance throughout much of the APE rendered systematic shovel testing unnecessary, impracticable, or unsafe (Figure 4-1). The single largest source of surface disturbance within the corridor is grading associated with the construction and maintenance of the existing railroad. A number of other disturbances are found repeatedly throughout the corridor, including buried utility transmission lines, access roads, and large areas of standing water.

Throughout the 123 miles (198 km) of the DC2RVA corridor, the track of the existing railroad and associated ballast are largely level, with their topographic relief varying only a few feet across the entire length of the corridor. The surrounding natural topographic relief, however, varies substantially, from the tops of significant hills to low lying areas near wetlands and streams. To maintain the largely level rail line through these topographic variances, a great deal of grading has been undertaken. Throughout the DC2RVA corridor, where the existing rail is substantially higher than the natural surface, a large artificial berm is required to carry the existing rail at its level. Where the rail needs to be lower than the natural surface, it has been cut through leaving high walled, steeply sloped embankments leading from the natural topography down to the rail bed. The entire width of the APE was often within these graded and thus artificially sloped areas. Although the width of the Preferred Alternative corridor often extends substantially further from the existing rail than the APE of the 2016 survey (McCloskey et al. 2016), these areas are often those in which the grading from the existing rail to the surrounding land is most extreme, and therefore even this wider corridor was largely disturbed by grading. Not only are these areas disturbed and susceptible to erosion, therefore not likely to contain intact cultural deposits, they are also in many cases so steep as to make any kind of subsurface testing entirely impracticable.

Outside of areas disturbed by grading for the existing railroad, the largest cause of disturbance in the DC2RVA archaeological APE is the presence of buried utility corridors. Petroleum pipelines and fiber optic cable parallel the existing railroad line on one or both sides and often are located within the APE. The prevalence of these buried utility lines precluded subsurface testing because of obvious safety reasons; additionally, conversations with utility marking personnel knowledgeable about those corridors indicated that their installation involved a great deal of subsurface disturbance/earth moving. The petroleum pipeline was described as occupying a trench that was cut approximately 20 feet (6.1 m) wide. It is important to note that there are many areas within the corridor, in which these buried utilities combine with other disturbances, in particular the construction and maintenance grading discussed above. As such, in many locations, multiple subsurface disturbances are evident and occupy the entire width of the APE.

Another source of substantial disturbance throughout the length of the DC2RVA corridor is the presence of standing water in the archeological APE. Whether as a result of natural streams or as a result of drainage from the existing rail corridor accumulating in low-lying or poorly drained areas, large portions of the areas identified for Phase IB study were covered in standing water. Standing water was present in areas not mapped as being within one of the numerous streams that lie in or near the DC2RVA corridor.

FIGURE 4-1: EXAMPLES OF COMMON DISTURBANCES NOTED THROUGHOUT THE APE (UPPER LEFT: UTILITY LINE CORRIDORS; UPPER RIGHT: STEEP SLOPES; LOWER LEFT ACCESS ROADS; LOWER RIGHT: STANDING WATER)

4.2 AREA 1: ARLINGTON

Area 1 of the DC2RVA archaeological APE is located entirely in the City of Arlington (see Figure 2-1). Extending less than 1 mile (1.6 km), Area 1 follows the existing rail line and runs through highly developed areas of Arlington adjacent to Ronald Reagan Washington National Airport. Analysis of the Preferred Alternative compared to the previous DC2RVA Phase IB survey, aerial photography, DHR records, and the predictive model from 2016 indicated no additional Phase IB survey was warranted in Area 1 as a result of previous disturbance (Figure 4-2).

FIGURE 4-2: TYPICAL ENVIRONMENTAL SETTING IN AREA 1, LOOKING EAST

4.3 AREA 2: NORTHERN VIRGINIA

The Northern Virginia area of the Preferred Alternative encompasses those portions of the LOD lying within Arlington, Fairfax, and Prince William Counties, as well as part of the LOD within Stafford County (see Figure 2-1). Beginning in the north at the Arlington-Fairfax County Line, and ending in the south near Dahlgren Junction, approximately 1-mile (1.6-km) north of the Rappahannock River, Area 2 runs along approximately 47 miles (75.6 km) of the existing CSXT rail. The Area 2 archaeological APE encompasses 60.9 acres (24.6 ha) identified for archaeological survey.

The setting of the Northern Virginia segment is varied; however, most of the area consists of rolling terrain containing young deciduous forest with some stands of pine and varying degrees of grasses and brambles (Figure 4-3). Area 2 consists of 11 archaeological areas, lettered 2a through 2k, that were identified for Phase IB testing. Of these, Archaeological Areas 2a, 2b, and 2h required no subsurface testing as these areas were disturbed in their entirety. These areas were the subject of pedestrian survey and photo documentation only. The remaining eight archaeological areas were subjected to subsurface testing in at least some portions. A number of the archaeological areas are crossed by or adjacent to streams, including the Occoquan River and Marumsco, Farm, and Neabsco Creeks.

Like much of the DC2RVA project corridor as a whole, substantial portions of Area 2 were not subjected to subsurface testing due to existing soil disturbances. These disturbances mainly consisted of the grading and embankments required by the existing railroad. Other disturbances included substantial buried fiber optic and petroleum utility transmission lines, and artificial ditches.

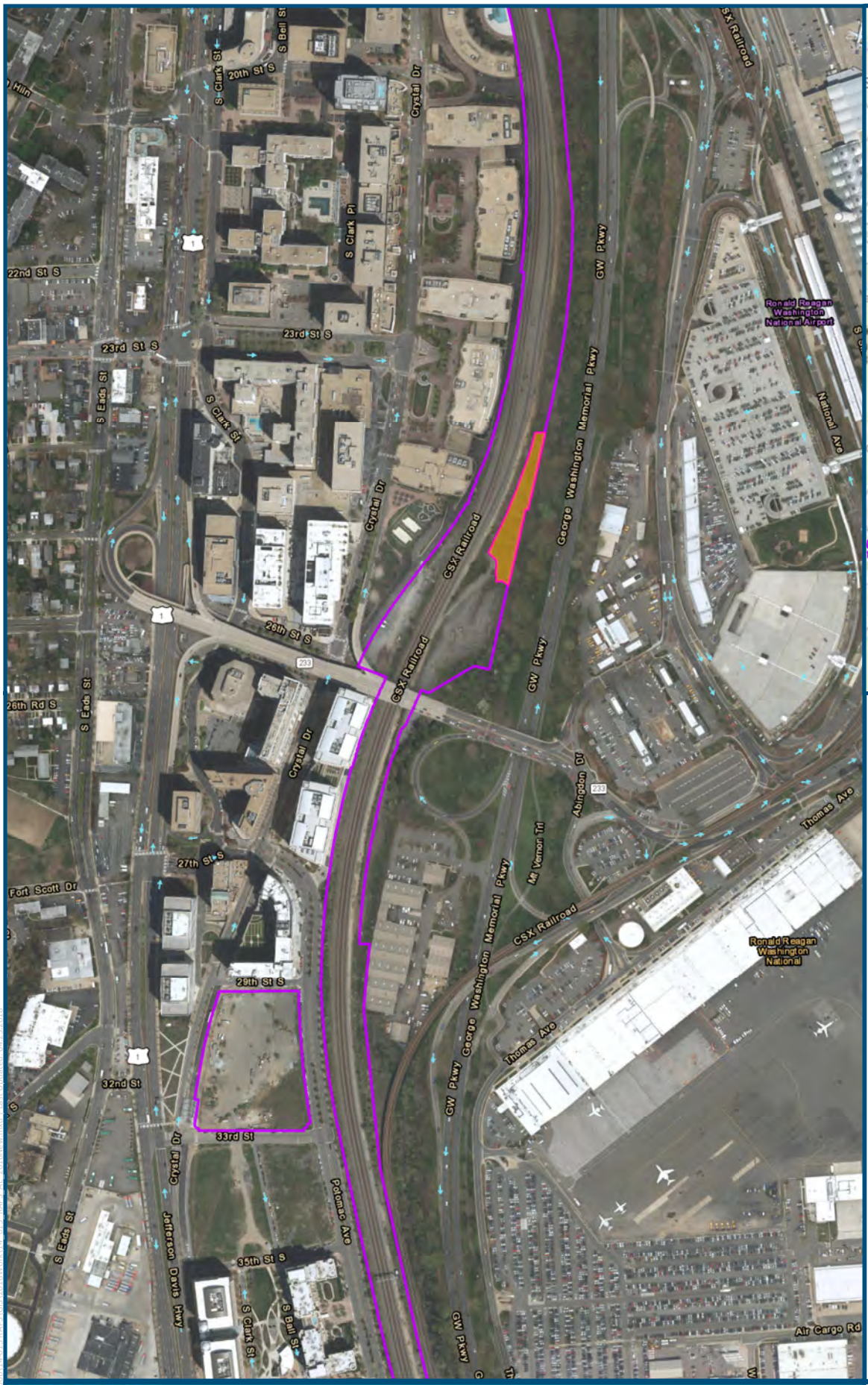
FIGURE 4-3: REPRESENTATIVE VIEW OF AREA 2 SETTING, LOOKING NORTHEAST

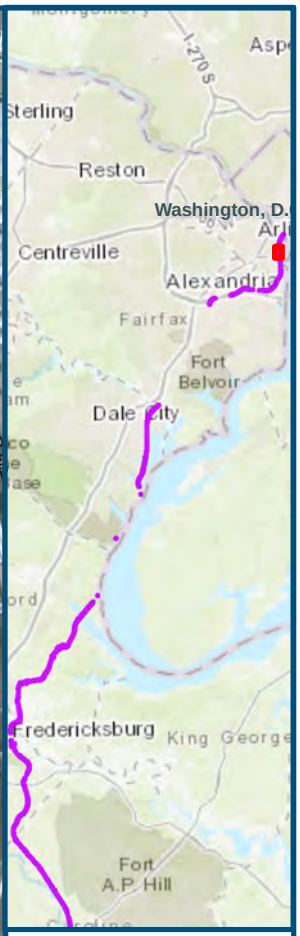
The pedestrian survey within Area 2 identified a small family cemetery, recorded as site 44ST1224/089-5624. Subsequent subsurface testing in the area resulted in the excavation of 156 shovel tests in Area 2. Stratigraphy varied greatly across this area, as would be expected from such a small sample over such a large geographic area. Shovel testing produced no artifacts, but seven artifacts were uncovered by metal detecting and a single artifact by surface collection within the area, resulting in the identification of one site (44ST1223) and one isolated find (ISF 2e-1). Additionally, three previously recorded sites, 44PW1008, 44ST0270, and 44ST0271, not previously examined by prior DC2RVA Phase IB survey, intersect Area 2. All previously and newly recorded sites are discussed below general descriptions of the archaeological area within Area 2.

4.3.1 Archaeological Area 2a

Area 2a is made up of four small clusters of areas requiring archaeological study, three lying along the southern side of the existing CSXT rail line, in Fairfax County, approximately 1-mile (1.6-km) east of the interchange of Interstate Highways 95 (I-95) and 495 (I-495) in Springfield, and one lying on the eastern side of the rail, approximately 500 feet (152.4 m) north of Airport Access Road in the City of Arlington. All three clusters lie in an area that is extensively developed with suburban residential, commercial and industrial construction. Area 2a stretches across

approximately 8.5 miles (13.7 km) of the proposed corridor, through an area where the rail is largely oriented east to west, though it does turn to the south at the far eastern end of Area 2a. The four areas within this distance, beginning with the northernmost respectively, are approximately 560 feet (170.6 m), 600 feet (182.9 m), 310 feet (94.5 m) and 290 feet (88.4 m) long, with the widest section reaching 80 feet (24.4 m). Archaeological Area 2a encompasses a total of 3 acres (1.2 ha). No subsurface testing was conducted within Area 2a, as the entire area was disturbed, lying mainly within substantial grade between the surrounding land and the existing railroad (Figure 4-4 through Figure 4-6). Disturbance was also caused by multiple buried utilities running through the project area (Figure 4-7 and Figure 4-8). No artifacts were found, and no sites were discovered.





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Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Disturbed

Figure 4-4
Survey Results in Archaeological Area 2a (Map 1 of 3)

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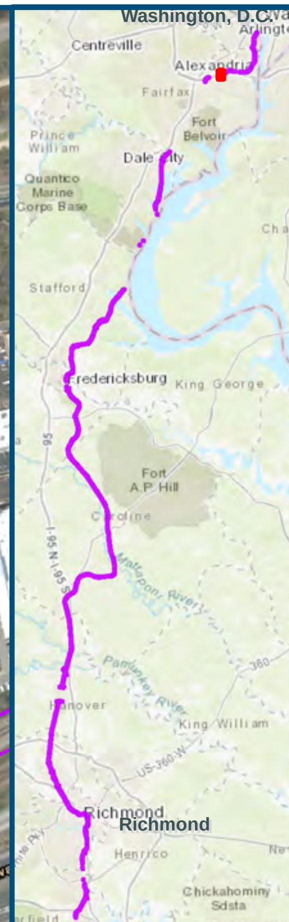

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Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Disturbed

Figure 4-5
Survey Results in Archaeological Area 2a
(Map 2 of 3)

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Figure 4-6
Survey Results in Archaeological Area 2a
(Map 3 of 3)

04/2018

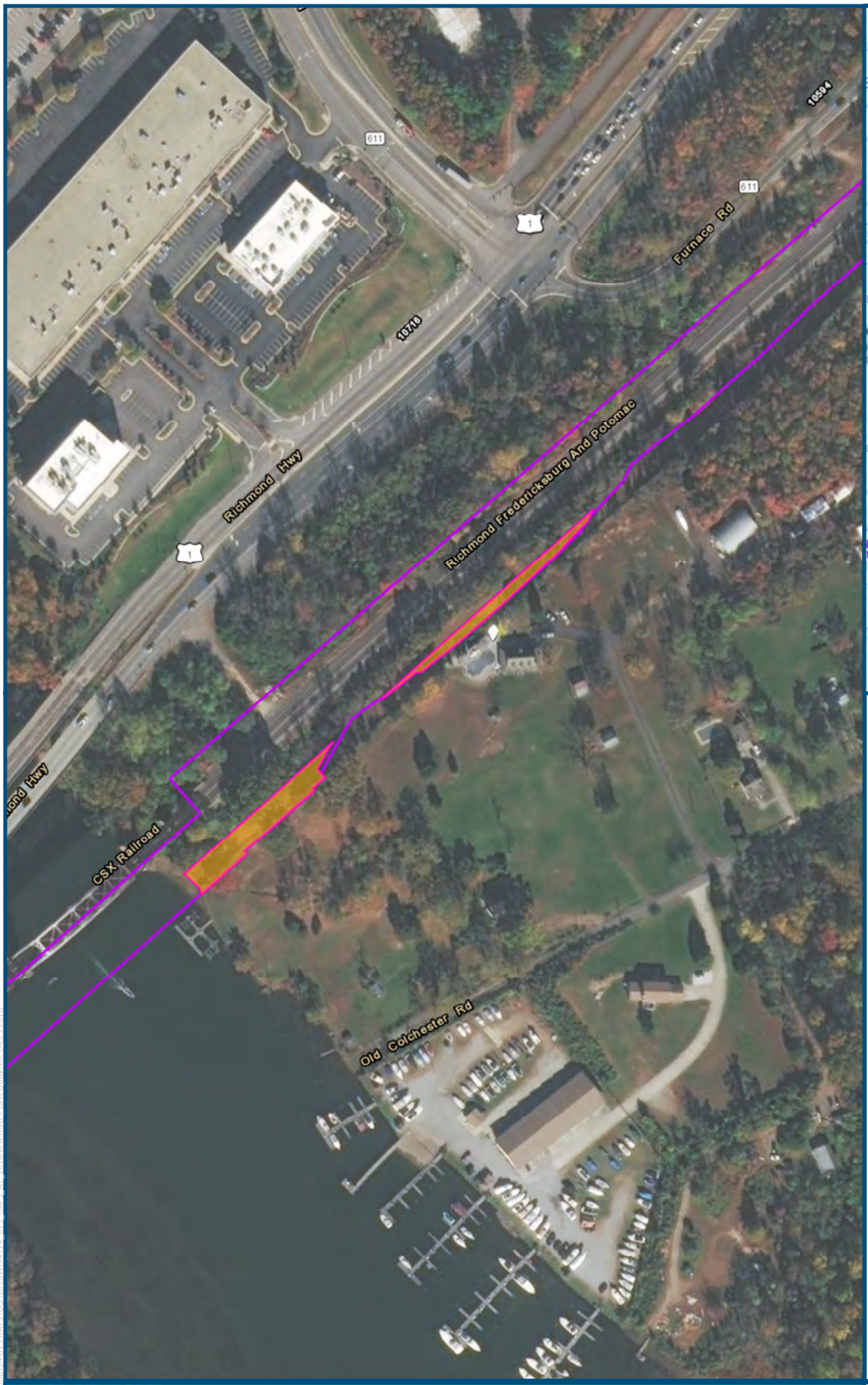
FIGURE 4-7: STEEP SLOPE IN AREA 2A, LOOKING EAST

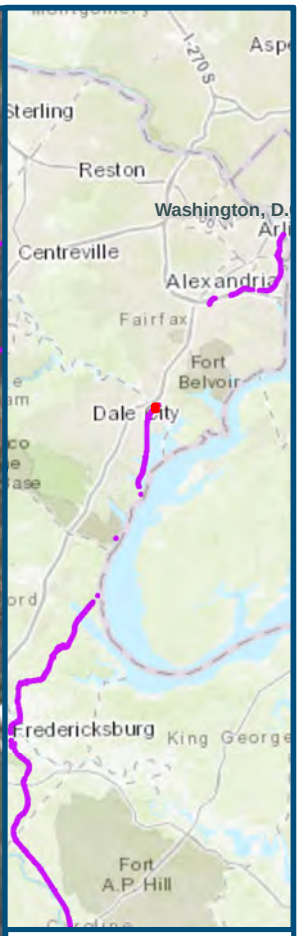
FIGURE 4-8: STEEP SLOPE AND BURIED UTILITY DISTURBANCE IN AREA 2A, LOOKING NORTH

4.3.2 Archaeological Area 2b

Archaeological Area 2b, in Fairfax County, is made up of two small strips of APE identified for archaeological study, located on the east side of the existing CSXT rail, immediately to the north of the Occoquan River. Spanning across a combined length of 700 feet (213.4 m), and with a maximum width of 40 feet (12.2 m), Archaeological Area 2b lies in a strip of land paralleling the existing rail that has been cleared for a petroleum pipeline. Archaeological Area 2b encompasses a total of 0.3 acres (0.1 ha) subjected to Phase IB archaeological survey. The area is relatively level in the north but begins to slope down towards the river as it extends to the south. No subsurface testing was conducted within Archaeological Area 2b, as the entire area was disturbed, with testing precluded by construction grading related to the existing rail, the large trench containing the petroleum pipeline, and the slope down to the Occoquan River (Figure 4-9). No artifacts were found and no new sites were discovered (Figure 4-10).

FIGURE 4-9: TYPICAL SETTING IN ARCHAEOLOGICAL AREA 2B, LOOKING SOUTH





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Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Disturbed

Figure 4-10
Survey Results in Archaeological Area 2b
(Map 1 of 1)

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4.3.3 Archaeological Area 2c

Archaeological Area 2c is located in Prince William County, beginning just south of the Occoquan River, opposite from Area 2b. This area consists of six discrete sections of areas requiring archaeological study lying in two large clusters, one along the east side of the existing rail immediately south of the river and one at the intersection of the existing rail with Dawson Beach Road in Woodbridge. Area 2c, which is surrounded by residential and industrial areas of Woodbridge, contains a mixture of young deciduous wooded areas with substantial undergrowth and cleared areas, which generally contain utility corridors (Figures 4-11 through Figure 4-13). Area 2c spans slightly less than 1 mile (1.6 km) of the existing rail corridor, and the six irregularly shaped sections vary in size, encompassing a combined area of 5.1 acres (2 ha). Much of Area 2c was not subjected to subsurface testing because of disturbances during pedestrian survey. These disturbances included graded surfaces associated with railroad construction and petroleum pipeline facilities. However, two small portions within Area 2c were subjected to STP survey (Figure 4-14 and Figure 4-15). Eight STPs were excavated along three transects. No artifacts were found and no sites were discovered.

FIGURE 4-11: DISTURBANCE FROM BURIED UTILITIES IN NORTHERN PORTION OF AREA 2C, LOOKING NORTH

FIGURE 4-12: STEEP SLOPE AND BURIED UTILITY DISTURBANCE IN SOUTHERN PORTION OF ARCHAEOLOGICAL AREA 2C, LOOKING EAST

FIGURE 4-13: PORTION OF AREA 2C SUBJECTED TO SUBSURFACE TESTING, LOOKING SOUTH

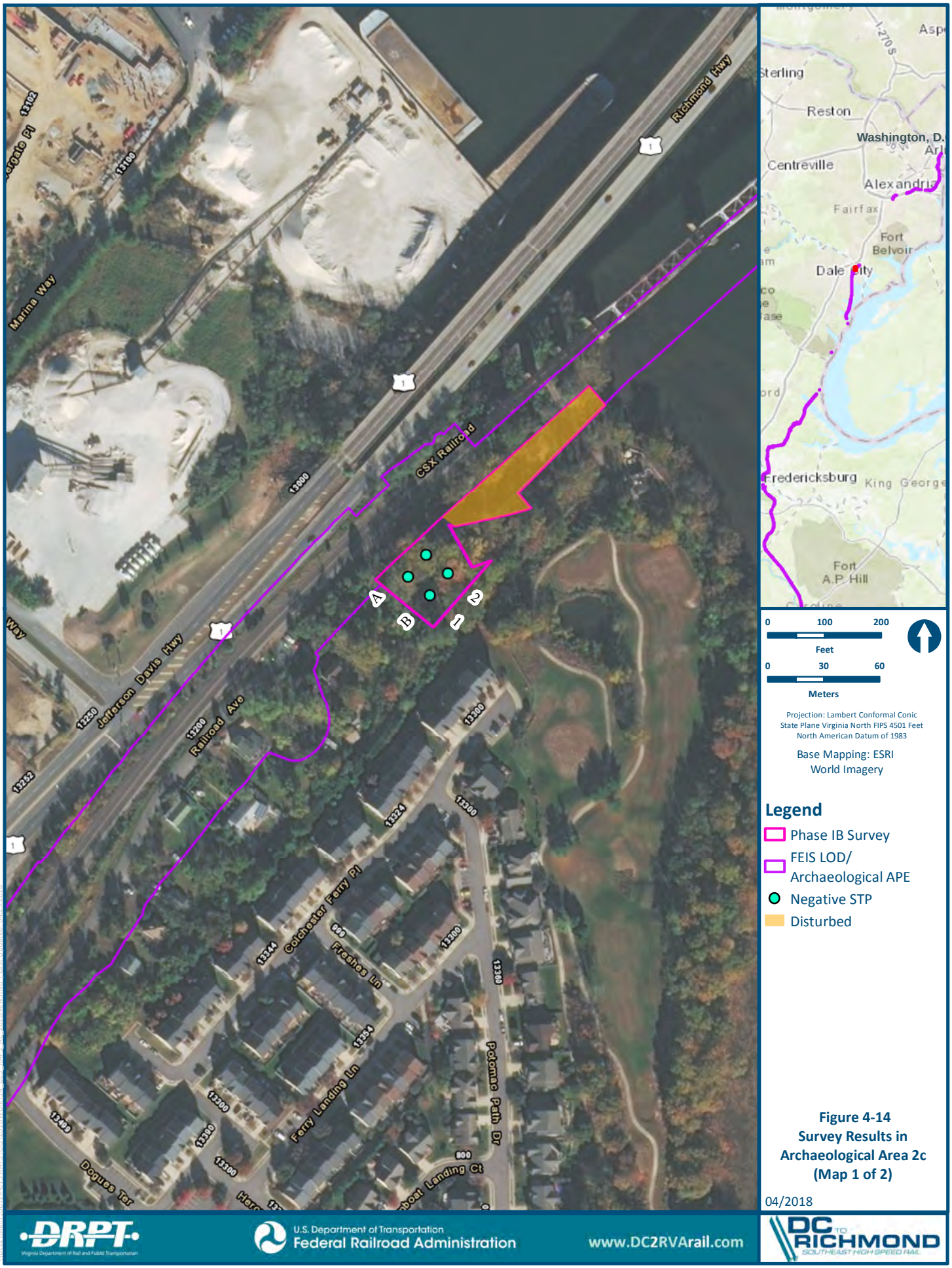

Figure 4-14
Survey Results in Archaeological Area 2c (Map 1 of 2)

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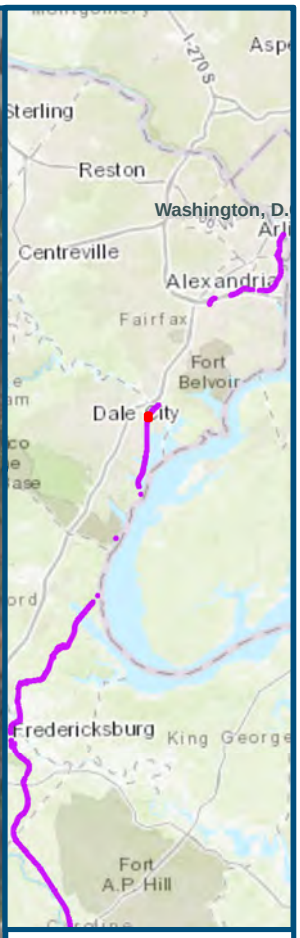

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Feet
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Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Negative STP
- Disturbed

Figure 4-15
Survey Results in Archaeological Area 2c (Map 2 of 2)

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The average STP depth in Area 2c was 1.1 feet (33.5 cm) with a maximum depth of 1.6 feet (48.8 cm). A-horizon depths ranged from 0.3 feet (9.1 cm) to 0.9 feet (27.4 cm) with an average depth of 0.5 feet (15.2 cm). A representative profile has dark yellowish brown (10YR 3/4) silt loam overlying strong brown (7.5YR 5/8) silt loam subsoil mottled with 2.5Y 7/6 yellow clay loam (Figure 4-16).

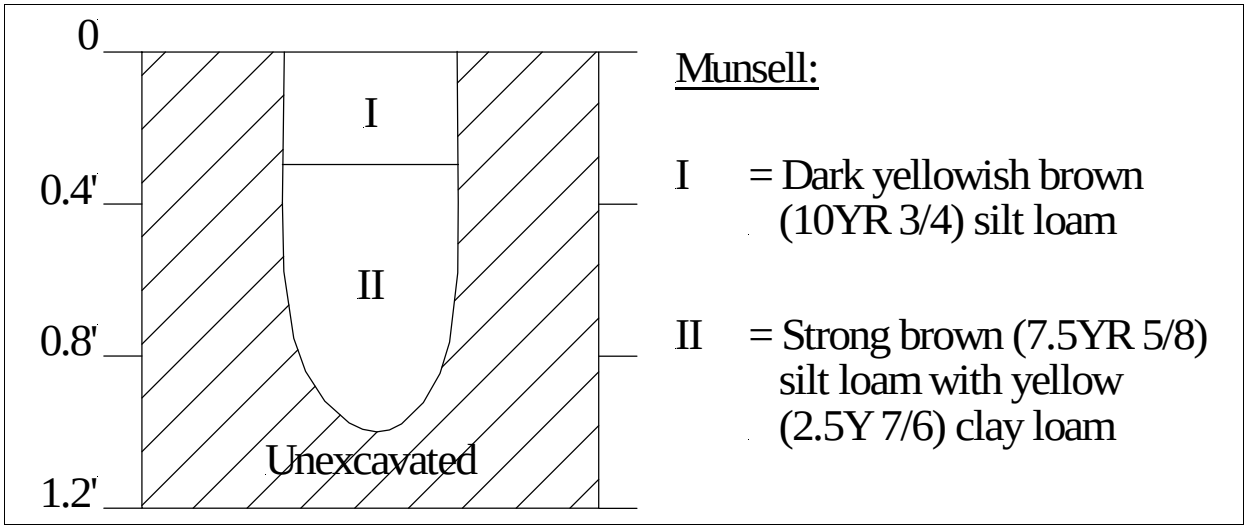

FIGURE 4-16: REPRESENTATIVE SOIL PROFILE FROM AREA 2C, STP 2C-C-2

4.3.4 Archaeological Area 2d

Archaeological Area 2d is located on the west side of the existing railroad, immediately to the north of Neabsco Creek, near its mouth at Occoquan Bay. Archaeological Area 2d consists of a single linear block, measuring approximately 930 feet (283.5 m) from north to south and 55 feet (16.8 m) across its greatest width, a total of 1.1 acres (0.4 ha). The setting of Archaeological Area 2d is typified by second growth woods with a variable understory of vines and brambles (Figure 4-17). Although approximately half of the width of Archaeological Area 2d was not subjected to subsurface testing due to disturbance from construction and maintenance grading for the existing rail, as well as a buried fiber optic line that parallels the rail, STPs were excavated through the entire length of the area within the narrow strip of undisturbed land on the edge of the area (Figure 4-18). Two transects totaling 36 STPs were initially designated for excavation in Archaeological Area 2d, but the entirety of the "A" transect was observed to be disturbed, leaving the single B transect of 18 STPs as the entirety of excavation (Figure 4-19). No artifacts were found and no sites were discovered.

FIGURE 4-17: PORTION OF AREA 2D SUBJECTED TO SUBSURFACE TESTING, LOOKING NORTH

FIGURE 4-18: STEEP SLOPE IN AREA 2D, LOOKING NORTH

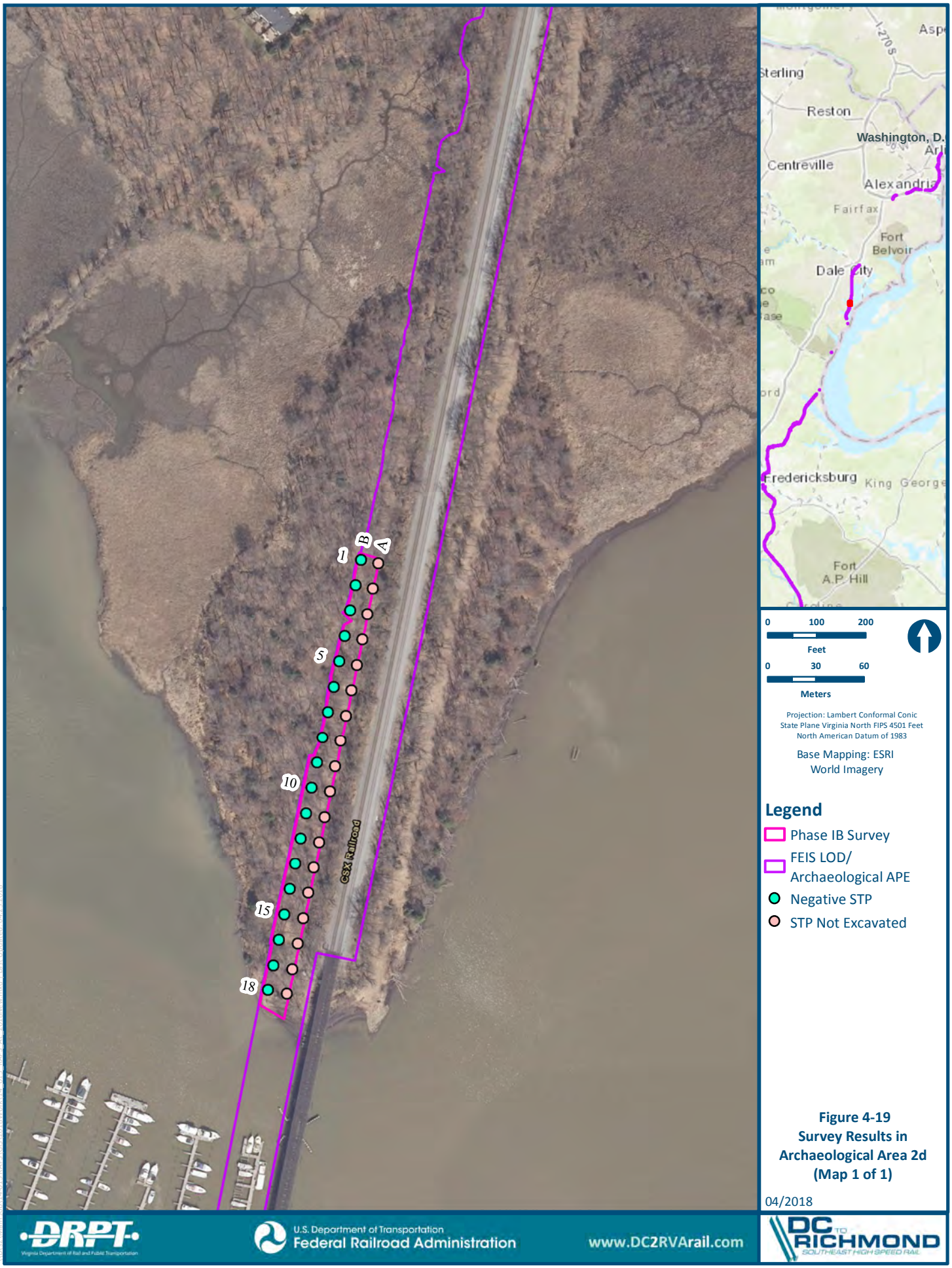

Figure 4-19
Survey Results in Archaeological Area 2d (Map 1 of 1)

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The average STP depth in Area 2d was 1.1 feet (33.5 cm) with a maximum depth of 1.8 feet (54.9 cm). A-horizon depths ranged from 0.3 feet (9.1 cm) to 0.7 feet (21.3 cm) with an average depth of 0.5 feet (15.2 cm). Typical STP profiles in Archaeological Area 2d consisted of very dark brown (10YR 2/2) silty clay with coal and ash inclusions, overlying a sterile subsoil of strong brown (7.5YR 4/6) clay loam mottled with 10YR 7/1 light gray clay (Figure 4-20). The coal and ash inclusions noted in Stratum I likely originated from rail operations, from either freight or locomotive by-products, and were observed in the upper soil strata of many STPs in close proximity to the rail corridor.

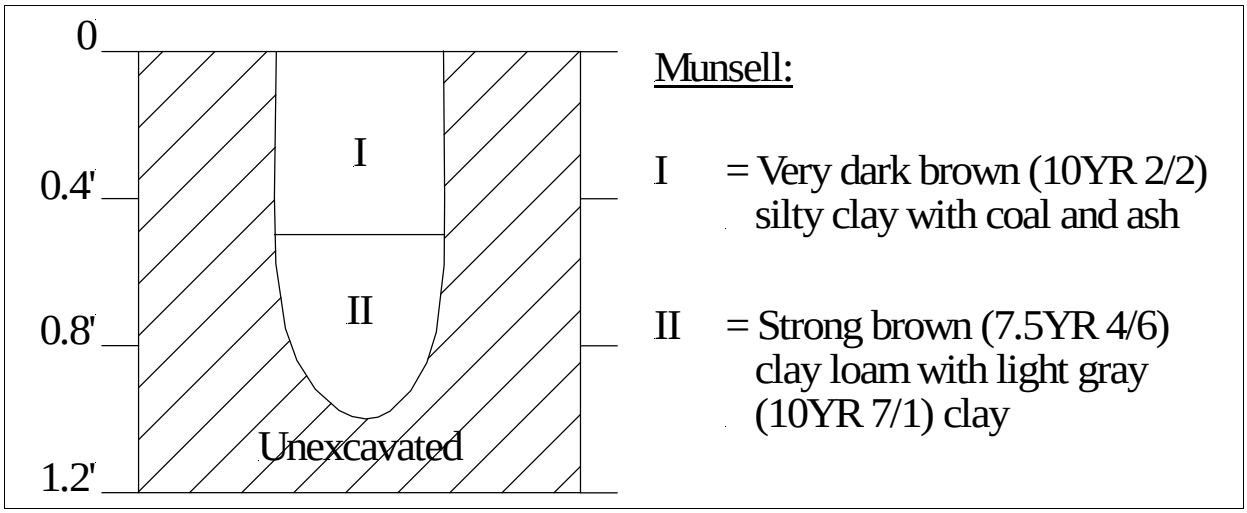

FIGURE 4-20: REPRESENTATIVE SOIL PROFILE FROM AREA 2D, STP 2D-B-4

4.3.5 Archaeological Area 2e

Archaeological Area 2e lies adjacent to Leesylvania State Park on a wooded peninsula between Neabsco and Powells Creeks in Prince William County. Because Archaeological Area 2e is in close proximity to Leesylvania State Park and archaeological survey work was completed in an area along the CSXT/Park boundary, a DHR State Lands Permit was obtained to adequately assure that all parties were thoroughly informed of the archaeological survey work. All excavation was conducted in accordance with that permit which is included in Appendix D.

Archaeological Area 2e consists of three discrete blocks identified for archaeological study, all of which are linear and parallel the existing rail line. The three areas span across approximately 1 mile (1.6 km) of the existing corridor and measure a total of 13.8 acres (5.6 ha). The two blocks of survey located to the west, measure 2,700 feet (823.0 m) long and 1,700 feet (518.2 m) long, while the block on the east is 1,600 feet (487.7 m) long. All three blocks vary in width but tend to be approximately 100 feet (30.5 m) wide, with a maximum width of 130 feet (39.6 m). The environmental setting includes both wooded and maintained grassy areas and is generally gently sloping with isolated locations containing more substantial slope. The bulk of the area is disturbed, with gravel roads, buried pipelines and construction grading for the existing rail precluding subsurface testing in the majority of the three blocks of survey (Figure 4-21). However, small portions of each of the three blocks of survey were tested (Figure 4-22). In total, 22 STPs were excavated along four transects (Figure 4-23 and Figure 4-24). STP survey produced no

artifacts, but a single artifact, a fragment of insulator glass, was recovered from the surface, collected, and designated ISF 2e-1. Isolated finds are, by definition, not eligible for NRHP listing.

FIGURE 4-21: DISTURBANCE FROM BURIED UTILITIES IN AREA 2E, LOOKING WEST

FIGURE 4-22: PORTION OF AREA 2E SUBJECTED TO SUBSURFACE TESTING, LOOKING NORTH

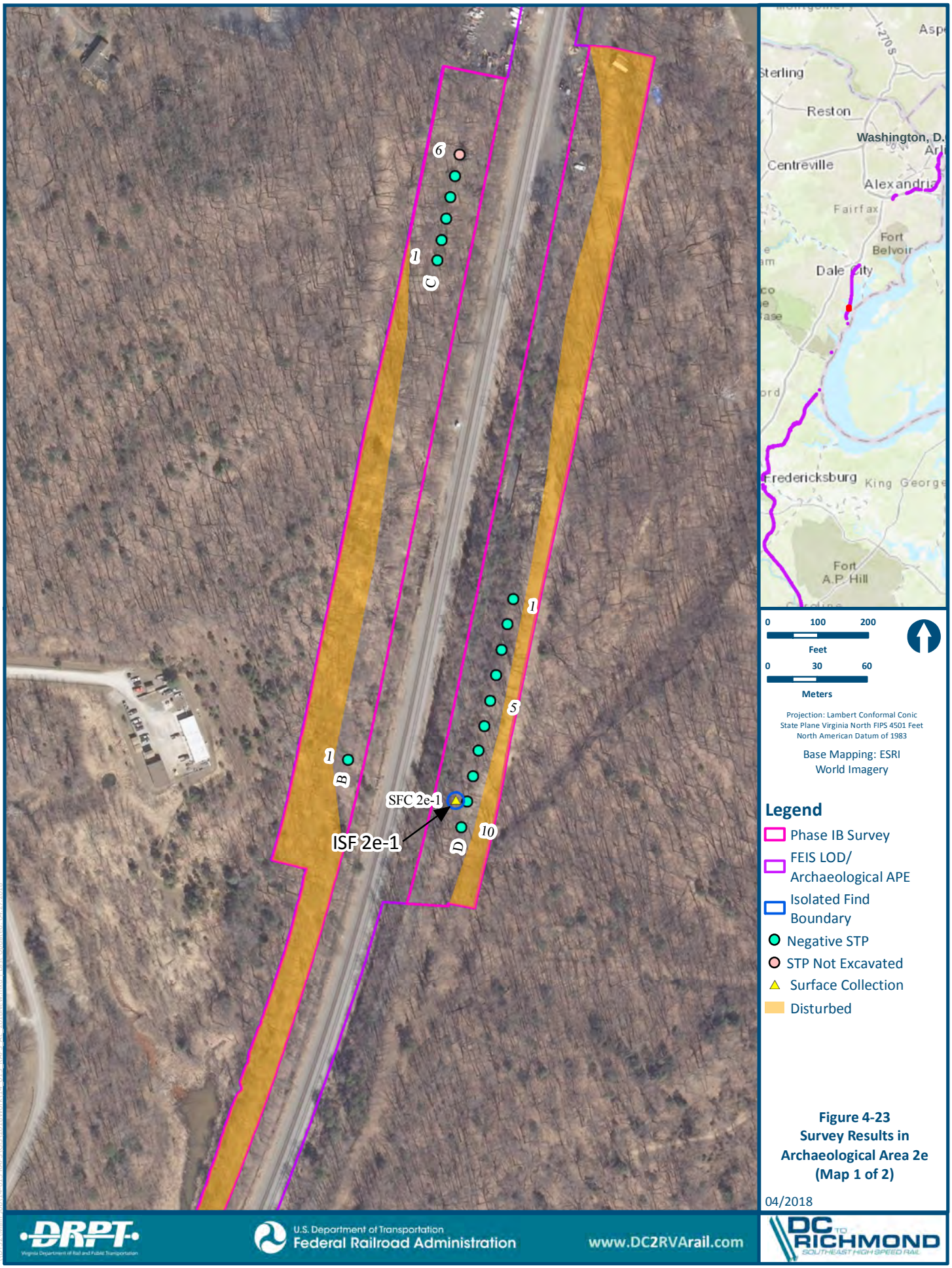

Figure 4-23
Survey Results in Archaeological Area 2e (Map 1 of 2)

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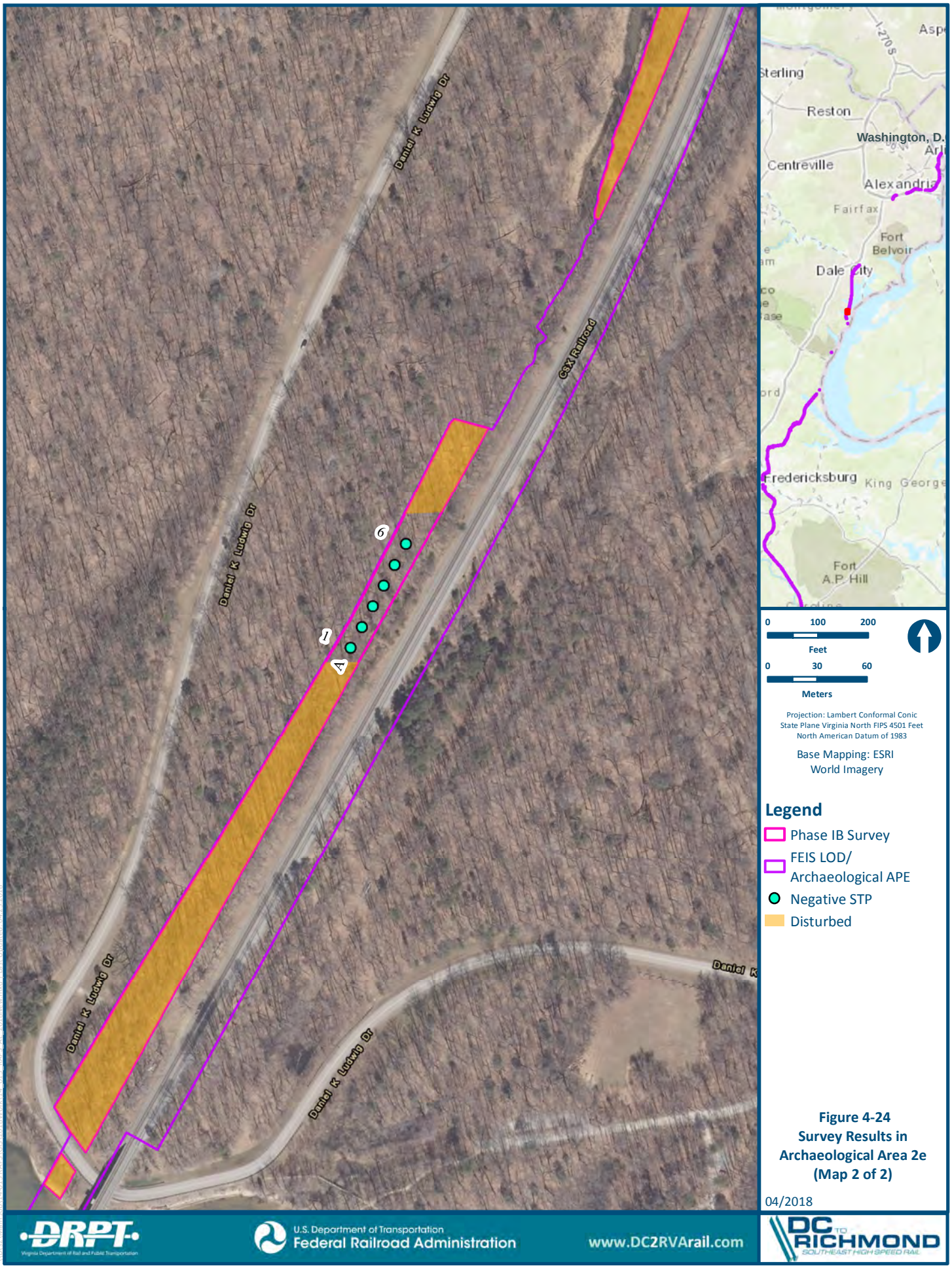

Figure 4-24
Survey Results in Archaeological Area 2e (Map 2 of 2)

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The average STP depth in Area 2e was 1.0 feet (30.5 cm) with a maximum depth of 1.2 feet (36.6 cm). A-horizon depths ranged from 0.1 feet (3.0 cm) to 0.5 feet (15.2 cm) with an average depth of 0.3 feet (9.1 cm). A typical STP profile in Archaeological Area 2e consisted of dark yellowish brown (10YR 4/4) loam overlying dark yellowish brown (10YR 4/6) clay loam, which in turn capped yellowish brown (10YR 5/8) clay loam subsoil (Figure 4-25).

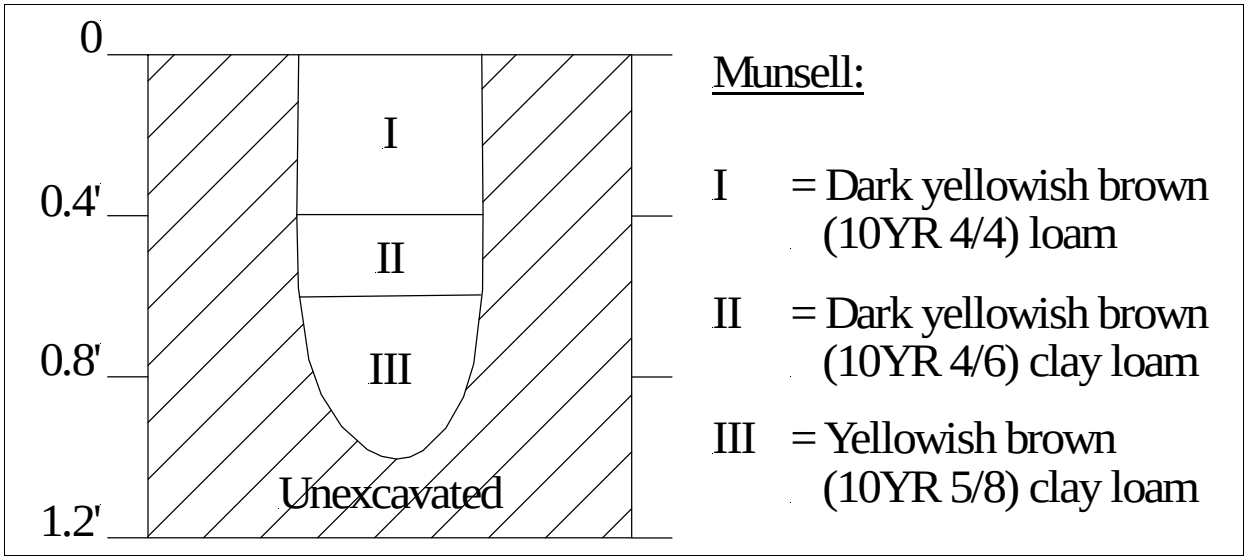


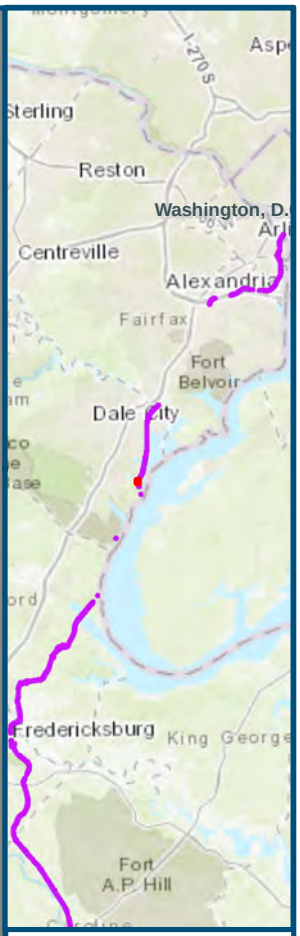
FIGURE 4-25: REPRESENTATIVE SOIL PROFILE FROM AREA 2E, STP 2E-A-5

4.3.6 Archaeological Area 2f

Archaeological Area 2f consists of two blocks of survey, which encompass a total of 2.2 acres (0.9 ha), on the west side of the existing rail located just to the south of Powells Creek in Prince William County. Both study blocks parallel the existing rail, with the smaller, northern of the two measuring approximately 130 feet (39.6 m) in length and the southern extending for approximately 1,900 feet (579.1 m), covering an area measuring 2.2 acres (0.9 ha). Width varied constantly across the length of these areas, but the widest parts of the corridor were approximately 55 feet (16.8 m) across. Archaeological Area 2f was typified by a substantial slope running from east to west leaving only a narrow strip of level ground within the project area. Vegetation consisted of secondary growth forest with a substantial understory of vines and brambles. In much of Archaeological Area 2f only pedestrian survey was undertaken due to disturbance related to the road running through the area or to extreme slopes or erosion that rendered STP survey impractical (Figure 4-26), but STP survey was completed through the southern block of Area 2f (Figure 4-27). A total of 30 STPs was excavated along a single transect within Archaeological Area 2f (Figure 4-28 and Figure 4-29). No artifacts were recovered, nor were any features or new archaeological sites encountered. Archaeological Area 2f does intersect with previously identified site 44PW1008, discussed within the sites description section below the area descriptions.

FIGURE 4-26: STEEP SLOPE DISTURBANCE IN AREA 2F, LOOKING SOUTH

FIGURE 4-27: PORTION OF AREA 2F SUBJECTED TO SUBSURFACE TESTING, LOOKING SOUTH



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Feet

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Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Negative STP
- STP Not Excavated
- Disturbed

Figure 4-28
Survey Results in Archaeological Area 2f (Map 1 of 2)

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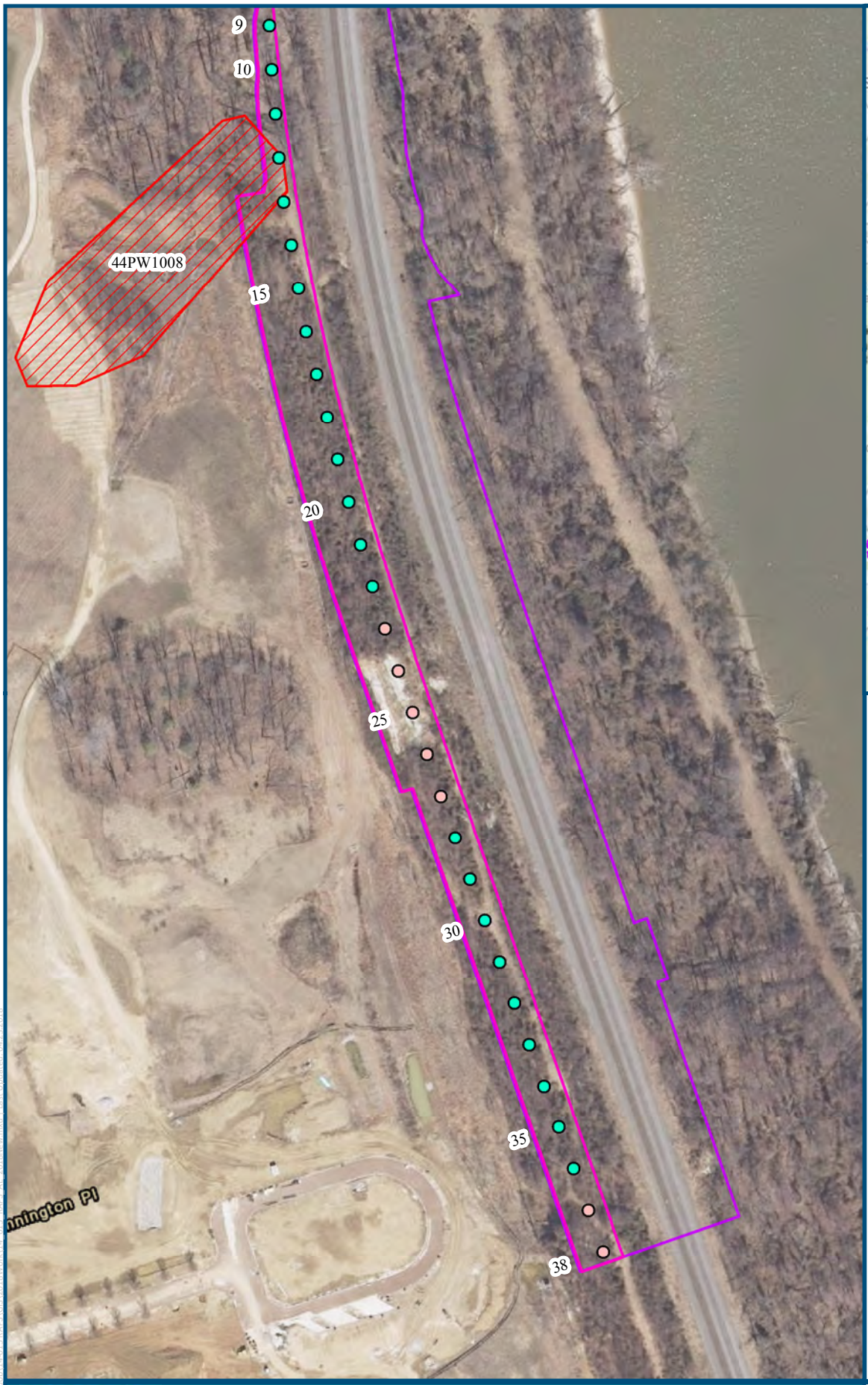

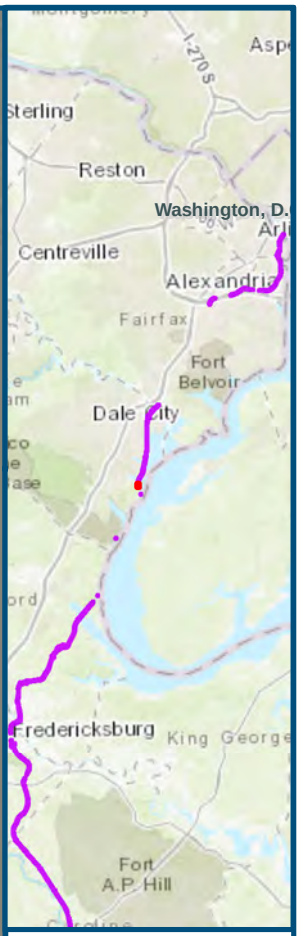

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Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Negative STP
- STP Not Excavated
- Previously Recorded Site

Figure 4-29
Survey Results in Archaeological Area 2f (Map 2 of 2)

04/2018

The average STP depth in Archaeological Area 2f was 0.9 feet (27.2 cm) with a maximum depth of 1.3 feet (39.6 cm). A-horizon depths ranged from 0.2 feet (6.1 cm) to 0.6 feet (18.3 cm) with an average depth of 0.4 feet (12.2 cm). STP profiles varied somewhat across the area, but a typical profile consisted of dark yellowish brown (10YR 3/4) silty sand with 10YR 7/1 gray degraded sandstone overlying gray (10YR 7/1) degraded sandstone bedrock (Figure 4-30).

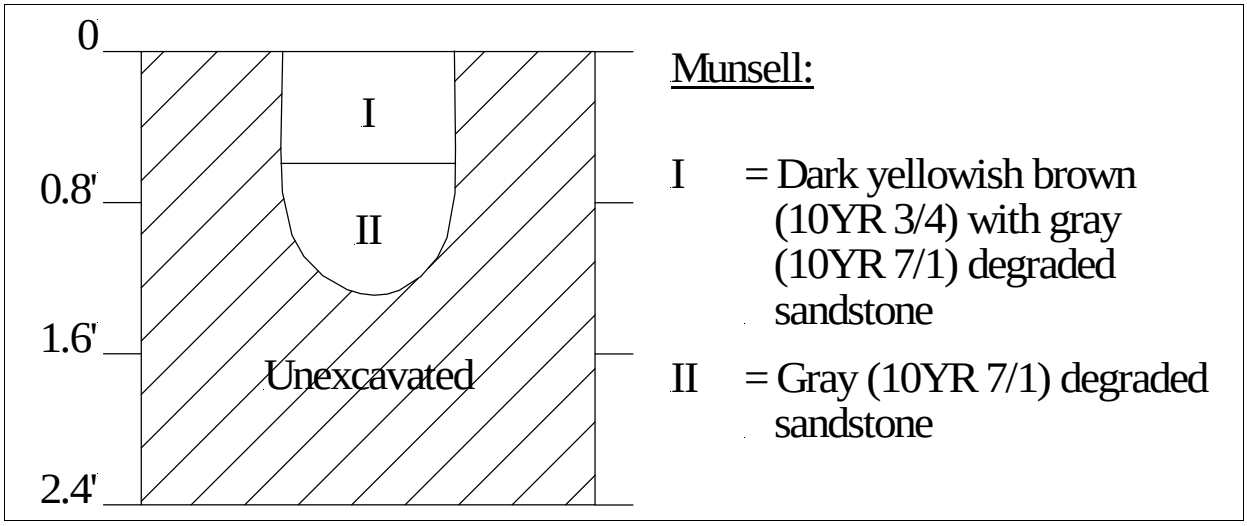


FIGURE 4-30: REPRESENTATIVE SOIL PROFILE FROM AREA 2F, STP 2F-A-15

4.3.7 Archaeological Area 2g

Archaeological Area 2g, located in Prince William County, is situated in a wooded area just north of Aquia Creek. Consisting of two separate blocks of identified for Phase IB study, Area 2g lies entirely on the east side of the existing railroad. The northern block is very narrow, with a maximum width of a little over 10 feet (3.1 m) and a length of approximately 290 feet (88.4 m), while the southern block is wider, with a width of approximately 40 feet (12.2 m) and measuring 190 feet (57.9 m) in length. Archaeological Area 2g encompassed a total of 0.3 acres (0.1 ha) subjected to Phase IB archaeological survey. Archaeological Area 2g was generally typified by level topography and open older growth forest, and not as obviously subject to disturbance as much of the corridor. However, upon excavation of STPs, it became clear that the area had actually been subjected to substantial construction grading related to the existing railroad (Figure 4-31). Two STPs were excavated on two transects (Figure 4-32 and Figure 4-33). No artifacts were found and no sites were discovered.

FIGURE 4-31: TYPICAL SETTING IN AREA 2G, LOOKING SOUTH

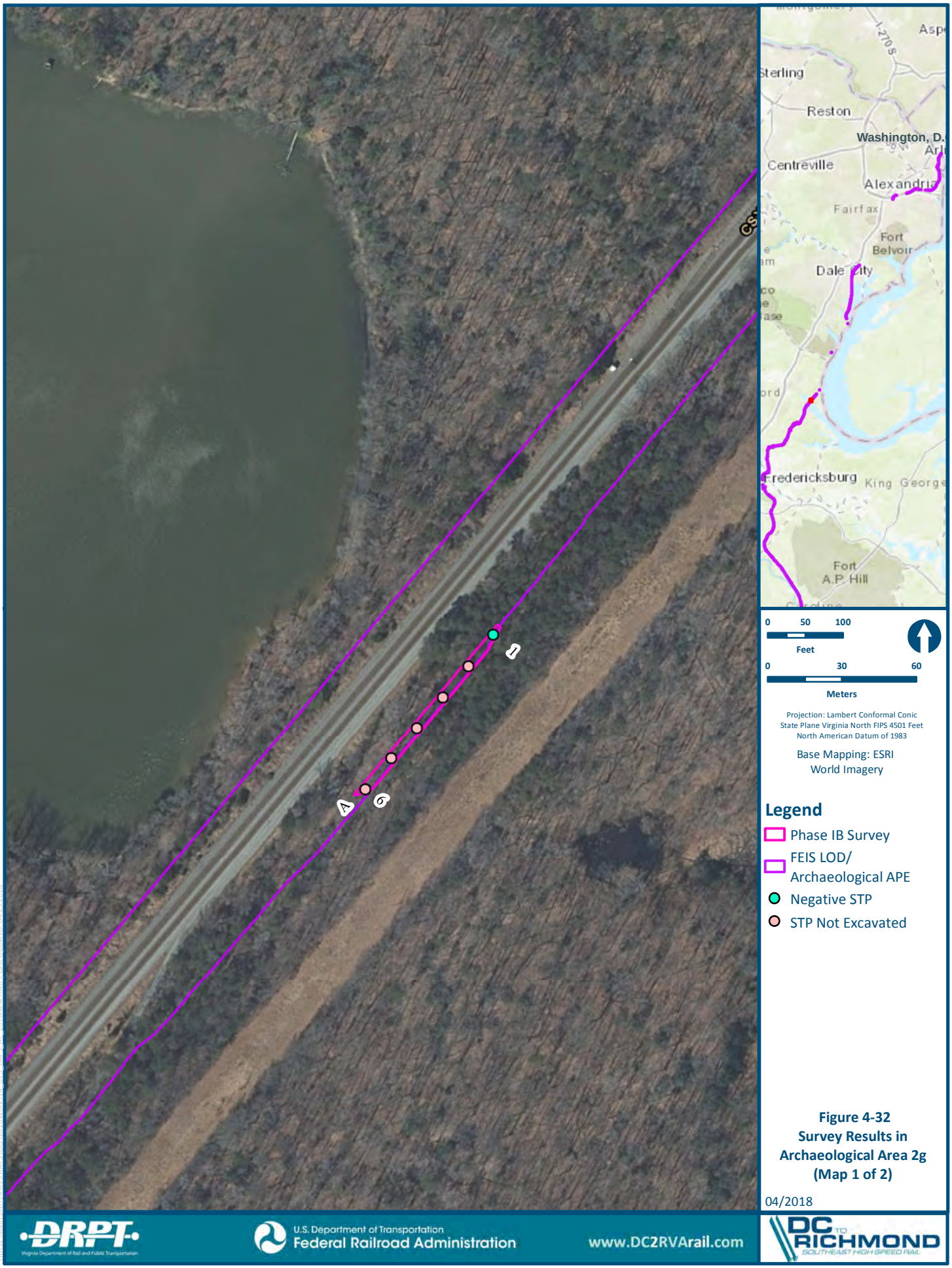
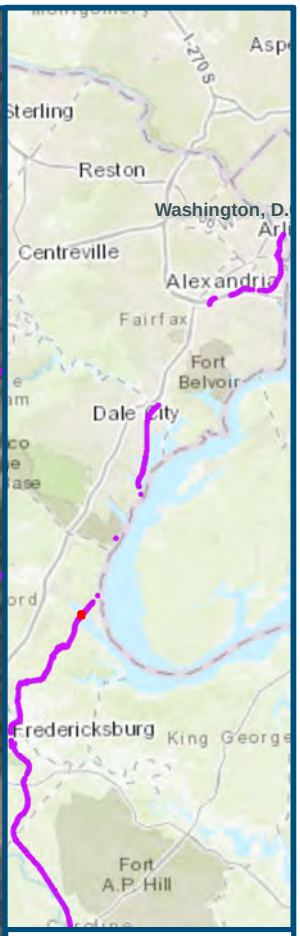


Figure 4-32
Survey Results in Archaeological Area 2g (Map 1 of 2)

04/2018



0 50 100
Feet

0 30 60
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Negative STP
- STP Not Excavated

Figure 4-33
Survey Results in Archaeological Area 2g (Map 2 of 2)

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Only two STPs were excavated in Archaeological Area 2g, and both showed substantial evidence of disturbance. The average STP depth in Area 2g was 1.2 feet (36.6 cm) with a maximum depth of 1.7 feet (39.6 cm). All soils above subsoil in both STPs were disturbed. A representative profile consisted of dark yellowish brown (10YR 3/4) silty clay overburden, overlying another layer of overburden made up of olive yellow (2.5Y 6/6) with dark yellowish brown (10YR 3/4) clay overlying yet another disturbed level consisting of dark brown (10YR 3/4) with reddish yellow (7.5YR 6/8) clay (Figure 4-34).

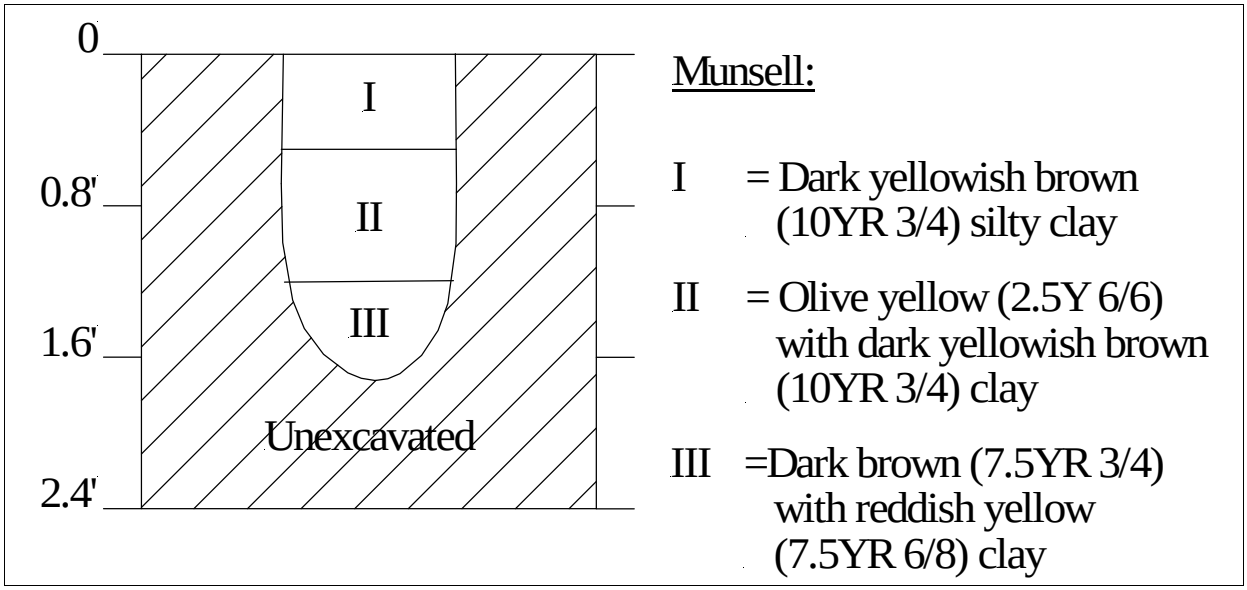
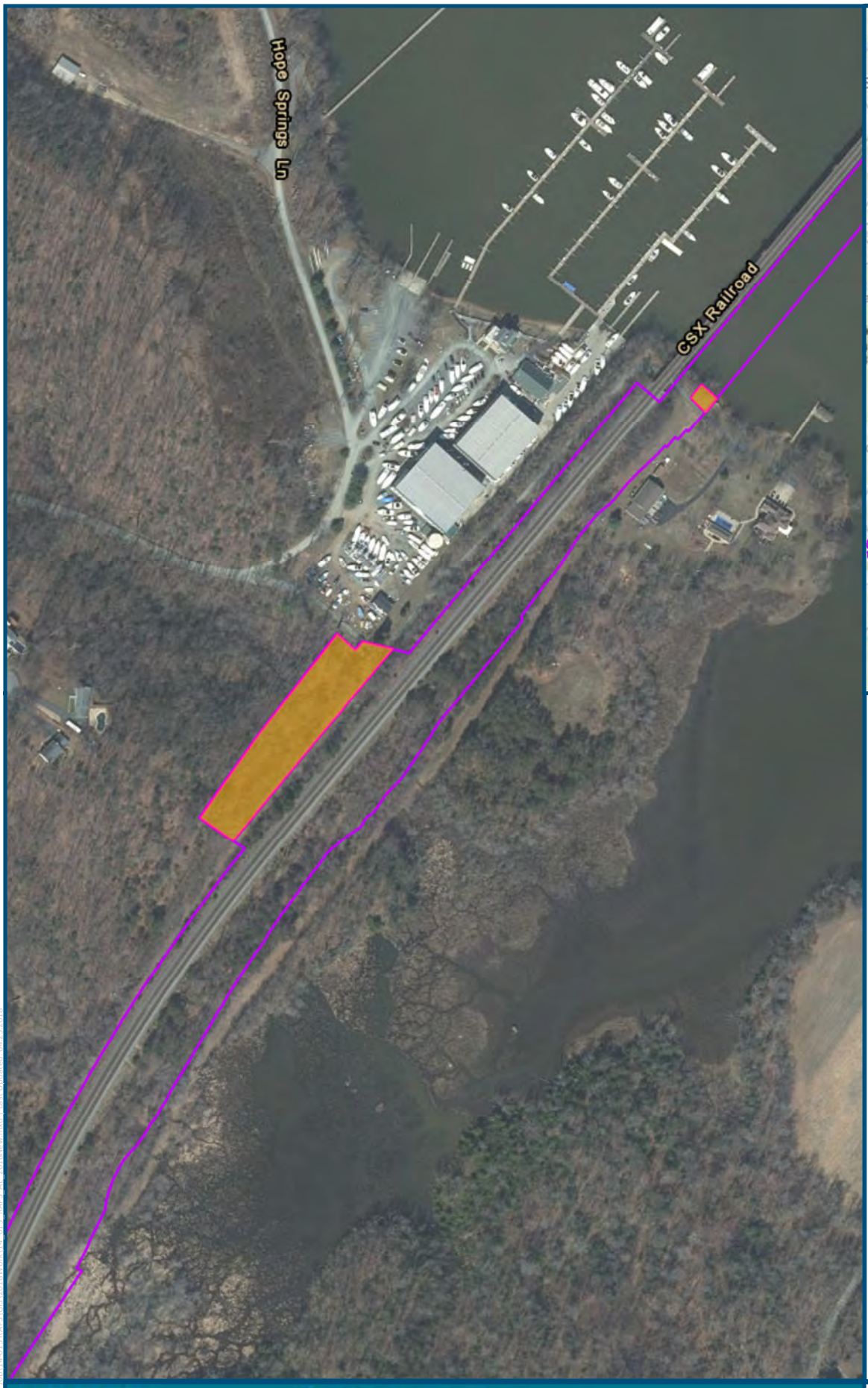
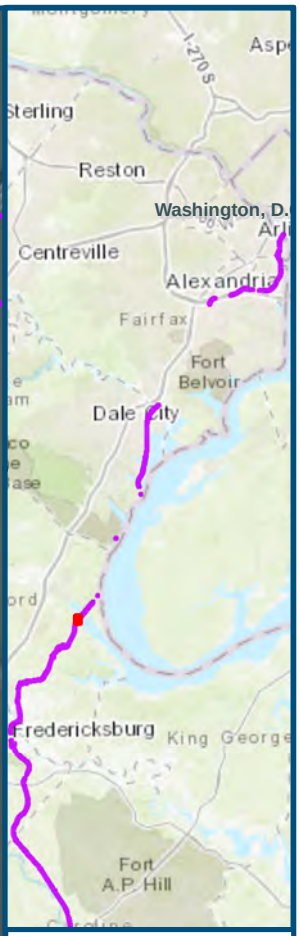


FIGURE 4-34: REPRESENTATIVE SOIL PROFILE FROM AREA 2G, STP 2G-A-1

4.3.8 Archaeological Area 2h

Archaeological Area 2h lies in Stafford County across Aquia Creek from Archaeological Area 2g and consists of eight small blocks of areas identified for archaeological study, dispersed across approximately 1.7 miles (2.7 km) on both sides of the existing CSXT rail line and comprising 4.1 acres (1.7 ha). These eight blocks contain a total length of approximately 3,700 feet (1,127.8 m), and vary in width, reaching a maximum width of approximately 110 feet (33.5 m). Archaeological Area 2g is situated generally in low lying areas with young deciduous forest, the entirety of which was disturbed and not suitable for subsurface survey (Figure 4-35 through Figure 4-37). Disturbance arose from erosion, the steep existing railroad, and buried utility lines (Figure 4-38). No artifacts were recovered and no sites were identified.





0 100 200
Feet

0 60 120
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

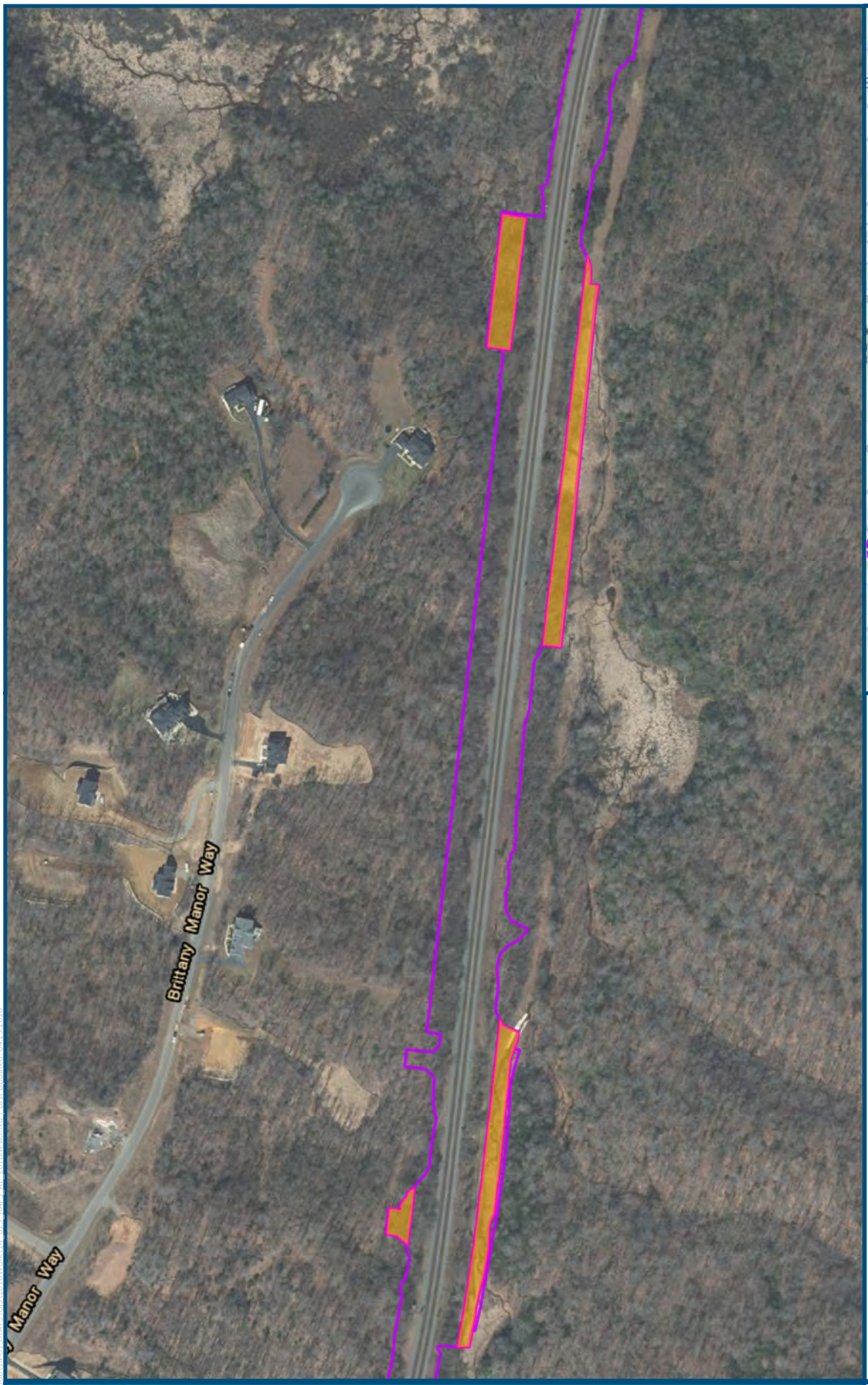
Base Mapping: ESRI
World Imagery

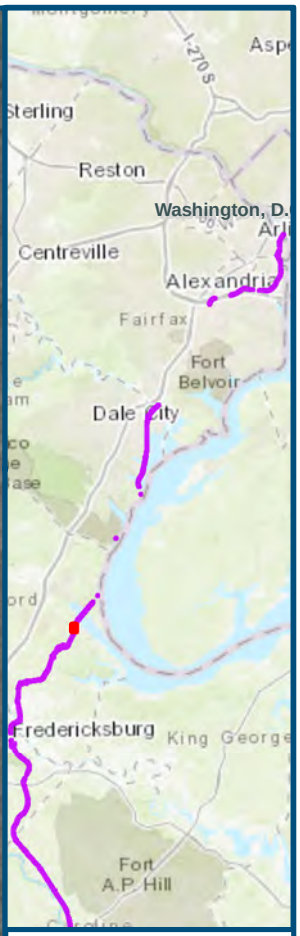
Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Disturbed

Figure 4-35
Survey Results in Archaeological Area 2h
(Map 1 of 3)

04/2018





0 100 200
Feet

0 60 120
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Disturbed

Figure 4-36
Survey Results in Archaeological Area 2h (Map 2 of 3)

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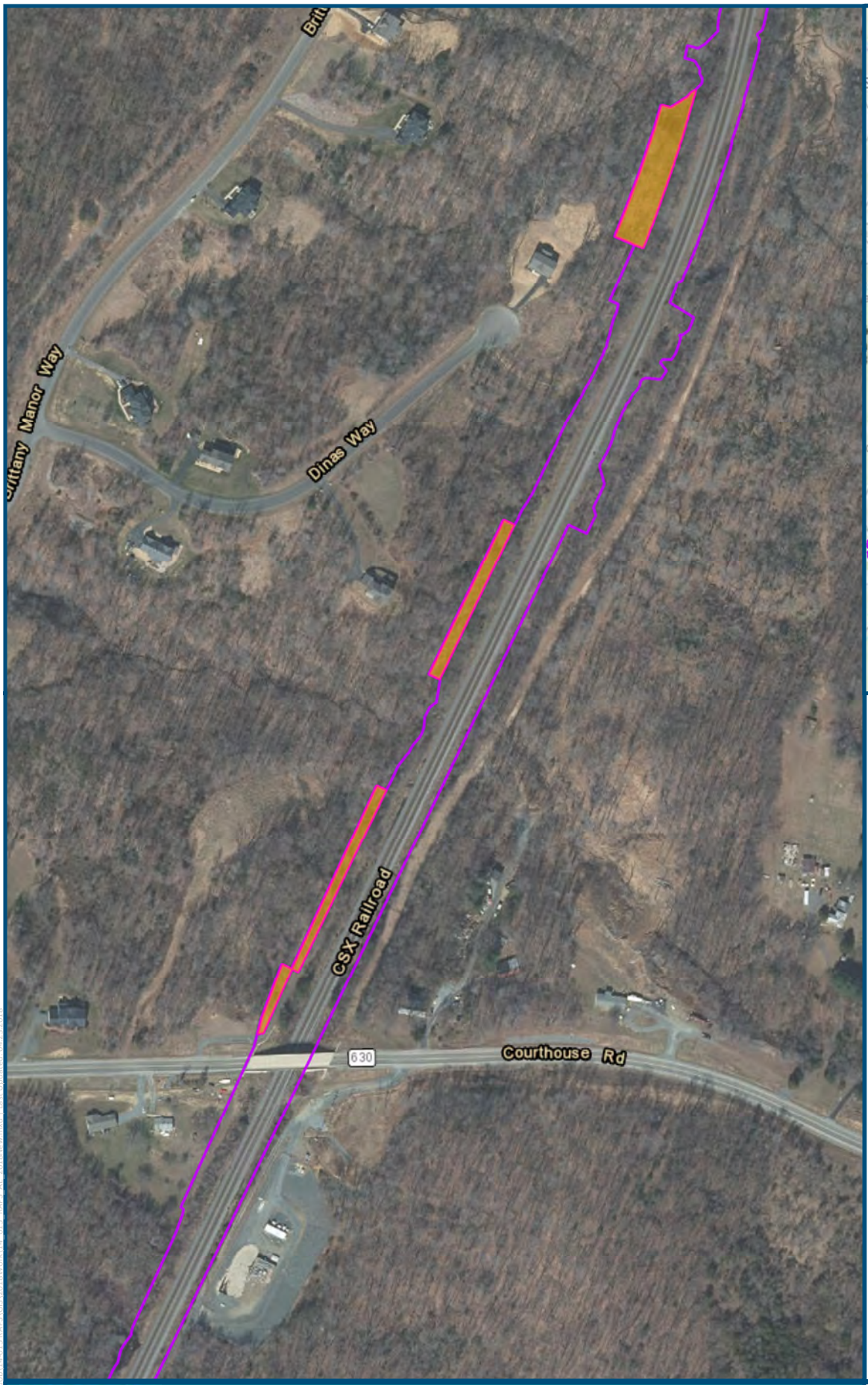

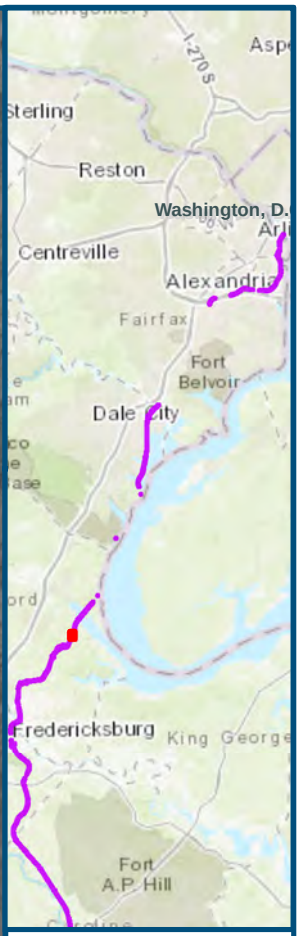

0 100 200
Feet

0 60 120
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Disturbed

Figure 4-37
Survey Results in Archaeological Area 2h (Map 3 of 3)

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U.S. Department of Transportation
Federal Railroad Administration

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DC TO RICHMOND SOUTHEAST HIGH SPEED RAIL

FIGURE 4-38: STEEP SLOPE AND DISTURBANCE FROM BURIED UTILITIES IN AREA 2H, LOOKING SOUTH

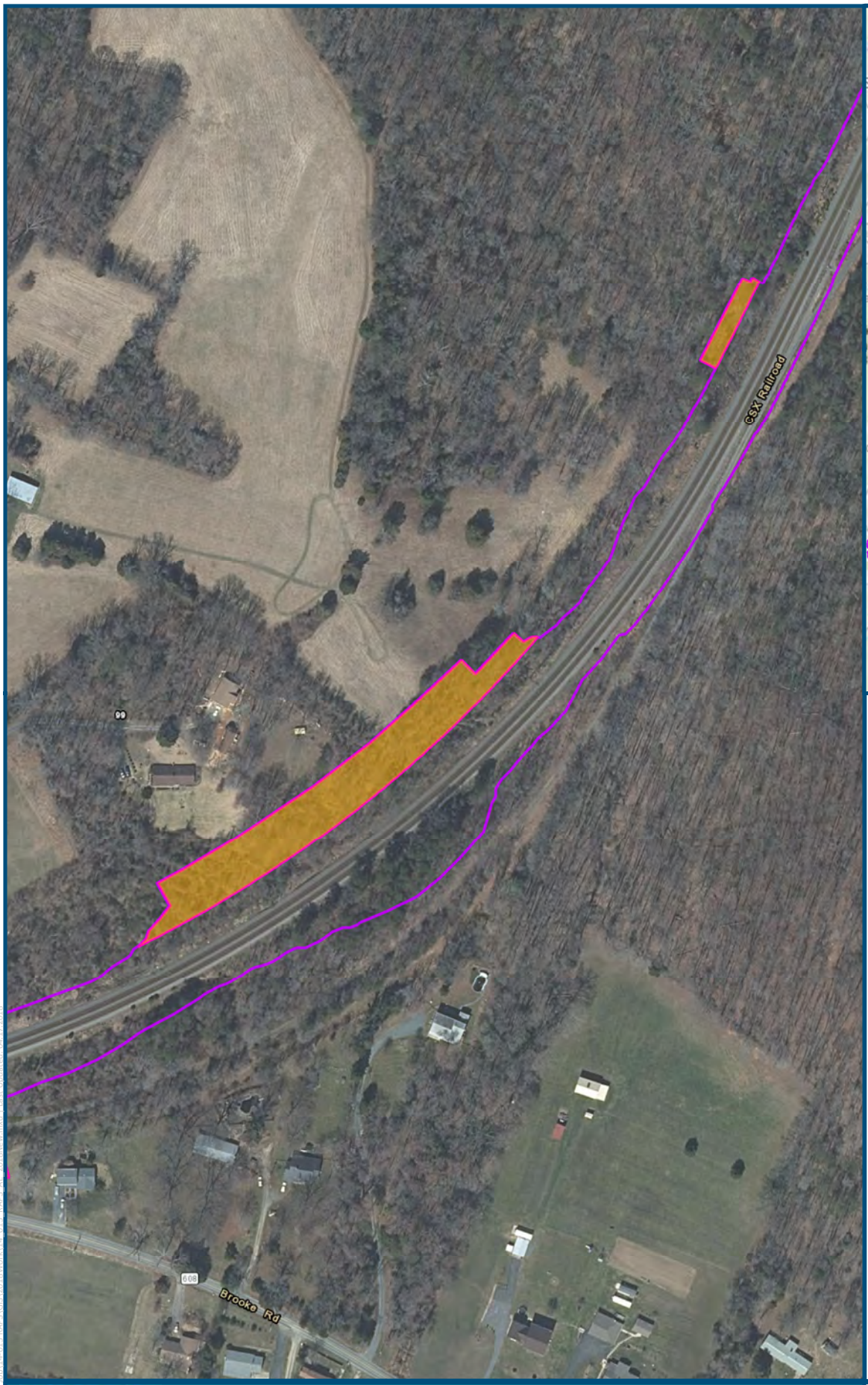
4.3.9 Archaeological Area 2i

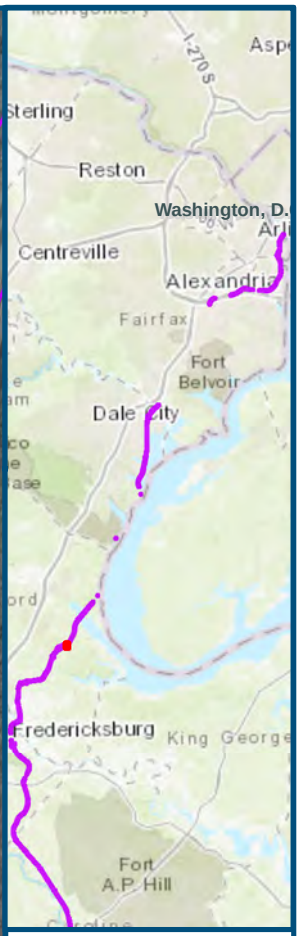
Archaeological Area 2i is located in Stafford County near the Brooke VRE station. This area spans across approximately 1.8 miles (2.9 km) of the existing rail corridor beginning 0.6 miles (1.0 km) south of Courthouse Road and continuing to the crossing of Eskimo Hill Road over the existing rail. This archaeological area consists of 16 separate study blocks encompassing a total of 18.8 acres (7.6 ha) located both on the sides of the existing railroad and along Eskimo Hill Road. A large section located in the wooded area north of the existing rail extending from Union Camp Drive between Andrew Chapel Road and Mt. Hope Church Road was identified for Phase IB study, but was not tested because the landowners denied access. Settings varied across Area 2i and included open fields and yards as well as areas of secondary growth woods. Topography was typified by gentle slopes in less disturbed areas, and as elsewhere in the corridor, more extreme slopes near existing rail and road grading. Large portions of Archaeological Area 2i were disturbed by both road and rail construction, landscaping around residences, as well as buried utilities (Figure 4-39 and Figure 4-41). Fifty-Four STPs were excavated along 15 transects (Figure 4-42 through Figure 4-46). No artifacts were found and no sites were discovered.

FIGURE 4-39: DISTURBANCE FROM BURIED UTILITIES IN AREA 21, LOOKING NORTH

FIGURE 4-40: DISTURBANCE FROM ROAD GRADING IN AREA 21, LOOKING SOUTH

FIGURE 4-41: PORTION OF AREA 21 SUBJECTED TO SUBSURFACE TESTING, LOOKING EAST





0 100 200
Feet

0 50 100
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Disturbed

Figure 4-42
Survey Results in Archaeological Area 2i (Map 1 of 5)

04/2018

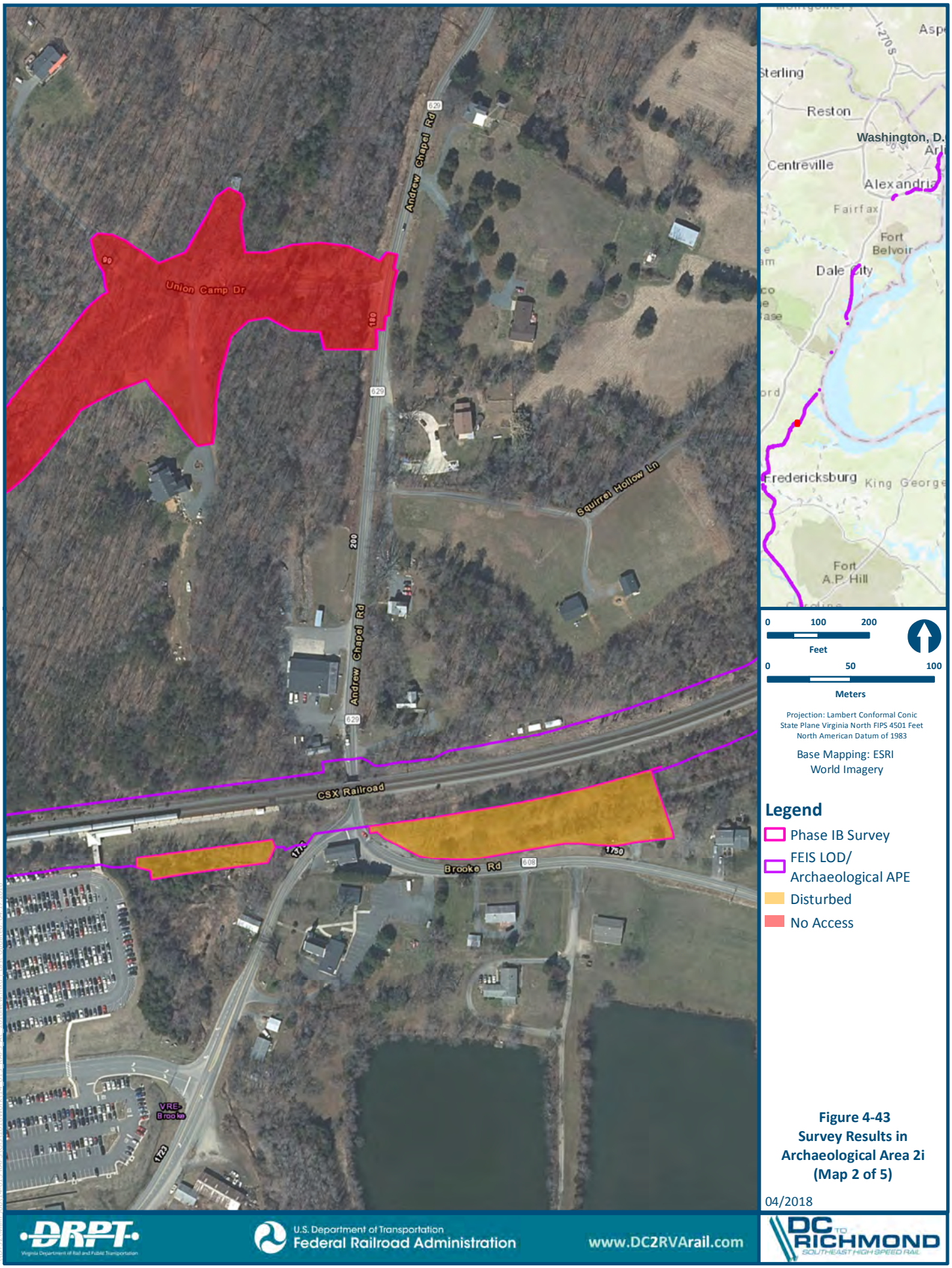
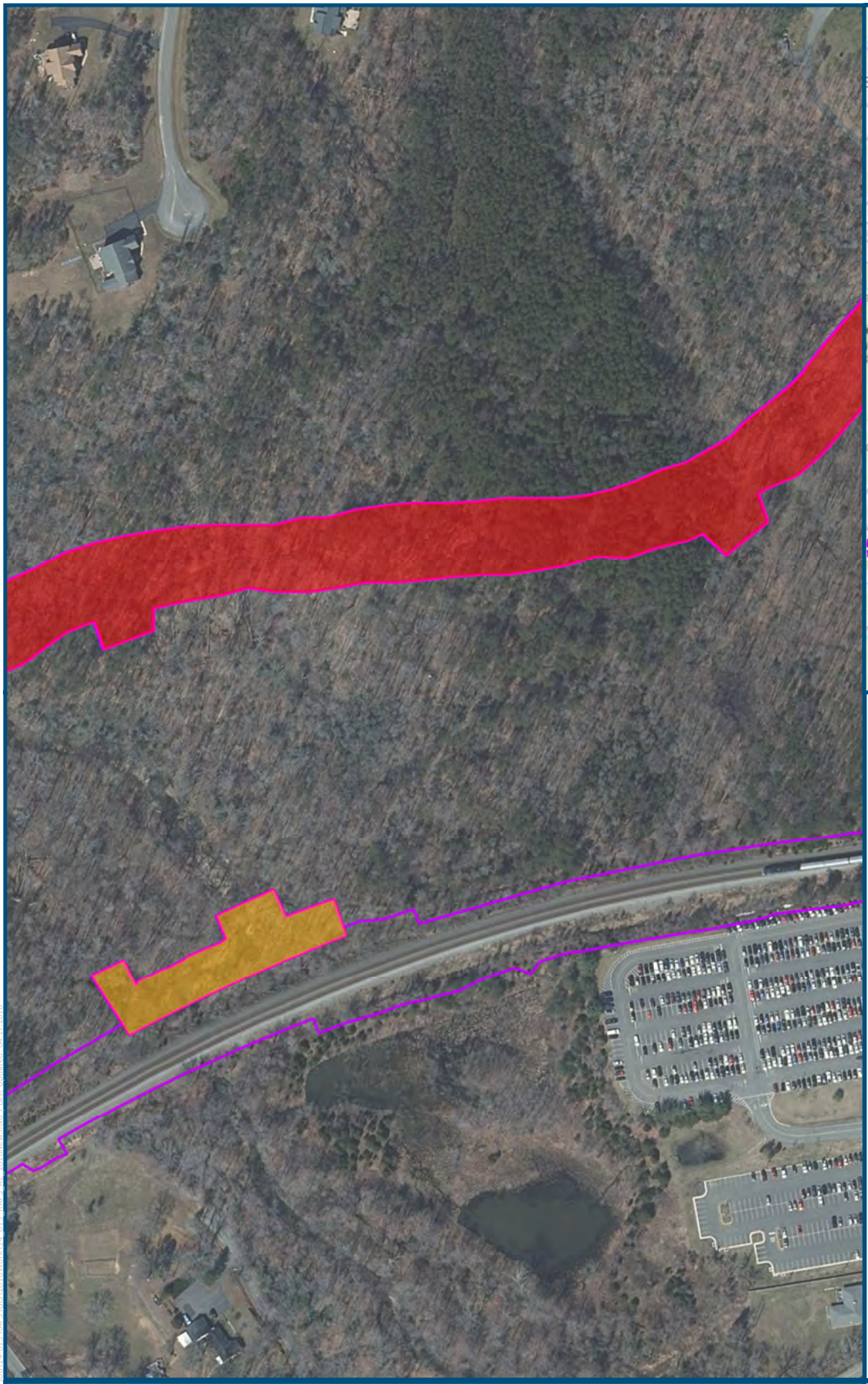
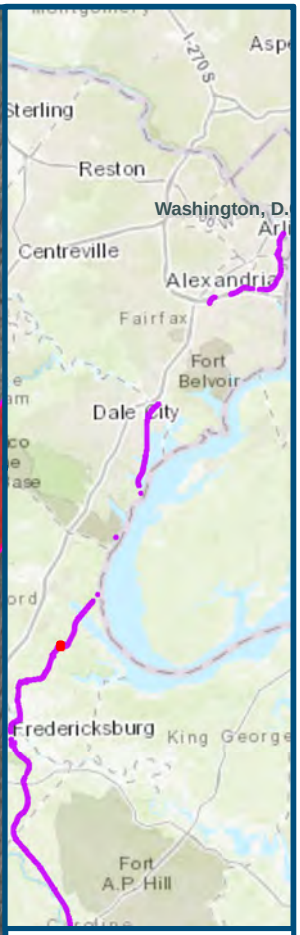


Figure 4-43
Survey Results in Archaeological Area 2i (Map 2 of 5)

04/2018





0 100 200
Feet

0 50 100
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Disturbed
- No Access

Figure 4-44
Survey Results in Archaeological Area 2i (Map 3 of 5)

04/2018

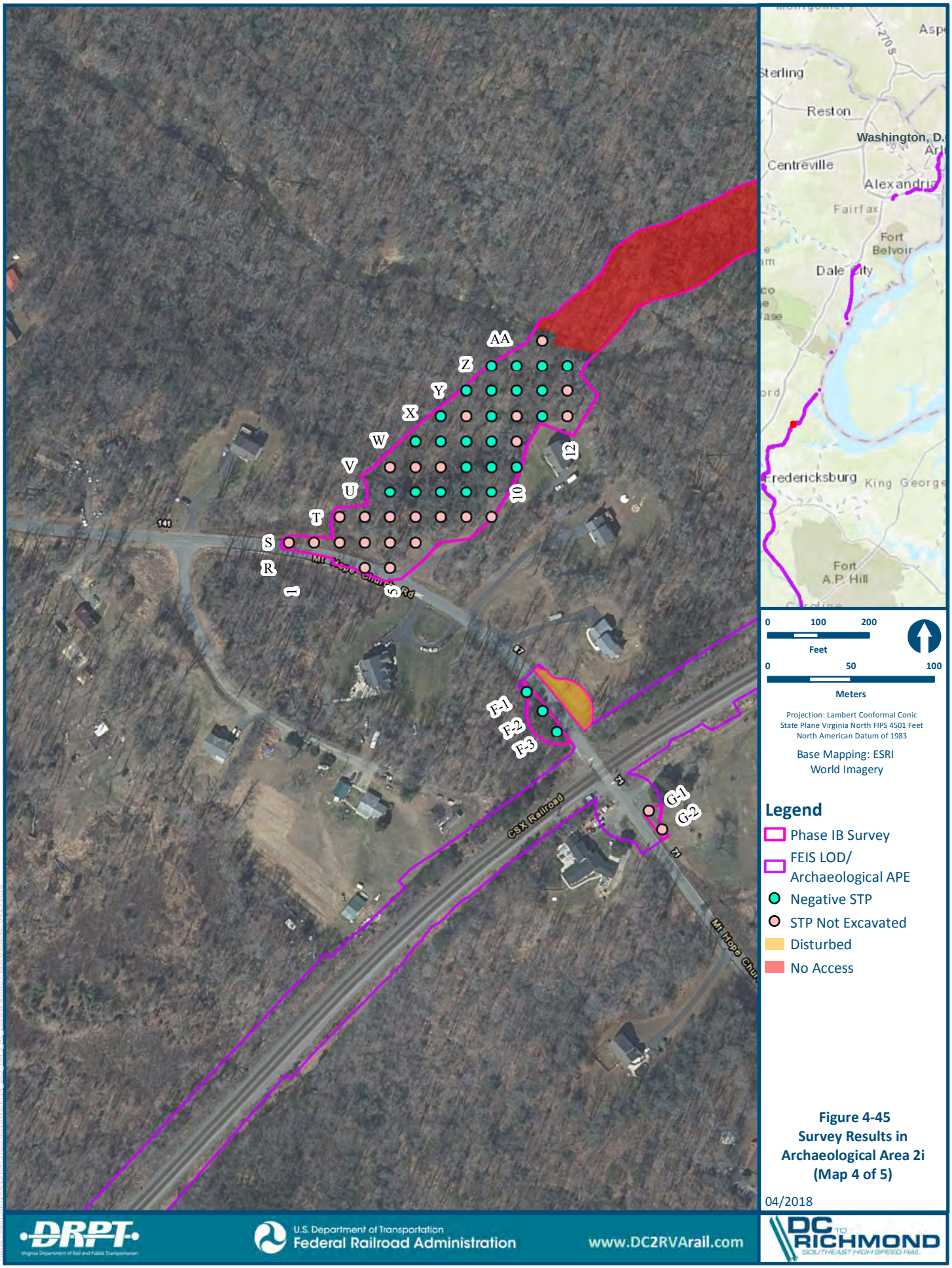


Figure 4-45
Survey Results in
Archaeological Area 2i
(Map 4 of 5)

04/2018

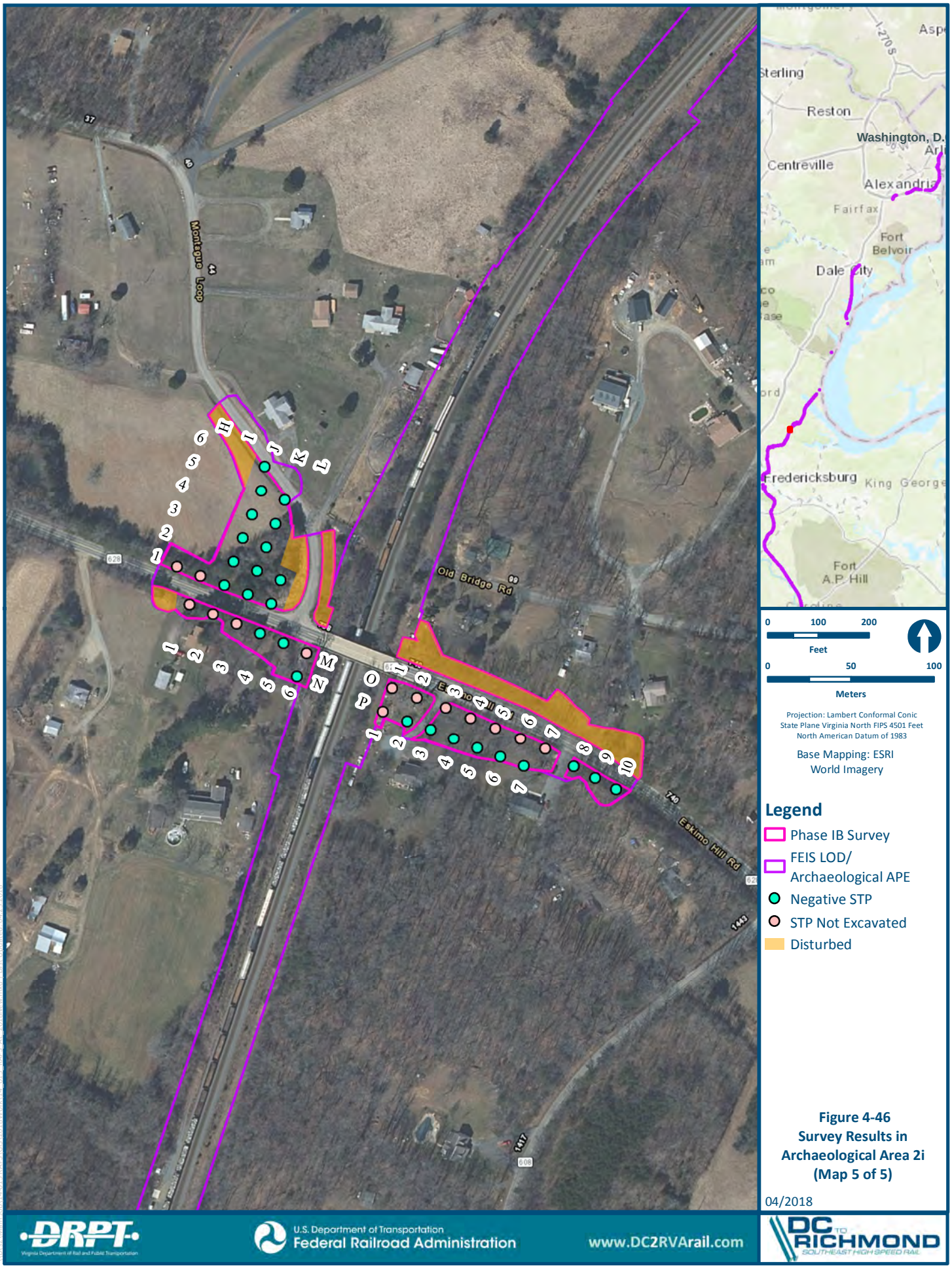


Figure 4-46
Survey Results in Archaeological Area 2i (Map 5 of 5)

04/2018

The average STP depth in Archaeological Area 2i was 1.1 feet (33.5 cm) with a maximum depth of 1.9 feet (57.9 cm). A-horizon depths ranged from 0.2 feet (6.1 cm) to 1.5 feet (45.7 cm) with an average depth of 0.7 feet (21.3 cm). STP profiles varied across this relatively large area, but a generally typical profile consisted of dark yellowish brown (10YR 4/4) silt loam topsoil overlying light yellowish brown (10YR 6/4) silty clay loam subsoil (Figure 4-47).

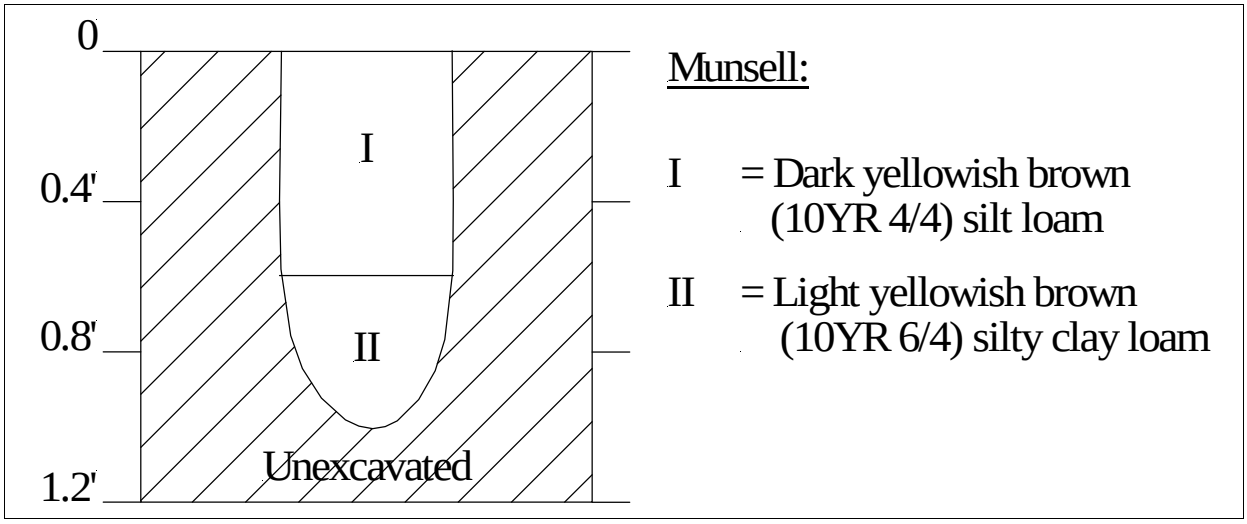
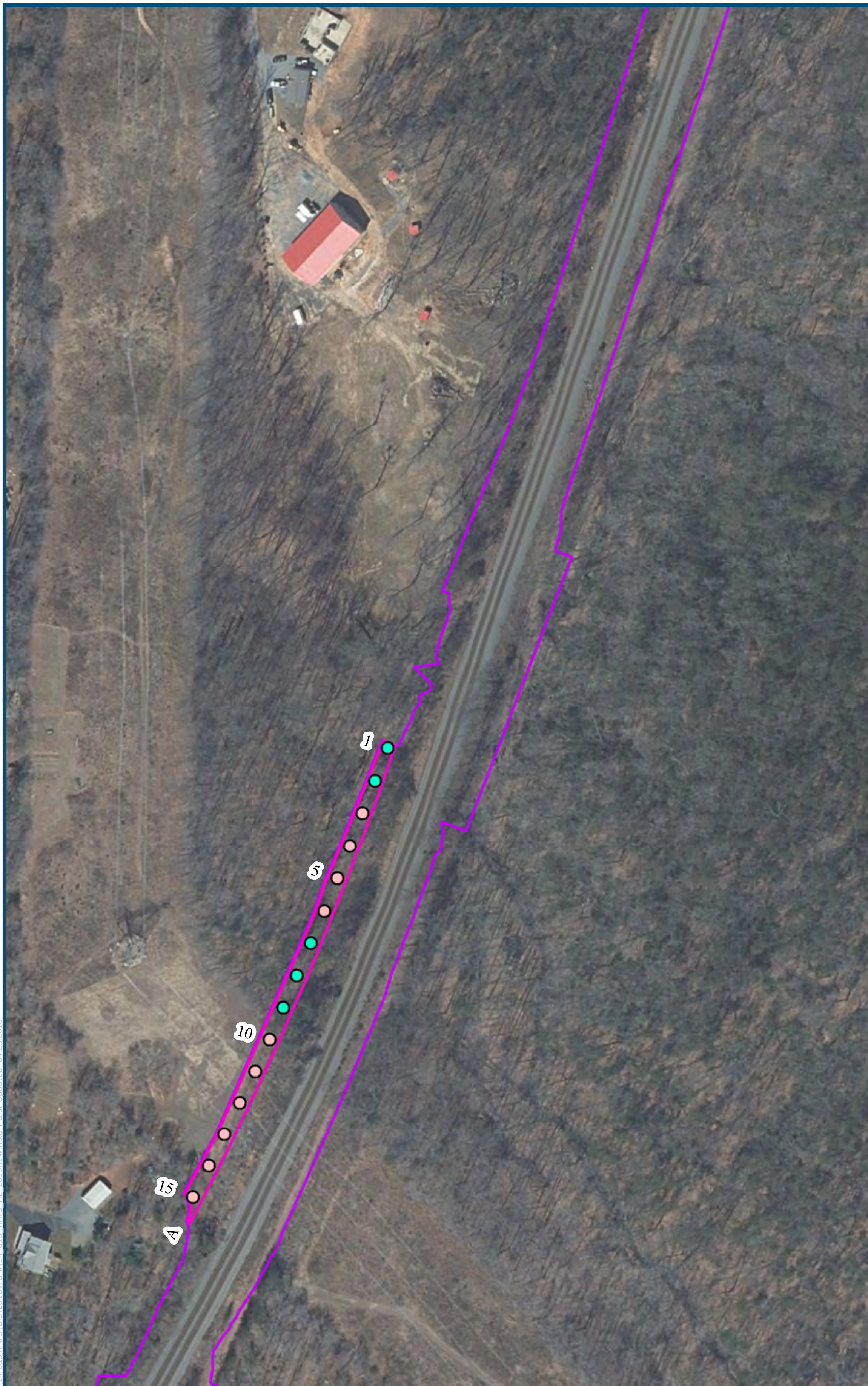


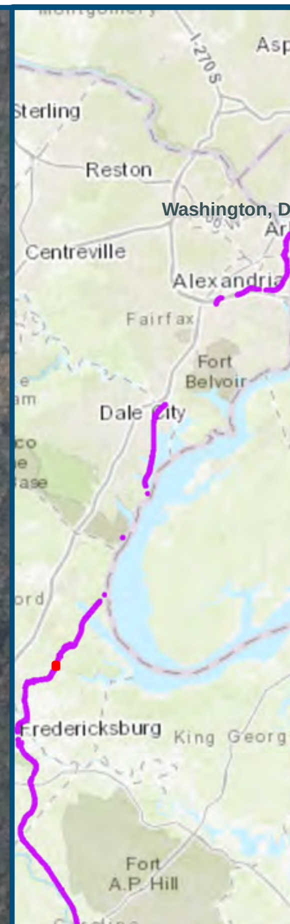
FIGURE 4-47: REPRESENTATIVE SOIL PROFILE FROM AREA 2I, STP 2I-L-4

4.3.10 Archaeological Area 2j

Archaeological Area 2j is located in Stafford County in a swath of woods located north of Potomac Creek, near Daffan. This archaeological area, located in a semi-rural area on the edges of the Fredericksburg suburbs, contains three separate blocks, two on the east of the existing rail and one on the west. These sections lie almost entirely within forests, but a cleared powerline corridor does cut across the area. Archaeological Area 2j encompasses a total of 1.5 acres (0.6 ha) of identified for Phase IB study. The natural topography of the area is gently sloping or level, but the extreme slope of the existing rail does cut through the areas identified for study. The entirety of the east side of the rails was disturbed by a petroleum pipeline corridor, but one of the sections on the west side was largely undisturbed allowing for STP survey (Figure 4-48). Five STPs were excavated along a single transect (Figure 4-49 and Figure 4-50). No artifacts were found and no sites were discovered.

FIGURE 4-48: PORTION OF AREA 2J SUBJECTED TO SUBSURFACE TESTING, LOOKING NORTH





0 100 200
Feet
0 30 60
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

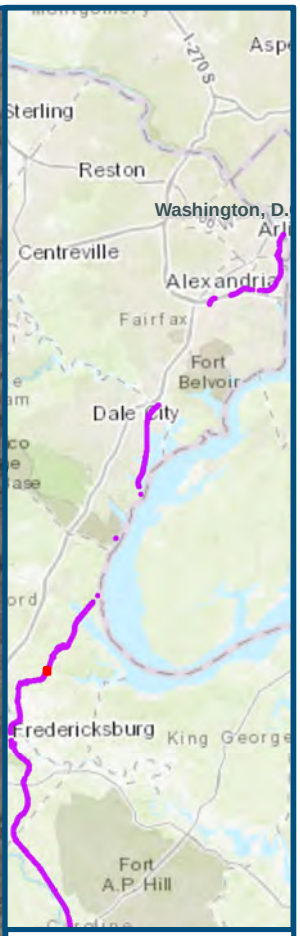
Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Negative STP
- STP Not Excavated

Figure 4-49
Survey Results in Archaeological Area 2j
(Map 1 of 2)

04/2018



0 100 200
Feet
0 30 60
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Disturbed

Figure 4-50
Survey Results in Archaeological Area 2j (Map 2 of 2)

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The average STP depth in Archaeological Area 2j was 1.0 feet (30.5 cm) with a maximum depth of 1.4 feet (42.7 cm). A-horizon depths ranged from 0.1 feet (3.0 cm) to 0.7 feet (21.4 cm) with an average depth of 0.4 feet (12.2 cm). A representative profile has a dark yellowish brown (10YR 4/4) sandy loam topsoil overlying brownish yellow (10YR 6/8) sandy clay subsoil (Figure 4-51).

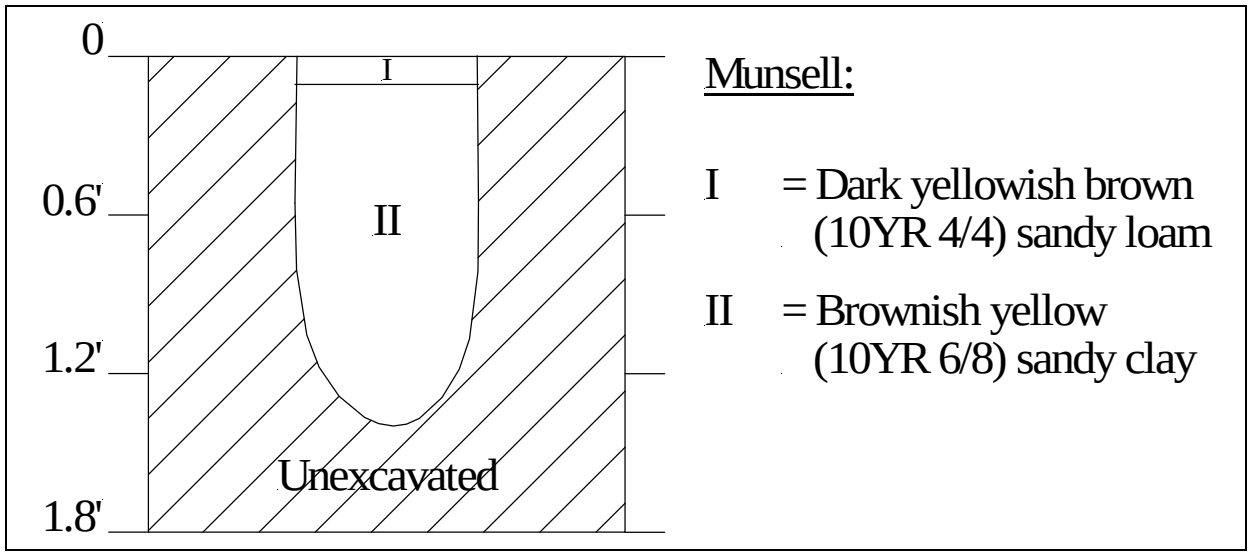


FIGURE 4-51: REPRESENTATIVE SOIL PROFILE FROM AREA 2J, STP 2J-A-7

4.3.11 Archaeological Area 2k

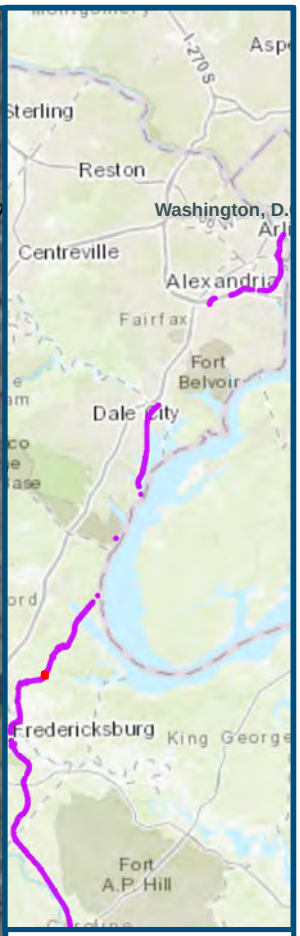
Archaeological Area 2k begins directly across Potomac Creek from the end of Archaeological Area 2j. From there it follows the existing rail to the southwest, then curving to the west, before curving back to the southwest, ending approximately 2,000 feet (609.6 m) from the railroad's crossing of Primmer House Road. In addition to the sections that parallel the rail on both sides, Area 2k includes blocks deemed suitable for archaeological study that extend along Primmer House and Leeland Roads at their crossing with the existing rail. Composed of 18 separate blocks, Archaeological Area 2k encompasses 10.6 acres (4.3 ha). The majority of Area 2k lies within wooded locations, varying from relatively open older growth to young secondary growth with dense vines and brambles. Most of Area 2k is gently sloping, but the rolling natural topography occasionally becomes steeper, and the existing rails and roads through these slopes required substantial construction grading. These natural and artificial slopes precluded subsurface testing in much of Archaeological Area 2k, as did buried utility lines and eroded areas (Figure 4-52). Small Portions of Archaeological Area 2k were, however, suitable for subsurface testing (Figure 4-53). Twenty STPs were excavated on eight transects (Figure 4-54 through Figure 4-64). Metal detector survey was conducted in portions of Archaeological Area 2k based on the evidence of recent metal detecting activity by amateurs and other surface features identified during the pedestrian survey. These features were believed to be indicative of a Civil War era archaeological site and, as such, metal detecting was conducted.

No artifacts were recovered from the STPs in Archaeological Area 2k, but metal detector survey, undertaken when depressions were observed in the project area, recovered seven artifacts which resulted in the identification of site 44ST1223, a nineteenth-century historic site with a Civil War component. Additionally, two previously identified archaeological sites, 44ST0270 and 44ST0271,

slightly overlap the project area within Area 2k. Also, pedestrian survey within Archaeological Area 2k identified a small family cemetery, recorded as site 44ST1224/089-5624. New and previously identified sites are discussed separately below the area descriptions.

FIGURE 4-52: BURIED UTILITY DISTURBANCE IN AREA 2K, LOOKING NORTH

FIGURE 4-53: PORTION OF AREA 2K SUBJECTED TO SUBSURFACE TESTING, LOOKING NORTH



0 50 100
Feet

0 30 60
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

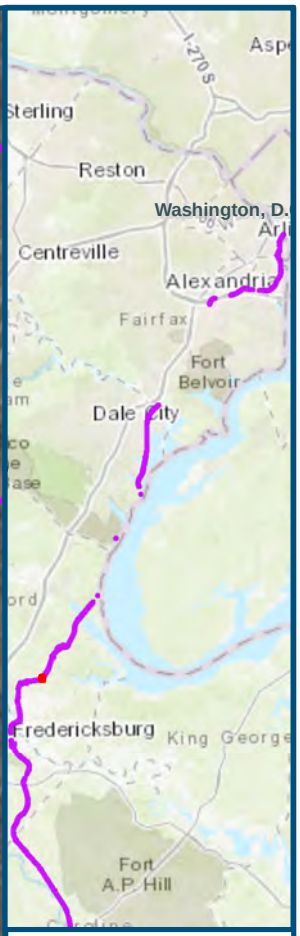
Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Negative
- Disturbed

Figure 4-54
Survey Results in Archaeological Area 2k (Map 1 of 11)

04/2018



0 50 100
Feet

0 30 60
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

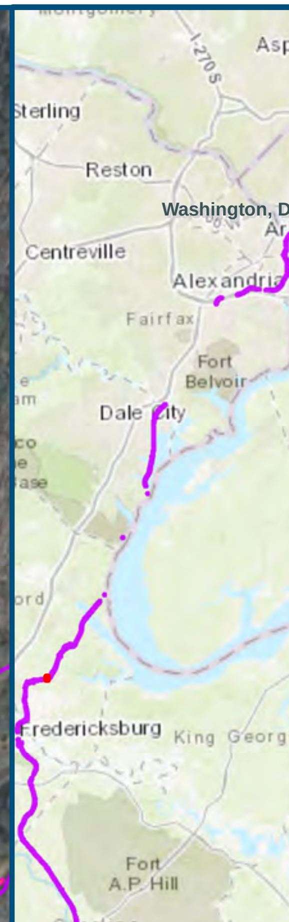
Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Negative STP
- Disturbed

Figure 4-55
Survey Results in Archaeological Area 2k
(Map 2 of 11)

04/2018



0 50 100
Feet
0 30 60
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

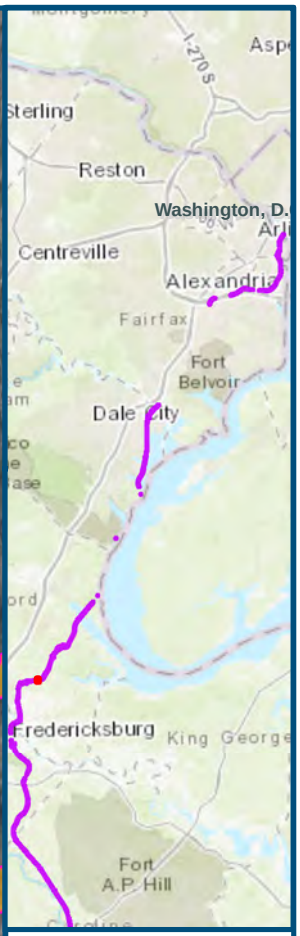
Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Site Boundary
- Disturbed

Figure 4-56
Survey Results in Archaeological Area 2k
(Map 3 of 11)

04/2018



0 50 100
Feet

0 30 60
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

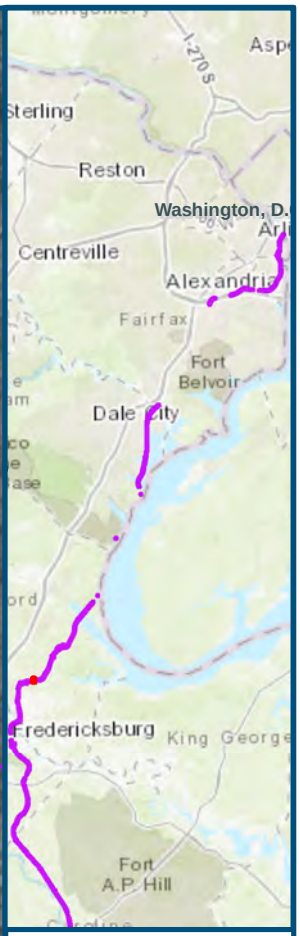
Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Disturbed

Figure 4-57
Survey Results in Archaeological Area 2k (Map 4 of 11)

04/2018



0 50 100
Feet

0 30 60
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

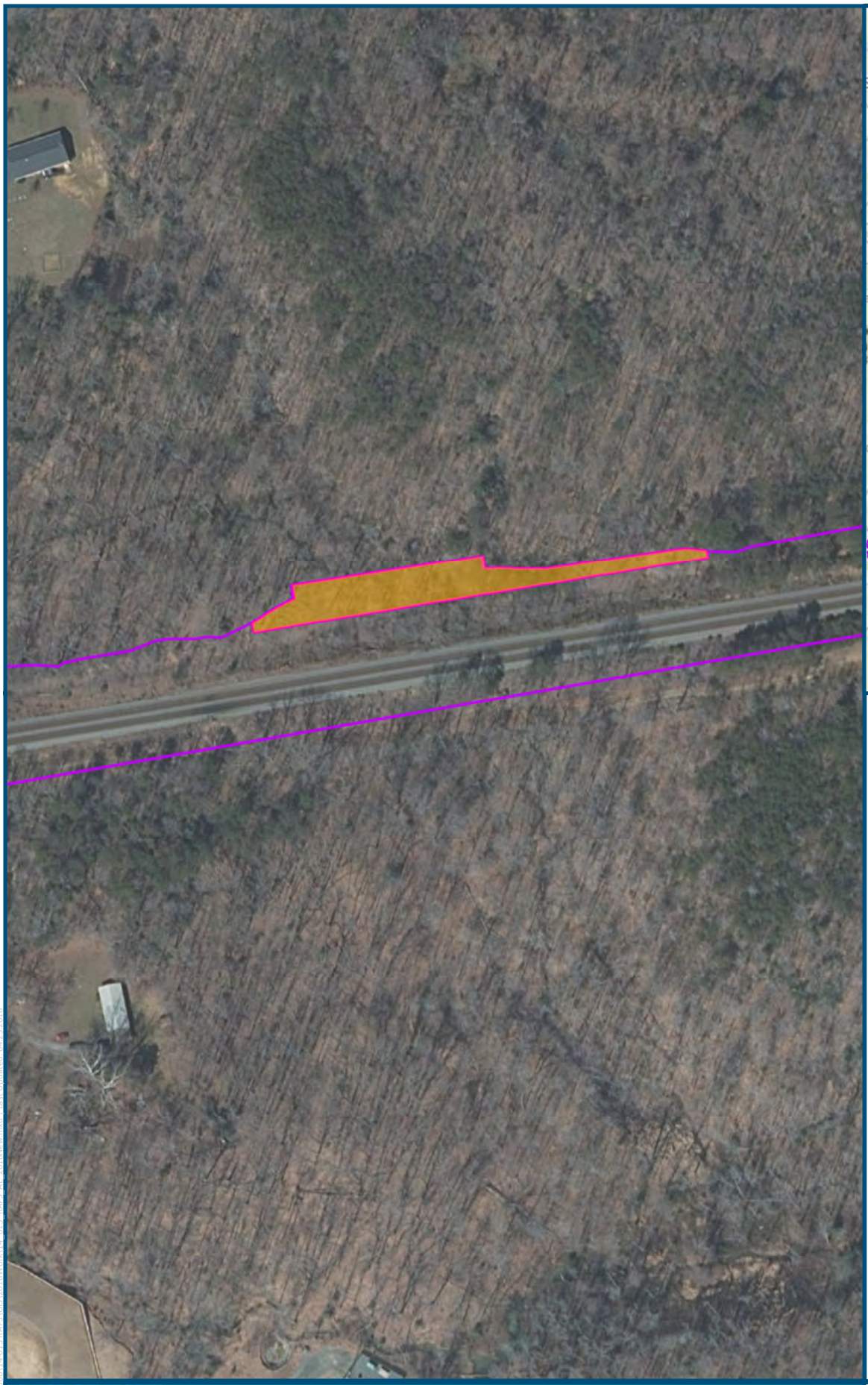
Base Mapping: ESRI
World Imagery

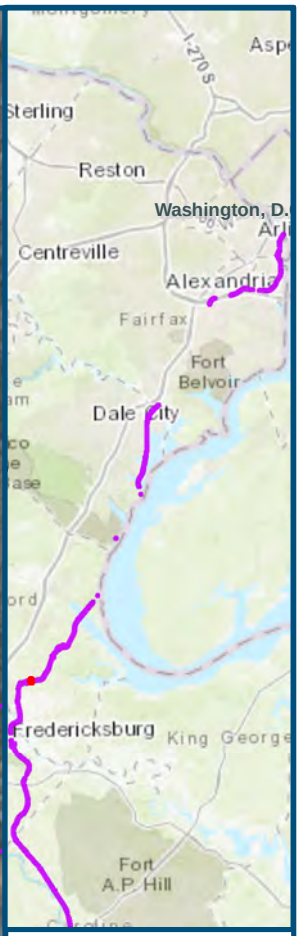
Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Disturbed

Figure 4-58
Survey Results in Archaeological Area 2k (Map 5 of 11)

04/2018





0 50 100
Feet
0 30 60
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

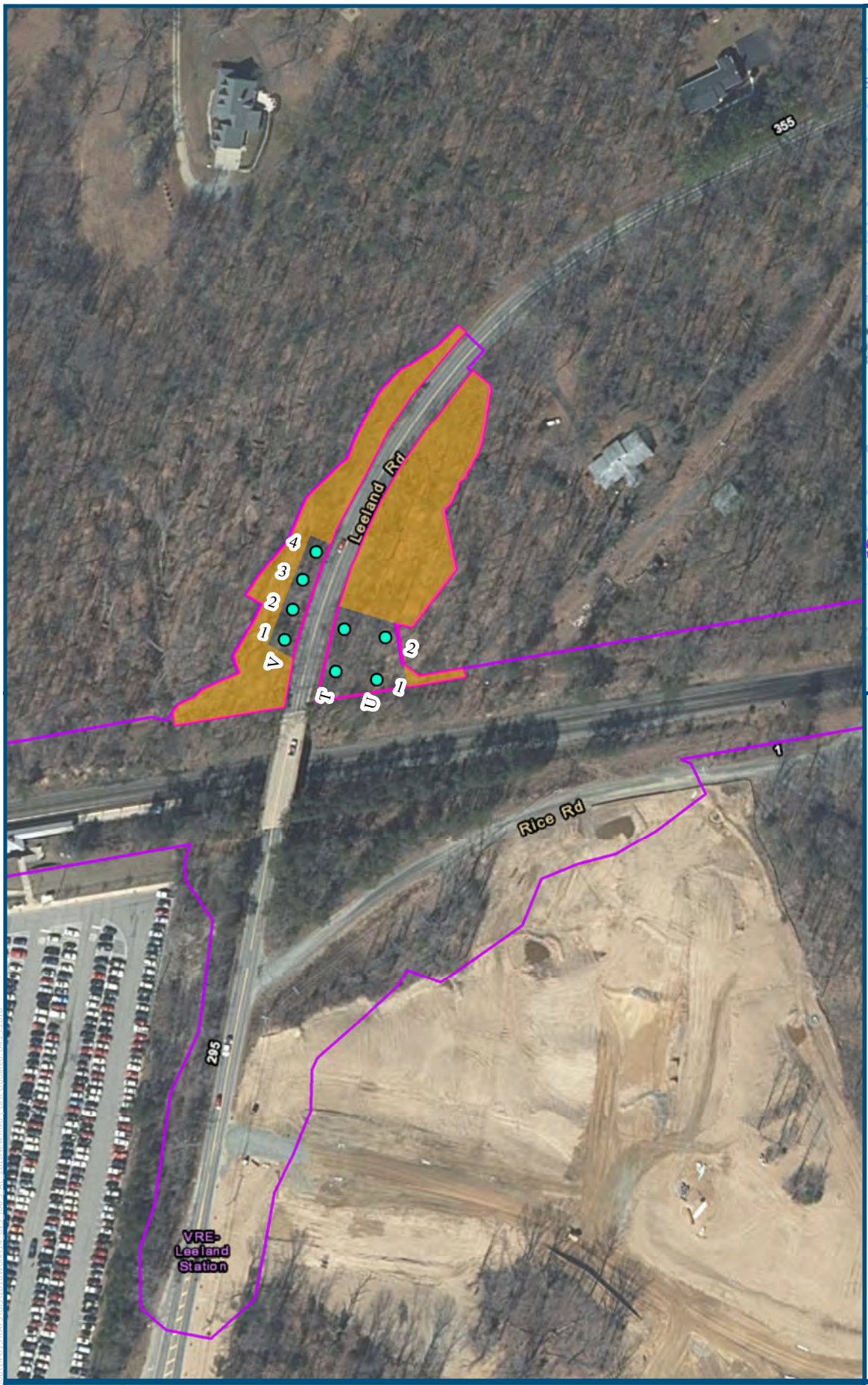
Base Mapping: ESRI
World Imagery

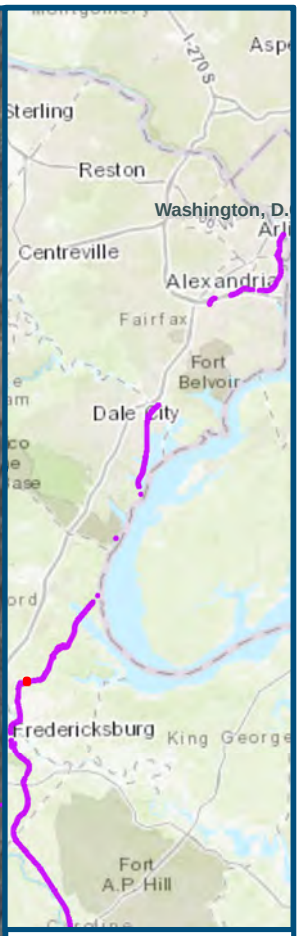
Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Disturbed

Figure 4-59
Survey Results in Archaeological Area 2k
(Map 6 of 11)

04/2018





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Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

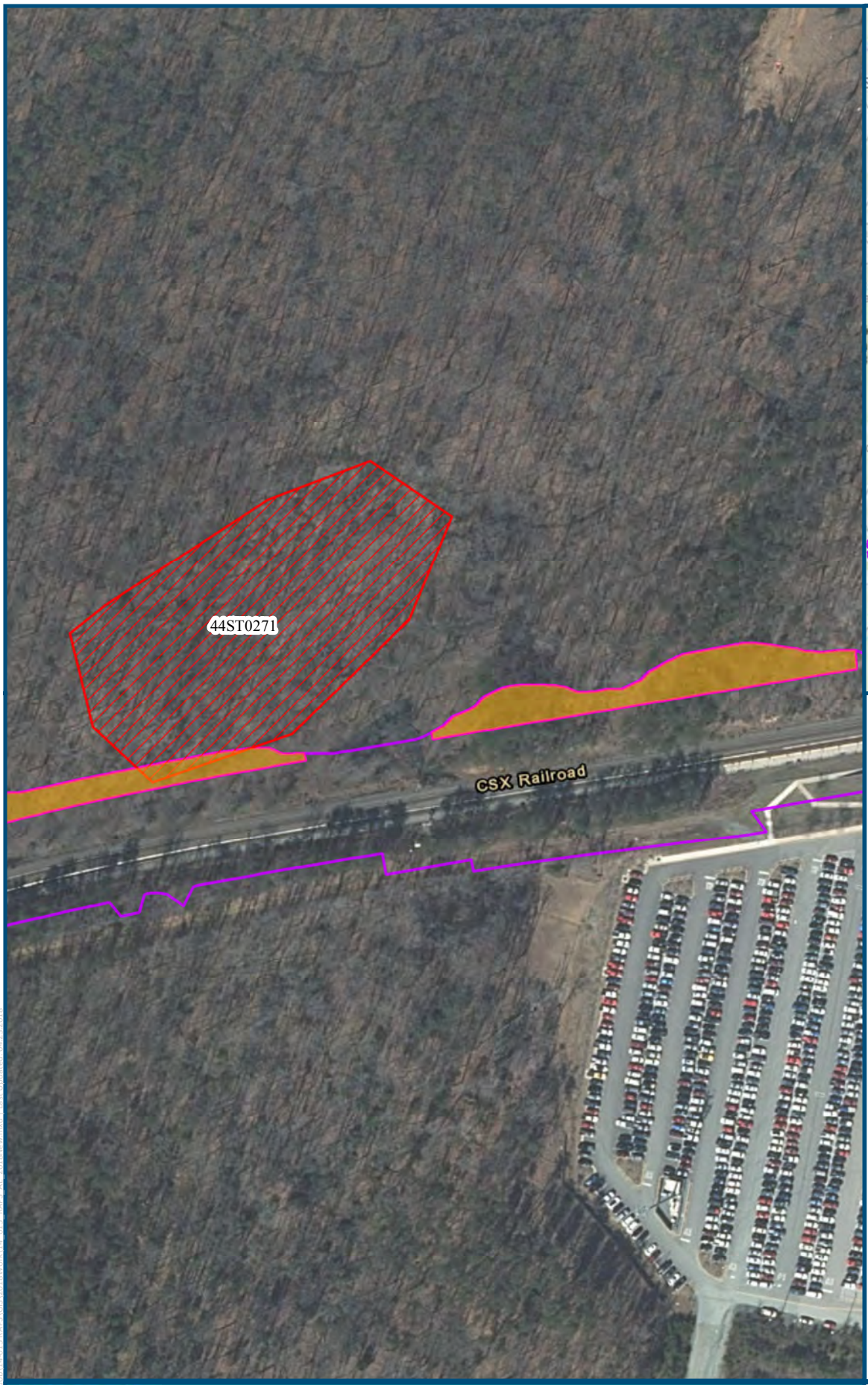
Base Mapping: ESRI
World Imagery

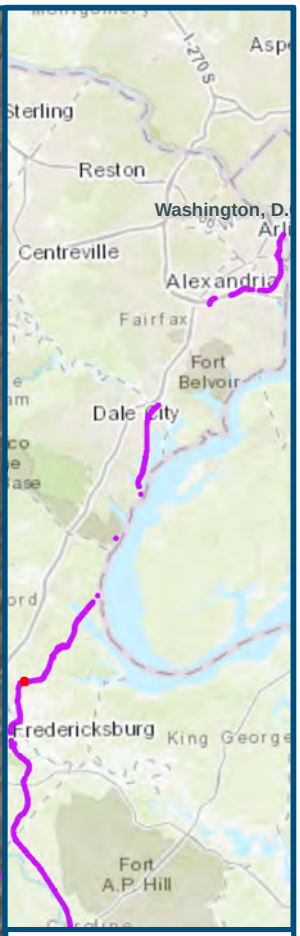
Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Negative STP
- Disturbed

Figure 4-60
Survey Results in Archaeological Area 2k
(Map 7 of 11)

04/2018





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Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Disturbed
- Previously Recorded Site

Figure 4-61
Survey Results in Archaeological Area 2k
(Map 8 of 11)

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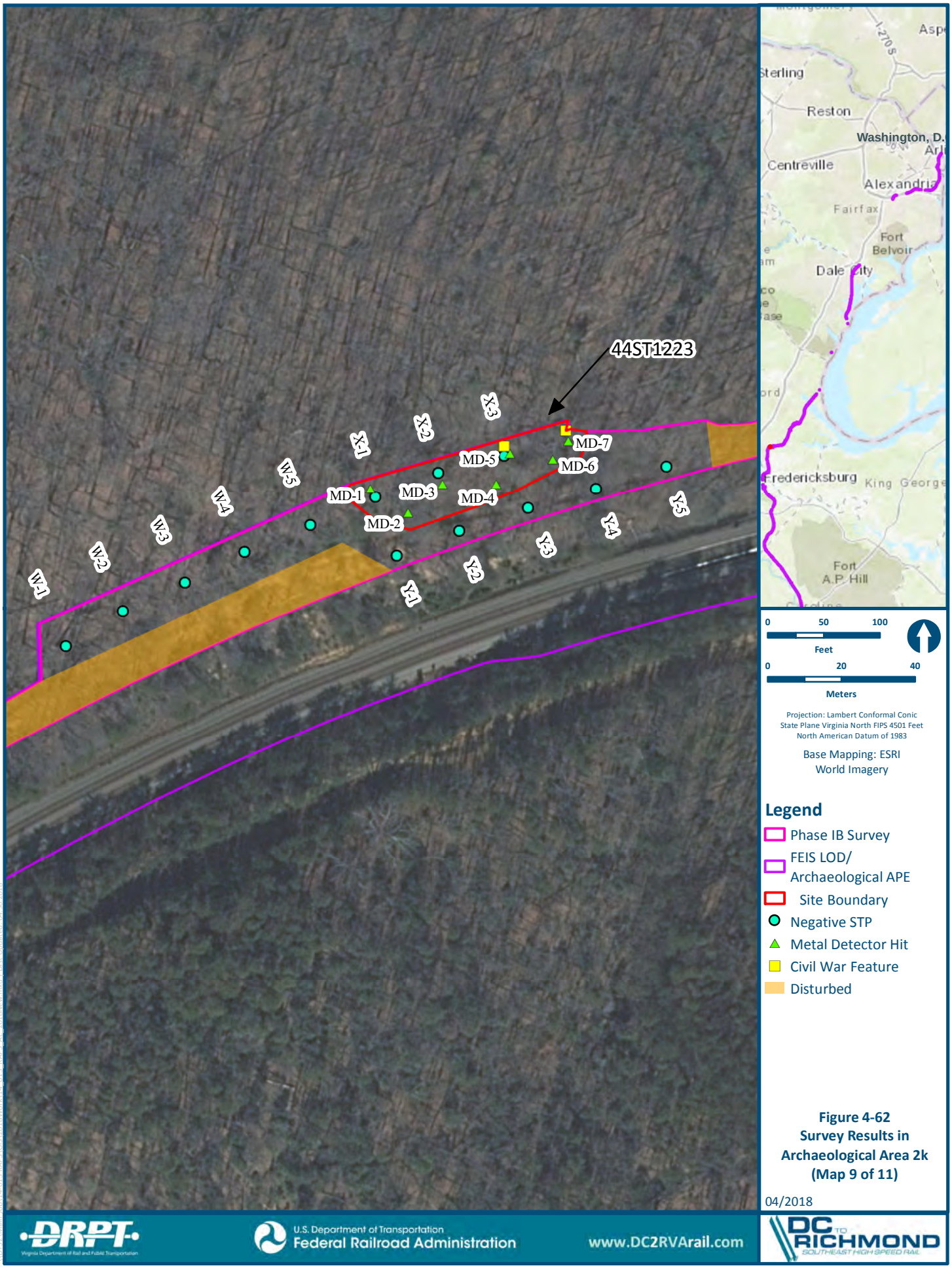


Figure 4-62
Survey Results in Archaeological Area 2k (Map 9 of 11)

04/2018

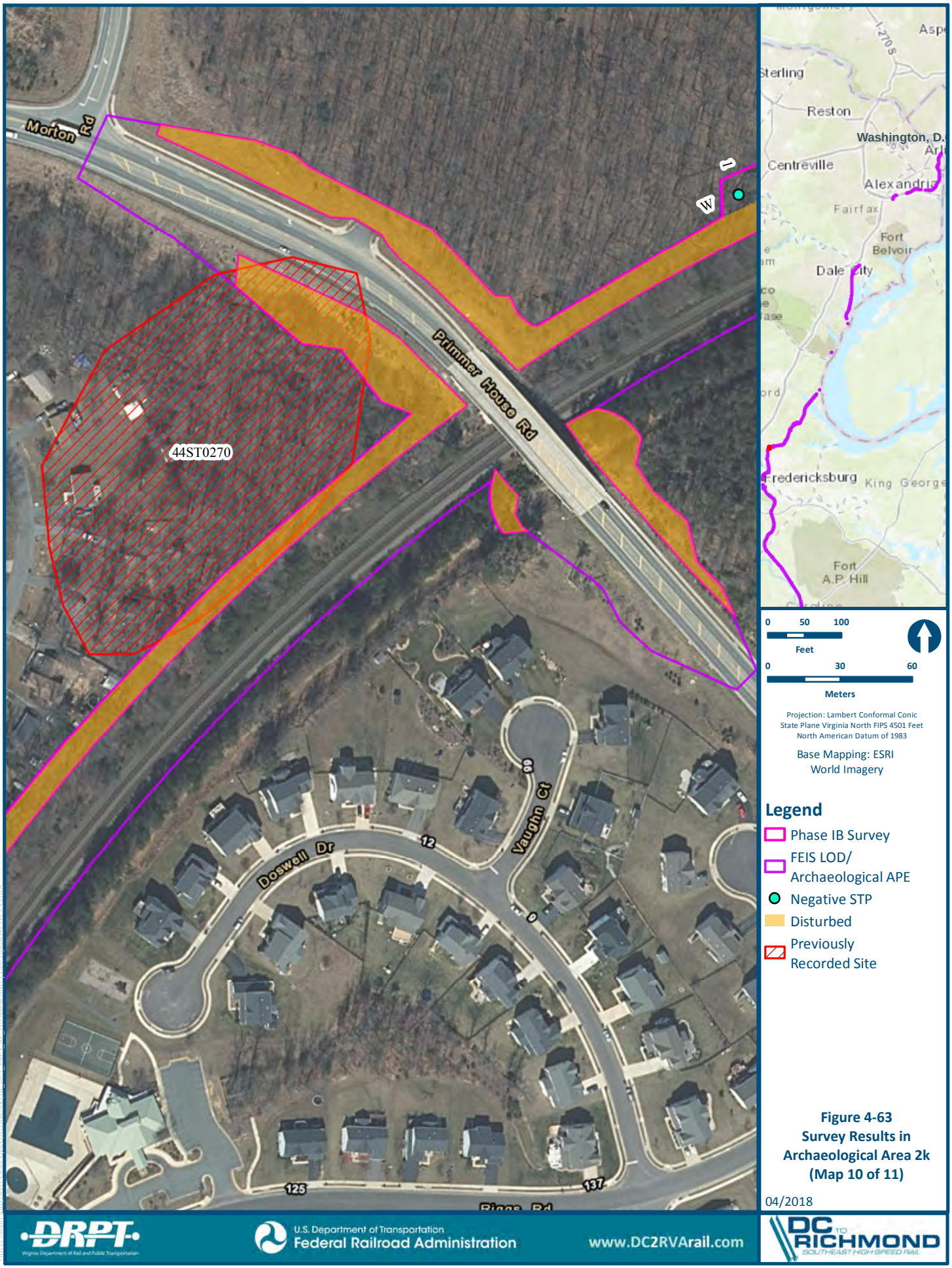


Figure 4-63
Survey Results in
Archaeological Area 2k
(Map 10 of 11)

04/2018

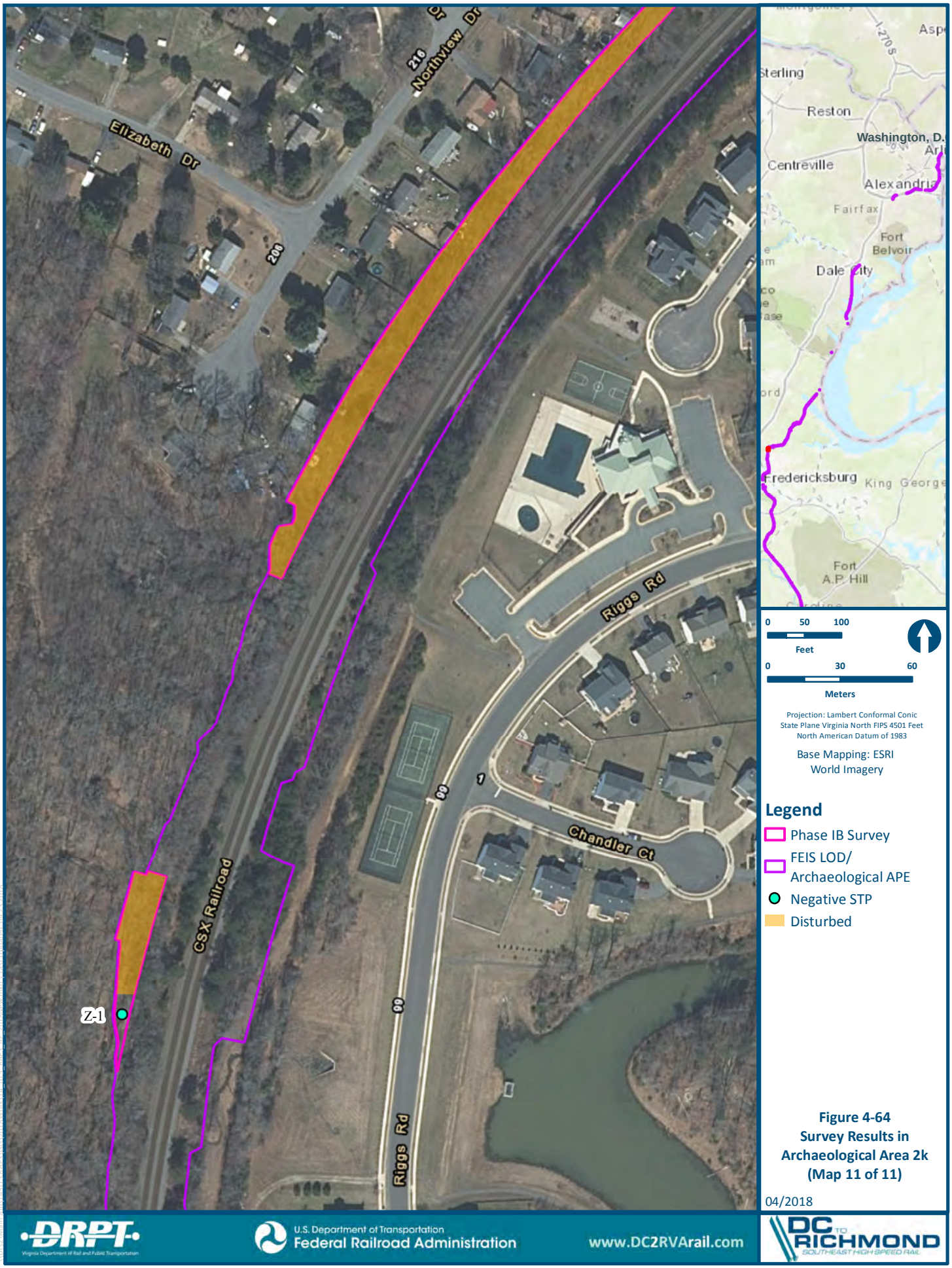


Figure 4-64
Survey Results in Archaeological Area 2k (Map 11 of 11)

04/2018

The average STP depth in Archaeological Area 2k was 1.1 feet (33.5 cm) with a maximum depth of 1.5 feet (45.7 cm). A-horizon depths ranged from 0.1 feet (3.0 cm) to 0.6 feet (18.3 cm) with an average depth of 0.4 feet (12.2 cm). A representative profile consists of very dark grayish brown (2.5Y 3/2) silt loam topsoil, capping light yellowish brown (2.5Y 6/4) silty clay subsoil (Figure 4-65).

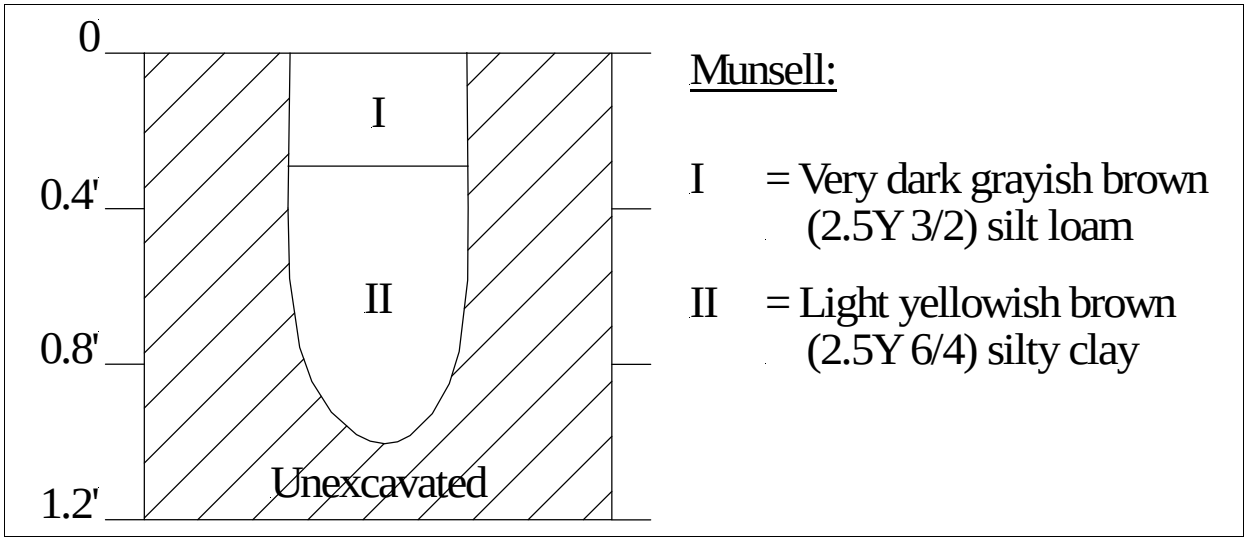
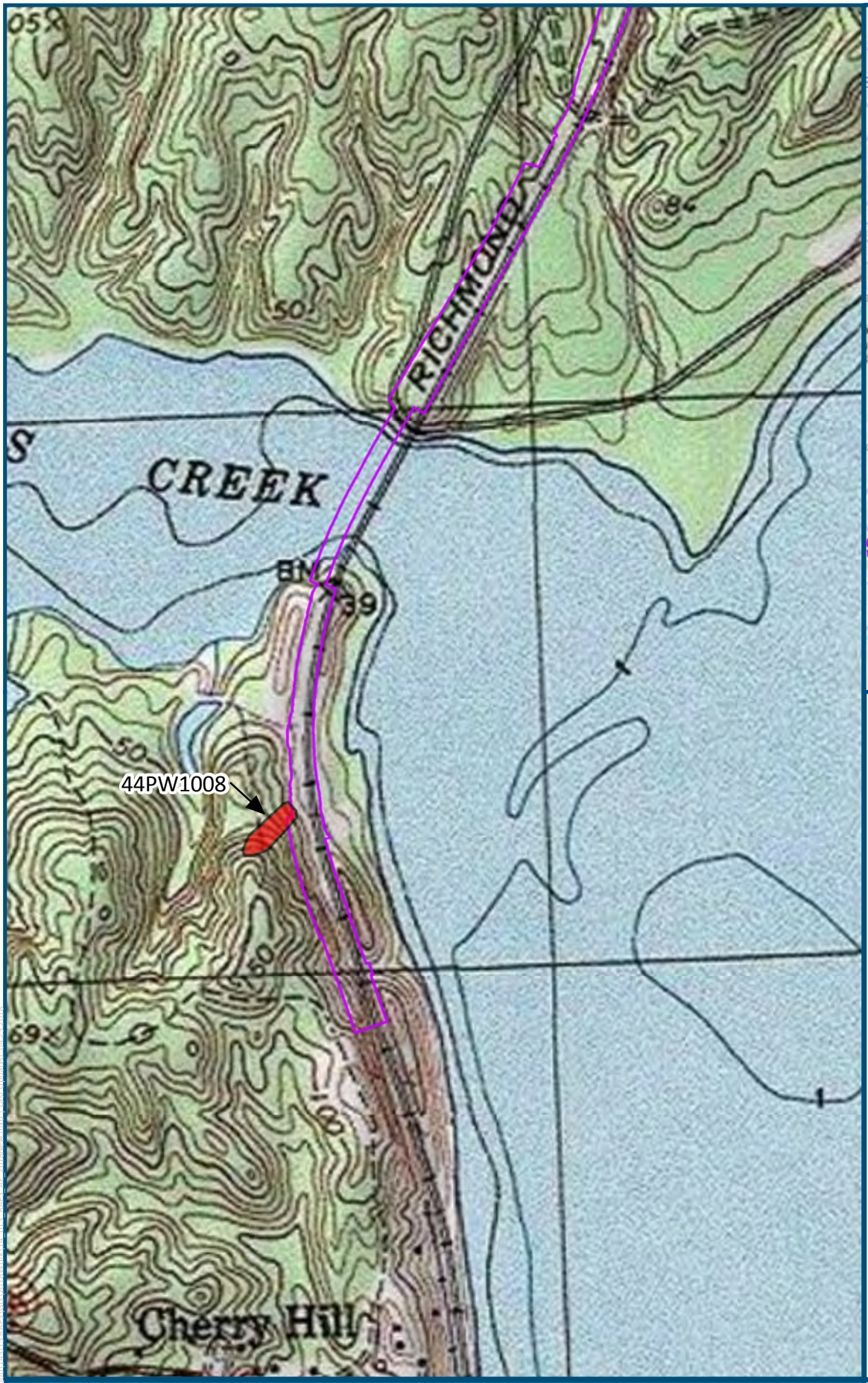
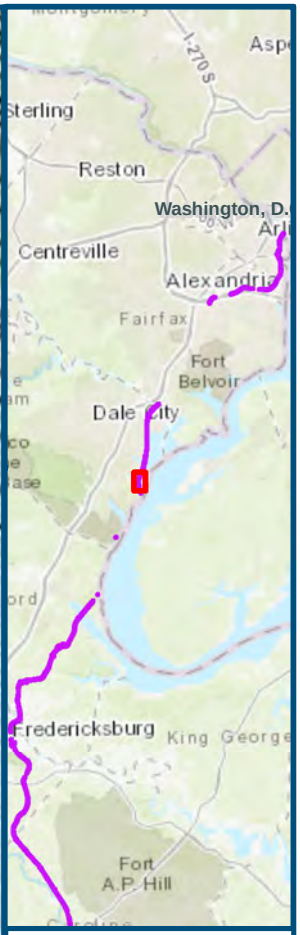


FIGURE 4-65: REPRESENTATIVE SOIL PROFILE FROM AREA 2K, STP 2K-W-4

4.3.12 Previously Recorded Site 44PW1008

Site 44PW1008 is an archaeological site of indeterminate age or cultural affiliation in Prince William County (Figure 4-66). DHR site files record no notes of the associated site artifacts and indicate that the site is unevaluated regarding its NRHP eligibility. Most of the site as previously mapped lies outside the APE to the west. The APE within this site lies in a graded area between two artificial sloped surfaces, with push piles and dumped trash (Figure 4-67). Because of these artificial slopes, visual observation from the project corridor into the site was limited. However, to the extent that the site overlaps the present survey area, substantial disturbance is evident on the surface. Two STPs on the transect testing this portion of Archaeological Area 2f lie within the site boundaries. Both STPs had similar profiles consisting of a thin topsoil of dark yellowish brown (10YR 3/4) overlying gray (10YR 7/1) degraded sandstone. This is consistent with the area having been extensively graded. Because of the limited portion of the site lying within the project boundaries i**t is recommended that site 44PW1008 remains unevaluated for the NRHP. However, within the archaeological APE, this portion of site 44PW1008 has been substantially disturbed and retains little soils that might retain archaeological deposits, and as such any portion of the site within the APE would not contribute to the site's overall eligibility**.





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Feet
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Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: 2013 ESRI
USA Topo Map

Legend

- FEIS LOD/ Archaeological APE
- Site Boundary

Figure 4-66
Site 44PW1008

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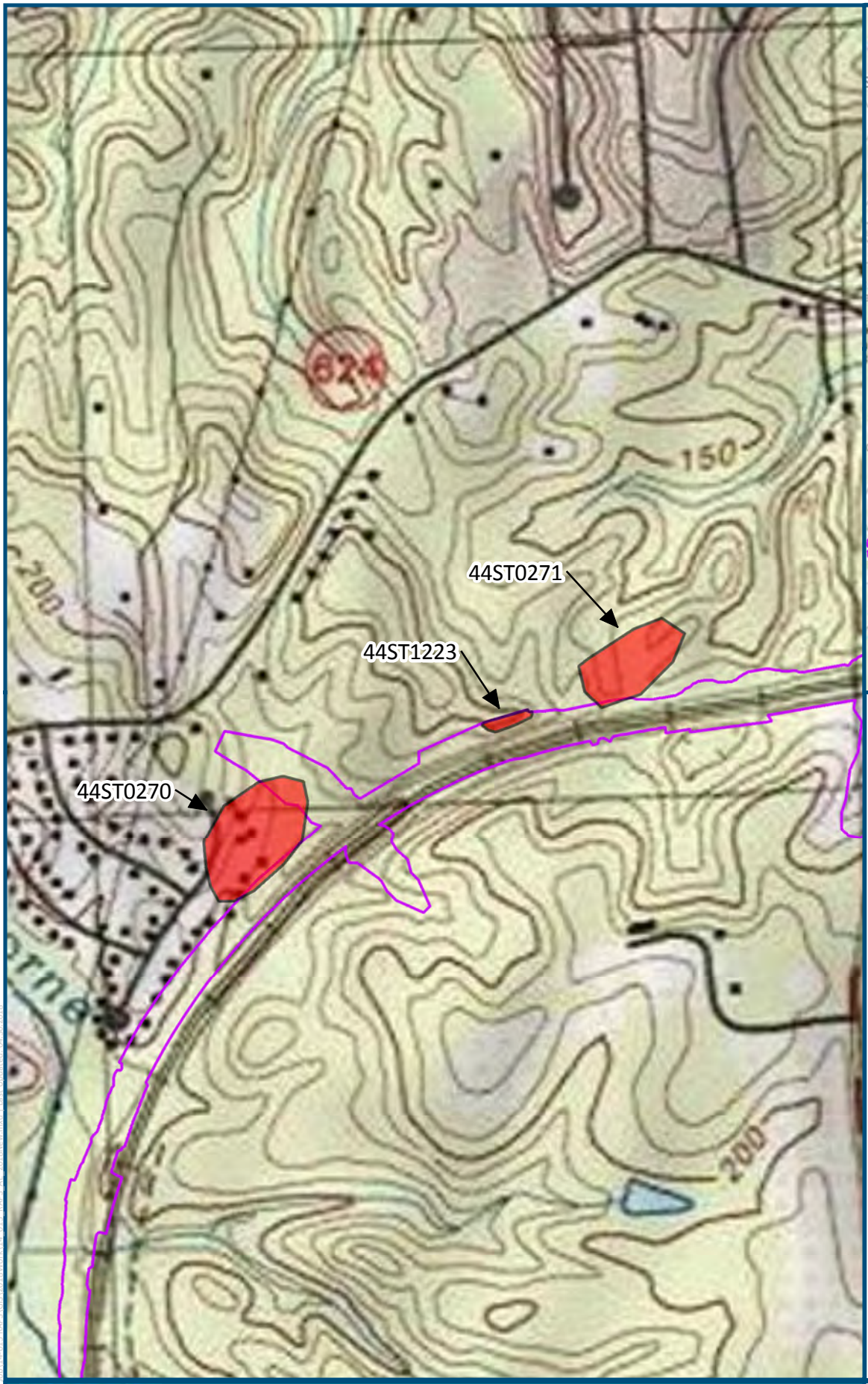
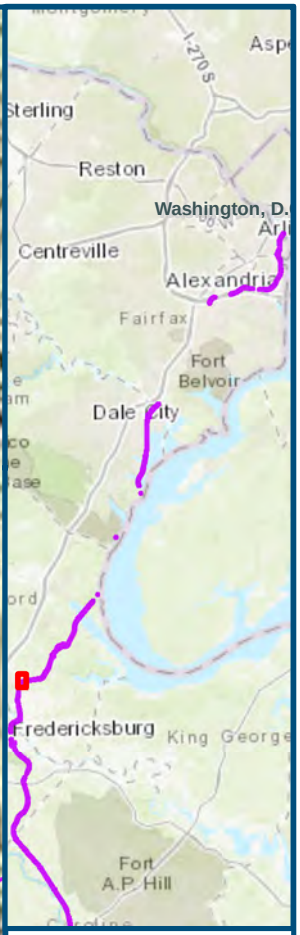
FIGURE 4-67: OVERVIEW OF SITE 44PW1008 WITHIN APE, LOOKING NORTH

4.3.13 Previously Recorded Site 44ST0270

Site 44ST0270, a reported Civil War camp, was identified to DHR by an informant who observed hut depressions in the area (Figure 4-68). The site has not been evaluated for NRHP eligibility. The substantial majority of the site lies outside the present survey area, and the portion that lies within the survey area is either on the extremely steep artificial slope up to Primmer House Road, or in the eroded area at the bottom of that slope (Figure 4-69). A pedestrian survey of the site indicated that no depressions or other visual indicators of the site were found intact within the project APE. It is therefore unlikely that any portion of the site within the current survey area remains intact, and given the nature of the site's initial recordation, may not have been part of the site core to begin with. **It is recommended that site 44ST0270 remains unevaluated for the NRHP. However, within the archaeological APE, the portion of site 44ST0270 has been extensively compromised by buried utilities and a gravel road, and as such any portion of the site within the APE does not contribute to the site's overall eligibility**.





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Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: 2013 ESRI
USA Topo Map

Legend

- FEIS LOD/ Archaeological APE
- Site Boundary

Figure 4-68
Sites 44ST270, 44ST0271, and 44ST1223

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FIGURE 4-69: OVERVIEW OF SITE 44ST0270 WITHIN APE, LOOKING WEST

4.3.14 Previously Recorded Site 44ST0271

Site 44ST0271 is also an informant-identified Civil War camp (see Figure 4-68). DHR site files indicate that the site is unevaluated in regard to its NRHP eligibility. The substantial majority of the site as mapped lies outside the present survey area on private property to which Dovetail archaeologists did not have access. However, to the extent that the site overlaps the present survey area, the likelihood of undisturbed subsurface remains is low, as the area shows substantial erosion and disturbance relating to the existing rail line and a buried fiber optic line paralleling the rail (Figure 4-70). No depressions or other visual indicators of the site were found intact within the project APE. As such i**t is recommended that site 44ST0271 remains unevaluated for the NRHP. However, within the archaeological APE, the portion of site 44ST0271 has been substantially disturbed by both utility trenches and grading for the existing rail, and as such any portion of the site within the APE would not contribute to the site's overall eligibility**.

FIGURE 4-70: OVERVIEW OF SITE 44ST0271 WITHIN APE, LOOKING WEST

4.3.15 Newly Identified Site 44ST1223

4.3.15.1 Site Description

Site 44ST1223 is located in a wooded setting (Figure 4-71) on the north side of the CSXT rail line, just east of Primmer House Road, more specifically, within the central portion of Archaeological Area 2k (see Figure 4-68). This site represents a Civil War campsite occupied during the winter of 1862–1863 when the Union Army was ordered into winter quarters. The site was initially identified during the pedestrian survey based on the presence of two square depressions measuring approximately 3-foot (0.3-m) square, representing 'hut holes' (areas where soldier's winter tents were located) as well as recent metal detecting activity. These features were roughly linear in nature, however given only two were identified an exact layout is difficult to ascertain. While shovel testing resulted in no cultural materials, a cursory metal detector sweep of the archaeological APE was conducted to further delineate the portion of the site within the project limits.

FIGURE 4-71: GENERAL VIEW OF SITE 44ST1223, LOOKING NORTHWEST

Much of the area is disturbed from logging, access roads, and buried utility lines which appear to have impacted a portion of the site. Due to property access limitations, only a portion of the site was investigated; however, additional hut holes were observed on a neighboring parcel. The portion of the site investigated during this survey measures approximately 223 feet (67.9 m) x 54 feet (62.4 m), covering an area of 0.2 acres (0.08 ha). It sits at an elevation of approximately 185 feet (56 m) above mean sea level (AMSL).

A total of seven artifacts was recovered from six metal detector hits at site 44ST1223, all representing the historic occupation of the site. Materials recovered include cut nails, barrel banding, and a broken horseshoe. While these artifacts could also represent a historic domestic occupation, the presence of hut holes and recent metal detectorist activity indicates this site represents a Civil War-era winter encampment. Furthermore, discussions with local metal detecting amateurs suggest that this site was occupied by the elements of the Third Corps during the winter of 1862–1863, and several Union and Confederate-related artifacts have been recovered from the general vicinity in the past.

The average depth of STPs within the site was 0.9 feet (0.3 m), with the deepest STP extending to a depth of 1 foot (0.3 m). The average A-horizon measured 0.47 feet (0.1 m). The maximum A-horizon measurement within the site was 0.6 feet (0.2 m). An average soil profile for this site contained two stratigraphic levels. Stratum I, consists of a very dark grayish brown (2.5Y 3/2) silt loam which overlaid a subsoil consisting of a light yellowish brown (2.5Y 6/4) clay loam (Figure 4-72).

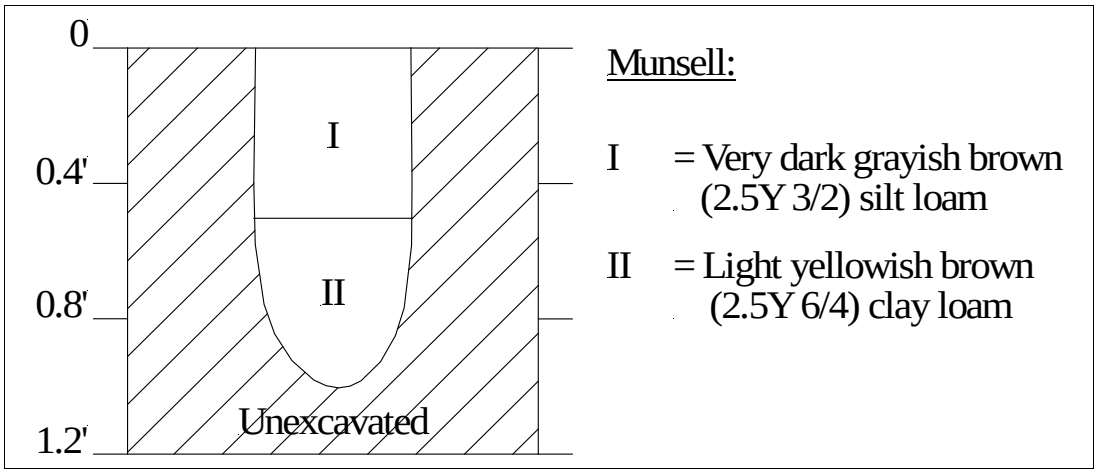


FIGURE 4-72: REPRESENTATIVE STP PROFILE FOR SITE 44ST1223

4.3.15.2 Evaluation and Significance

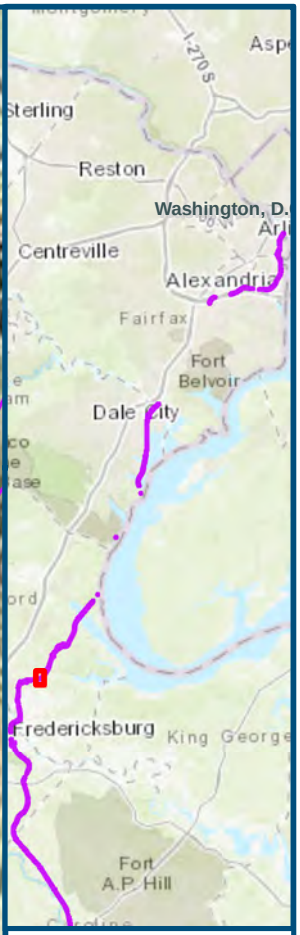
Site 44ST1223 is a nineteenth century Civil War encampment occupied during the winter of 1862–1863. Excavations at the site resulted in little cultural material specific to the Civil War occupation of the site, but surface evidence indicates that features related to hut holes are present. While this site is tied to the Civil War, specifically when the Union Army went into winter quarters, this is not considered a significant historical event or pattern of events as Civil War winter encampments are found throughout this portion of Virginia (Criterion A) and, as such, Criterion A is not applicable. Additionally, there are no known associations with significant persons (Criterion B) and the deposits do not illustrate distinctive characteristics of a type, period, or method of construction (Criterion C). Furthermore, nearly 100 sites of this type have been identified in Stafford County alone, approximately 20 of which were subjected to a Phase II evaluation (i.e. Brady et al. 2004; Klein et al. 2007) and would be more applicable for Criterion C.

However, the presence of above-ground remains representative of Civil War features and the recovery of artifacts representing the nineteenth century Civil War occupation of the site suggests that further excavation at the site has the potential to yield significant data about the nineteenth century occupation of the area (Criterion D). As such, Dovetail **recommends site 44ST1223 as potentially eligible for NRHP listing, under Criterion D.**

4.3.16 Newly Identified Site 44ST1224

4.3.16.1 Site Description

Site 44ST1224/089-5624 is a small mid-nineteenth century family cemetery, known as the Daffan Cemetery, located in densely wooded portion of Archaeological Area 2k (Figure 4-73 and Figure 4-74). The cemetery is on the north side of the CSXT rail line and south of Leeland Road, situated approximately 6 miles (9.7 km) northeast of Falmouth, Virginia, in Stafford County. The site was identified during the pedestrian survey and no shovel tests were excavated within the cemetery area. The site measures approximately 35 x 40 feet (10.7 x 12.2 m), covering an area of 0.04 acres (0.02 ha). It sits at an elevation of approximately 130 feet (39.6 m) AMSL.



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Feet
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Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: 2013 ESRI
USA Topo Map

Legend

- FEIS LOD/ Archaeological APE
- Site Boundary

Figure 4-73
Site 44ST1224

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FIGURE 4-74: SITE 44ST1224/089-5624, LOOKING NORTH

Surface features noted at the site include five headstones, one associated footstone, and at least three unmarked interments. The first headstone reads "IN / *Memory of* / WILLIAM DAFFAN / DIED / April 2nd, 1855/in the 78th year of / His age." The marker is sandstone and has an unmarked associated sandstone footstone (Figure 4-75). The second headstone, also sandstone, has an engraved circle thought to contain an angel and reads "In memory of" (the rest of the text is buried) (Figure 4-76). The third sandstone marker has been damaged and is represented by detached top half and the bottom half which remains in its original location. The detached top half is decorated with a rose and reads "In memory of". The in situ base bears the inscription "…ANN M. / BURRUS/ WIFE OF P. H. BURRUS / Caroline County/ Who died / November 22nd 1848 / 29th year of her age." (Figure 4-77). The fourth headstone is also sandstone and reads "IN / *Memory of* / HUGH W. DAFFAN / DIED / Sept, 22. 1847 / In the 11 year / of his age." (Figure 4-78). The final headstone is granite and has no discernible inscription (Figure 4-78).

FIGURE 4-75: SITE 44ST1224, WILLIAM DAFFAN HEADSTONE DETAIL

FIGURE 4-76: SITE 44ST1224, UNKNOWN HEADSTONE DETAIL

FIGURE 4-77: SITE 44ST1224, ANN M. BURRUS HEADSTONE DETAIL

FIGURE 4-78: SITE 44ST1224, HUGH W. DAFFAN HEADSTONE DETAIL (LEFT) AND UNKNOWN HEADSTONE DETAIL (RIGHT)

In addition to the marked interments, at least three additional unmarked graves were noted during the pedestrian survey of the cemetery area. These unmarked interments were identified based on the presences of shallow rectangular depressions. Based on the presence of both marked and unmarked graves, it appears that a minimum of eight individuals may be buried within the cemetery. Given the interment dates on the discernible grave markers, the cemetery was established circa 1847 and abandoned circa 1855, suggesting it was in use for a very short period during the mid-nineteenth century. The Stafford County Cemetery Committee completed a

survey of the cemetery in April 2009 and noted similar conditions and the presence of at least seven graves (both marked and unmarked) (Dodd 2009). This 2009 survey noted that the cemetery was threatened by neglect and that at least one grave had been disturbed and damaged.

4.3.16.2 Evaluation and Significance

Site 44ST1224/089-5624 is a small mid-nineteenth-century family cemetery, including the marked interments of five individuals and at least three unmarked graves. No subsurface excavations were conducted within the cemetery area, as such the boundaries of the cemetery have not been delineated. The cemetery appears to be typical of small family burying grounds encountered throughout the region and does not display any unique architectural elements or known association with people or events important in history. As such, **it is recommended that site 44ST1224/089-5624 is not eligible for NRHP inclusion under Criteria A–D.** However, it is recommended that the general cemetery area should be avoided or further delineation efforts should be undertaken to determine the exact limits of the cemetery.

4.4 AREA 3: FREDERICKSBURG

Area 3 of the DC2RVA Preferred Alternative encompasses those portions of the LOD lying within a part of Stafford County, and the City of Fredericksburg and Spotsylvania County in their entirety. A very small portion of Area 3 extends into Caroline County with the final archaeological area terminating approximately 800 feet (243.8 m) south of the Spotsylvania-Caroline County line. Beginning in the north near Dahlgren junction and ending on the south between Claiborne and Guinea, Area 3 runs along approximately 13 miles (20.9 km) of the existing CSXT rail. The areas identified for archaeological survey within Area 3 encompasses 29.5 acres (11.9 ha).

The setting of Area 3 is varied, running directly through downtown Fredericksburg and the local environs, but continuing into the rural areas to the southeast of the city. The northern portions of Area 3 reflect the urban environment around Fredericksburg, and as the corridor moves further to the south, the setting transitions to one dominated by wooded areas. (Figure 5-29). Area 3 consists of six archaeological areas, lettered 3a through 3f, designated for Phase IB study within the scope of the current investigation. One of these, Archaeological Area 3e, was inaccessible at the time of field survey and no pedestrian or subsurface archaeological investigations were completed in this area. The remaining five archaeological areas were subjected to subsurface testing in at least some portions. A number of the archaeological areas are crossed by or adjacent to streams, including the Rappahannock River, and Deep Run and Massaponax Creeks (see Figure 2-2).

Like much of the DC2RVA project corridor as a whole, substantial portions of Area 3 were not subjected to subsurface testing due to existing disturbances. These disturbances mainly consisted of the construction grading creating embankments required by the existing railroad. Other disturbances included substantial buried fiber optic and petroleum utility transmission lines and artificial ditches. Although the majority of area within Area 3 was disturbed and therefore not subjected to subsurface testing, five archaeological areas received at least some subsurface testing (Figure 4-79).

FIGURE 4-79: REPRESENTATIVE VIEW OF AREA 3 SETTING, LOOKING NORTHEAST

A total of 199 shovel tests was excavated in Area 3. Stratigraphy varied greatly across this area, as would be expected from such a small sample over such a large geographic area. Eight positive shovel tests and a single metal detector hit resulted in the identification of two new archaeological sites (44SP0767 and 3f-2) and two isolated finds (ISF 3c-1 and ISF 3f-1). Additionally, five previously recorded archaeological sites intersect Area 3 and were revisited during the current survey (44SP0187, 44SP0468, 44SP0687, 44SP0688, and 44ST0011). Artifacts were recovered from only one of these previously identified sites, 44SP0187. Newly and previously identified sites and ISFs are discussed below a general description of each area.

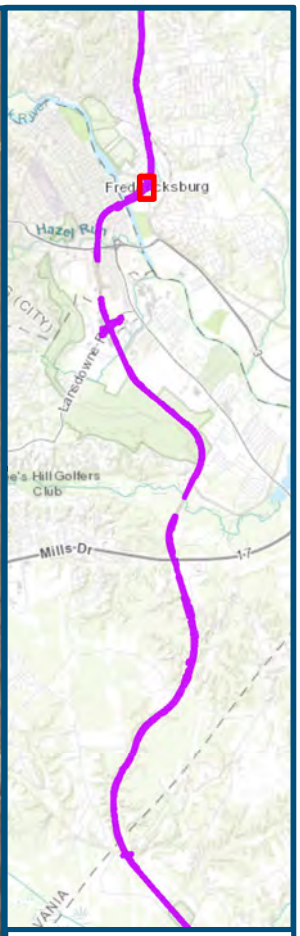
4.4.1 Archaeological Area 3a

Archaeological Area 3a begins at the existing CSXT railroad's crossing of Kings Highway (Route 3), and continues from there to the southwest, ending at the Rappahannock River, and spanning across approximately 2,400 feet (731.5 m). Archaeological Area 3a consists of eight blocks of area deemed suitable for archaeological study that are located on both sides of the existing rail and running along the sides of Kings Highway. These areas encompass a total of 8.1 acres (3.3 ha). The majority of this area is not suitable for subsurface testing as the corridor falls largely in the extensive construction grading related to both the railroad as it approaches a bridge crossing the Rappahannock River, and to the multi-lane overpass of Kings Highway over the railroad (Figure 4-80). A small portion of Archaeological Area 3a, lying primarily along the western side of the rail, was tested via STP survey, but even there, many shovel test locations were left unexcavated as construction grading or inundation protrude across the transects (Figure 4-81). Twenty-one STPs were excavated and were located primarily on two transects, but a pair of judgmental STPs was excavated as well (Figure 4-82 and Figure 4-83). No artifacts were found and no new sites

were identified in Archaeological Area 3a. However, previously identified site 44ST0011 intersects the APE in this area.

FIGURE 4-80: STEEP SLOPE IN AREA 3A, LOOKING SOUTH

FIGURE 4-81: PORTION OF AREA 3A SUBJECTED TO SUBSURFACE TESTING, LOOKING NORTH



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Feet

0 30 60
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Negative STP
- STP Not Excavated
- Disturbed

Figure 4-82
Survey Results in Archaeological Area 3a (Map 1 of 2)

04/2018

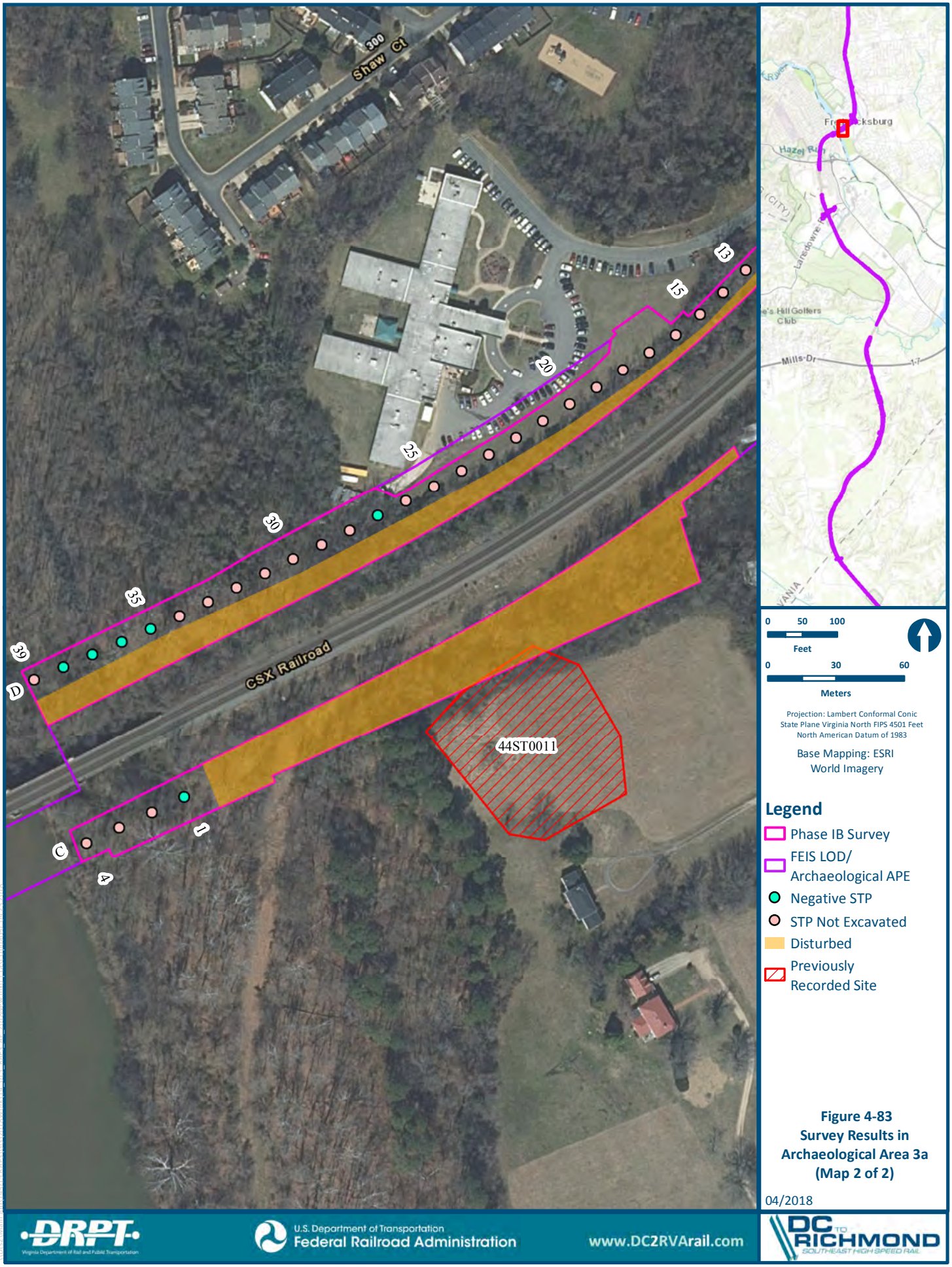


Figure 4-83
Survey Results in Archaeological Area 3a (Map 2 of 2)

04/2018

The average STP depth in Archaeological Area 3a was 1.3 feet (39.6 cm) with a maximum depth of 3.0 feet (91.4 cm). A-horizon depths ranged from 0.1 feet (3.0 cm) to 2.0 feet (61.0 cm) with an average depth of 0.6 feet (18.3 cm). A typical shovel test profile in Archaeological Area 3a consisted of dark grayish brown (10YR 4/2) sandy loam overlying dark yellowish brown (10YR 4/6) sandy loam, which sat atop brownish yellow (10YR 6/8) sand subsoil (Figure 4-84).

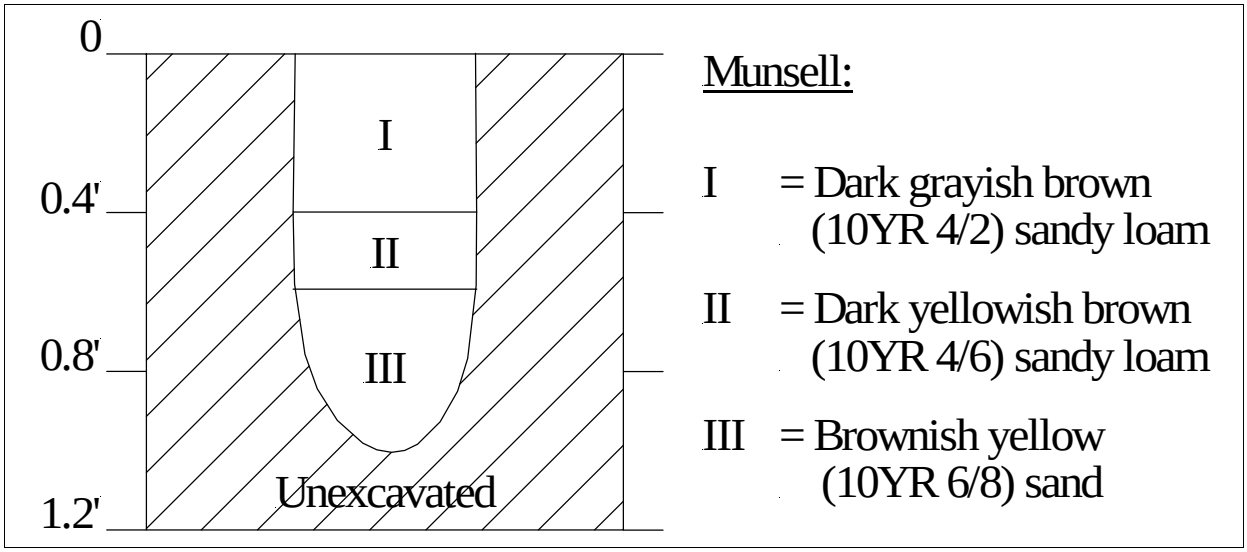


FIGURE 4-84: REPRESENTATIVE SOIL PROFILE FROM AREA 3A, STP 3A-D-7

4.4.2 Archaeological Area 3b

Archaeological Area 3b is a small area located in the downtown area of the City of Fredericksburg. Area 3b consists of a single block of survey area in a grassy level field to the south of the existing rail, overlooking the Rappahannock River. Measuring approximately 180 feet (54.9 m) long and 40 feet (12.2 m) wide, Area 3b extends from the river bank to the edge of Sophia Street, encompassing 0.2 acres (0.8 ha) identified for archaeological survey. Enough of Area 3b was undisturbed that subsurface testing was feasible through its entire length, but disturbances from the railroad construction and from buried utilities were present (Figure 4-85 and Figure 4-86). Subsurface testing in Archaeological Area 3b consisted of the excavation of four STPs along a single transect as well as metal detector survey, as Area 3b overlaps the PotNR boundaries for Battle of Fredericksburg I (111-5295), Battle of Fredericksburg II (111-5296), and the Salem Church Battlefield (088-5181). All four STPs were positive, and this finding and a metal detector hit resulted in the expansion of previously identified site 44SP1087 (Figure 4-87). These results, including notes on soil stratigraphy, are discussed below as they relate to site 44SP1087. Additionally, the APE in Archaeological Area 3b crosses previously recorded archaeological sites 44SP0687 and 44SP0688, which were examined as part of the study.

FIGURE 4-85: STEEP SLOPE IN AREA 3B, LOOKING WEST

FIGURE 4-86: PORTION OF AREA 3B SUBJECTED TO SUBSURFACE TESTING, LOOKING NORTH

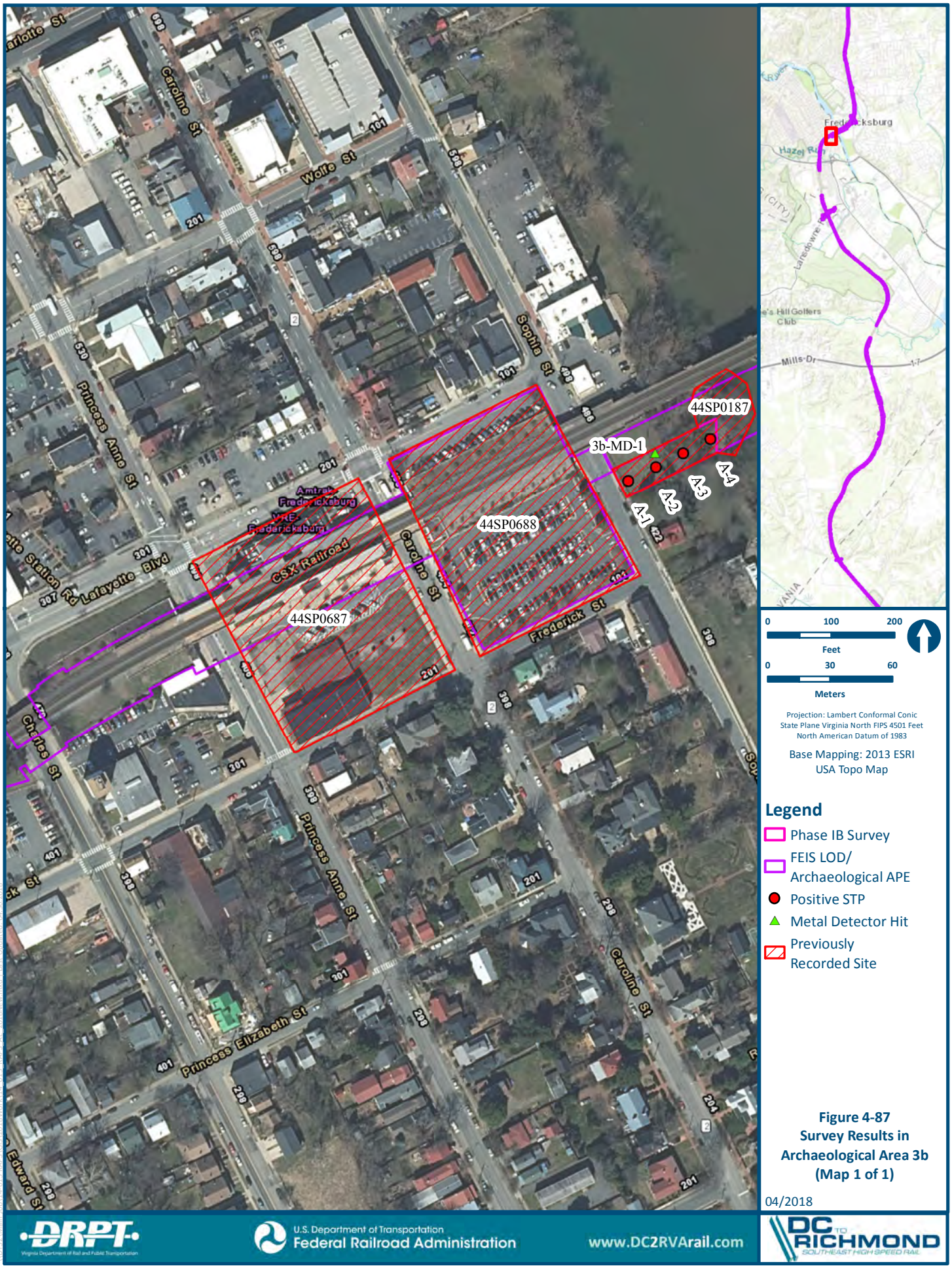


Figure 4-87
Survey Results in Archaeological Area 3b (Map 1 of 1)

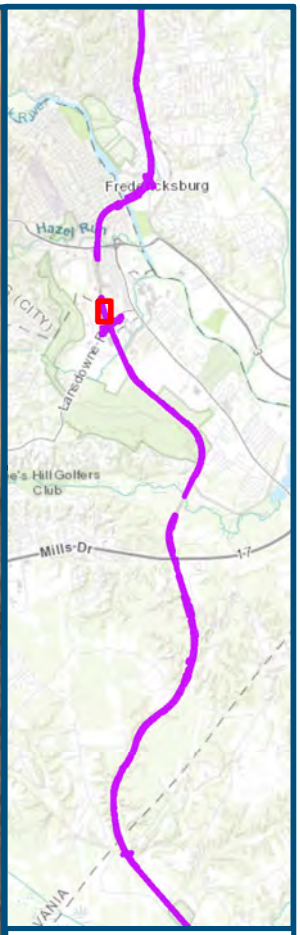
04/2018

4.4.3 Archaeological Area 3c

Archaeological Area 3c consists of six blocks that were part of the archaeological study lying along Lansdowne Road near its intersection with the existing CSXT rail, and one additional strip of testing along the east side of the rail, to the north of Lansdowne Road. The surrounding setting of Archaeological Area 3c is dominated by commercial and light industrial development. In general the setting of the studied areas within Archaeological Area 3c corresponds to this development, lying in level graded, mowed areas surrounding commercial facilities. However, portions of Archaeological Area 3c lie in areas of secondary growth woods. The seven blocks making up Archaeological Area 3c total 3.4 acres (1.4 ha). Although substantial disturbance was present within the area, five of the seven sections had sufficient undisturbed areas as to allow for subsurface testing (Figure 4-88 and Figure 4-89). Subsurface testing in Archaeological Area 3c consisted of 43 STPs aligned on nine transects (Figure 4-90 through Figure 4-92). A single positive STP resulted in the identification of an isolated find, ISF 3c-1, a fragment of prehistoric quartz debitage. Isolated finds are by definition not eligible for NRHP listing.

FIGURE 4-88: BURIED UTILITY DISTURBANCE IN AREA 3C, LOOKING WEST

FIGURE 4-89: PORTION OF AREA 3C SUBJECTED TO SUBSURFACE TESTING, LOOKING NORTH



0 50 100
Feet

0 30 60
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

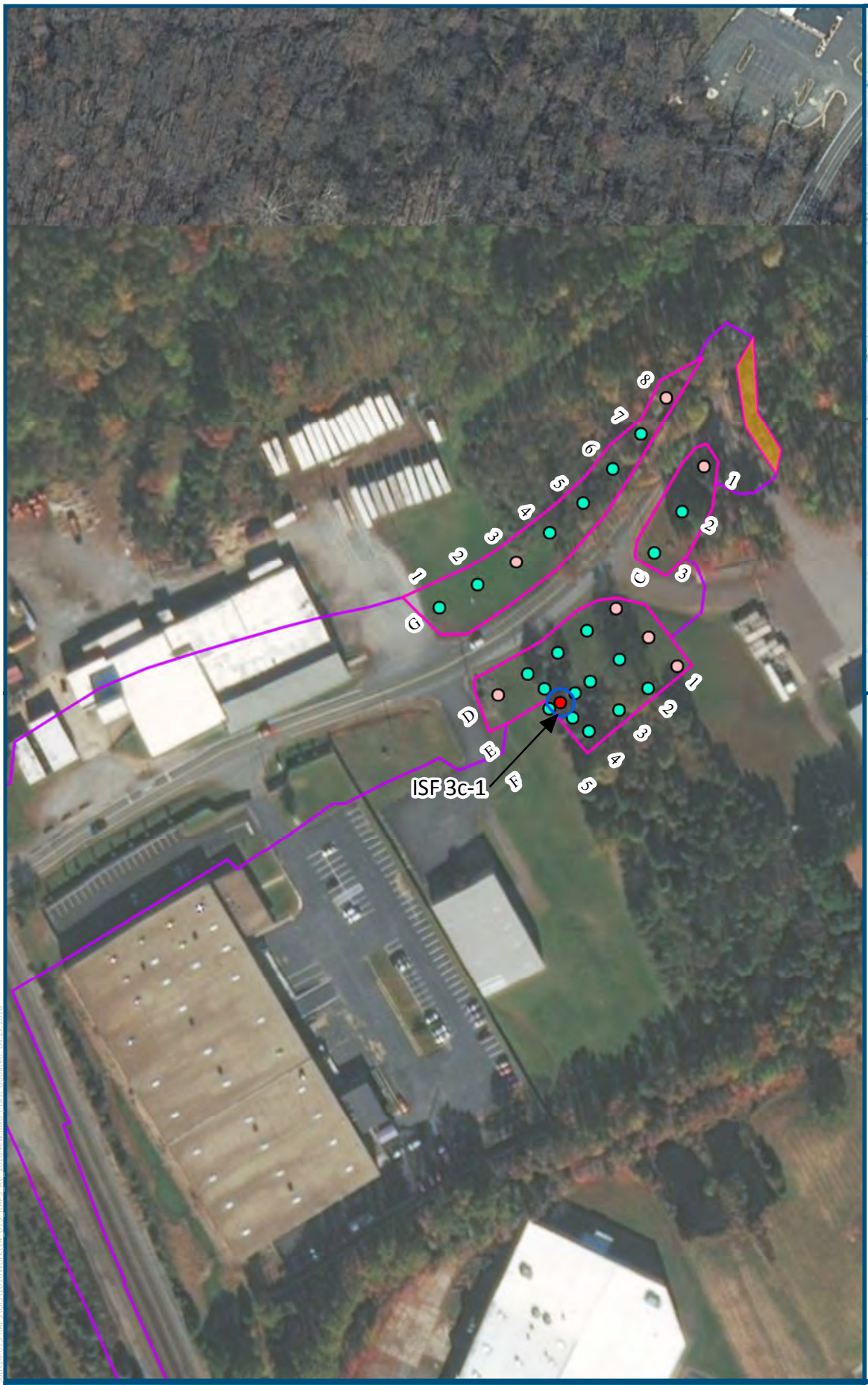
Base Mapping: ESRI
World Imagery

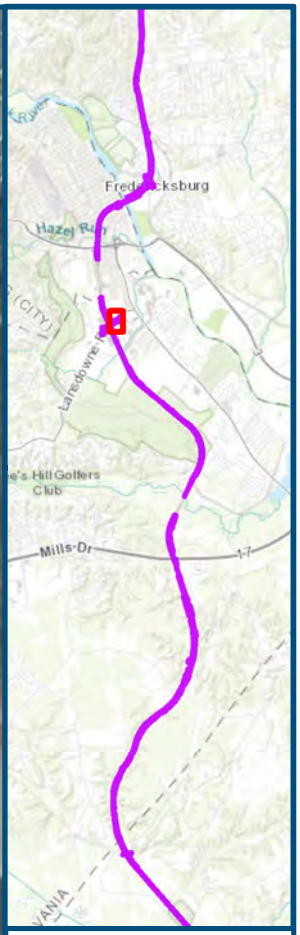
Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Negative STP
- STP Not Excavated

Figure 4-90
Survey Results in Archaeological Area 3c
(Map 1 of 3)

04/2018





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Feet
0 30 60
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Isolated Find Boundary
- Negative STP
- STP Not Excavated
- Positive STP
- Disturbed

Figure 4-91
Survey Results in Archaeological Area 3c
(Map 2 of 3)

04/2018

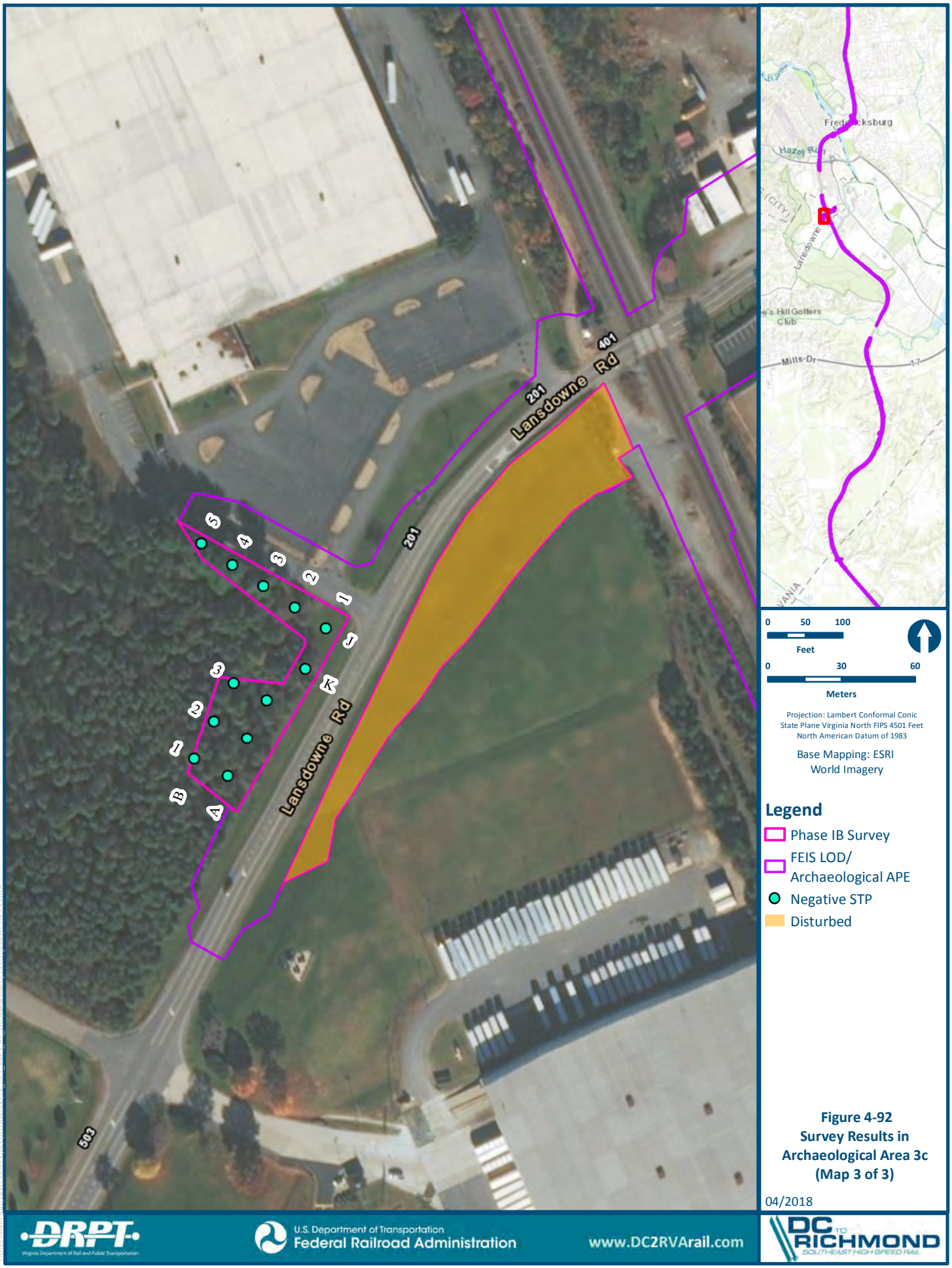


Figure 4-92
Survey Results in
Archaeological Area 3c
(Map 3 of 3)

04/2018

The average STP in Archaeological Area 3c reached a depth of 1.0 feet (30.5 cm) with the deepest STP extending to 1.8 feet (54.9 cm). A typical STP profile consisted of dark yellowish brown (10YR 4/4) clay loam topsoil which sat above strong brown (7.5YR 5/6) clay subsoil with pockets of brownish yellow (10YR 6/8) clay (Figure 4-93).

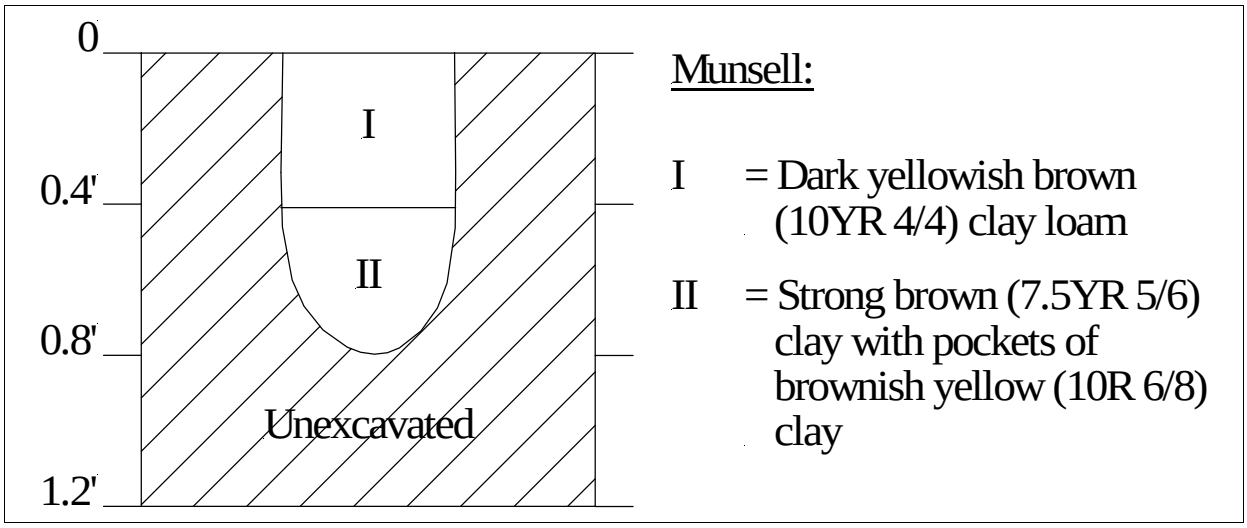


FIGURE 4-93: REPRESENTATIVE SOIL PROFILE FROM AREA 3C, STP 3C-D-2

4.4.4 Archaeological Area 3d

Archaeological Area 3d is a small area lying entirely on the steep slope lying between a curve in the existing CSXT rail and the Fredericksburg and Spotsylvania National Military Park (111-0147). Archaeological Area 3d measures 425 feet (129.5 m) long and has a maximum width of 55 feet (16.8 m) encompassing an area of 0.4 acres (0.2 ha) on the west side of the existing rail. The area is entirely covered in young mixed woods with an understory of greenbrier and brambles, and is generally characterized by steep slope, though a narrow relatively level area was present allowing for a transect of STPs which ran the entire length of Area 3c (Figure 4-94). A total of eight STPs was excavated (Figure 4-95). In addition to STP survey, metal detector survey was conducted within Archaeological Area 3d, as it overlaps the PotNR boundaries for the Battle of Fredericksburg I (111-5295) and the Battle of Fredericksburg II (111-5295). No artifacts were found and no new sites were discovered. However, the majority of Archaeological Area 3d lies within the mapped boundaries of previously identified site 44SP0468 (see site description below).

FIGURE 4-94: PORTION OF AREA 3D SUBJECTED TO SUBSURFACE TESTING, LOOKING NORTH

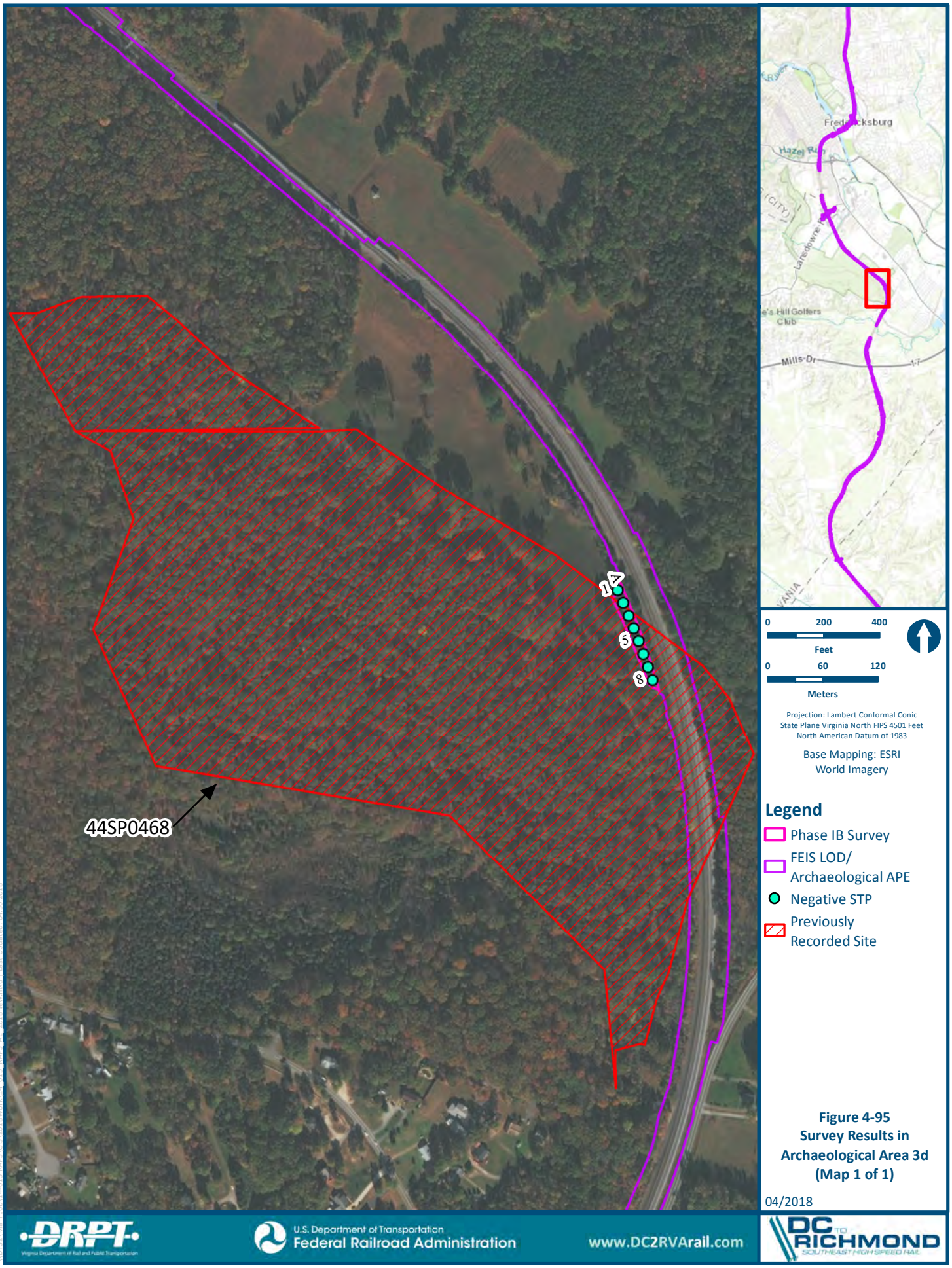


Figure 4-95
Survey Results in
Archaeological Area 3d
(Map 1 of 1)

04/2018

The average STP in Archaeological Area 3d reached a depth of 1.0 feet (30.5 cm), with the deepest extending to 1.2 feet (36.6 cm). A-horizon soils in 3d ranged from 0.3 feet (9.1 cm) to 0.8 feet (24.4 cm) with an average depth of 0.6 feet (18.3 cm). STP profiles generally consisted of dark yellowish brown (10YR 4/4) silt loam topsoil overlying yellow (10YR 7/8) silt loam subsoil (Figure 4-96).

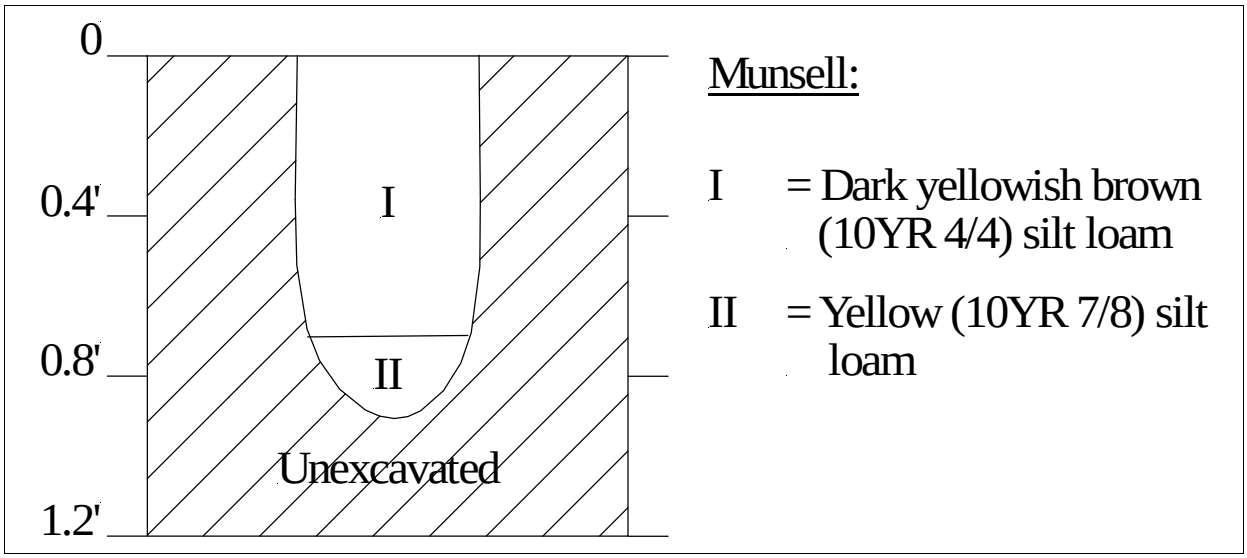
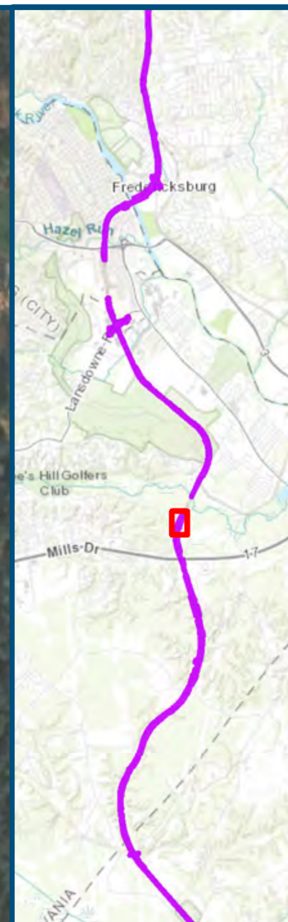


FIGURE 4-96: REPRESENTATIVE SOIL PROFILE FROM AREA 3D, STP 3D-A-1

4.4.5 Archaeological Area 3e

Archaeological Area 3e is located on the east side of Benchmark Road, which parallels the east side of the existing rail, running north to south across a length of 650 feet (198.1 m). The area includes two blocks identified for archaeological study and encompasses 0.6 acres (0.2 ha). This area is situated within a residential zone, south of Fredericksburg. At the time of survey Benchmark Road within Area 3a was closed for road construction, as such archaeological survey crews were not permitted to enter the area. Based on the inability to access Archaeological Area 3e, no pedestrian or subsurface archaeological investigations were completed in this area (Figure 4-97). No artifacts were found and no sites were discovered.



0 100 200
Feet
0 30 60
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- No Access

Figure 4-97
Survey Results in Archaeological Area 3e
(Map 1 of 1)

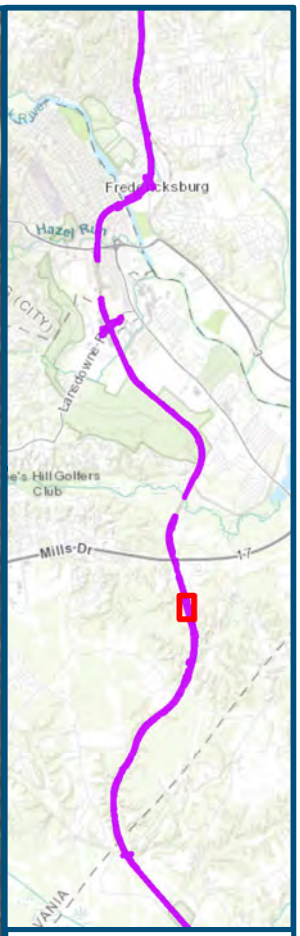
04/2018

4.4.6 Archaeological Area 3f

Archaeological Area 3f is a long section of the LOD containing eight separate blocks including sections to both the east and west of the existing CSXT rail. Archaeological Area 3f begins approximately 3,000 feet (914.4 m) south of Mills Drive (U.S. Highway 17) near Olive in Spotsylvania County, and continues along the rail spanning approximately 4 miles (6.4 km) of the rail corridor, and encompassing a total of 16.9 acres (6.8 ha). The topography within Archaeological Area 3f consists generally of ridgetops and slopes, and is largely wooded with cleared areas for utility corridors as well as the unmaintained path of Benchmark Rd along the eastern side of the rail. North of Summit Crossing Road, STP survey was possible through much of the survey sections (Figure 4-98). However, the portions of Archaeological Area 3f south of Summit Crossing Road are typified by extensive construction grading resulting from the existing CSXT rail line as well as disturbance and erosion from the access roads and utility lines paralleling the existing rail line. Additionally, the intersection of those eroded areas with the numerous creeks crossing low lying spots within the area led to the inundation of substantial portions of the corridor. As such, work completed Archaeological Area 3f south of Summit Crossing Road included only pedestrian survey, no subsurface investigations were undertaken (Figure 4-99). Subsurface testing in Archaeological Area 3f included 124 STPs on 14 transects (Figure 4-100 through Figure 4-109). Three positive STPs produced a total of seven historic artifacts, which together with the observations made during pedestrian reconnaissance resulted in the identification of two new archaeological sites and one isolated find. ISF 3f-1 consisted of a cut nail and a bottle glass fragment of indeterminate manufacture. Isolated Finds are, by definition, not eligible for NRHP listing. Sites 44SP0767 and 3f-2 are discussed in detail below the area descriptions.

FIGURE 4-98: TYPICAL SETTING IN PORTIONS OF AREA 3F SUBJECTED TO SUBSURFACE TESTING, LOOKING NORTH

FIGURE 4-99: ROAD AND BURIED UTILITY DISTURBANCE IN AREA 3F, LOOKING SOUTH



0 100 200
Feet
0 30 60
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Negative STP
- STP Not Excavated

Figure 4-100
Survey Results in Archaeological Area 3f
(Map 1 of 10)

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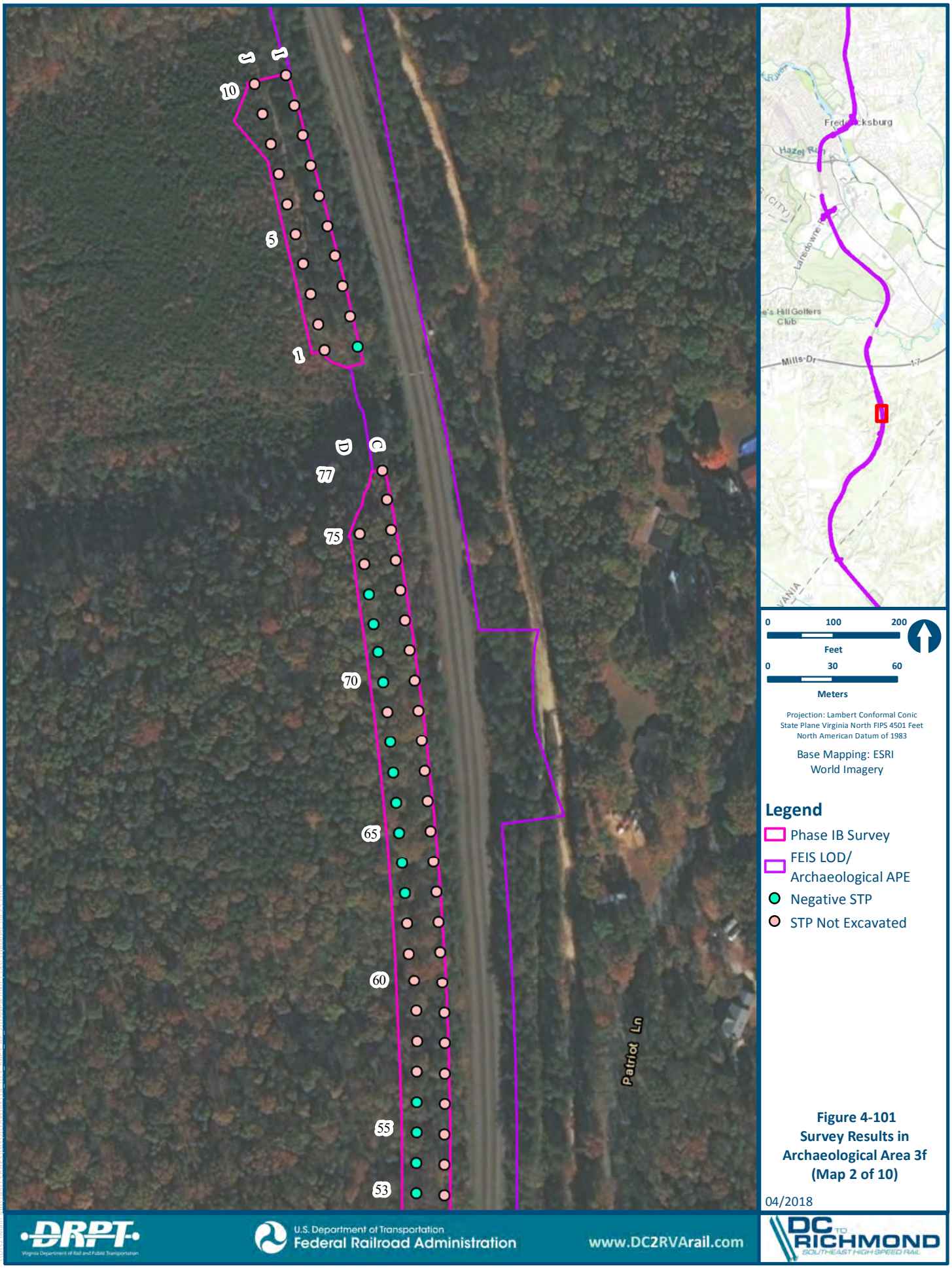
DC TO RICHMOND SOUTHEAST HIGH SPEED RAIL



Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Negative STP
- STP Not Excavated

Figure 4-101
Survey Results in Archaeological Area 3f
(Map 2 of 10)

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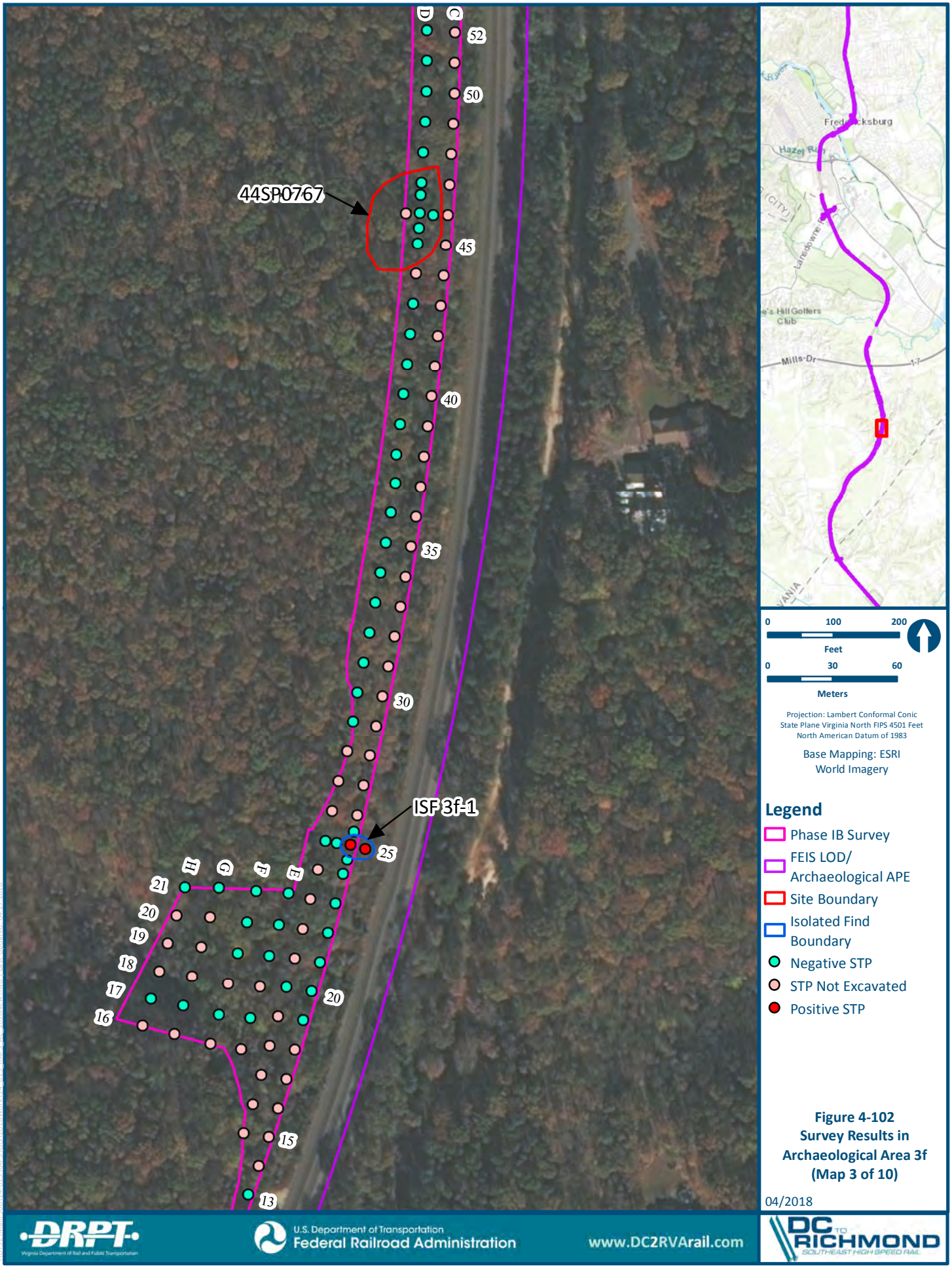


Figure 4-102
Survey Results in
Archaeological Area 3f
(Map 3 of 10)

04/2018

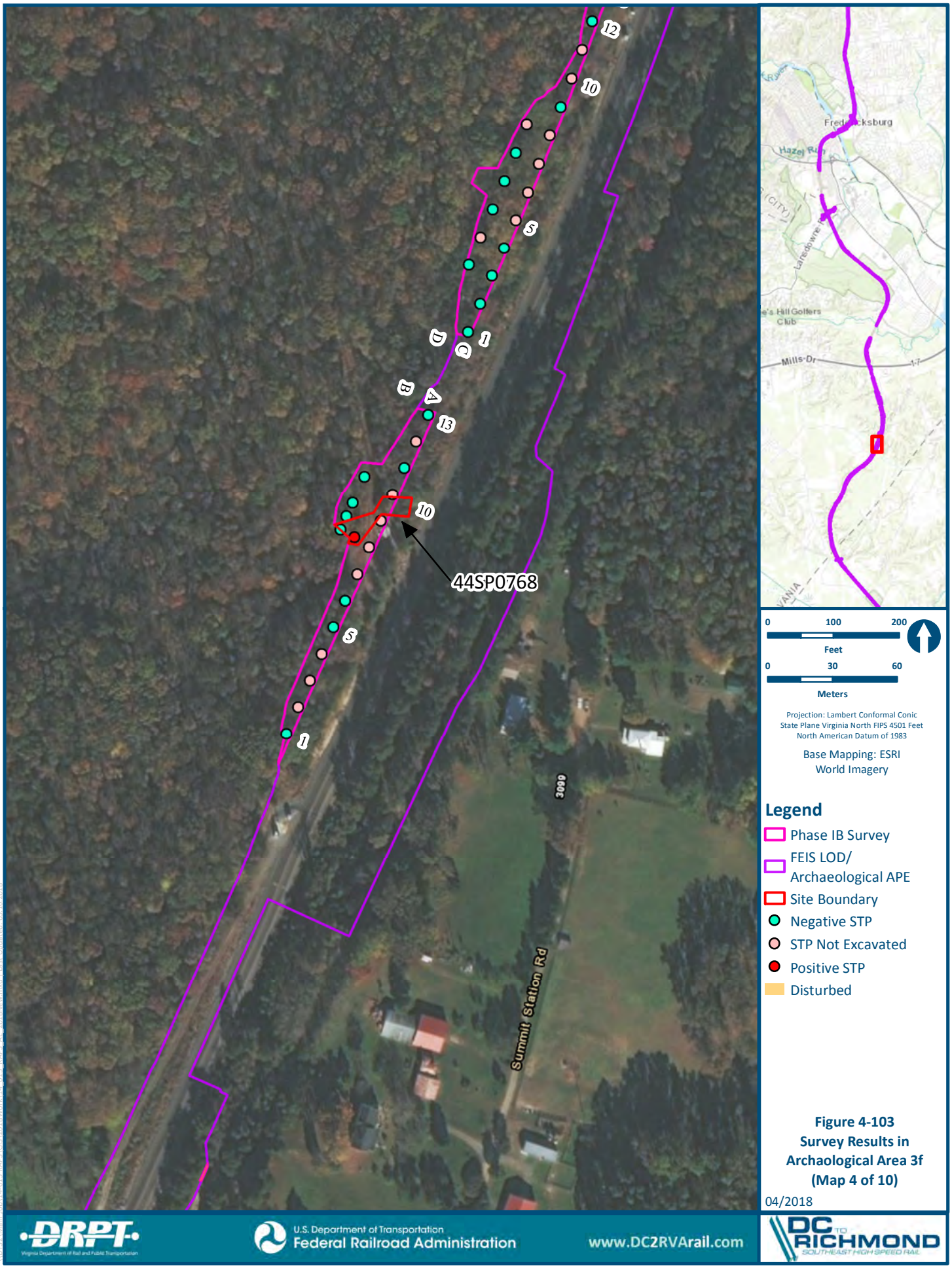
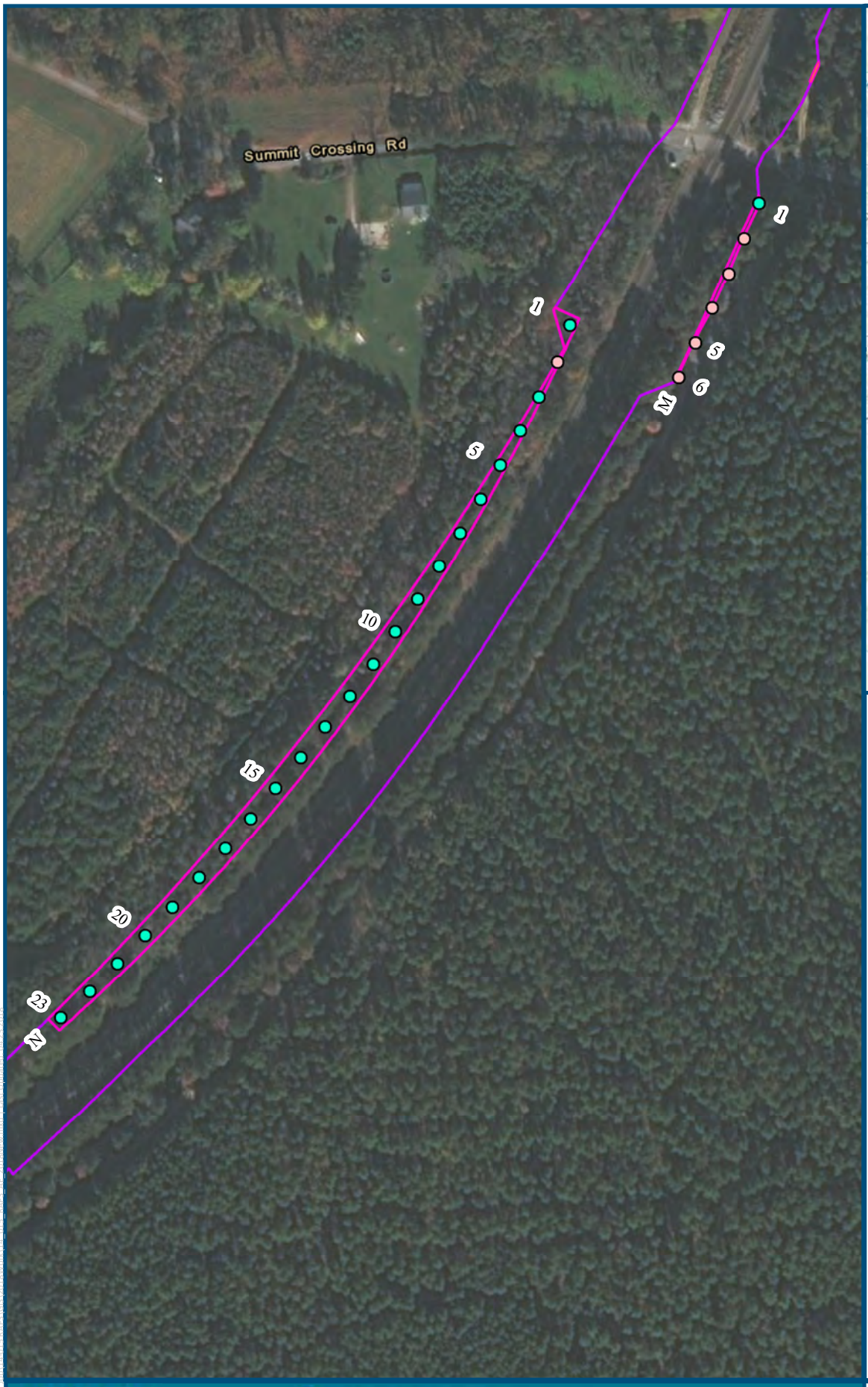
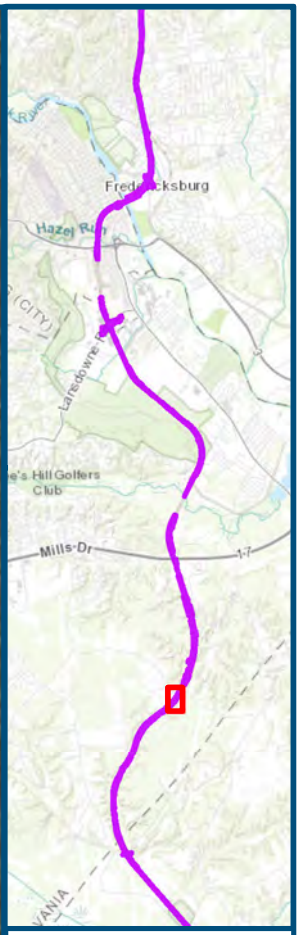


Figure 4-103
Survey Results in
Archaeological Area 3f
(Map 4 of 10)

04/2018





0 100 200
Feet
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Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

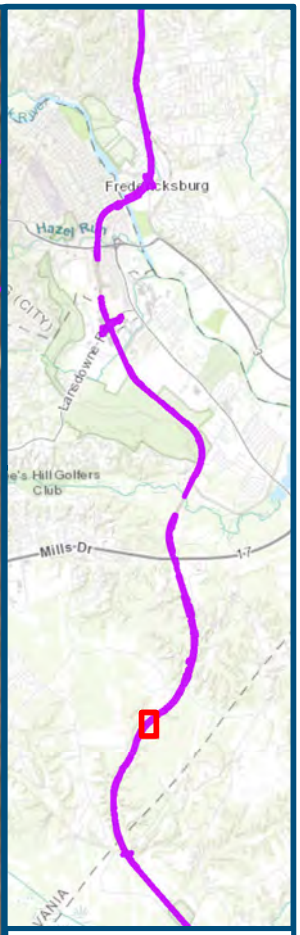
Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Negative STP
- STP Not Excavated
- Disturbed

Figure 4-104
Survey Results in Archaeological Area 3f
(Map 5 of 10)

04/2018



0 100 200
Feet
0 30 60
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Disturbed

Figure 4-105
Survey Results in Archaeological Area 3f
(Map 6 of 10)

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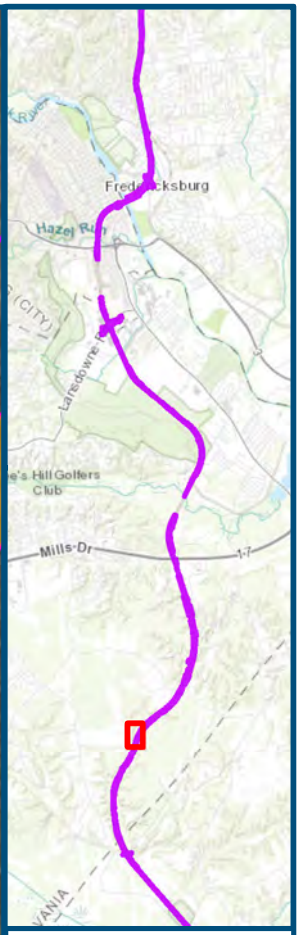

0 100 200
Feet
0 30 60
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Disturbed

Figure 4-106
Survey Results in Archaeological Area 3f
(Map 7 of 10)

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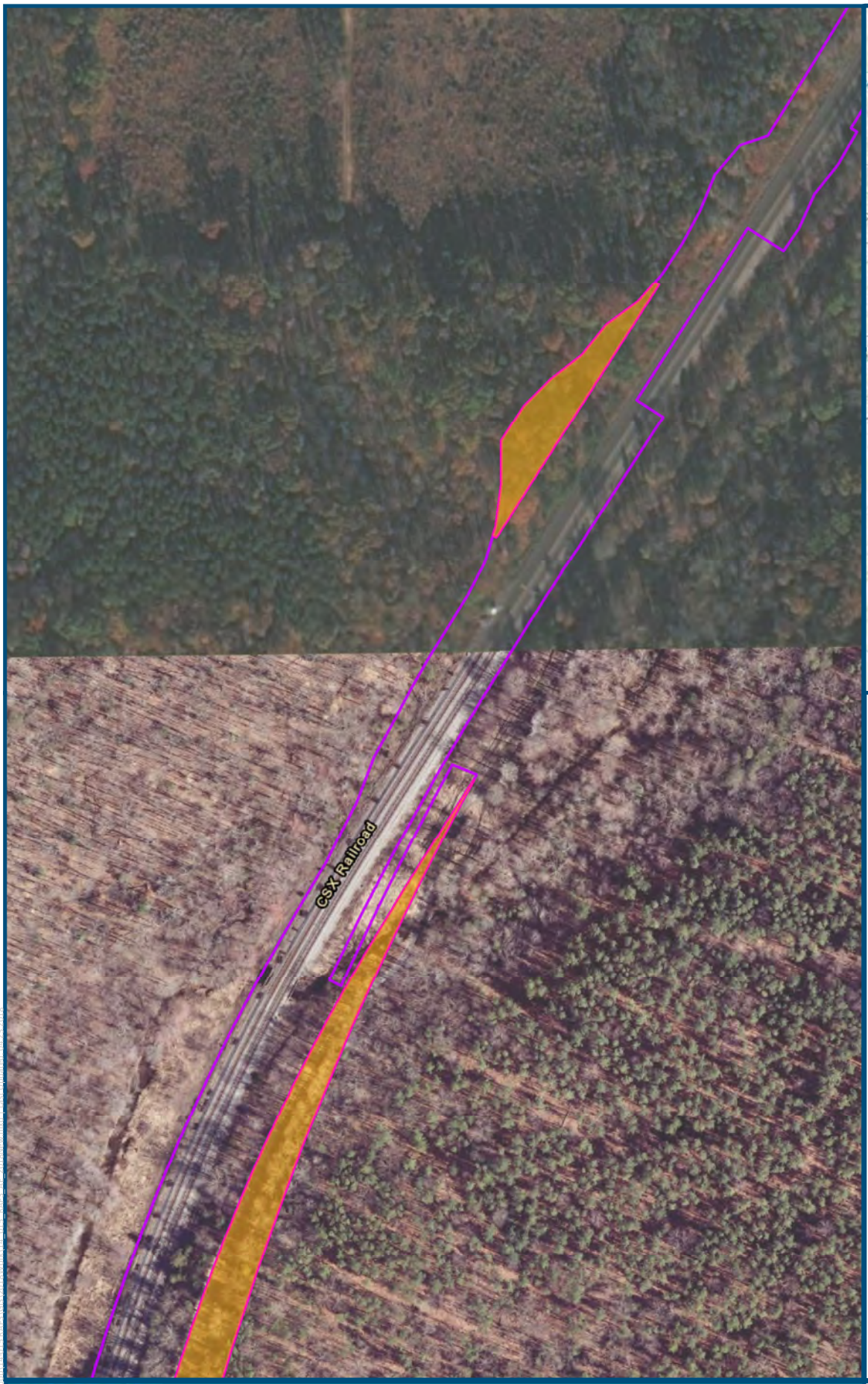

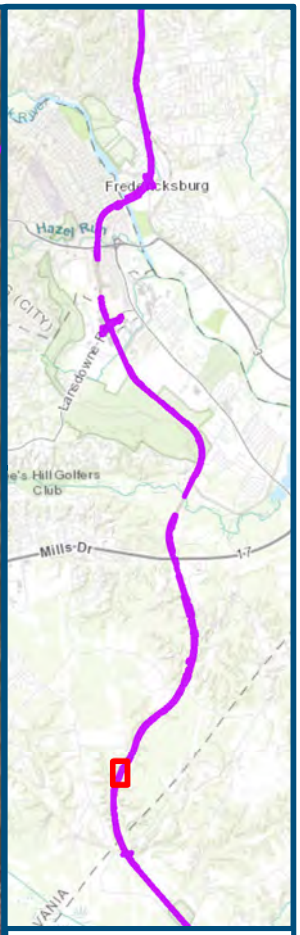

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Feet
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Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Disturbed

Figure 4-107
Survey Results in Archaeological Area 3f
(Map 8 of 10)

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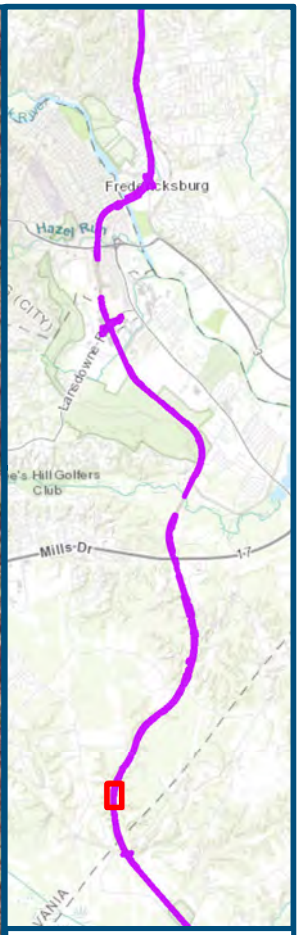

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Feet
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Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

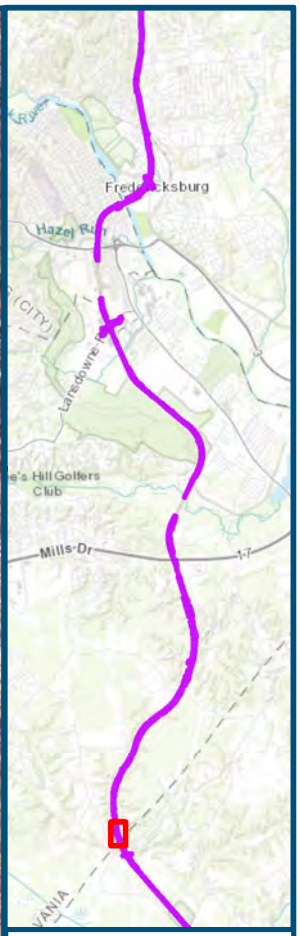
Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Disturbed

Figure 4-108
Survey Results in Archaeological Area 3f
(Map 9 of 10)

04/2018



0 100 200
Feet
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Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Disturbed

Figure 4-109
Survey Results in Archaeological Area 3f
(Map 10 of 10)

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STPs excavated in Archaeological Area 3f reached an average depth of 0.9 feet (27.4 cm) with the deepest reaching 2.0 feet (61.0 cm). A-horizon soils averaged 0.3 feet (9.1 cm) deep, reaching a maximum of 2.0 feet (61.0 cm) in depth. A typical STP profile in Area 3f consisted of a topsoil of black (10YR 2/1) sand with humus, overlying dark yellowish brown (10YR 4/4) sand, which in turn overlay brownish yellow (10YR 6/8) sandy clay subsoil (Figure 4-110).

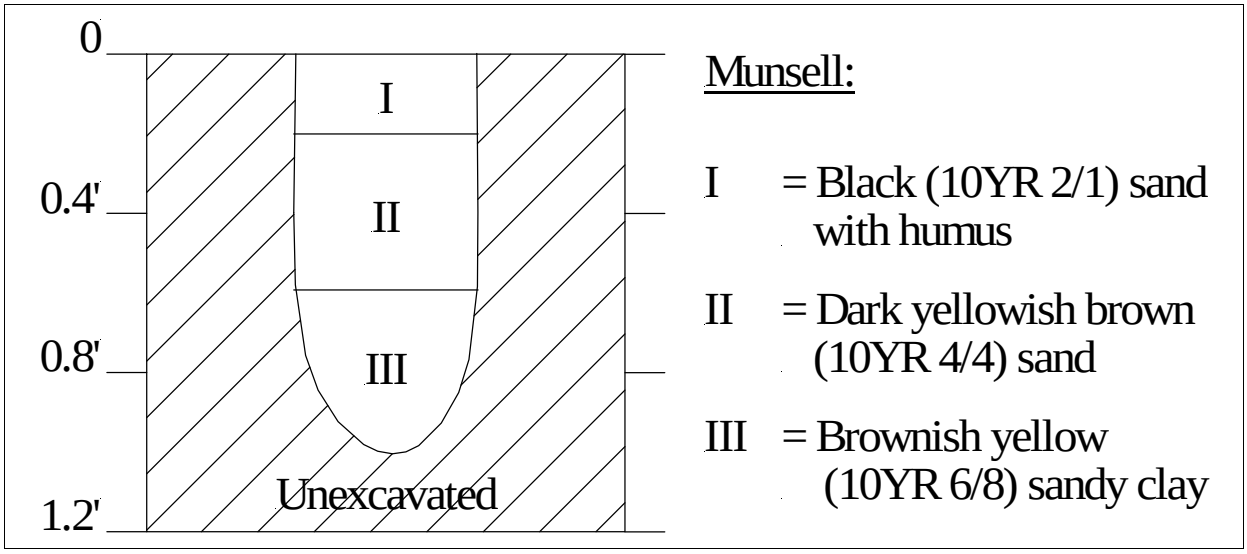


FIGURE 4-110: REPRESENTATIVE SOIL PROFILE FROM AREA 3F, STP 3F-D-51

4.4.7 Previously Recorded Site 44ST0011

Site 44ST0011 is a multicomponent site lying within the overall boundary of Ferry Farm (089-0016) (Figure 4-111). This site, identified primarily as a prehistoric site but including colonial elements, has not been evaluated in regard to its NRHP eligibility. The majority of the site as mapped lies outside the present survey in an open field to the southwest of the wooded survey area. However, to the extent that the site overlaps the present survey area, it lies in a sloping eroded area lying at the base of the railroad bridge crossing the Rappahannock River to the south (Figure 4-112). As the bulk of the site lies outside the project corridor in a field toward which visibility was limited from the project corridor, the site integrity as a whole cannot be assessed. However, based on the Phase IB study, the portion of the site within the APE was found to be heavily disturbed by erosion from an ephemeral drainage leading to the Rappahannock River. Of the approximately 50,000 square feet (4,645. 2 sq. m) encompassed by the site as a whole, less than 2 percent of the area lies within the APE. As such i**t is recommended that site 44ST0011 remains unevaluated for the NRHP. However, within the archaeological APE, the portion of site 44ST011 has been substantially disturbed, and as such any portion of the site within the APE would not contribute to the site's overall eligibility**.

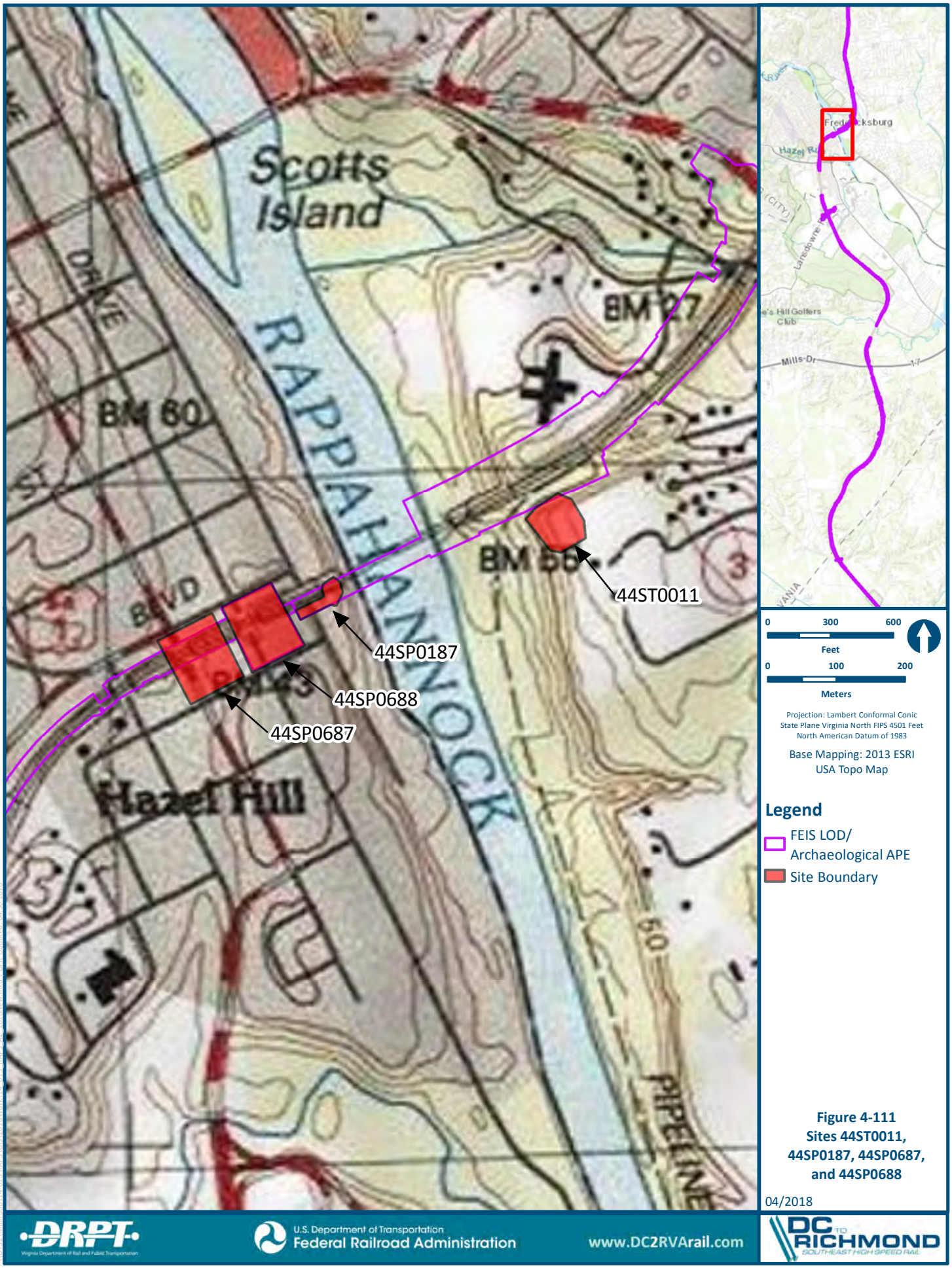


Figure 4-111
Sites 44ST0011, 44SP0187, 44SP0687, and 44SP0688

04/2018

Figure 4-112: Overview of Portion of 44ST0011 Lying Within the APE, Looking North

4.4.8 Previously Recorded Site 44SP0187

4.4.8.1 Site Description

Previously recorded site 44SP0187 is located in a portion of Archaeological Area 3b that was identified for additional archaeological study (see Figure 4-111). As recorded at the DHR, the site is a nineteenth-century cut stone bridge pier on the south bank of the Rappahannock River, east of Sophia Street in Fredericksburg. Site 44SP0187 was visited during the 2016 Phase IB archaeological survey focused on the rail mainline (McCloskey et al. 2016). Expansions to the LOD as a result of the final EIS planning and design work required Phase I survey within additional portions of the site and gave archaeologists a better window into the site deposits and stratigraphy.

As noted by McCloskey et al. 2016, the DHR archives record site 44SP0187 as the remains of a bridge based on the observation of a cut-granite pier at the water's edge during low tide. McCloskey et al. noted the site location likely represented the remains of a mill operation that had been replaced by a series of industrial plants over time as well as several incarnations of the railroad bridge. As such, it was postulated that the site likely includes the remains of several buildings and structures; however, no subsurface testing was conducted at that time based on the limits of APE.

During the current survey, no cut stone was observed in the river, so although classified as a nineteenth-century bridge, the terrestrial portion of site 44SP0187 occupies the location of Marye's Mill, depicted in an 1863 photograph taken during the Second Battle of Fredericksburg and mills identified on Gray's (1878) map of late-nineteenth-century Fredericksburg (Hennessy 2011;

Figure 44). The mill extends inland from the river's edge to the ridge top along Sophia Street in all cases. In addition, the 1856 *Bird's Eye Views of Fredericksburg* published in 1856 and redrawn in 1862 depicts buildings at the approximate location of the survey, but there are no details clearly identify the function of the buildings (Figure 4-115 and Figure 4-116).

Archaeological testing of site 44SP0187 included the excavation of four STPs and metal-detector survey along transects spaced at 6-foot (1.8-m) intervals. Metal detector survey was completed as the site is located within PotNR boundaries for Battle of Fredericksburg I (111-5295), Battle of Fredericksburg II (111-5296), and the Salem Church Battlefield (088-5181). The STP transect crossed the project area from approximately 25 feet (7.6 m) southeast of Sophia Street to the floodplain of the Rappahannock River (Figure 4-117 through Figure 4-119).

FIGURE 4-113: DETAIL FROM O'SULLIVAN'S (1863) PHOTOGRAPH SHOWING A VIEW OF FREDERICKSBURG ACROSS THE RAPPAHANNOCK RIVER SHOWING A MILL ADJACENT TO THE RAILROAD BRIDGE. THE CIRCLE OUTLINES THE MILL AND THE ARROWS IDENTIFY THE REMAINS OF THE RAILROAD BRIDGE. ONLY PIERS REMAIN IN THE RIVER.

FIGURE 4-114: DETAIL FROM *GRAY'S NEW MAP OF FREDERICKSBURG* (1878). THE RED CIRCLE MARKS THE LOCATION OF THE BUILDINGS LABELED "FLOUR MILLS" IN RELATION TO THE RAILROAD BRIDGE AND SOPHIA STREET.

Figure 4-115: Detail of an 1856 Bird's Eye View of Fredericksburg, Virginia, View 2986 (SACHSE 1856). The Circle Outlines the Mill.

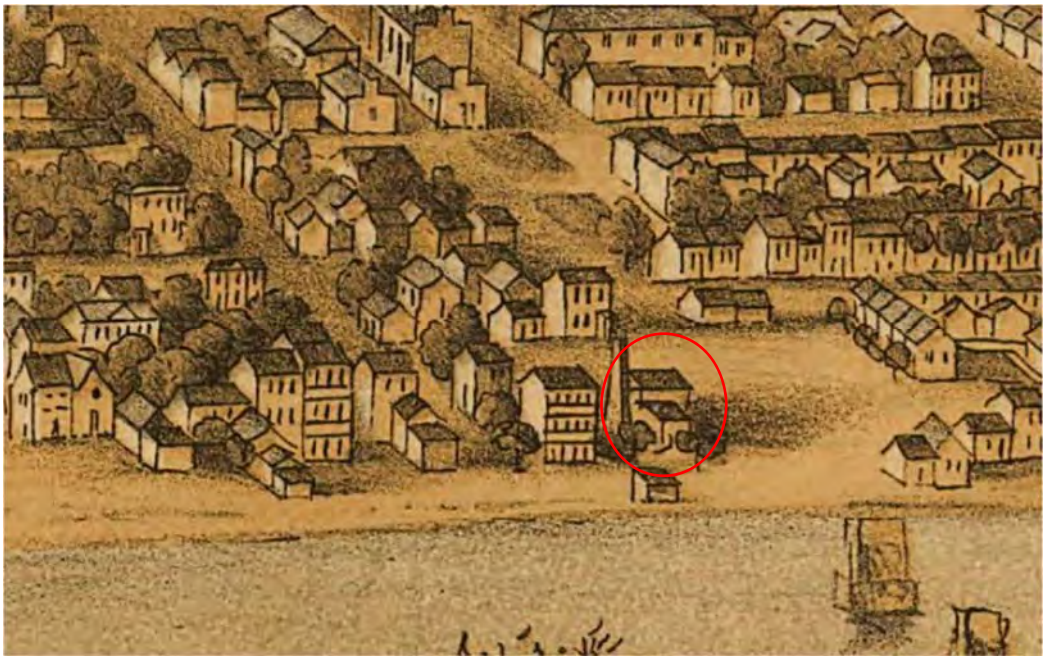


FIGURE 4-116: DETAIL FROM *VIEW OF FREDERICKSBURG, VA. NOV. 1862* (SACHSE 1863). THE CIRCLE OUTLINES THE MILL.

FIGURE 4-117: SOPHIA STREET SHOWING MARKED UTILITY LINE, LOOKING SOUTHWEST

FIGURE 4-118: EDGE OF THE RIDGE AND SLOPE DOWN TO THE RAPPAHANNOCK RIVER, LOOKING SOUTHEAST

FIGURE 4-119: FLOODPLAIN PORTION OF SITE 44ST0187, LOOKING SOUTHEAST

The average depth of STPs within the site was 1.7 feet (0.5 m), with the deepest STP extending to a depth of 3 feet (0.9 m). The average A-horizon soils measured 0.7 feet (0.2 m). The maximum A-horizon soils measurement within the site measured 1 foot (0.3 m). As a result of considerable disturbance and of the variation in anthropogenic, colluvial, and alluvial deposition across the project area, the profiles of STPs differed considerably. Road gravel in the topsoil and the mix of soils in the underlying stratum indicated disturbance in STP 3b-A-1, while, despite the presence of a relatively large artifact assemblage in STP 3b-A-2, the recovery of an aluminum twist-off bottle cap near the base of Stratum III indicated that all contexts were formed relatively recently (Figure 4-120). Despite apparent disturbance in STP 3b-A-3, located on the small bench above the active floodplain, the complete bricks and large brick bats protruding from the walls and near the base of the 2.2-foot (0.7-m) deep STP indicated the possible presence of an intact, deeply buried stratum.

The domestic assemblage recovered during the STP survey included redware, whiteware, ironstone, stoneware, soft-paste porcelain and various types of bottle and vessel glass. Architectural artifacts included brick fragments, cut and wire nails, and window glass. In addition, a white ball-clay pipe stem, lamp parts, iron straps, and oyster shell were recovered.

A large, rectangular fragment of an iron spring was encountered during metal-detector survey. Other metal items excavated during the metal-detector survey were wire and cut nails, bolts and screws, a faucet part, corroded iron, and aluminum cans, bottle caps, and pop tops. No artifacts clearly dating to the Civil War era or unambiguously associated with a mill were encountered during the archaeological survey.

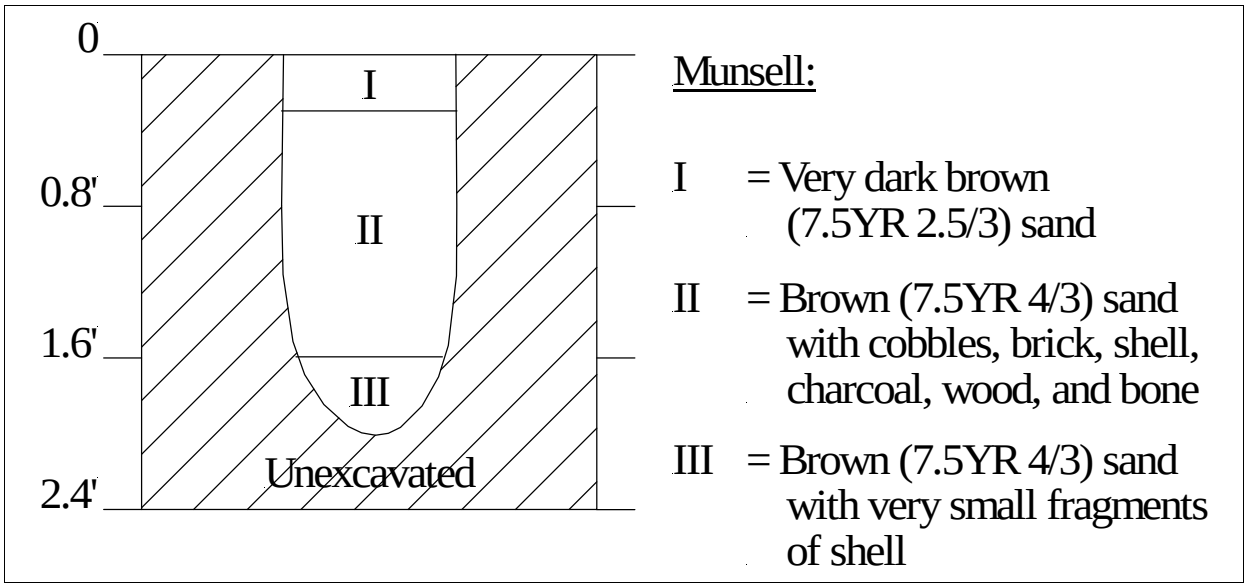


FIGURE 4-120: REPRESENTATIVE SOIL PROFILE FROM SITE 44SP0187

4.4.8.2 Evaluation and Significance

Site 44SP0187 is the nineteenth-century Marye's Mill and includes cut stone piers and likely other building remains. Excavations at the site resulted in the recovery of domestic material and evidence of intact subsurface features, but no direct evidence of milling operations. Additional excavations are needed to ascertain the integrity and significance of the deposits, as a buried intact mill-era stratum was noted during the survey. As such, Dovetail **recommends that site 44SP0187 is potentially eligible for the NRHP under Criterion A for its association with the nineteenth-century milling industry in the region and under Criterion D for its archaeological potential.**

4.4.9 Previously Recorded Sites 44SP0687 and 44SP0688

Sites 44SP0867 and 44SP0688, each encompassing a city block in Fredericksburg (blocks 48 and 49 respectively), were identified by the Center for Historic Preservation at the University of Mary Washington in 1992 (see Figure 4-111). Both sites were identified via systematic shovel test survey, followed by test unit excavation and backhoe trenching. According to DHR site files and the report summarizing investigations undertaken at these locations, both sites show evidence of the occupation of these city blocks spanning from the Late Archaic through the twentieth century. Artifacts listed in both site forms include Civil War buttons and Minié-style bullets from the Fredericksburg Union occupation, quartz lithics, animal bone and ceramics from the late-eighteenth- through early-nineteenth-century occupation, and artisan related objects. Pedestrian inspection of these sites during the current investigation indicated that both include paved parking lots and buildings, indicative of their urban location (Figure 4-121 and Figure 4-122). However, previous investigations of these locations have documented the presence of intact cultural deposits beneath modern development (Sanford et al. 1992). As such, it is **recommended that sites 44SP0867 and 44SP0688 are potentially eligible for listing in the NRHP.**

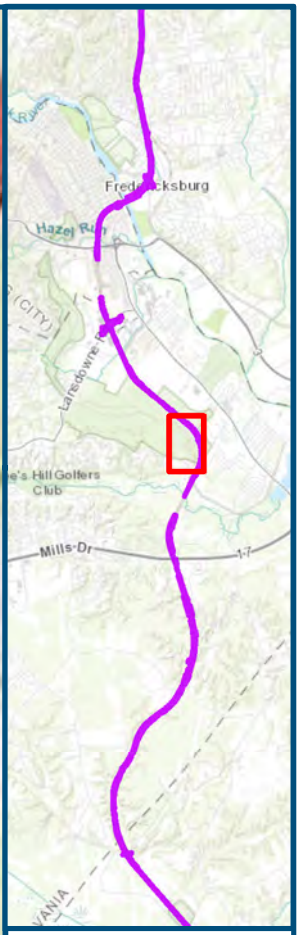
FIGURE 4-121: OVERVIEW OF SITE 44SP0688 WITHIN APE, LOOKING WEST

FIGURE 4-122: OVERVIEW OF SITES 44SP0688 AND 44SP0687, LOOKING SOUTHEAST

4.4.10 Previously Recorded Site 44SP0468

Site 44SP0468, Jackson's Earthworks-Encampment site, is a large complex of earthworks and other encampment features associated with the Civil War First Battle of Fredericksburg and lying within the PotNR boundaries of the Fredericksburg I Battlefield (111-5295) (Figure 4-123). The

site is mapped mainly to the east of the corridor but encompassing most of Archaeological Area 3d. A section of earthworks, likely associated with this site, was observed during the 2016 survey (McCloskey et al. 2016) but lay slightly outside the APE of that survey. The portion of the current survey area lying within the mapped boundaries of the site lies entirely on the steep and eroded slope running down from Fredericksburg and Spotsylvania National Military Park (111-0147) towards the existing CSXT rail. STP and metal detector survey were undertaken in Archaeological Area 3c, including within site 44SP0468, but recovered no artifacts (Figure 4-124). This resource taken as a whole was recommended in the 2016 report to be potentially eligible for the NRHP under Criterion A for its associated with Civil War activity in the area and under Criterion D for its archaeological potential pending additional studies. DHR concurred with this recommendation in a letter dated October 11, 2016. The current survey did not yield additional artifacts from the site, but the previous recommendation **that the site as a whole remains potentially eligible for the NRHP under Criteria A and D, remains unchanged.**



0 200 400
Feet
0 60 120
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: 2013 ESRI
USA Topo Map

Legend

- FEIS LOD/ Archaeological APE
- Site Boundary

Figure 4-123
Site 44SP0468

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FIGURE 4-124: METAL DETECTOR SURVEY IN SITE 44SP0468, LOOKING NORTHEAST

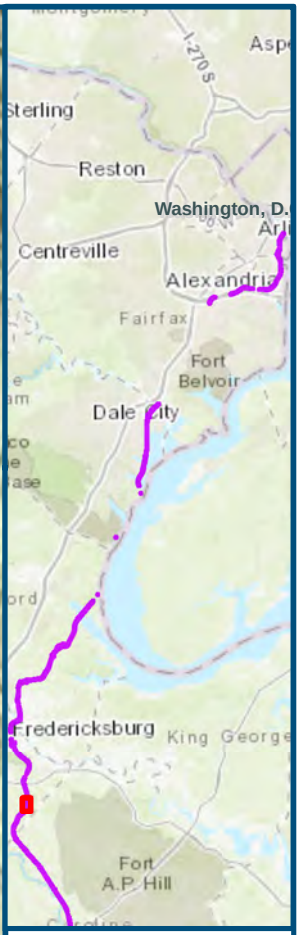
4.4.11 Newly Identified Site 44SP0767

4.4.11.1 Site Description

Site 44SP0767 is located in a wooded setting (Figure 4-125) on the west side of the CSXT rail line, north of Summit Crossing Road, within the central portion of Archaeological Area 3f (Figure 4-126). This site represents a potential Civil War earthwork measuring 150 by 115 feet (45.7 by 35 m), comprising 0.33 acres (0.1 ha). It sits at an elevation of 210 feet (64 m) AMSL and is approximately 9 feet deep (2.7 m) from the top of earthen mound to the base of the depression.

The site was identified during the pedestrian survey and subsequent STP testing and metal detector survey yielded no cultural material. However, a lack of cultural deposits should not negate the significance of this resource as it was likely hastily constructed in anticipation of a need to defend the nearby railroad during the Civil War. Unfortunately, an exhaustive map search did not reveal any documented earthwork located in this area which could have provided a narrower date range. Despite its absence on historic maps, the Union Army's Fifth Corps were known to be in the general vicinity in 1864. Most notable among the known Civil War presence in the area, General Grant held a war council at the nearby Massaponax Church in 1864, less than 5 miles (8 km) to the west of the site. The earthwork remains observed at site 44SP0767 could be representative of any one of these Civil War activities.

FIGURE 4-125: GENERAL VIEW OF SITE 44SP0767, FACING NORTHWEST. YELLOW ARROWS MARK TOP OF EARTHWORK.



0 300 600
Feet
0 100 200
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: 2013 ESRI
USA Topo Map

Legend

- FEIS LOD/ Archaeological APE
- Site Boundary

Figure 4-126
Sites 44SP0767 and 44SP0768

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An average soil profile for this site contained three stratigraphic levels. Stratum I consisted of a black (10YR 2/1) sand extending to a depth of 0.3 feet (0.09 m) that overlaid a dark yellowish brown (10YR 4/4) sand terminating at 0.6 feet (0.2 m). Beneath the second stratum was a subsoil of a brownish yellow (10YR 6/8) sandy clay (Figure 4-127). Excavation ceased at 0.9 feet (0.3 m) below ground surface.

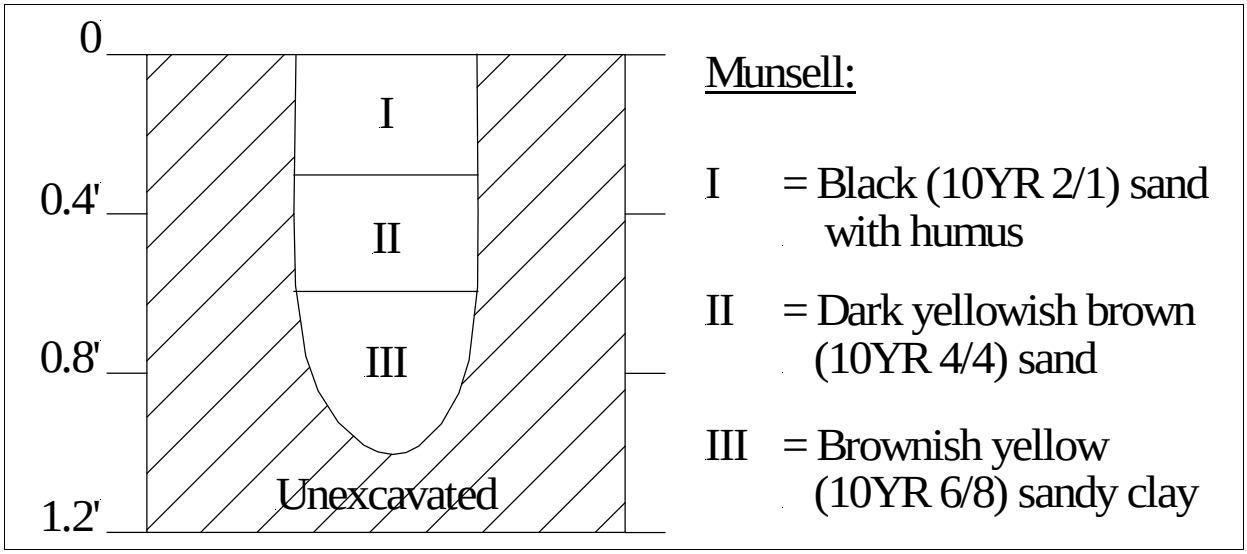


FIGURE 4-127: REPRESENTATIVE STP PROFILE FROM SITE 44SP0767

4.4.11.2 Evaluation and Significance

Site 44SP0767 is a late-nineteenth century Civil War earthwork. Excavations at the site resulted in no cultural material specific to the Civil War occupation of the site and only a large surface feature characterizes this site. While this site is tied to the Civil War, it is unknown if it is related to a significant engagement during the war and, as such, Criterion A is not applicable. Additionally, there are no known associations with significant persons (Criterion B) and the deposits do not illustrate distinctive characteristics of a type, period, or method of construction (Criterion C). Above-ground remains representative of a Civil War earthwork comprise the entirety of the site and with no cultural remains present or identification of the earthwork on historic maps it is unclear at what point during the war this earthwork was constructed. As such, **it is recommended that site 44SP0767 does not have the potential to yield significant data about the nineteenth century occupation of the area (Criterion D).**

4.4.12 Newly Identified Site 44SP0768

4.4.12.1 Site Description

Site 44SP0768/088-5511 is a small twentieth-century family cemetery and associated artifact scatter located in a densely wooded portion of Area 3f. The site is on the west side of the CSXT rail line and north of Summit Crossing Road (see Figure 4-126), situated immediately north and west of a communications tower and associated metal pre-fabricated shed (Figure 4-128). The site was identified during the pedestrian survey and based on the recovery of five fragments of clear bottle glass from one STP. The site measures approximately 250 x 150 feet (76.2 x 45.7 m), but the

cemetery area itself measures 25 x 25 feet (7.6 x 7.6 m). The site covers an area of 0.06 acres (0.02 ha) and it sits at an elevation of approximately 230 feet (70.1 m) AMSL.

FIGURE 4-128: SITE 44SP0768/088-5511, LOOKING SOUTH. NOTE THE COMMUNICATION TOWER AND SHED TO THE SOUTH AND HEADSTONE (RED ARROW).

The artifact assemblage recovered from site 44SP0768 includes five artifacts, likely indicative of the twentieth century use of the cemetery or adjacent communication tower construction. All five artifacts consist of clear bottle glass. The only STP excavated in the site area was 3f-B-8 East from which the artifacts were recovered, all adjacent STPs were negative for cultural materials. This STP within the site contained two levels. Stratum I, which was 0.2 feet (6 cm) thick, consisted of a dark yellowish brown (10YR 4/2) sand. It overlaid a subsoil consisting of a strong brown (7.5YR 5/6) sandy clay. The STP was terminated at a depth of 0.9 feet (27 cm).

Surface features noted at the site location include two engraved headstones, one footstone, four metal fence posts, and one gate post. One headstone reads "CATLETT/ Vivian 1901–1952/Shirley 1898–1948/Henry 1865–1919/Nellie 1869–1951" and the second reads "Annie Kate/ Gilchrist/ Born/October 11, 1882" (Figure 4-129). The death date on the second stone was not visible at the time of survey as it was buried, but images of the markers located in the findagrave.com database indicate the death date to be 1914 (Findagrave.com 2010). Based on the presence of these stones, it appears that a minimum of five individuals may be buried within the cemetery. Four metal fence posts and a metal gate post were observed surrounding the marked graves, although no fencing in between these posts remains (Figure 4-130).

4.4.11.2 Evaluation and Significance

Site 44SP0768/088-5511 is a small twentieth-century family cemetery and artifact scatter, including five artifacts, the marked interments of five individuals, and the remains of decorative metal fencing. No subsurface excavations were conducted within the cemetery area, as such the cemetery has not been delineated. The cemetery appears to be typical of small family burying grounds encountered throughout the region and does not display any unique architectural elements or known association with people or events important in history. As such, it is **recommended that site 44SP0768/088-5511 is not eligible for NRHP inclusion under Criteria A–D. However, it is recommended that the general cemetery area should be avoided or further delineation efforts should be undertaken to determine the exact limits of the cemetery.**

FIGURE 4-129: SITE 44SP0768/088-5511, HEADSTONE DETAILS

FIGURE 4-130: SITE 44SP0768/088-5511, FENCEPOST DETAIL

4.5 AREA 4: CENTRAL VIRGINIA

The Central Virginia segment (Area 4) of the DC2RVA Preferred Alternative encompasses those portions of the LOD lying within Caroline and Hanover Counties (with the exception of the small portion of Area 3 that extends into Caroline, as discussed above). Beginning in the north at Guinea and ending in the south at the South Anna River, Area 4 runs along approximately 28 miles (45.1 km) of the existing CSXT rail. The areas subjected to study within Area 4 encompasses 3.9 acres (1.2 ha) (see Figure 2-3).

The setting of Area 4 is almost entirely rural, with the development related to Kings Dominion theme park and industrial activity near Doswell being the only substantial development near the project corridor, other than the existing rail. In general, the areas subject to archaeological study within Area 4 are dominated by young evergreen or mixed woods and topography is characterized by either rolling slopes or flatter low lying areas that are often inundated (Figure 4-131). Area 4 consists of five archaeological areas, 4b through 4f, designated for Phase IB archaeological study (note: revisions to the LOD during fieldwork eliminated the need for archaeological survey in Archaeological Area 4a, so it is not discussed or addressed within these results). Two of these archaeological areas, 4c and 4e, were dominated by disturbed, inundated, or sloping areas to such an extent as to entirely preclude shovel testing, though metal detector survey was undertaken in portions of Archaeological Area 4e. The remaining three archaeological areas were subjected to subsurface testing in at least some portions. The North and South Anna Rivers and their tributaries cross the project area in Archaeological Area 4.

FIGURE 4-131: REPRESENTATIVE VIEW OF AREA 4 SETTING, LOOKING NORTH

A total of 28 shovel tests was excavated in Area 4. Stratigraphy varied greatly across this area, as would be expected from such a small sample over such a large geographic area. No artifacts were recovered from Area 4 nor were any features or archaeological sites identified.

4.5.1 Archaeological Area 4b

Area 4b consists of eight blocks of identified for Phase IB study in Caroline County, four (one at each corner) at the crossing of Woodslane Road near Woodford and the existing rail, and four located similarly at the crossing of Paige Road and the existing rail near Bowling Green. These locations are both at-grade crossings of the rail over those roads, and the grading associated with road construction around these crossings has rendered -inundated areas occupying almost the entire width of the APE. As such, shovel testing in seven of the eight sections could not be completed (Figure 4-132). However, a small strip of woods and plowed field along the north side of Woodslane Road was the subject of subsurface investigation (Figure 4-133). The eight blocks encompass an area of 0.8 acres (0.3 ha). Subsurface testing in Archaeological Area 4b included the excavation of six STPs aligned on a single transect (Figure 4-134 and Figure 4-135). No artifacts were recovered and no sites or features were identified.

FIGURE 4-132: BURIED UTILITY DISTURBANCE AND SLOPE IN AREA 4B, LOOKING NORTH

FIGURE 4-133: PORTION OF AREA 4B SUBJECTED TO SUBSURFACE TESTING, LOOKING SOUTH

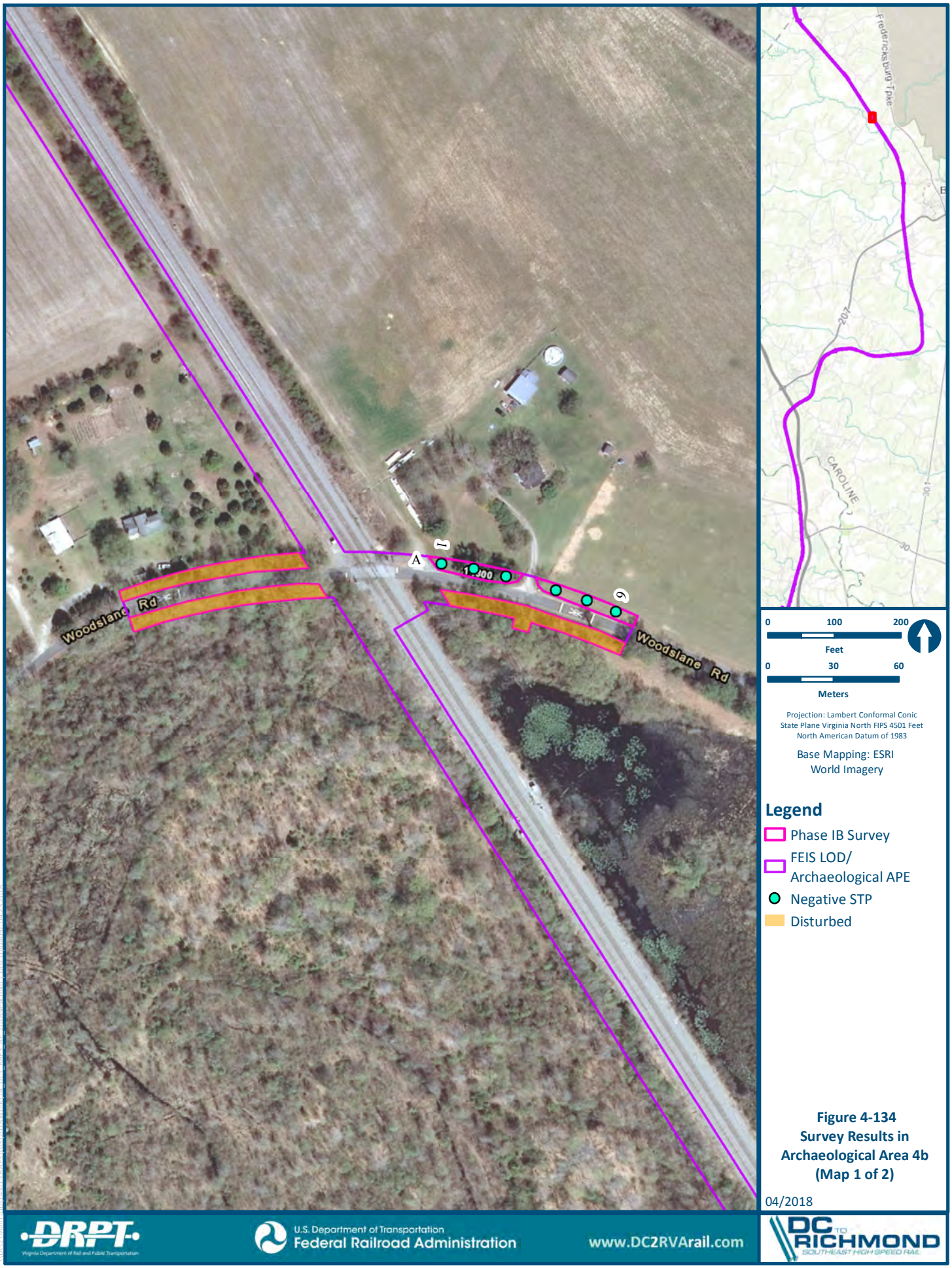


Figure 4-134
Survey Results in Archaeological Area 4b (Map 1 of 2)

04/2018

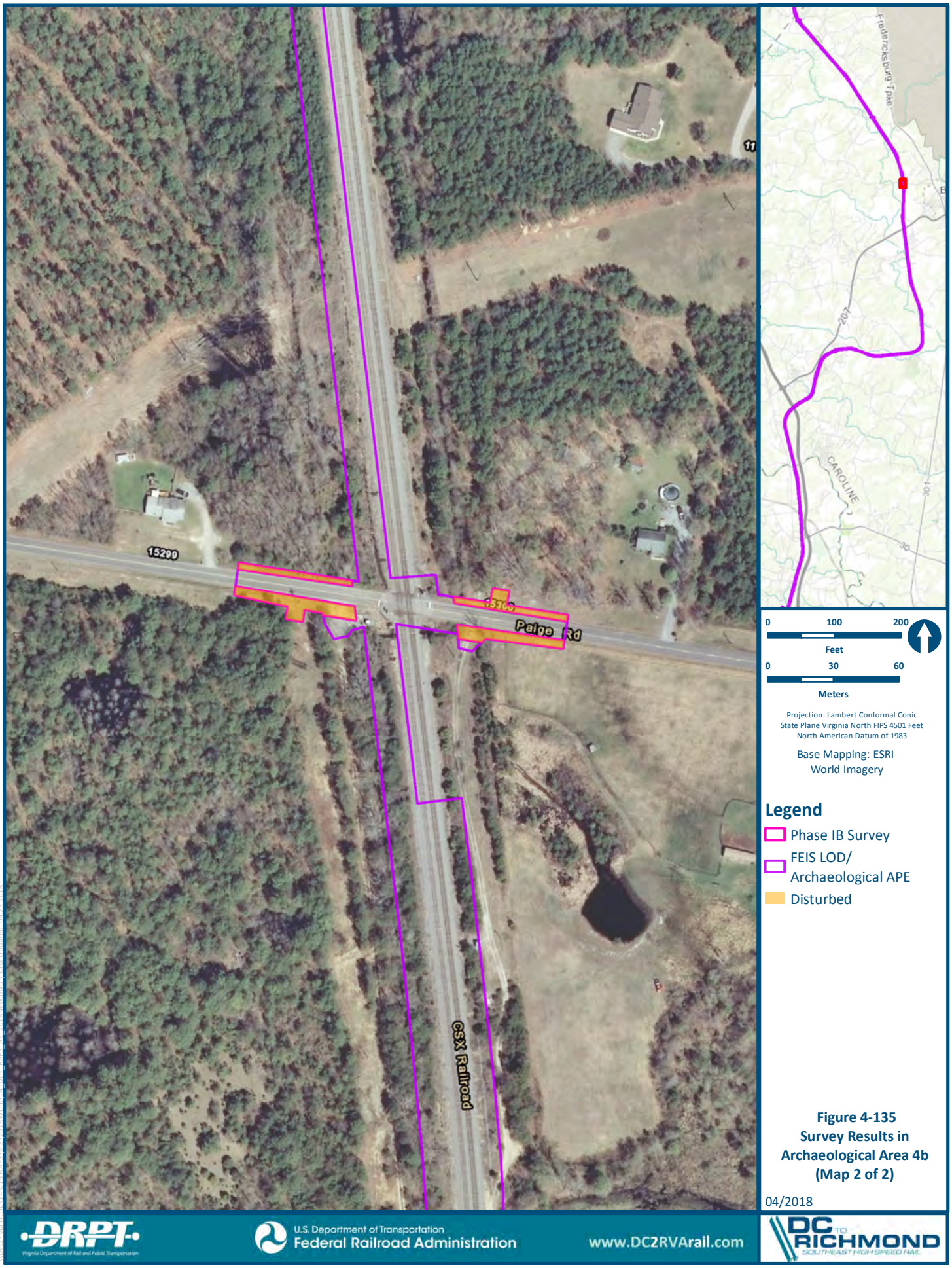


Figure 4-135
Survey Results in Archaeological Area 4b (Map 2 of 2)

04/2018

The average STP in Archaeological Area 4b reached a depth of 1.3 feet (39.6 cm). The deepest STP extended to a depth of 1.4 feet (42.7 cm). A-horizon soils in Area 4b ranged from 0.8 feet (24.4 cm) to 1.0 feet (30.5 cm) with an average depth of 0.9 feet (27.4 cm). A typical STP profile within Area 4b consisted of a dark yellowish brown (10YR 4/4) sandy loam plow zone overlying a yellowish brown (10YR 5/6) silty clay subsoil (Figure 4-136).

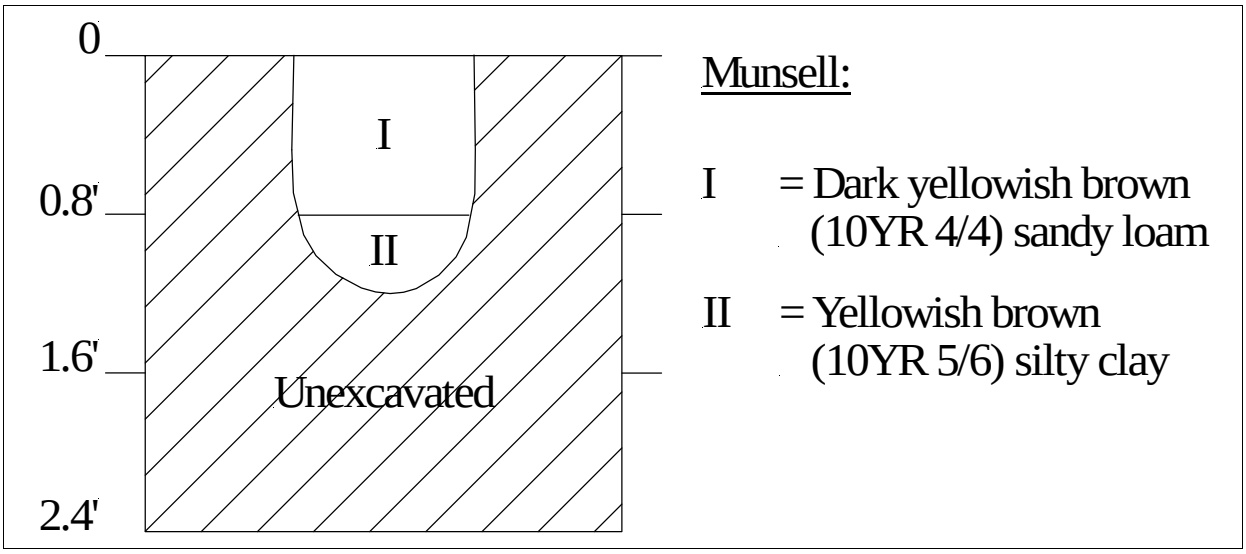


FIGURE 4-136: REPRESENTATIVE SOIL PROFILE FROM AREA 4B, STP 4B-A-4

4.5.2 Archaeological Area 4c

Archaeological Area 4c consists of five blocks of area deemed suitable for Phase IB archaeological study spanning approximately 3.5 miles (5.6 km) along an east to west oriented stretch of the existing CSXT rail to the northeast of Ruther Glen in Caroline County. The first block is a long narrow strip paralleling the north side of the rail to the east of Penola Road, while the remaining four blocks are roughly semi-circular and are located at each corner of the crossing of Colemans Mill Road with the existing rail. The eastern section lies entirely in a deeply rutted gravel road lying adjacent to the CSXT rail corridor, while the western section lies in the steep slopes on the sides of Colemans Mill Road as it approaches the crossing with the rail (Figure 4-137 and Figure 4-138). These disturbances precluded STP survey in Archaeological Area 4c (Figure 4-139 through Figure 4-141). No artifacts were recovered, nor were any sites or features identified.

FIGURE 5-137: EASTERN PORTION OF AREA 4C, LOOKING EAST

FIGURE 4-138: WESTERN SECTION OF AREA 4C, LOOKING NORTH

0 90 180
Feet
0 30 60
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

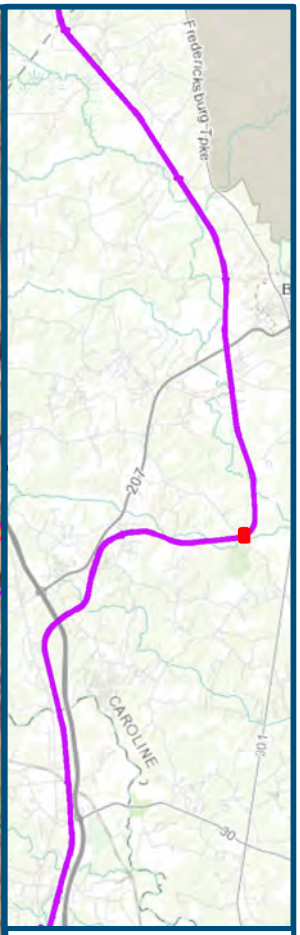
Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Disturbed

Figure 4-139
Survey Results in Archaeological Area 4c
(Map 1 of 3)

04/2018



0 90 180
Feet
0 30 60
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Disturbed

Figure 4-140
Survey Results in Archaeological Area 4c
(Map 2 of 3)

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0 90 180
Feet
0 30 60
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Disturbed

Figure 4-141
Survey Results in Archaeological Area 4c
(Map 3 of 3)

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4.5.3 Archaeological Area 4d

Archaeological Area 4d is located in Ruther Glen, in Caroline County. It covers approximately 3,000 feet (914.4 m) along the existing rail line from its northernmost to southernmost studied area. It consists of five discrete blocks located on both sides of the existing rail, to both north and south of the rail's intersection with Dry Bridge Road (Virginia State Route 684). These five blocks include a linear distance of approximately 1,760 feet (536.4), which never exceeded 55 feet (16.8 m) in width and encompassed an area of 0.8 acres (0.3 ha). The area is typified by gently rolling hills, and the study areas generally lie in thin wooded strips between utility corridors or access roads and the existing rail. The slope leading down to the existing rail line often occupies a substantial portion of the area width, and where it does not, disturbance associated with the parallel utility corridors and access roads occupy the bulk of the remainder (Figure 4-142). This leaves only a narrow strip available for subsurface testing, and in several places these disturbances occupied the entire width of the APE, entirely precluding subsurface testing (Figure 4-143). One of the five blocks was, upon pedestrian survey, determined to be entirely disturbed. The remaining four blocks received subsurface investigation. STP survey consisted of a total of 16 STPs placed along four transects, one transect in each of the four blocks (Figure 4-144 through Figure 4-146). Even where STPs were excavated, the profiles often indicated disturbed soils (Figure 4-147). No artifacts were recovered, nor were any sites or features identified in Archaeological Area 4d.

FIGURE 4-142: STEEP SLOPE AND BURIED UTILITY DISTURBANCE IN AREA 4D, LOOKING SOUTH

FIGURE 4-143: PORTION OF AREA 4D SUBJECTED TO SUBSURFACE TESTING, LOOKING NORTH

0 50 100
Feet
0 20 40
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Disturbed

Figure 4-144
Survey Results in Archaeological Area 4d (Map 1 of 3)

04/2018

0 50 100
Feet
0 20 40
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Negative STP
- STP Not Excavated

Figure 4-145
Survey Results in Archaeological Area 4d
(Map 2 of 3)

04/2018

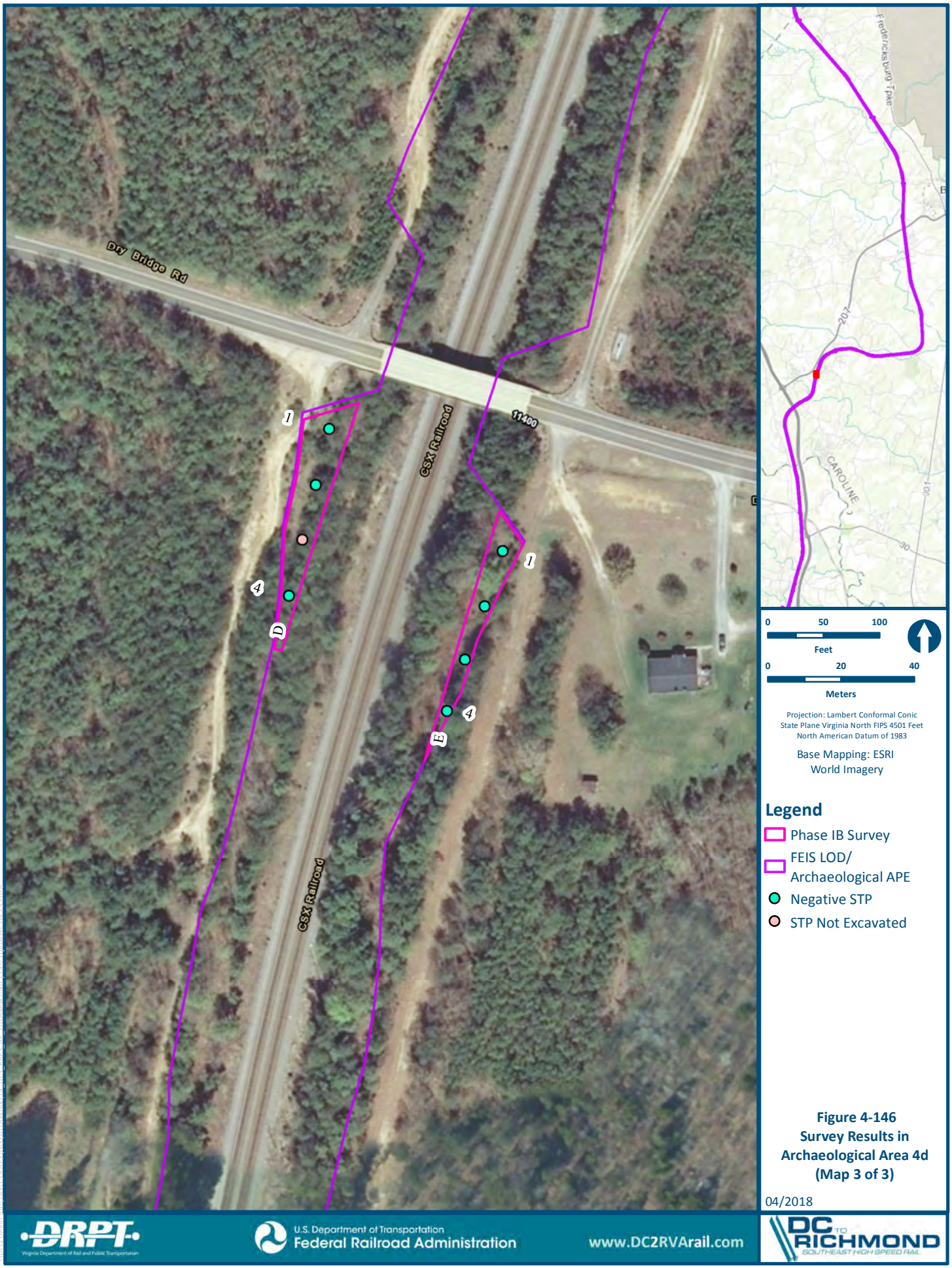


Figure 4-146
Survey Results in Archaeological Area 4d (Map 3 of 3)

04/2018

STP profiles vary substantially across Archaeological Area 4d, and as discussed above, a number of STPs contained clearly disturbed soils. STPs were excavated to an average depth of 1.2 feet (36.6 cm) with the deepest reaching 1.9 feet (57.9 cm). A horizon soils ranged from 0.2 feet (6.1 cm) to 1.0 feet (30.5 cm), averaging 0.4 feet (12.2 cm). A typical non-disturbed STP profile within Area 4d consisted of dark grayish brown (2.5Y 4/2) sandy loam topsoil, under which was brownish yellow (10YR 6/6) sandy clay subsoil (Figure 4-148).

FIGURE 4-147: DISTURBED SOILS IN AREA 4D STP

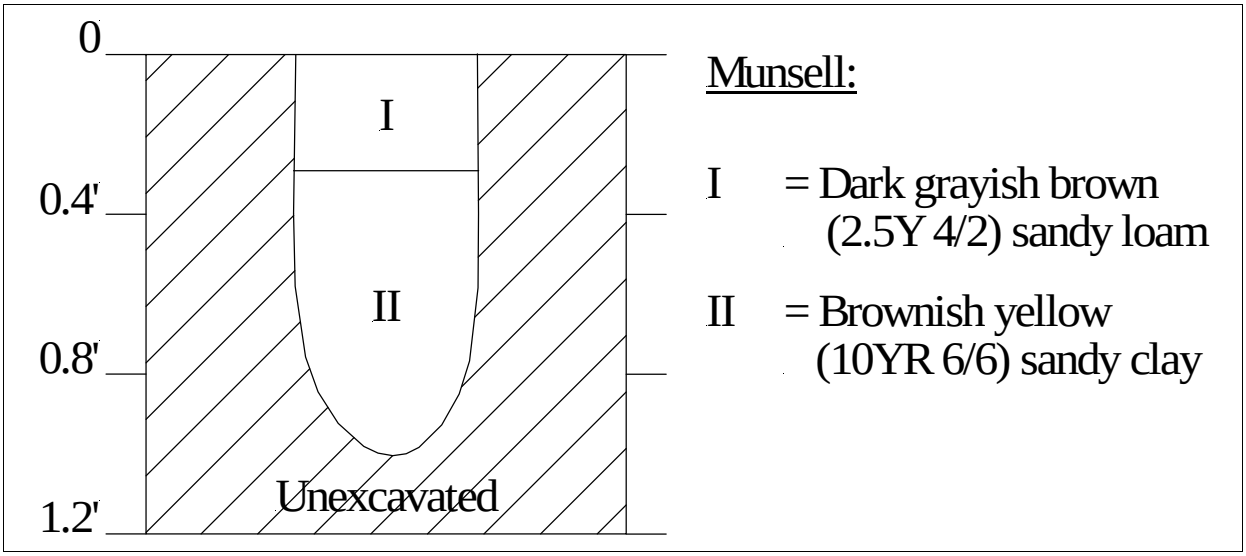
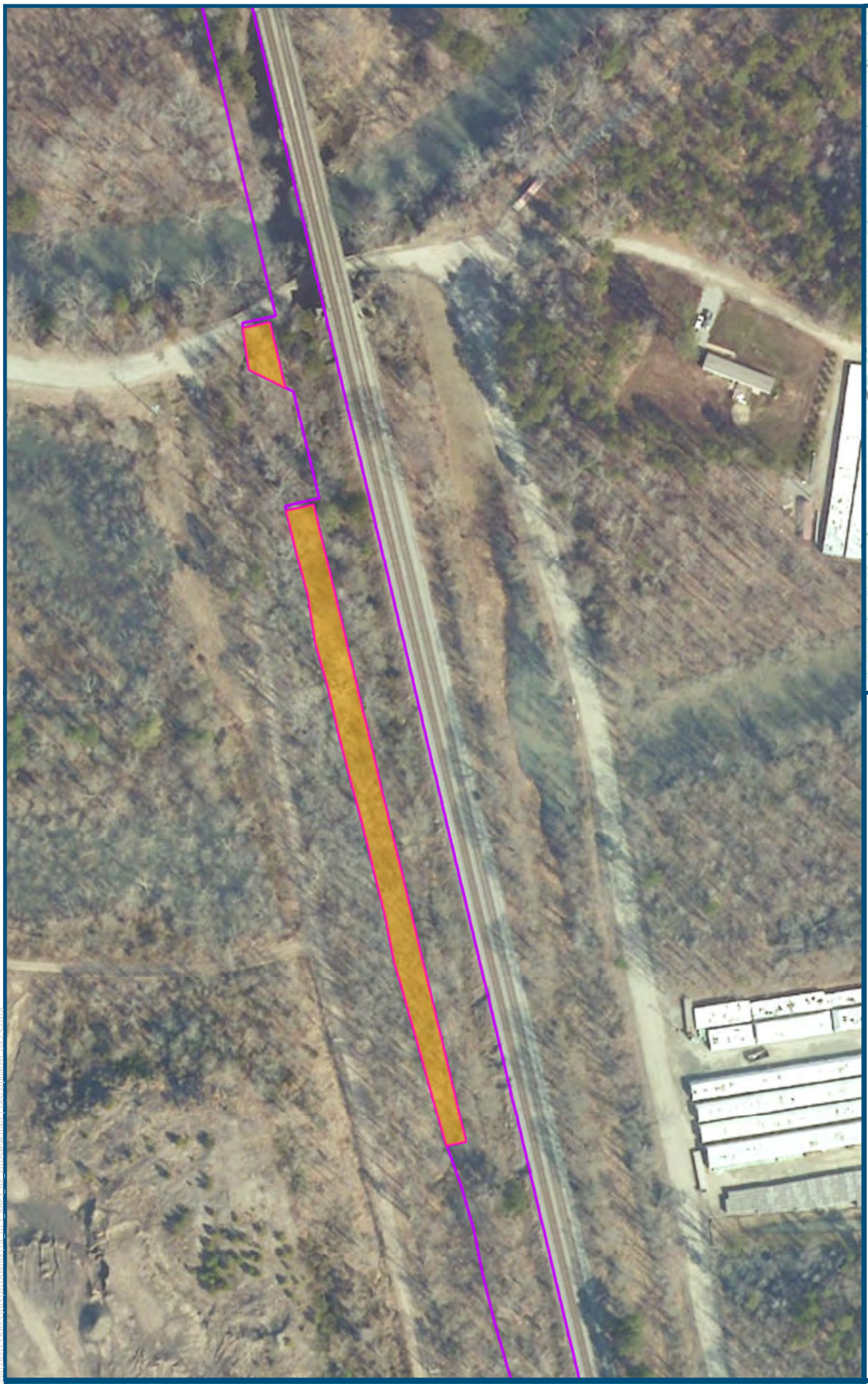


FIGURE 4-148: REPRESENTATIVE SOIL PROFILE FROM AREA 4D, STP 4D-E-1

4.5.4 Archaeological Area 4e

Archaeological Area 4e consists of two study blocks on the west side of the existing rail line, immediately south of the North Anna River. The two areas span a total length of 865 feet (263.7 m), which had a maximum width of 35 feet (10.7 m). These areas identified for Phase IB study encompass an area of 0.5 acres (0.2 ha). The area was generally unsuitable for subsurface testing based on the presence of an access road within the APE. Additionally, poorly drained soils within the APE had left much of the area inundated at the time of survey (Figure 4-149). Push piles were also observed throughout the areas identified for Phase IB study. Although a STP survey was not performed as a result of these clear signs of disturbance, a metal detection survey was conducted, as Archaeological Area 4e lies entirely within the study area for the North Anna Battlefield (042-0123). The only items recovered from metal detection were modern refuse, such as beer cans, galvanized wire, and aluminum foil, that was discarded in the field. No artifacts were found and no sites or features were identified in Archaeological Area 4e (Figure 4-150).

FIGURE 4-149: INUNDATED PORTION OF AREA 4E, LOOKING SOUTH



0 50 100
Feet

0 30 60
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Disturbed

Figure 4-150
Survey Results in Archaeological Area 4e
(Map 1 of 1)

04/2018

4.5.5 Archaeological Area 4f

Archaeological Area 4f is a north-south oriented area consisting of three discrete blocks, all located on the west side of the existing rail line. Located in Doswell less than 0.5 miles (0.8 km) west of Kings Dominion theme park, Archaeological Area 4f spans a total distance of 1.5 miles (2.4 km) and measures less than 40 feet (12.2 m) wide. The locations identified for Phase IB study encompass an area of 1 acre (0.4 ha). Most of this area was found to be disturbed as a result of the pedestrian survey, as most of the APE falls either in the slope leading to the existing rail, or in a buried fiber optic corridor (Figure 4-151). One section, however, contained enough level ground outside of the rail grade to permit a single transect of nine STPs (Figure 4-152). No artifacts were found and no sites or features were identified in Archaeological Area 4f (Figure 4-153 and Figure 4-154).

FIGURE 4-151: UTILITY DISTURBANCE IN AREA 4F, LOOKING NORTH (SLOPE TO RAIL ON LEFT)

FIGURE 4-152: PORTION OF AREA 4F SUBJECTED TO SUBSURFACE TESTING, LOOKING NORTH

0 100 200
Feet

0 50 100
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Disturbed

Figure 4-153
Survey Results in Archaeological Area 4f (Map 1 of 2)

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0 100 200
Feet

0 50 100
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Negative STP
- Disturbed

Figure 4-154
Survey Results in Archaeological Area 4f (Map 2 of 2)

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Although STP survey was undertaken in one portion of Archaeological Area 4f that was not obviously disturbed based on pedestrian reconnaissance, subsurface testing indicated that even that area was disturbed, likely by a nearby buried fiber optic utility corridor. All nine excavated STPs showed similar evidence of disturbance, with mixed soils to depths of 1.5 feet (45.7 cm). A typical STP profile consisted entirely of various clumps and bands of brownish yellow (10YR 6/8), dark grayish brown (2.5Y 4/2), and brownish yellow (10YR 6/6) sandy loam and sandy clay with 40 percent gravel (Figure 4-155 and Figure 4-156).

FIGURE 4-155:DISTURBED STP IN AREA 4F

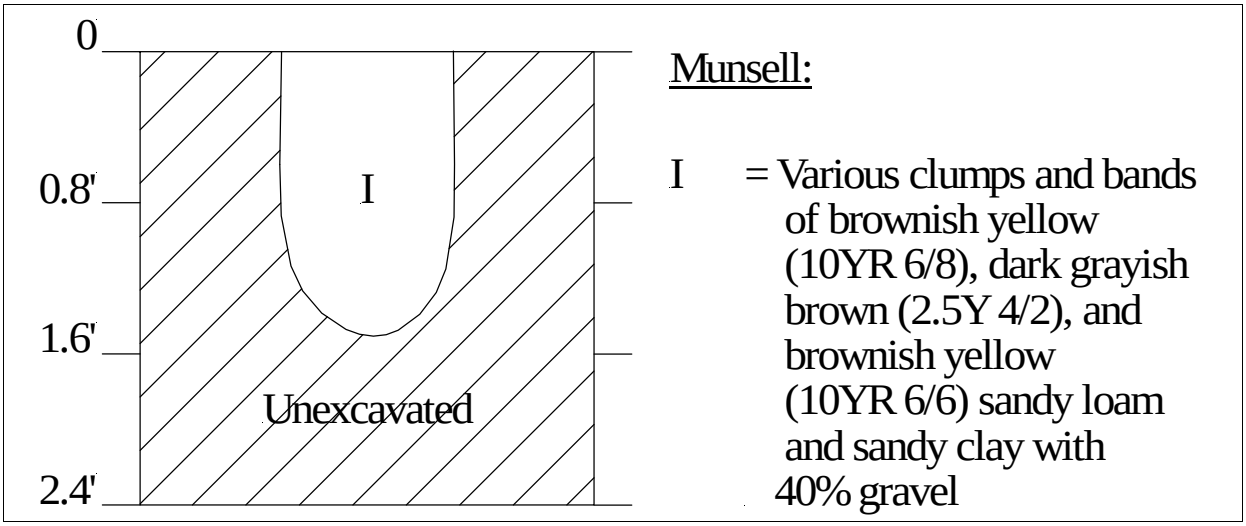


FIGURE 4-156: REPRESENTATIVE SOIL PROFILE FROM AREA 4F, STP 4F-A-5

4.6 AREA 5: ASHLAND

The Ashland Area (Area 5) of the DC2RVA Preferred Alternative encompasses those portions of the LOD to the north and south of downtown Ashland, located in Hanover County. Beginning in the north near the South Anna River and ending on the south near Center Street Road, Area 5 extends along approximately 3 miles (4.8 km) of the existing CSXT rail. It also extends along U.S. Highway 1 (Route 1) to the northwest of that road's crossing with the existing rail for approximately 0.5 miles (0.8 km). The archaeological area identified for Phase IB study with Area 5 encompass 31.7 acres (12.8 ha) (see Figure 2-4).

The setting of Area 5 is a mixture of rural and suburban, including both wooded areas, domestic lots, and industrial locations. In general, the Phase IB study areas lie along the edges of either the existing rail or those roads which cross the rail as it approaches Ashland. These areas were generally steeply sloped, particularly in those areas that approach either Route 1 or the substantial railroad bridge over the South Anna River (Figure 4-157). Area 5 consists of three archaeological areas, Areas 5a through 5c, designated for Phase IB study. Although pedestrian survey revealed that the majority of Area 5 was disturbed, at least some portion of each of the three areas was sufficiently intact to allow some subsurface testing.

5

FIGURE 4-157: REPRESENTATIVE VIEW OF AREA 5 SETTING, LOOKING NORTH

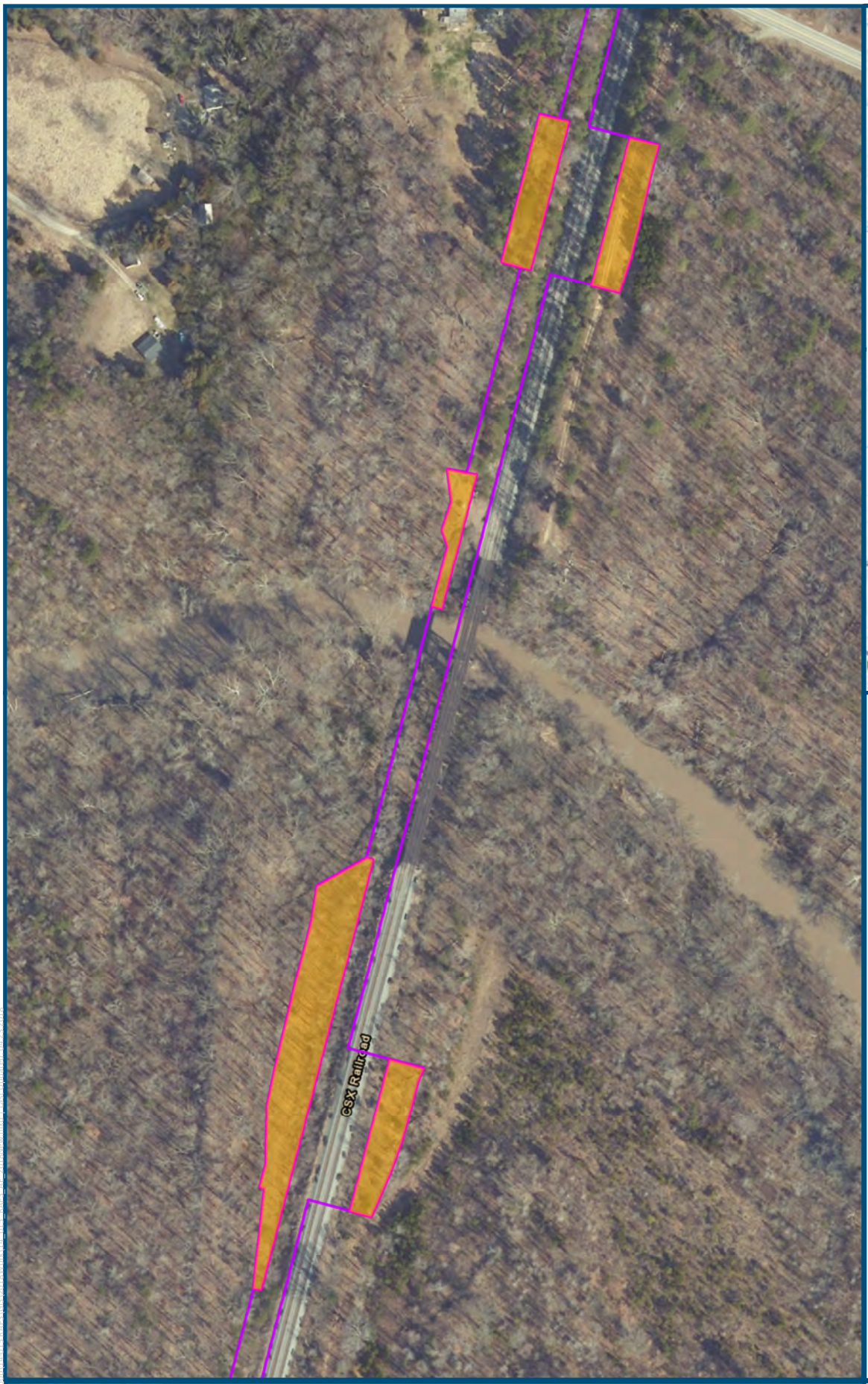
A total of 84 shovel tests was excavated in Area 5. Stratigraphy varied greatly across this area, as would be expected from such a small sample over such a large geographic area. Two artifacts were recovered from Area 5, resulting in the identification of a single isolated find, ISF 5a-1. No features or archaeological sites were identified.

4.6.1 Archaeological Area 5a

Archaeological Area 5a consists of several survey blocks, located along the existing rail, as well as along Cross Corner and Ellets Crossing Roads and Route 1. Archaeological Area 5a begins at the South Anna River and continues south across approximately 1.8 miles (2.9 km) of the existing rail corridor, as well as extending out along the aforementioned roads, to encompass a total of 13 acres (5.3 ha) subjected to Phase IB survey. The APE within Archaeological Area 5a is largely occupied by mixed secondary growth forest, with dense brambles and numerous fallen trees, but the immediate surroundings outside the corridor are relatively developed including industrial and municipal facilities. The pedestrian survey of Archaeological Area 5a revealed wide-spread surface and subsurface disturbance, which precluded subsurface testing in most locations. The substantial construction grading necessary to build roads and railroads through the rolling topography within Archaeological Area 5a resulted in most portions lying in the steep artificial slopes leading up from or down to the nearby roads and railroads (Figure 4-158). However, some portions of Area 5a were located on level ground that was not obviously disturbed (Figure 4-159). Subsurface testing in Archaeological Area 5a included 14 STPs located on three transects (Figure 4-160 through Figure 4-164). STPs produced two artifacts, resulting in the identification of a single isolated find. ISF 5a-1 consisted of two pieces of prehistoric quartz debitage produced from one primary STP and one radial STP. ISFs are, by definition, not eligible for NRHP listing.

FIGURE 4-158: ROAD CONSTRUCTION GRADING DISTURBANCE IN AREA 5A, LOOKING NORTHWEST

FIGURE 4-159: PORTION OF AREA 5A SUBJECTED TO SUBSURFACE TESTING, LOOKING EAST



0 100 200
Feet
0 30 60
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Disturbed

Figure 4-160
Survey Results in Archaeological Area 5a
(Map 1 of 5)

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0 100 200
Feet
0 30 60
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Disturbed

Figure 4-161
Survey Results in Archaeological Area 5a
(Map 2 of 5)

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DC TO RICHMOND SOUTHEAST HIGH SPEED RAIL

0 100 200
Feet
0 30 60
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Disturbed

Figure 4-162
Survey Results in Archaeological Area 5a (Map 3 of 5)

04/2018

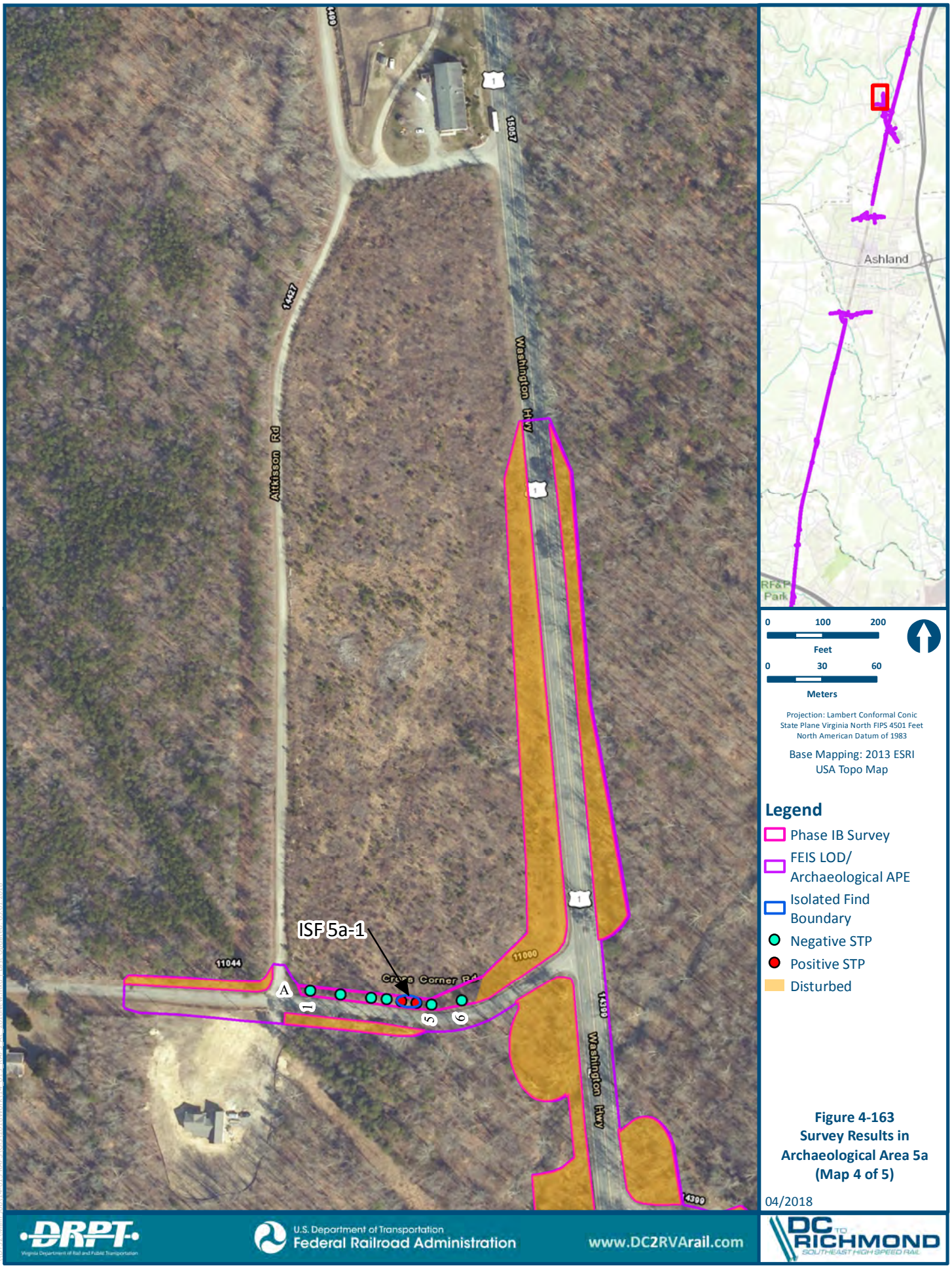

Figure 4-163
Survey Results in Archaeological Area 5a (Map 4 of 5)

04/2018

0 100 200
Feet
0 30 60
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Negative STP
- Disturbed

Figure 4-164
Survey Results in Archaeological Area 5a (Map 5 of 5)

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The average STP in Archaeological Area 5a reached a depth of 1.0 feet (30.5 cm), with the deepest STP excavated to 1.5 feet (45.7 cm). A-horizon soils in Area 5a had an average thickness of 0.5 feet (15.2 cm) and ranged from 0.1 feet (3.0 cm) to 0.8 feet (24.4 cm) thick. A typical STP profile for Archaeological Area 5a consisted of light olive brown (2.5Y 5/3) clay loam topsoil, overlying light yellowish brown (2.5Y 6/4) silty clay (Figure 4-165)

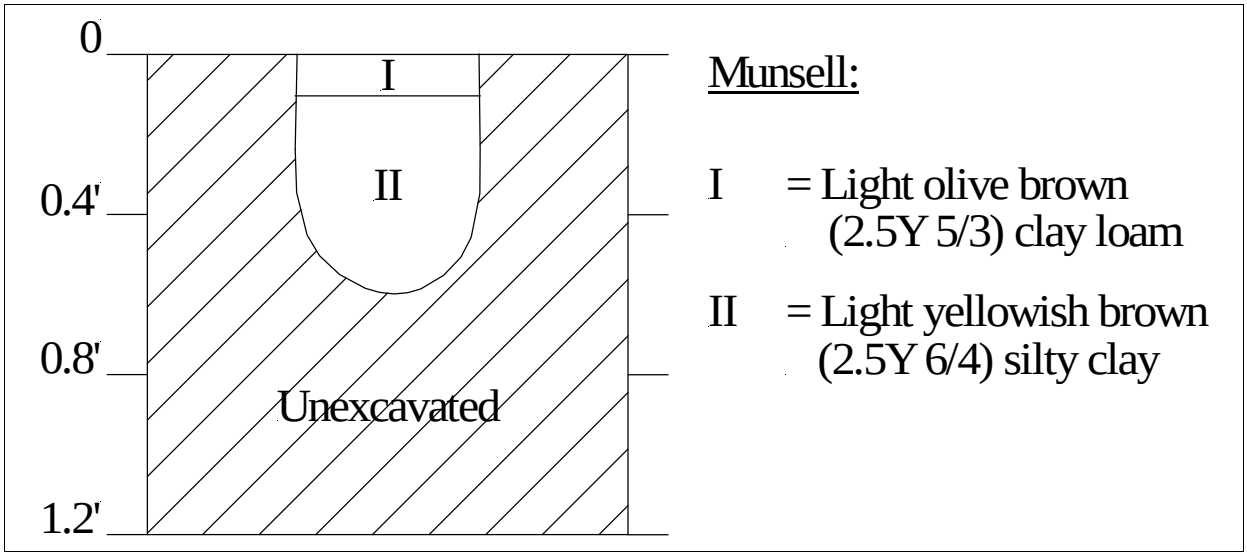


FIGURE 4-165: REPRESENTATIVE SOIL PROFILE FROM AREA 5A, STP 5A-A-2

4.6.2 Archaeological Area 5b

Archaeological Area 5b consists of study blocks lying along the existing rail and along Archie Cannon Drive/Vaughan Road in the vicinity of the rail. These blocks span across approximately 1.3 miles (2.1 km) north to south along the existing CSXT rail line and 0.5 miles (0.8 km) east to west along Archie Cannon Drive/Vaughan Road. The portion of Area 5b identified for Phase IB study encompasses an area of 11.2 acres (4.5 ha). The setting transitions from the more industrially oriented outskirts of Ashland to the essentially suburban setting along Archie Cannon Drive. As with much of Area 5, these blocks lie largely in the already graded areas along these transportation corridors and are disturbed (Figure 4-166). Several areas extending off Archie Cannon Drive/Vaughan Road, however, appeared relatively undisturbed and were subjected to STP survey (Figure 4-167). The portions of Archaeological Area 5b identified for Phase IB survey were tested with 29 STPs aligned on six transects (Figure 4-168 through Figure 4-174). No artifacts were recovered from testing in Area 5b, nor were any sites or features identified.

FIGURE 4-166: ROAD CONSTRUCTION DISTURBANCE IN AREA 5B, LOOKING EAST

FIGURE 4-167: PORTION OF AREA 5B SUBJECTED TO SUBSURFACE TESTING, LOOKING WEST

0 100 200
Feet
0 30 60
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

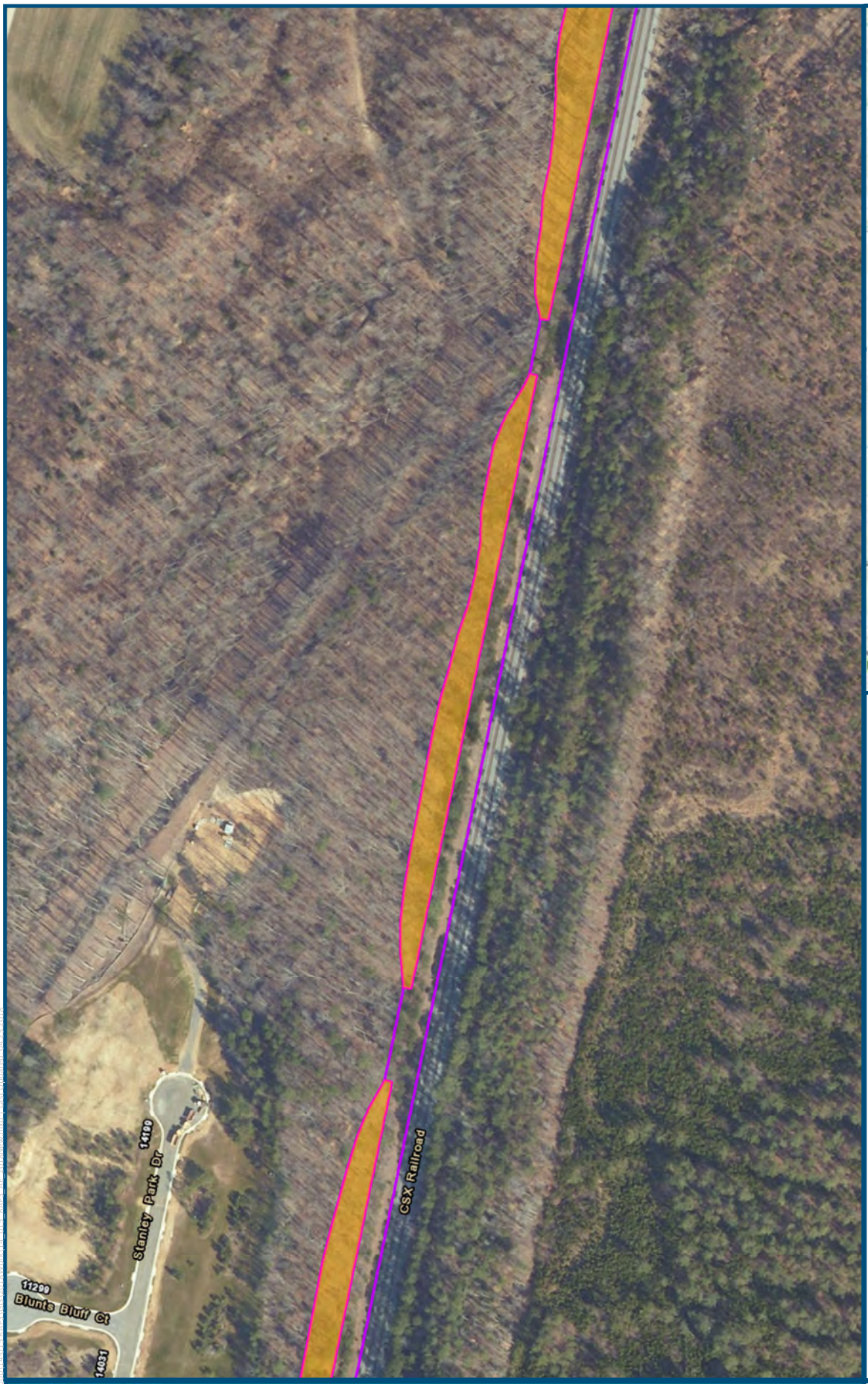
Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Disturbed

Figure 4-168
Survey Results in Archaeological Area 5b
(Map 1 of 7)

04/2018



0 100 200
Feet
0 30 60
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Disturbed

Figure 4-169
Survey Results in Archaeological Area 5b
(Map 2 of 7)

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0 100 200
Feet
0 30 60
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Disturbed

Figure 4-170
Survey Results in Archaeological Area 5b
(Map 3 of 7)

04/2018

0 50 100
Feet
0 20 40
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Disturbed

Figure 4-171
Survey Results in Archaeological Area 5b
(Map 4 of 7)

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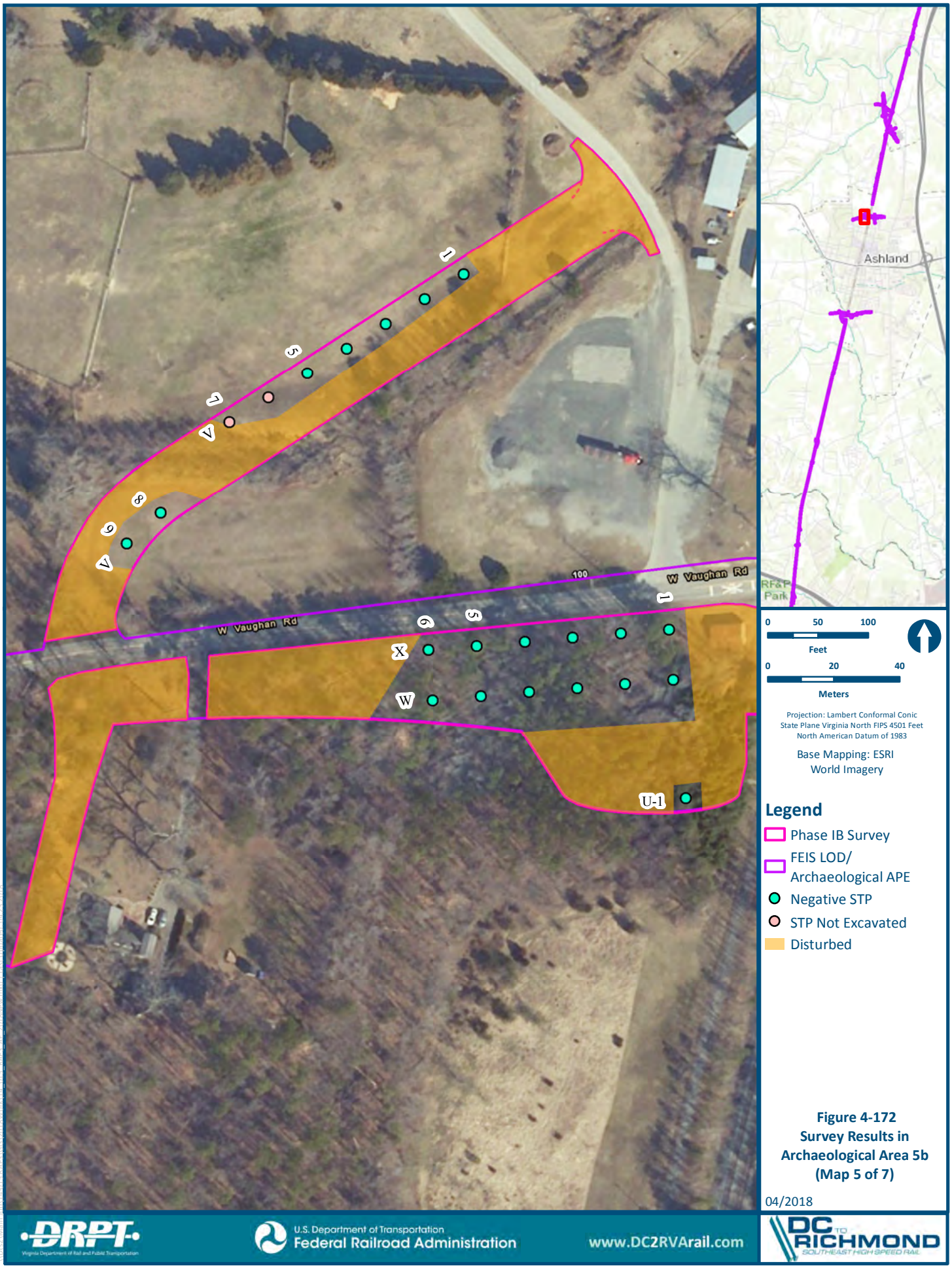
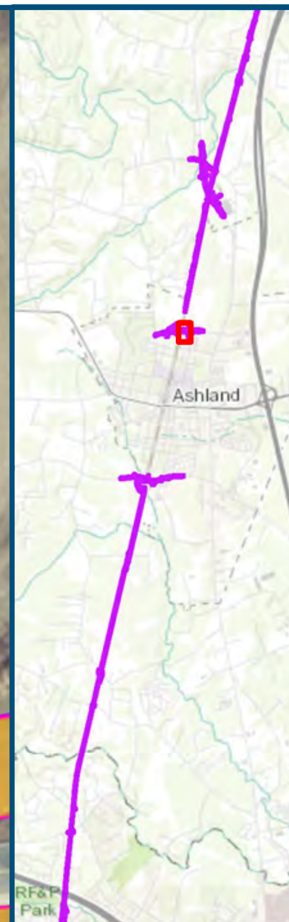


Figure 4-172
Survey Results in Archaeological Area 5b (Map 5 of 7)

04/2018



0 50 100
Feet
0 20 40
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

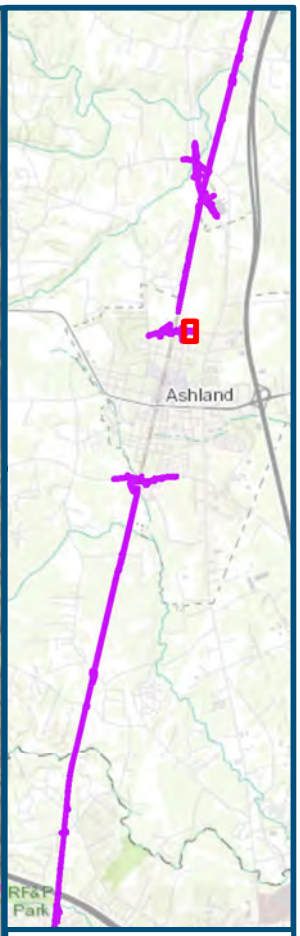
Base Mapping: ESRI World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Negative STP
- STP Not Excavated
- Disturbed

Figure 4-173
Survey Results in Archaeological Area 5b
(Map 6 of 7)

04/2018



0 50 100
Feet
0 20 40
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Disturbed

Figure 4-174
Survey Results in Archaeological Area 5b
(Map 7 of 7)

04/2018

Average depth of STPs in Archaeological Area 5b was 1.0 feet (30.5 cm) with a maximum depth of 1.7 feet (51.8 cm), while A horizons, which ranged from 0.2 feet (6 cm) to 1.3 feet, averaged a depth of 0.6 feet (18.3 cm). A typical STP profile in Area 5b consisted of olive brown (2.5Y 4/3) sandy loam topsoil which capped light yellowish brown (10YR 6/4) sandy clay subsoil (Figure 4-175).

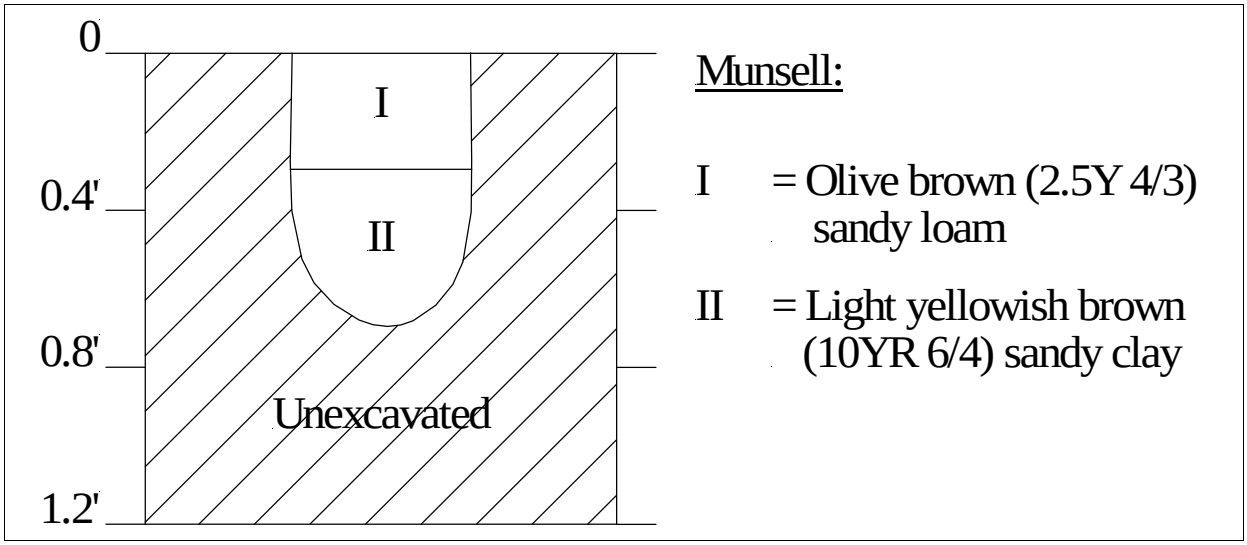


FIGURE 4-175: REPRESENTATIVE SOIL PROFILE FROM AREA 5B, STP 5B-X-3

4.6.3 Archaeological Area 5c

Archaeological Area 5c lies along both sides of Ashcake Road, south of downtown Ashland, at Ashcake's crossing of the existing CSXT railroad. It covers approximately 0.5 miles (0.8 km), with one notable larger block running diagonally from Ashcake over approximately 900 feet (274.3 m) toward the existing rail. Two additional blocks of survey on Elmont Road were also included in Archaeological Area 5c, resulting in a total study area of 7.5 acres (3 ha). Located at the south end of Ashland, Archaeological Area 5c is a mixture of suburban and rural settings. The portions of Archaeological Area 5c lying immediately adjacent to Ashcake Road were almost entirely disturbed by road construction grading and development, though small undisturbed areas were found in some areas and tested with STPs (Figure 4-176). The bulk of this subsurface testing took place in the pasture lying within the southwest corner of Ashcake's crossing with the CSXT rail (Figure 4-177). Archaeological Area 5c was tested with a total of 41 STPs along 8 transects (Figure 4-178 through Figure 4-180). All STPs were negative, and no artifacts were recovered from Archaeological Area 5c. No archaeological features or sites were identified.

FIGURE 4-176: OVERVIEW OF AREA 5C, LOOKING WEST

FIGURE 4-177: PASTURE CONTAINING LARGEST PORTION OF AREA 5C SUBJECTED TO SUBSURFACE TESTING, LOOKING NORTH

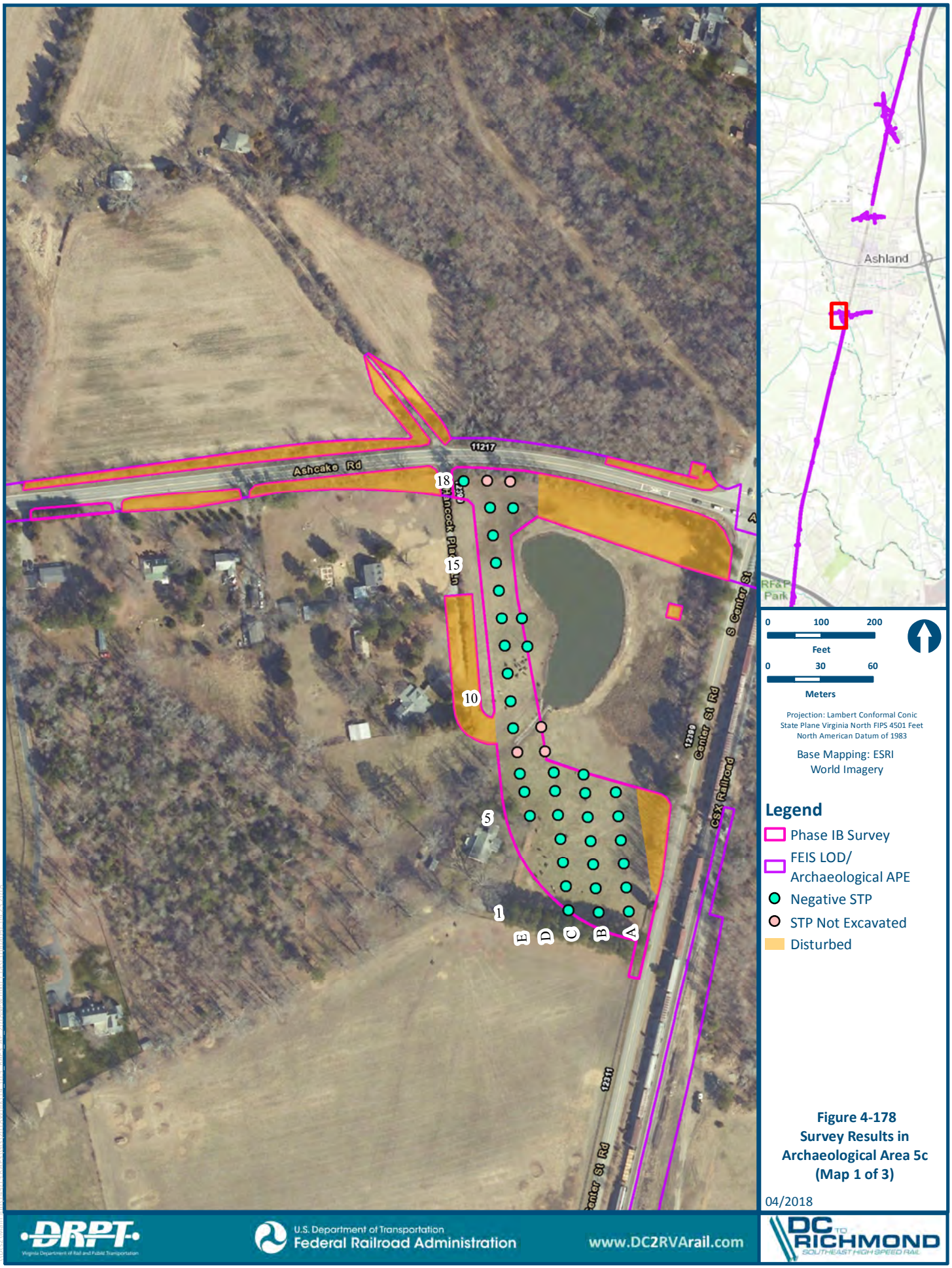
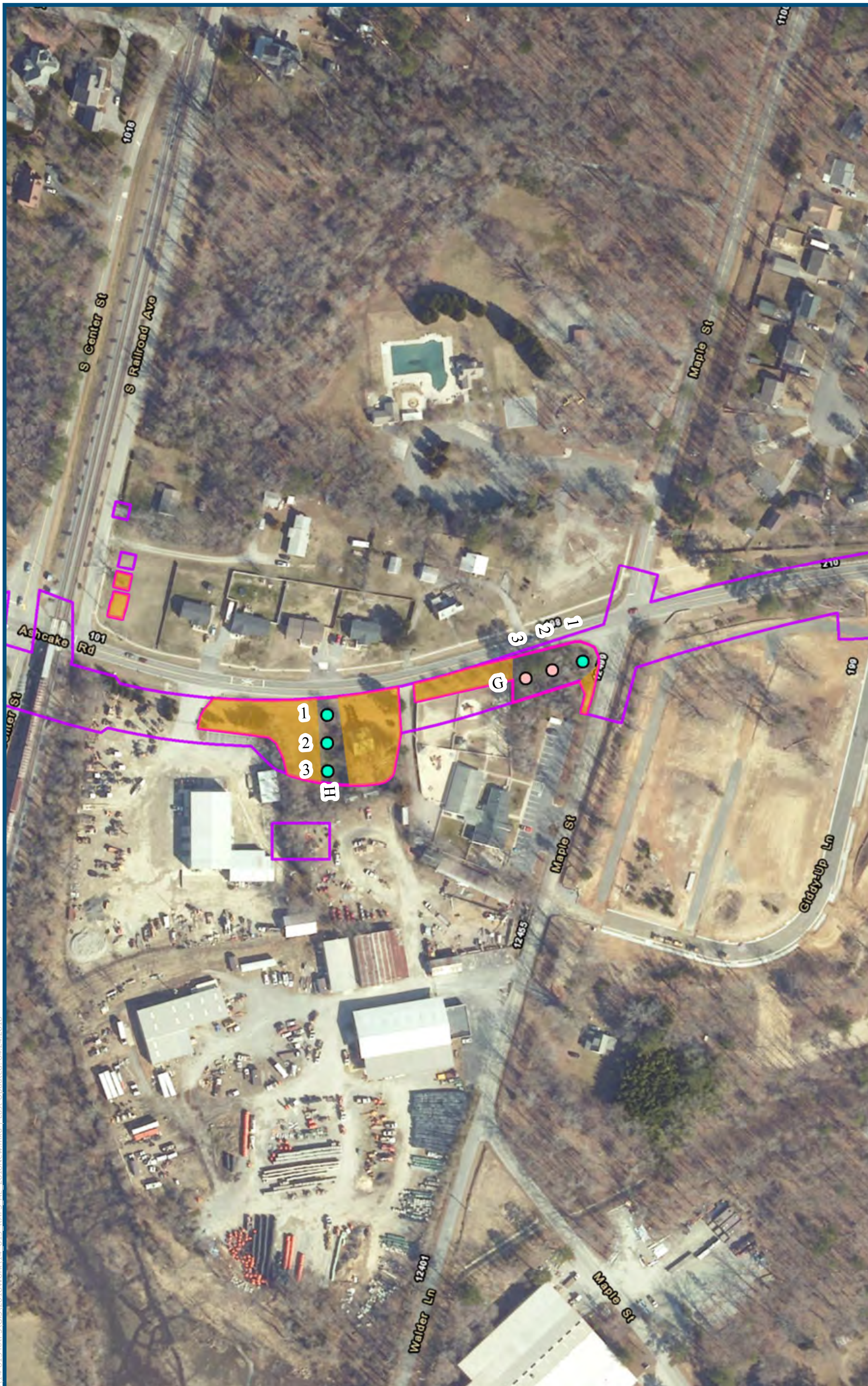


Figure 4-178
Survey Results in Archaeological Area 5c (Map 1 of 3)

04/2018



0 100 200
Feet
0 30 60
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Negative STP
- STP Not Excavated
- Disturbed

Figure 4-179
Survey Results in Archaeological Area 5c
(Map 2 of 3)

04/2018

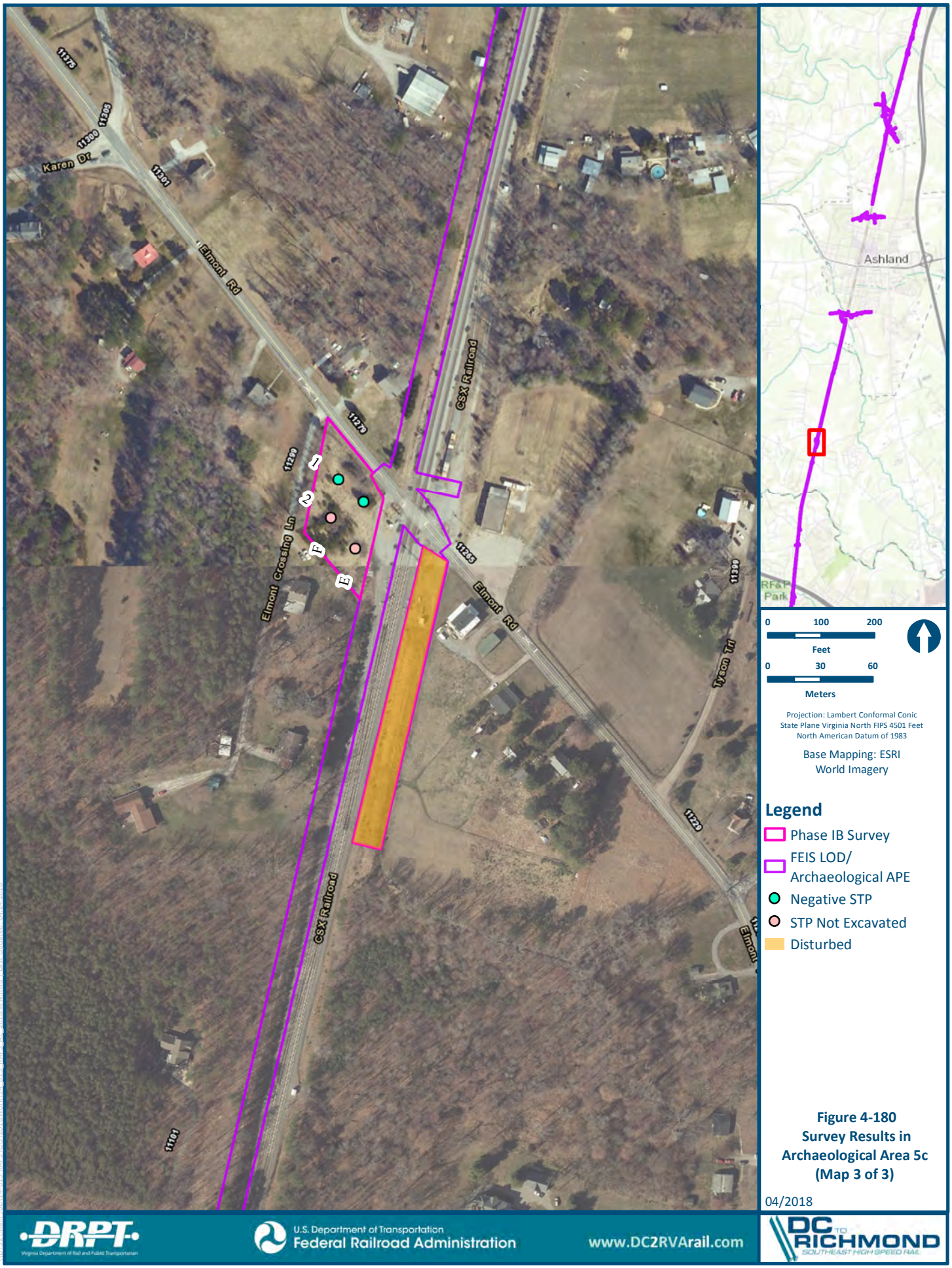


Figure 4-180
Survey Results in Archaeological Area 5c (Map 3 of 3)

04/2018

STPs in Archaeological Area 5c reached an average depth of 1.2 feet (36.6 cm) and a maximum depth of 1.6 feet (48.8 cm). A-horizon soils in Area 5c averaged 0.8 feet (24.4 cm) and ranged from 0.3 to 1.2 feet (9.1 to 36.6 cm) in depth. A typical soil profile recorded in Area 5c consisted of dark olive brown (2.5Y 3/3) sandy loam topsoil overlying brownish yellow (10YR 6/6) sandy clay sterile subsoil (Figure 4-181).

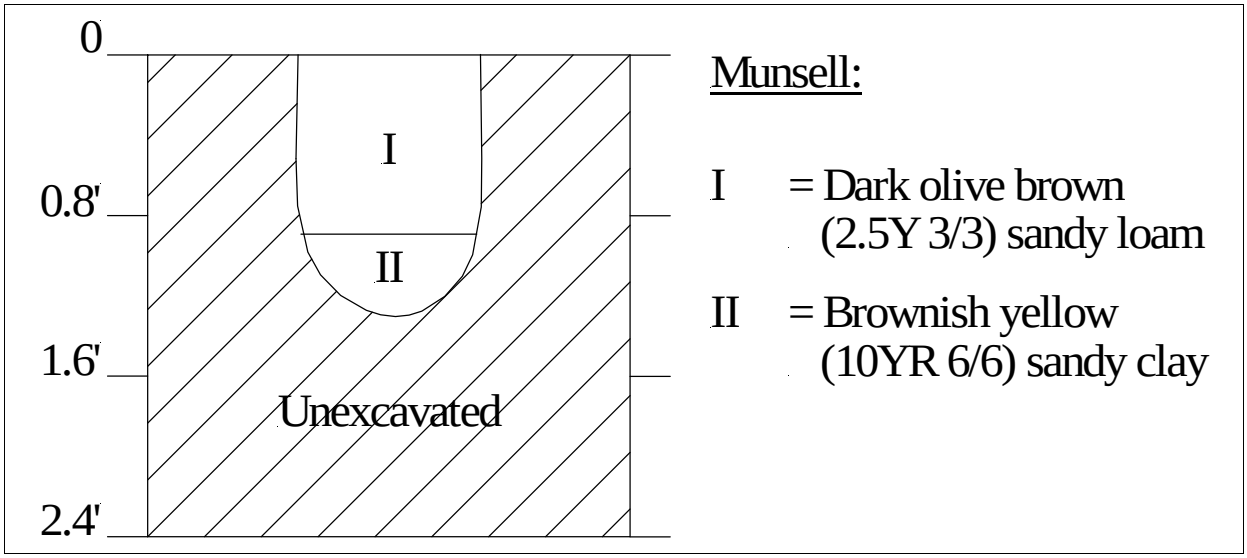


FIGURE 4-181: REPRESENTATIVE SOIL PROFILE FROM AREA 5C, STP 5C-C-12

4.7 AREA 6: RICHMOND

The Richmond Area (Area 6) of the DC2RVA Preferred Alternative LOD is located in Henrico and Chesterfield Counties and the City of Richmond. Starting in the north, the first portion of the Phase IB study is located just south of Interstate Highway 295 (I-295). From there Area 6 continues south through Glen Allen and towards the City of Richmond, passing through downtown Richmond and crossing the James River into the Manchester Area, continuing into Chesterfield County and ending at the crossing of Centralia Road and the existing CSXT railroad in Centralia (see Figure 2-5). Area 6 spans across approximately 14 miles (22.5 km) of the existing railroad corridor and areas within it identified for Phase IB study encompasses 32.8 acres (13.3 ha). Area 6 consists of eight archaeological areas, 6a through 6h.

The setting of Area 6 varies substantially from the commuter community settings found in Glen Allen and Centralia at either end of Area 6, through the dense commercial development in Henrico just north of Richmond, the downtown commercial setting, and heavily industrialized areas immediately south of the James River (Figure 4-182). Like much of the project corridor, substantial portions of Area 6 were found to be unsuitable for subsurface testing based on the pedestrian reconnaissance. This reconnaissance revealed a variety of existing disturbances within the APE, mainly consisting of the construction grading and artificially sloped embankments associated with the CSXT corridor.

FIGURE 4-182: TYPICAL SETTING IN AREA 6, LOOKING WEST

Subsurface testing in Area 6 consisted of STP survey, as well as metal detector survey within the small areas of the Yellow Tavern Battlefield (043-5108) and Proctor's Creek Battlefield (020-5320) that overlap the APE. A total of 44 STPs was excavated in Area 6, producing 22 artifacts and resulting in the identification of a single new site, 44HE1202. Additionally, two sites were identified by historic map research (44HE1203 and 44HE1204), while eight previously identified sites (44CF0022, 44CF0123, 44CF0260, 44CF0680, 44HE0357, 44HE1094, 44HE1097, and 44HE1098) that overlap the project area were inspected.

4.7.1 Archaeological Area 6a

Archaeological Area 6a, located in Henrico County, has its northern end just south of I-295. From there it follows the existing CSXT rail approximately 2 miles (3.2 km) to the south across Mountain and Hungary Roads, before ending just south of Hungary Road. It includes small portions extending to the east and west along Hungary Road and Mountain Road. The total area encompassed by survey in Area 6a was 6.1 acres (2.5 ha). Near Hungary Road, the study area overlaps the Yellow Tavern Battlefield (043-5108). Construction grading associated with the railroad and the nearby roads, as well as buried utilities and inundation, precluded subsurface testing throughout much of Archaeological Area 6a (Figure 4-183 and Figure 4-184). However, where the railroad and surrounding land were all relatively level near the crossing of Hungary Road, STP survey was performed (Figure 4-185). Metal detection was attempted in the areas within the Yellow Tavern Battlefield (043-5108), but the graded, graveled setting and prevalence of trash limited the efficacy of that technique. STP survey included the excavation of 31 STPs on nine transects (Figure 4-186 through Figure 4-189). A total of 22 artifacts was recovered from Area 6a, resulting in the identification of a single historic site, 44HE1202, discussed below after the area descriptions.

FIGURE 4-183: RAILROAD AND ROAD CONSTRUCTION DISTURBANCE ALONG HUNGARY ROAD IN AREA 6A, LOOKING EAST

FIGURE 4-184: INUNDATION PORTION OF AREA 6A, LOOKING SOUTH

FIGURE 4-185: PORTION OF AREA 6A SUBJECTED TO SUBSURFACE TESTING, NORTH OF HUNGARY ROAD, LOOKING NORTH

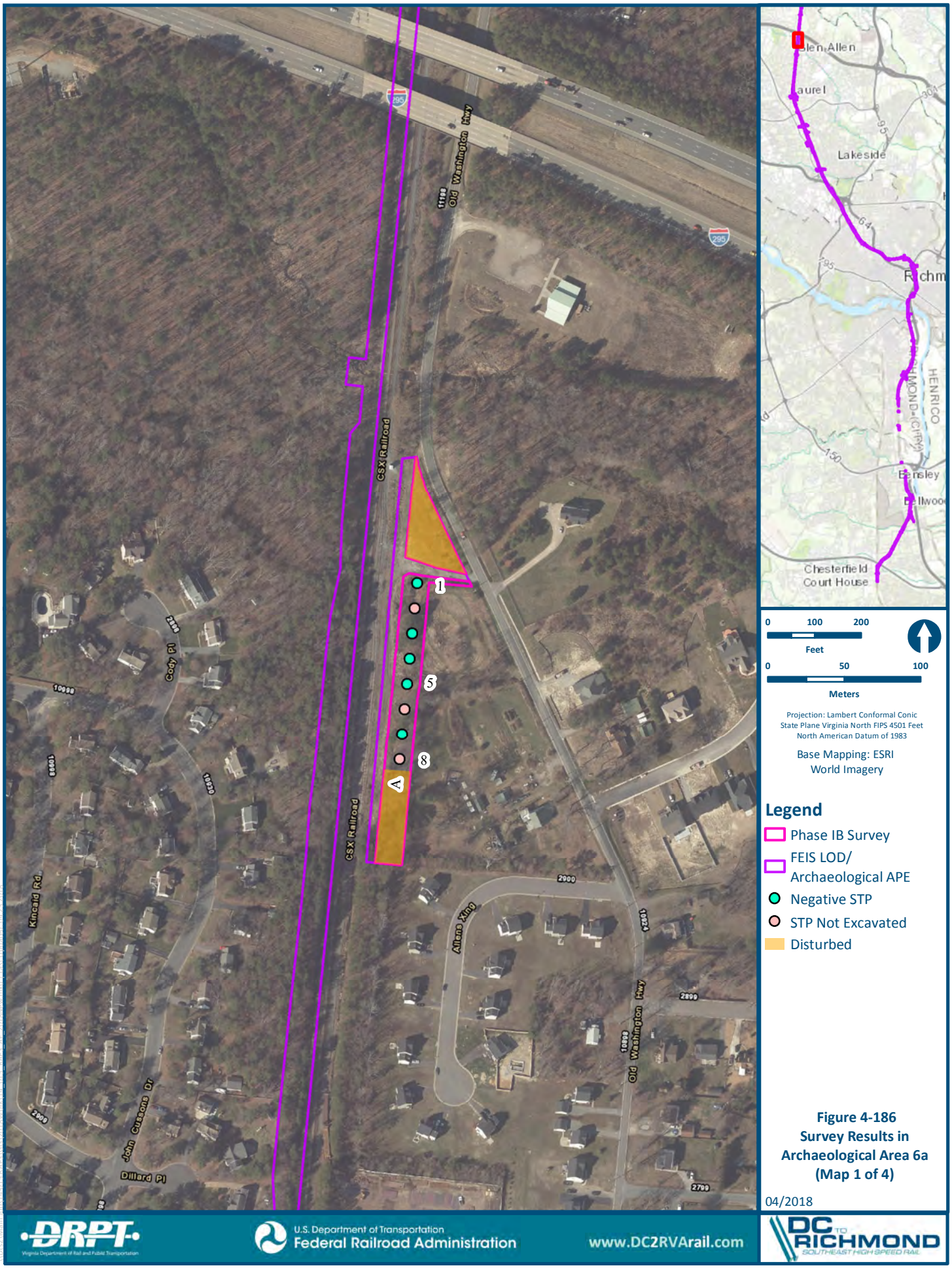
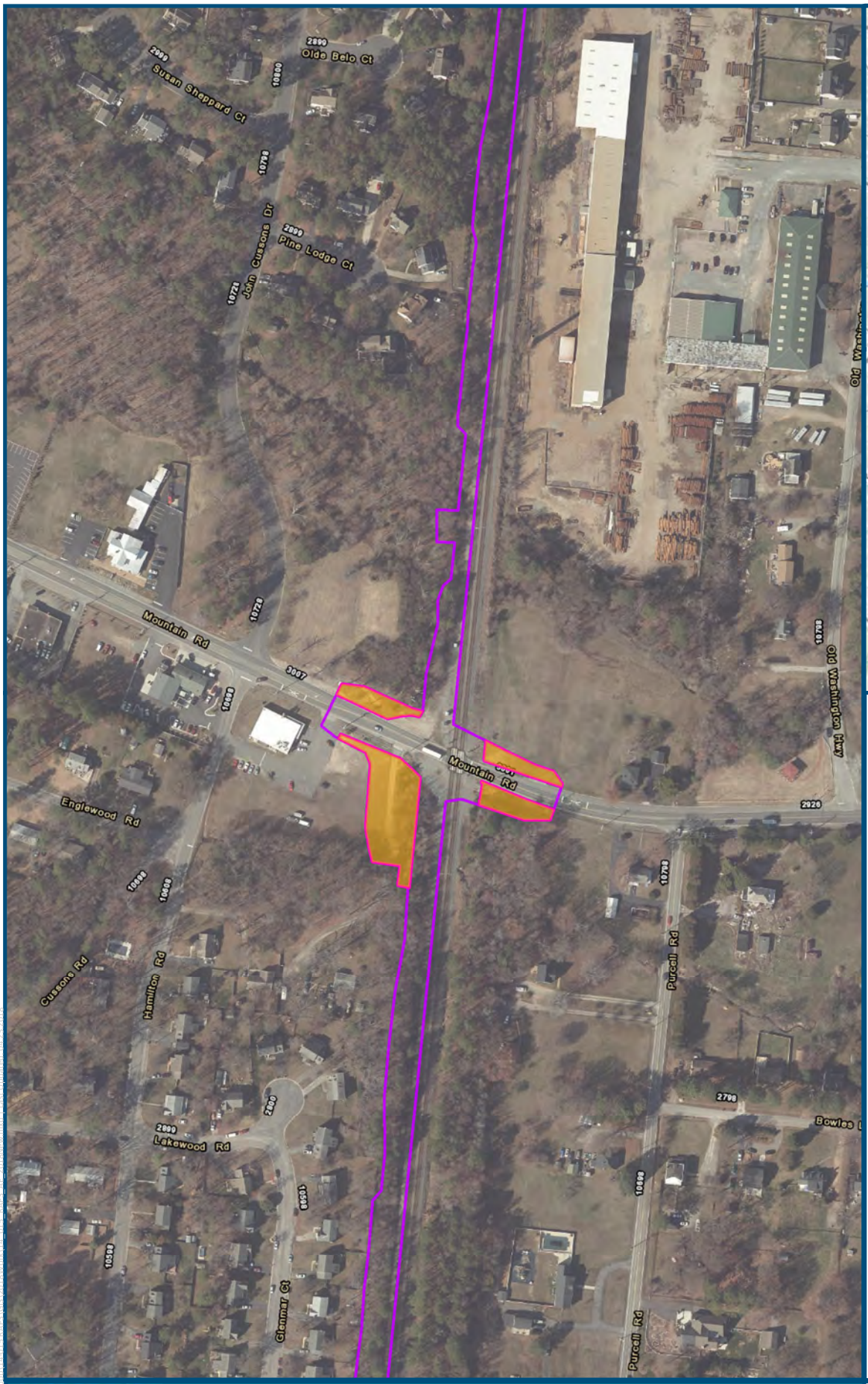
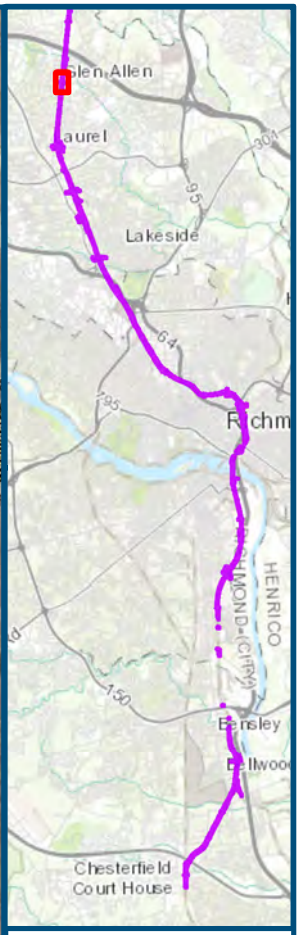


Figure 4-186
Survey Results in Archaeological Area 6a (Map 1 of 4)

04/2018





0 100 200
Feet

0 50 100
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Disturbed

Figure 4-187
Survey Results in Archaeological Area 6a (Map 2 of 4)

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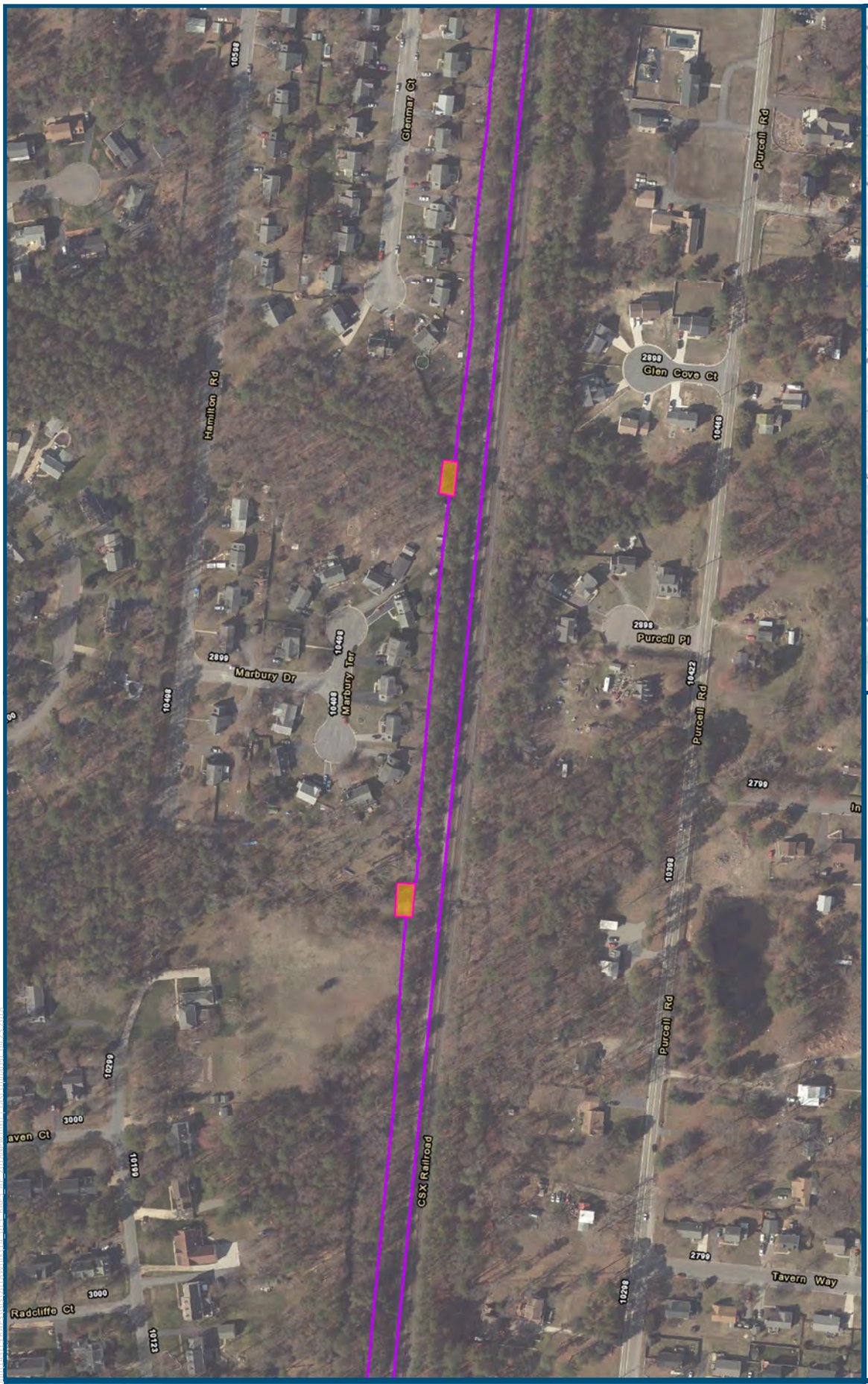

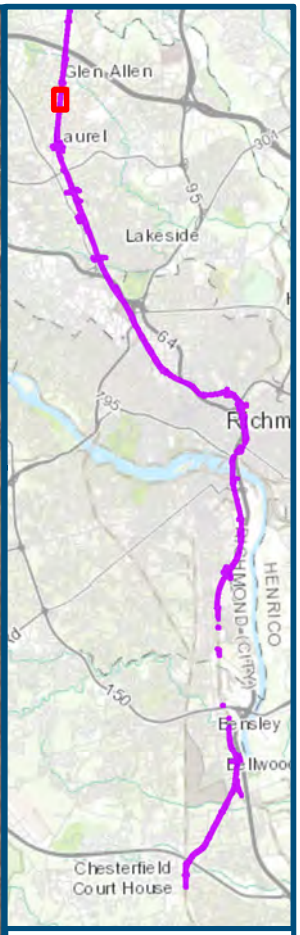

0 100 200
Feet

0 50 100
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Disturbed

Figure 4-188
Survey Results in Archaeological Area 6a (Map 3 of 4)

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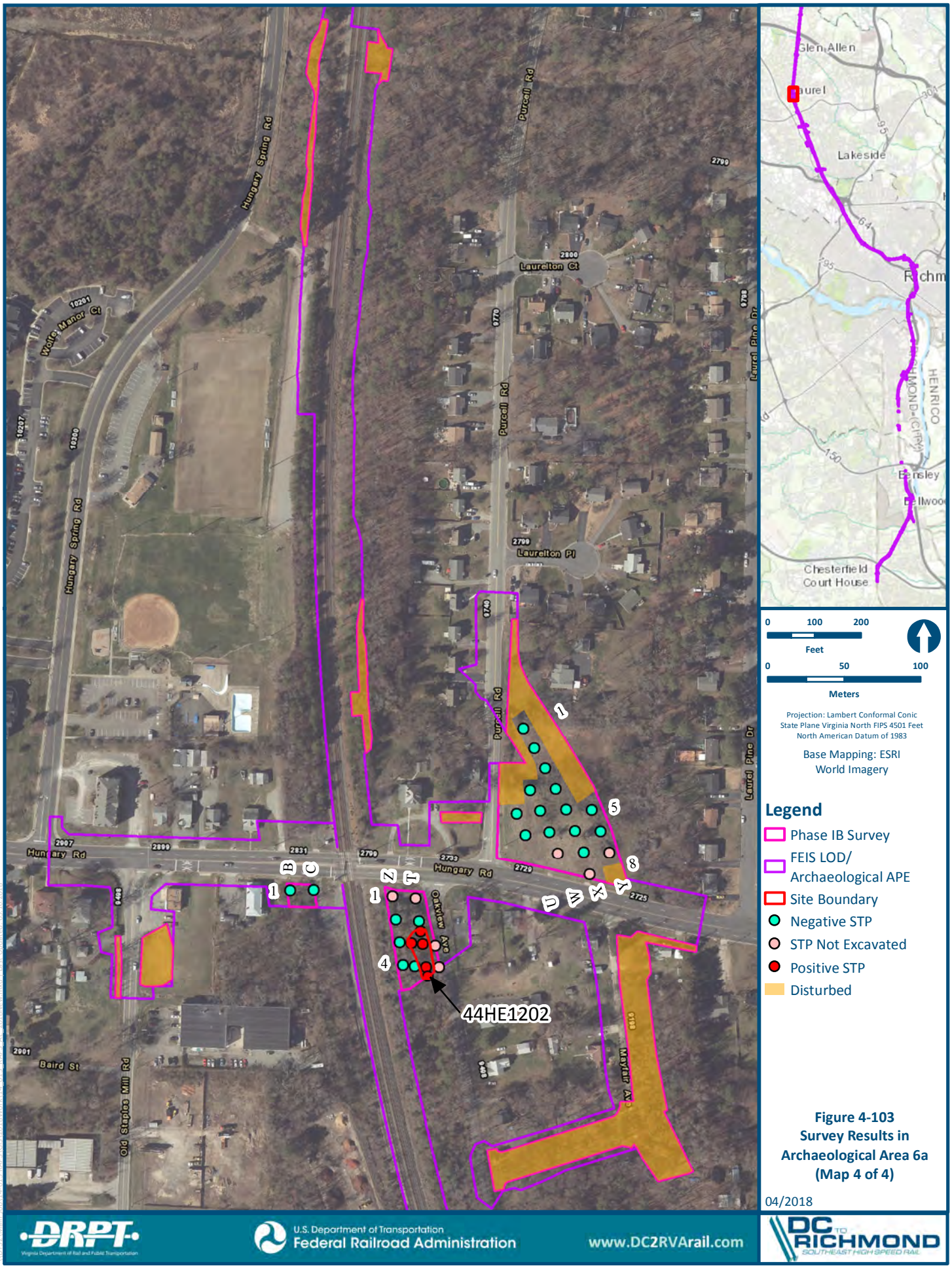


Figure 4-103
Survey Results in Archaeological Area 6a (Map 4 of 4)

04/2018

The average STP in Archaeological Area 6a reached a depth of 1.1 feet, with a maximum depth of 1.5 feet, while the A-horizon soils ranged from 0.1 to 1.1 feet, averaging 0.6 feet. A typical profile in Area 6a included olive brown (2.5Y 4/3) sandy loam topsoil, under which lay light yellowish brown (10YR 6/4) sandy clay subsoil (Figure 4-190).

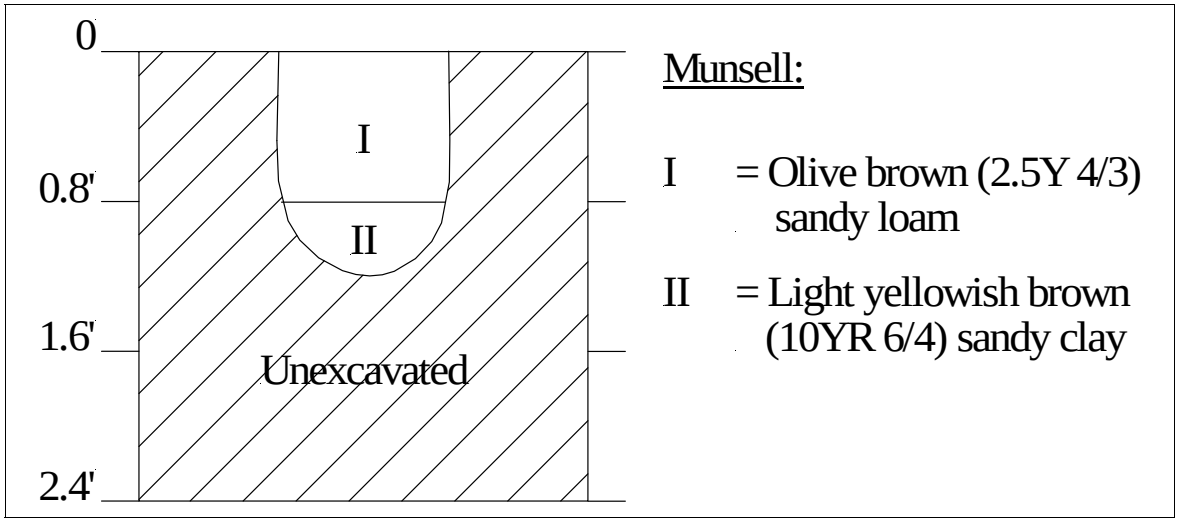
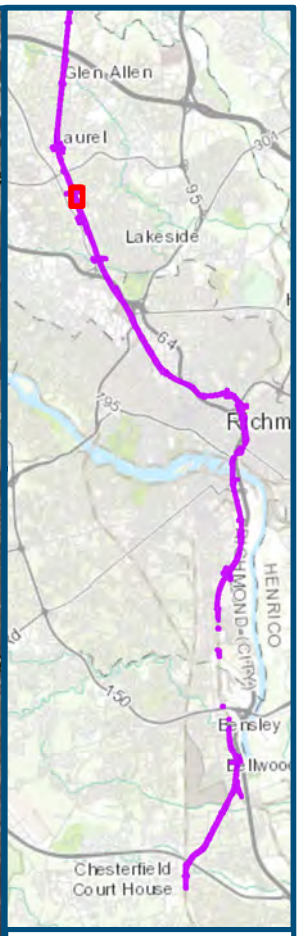


FIGURE 4-190: REPRESENTATIVE SOIL PROFILE FROM AREA 6A, STP 6A-U-5

4.7.2 Archaeological Area 6b

Archaeological Area 6b consists of only two small sections, one in the Amtrak parking lot at Bremner Boulevard and Staples Mill Road and the other along Hermitage Road near its intersection with Edenbrook Drive. These sections encompass 2.1 acres (0.8 ha). These areas are entirely disturbed, with the area at the Amtrak station having been recently paved and graded, while the areas along Hermitage Road lie entirely in steep slopes and drainages along the edge of that road (Figure 4-191). No STP survey was possible in Archaeological Area 6b, and no sites, features, or artifacts were identified (Figure 4-192 and Figure 4-193).

FIGURE 4-191: AMTRAK STATION CONSTRUCTION DISTURBANCE IN AREA 6B, LOOKING SOUTHEAST



0 100 200
Feet
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Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Disturbed

Figure 4-192
Survey Results in Archaeological Area 6b
(Map 1 of 2)

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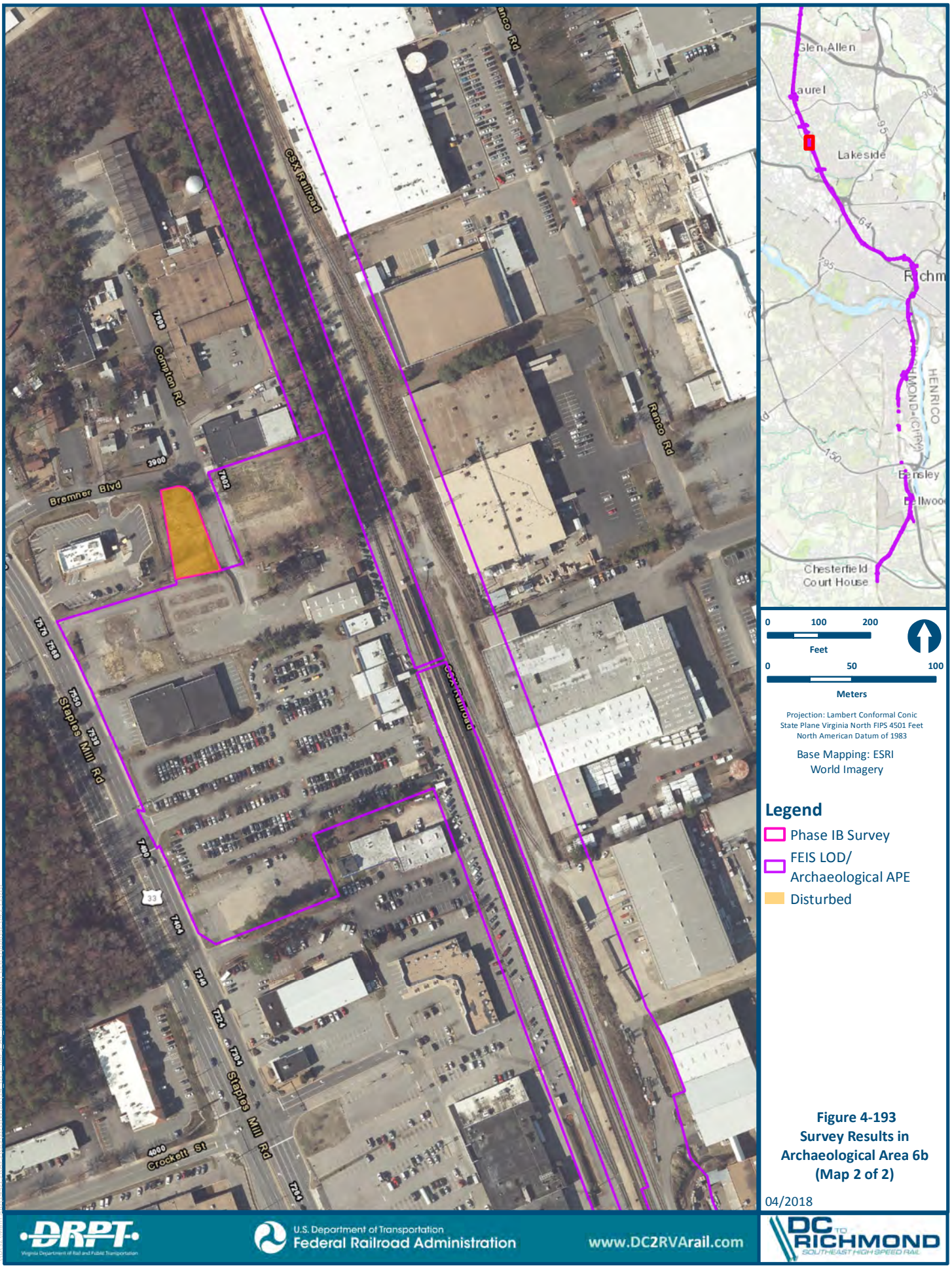


Figure 4-193
Survey Results in Archaeological Area 6b (Map 2 of 2)

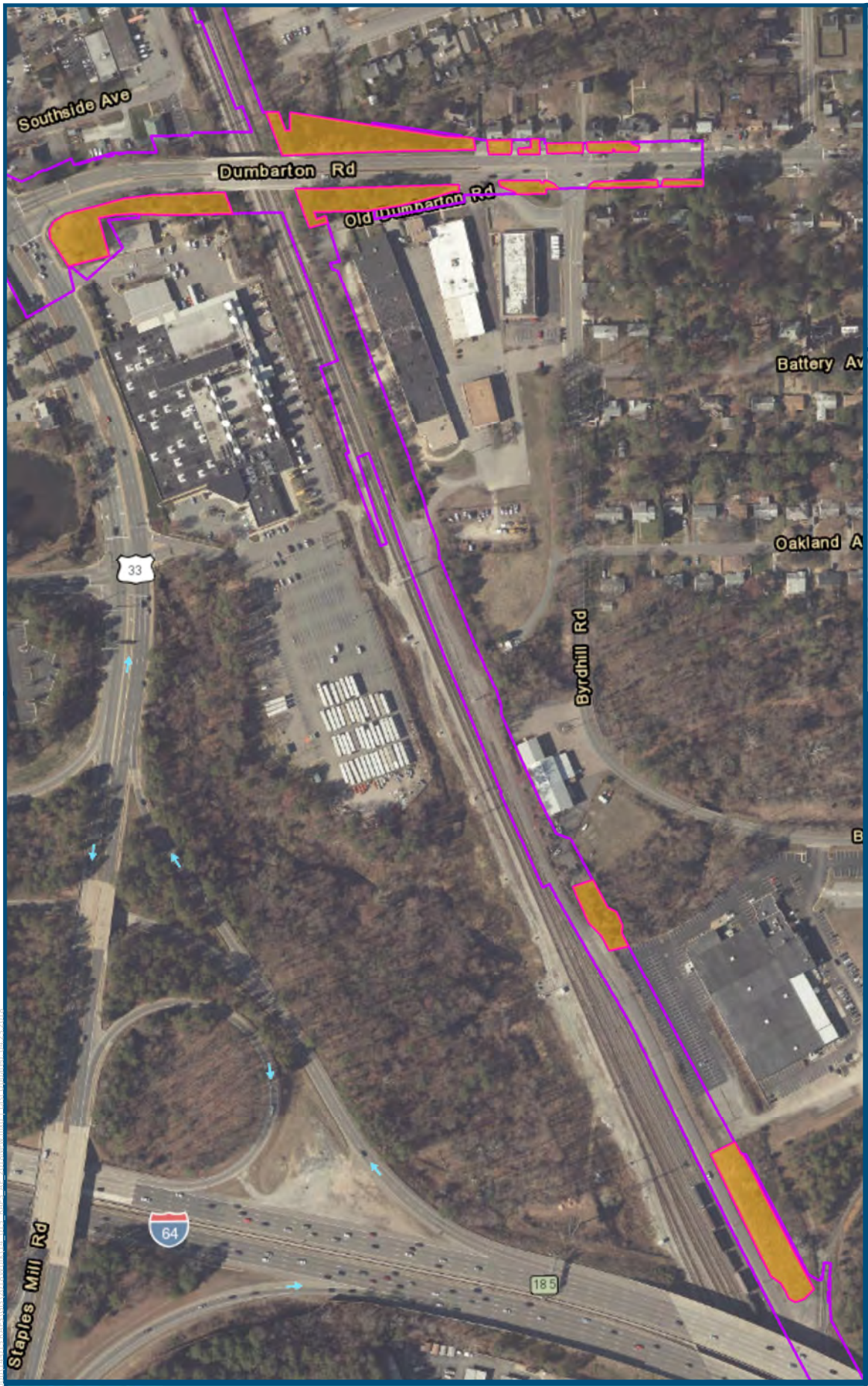
04/2018

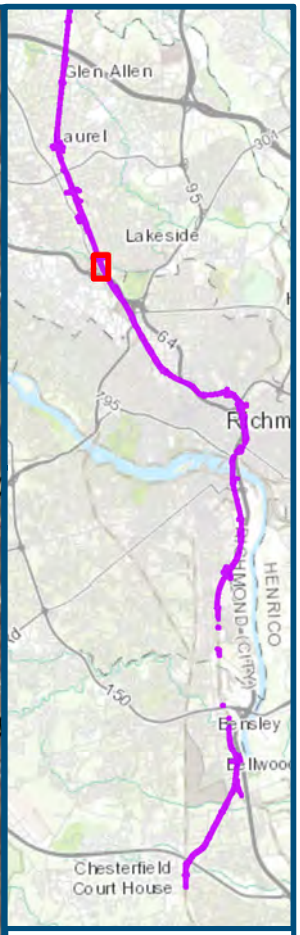
4.7.3 Archaeological Area 6c

Archaeological Area 6c is another small area in Henrico County consisting of a number of blocks in one location along the overpass of Dumbarton Road over the existing CSXT rail and another pair of survey blocks along the CSXT rail south of Dumbarton Road. The areas identified for Phase IB study within Archaeological Area 6c encompass 9.6 acres (3.9 ha). This portion of the APE reflects the most heavily developed parts of the Richmond metro area, with disturbance related to the railroad, Interstate Highway 64 (I-64), the local road grid, and residential development all making the entirety of Archaeological Area 6c unsuitable for subsurface testing. The sections along Dumbarton Road lie mainly in the sloped margins of the overpass or in graveled front drives with buried utilities, while the sections along the CSXT rail lie in a highly deflated and graveled work area (Figure 4-194 and Figure 4-195). Given this widespread disturbance, no subsurface testing was undertaken in Archaeological Area 6c (Figure 4-196 and Figure 4-197).

FIGURE 4-194: ROAD CONSTRUCTION AND BURIED UTILITY DISTURBANCE IN AREA 6C ALONG DUMBARTON ROAD, LOOKING WEST

FIGURE 4-195: AREA 6C ALONG CSXT RAIL, LOOKING SOUTH





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Feet

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Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Disturbed

Figure 4-196
Survey Results in Archaeological Area 6c
(Map 1 of 2)

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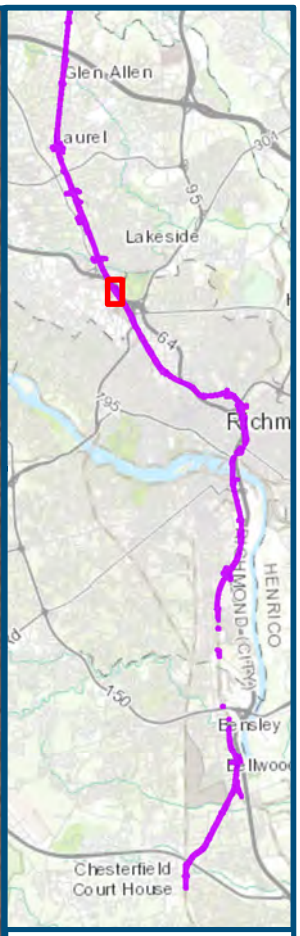

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Feet

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Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Disturbed

Figure 4-197
Survey Results in Archaeological Area 6c (Map 2 of 2)

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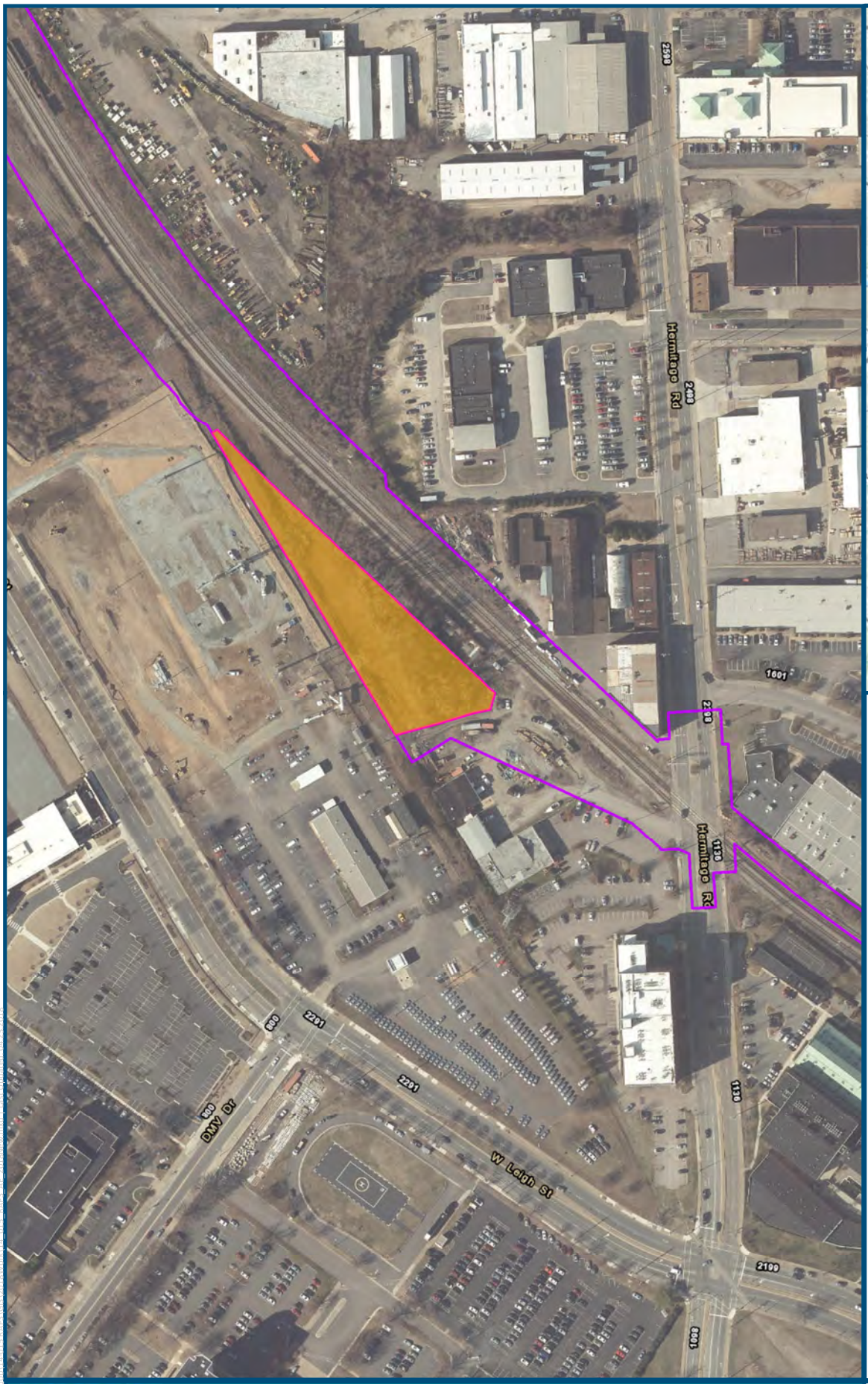
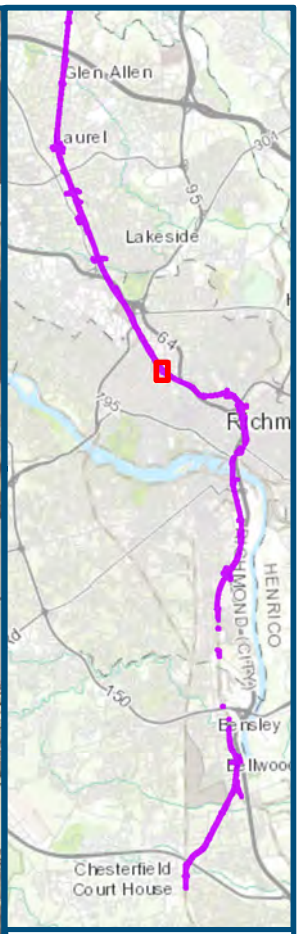
4.7.4 Archaeological Area 6d

Archaeological Area 6d consists of a single study block located on the western side of the existing rail line, near the intersection of Hermitage Road and Leigh Street in the City of Richmond. The area begins approximately 400 feet (121.9 m) northwest of Hermitage Road, and its longest side parallels the existing rail for 650 feet (198.1 m) from there. Overall the area, which has a maximum width of approximately 185 feet (56.4 m), has a roughly triangular shape and occupies 1.4 acres (0.6 ha) in a heavily graded, graveled, and otherwise disturbed wedge of land between an electric power substation and the CSXT railroad (Figure 4-198). Subsurface testing in Archaeological Area 6d was entirely precluded by disturbance. No artifacts were found and no sites or features were identified in Archaeological Area 6d (Figure 4-199).

FIGURE 4-198: OVERVIEW OF AREA 6D, LOOKING NORTHWEST





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Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Disturbed

Figure 4-199
Survey Results in Archaeological Area 6d (Map 1 of 1)

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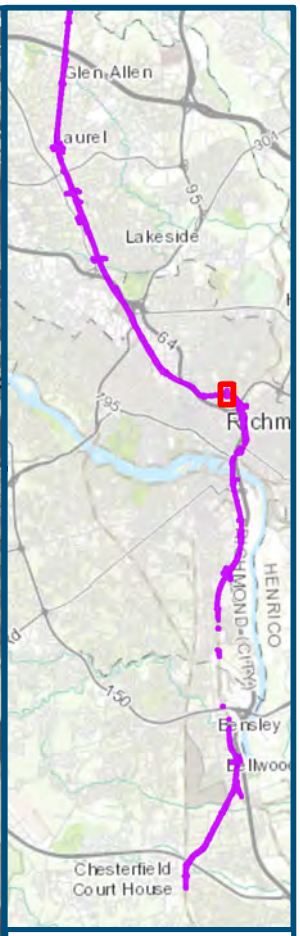
4.7.5 Archaeological Area 6e

Archaeological Area 6e consists of two locations identified for Phase IB archaeological study: one along St. James Street, just north of downtown Richmond, and the second running adjacent to sections of CSXT rail between Oliver Hill Way and I-95, occupying a combined area of 7.1 acres (2.9 ha). The portion lying on the west side of St. James Street runs along that road for approximately 400 feet (121.9 m) and lies entirely in the extremely steep slope up from that road, or in the ditch between the slope and the road (Figure 4-200). The larger area, along the CSXT rail, is approximately 2,200 feet (670.6 m) long and is also entirely disturbed, dominated by gravel, rubble, and push piles (Figure 4-201). Subsurface testing in Archaeological Area 6e was entirely precluded by disturbance. No artifacts were found, and no new sites or features were identified during the survey; however, historic map analysis resulted in the identification of two new archaeological sites, 44HE1203 and 44HE1204 (Figure 4-202 through Figure 4-204), both described below.

FIGURE 4-200: OVERVIEW OF AREA 6E, LOOKING NORTHWEST

FIGURE 4-201: ROAD RUNNING THROUGH AREA 6E, LOOKING NORTH



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Feet

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Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Disturbed

Figure 4-202
Survey Results in Archaeological Area 6e
(Map 1 of 3)

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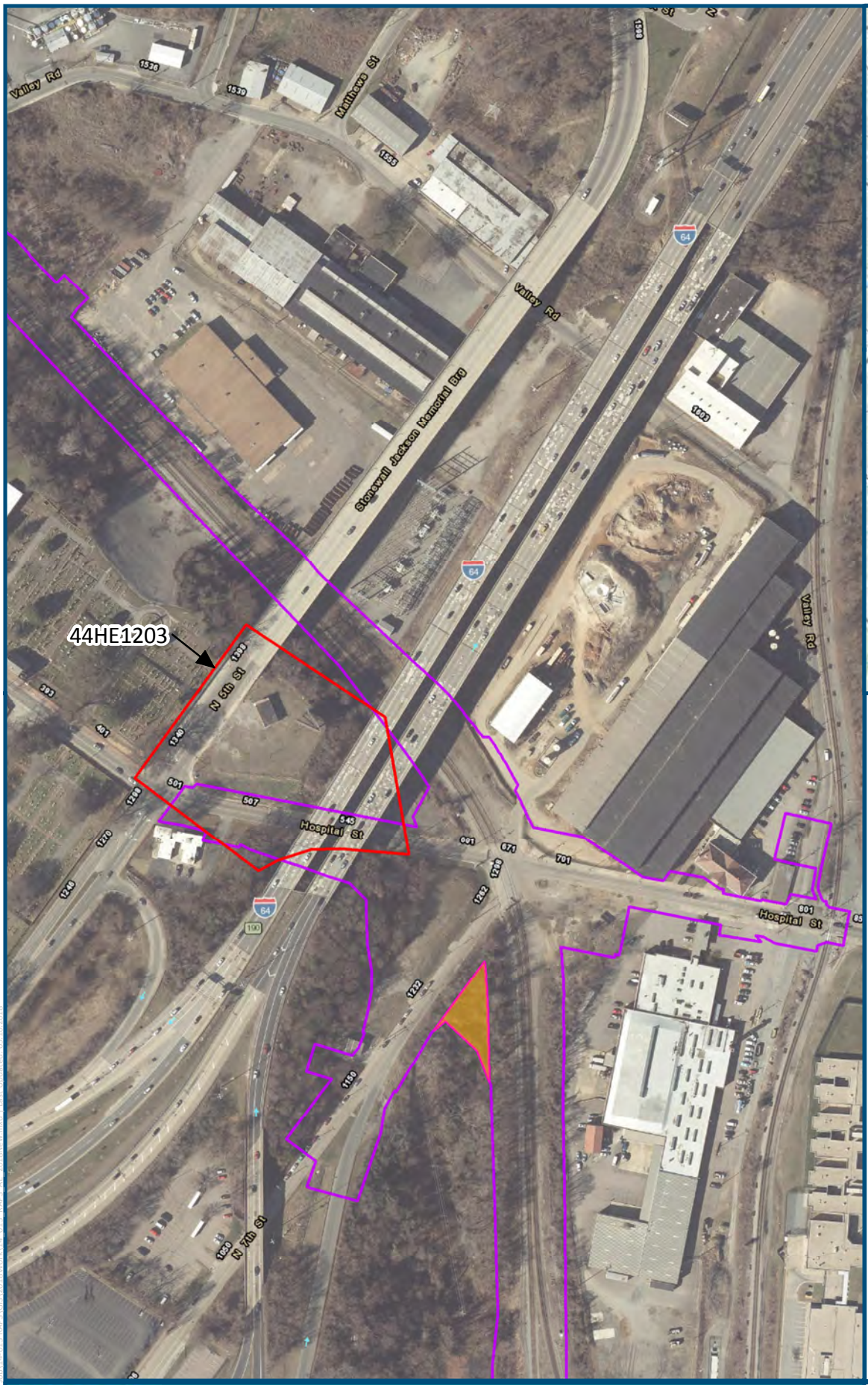

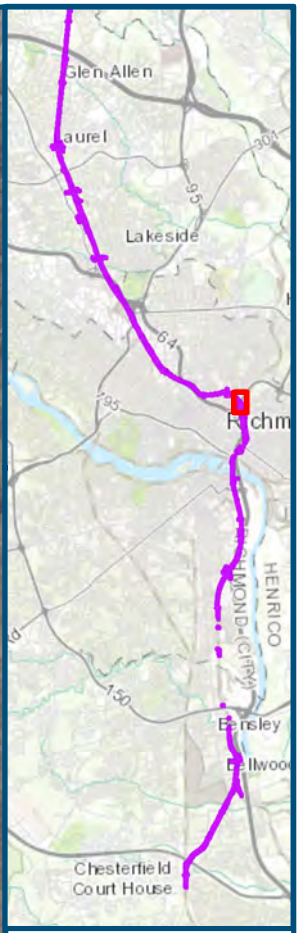

0 100 200
Feet
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Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Site Boundary
- Disturbed

Figure 4-103
Survey Results in Archaeological Area 6e (Map 2 of 3)

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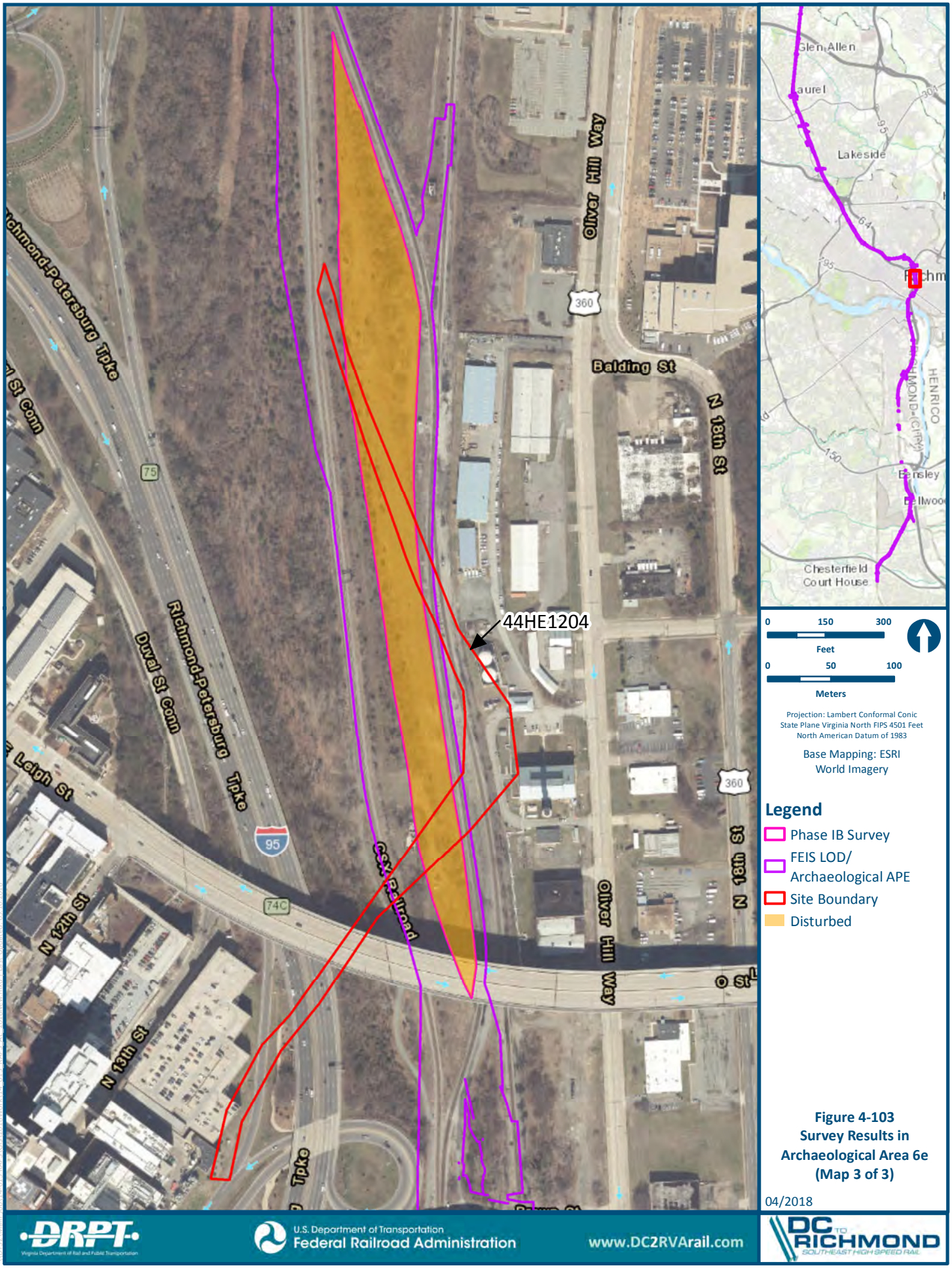


Figure 4-103
Survey Results in Archaeological Area 6e (Map 3 of 3)

04/2018

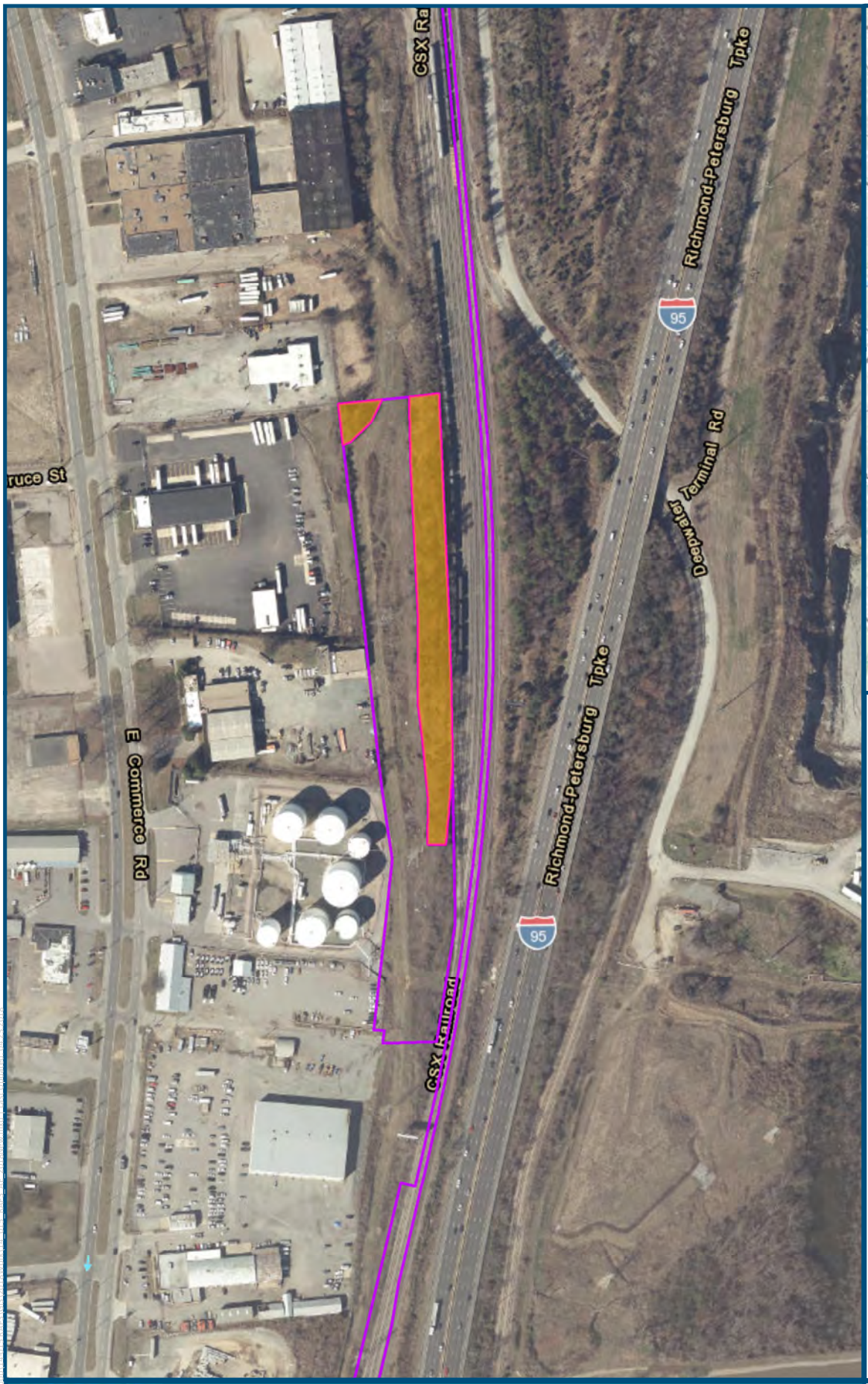
4.7.6 Archaeological Area 6f

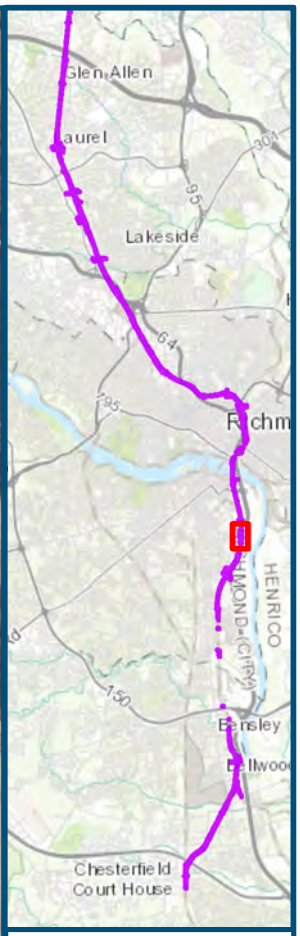
Archaeological Area 6f is composed of several separate blocks identified for Phase IB archaeological study generally organized into three locations. The first of these locations is between Commerce Road and the existing CSXT rail as they parallel I-95 near Ancarrow's Landing in Richmond and the remaining two are situated along Ruffin Road and Dale Avenue. These sections encompass a total area of 3.4 acres (1.4 ha) identified for Phase IB archaeological study. The sections along Commerce and Ruffin Road were subjected to pedestrian survey only, as extensive grading activity in the industrial area along Commerce Road, buried utilities in the residential area on Ruffin Road, and paved surfaces throughout precluded subsurface investigations (Figure 4-205). However, in the wooded area to the south of Dale Avenue, no obvious disturbance was observed and as such, a single transect of two STPs was excavated (Figure 4-206). No artifacts were found and no sites were identified in Archaeological Area 6f (Figure 4-207 through Figure 4-210).

FIGURE 4-205: ROAD CONSTRUCTION AND SLOPE DISTURBANCE IN AREA 6F ALONG COMMERCE ROAD, LOOKING NORTHEAST

The two STPs excavated in Archaeological Area 6f had relatively similar soils, consisting of thin topsoil overlying clayey subsoil. The average STP reached a depth of 0.8 feet (24.4 cm), with the deeper STP reaching 1.0 feet (30.5 cm), while the A horizons averaged 0.3 feet (9.1 cm). A representative profile consists of brown (10YR 4/3) sandy loam overlying light brownish (10YR 6/2) gray sandy clay (Figure 4-211).

FIGURE 4-206: PORTION OF AREA 6F SUBJECTED TO SUBSURFACE TESTING, LOOKING SOUTH





0 100 200
Feet

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Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Disturbed

Figure 4-207
Survey Results in Archaeological Area 6f (Map 1 of 4)

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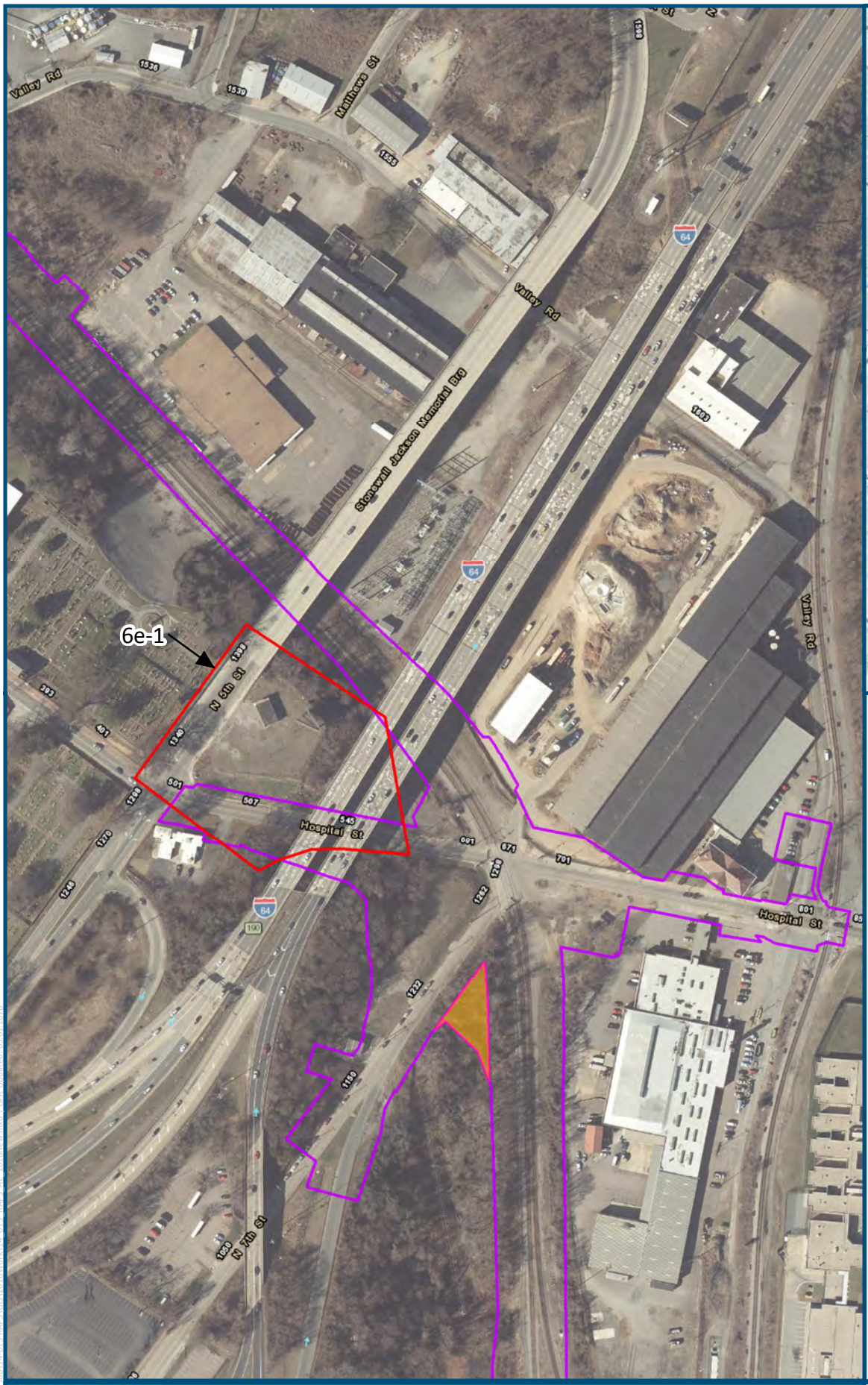

Figure 4-203
Survey Results in Archaeological Area 6e (Map 2 of 3)

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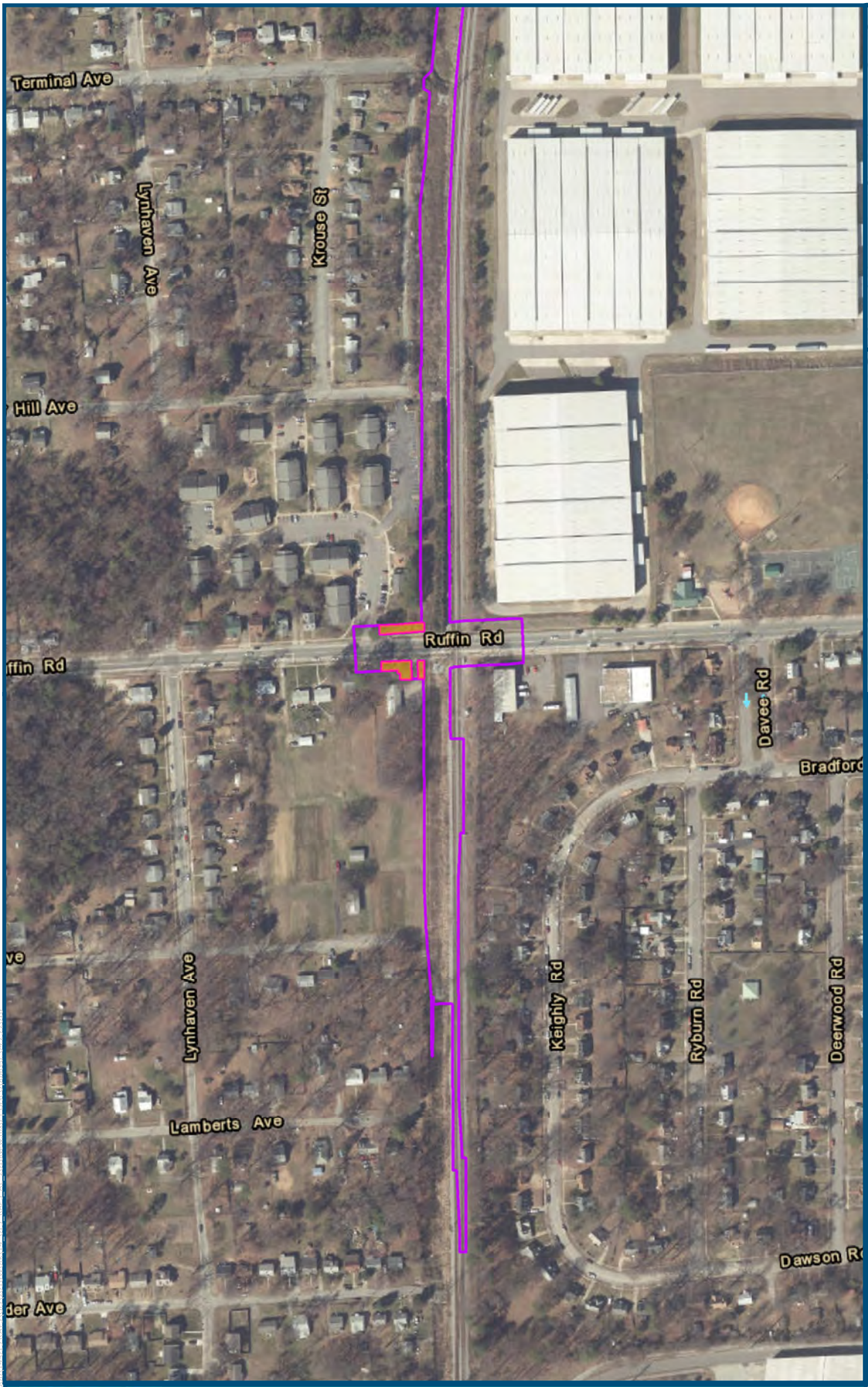

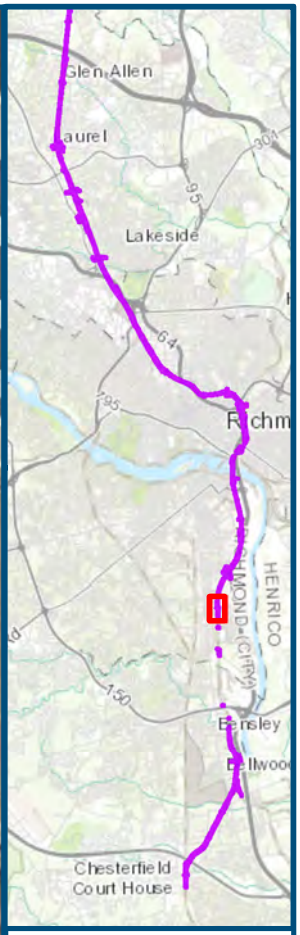

0 100 200
Feet

0 60 120
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Disturbed

Figure 4-209
Survey Results in Archaeological Area 6f
(Map 3 of 4)

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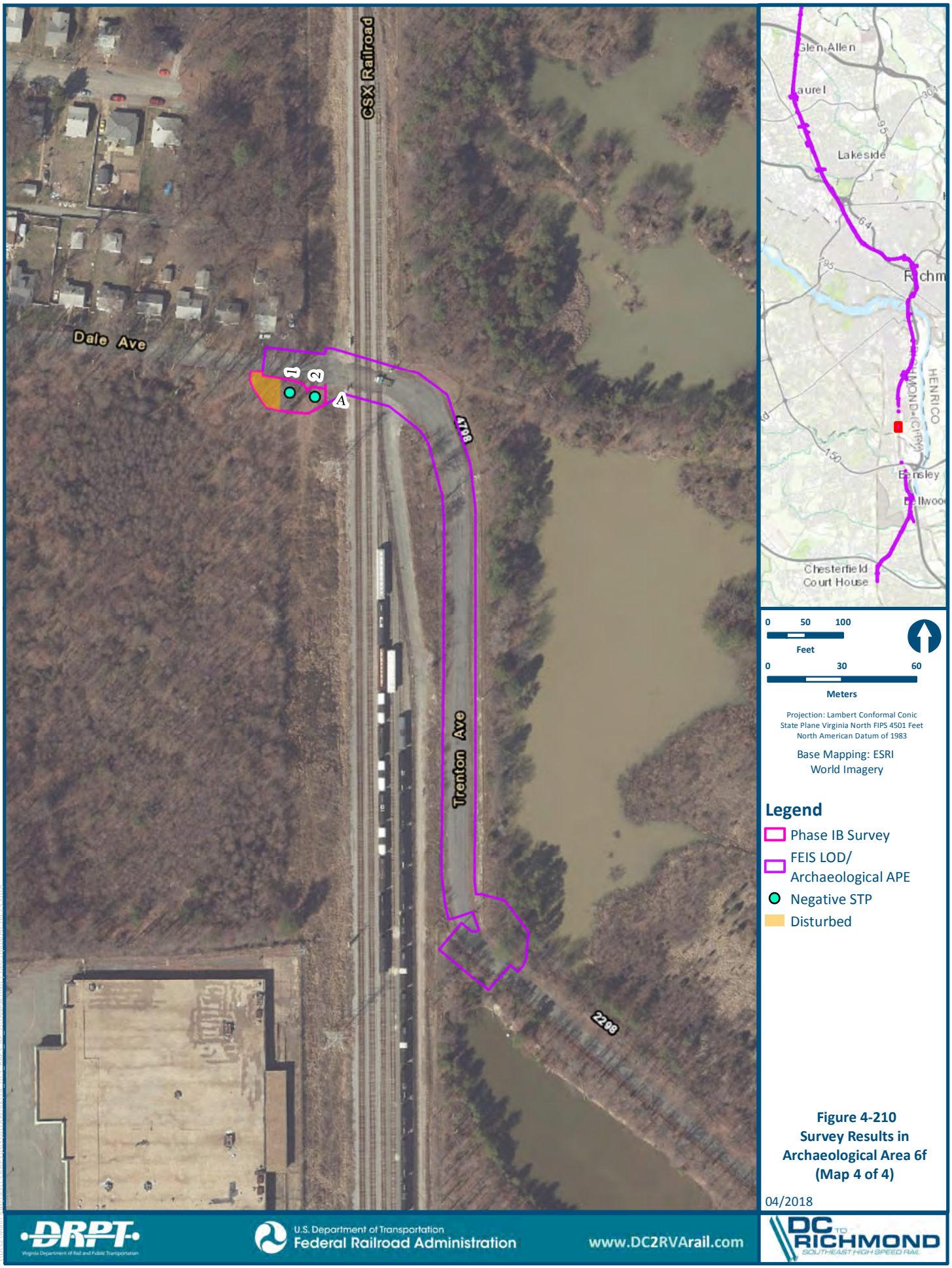

Figure 4-210
Survey Results in Archaeological Area 6f (Map 4 of 4)

04/2018

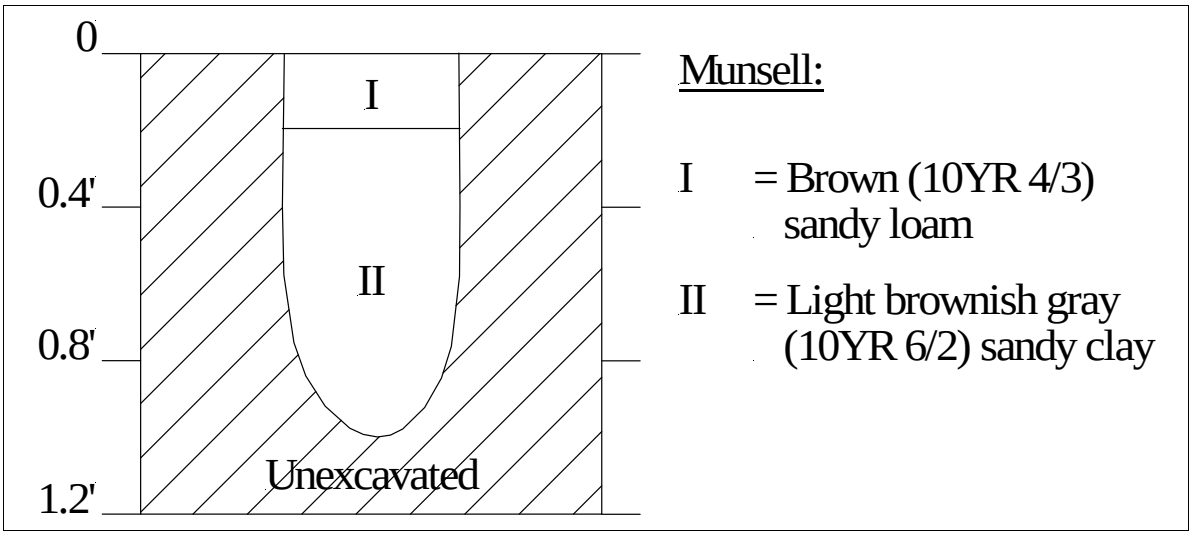

FIGURE 4-211: REPRESENTATIVE SOIL PROFILE FROM AREA 6F, STP 6F-A-2

4.7.7 Archaeological Area 6g

Archaeological Area 6g is located in Chesterfield County and consists of two large locations. The larger, northern block is clustered around Elliham Avenue at its overpass of the existing rail. The smaller, southern block is located near the intersection of Kingsland and Chester Roads. These combine for a total of 2.3 acres (0.9 ha). The southern portion of Archaeological Area 6g was not subjected to subsurface testing due to notable surface disturbances. It is situated in an area extensively graded and around Kingsland Road's crossing of the existing rail line and in inundated areas as the grading along the rail approaches a creek. The much larger northern portion also contains substantial disturbance, as the overpass required substantial grading, and the area in general slopes down from I-95 on the east toward the much lower lying rail line. Along Elliham Avenue, driveways and the drainage and utilities along the road precluded subsurface testing (Figure 4-212). However, two sections, one in a flat field adjacent to the overpass and one paralleling the rail on the east, were subjected to subsurface testing (Figure 4-213).

Subsurface testing in Archaeological Area 6g consisted of 10 STPs located on three transects. A very narrow portion of the Proctors Creek Battlefield (020-5320) overlaps the project area south of Elliham Avenue, but the steep, and apparently artificial slope in this area made STP and metal detector survey impracticable (Figure 4-214). No artifacts were recovered, nor were any new sites or features identified (Figure 4-215 through Figure 4-217). Previously identified site 44CF0022 also intersected the APE in this location; the site is discussed in detail below.

FIGURE 4-212: GRADING OF OVERPASS IN AREA 6G ON ELLIHAM AVENUE, LOOKING WEST

FIGURE 4-213: PORTION OF AREA 6G, NORTH OF ELLIHAM AVENUE, SUBJECTED TO SUBSURFACE TESTING, LOOKING NORTH

FIGURE 4-214: GRADING FROM OVERPASS, WITHIN PROCTORS CREEK BATTLEFIELD, LOOKING EAST

STPS in Archaeological Area 6g reached an average depth of 0.8 feet (9.1 cm) with a maximum depth of 1.4 feet (42.7 cm). A-horizon soils in Area 6g STPs had an average thickness of 0.4 feet (4.6 cm) and ranged from 0.1 to 1.0 feet (3.0 to 30.5 cm). A typical STP profile in Area 6g consisted of dark yellowish brown (10YR 3/4) silt loam topsoil overlying brownish yellow (10YR 6/6) silty clay subsoil (Figure 4-218).

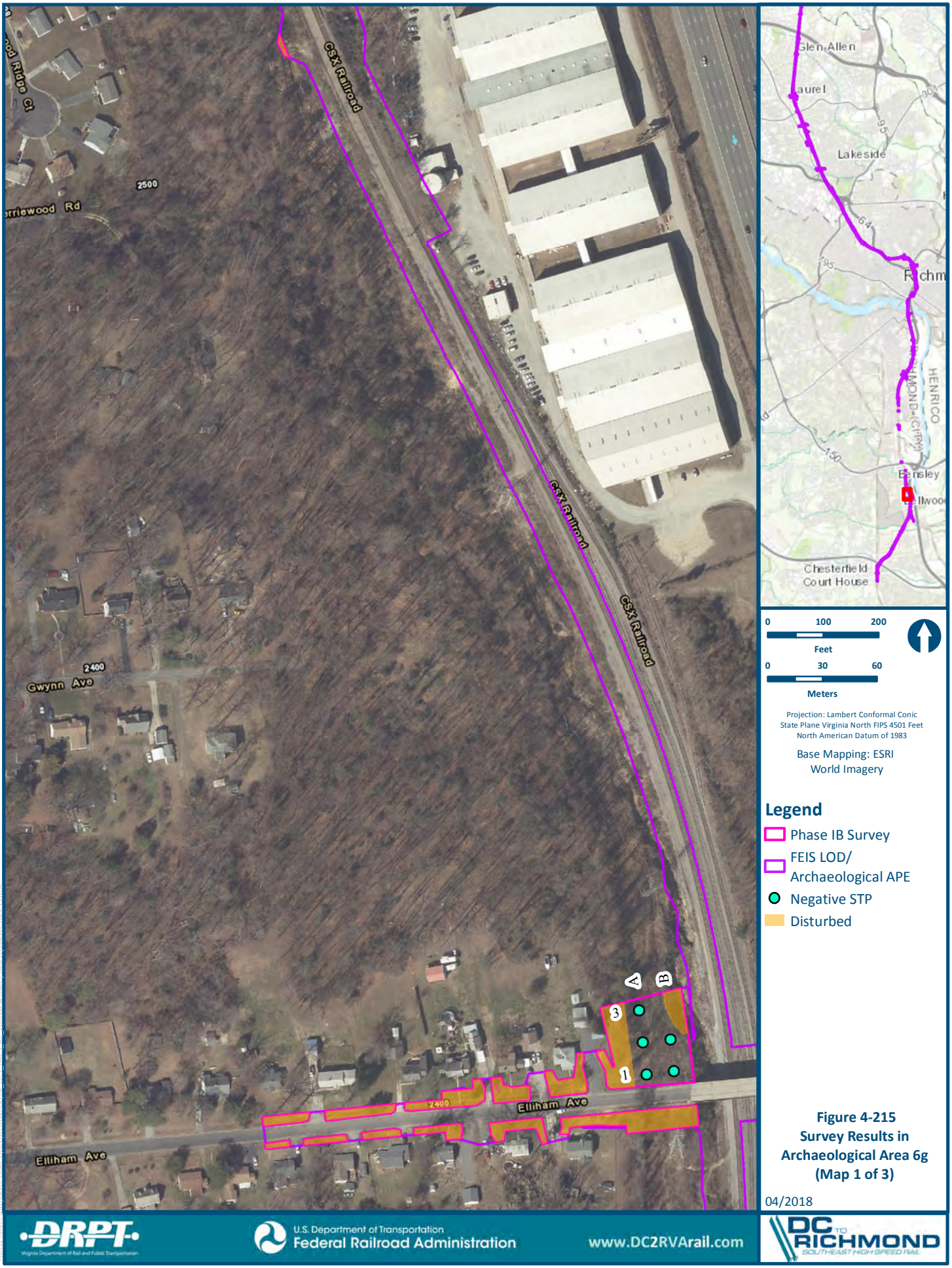

Figure 4-215
Survey Results in Archaeological Area 6g
(Map 1 of 3)

04/2018

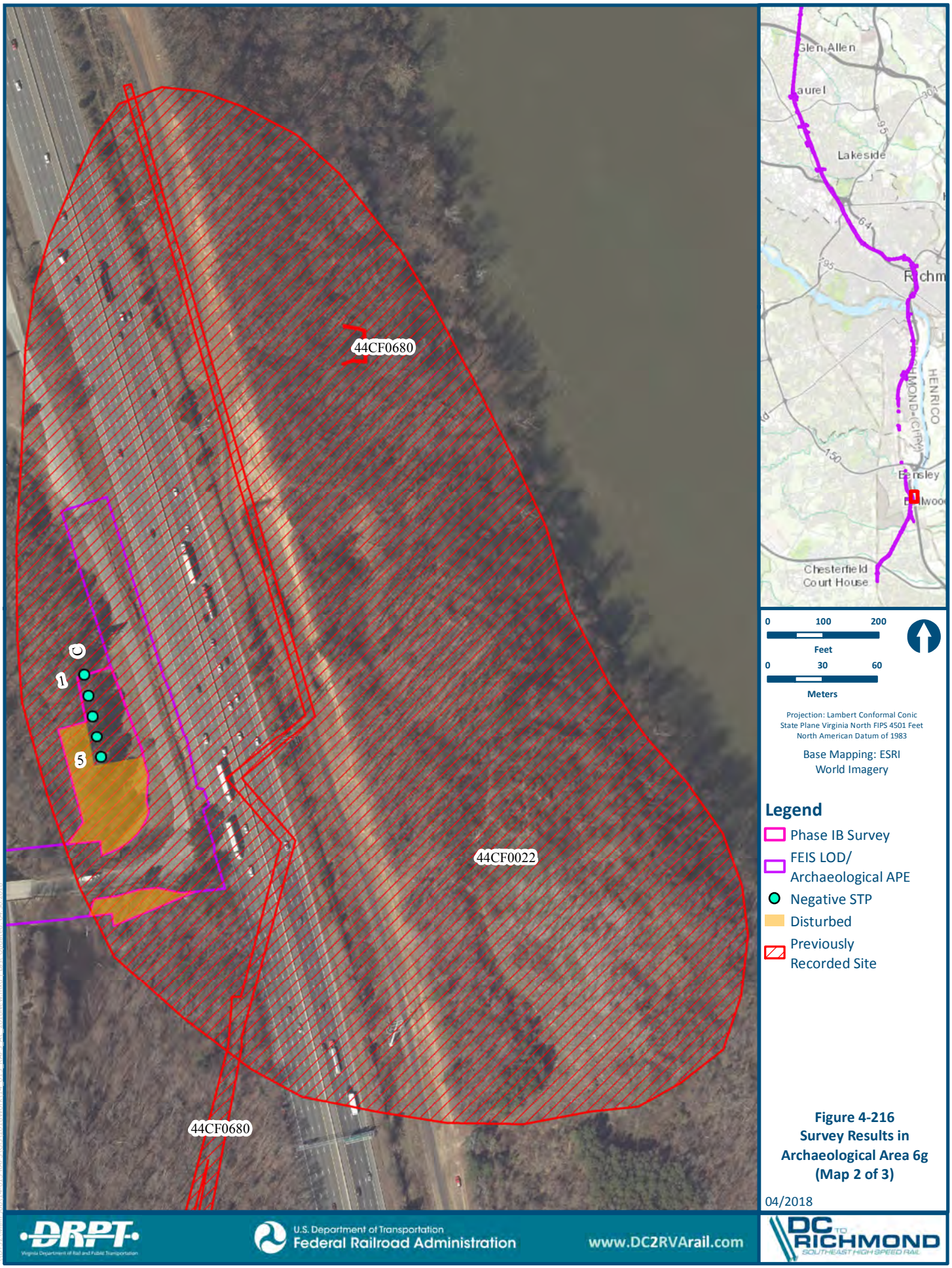

Figure 4-216
Survey Results in Archaeological Area 6g (Map 2 of 3)

04/2018

0 50 100
Feet
0 20 40
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Disturbed

Figure 4-217
Survey Results in Archaeological Area 6g (Map 3 of 3)

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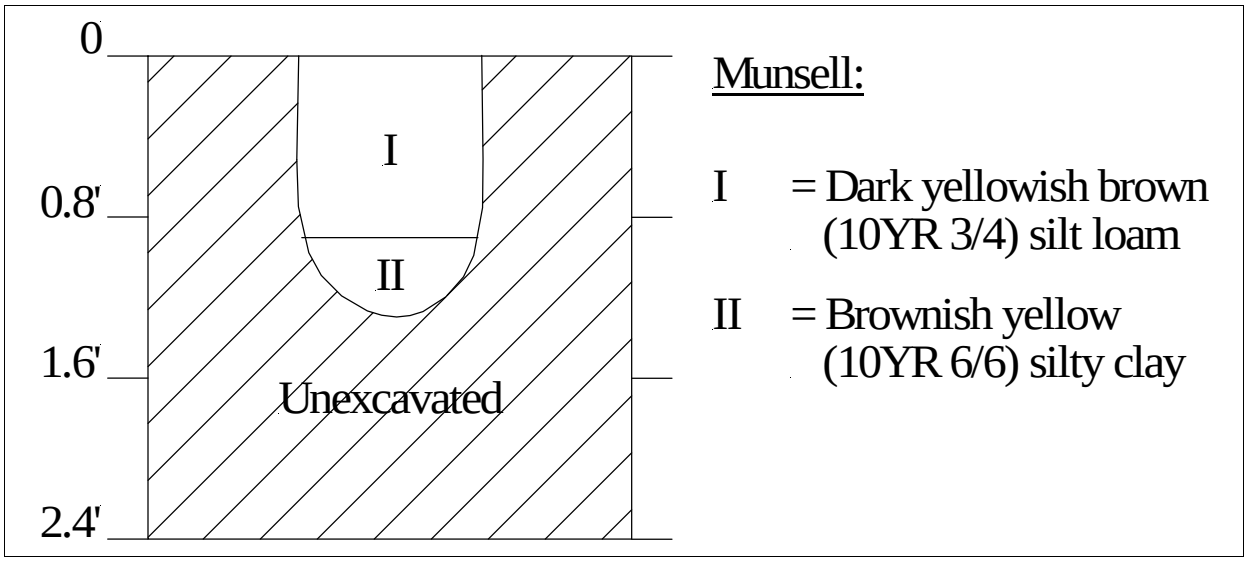


FIGURE 4-218: REPRESENTATIVE SOIL PROFILE FROM AREA 6G, STP 6G-A-3

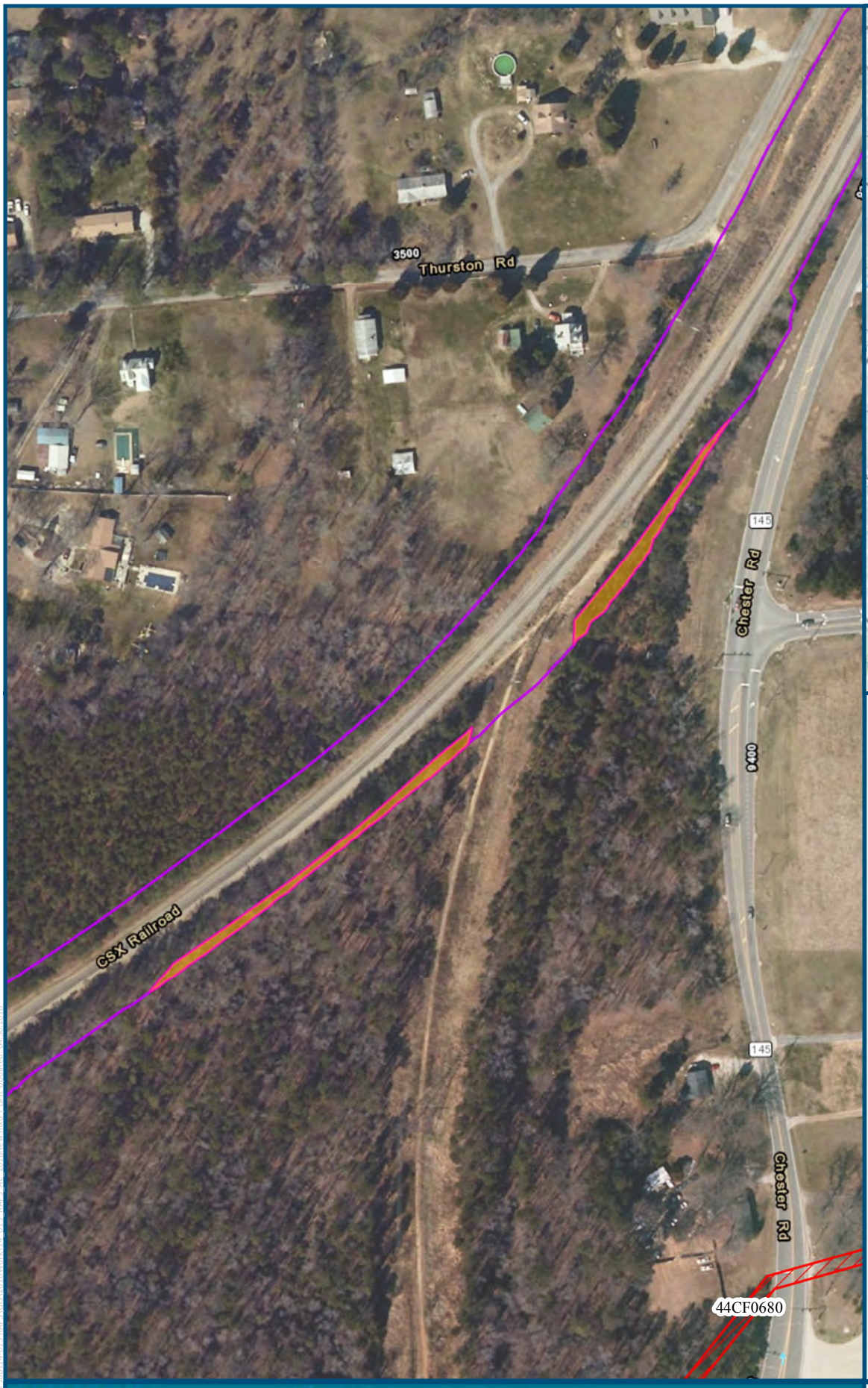
4.7.8 Archaeological Area 6h

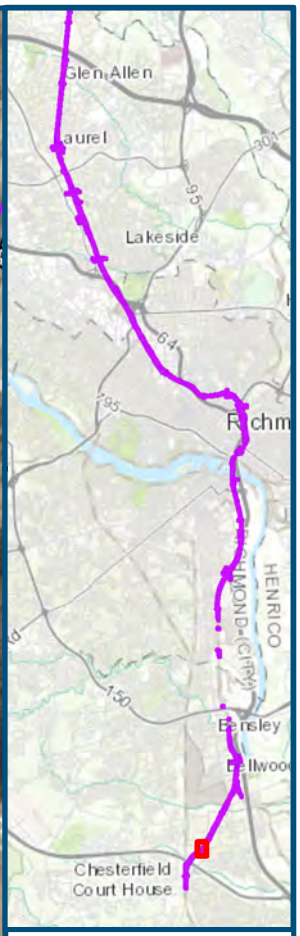
Archaeological Area 6h is the southernmost area within the APE. It is located in Chesterfield County and consists of three locations identified for Phase IB study lying on the east side of the existing CSXT rail between Chester Road and Virginia State Route 288, as well as two smaller locations further to the south, lying on either side of Old Lane on the west side of its crossing of the existing rail. Combined, these locations within Archaeological Area 6h include 0.7 acres (0.3 ha). The three northern portions all lie in disturbed areas along the existing CSXT rail (Figure 4-219). Three portions of this area are traversed by the mapped extent of previously recorded site 44CF0680, Fort Darling, but no evidence of visible earthworks could be seen within or in the viewshed of the project corridor (Figure 4-220). Site 44CF0680 was evaluated as part of the previous DC2RVA Phase IB survey (McCloskey et al. 2016) but is discussed further below.

The southern portion along Old Lane is also largely disturbed, either in graded or graveled areas along the road, but a small part of this location appeared undisturbed and was tested with a single STP (Figure 4-221 through Figure 4-223). This STP had a profile consisting of an A horizon of brown (10YR 4/3) sandy loam reaching a depth of 0.7 feet (21.3 cm) overlaying a sterile subsoil of light yellowish brown (10YR 6/4) clay sand that was excavated to a depth of 1.1 feet (33.5 cm) (Figure 4-224). This portion of Archaeological Area 6h is within Proctors Creek Battlefield (020-5320), as such metal detector survey was completed. No artifacts were found and no new sites were identified in Archaeological Area 6h.

FIGURE 4-219: UTILITY AND RAIL CONSTRUCTION DISTURBANCE ALONG CSXT CORRIDOR IN AREA 6H, LOOKING SOUTH

FIGURE 4-220: VIEW FROM APE IN AREA 6H LOOKING WEST TOWARD LOCATION OF 44CF0680





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Feet
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Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Imagery

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE
- Disturbed
- Previously Recorded Site

Figure 4-221
Survey Results in Archaeological Area 6h
(Map 1 of 3)

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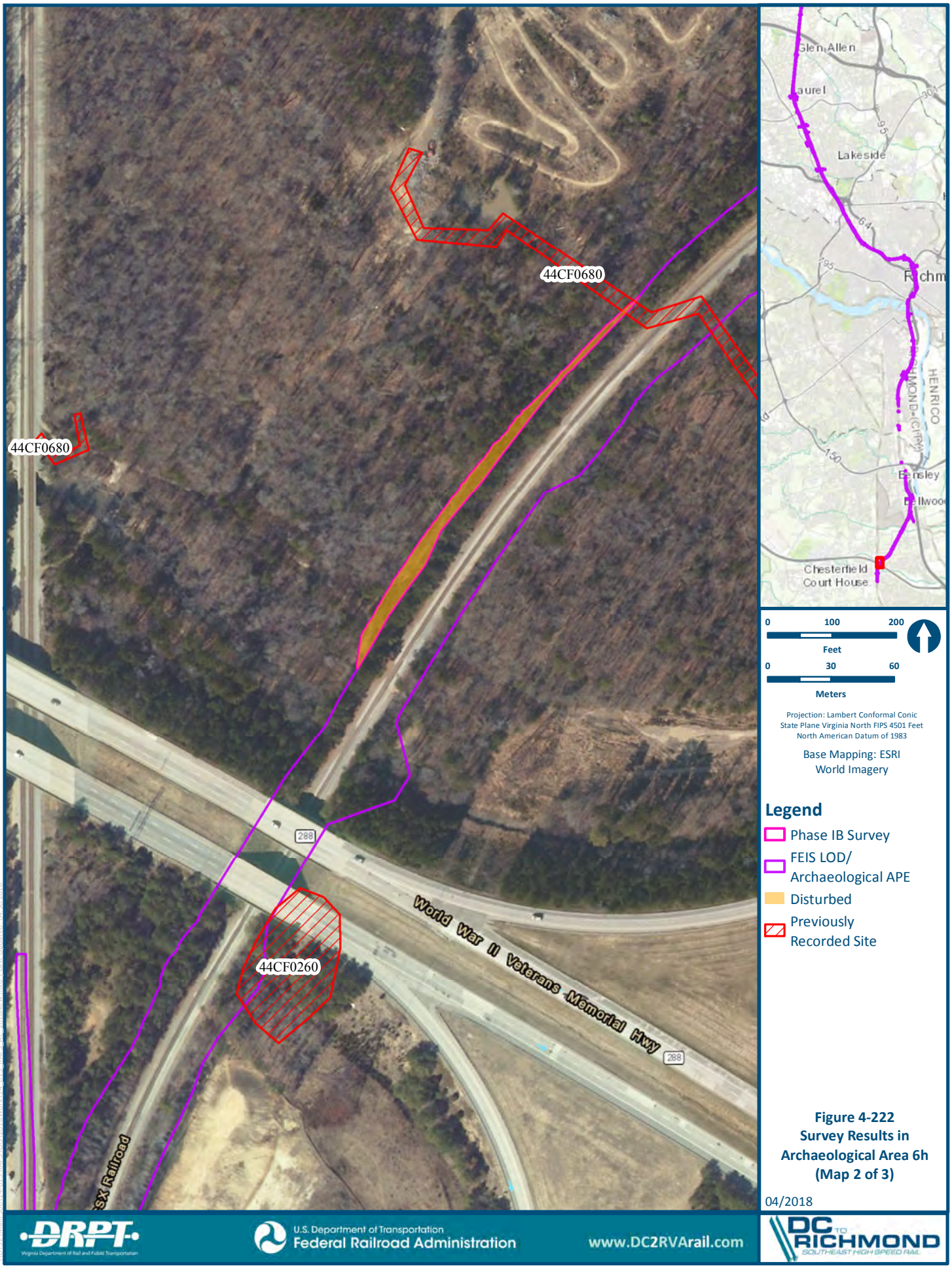

Figure 4-222
Survey Results in
Archaeological Area 6h
(Map 2 of 3)

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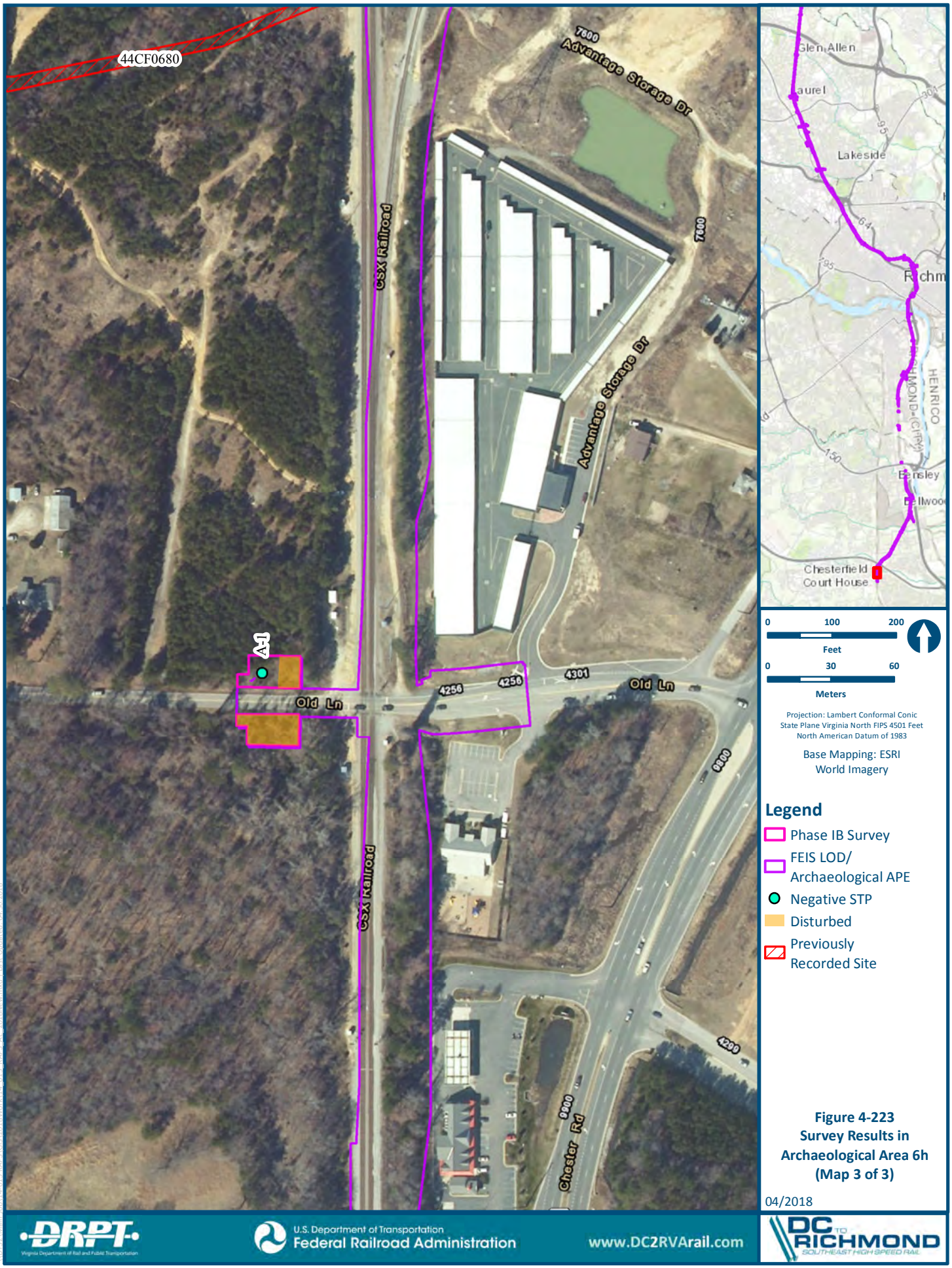


Figure 4-223
Survey Results in
Archaeological Area 6h
(Map 3 of 3)

04/2018

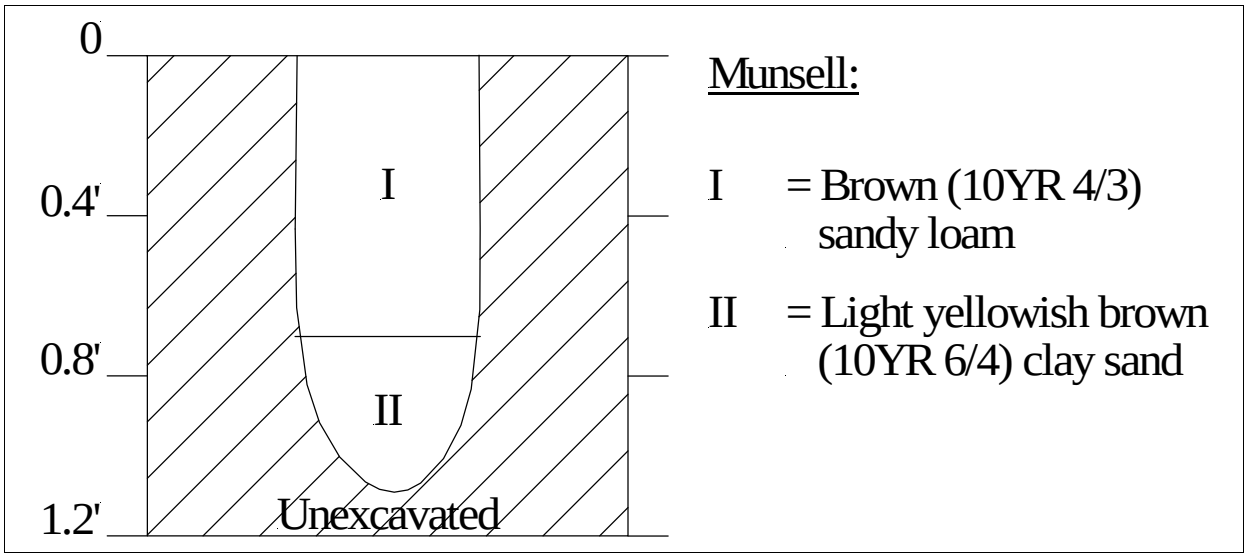


FIGURE 4-224: REPRESENTATIVE SOIL PROFILE FROM AREA 6G, STP 6H-A-1

4.7.9 Previously Recorded Site 44HE0357

Site 44HE0357, located east of Main Street Station in Richmond, is currently recorded as a privy/pit complex dating to the eighteenth and nineteenth century (Figure 4-225). No bibliographic reference or other documentation is provided in DHR's site files, other than to note that the site was recorded by then Virginia Department of Transportation (VDOT) archaeologist Lyle Browning. The site form further describes the site as:

> …bounded by the backs of several decrepit buildings on the west and a parking lot under tarmacadam on the east. To the north and south are derelict areas. The three holes presently open show a black heavily organic nightsoil buildup containing oyster shell, late 18th-mid 19th century ceramics, tile drain, metal drain frags., and gingerbeer bottles. Local tradition has it that the honeywagons were dumped in the vicinity in a small either alley or stream like area. This site is being at present severely pothunted by privy hunters for glass and ceramics. [Browning 1980]

The site is currently located underneath a paved parking lot to the east of Main Street Station (Figure 4-226). Based on its location within a paved parking lot, no Phase IB subsurface investigations were undertaken at the site during the current survey; as such the subsurface integrity of the site is unknown. However, pedestrian survey of the area did document near-surface disturbances indicative of the urban location of the site. Excavations in the immediate vicinity of this site have demonstrated that cultural deposits have the potential to be preserved, buried under modern and historic fill (Laird 2006, 2010). Based on the potential for buried cultural deposits within this site location and the inability for the Phase IB methodology of this investigation to adequately assess the integrity of any potential deposits, **it is recommended that site 44HE0357 is potentially eligible for listing in the NRHP under Criterion D.**

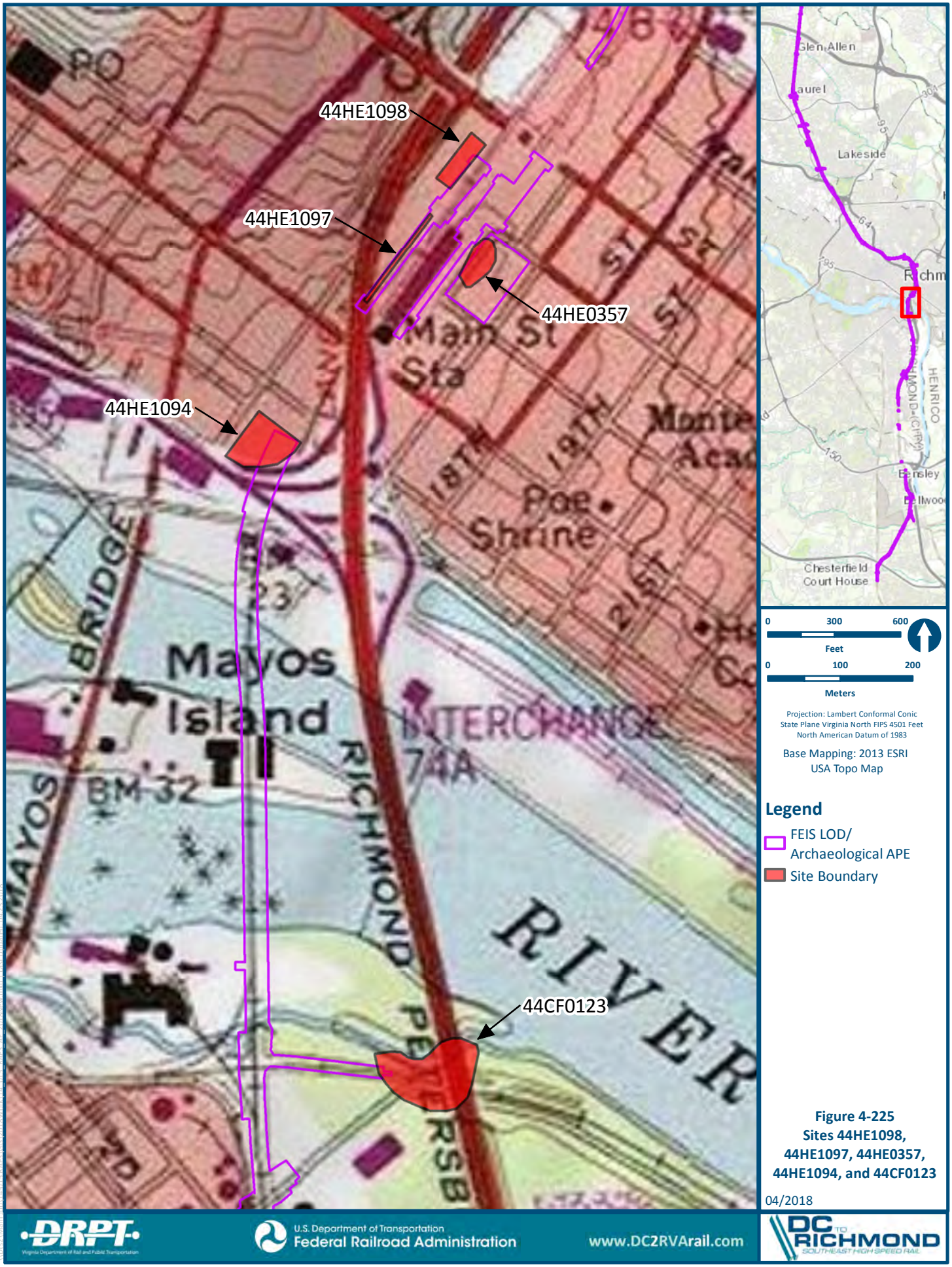


Figure 4-225
Sites 44HE1098, 44HE1097, 44HE0357, 44HE1094, and 44CF0123

04/2018

FIGURE 4-226: OVERVIEW OF SITE 44HE0357, LOOKING WEST

4.7.10 Previously Recorded Sites 44HE1094, 44HE1097 and 44SHE1098

Site 44HE1094 is recorded in DHR site files as a nineteenth-century Commissary Warehouse and located in Archaeological Area 6e northwest of the intersection of Interstate Highway 195 (I-195) and I-95. The site is currently not evaluated for listing in the NRHP (see Figure 4-225). The site was identified during archaeological work in advance of the Richmond Floodwall project in the early 1990s. Unfortunately, an archaeological report was never completed in association with this Richmond Floodwall project, so little is known about the identification or composition of the site. During the current survey, a pedestrian inspection of the site area found it to be located within a paved parking lot and extant buildings along 15th Street in Richmond (Figure 4-227).

FIGURE 4-227: OVERVIEW OF SITE 44HE1094, LOOKING WEST

Sites 44HE1097 and 44HE1098, located west of Main Street Station in Richmond, were also identified during archaeological work in advance of the Richmond Floodwall project in the early 1990s (see Figure 4-225). Both sites are currently recorded in DHR site records as being unevaluated for NRHP listing. DHR site files note site 44HE1097 as a railroad warehouse dating to the nineteenth century. DHR files further state that artifacts were collected from the site during monitoring associated with the floodwall construction, but do not elaborate on the type or number of materials collected. Site 44HE1098 is classified as a railroad site, but no other information is noted about the site's function or time period. The site was located during excavation and construction of the floodwall, and it was subjected to surface collection efforts during construction. Again, the type or number of materials collected is not recorded. Both sites are currently located underneath a paved parking lot adjacent to Main Street Station (Figure 4-228).

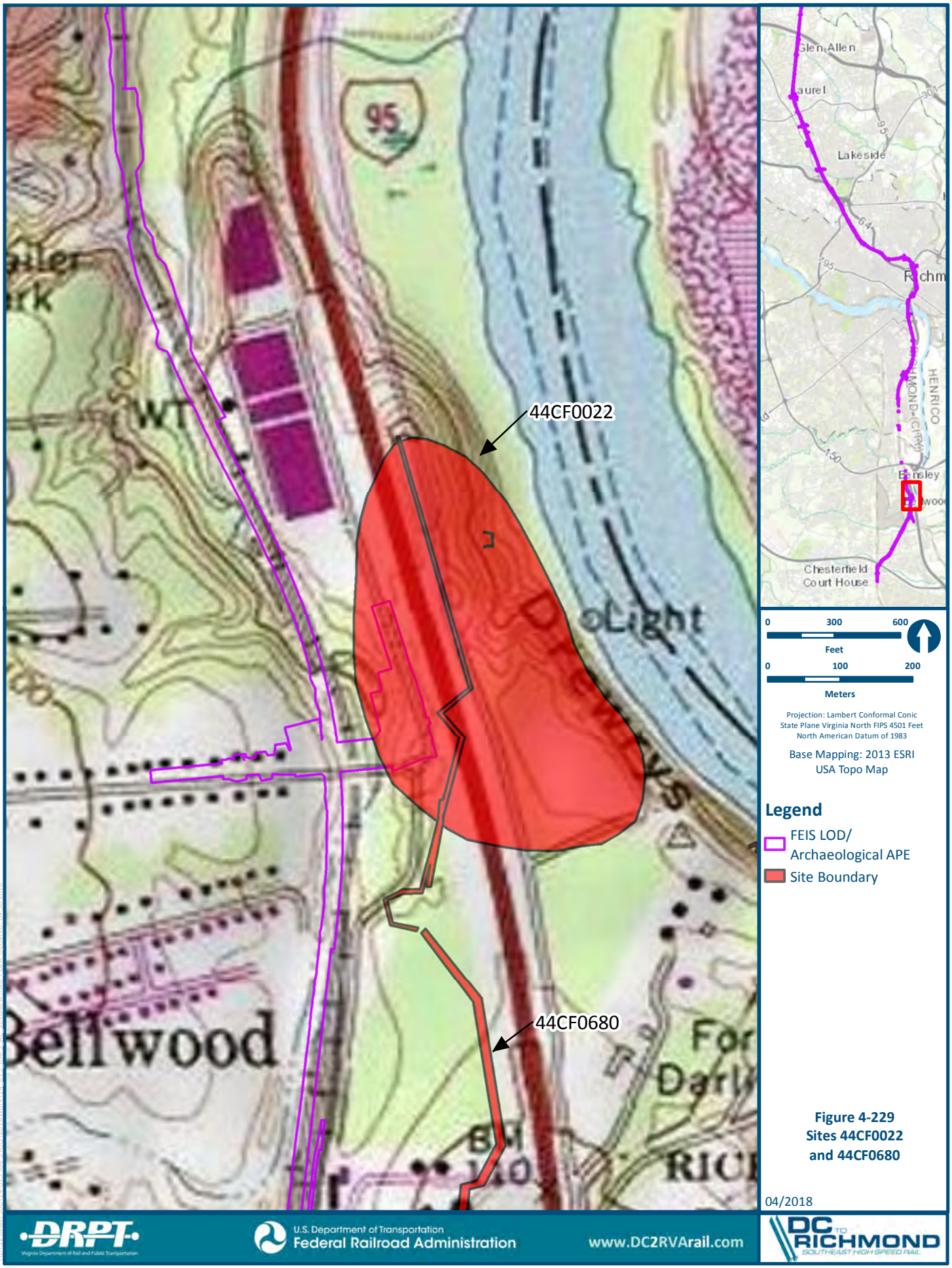
Given their location within paved parking lots and extant building, Phase IB subsurface investigations were not undertaken at these sites, as such the subsurface integrity of these sites is unknown as a result of this survey. Other excavations in the immediate vicinity of these sites have demonstrated that cultural deposits have the potential to be preserved, buried under modern and historic fill (Laird 2006, 2010). Based on the potential for buried cultural deposits within these site locations and the inability for the Phase IB methodology of this investigation to adequately assess the integrity of any potential deposits, **it is recommended that sites 44HE1094, 44HE1097, and 44HE1098 are potentially eligible for listing in the NRHP under Criterion D.**

FIGURE 4-228: OVERVIEW OF SITE 44HE1098, LOOKING NORTH (TOP); OVERVIEW OF SITES 44HE1097 AND 44HE1098, LOOKING NORTH (BOTTOM)

4.7.11 Previously Recorded Site 44CF0022

Site 44CF0022 is listed as an Archaic lithic scatter with a Woodland component that has not been evaluated for NRHP listing. The majority of the site is mapped to the east of the project area (Figure 4-229). The portions of the site lying within the APE are situated within the steeply sloped margins along I-95 and the substantially lower-lying CSXT rail line (Figure 4-230). To obtain

some information about this site, STPs were placed on a somewhat level area on the side of this slope. Five STPs were excavated and all contained deflated soils, with a thin topsoil, less than 0.1 feet (3.0 cm) in all STPs transitioning into gravelly sandy clay subsoil. No artifacts were recovered and no features identified. As the majority of the site lies outside the current project area, it is **recommended that the site remain unevaluated**. However, given the highly eroded soils and widespread grading and road disturbance within Site 44CF0022 as it overlaps the current project area **it is recommended that those portions of the site lying within the project area do not contribute to potential NRHP eligibility under Criterion D.**



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Projection: Lambert Conformal Conic
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North American Datum of 1983

Base Mapping: 2013 ESRI
USA Topo Map

Legend

- FEIS LOD/ Archaeological APE
- Site Boundary

Figure 4-229
Sites 44CF0022 and 44CF0680

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FIGURE 4-230: OVERVIEW OF SITE 44CF0022 WITHIN APE, LOOKING NORTH

4.7.12 Previously Recorded Site 44CF0123

Site 44CF0123, the Maury Street site, is an unevaluated multicomponent site with Early Woodland and nineteenth-century components, described as a prehistoric camp and historic dwelling. The portions of the site within the APE are located within heavily disturbed and graded areas owned by Richmond public utilities and in the artificially sloped surfaces associated with the Richmond Floodwall network (see Figure 4-225 and Figure 4-231). The extensive disturbance of the site within the current project area precluded subsurface testing, but observable conditions indicate that it is unlikely that intact archaeological deposits remain in those portions of the site. Because a substantial portion of the site lies outside the current survey area it is recommend that the site as a whole remain unevaluated, but given the conditions within the project area **it is recommended that those portions of 44CF0123 lying within the project area do not contribute to potential NRHP eligibility under Criterion D.**

FIGURE 4-231: OVERVIEW OF SITE 44CF0123 WITHIN APE, LOOKING WEST

4.7.13 Previously Recorded Site 44CF0260

Site 44CF0260, a surface scatter of prehistoric lithics, lies on the south side of State Route 288, within a graded area between the SR 288 onramp and a large retention pond (Figure 4-232). A very small section of the site is situated within Archaeological Area 6h of the current investigation. A pedestrian survey of the site location was conducted and found that the area in which the site is located has little integrity remaining (Figure 4-233). The site was originally recorded as a surface scatter, but pedestrian survey identified no artifacts or features present on the ground surface. Based on the results of the pedestrian survey, no subsurface testing was conducted within the site area. Because a substantial portion of the site lies outside the current survey area, it is recommended that the site as a whole remain unevaluated, but given the conditions within the project area **it is recommended that those portions of 44CF0260 lying within the project area do not contribute to potential NRHP eligibility under Criterion D.**

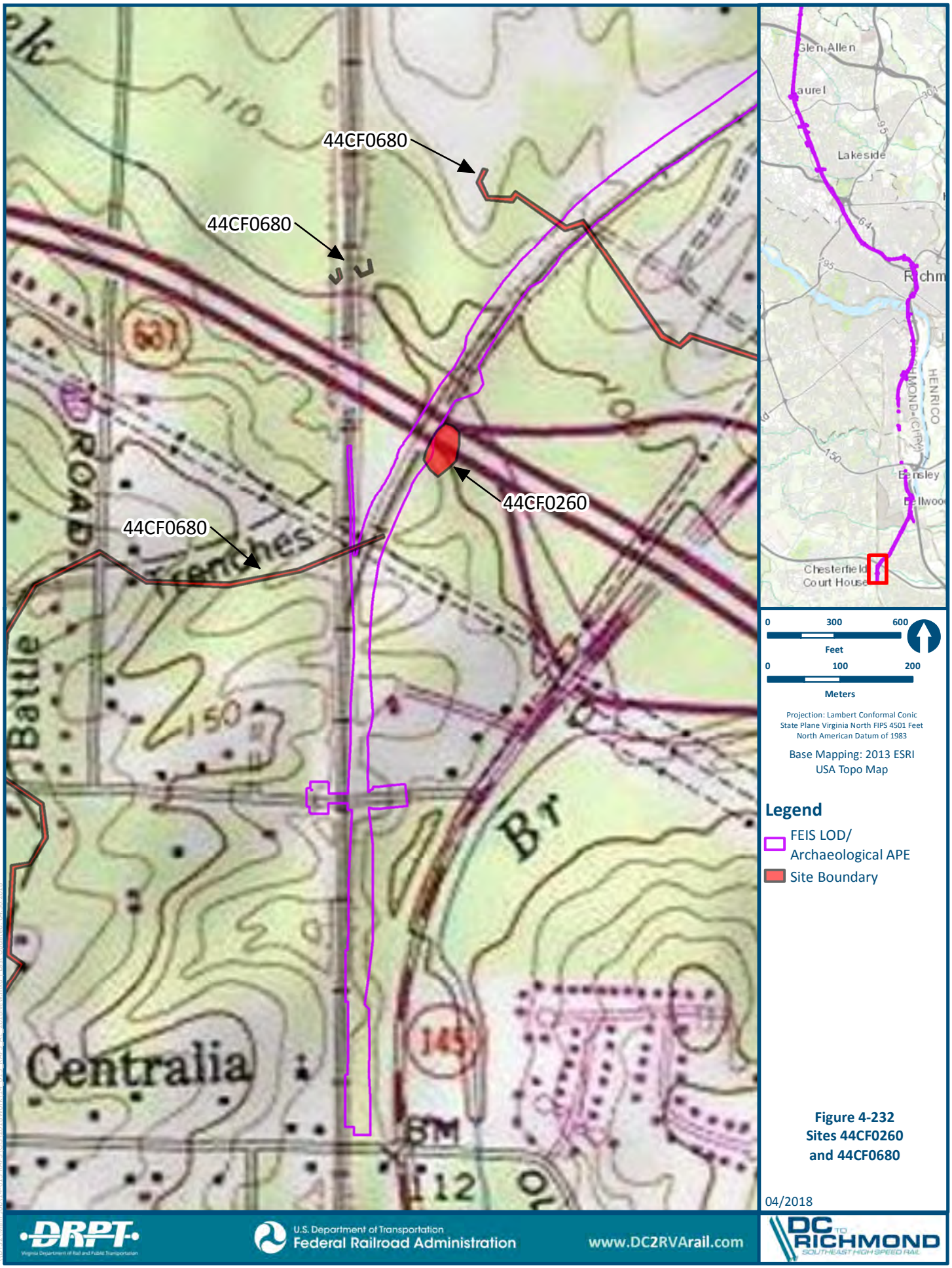


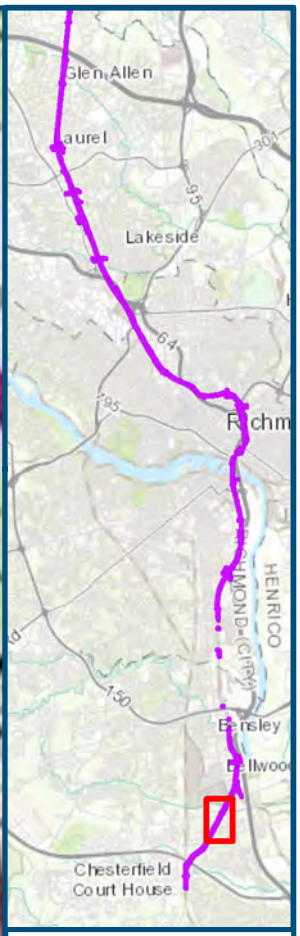
Figure 4-232
Sites 44CF0260
and 44CF0680

04/2018

FIGURE 4-233: OVERVIEW OF SITE 44CF0260 WITHIN APE, LOOKING SOUTH

4.7.14 Previously Recorded Site 44CF0680

Site 44CF0680, Fort Darling or Centralia Earthworks site, is a large complex of earthworks and other encampment features associated with the Civil War activity south of Richmond. DHR has determined this site to be eligible for the NRHP under Criteria A and C, and it is associated with architectural resource 020-0022. Archaeological Area 6h intersects the mapped extent of previously recorded site 44CF0680 in three locations, but no evidence of visible earthworks could be seen from the project corridor at any location (see Figure 4-220 and Figure 4-234). This resource, taken as a whole, was recommended in the McCloskey et al. (2016) to be eligible for the NRHP under Criteria A and C, and DHR concurred with this recommendation in a letter dated October 11, 2016. Because of its notable association with the Civil War and preservation in other locations, **it is recommended that site 44CF0680 remains eligible for the NRHP under Criteria A and C. The subsurface integrity of the segments of the site overlapping the APE, however, have been compromised by the railroad construction and lack any visible evidence of earthworks, as such the portions of this site within the APE do not contribute to overall site eligibility.**



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North American Datum of 1983

Base Mapping: 2013 ESRI
USA Topo Map

Legend

- FEIS LOD/ Archaeological APE
- Site Boundary

Figure 4-234
Site 44CF080

04/2018

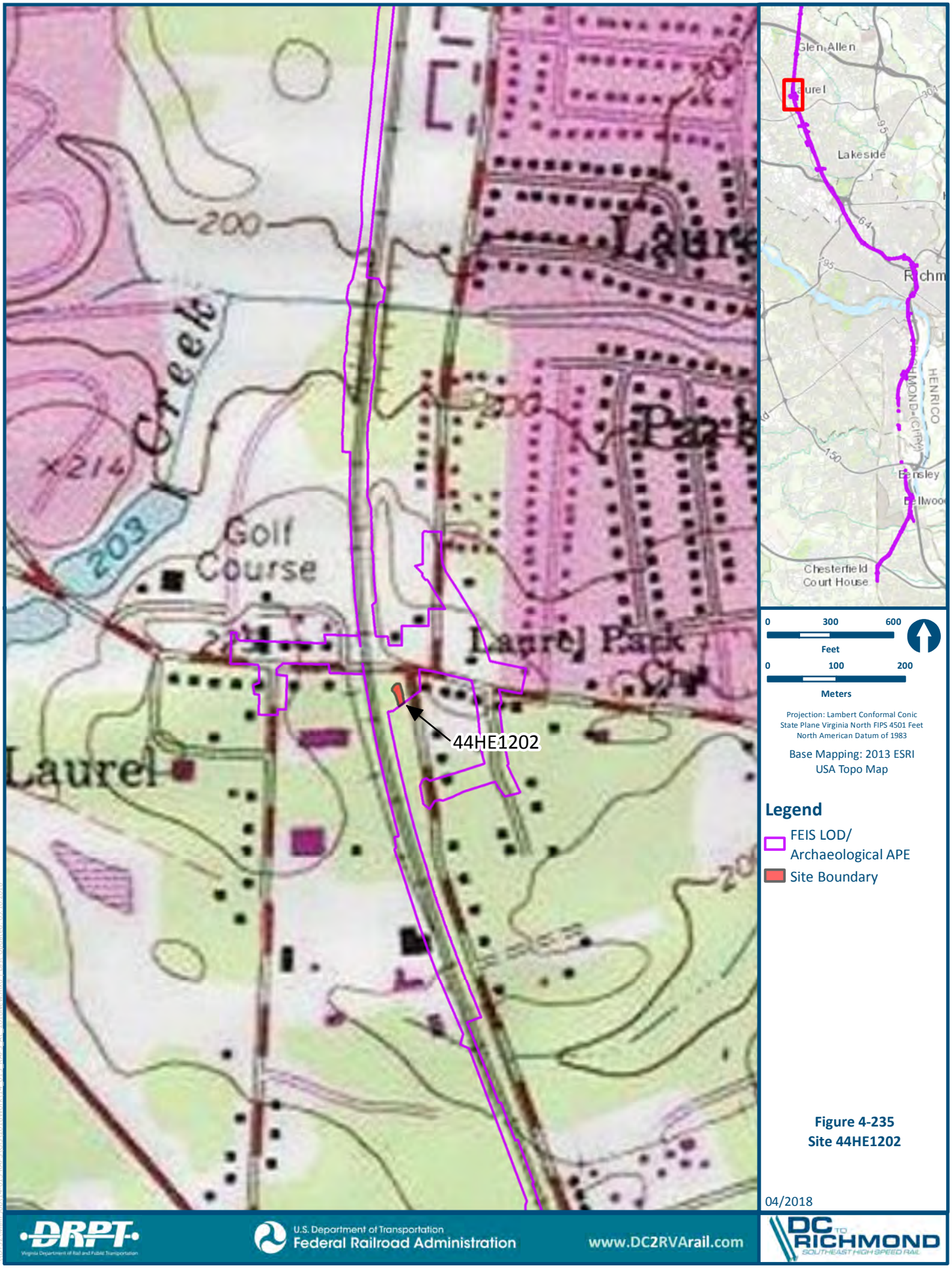
4.7.15 Newly Identified Site 44HE1202

4.7.15.1 Site Description

Site 44HE1202 is located in a small wooded area on the eastern side of the CSXT rail line, between the rail and Mayfair Avenue, just south of Hungary Road in Glen Allen, Henrico County (Figure 4-235). This site appears to be a refuse scatter dating to the twentieth century (Figure 4-236). The site was initially identified during STP survey, via the recovery of 22 artifacts in five STPs. The site was bounded by negative STPs to the north and west, disturbance to the east and the project boundary to the south. Though no structural remains of a house or other building were observed within the project area, periwinkle abounded in the vicinity of the positive STPs, which could be indicative of intentional planting by historic occupants, suggesting the possibility of a house site.

Ground surfaces in and around the site show substantial signs of disturbance, and the soils and inundation nearby indicate that the area may occasionally be flooded. The area is generally characterized by level topography and young deciduous trees, with a dense understory of vines and brambles, as well as the aforementioned periwinkle ground coverage. Site 44HE1202 measures approximately 110 feet (33.5 feet) north to south and 50 feet (15.2 m) east to west, encompassing an area of 0.1 acres (404 m). Site 44HE1202 lies at 215.4 feet (65.7 m) AMSL.

The assemblage recovered from site 44HE1202 includes 22 artifacts dating to the early-twentieth century. The artifacts primarily include clear, brilliant green, and aqua bottle glass likely representing casual discard rather than being indicative of a domestic occupation. Additional materials include nails, both machine-cut and those of indeterminate manufacturing, window glass, and a fragment of ironstone.


Glen Allen
Laurel
Lakeside
Richm
HENRICO
Bensley
Chesterfield
Court House
200
Creek
214
203
Golf
Course
Laurel Park
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Base Mapping: 2013 ESRI
USA Topo Map
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FEIS LOD/
Archaeological APE
Site Boundary
Figure 4-235
Site 44HE1202
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FIGURE 4-236: GENERAL VIEW OF SITE 44HE1202, FACING NORTH

The average depth of STPs within the site was 1.3 feet (39.6 cm), with the deepest STP also extending to a depth of 1.3 feet (39.6 cm). The average A horizon measured 0.8 feet (24.4 cm). The maximum A-horizon measurement within the site measured 0.9 feet (27.4 cm). The typical STP within the site contained two levels. Stratum I consists of a black (2.5Y 2.5/1) sandy loam which overlaid a subsoil consisting of a light yellowish brown (10YR 6/4) sandy clay (Figure 4-237).

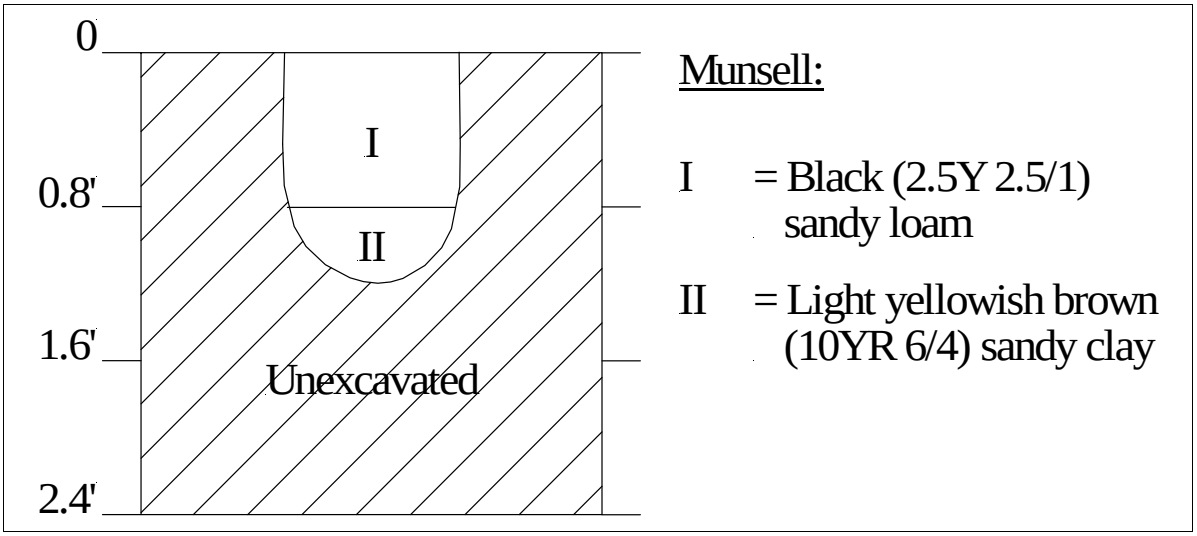


FIGURE 4-237: REPRESENTATIVE STP PROFILE FOR SITE 44HE1202

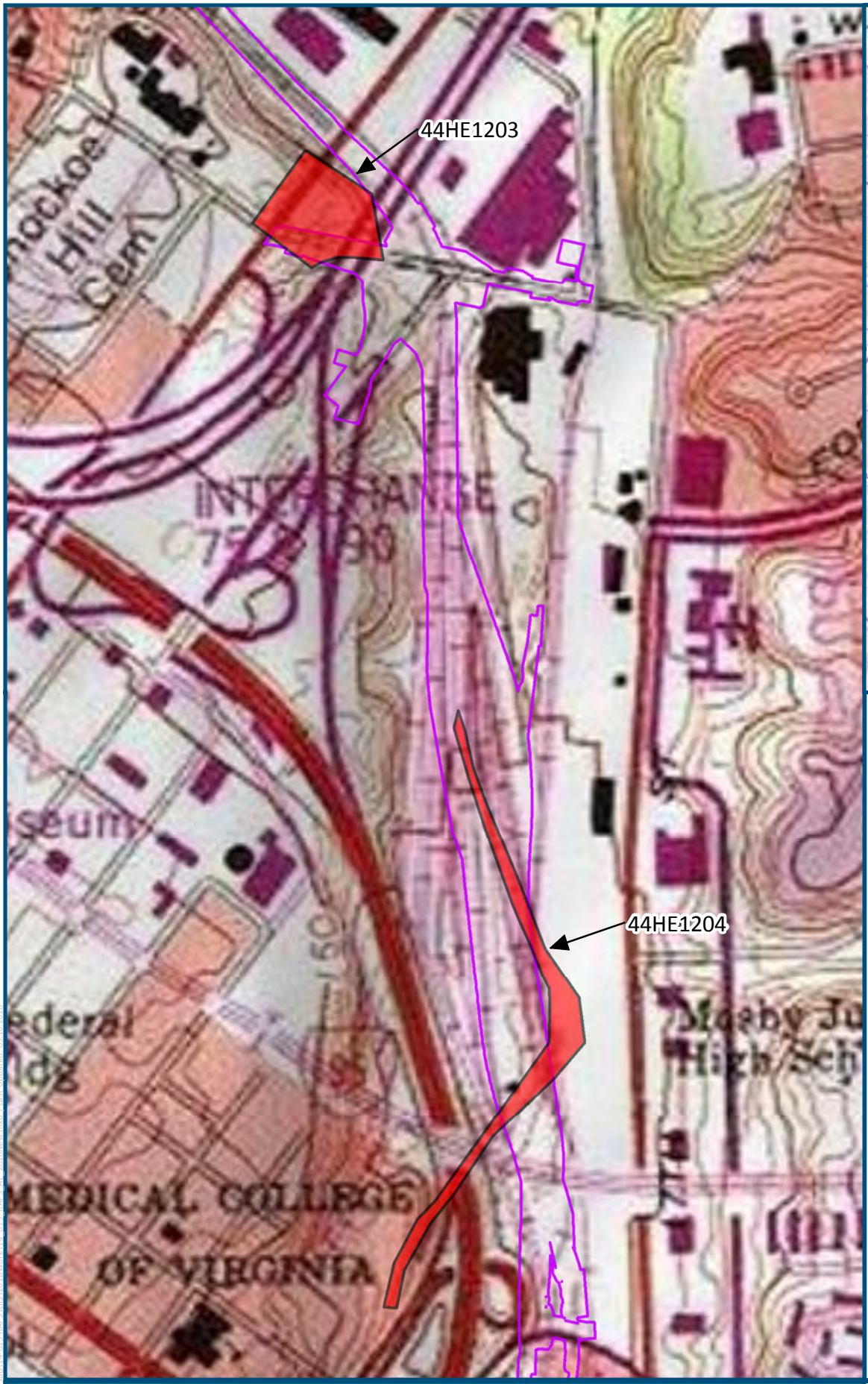
4.7.15.2 Evaluation and Significance

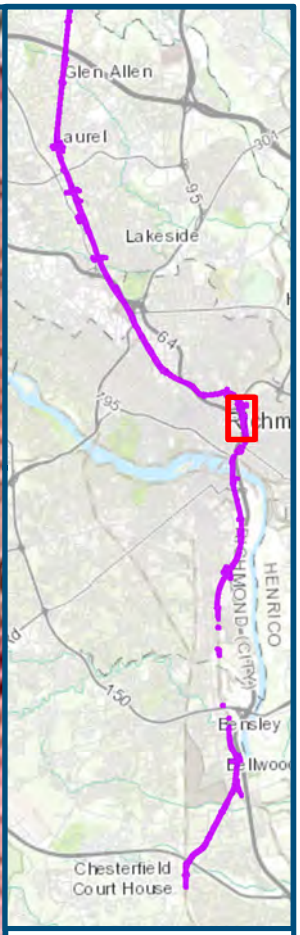
Site 44HE1202 is likely a twentieth-century refuse scatter. Given the lack of evidence for a structure in the site boundaries and the widespread disturbance, as well as the abundance of sites dating to this period, it is unlikely that the site would yield significant information about twentieth-century occupation of the Glen Allen area, as such the site is not eligible for NRHP listing under criterion D. Nor is the site associated with a historical event or pattern of events (Criterion A) or significant persons (Criterion B) and the deposits do not illustrate distinctive characteristics of a type, period, or method of construction (Criterion C). As such, it is **recommended that site 44HE1202 is not eligible for NRHP listing.**

4.7.16 Newly Identified Site 44HE1203

4.7.16.1 Site Description

Site 44HE1203 is located in an urban setting (Figure 4-238 and Figure 4-239) on the west side of the CSXT rail line, along Hospital Street in Richmond, within the northern portion of Archaeological Area 6e. This site represents the "Grave Yard for Free People of Color and Slaves" identified solely based on current historic map analysis. The site was identified based on the Micajah Bates 1835 *Plan of the City of Richmond Drawn From Actual Survey and Regional Plans* (Figure 4-239). Phase IB pedestrian survey of this portion of the APE indicated near-surface disturbance to the site location from buried utility corridors, modern development of the location, and construction associated with the modern alignment of Hospital Street. Given the presence of multiple near-surface disturbances, no subsurface testing was undertaken at the location and thus, no subsurface deposits associated with the site have been identified. The site, as defined from historic map analysis, measures 350 x 500 feet (106.7 x 152.4 m), encompasses an approximate area of 3.3 acres (1.3 ha), and is located at approximately 105 feet (32 m) AMSL.





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Projection: Lambert Conformal Conic
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North American Datum of 1983

Base Mapping: 2013 ESRI
USA Topo Map

Legend

- FEIS LOD/ Archaeological APE
- Site Boundary

Figure 4-238
Sites 44HE1203 and 44HE1204

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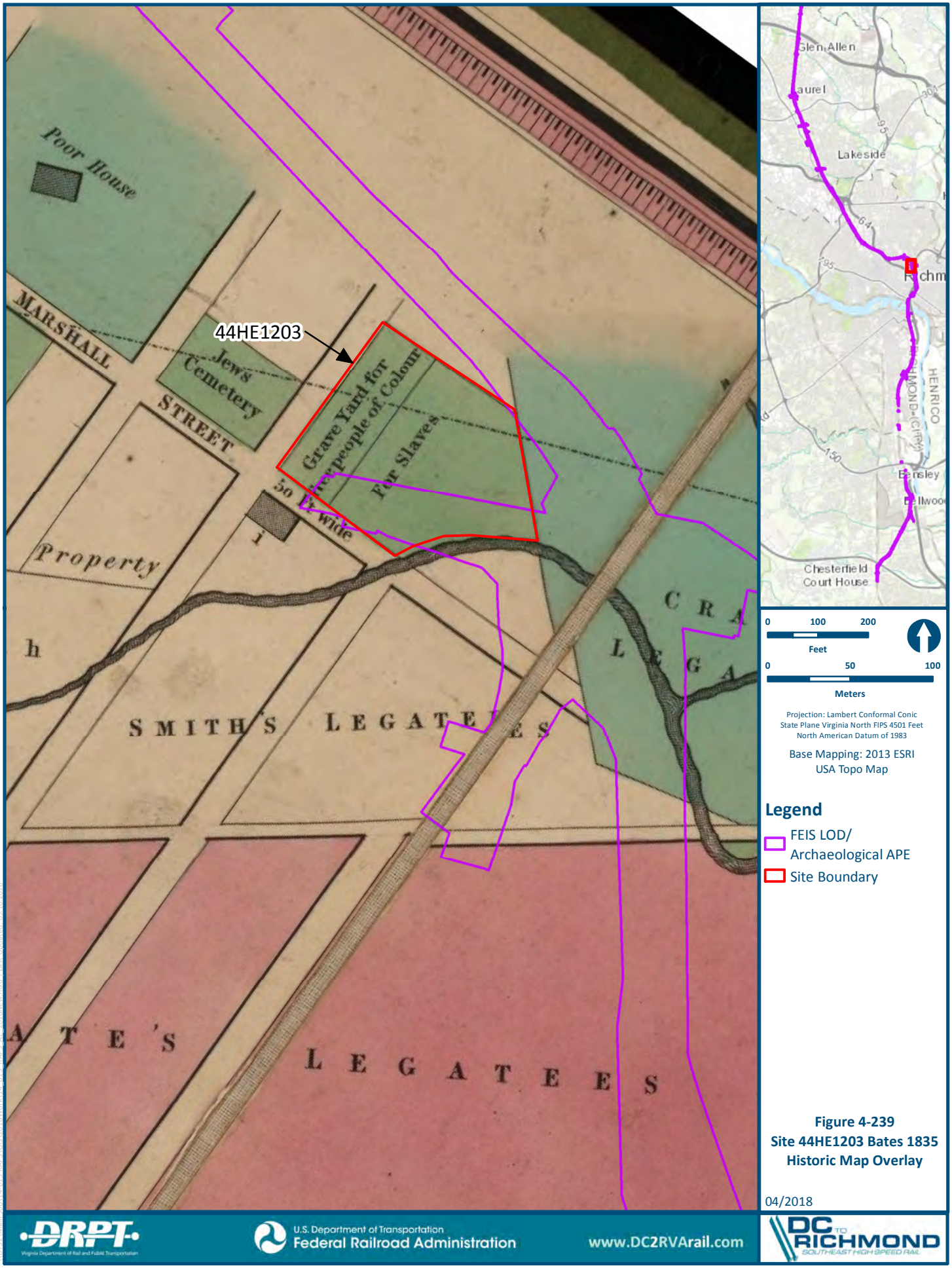

Figure 4-239
Site 44HE1203 Bates 1835 Historic Map Overlay

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Further evidence of the presence of the "Grave Yard for Free People of Color and Slaves" as noted by Bates (1835) comes from previous archaeological investigations undertaken in advance of the proposed widening of I-64, of which the project area partially overlaps the DC2RVA archaeological APE (Calhoun 2013). The archaeological investigation, completed on behalf of VDOT, included the excavation of a series of backhoe trenches used to assess the stratigraphy and presence of archaeological features within the 0.68-acre (0.28-ha) project area. Extensive documentary, map, and background research as to the location and extent of the purported cemetery was conducted by VDOT in advance of the archaeological investigation (Calhoun 2013). The study noted that the cemetery location shows up intermittently on maps of city, including Beers (1877), Ellyson (1856), and Michler (1867). Documentary evidence of the cemetery was also noted in Richmond City Council Minutes from 1816 and an advertisement in the *Richmond Enquirer* in 1816 (see images in Calhoun 2013). In a discussion of the documentary evidence, Calhoun speculated that the interments may have been moved from the cemetery location to make way for the 1890 construction of the 5th Street Viaduct (now the Stonewall Jackson Bridge) and were reinterred in the graveyard at the Richmond Penitentiary. An excerpt from this report outlines the speculation on the individuals buried at the cemetery:

> Burying Ground were removed prior to, or during, the construction of the 1890 viaduct and that [sic] they were reinterred in the graveyard at the Richmond Penitentiary. The Richmond Penitentiary closed in the early 1990s, and all of the graves were removed from the property and it was sold. During the archaeological exhumation, it was noted that dispersed amongst the prison burials were some that contained more than one individual and that were not consistent with other burials at the penitentiary. Kathy Biedleman, who directed the project, stated that she accessed records that indicated that these burials were originally interred in the Burying Ground and that when the viaduct was constructed in 1890, they were moved to the penitentiary (Interview with Robert Clarke). Unfortunately, the research conducted for the purpose of this report did not discover any records that substantiate this claim, and the several attempts to contact Ms. Biedleman have been unsuccessful. [Calhoun 2013]

Despite overwhelming documentary evidence of the cemetery, no physical archaeological evidence was documented in the 2013 project area. Instead the geoarchaeological assessment indicated that the project area stratigraphy consisted of vary degrees of modern fill deposited on top of truncated ancient marine soils. The documentary and geoarchaeological analysis indicated that if the cemetery remains intact, that it was likely located at the crest of the valley slope immediately east of the extant Shockoe Hill Cemetery (127-0389) and Hebrew Cemetery (127-6166). This location, as proposed by Calhoun (2013), is currently recorded as an above-ground resource, Talley's Auto Service Center, located at 1305 N 5th Street (127-6660).

4.7.16.2 Evaluation and Significance

Site 44HE1203 is a nineteenth-century "Grave Yard for Free People of Color and Slaves" as identified by Bates 1835. According to documentary evidence it was established circa 1816 and likely abandoned circa 1890. No subsurface excavations were conducted within the cemetery area, as such the cemetery has not been delineated. Pedestrian survey of the cemetery area within the current APE indicated a variety of modern disturbances. The APE within the site area is confined to the sidewalks north of Hospital Street, the road itself, and the slope immediately south of Hospital Street. Pedestrian survey of the site location indicates that the disturbance noted

within the APE, most notably the grading needed to construct Hospital Street (approximately 10 feet [3 m]) would have disturbed the cemetery location (Figure 4-240). As such, **the portion of site 44HE1203 within the APE lacks subsurface integrity and therefore does not contribute the site's overall NRHP eligibility.** However, it is **recommended that site 44HE1203 should be considered unevaluated for the NRHP** as no subsurface investigations within site location have been undertaken. It is further noted that Calhoun's (2013) recommendation that if the cemetery remains intact, it would likely be located at the crest of the valley slope under the footprint of current Tallys Auto Shop, remains valid (Figure 4-241). The current survey noted that the crest of the valley slope, to the north of the current APE, appeared visually intact and not subjected to the extensive grading observed in the portion of the site within the APE.

FIGURE 4-240: OVERVIEW OF SITE 44HE1203 NOTING GRADING OF HOSPITAL STEET, LOOKING EAST

FIGURE 4-241: SITE 44HE1203, ASSUMED INTACT PORTION OF THE SITE (AT THE CREST OF THE VALLEY SLOPE) IS CIRCLED IN RED, LOOKING WEST

4.7.17 Newly Identified Site 44HE1204

4.7.17.1 Site Description

Site 44HE1204 is located in an urban setting (see Figure 4-238 and Figure 4-242) on the east side of the CSXT rail line, directly north of I-95, within the southern portion of Archaeological Area 6e. This site represents Carrington's Mill and associated mill race, identified based solely on historic map analysis. The site was identified based on the Micajah Bates' 1835 *Plan of the City of Richmond Drawn From Actual Survey and Regional Plans* and also noted on the F.W. Beers' 1877 *Map of the City of Richmond*. Phase IB pedestrian survey of this portion of the APE indicated near-surface disturbance to the site location from buried utility corridors, modern development of the location, and construction associated with the modern alignment the railway (Figure 4-243). Based on the presence of multiple surface disturbances, no subsurface testing was undertaken at the location and thus no subsurface deposits associated with the site have been identified. The site, as defined from historic map projection, measures 1,400 x 150 feet (426.7 x 45.7 m), encompasses an approximate area of 1.8 acres (0.7 ha), and is located at approximately 90 feet (27.4 m) AMSL.

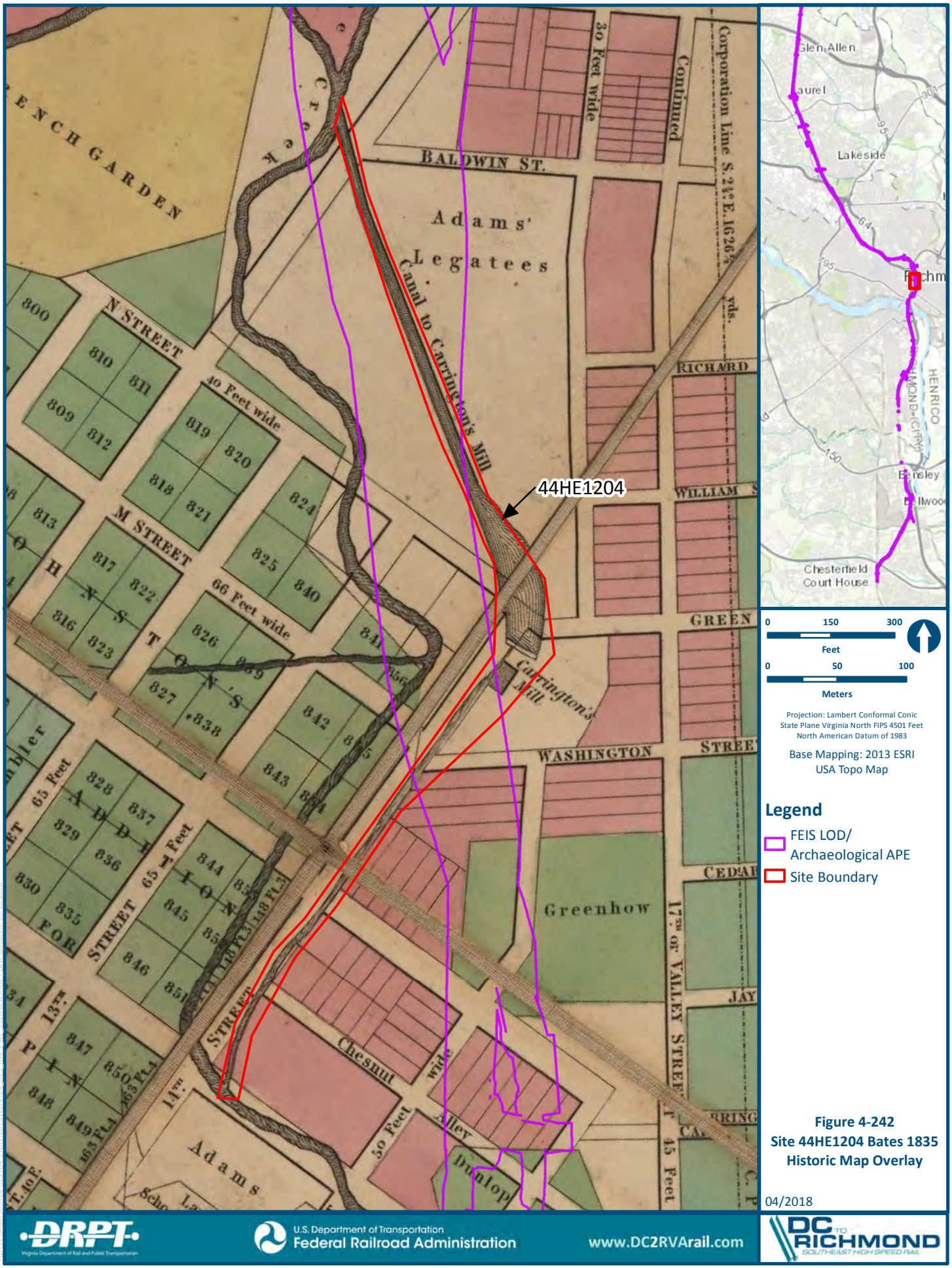

Figure 4-242
Site 44HE1204 Bates 1835 Historic Map Overlay

04/2018

Figure 4-243: Overview of Site 44HE1204, Noting BURIED UTILITY Corridor, MODERN Road, AND RAILROAD Disturbance, Looking Southeast

Carrington's Mill first appears on the 1835 Bates maps and preliminary research was unable to define how long the mill had been operational by this time. The map shown in Figure 4-242 indicates the canal running south from Shockoe Creek, the location of the mill wheel evidenced by the gap between the canal and the mill building, the mill building itself, and associated mill race. Research indicates that Colonel George M. Carrington owned the mill as well as the surrounding property and employed Anthony Victor as his manager/proprietor of the mill operations (*Richmond Enquirer* 1850). Based on advertisements in the *Richmond Enquirer* it seems that Carrington's was a grist mill that also facilitated the storage of ice for the public. On May 14, 1847, a notice was placed in the *Richmond Enquirer* stating that Carrington's Mill would accept deposits of ice for the public and in 1849, Anthony Victor placed notices that "2,000 bbls best white corn wanted at Carrington's Mill, which the highest cash price will be given" (*Richmond Enquirer* 1847 and 1849). While the mill suffered notable damages from a flood in the summer of 1850, newspaper accounts in the years following suggest that Colonel Carrington repaired and rebuilt to continue his operation. However, this would seemingly not last long. On March 17, 1852, notice was placed in the *Richmond Times Dispatch* that Colonel Carrington's proprietor, Anthony Victor, was charged with shooting a man in the face over a young lady that was living in the house with Mr. Victor (*Richmond Times Dispatch* 1852). Victor was eventually charged with feloniously shooting a man and was sentenced to confinement in the penitentiary for three years (*Richmond Enquirer* 1852).

By 1854, the mill is referenced as "Carrington's Old Mill" indicating the mill was no longer operational. A specific notice in the *Richmond Times Dispatch* on June 24, 1854 mentions "a gang of little boys…who are in the habit of bathing in Shockoe Creek…..While the officers are

endeavoring to break up this indecent habit on the part of the boys, we will suggest to them the property of having an eye to the pond at Carrington's old mill, where grown men congregate of evenings to bathe" (*Richmond Times Dispatch* 1854). Three years later, Colonel Carrington passed away with all of his personal possessions and presumably his real estate being sold at auction (*Richmond Times Dispatch* 1857).

4.7.17.2 Evaluation and Significance

Site 44HE1204 is an early-nineteenth-century mill site as identified by Bates 1835. According to documentary evidence it was established circa 1835 and likely abandoned by the 1850s. No subsurface excavations were conducted within the location of the mill site and, as such, the mill and associated infrastructure have not been delineated. Pedestrian survey of the mill site within the current APE indicated a variety of modern disturbances. The APE within the site area is confined to a wooded parcel along CSXT right-of-way. Pedestrian survey of the site location indicates that the disturbance noted within the APE, most notably buried utility corridors, modern development, and construction associated with the modern alignment the railway would have removed any trace of the former mill site. As such, **the portion of site 44HE1204 within the APE lacks subsurface integrity and therefore cannot contribute the site's overall NRHP eligibility.** However, it is **recommended that site 44HE1204 should be considered unevaluated for the NRHP** as no subsurface investigations within the site location have been undertaken.

5 SUMMARY AND RECOMMENDATIONS

The proposed DC2RVA preferred alternative of the SEHSR project was examined through a Phase IB archaeological survey. The proposed project is being completed under the auspices of the FRA in conjunction with the DRPT. Because of the FRA's involvement, the undertaking is required to comply with the NEPA of 1969 and Section 106 of the National Historic Preservation Act of 1966, as amended. The project is being completed as DHR File Review #2014-0666.

The archaeological APE for the DC2RVA project includes the footprint of physical improvements associated with the project, inclusive of both the rail modifications and any associated roadwork. The APE of the mainline was the subject of archaeological survey in 2015 and 2016. The results were summarized in a report (McCloskey et al. 2016) and submitted to the DHR for review. Since the conclusion of the previous Phase IB archaeological work, a draft EIS resulting in the selection of a Preferred Alternative has been completed. Additionally, engineering and design work has been completed for the corridor resulting in the definition of the physical footprint of improvements for the selected Preferred Alternative, including all road modifications, straightening of curves, the addition of wyes, proposed station locations, parking areas, etc. As such, the APE studied as part of the current report was defined by the LOD of the Preferred Alternative, and is generally located along the existing 123-mile (198-km) CSXT rail corridor. The goals of the Phase IB survey were to identify archaeological sites greater than 50 years in age and to provide an initial assessment of the physical integrity and research potential of any archaeological sites discovered within the APE in relation to potential NRHP eligibility.

The archaeological study consisted of a pedestrian survey and subsurface testing, supplemented by metal detector survey, throughout the APE beyond the limits of previous Phase IB investigations. Based on the pedestrian survey, subsurface testing (and, where necessary, metal detector survey) was carried out in locations deemed to have potential for intact subsurface deposits. Additionally, all sites within the APE not addressed by the previous DC2RVA Phase IB archaeological study, determined eligible or potentially eligible for listing in the NRHP, and those previously recorded sites that had not been evaluated by the DHR were examined. The archaeological areas subjected to Phase IB study, inclusive of pedestrian and subsurface testing, encompass 158.8 acres (64.3 ha).

A total of 511 STPs was excavated within areas identified for Phase IB study along the 123-mile-long (198-km) APE. The excavation of shovel tests and metal detector hits resulted in the recovery of 140 artifacts that date predominantly to the historic period. Two locations identified for Phase IB study were not accessible at the time of the current investigation. The inaccessible portions of Archaeological Area 2k (off Union Camp Road in Stafford County) and Archaeological Area 3e (along Benchmark Road in Spotsylvania County) are not included within the results and recommendations presented in the scope of this report.

Phase IB survey resulted in the identification of 23 archaeological sites and 5 isolated finds within the surveyed portions of the APE (Table 5-1). Of these 23 archaeological sites, 17 were previously identified archaeological sites and 6 were newly recorded. Based on this survey it is **recommended that one site, 44CF0680, remains eligible for listing in the NRHP under Criteria A and C. However, the portion of site 44CF0680 within the APE does not contribute to overall site eligibility.** The survey identified **nine archaeological sites (44HE0357, 44HE1097, 44HE1098, 44HE1094, 44SP0187, 44SP0468, 44SP0687, 44SP0688, and 44ST1223) that are recommended potentially eligible for listing in the NRHP under Criterion D.** It is further **recommended that nine sites (44CF0022, 44CF0123, 44CF0260, 44HE1203, 44HE1204, 44PW1008, 44ST0011, 44ST0270, and 44ST0271) are or remain unevaluated for the NRHP, but that the portions of all these sites within the APE do no contribute to their overall site eligibility**. The remaining **four archaeological sites (44HE1202, 44SP0767, 44SP0768, and 44ST1224,) are all recommended not eligible for listing in the NRHP**. However, sites 44ST1224 and 44SP0786 are both small family cemeteries that have not been fully delineated, so they should be avoided or their boundaries defined.

TABLE 5-1: SUMMARY OF IDENTIFIED ARCHAEOLOGICAL SITES

DC2RVA Project Area	DHR Number	Type	Recommendation
2f	44PW1008	Indeterminate Type or Age	Unevaluated; Portion in APE does not contribute to Eligibility
2k	44ST1223	Civil War Campsite; Nineteenth Century	Potentially Eligible under Criterion D
2k	44ST1224/ 089-5624	Daffan Family Cemetery; Mid-Nineteenth Century	Not Eligible
2k	44ST0271	Civil War Camp; Nineteenth Century	Unevaluated; Portion in APE does not contribute to Eligibility
2k	44ST0270	Civil War Camp; Nineteenth Century	Unevaluated; Portion in APE does not contribute to Eligibility
3a	44ST0011	Indeterminate; Unknown Prehistoric and Colonial	Unevaluated; Portion in APE does not contribute to Eligibility
3b	44SP0187	Marye's Mill; Nineteenth Century	Potentially Eligible under Criteria A and D
3b	44SP0687	Fredericksburg Block 48; Late Archaic through Twentieth Century	Potentially Eligible under Criterion D
3b	44SP0688	Fredericksburg Block 49; Late Archaic through Twentieth Century	Potentially Eligible under Criterion D
3d	44SP0468	Jackson's Earthwork-Encampment; Nineteenth Century	Potentially Eligible under Criteria A and D
3f	44SP0768/ 088-5511	Family Cemetery and Artifact Scatter; Twentieth Century	Not Eligible
3f	44SP0767/ 088-5516	Civil War Earthwork; Nineteenth century	Not Eligible
6a	44HE1202	Refuse Scatter; Twentieth Century	Not Eligible

TABLE 5-1: SUMMARY OF IDENTIFIED ARCHAEOLOGICAL SITES

DC2RVA Project Area	DHR Number	Type	Recommendation
6e	44HE1203	Cemetery: "Grave Yard for Free People of Color and Slaves"; Nineteenth Century	Unevaluated; Portion in APE does not contribute to Eligibility
6e	44HE1204	Carrington's Mill; Early-Nineteenth Century	Unevaluated; Portion in APE does not contribute to Eligibility
6e	44HE0357	Privy/Pit Complex; Eighteenth through Nineteenth Century	Potentially Eligible under Criterion D
6e	44HE1097	Railroad Warehouse; Nineteenth Century	Potentially Eligible under Criterion D
6e	44HE1098	Railroad Site; Indeterminate Age	Potentially Eligible under Criterion D
6e	44HE1094	Commissary Warehouse; Nineteenth Century	Potentially Eligible under Criterion D
6f	44CF0123	Camp and Dwelling; Early Woodland and Nineteenth Century	Unevaluated; Portion in APE does not contribute to Eligibility
6g	44CF0022	Lithic Scatter; Archaic through Woodland	Unevaluated; Portion in APE does not contribute to Eligibility
6h	44CF0260	Lithic Scatter; Unknown Prehistoric	Unevaluated; Portion in APE does not contribute to Eligibility
6h	44CF0680	Fort Darling/Centralia Earthworks; Nineteenth Century	Eligible under Criteria A and C; Portion in APE does not contribute to Eligibility

Source: Dovetail 2018

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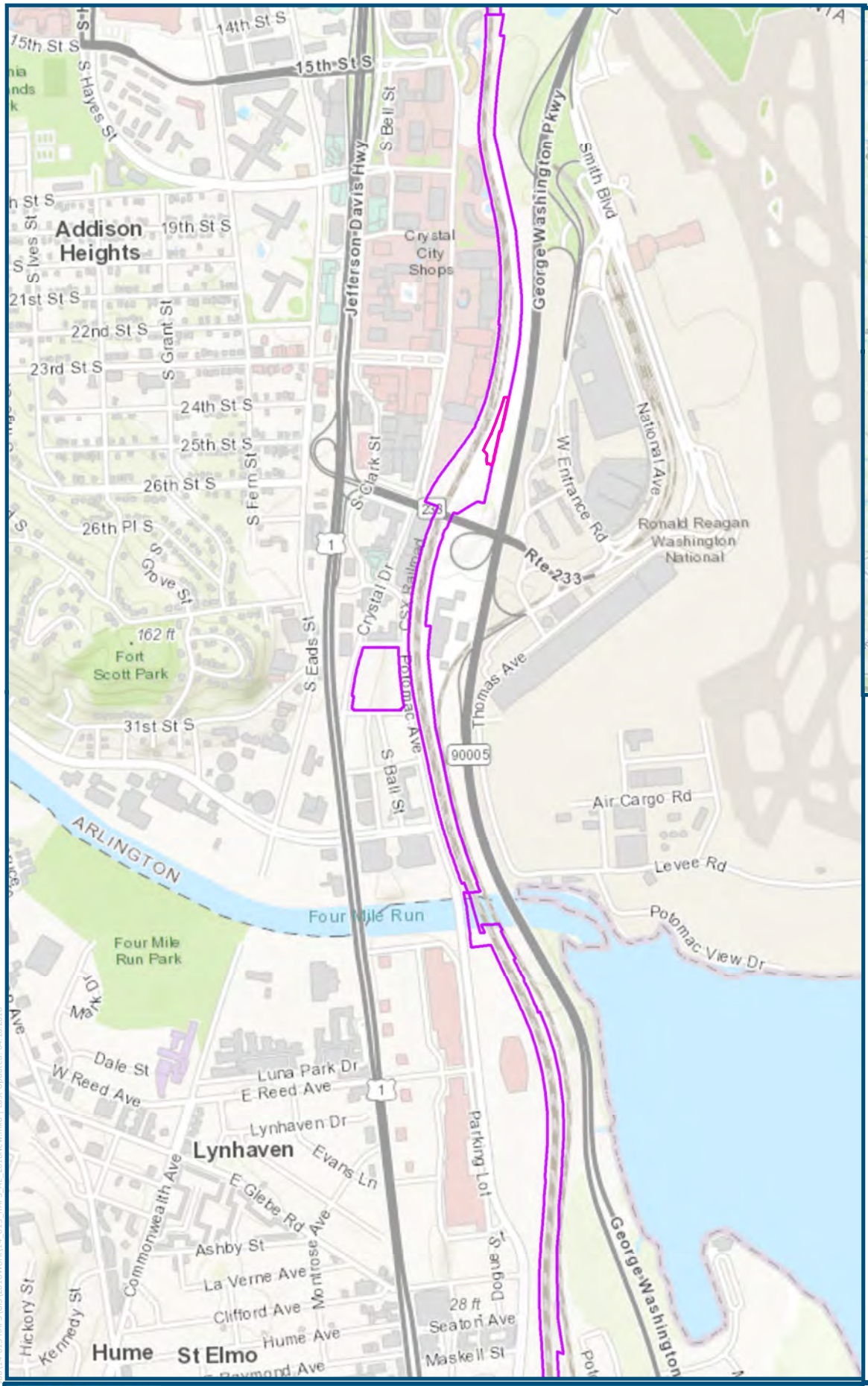
APPENDIX A: MAPS DETAILING ARCHAEOLOGICAL AREAS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S Grove St
S Eads St
S Bell St
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Jefferson Davis Hwy
George Washington Pkwy
Smith Blvd
National Ave
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Potomac Ave
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Thomas Ave
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Potomac View Dr
Parking Lot
Dogue St
Seaton Ave
Maskell St
Hume Ave
Raymond Ave
Ashby St
La Verne Ave
Clifford Ave
Montrose Ave
Commonwealth Ave
Hickory St
Kennedy St
Dale St
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Luna Park Dr
Lynhaven Dr
Evans Ln
E Glebe Rd
Mark Dr
Ave
Washington, D.C.
Centreville
Alexandria
Fairfax
Fort Belvoir
Prince William
Dale City
Quantico Marine Corps Base
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Phase IB Survey
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Archaeological APE
Overview of
Archaeological Area
2a (Map 1 of 3)
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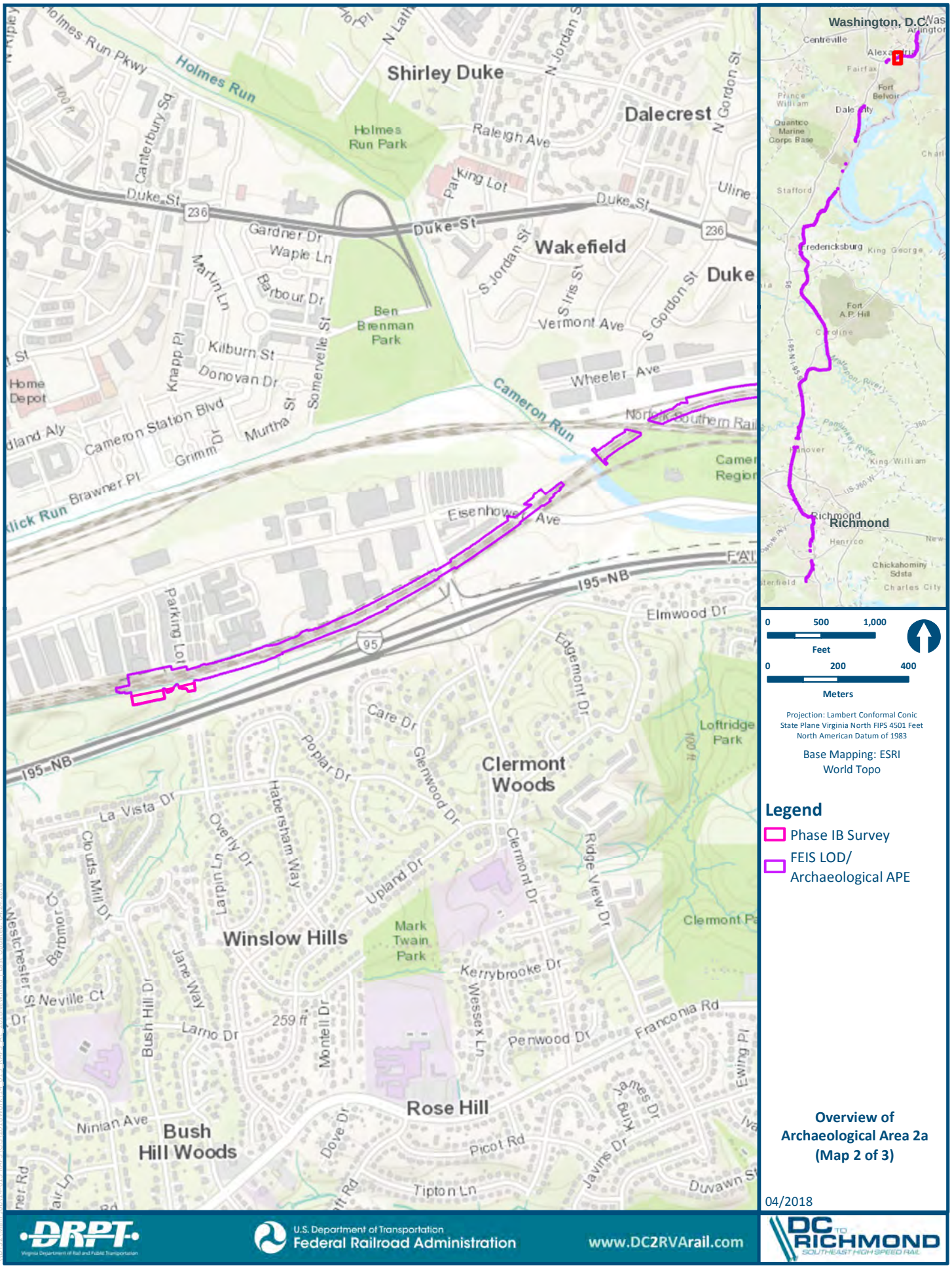
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Wakefield
Martin Ln
Barbour Dr
Ben Brenman Park
S Jordan St
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Vermont Ave
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Kilburn St
Donovan Dr
Knapp Pl
Somerville St
Wheeler Ave
Home Depot
Cameron Station Blvd
Grimm Dr
Murtha St
Cameron Run
Norfolk Southern Rail
Brawner Pl
Eisenhower Ave
I95-NB
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Parking Lot
Elmwood Dr
Edgemont Dr
Care Dr
Poplar Dr
Glenwood Dr
Clermont Woods
Loftridge Park
La Vista Dr
Habersham Way
Overly Dr
Clermont Dr
Ridge View Dr
Clouds Mill Dr
Barbmor Ct
Upland Dr
Winslow Hills
Mark Twain Park
Kerrybrooke Dr
Wessex Ln
Jane Way
Bush Hill Dr
St Neville Ct
Larno Dr
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Montell Dr
Penwood Dr
Franconia Rd
Rose Hill
Ninian Ave
Bush Hill Woods
Dove Dr
Picot Rd
James Dr
Javins Dr
Tipton Ln
Duwawn St
Ewing Pl
Washington, D.C.
Centreville
Fairfax
Fort Belvoir
Quantico Marine Corps Base
Stafford
Fredericksburg
King George
Fort A.P. Hill
Caroline
Hanover
King William
Richmond
Henrico
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Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
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Archaeological APE
Overview of
Archaeological Area 2a
(Map 2 of 3)
04/2018
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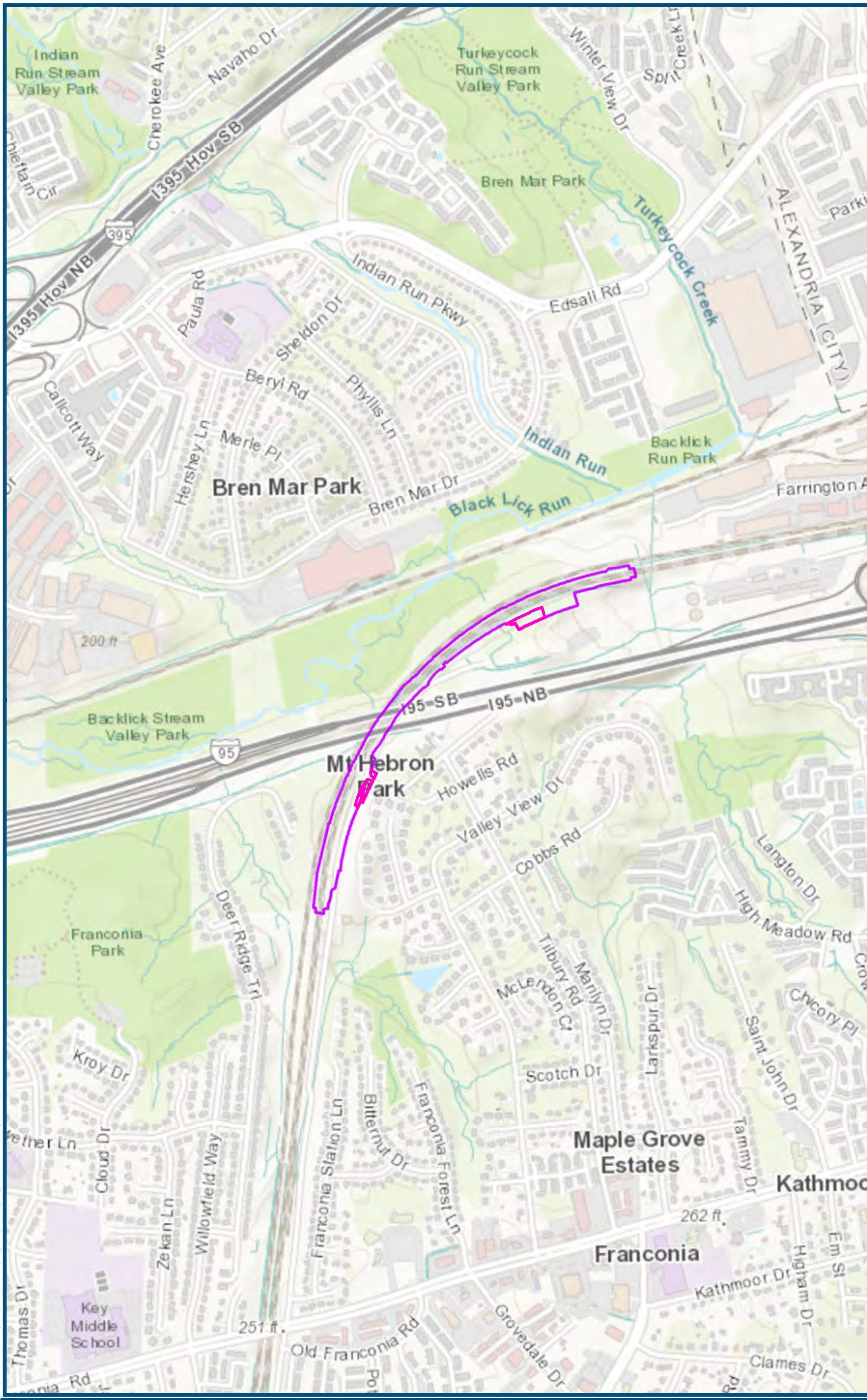

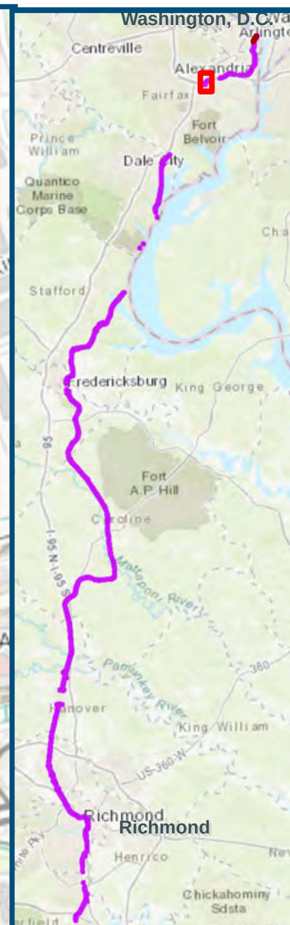

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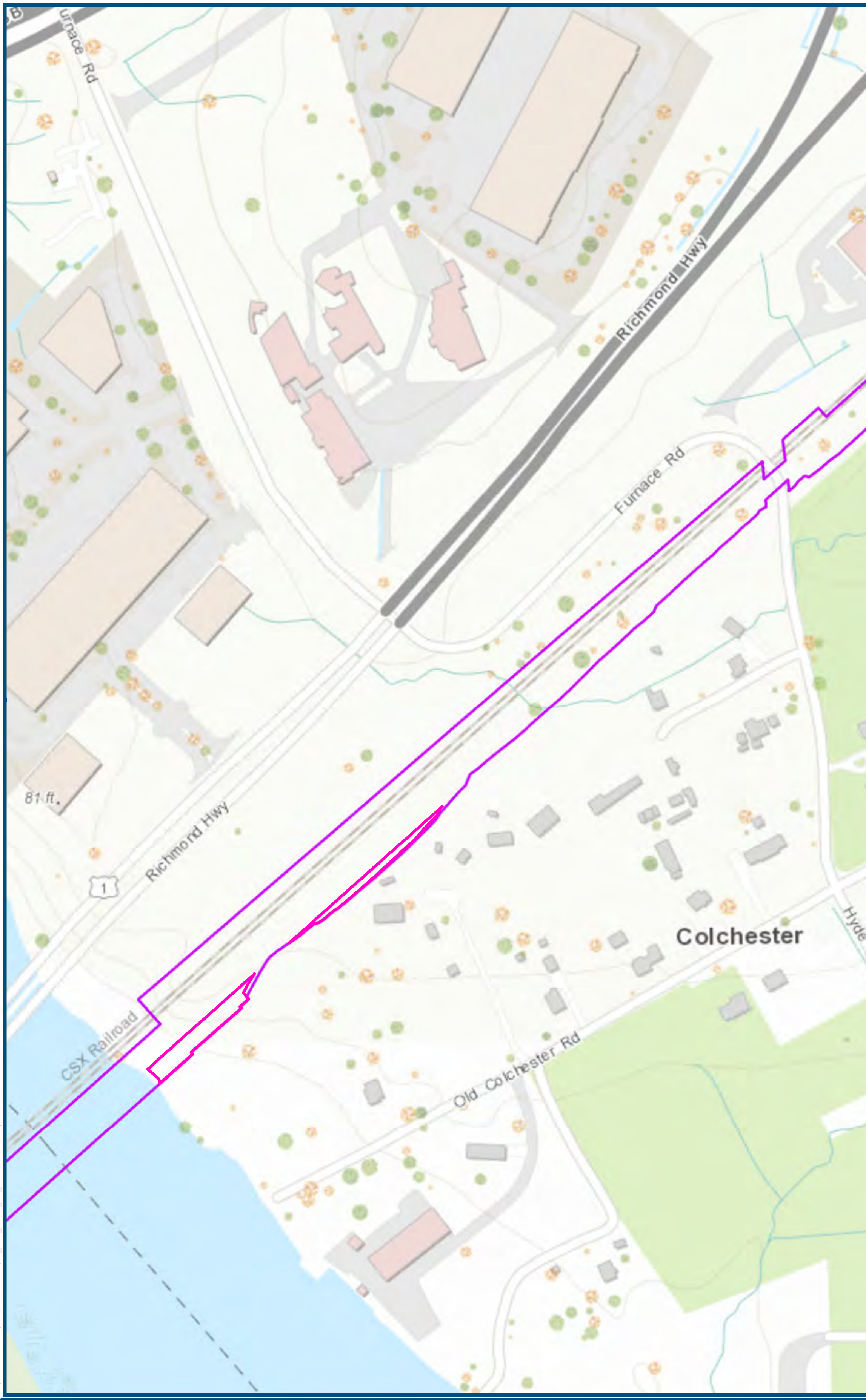
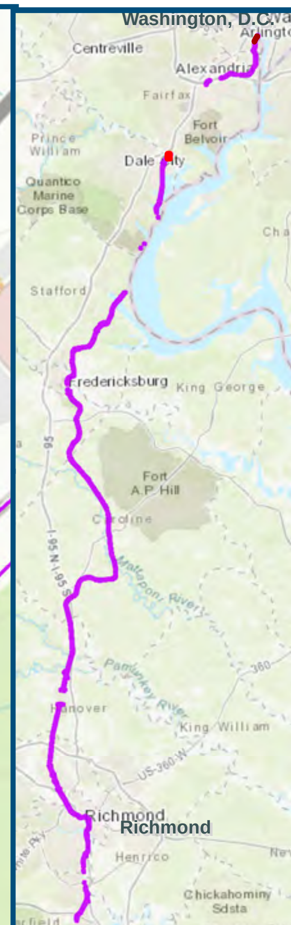
- Phase IB Survey
- FEIS LOD/ Archaeological APE

Overview of Archaeological Area 2a (Map 3 of 3)

04/2018





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- Phase IB Survey
- FEIS LOD/ Archaeological APE

Overview of Archaeological Area 2b (Map 1 of 1)

04/2018

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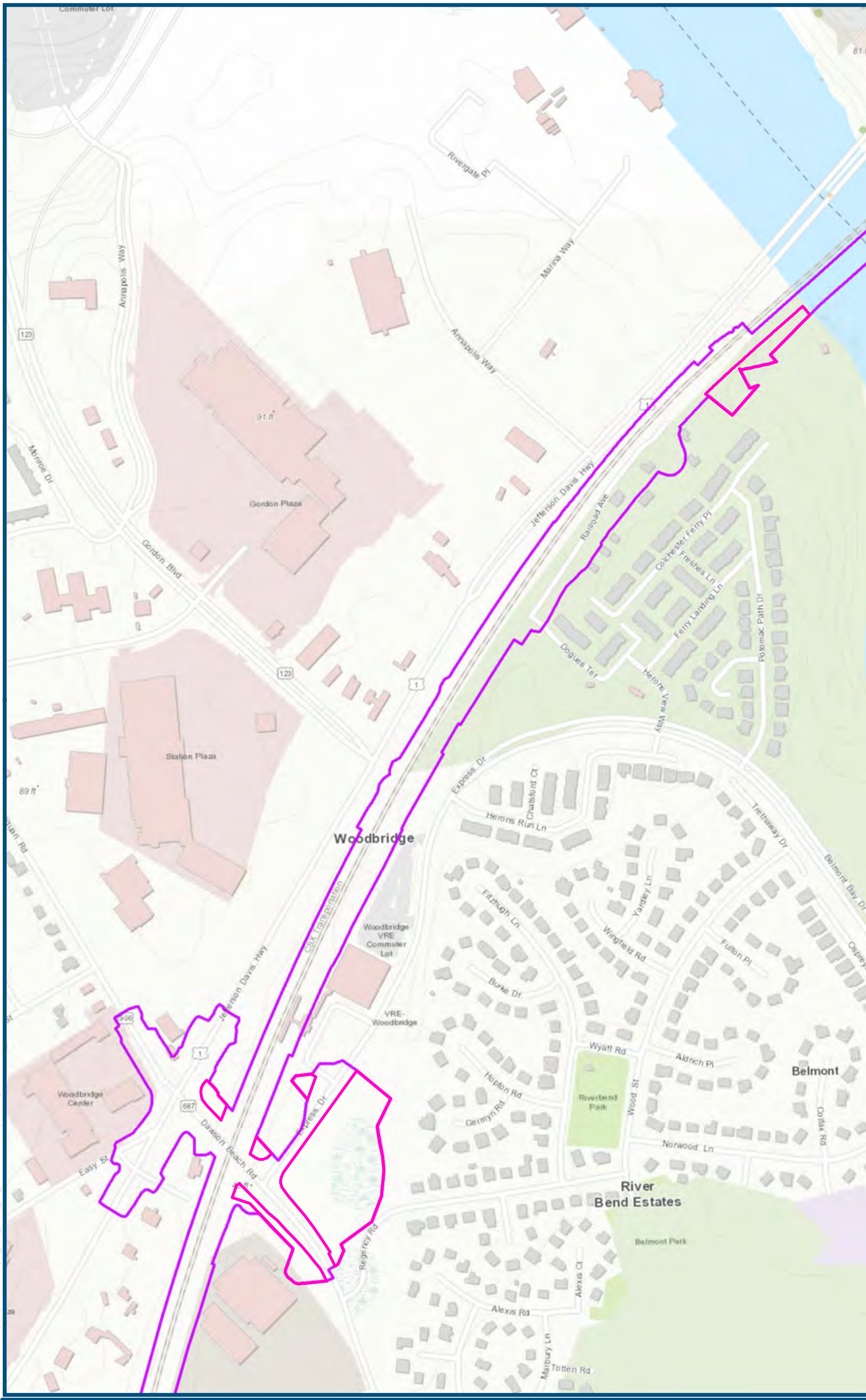

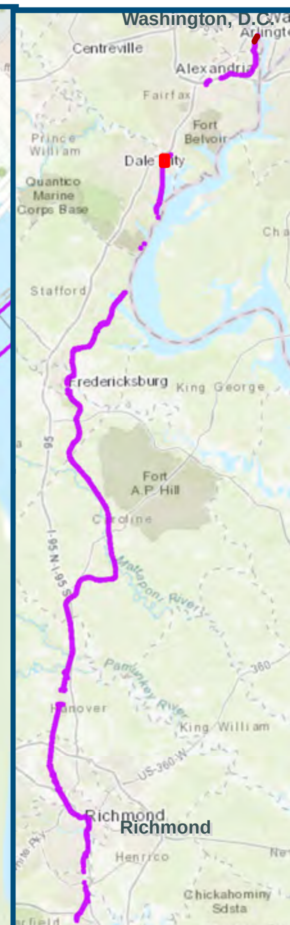

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Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE

Overview of Archaeological Area 2c (Map 1 of 1)

04/2018

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DRPT Virginia Department of Rail and Public Transportation

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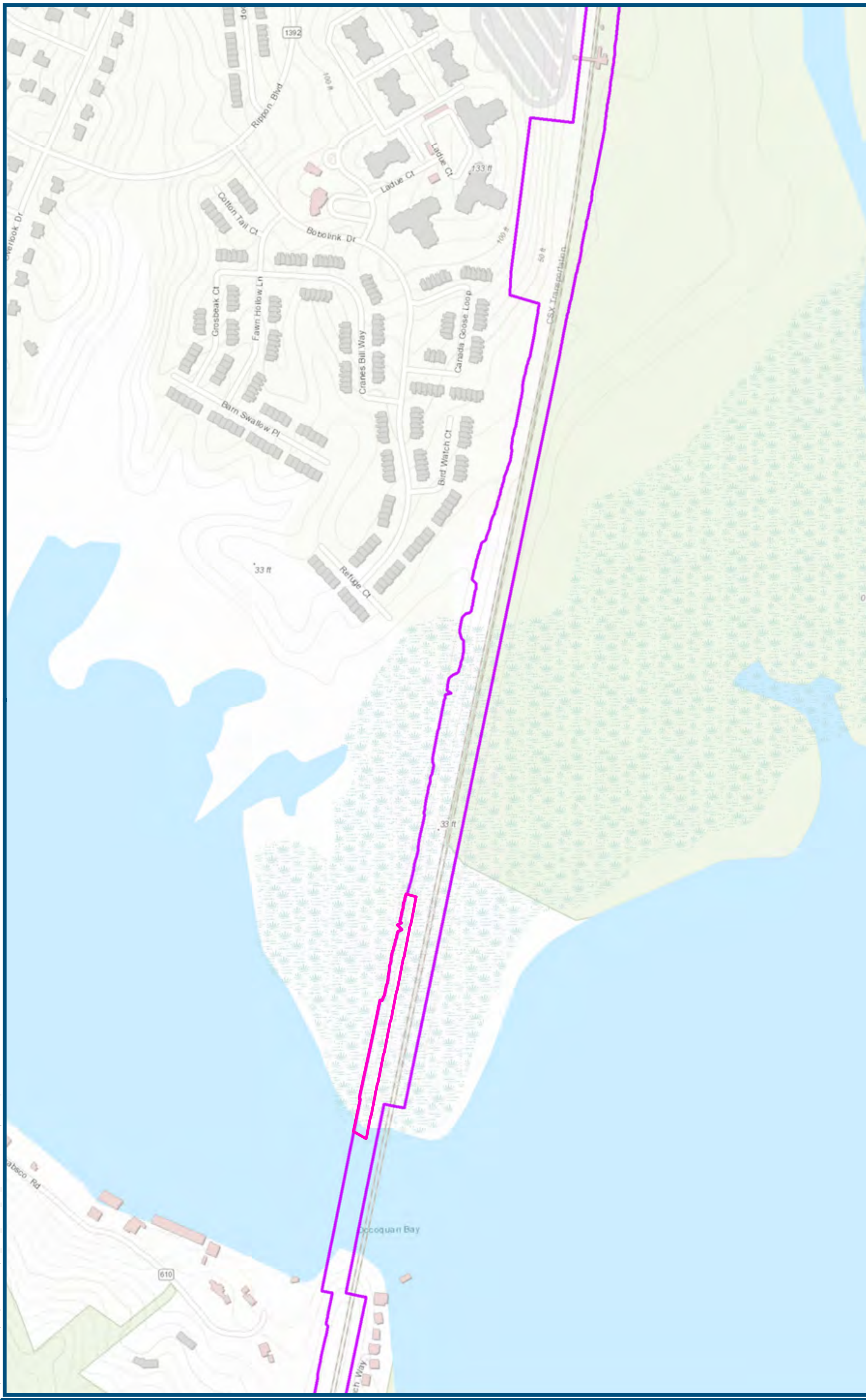
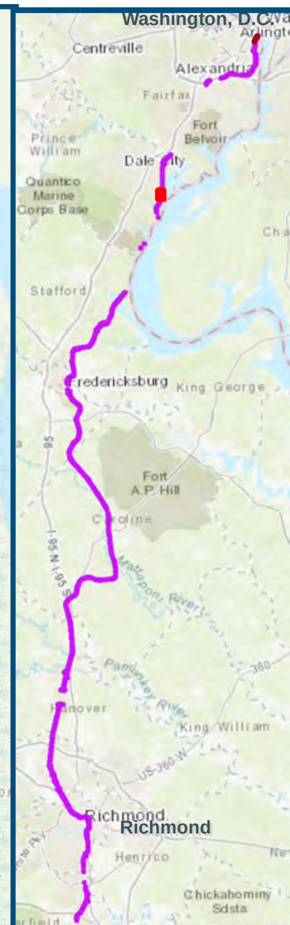
DC TO RICHMOND SOUTHEAST HIGH SPEED RAIL





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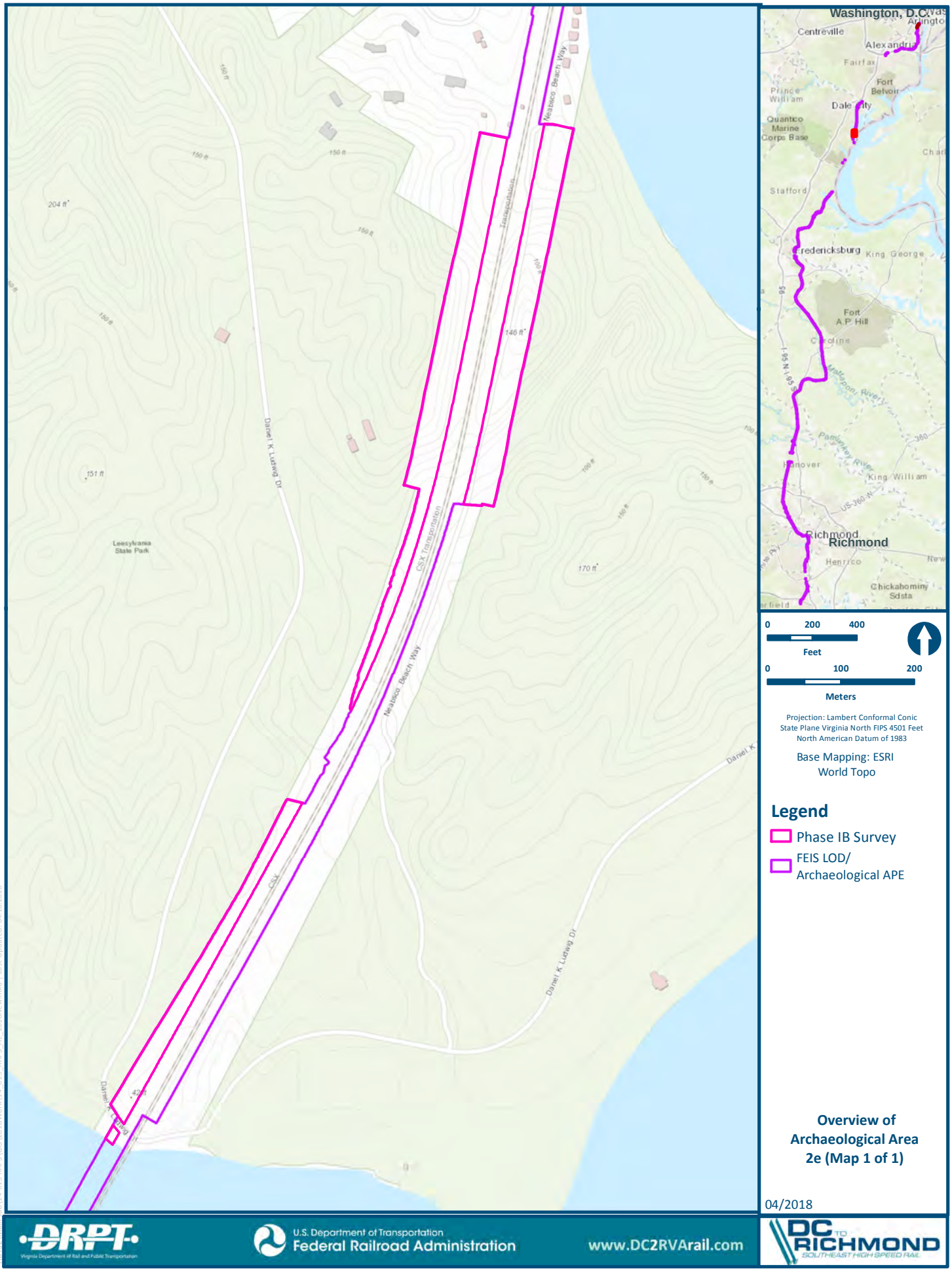
World Topo

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE

Overview of Archaeological Area 2d (Map 1 of 1)

04/2018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Fairfax
Fort Belvoir
Prince William
Dale City
Quantico Marine Corps Base
Stafford
Fredericksburg
King George
Fort A.P. Hill
Caroline
Mattaponi River
Pamunkey River
Hanover
King William
Richmond
Henrico
Chickahominy
Leesylvania State Park
Neabsco Beach Way
CSX Transportation
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Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983
Base Mapping: ESRI
World Topo
Legend
Phase IB Survey
FEIS LOD/
Archaeological APE
Overview of
Archaeological Area
2e (Map 1 of 1)
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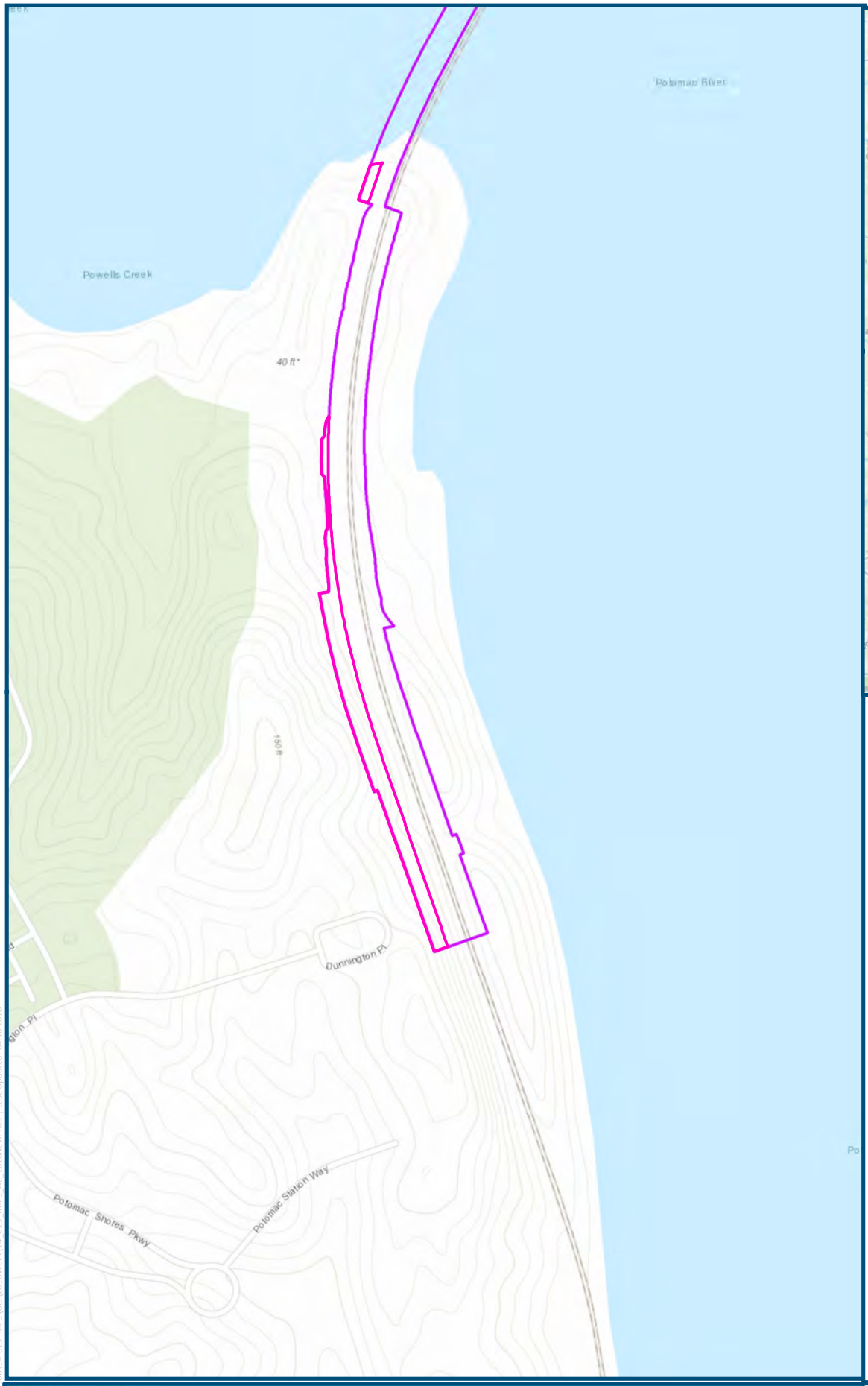
DC TO RICHMOND
SOUTHEAST HIGH SPEED RAIL



0 200 400

Feet

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Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Topo

Legend

- Phase IB Survey
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Overview of Archaeological Area 2f (Map 1 of 1)

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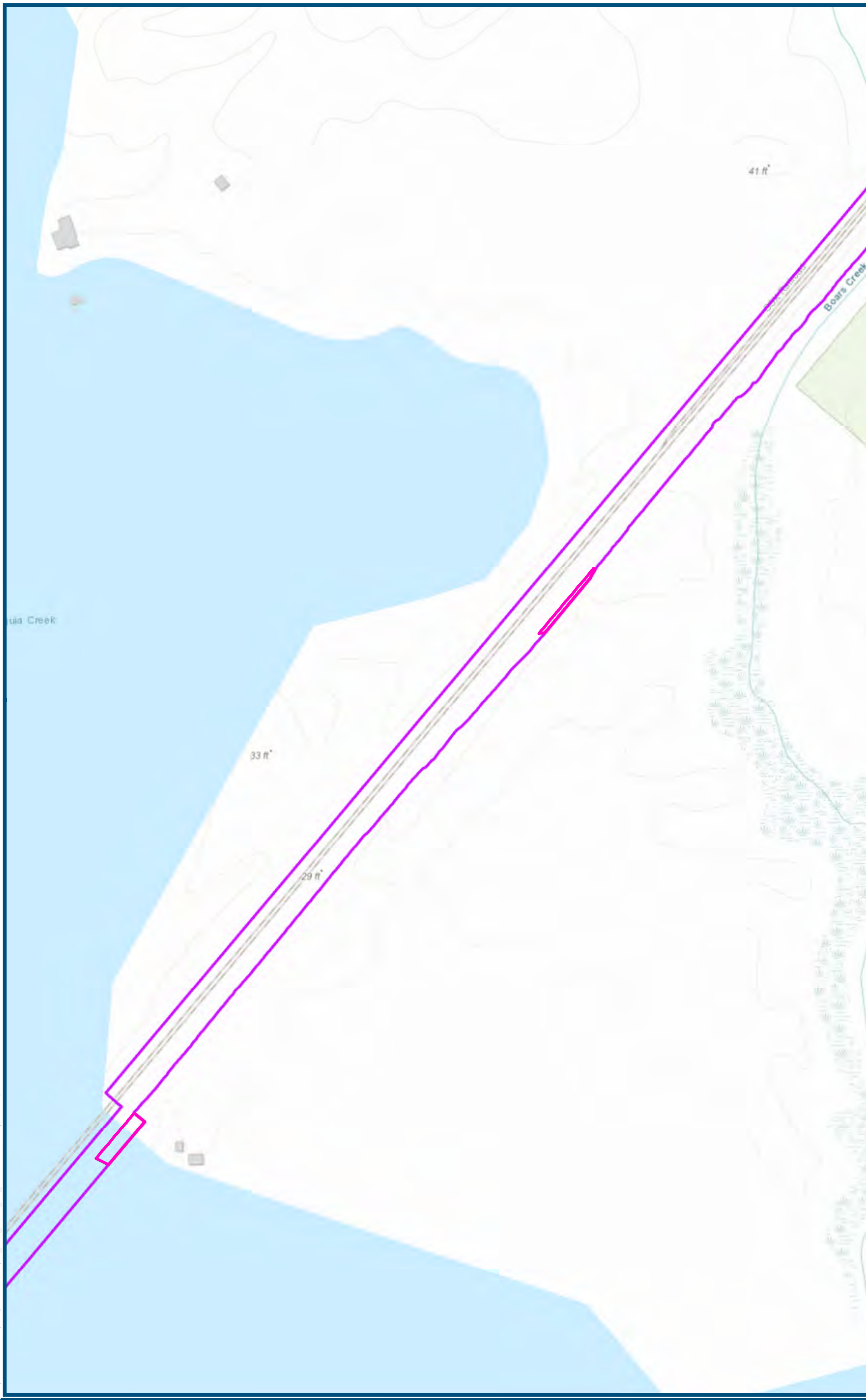

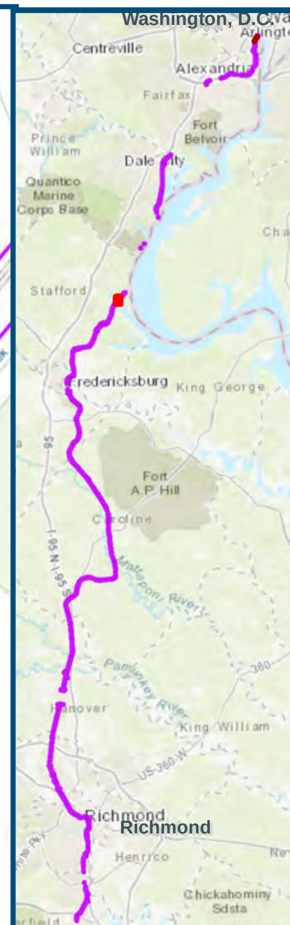

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State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI World Topo

Legend

- Phase IB Survey
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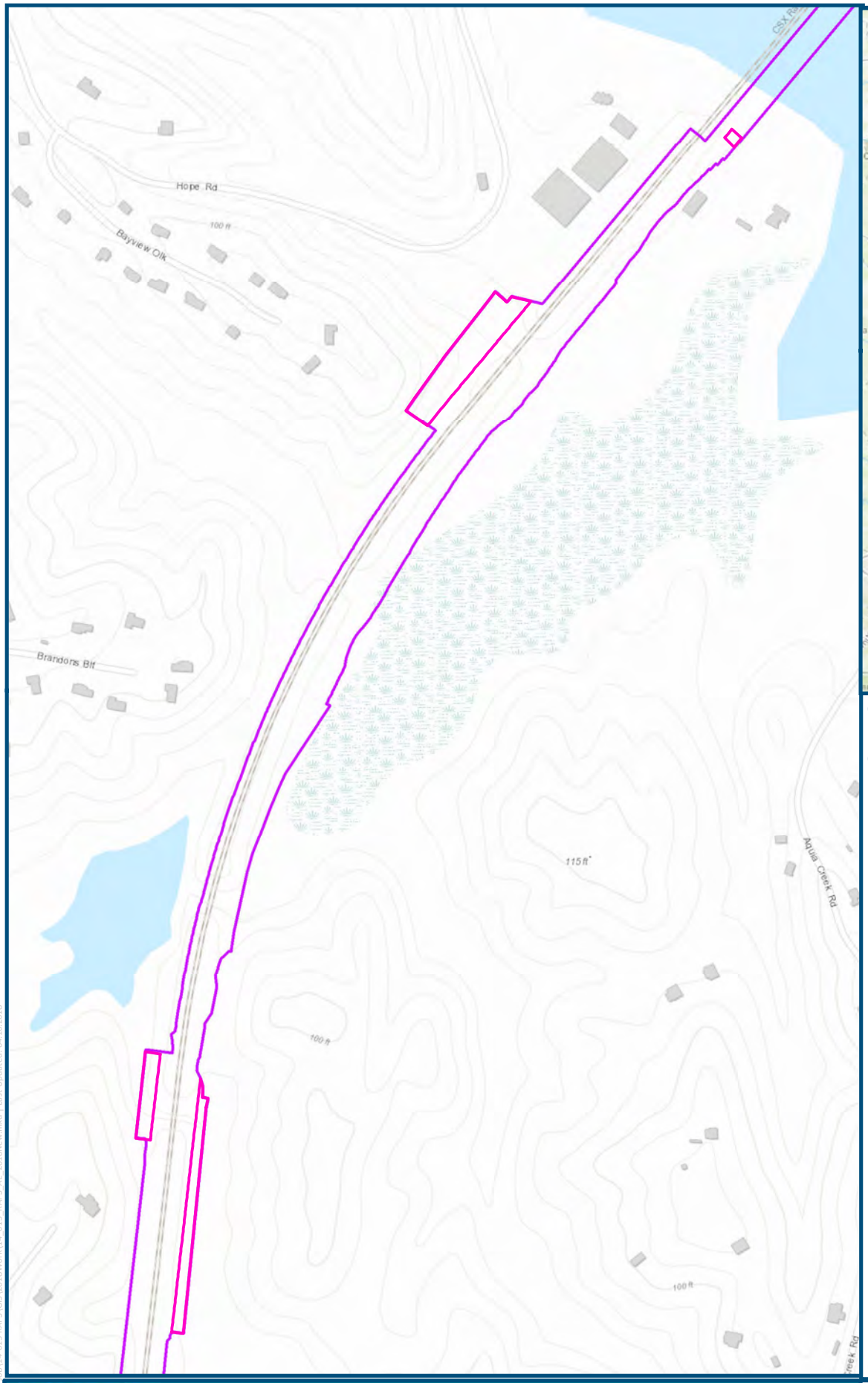
Overview of Archaeological Area 2g (Map 1 of 1)

04/2018



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Feet

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Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Topo

Legend

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Overview of Archaeological Area 2h (Map 1 of 2)

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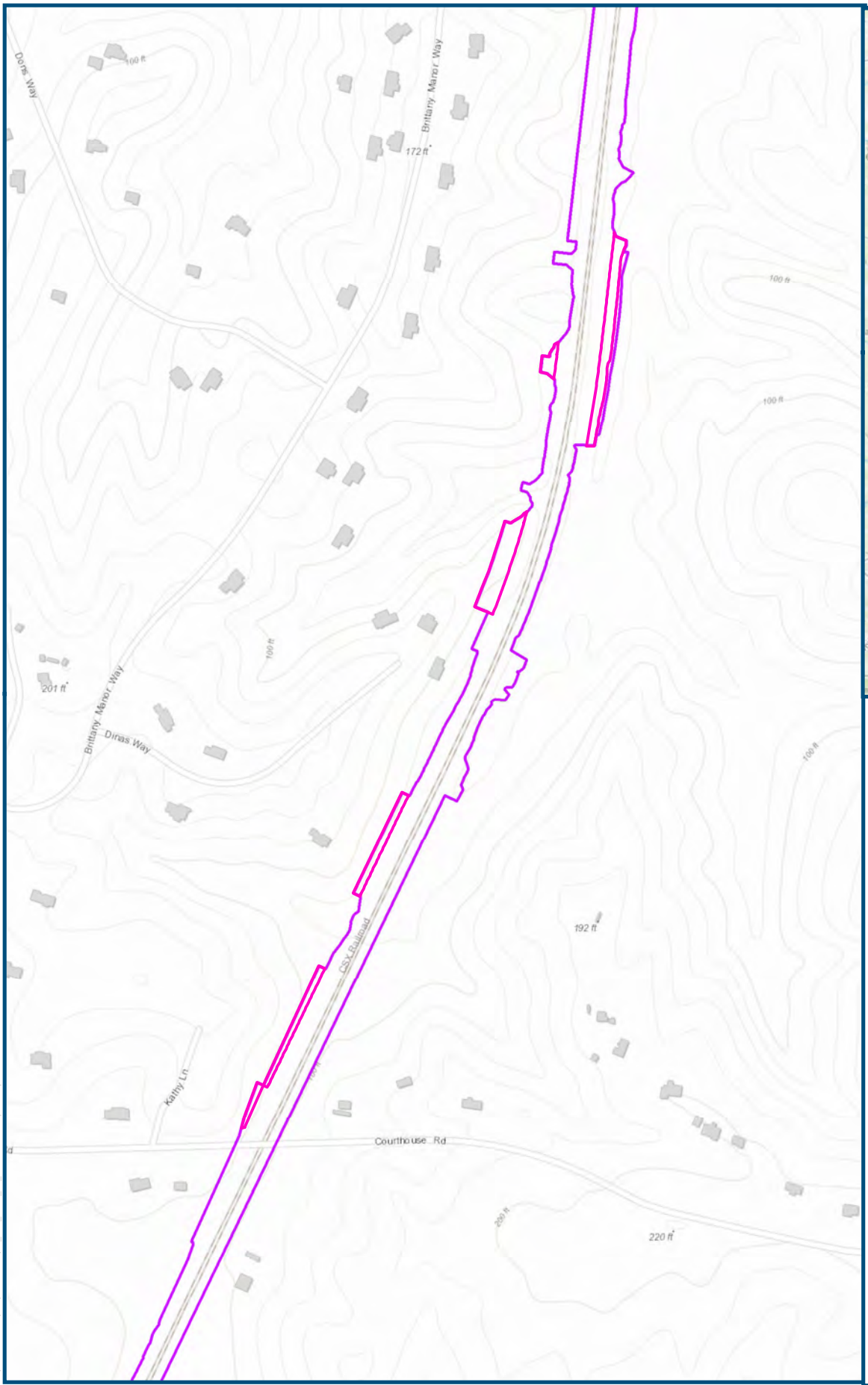

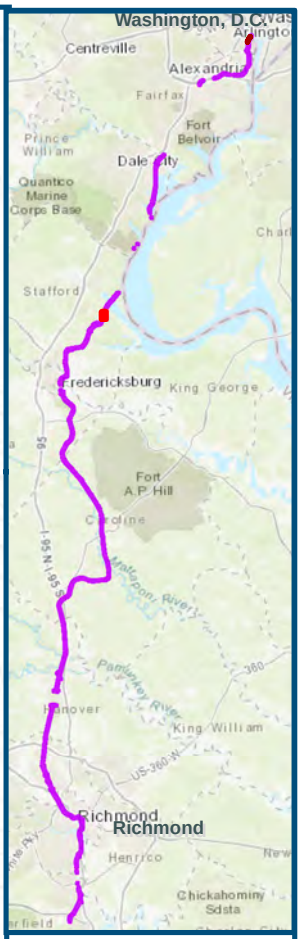

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Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Topo

Legend

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Overview of Archaeological Area 2h (Map 2 of 2)

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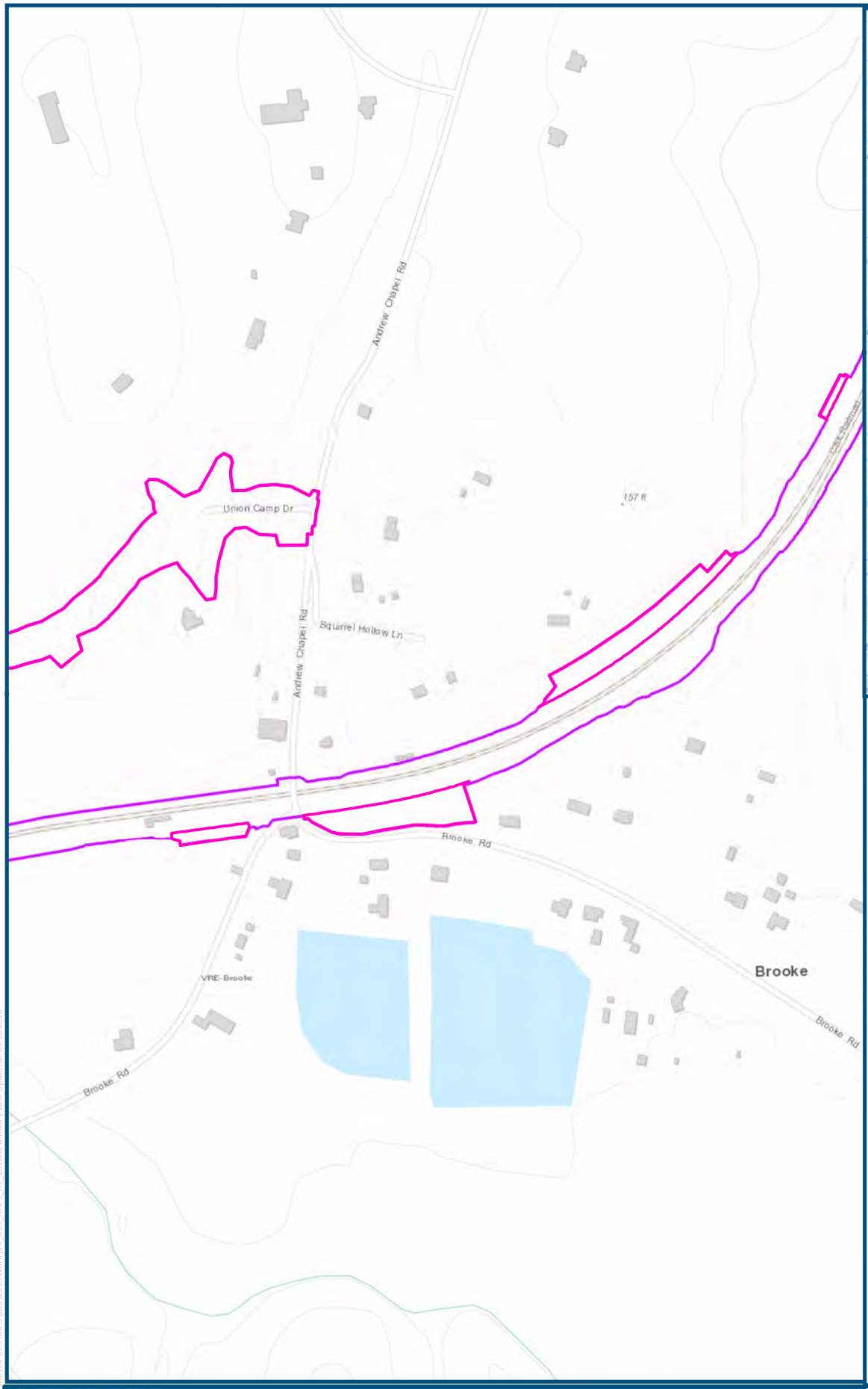

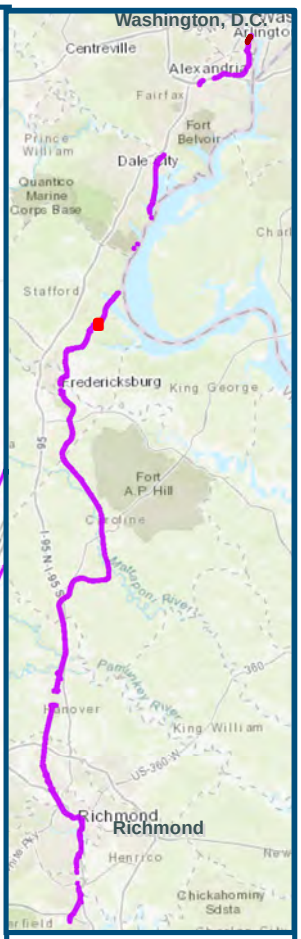

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Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Topo

Legend

- Phase IB Survey
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Overview of Archaeological Area 2i (Map 1 of 3)

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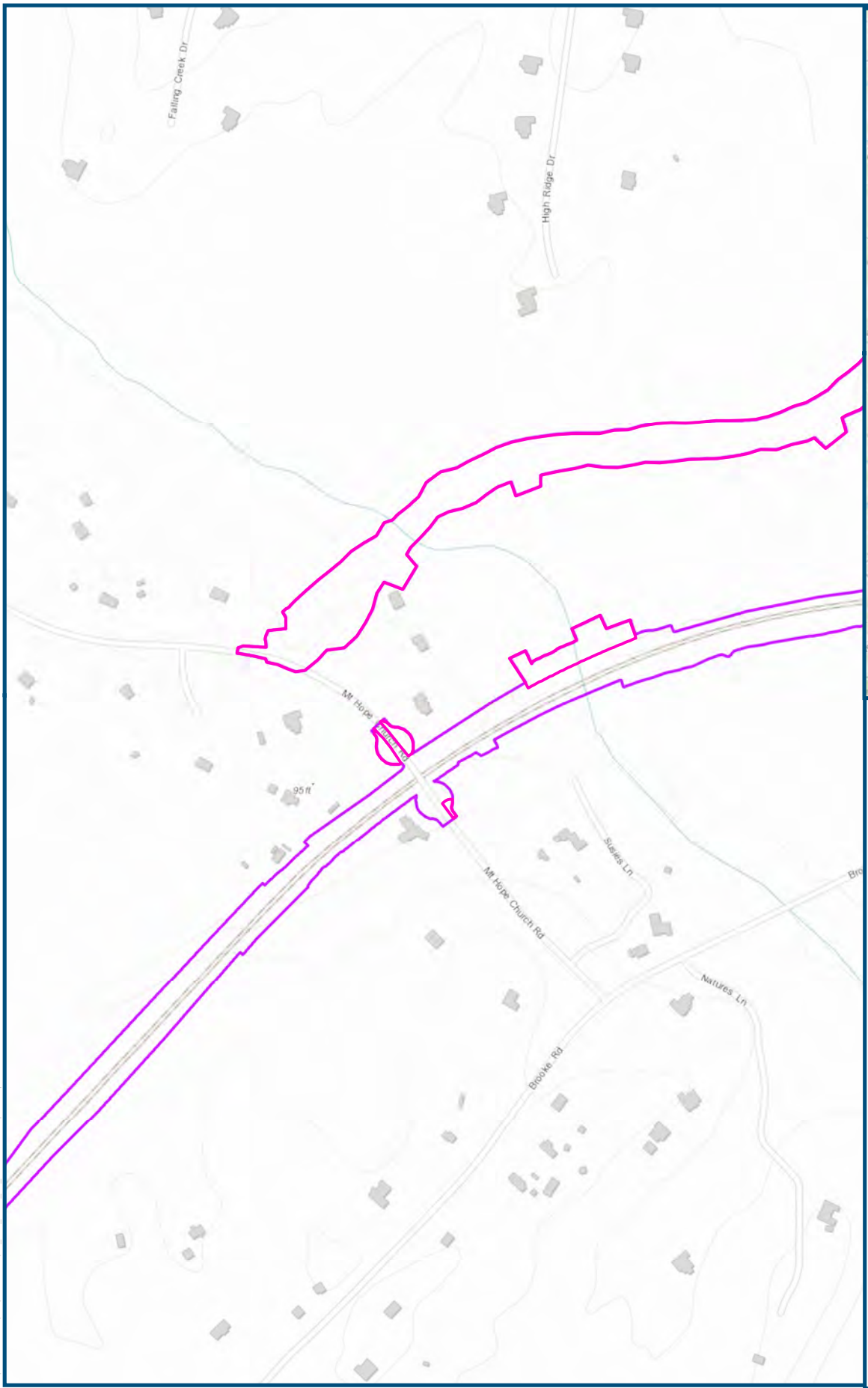

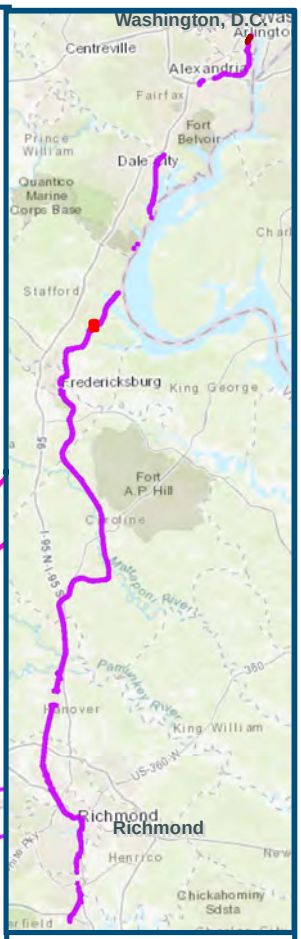

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Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Topo

Legend

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Overview of Archaeological Area 2i (Map 2 of 3)

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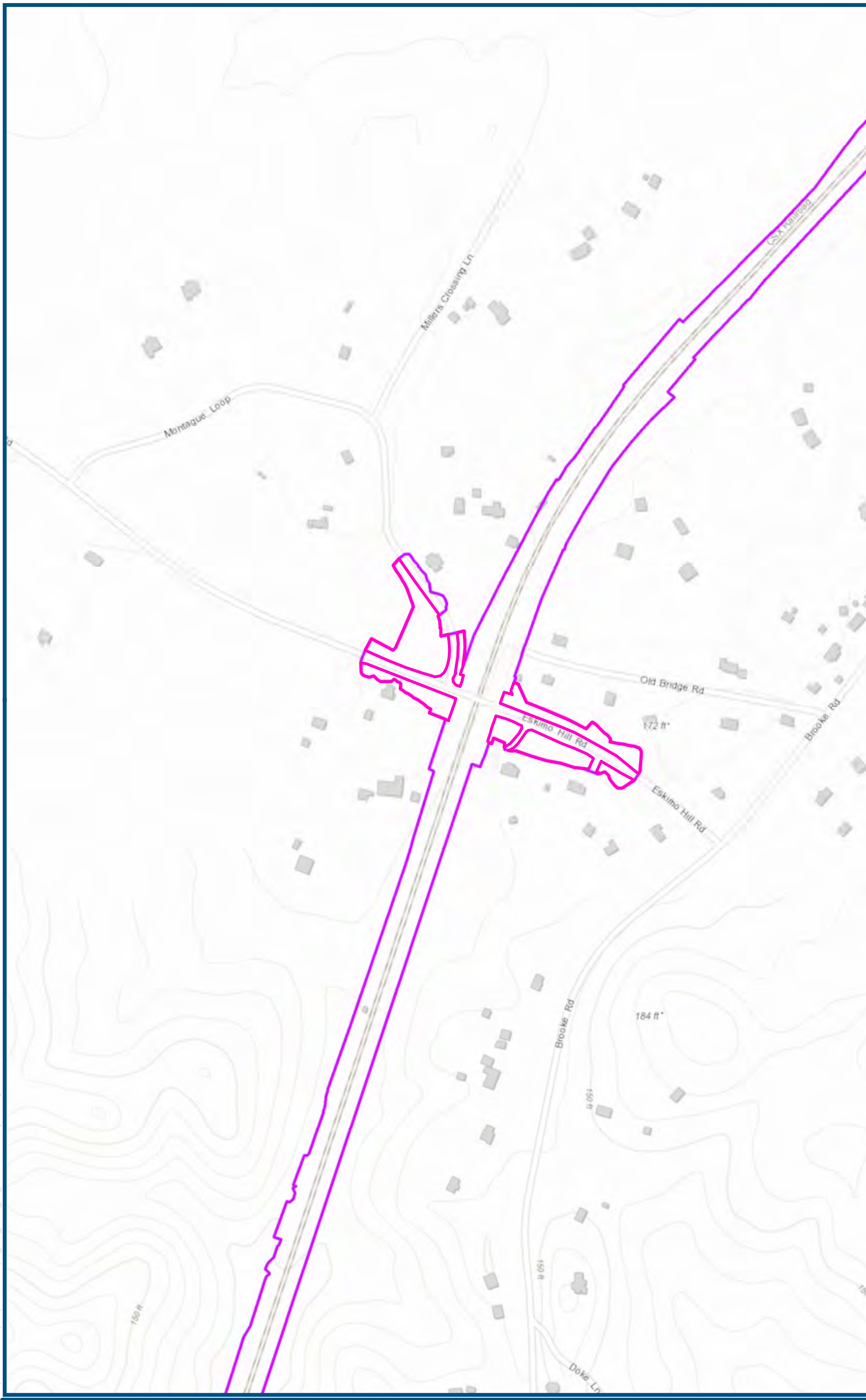

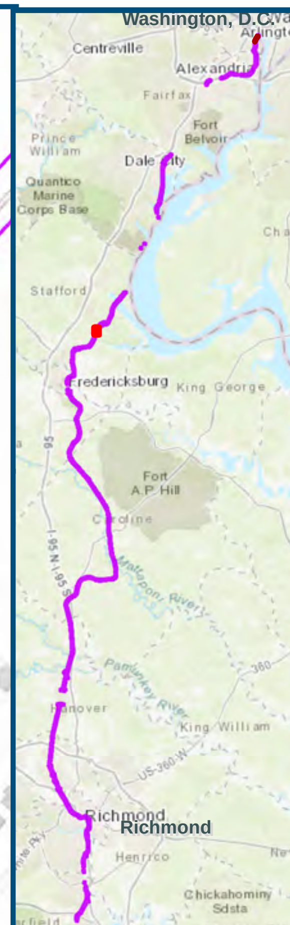

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Projection: Lambert Conformal Conic
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North American Datum of 1983

Base Mapping: ESRI
World Topo

Legend

Phase IB Survey

FEIS LOD/
Archaeological APE

Overview of Archaeological Area 2i (Map 3 of 3)

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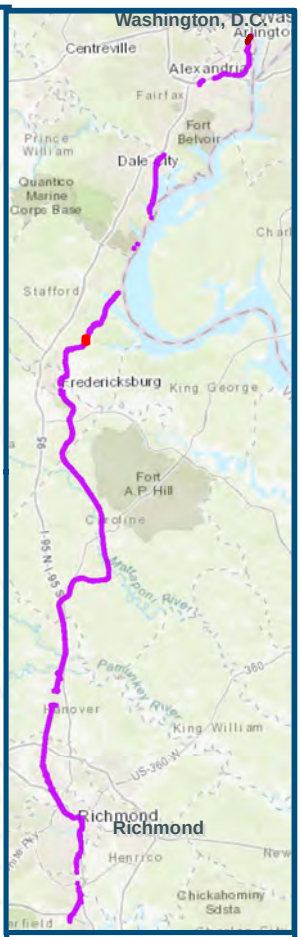

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Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Topo

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Overview of Archaeological Area 2j (Map 1 of 1)

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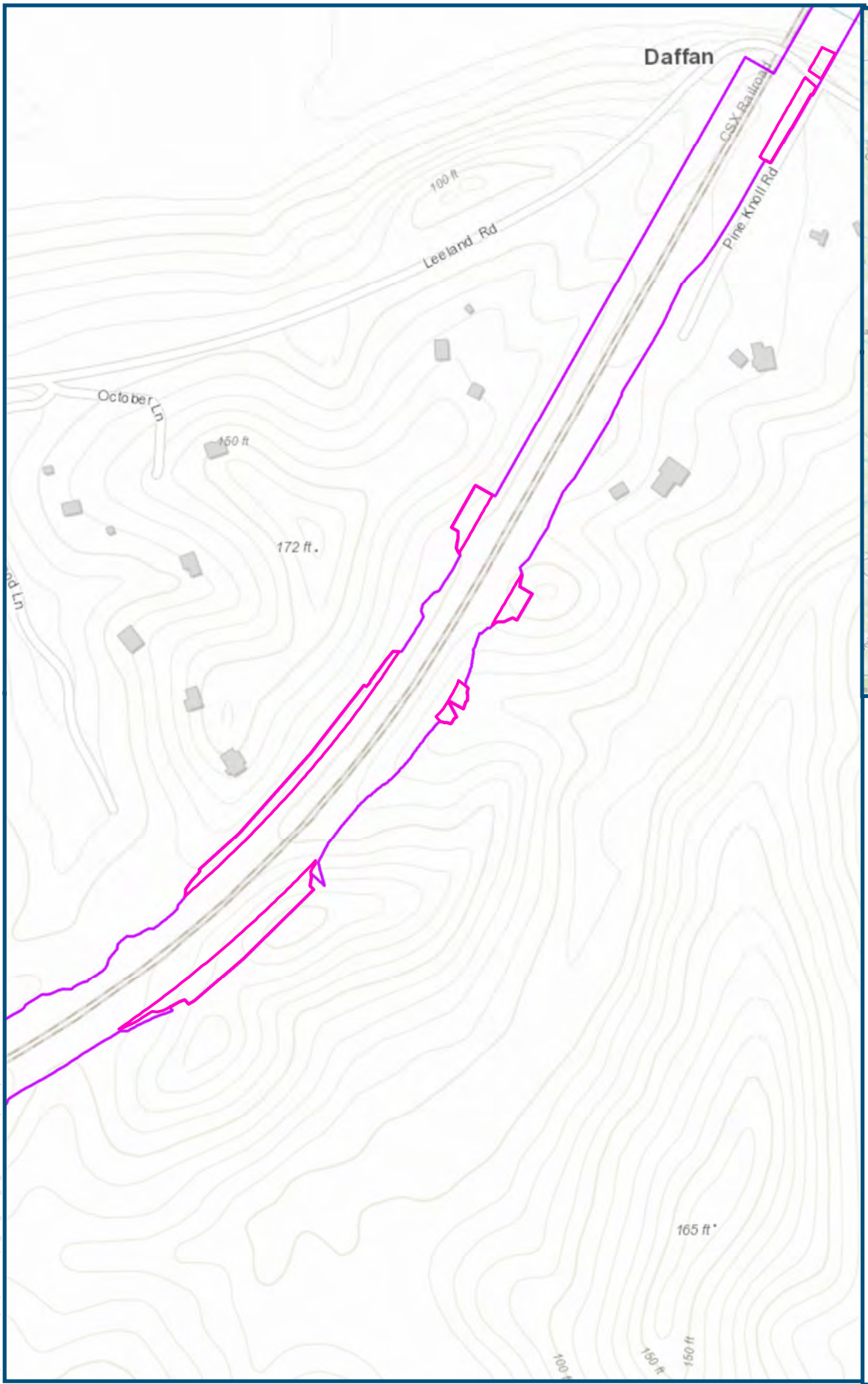

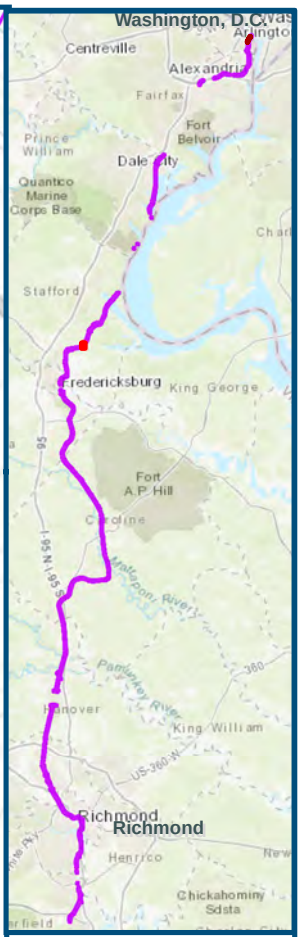

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Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Topo

Legend

- Phase IB Survey
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Overview of Archaeological Area 2k (Map 1 of 6)

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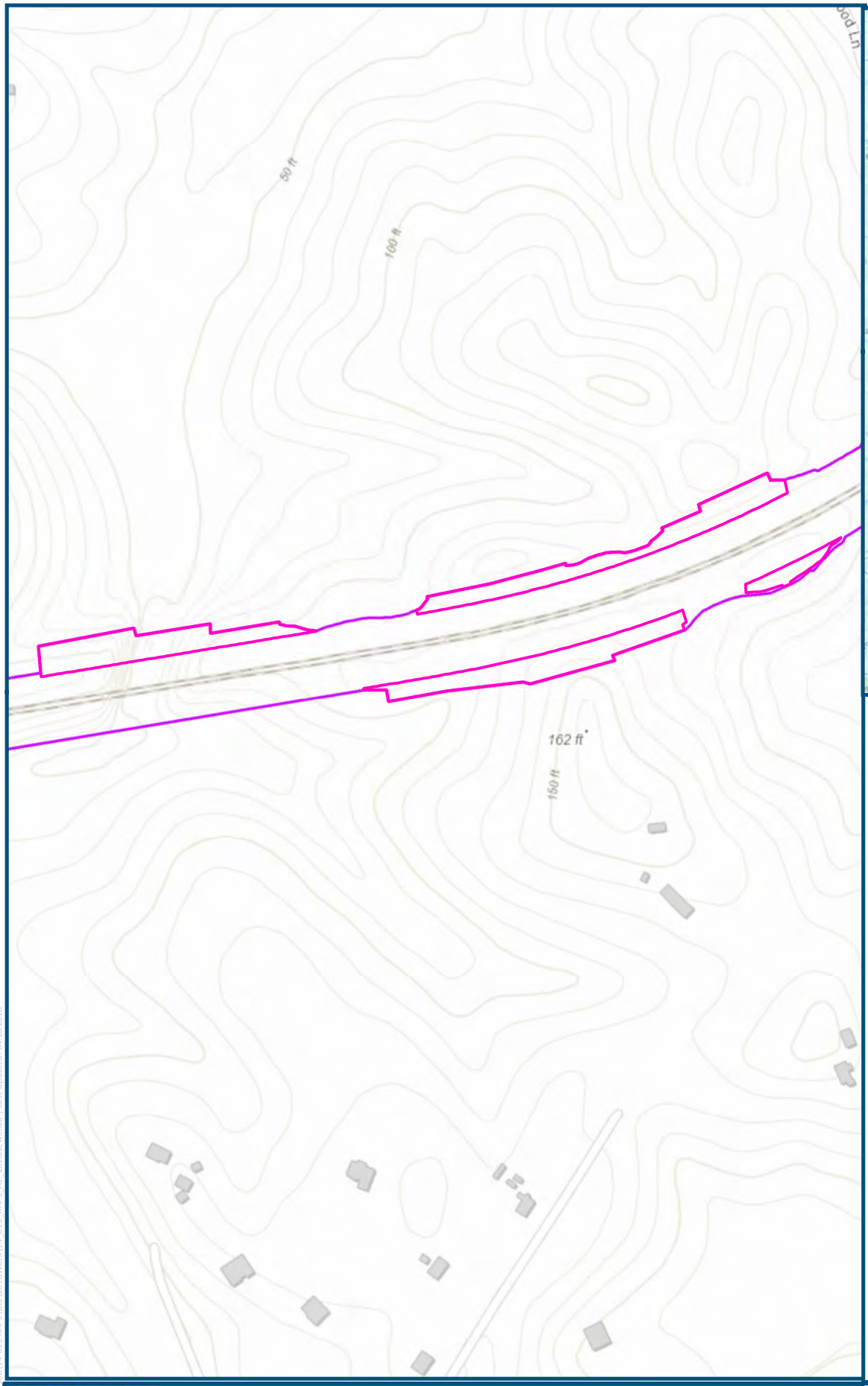

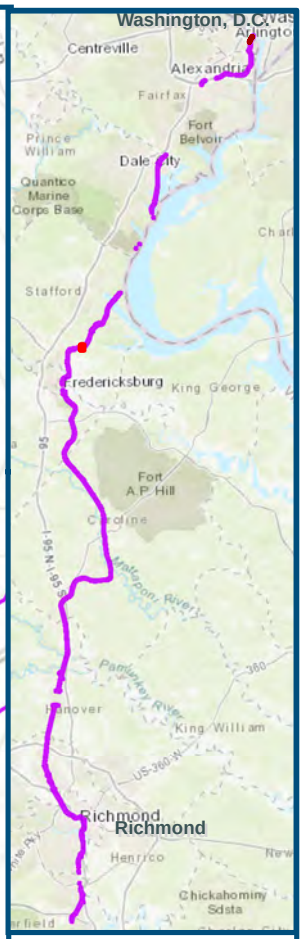

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Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

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- Phase IB Survey
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Overview of Archaeological Area 2k (Map 2 of 6)

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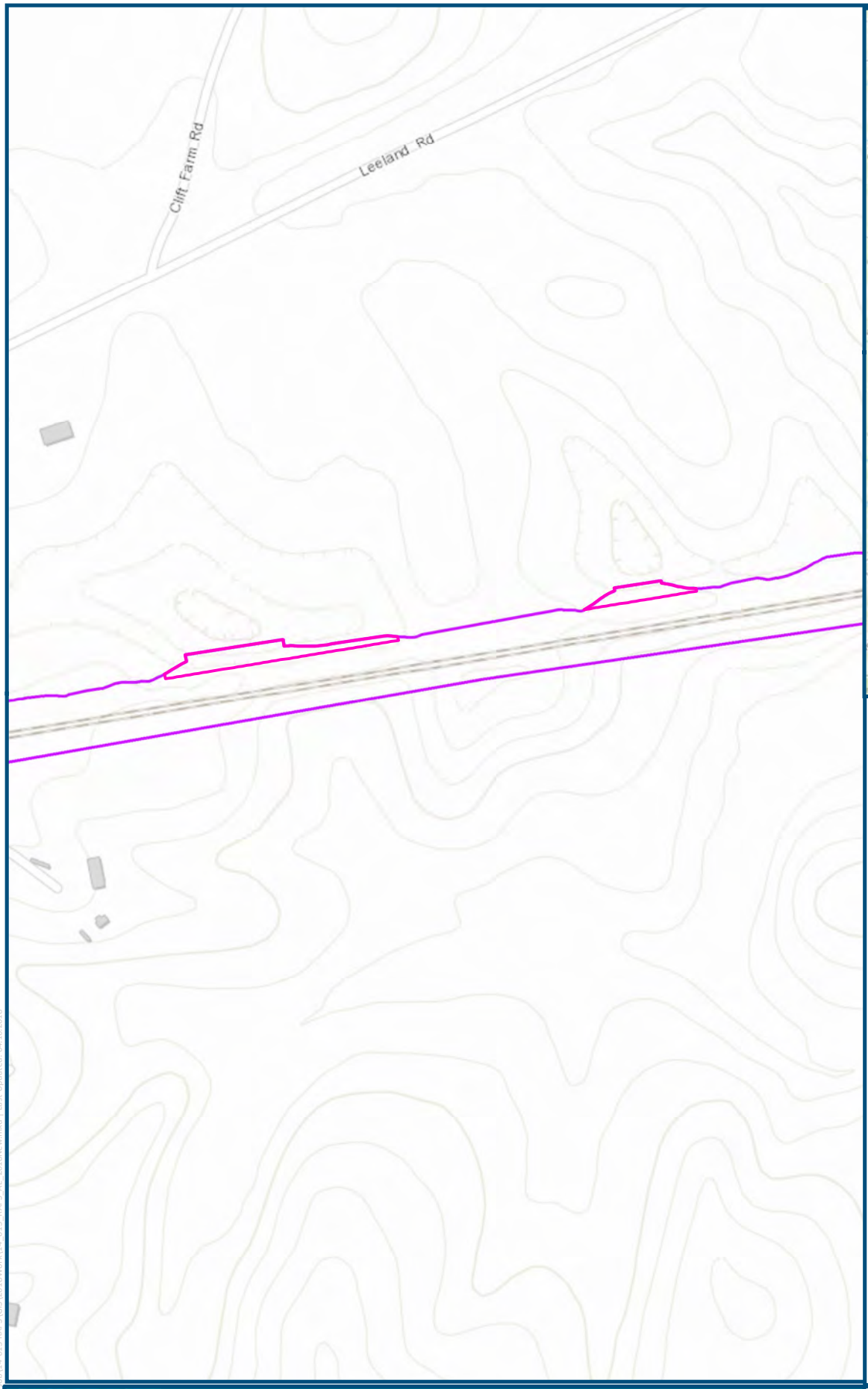

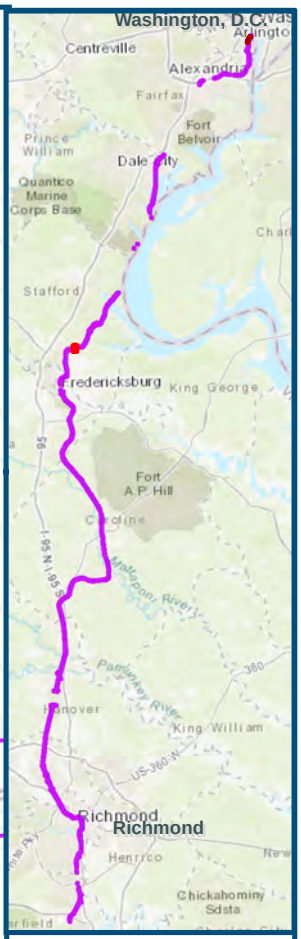

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Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
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Legend

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Overview of Archaeological Area 2k (Map 3 of 6)

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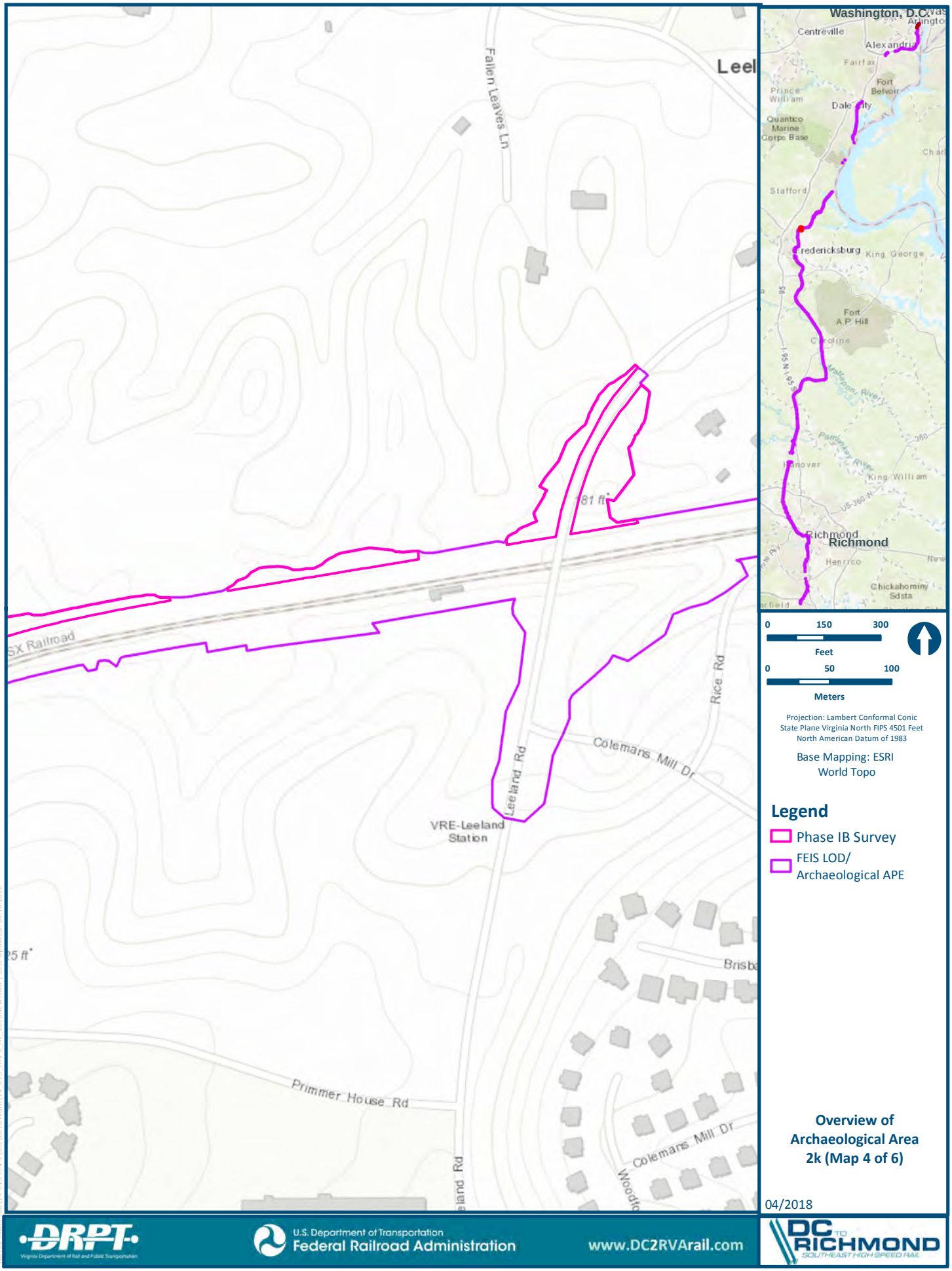
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Leel
81 ft
SX Railroad
Rice Rd
Leeland Rd
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VRE-Leeland Station
25 ft
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Washington, D.C.
Centreville
Alexandria
Fairfax
Fort Belvoir
Prince William
Dale City
Quantico Marine Corps Base
Stafford
Fredericksburg
King George
Fort A.P. Hill
Caroline
Hanover
King William
Richmond
Henrico
Chickahominy
0 150 300
Feet
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Meters
Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983
Base Mapping: ESRI
World Topo
Legend
Phase IB Survey
FEIS LOD/
Archaeological APE
Overview of
Archaeological Area
2k (Map 4 of 6)
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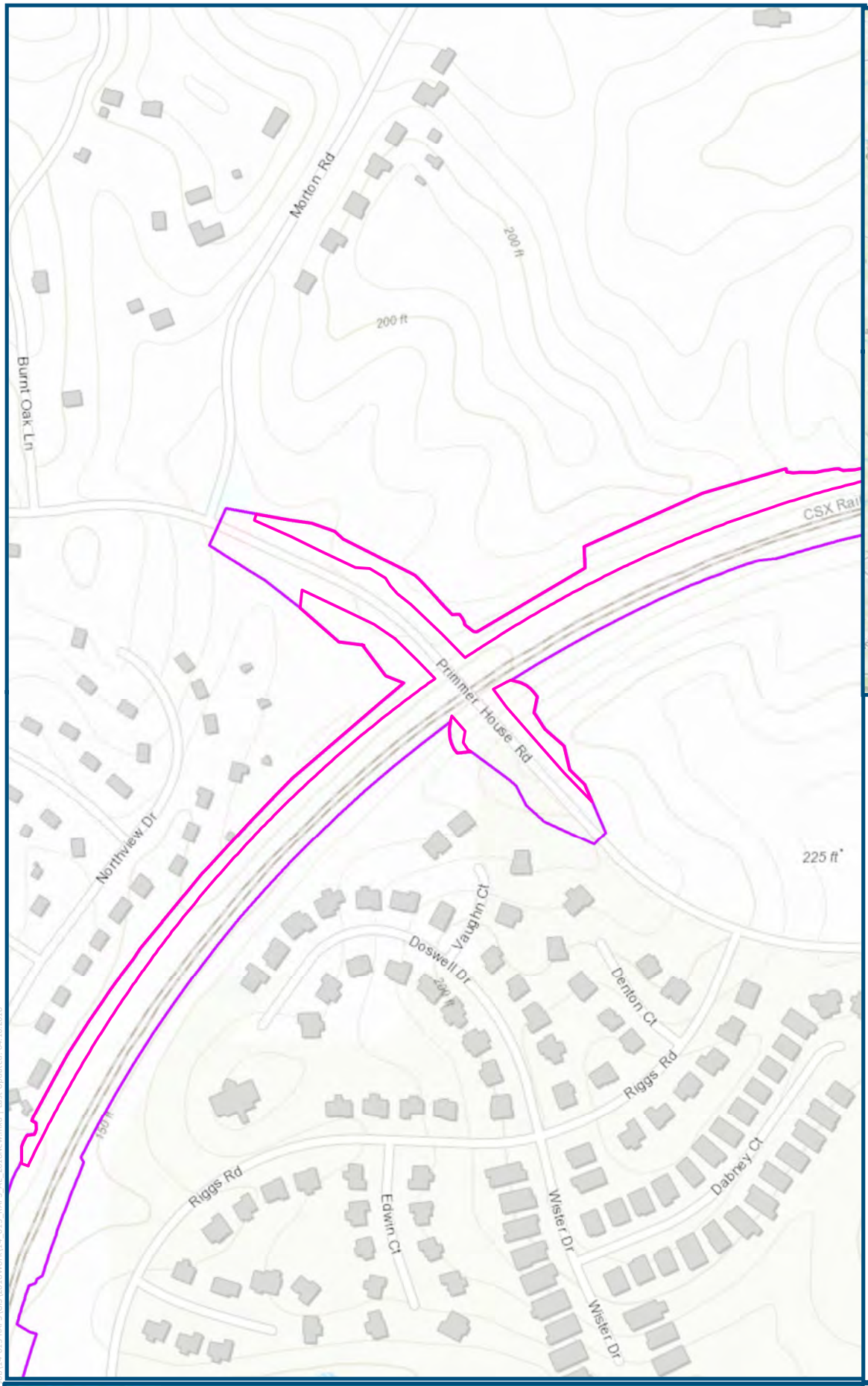

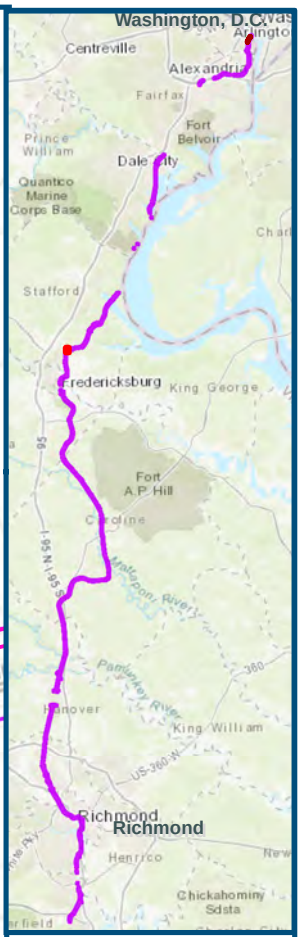

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North American Datum of 1983

Base Mapping: ESRI
World Topo

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Overview of Archaeological Area 2k (Map 5 of 6)

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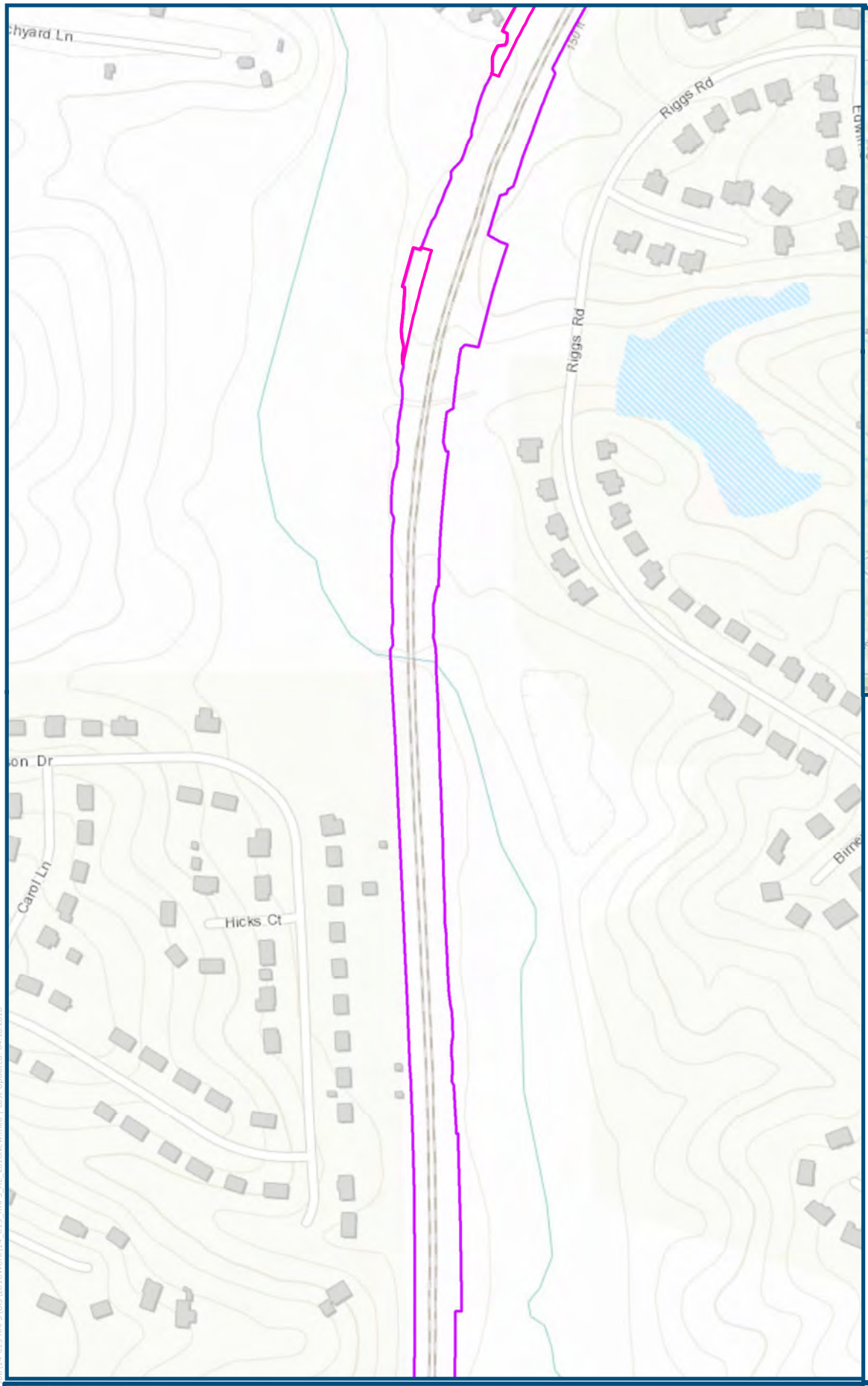

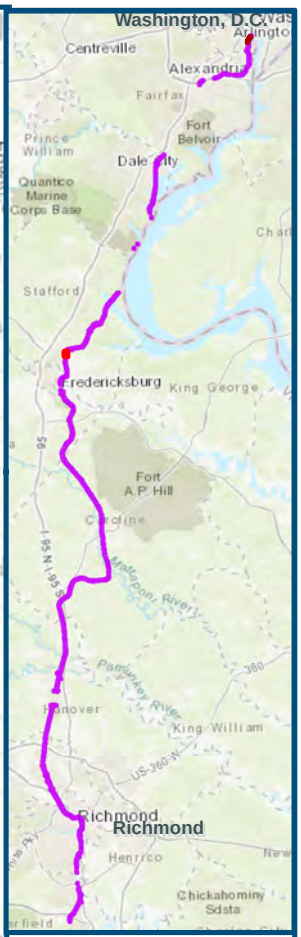

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Projection: Lambert Conformal Conic
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North American Datum of 1983

Base Mapping: ESRI
World Topo

Legend

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Overview of Archaeological Area 2k (Map 6 of 6)

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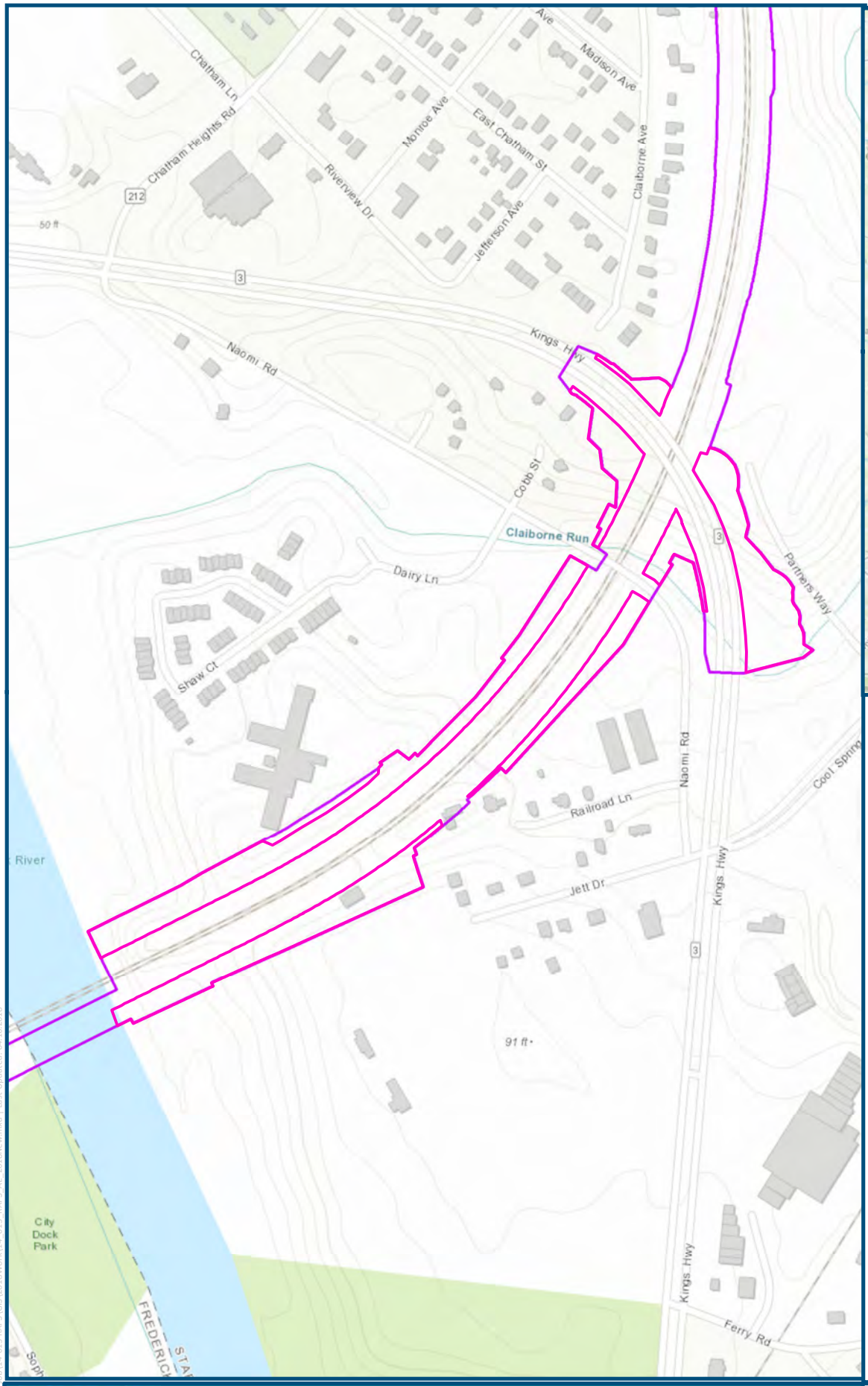

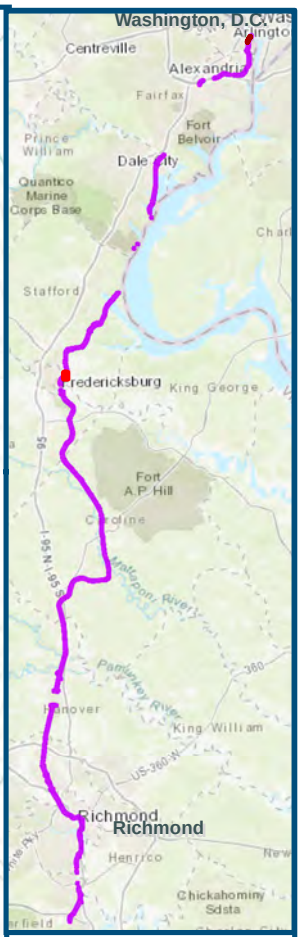

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Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Topo

Legend

- Phase IB Survey
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Overview of Archaeological Area 3a (Map 1 of 1)

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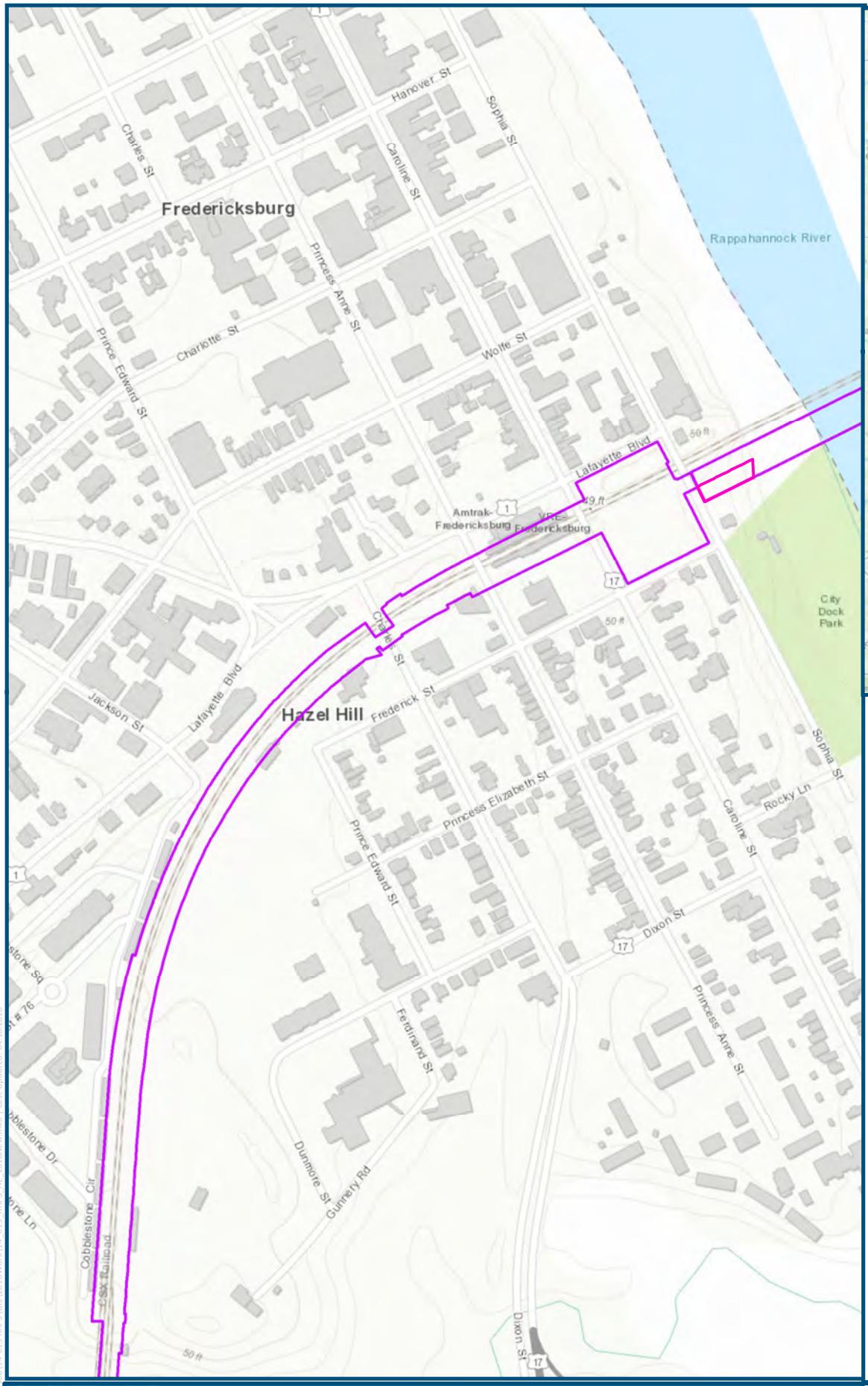

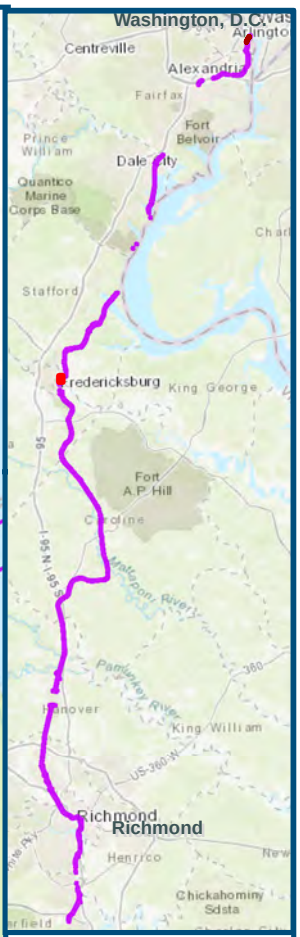

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Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Topo

Legend

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Overview of Archaeological Area 3b (Map 1 of 1)

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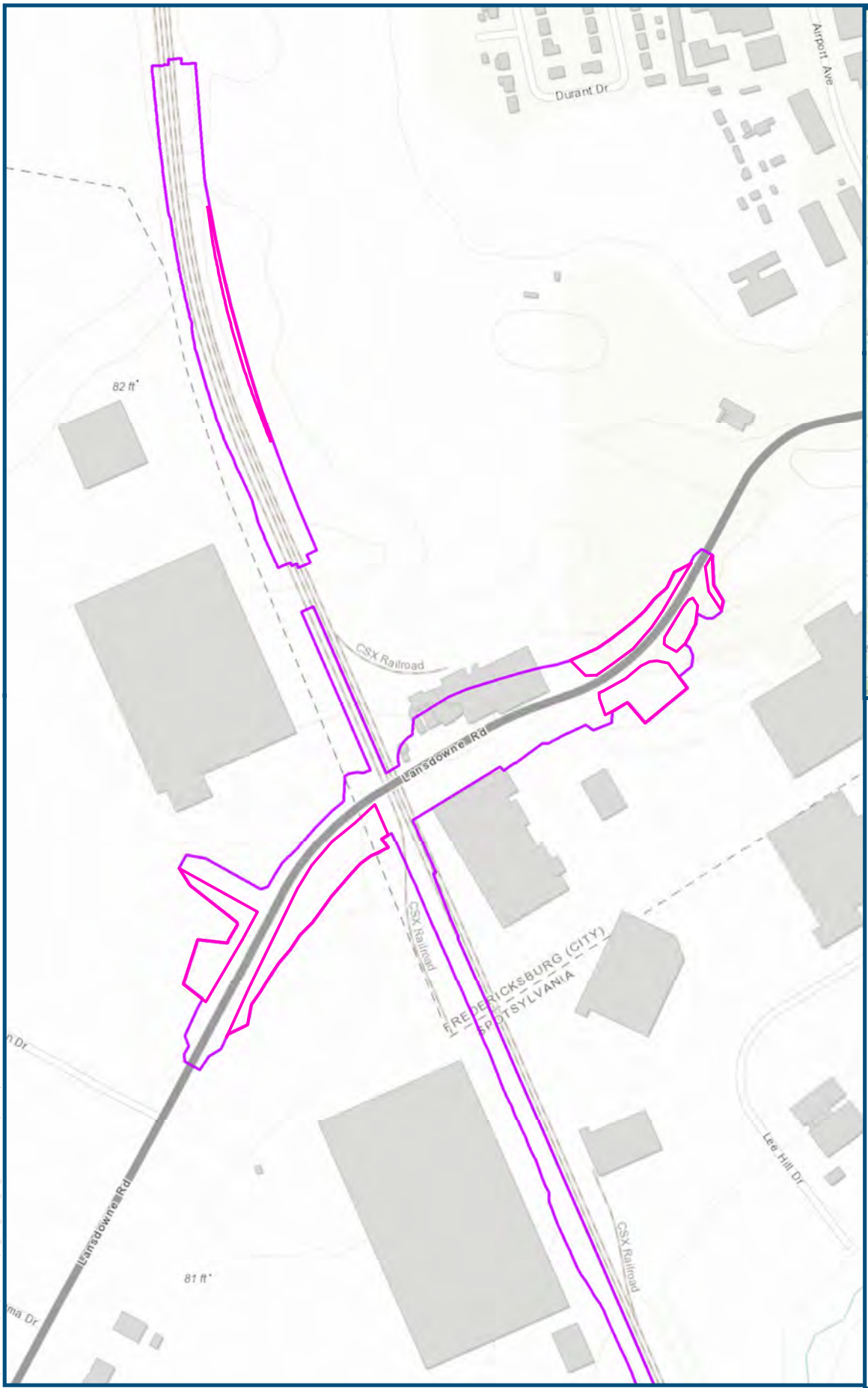

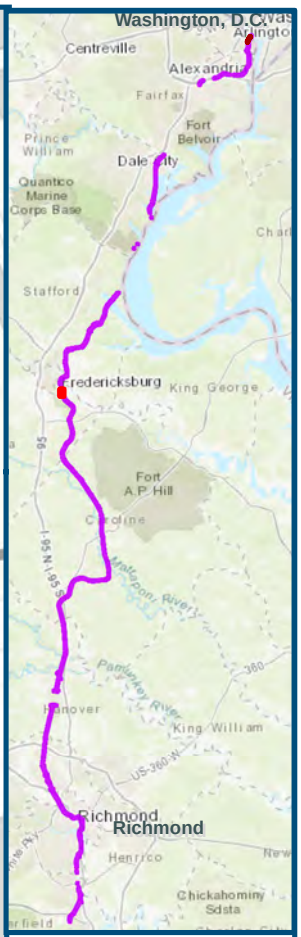

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Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Topo

Legend

- Phase IB Survey
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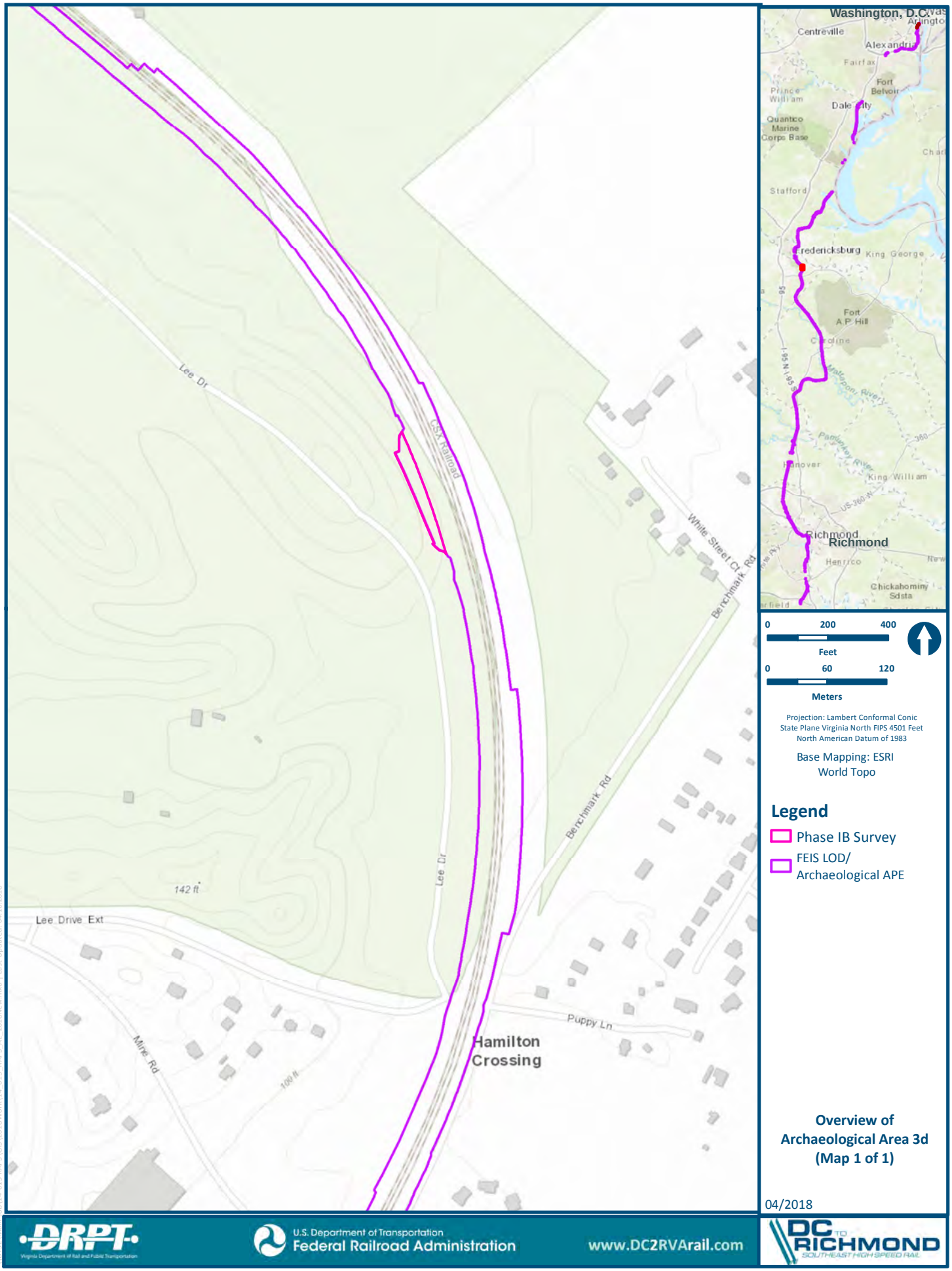
Overview of Archaeological Area 3c (Map 1 of 1)

04/2018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CSX Railroad
White Steel Ct
Benchmark Rd
Benchmark Rd
Lee Dr
142 ft
Lee Drive Ext
Puppy Ln
Mine Rd
100 ft
Hamilton Crossing
Washington, D.C.
Centreville
Alexandria
Fairfax
Fort Belvoir
Prince William
Dale City
Quantico Marine Corps Base
Stafford
Fredericksburg
King George
Fort A.P. Hill
Caroline
Hanover
King William
Richmond
Richmond
Henrico
Chickahominy
0 200 400
Feet
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Meters
Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983
Base Mapping: ESRI
World Topo
Legend
Phase IB Survey
FEIS LOD/
Archaeological APE
Overview of
Archaeological Area 3d
(Map 1 of 1)
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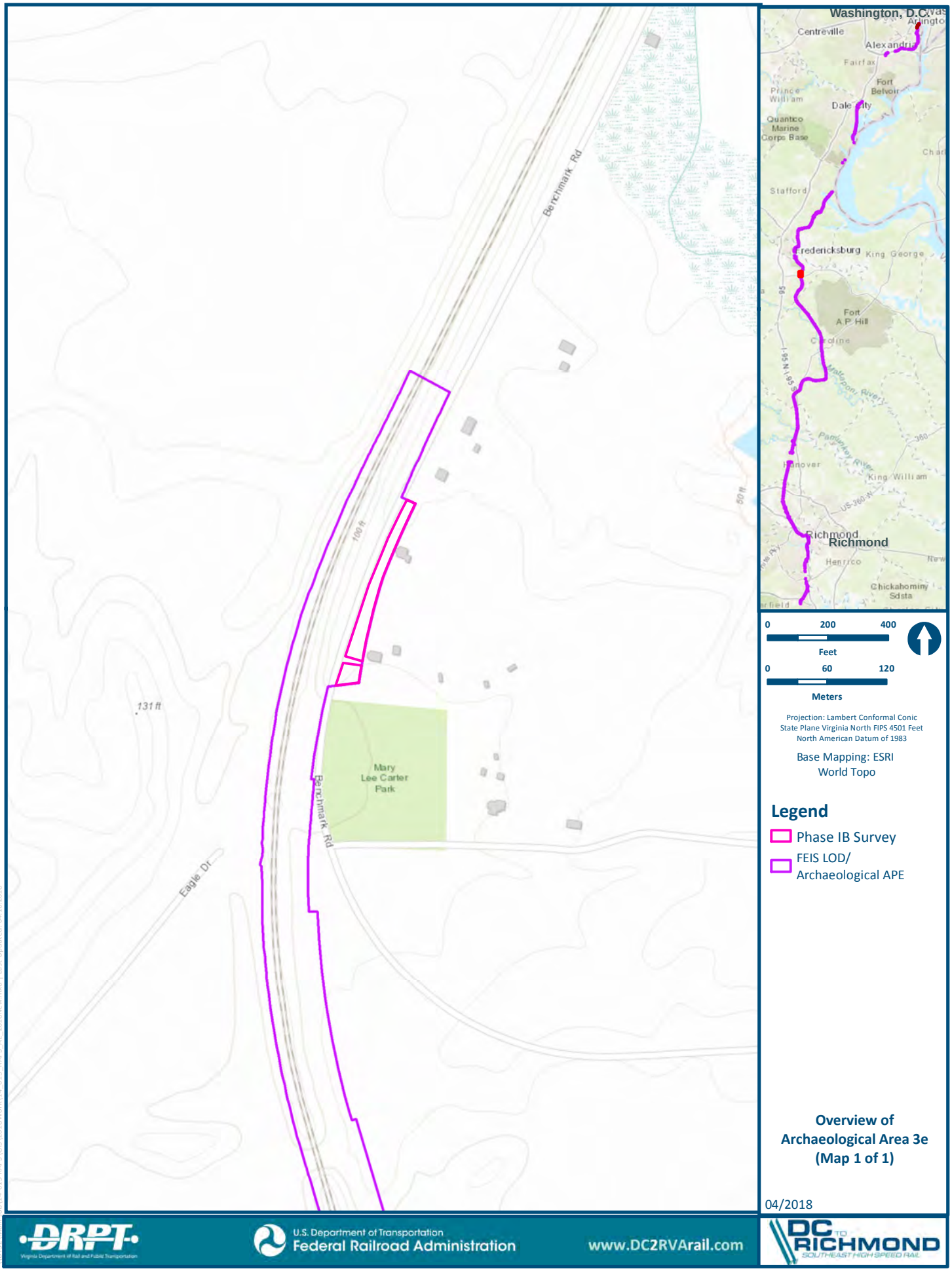

Overview of Archaeological Area 3e (Map 1 of 1)

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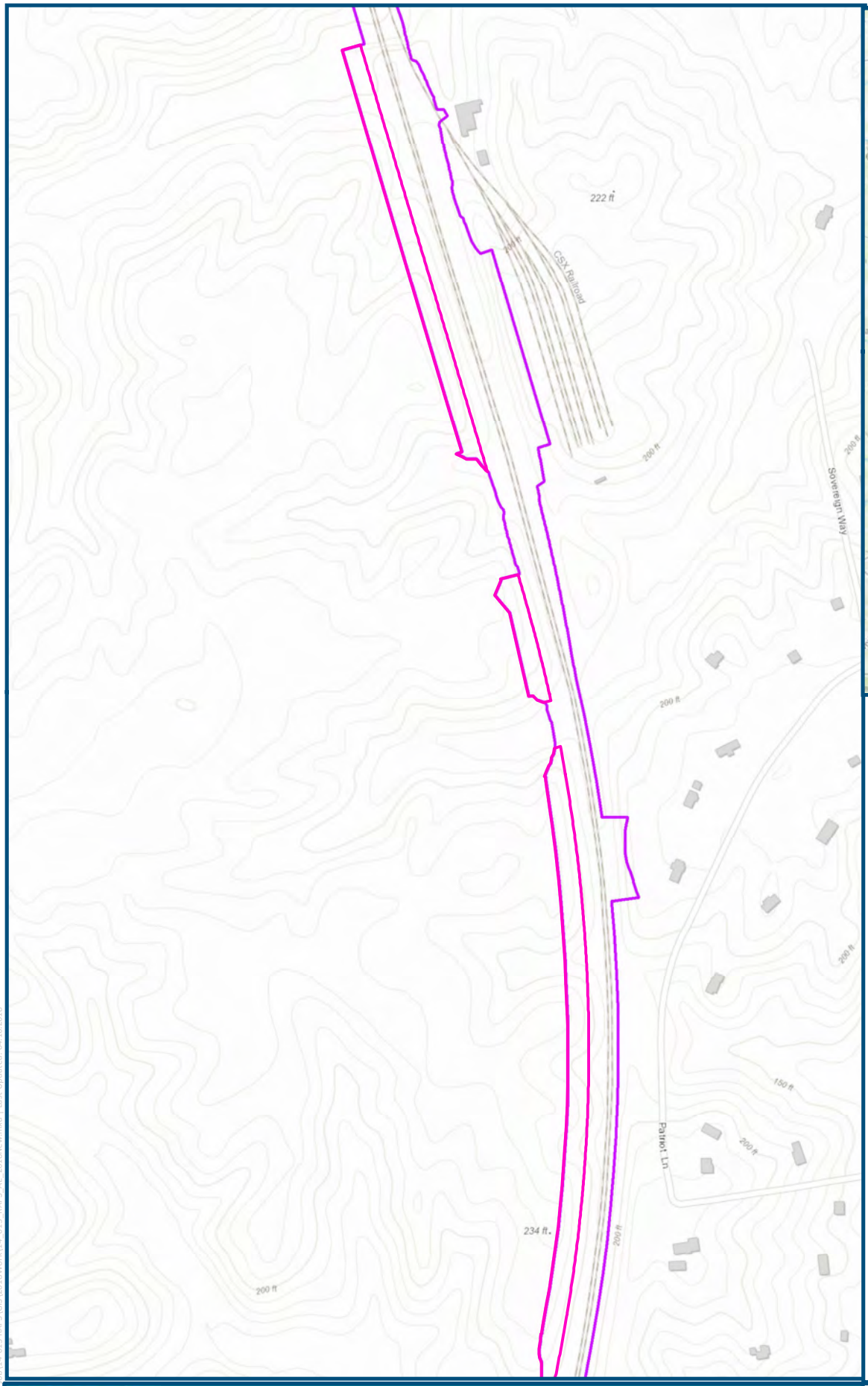

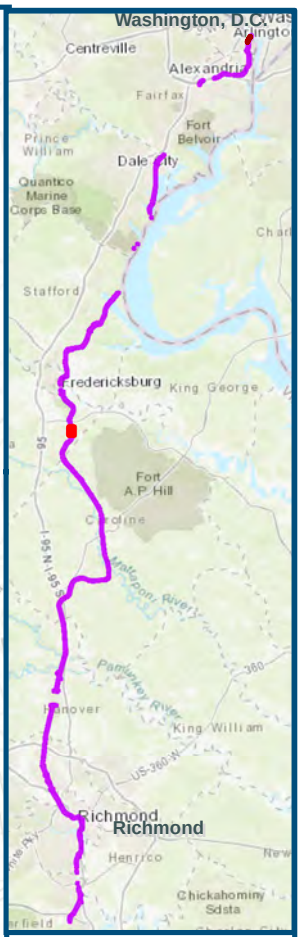

0 200 400
Feet

0 100 200
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Topo

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE

Overview of Archaeological Area 3f (Map 1 of 5)

04/2018

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DC TO RICHMOND SOUTHEAST HIGH SPEED RAIL

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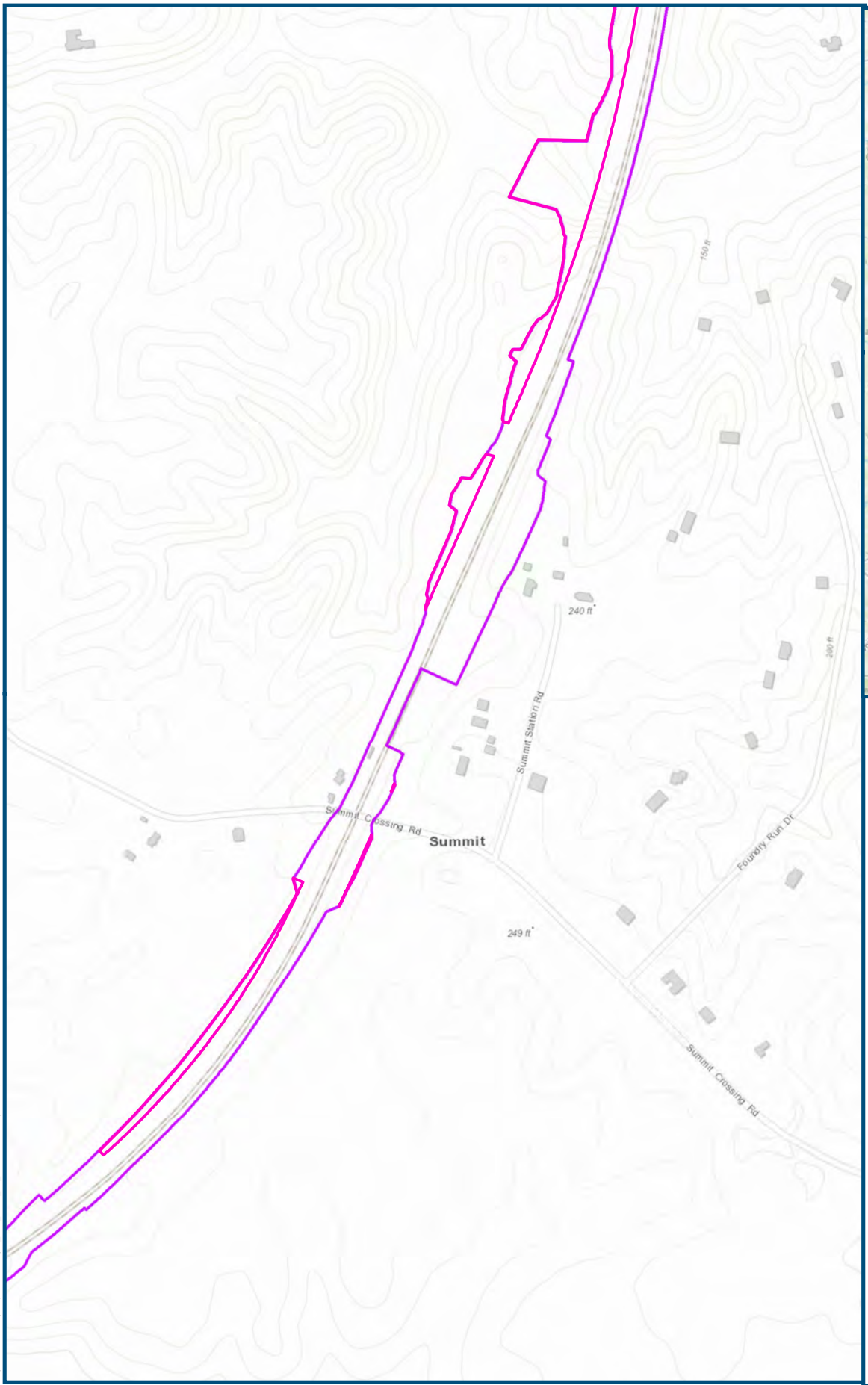

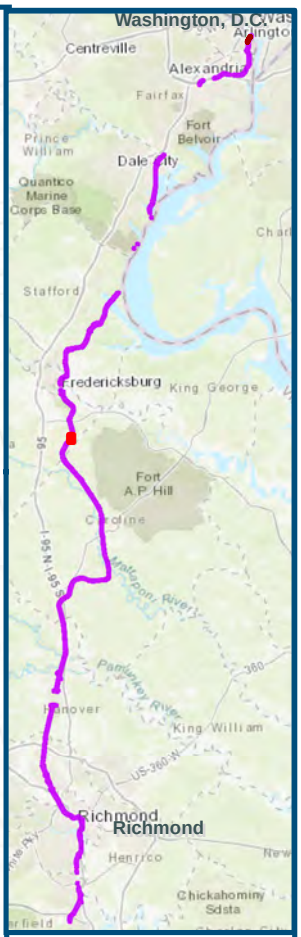

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Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Topo

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE

Overview of Archaeological Area 3f (Map 2 of 5)

04/2018

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DC TO RICHMOND SOUTHEAST HIGH SPEED RAIL

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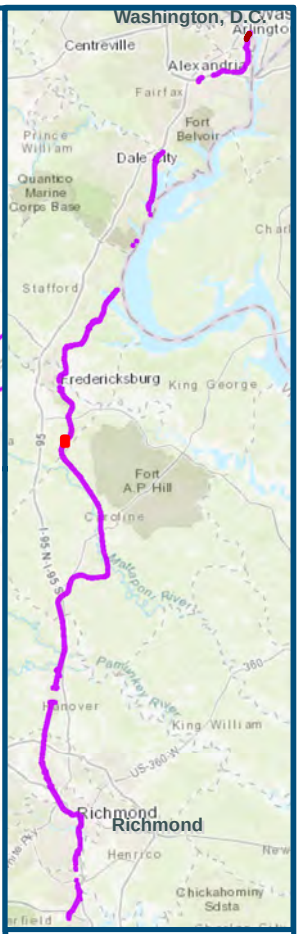

0 200 400

Feet

0 100 200

Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Topo

Legend

- Phase IB Survey
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Overview of Archaeological Area 3f (Map 3 of 5)

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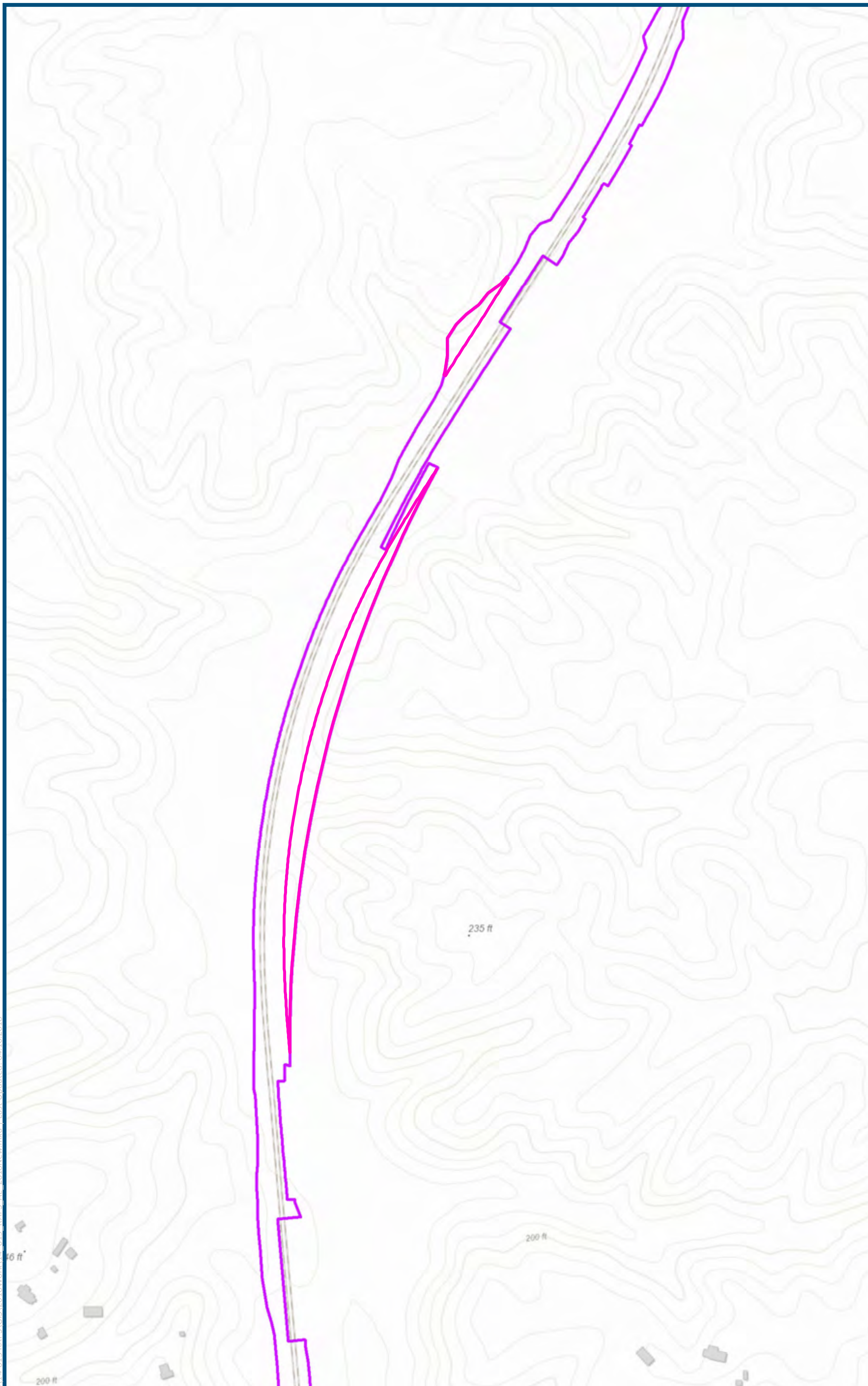
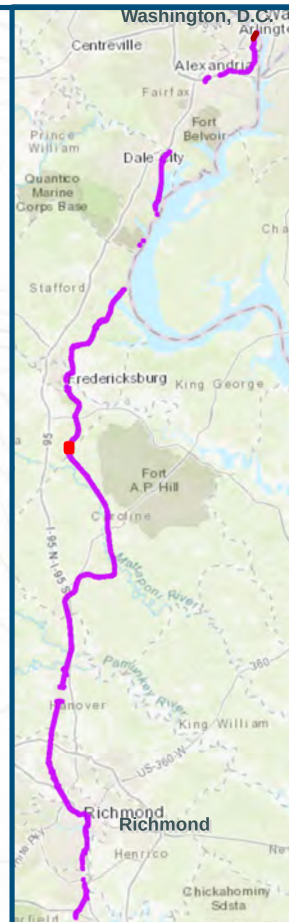




0 200 400
Feet
0 100 200
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

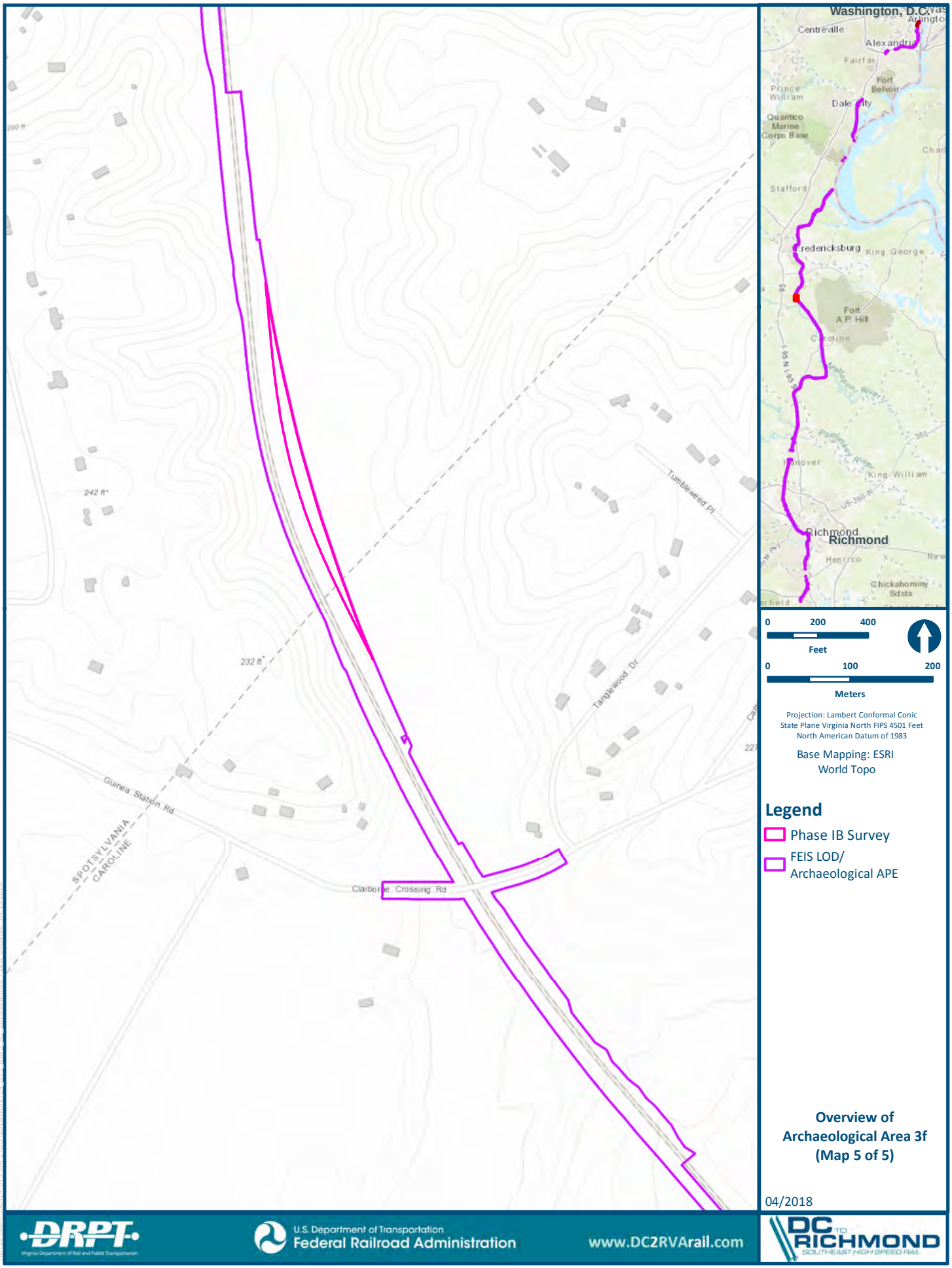
Base Mapping: ESRI
World Topo

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE

Overview of Archaeological Area 3f (Map 4 of 5)

04/2018



Overview of Archaeological Area 3f (Map 5 of 5)

04/2018

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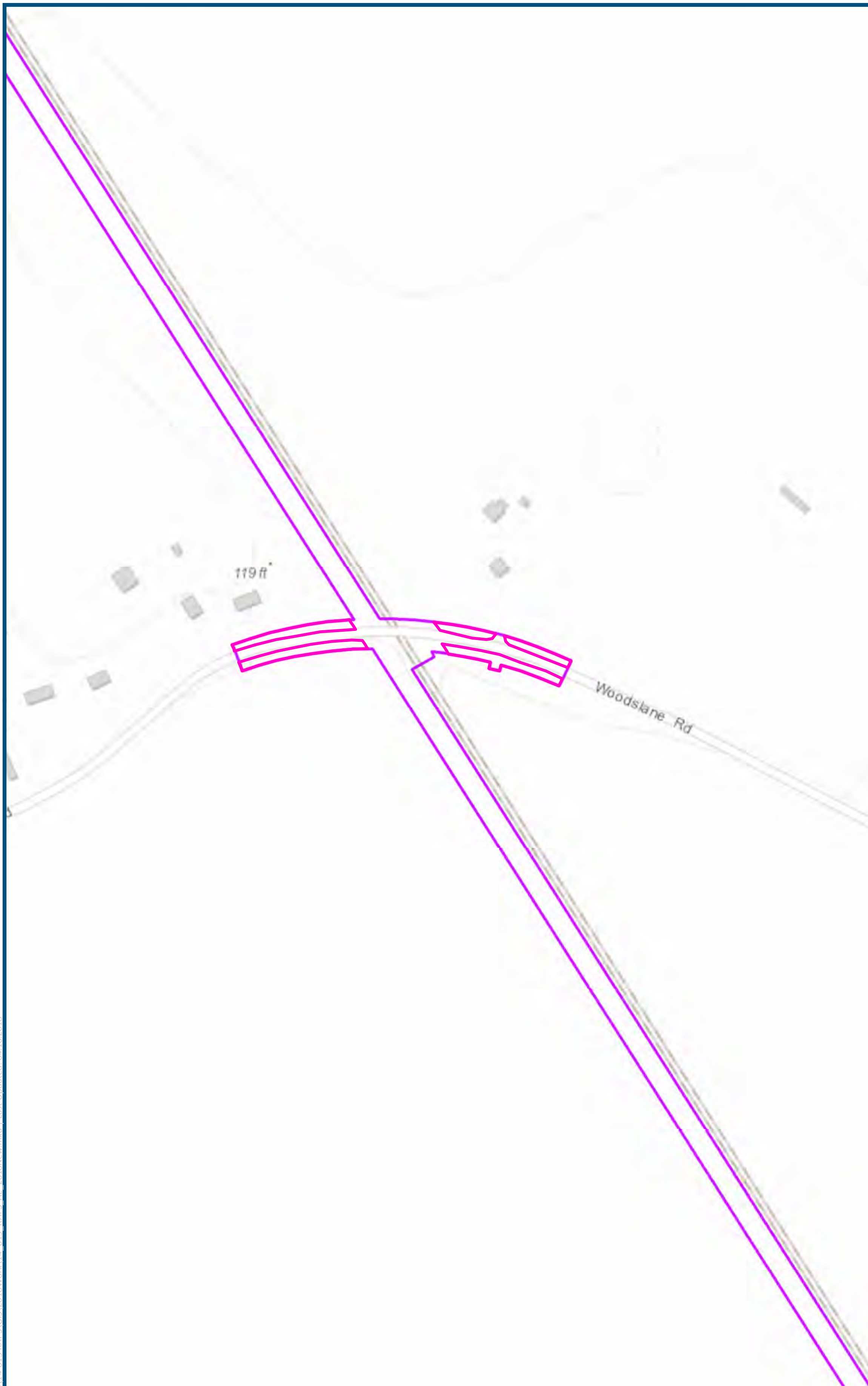
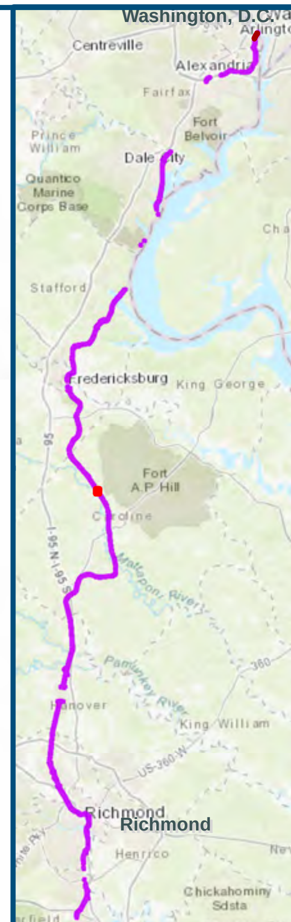
SOUTHEAST HIGH SPEED RAIL





0 150 300

Feet

0 50 100

Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Topo

Legend

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Overview of Archaeological Area 4b (Map 1 of 2)

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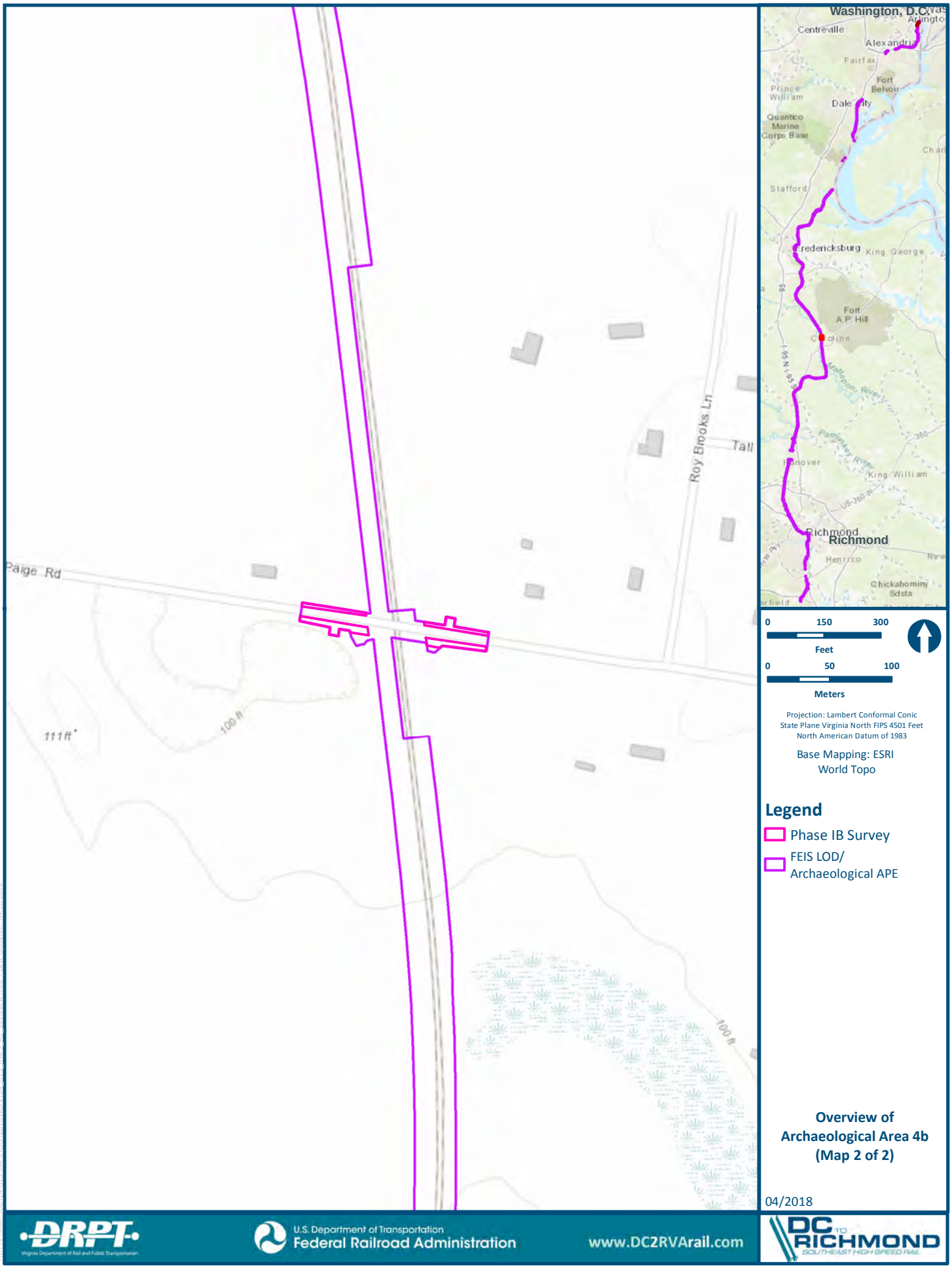
Paige Rd
Roy Brooks Ln
Tall
111ft
100 ft
100 ft
Washington, D.C.
Centreville
Alexandria
Fairfax
Fort Belvoir
Prince William
Dale City
Quantico Marine Corps Base
Stafford
Fredericksburg
King George
Fort A.P. Hill
Hanover
King William
Richmond
Henrico
Chickahominy
0 150 300
Feet
0 50 100
Meters
Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983
Base Mapping: ESRI
World Topo
Legend
Phase IB Survey
FEIS LOD/
Archaeological APE
Overview of
Archaeological Area 4b
(Map 2 of 2)
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SOUTHEAST HIGH SPEED RAIL

0 150 300
Feet
0 50 100
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Topo

Legend

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Overview of Archaeological Area 4c (Map 1 of 2)

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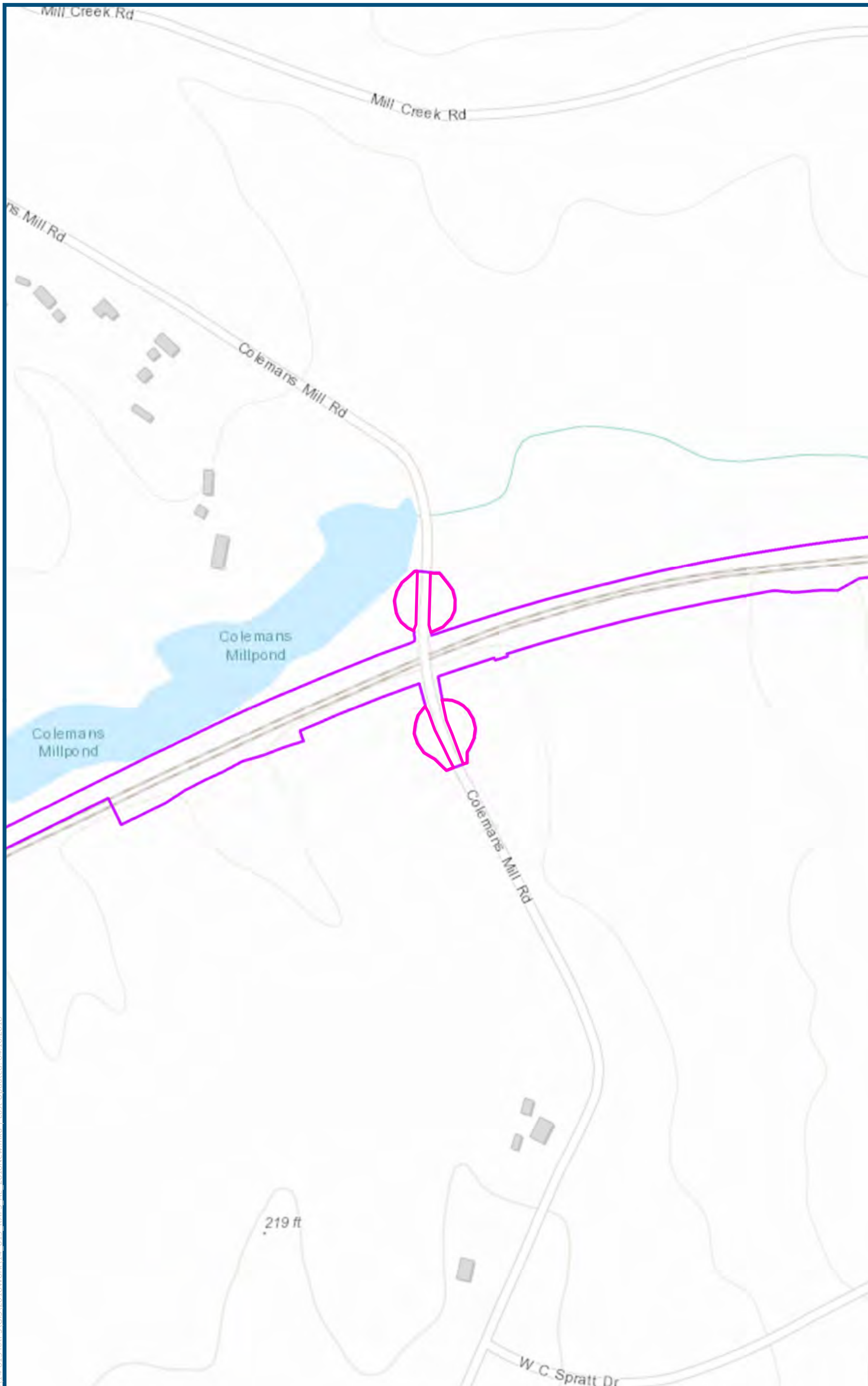

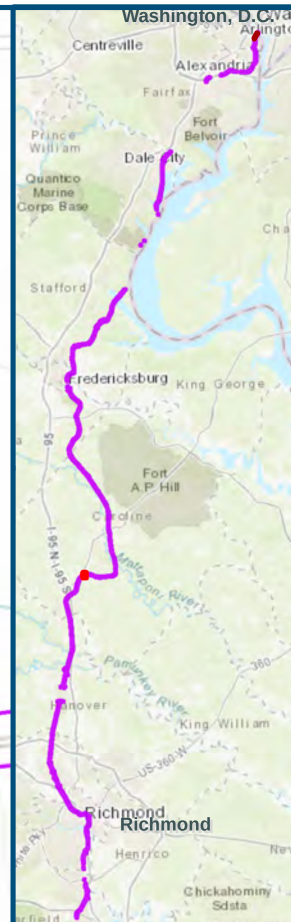

0 150 300
Feet
0 50 100
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI World Topo

Legend

- Phase IB Survey
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Overview of Archaeological Area 4c (Map 2 of 2)

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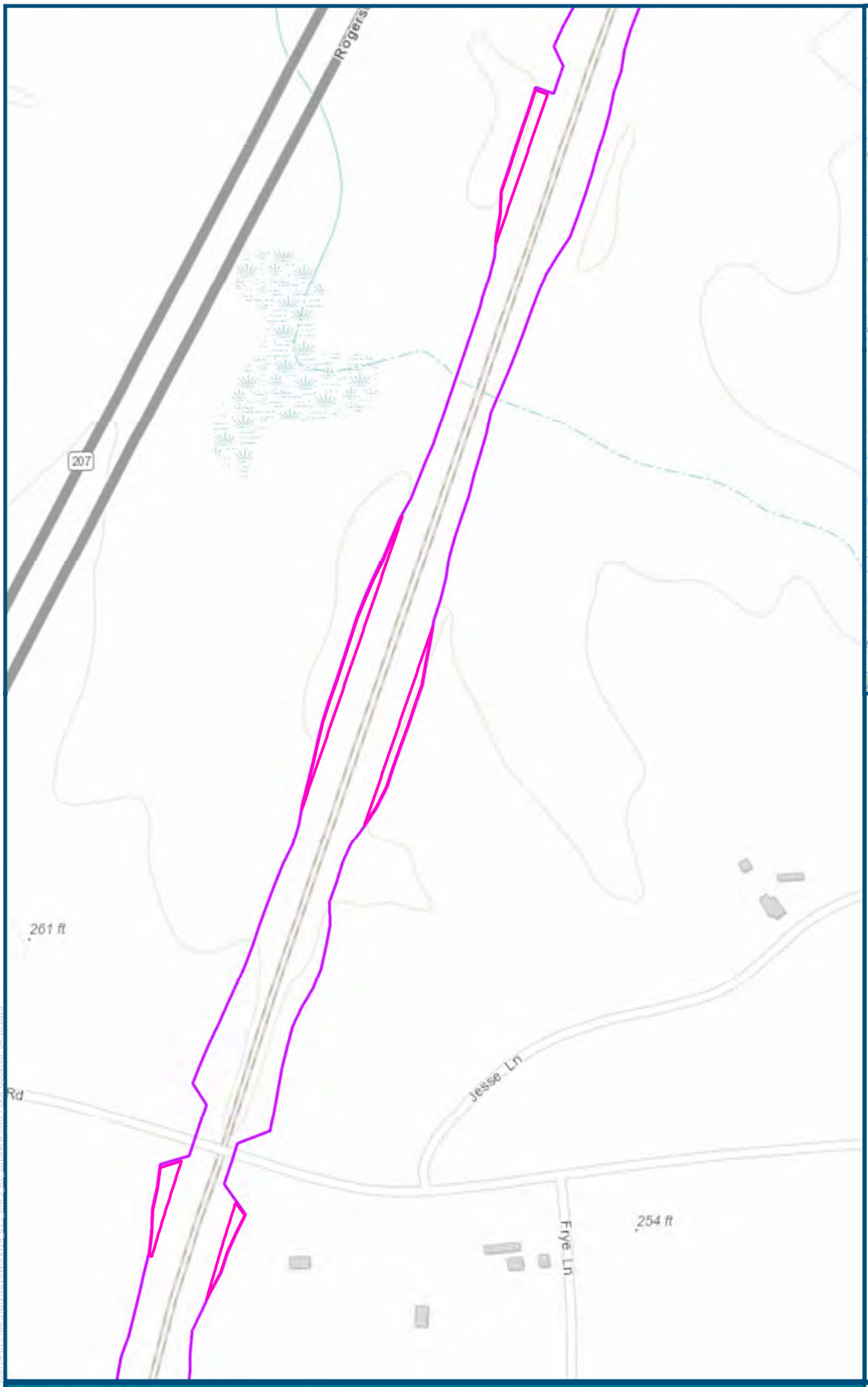

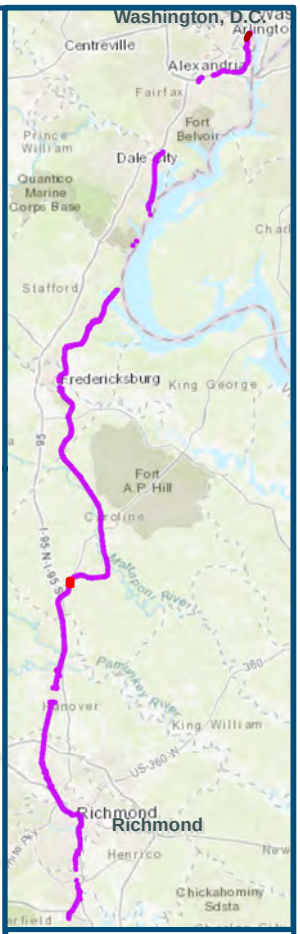

0 150 300
Feet
0 50 100
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Topo

Legend

- Phase IB Survey
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Overview of Archaeological Area 4d (Map 1 of 1)

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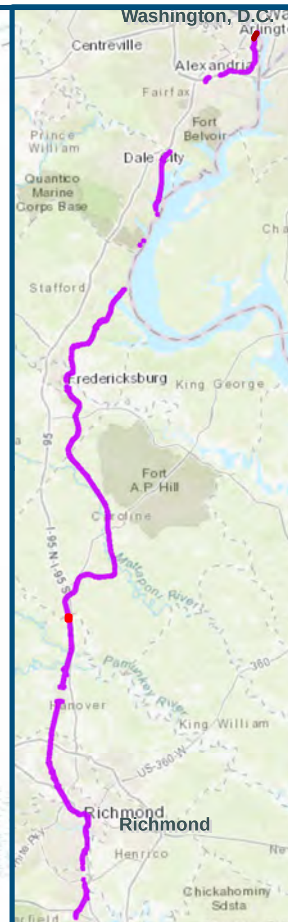


0 100 200
Feet

0 50 100
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

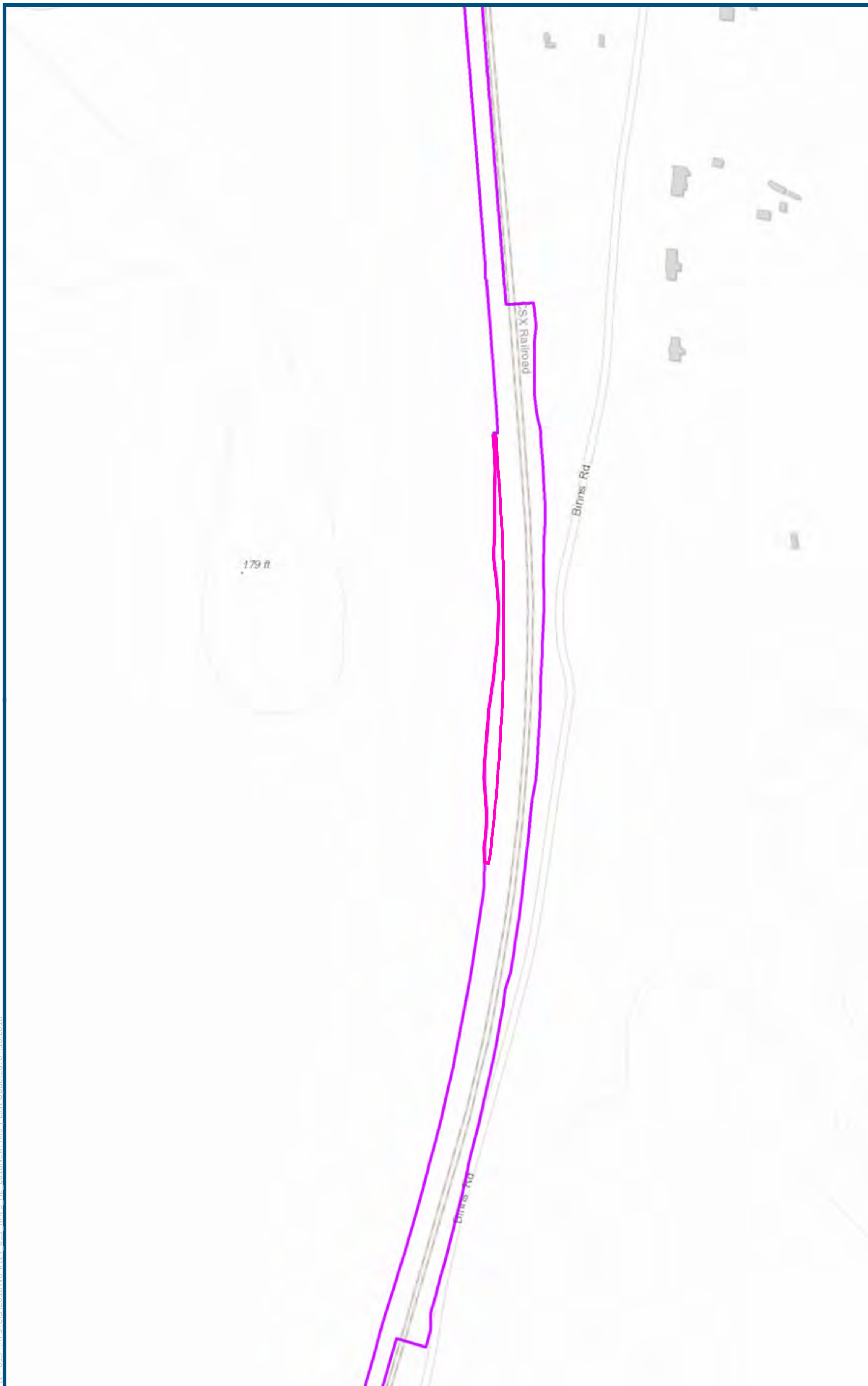
Base Mapping: ESRI
World Topo

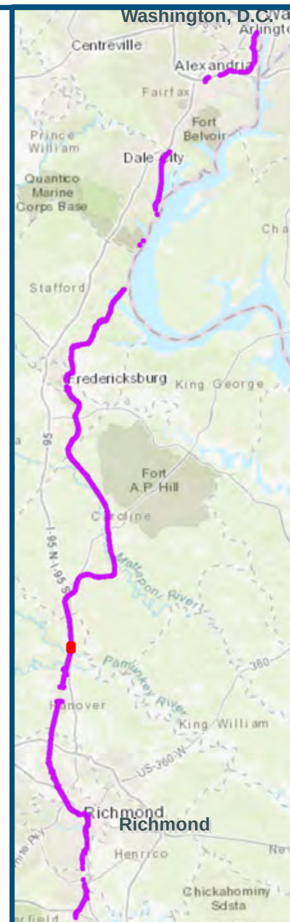
Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE

Overview of Archaeological Area 4e (Map 1 of 1)

04/2018





0 200 400
Feet

0 50 100
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Topo

Legend

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Overview of Archaeological Area 4f (Map 1 of 2)

04/2018

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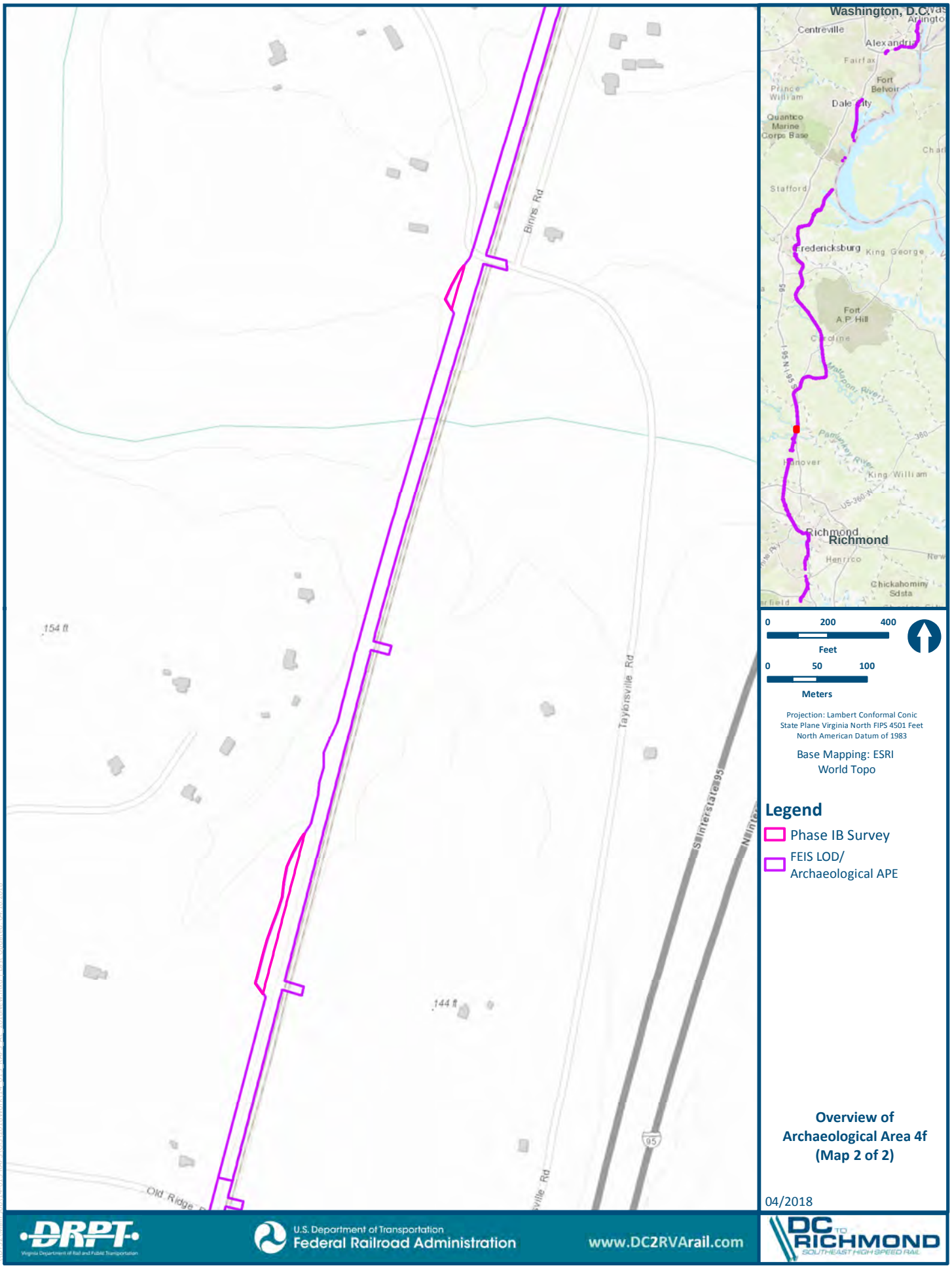
Washington, D.C.
Centreville
Alexandria
Fairfax
Fort Belvoir
Prince William
Dale City
Quantico Marine Corps Base
Stafford
Fredericksburg
King George
Fort A.P. Hill
Caroline
Hanover
King William
Richmond
Henrico
Chickahominy
Binns Rd
Taylorsville Rd
Interstate 95
154 ft
144 ft
Old Ridge
0
200
400
Feet
0
50
100
Meters
Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983
Base Mapping: ESRI
World Topo
Legend
Phase IB Survey
FEIS LOD/
Archaeological APE
Overview of
Archaeological Area 4f
(Map 2 of 2)
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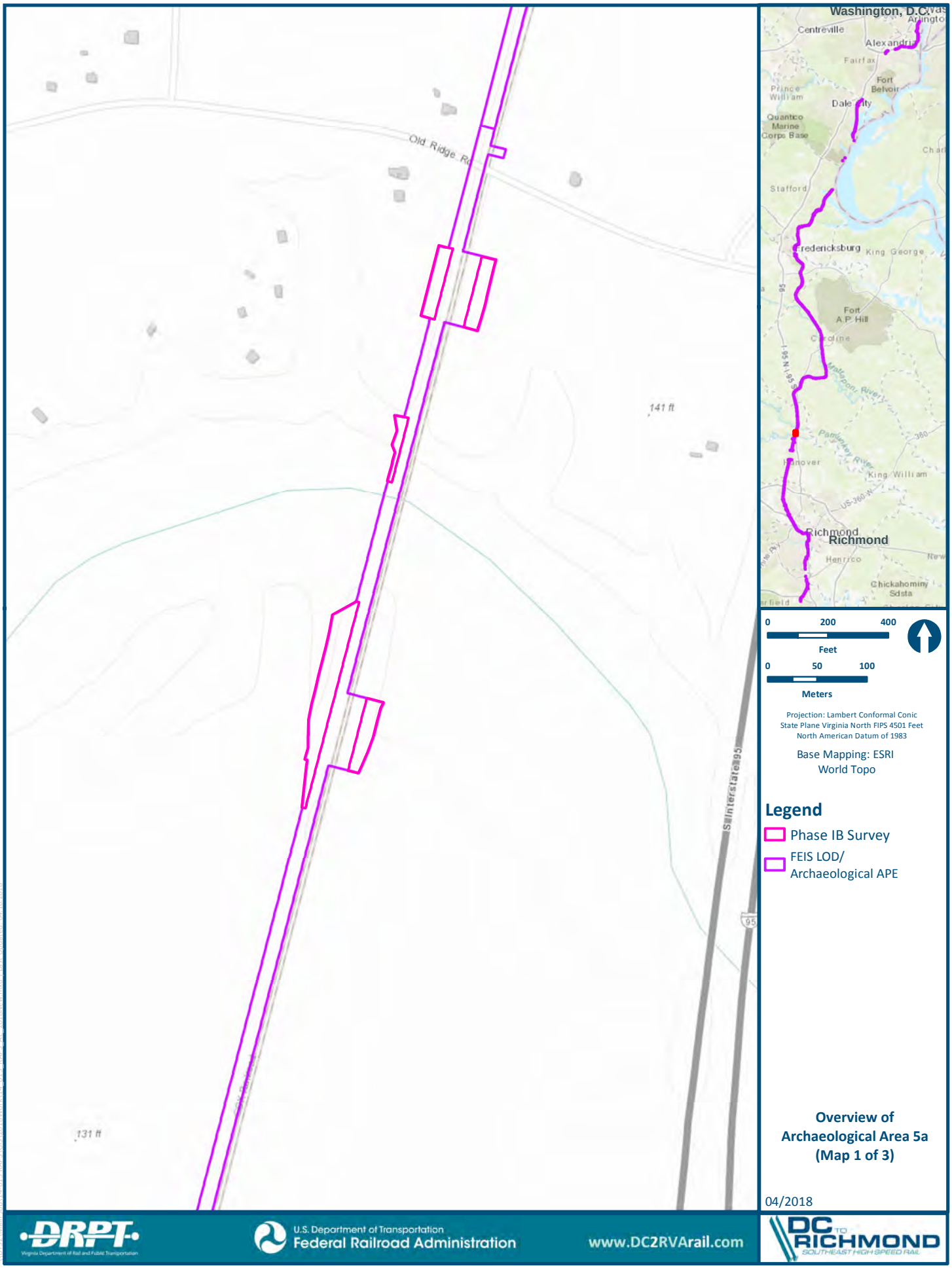
Old Ridge Rd
141 ft
131 ft
Interstate 95
95
Washington, D.C.
Centreville
Alexandria
Fairfax
Fort Belvoir
Prince William
Dale City
Quantico Marine Corps Base
Stafford
Fredericksburg
King George
Fort A.P. Hill
Caroline
Mattaponi River
Pamunkey River
Hanover
King William
US-360
Richmond
Henrico
Chickahominy
Sdsta
0 200 400
Feet
0 50 100
Meters
Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983
Base Mapping: ESRI
World Topo
Legend
Phase IB Survey
FEIS LOD/
Archaeological APE
Overview of
Archaeological Area 5a
(Map 1 of 3)
04/2018
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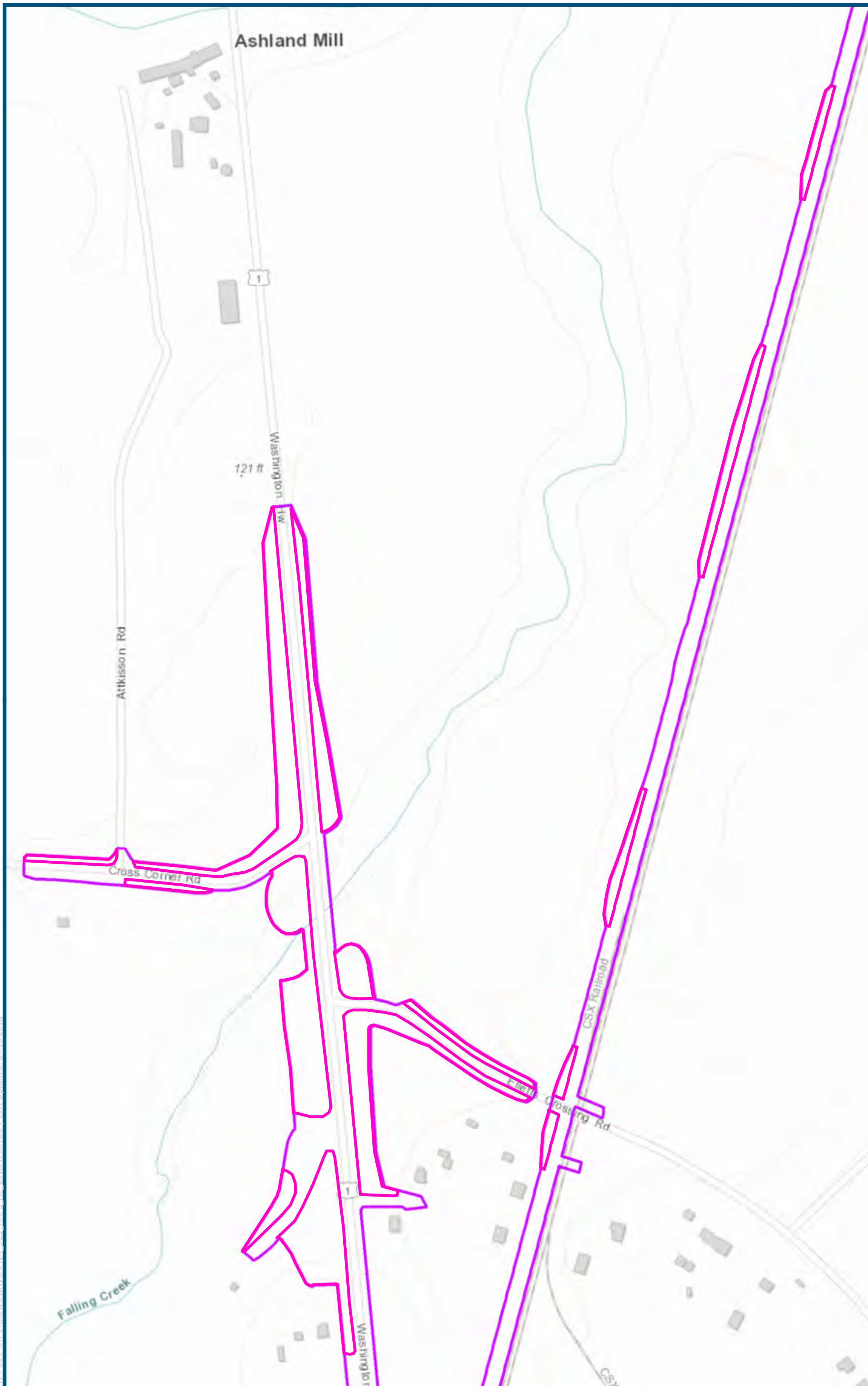
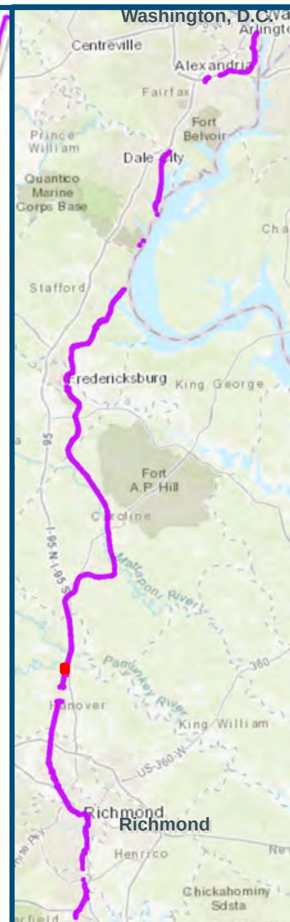




0 200 400
Feet

0 50 100
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

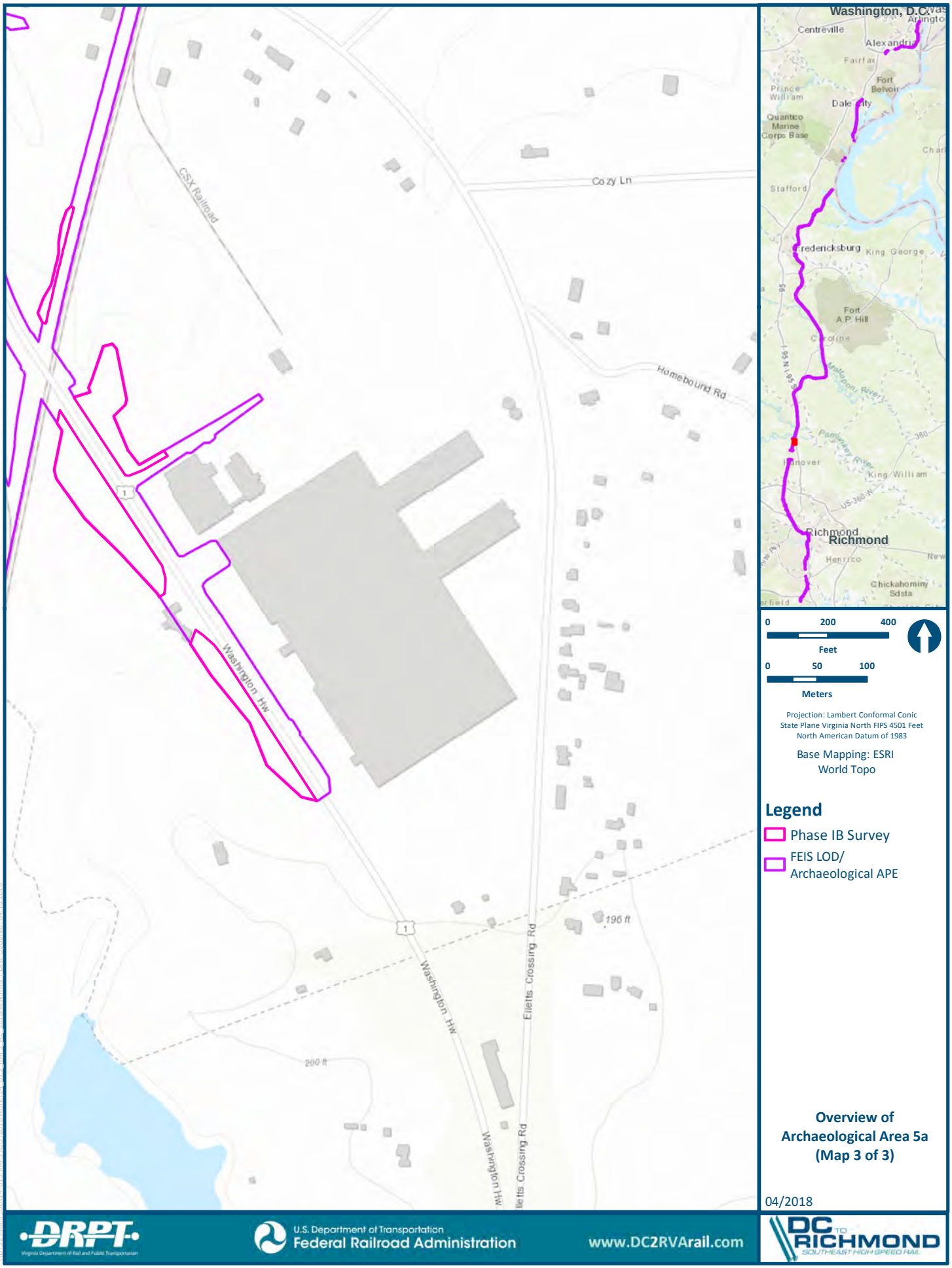
Base Mapping: ESRI World Topo

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE

Overview of Archaeological Area 5a (Map 2 of 3)

04/2018


CSX Railroad
Cozy Ln
Homebound Rd
Washington Hw
Elletts Crossing Rd
196 ft
200 ft
Washington, D.C.
Centreville
Alexandria
Fairfax
Fort Belvoir
Prince William
Dale City
Quantico Marine Corps Base
Stafford
Fredericksburg
King George
Fort A.P. Hill
Caroline
Hanover
King William
Richmond
Henrico
Chickahominy
0 200 400
Feet
0 50 100
Meters
Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983
Base Mapping: ESRI
World Topo
Legend
Phase IB Survey
FEIS LOD/
Archaeological APE
Overview of
Archaeological Area 5a
(Map 3 of 3)
04/2018
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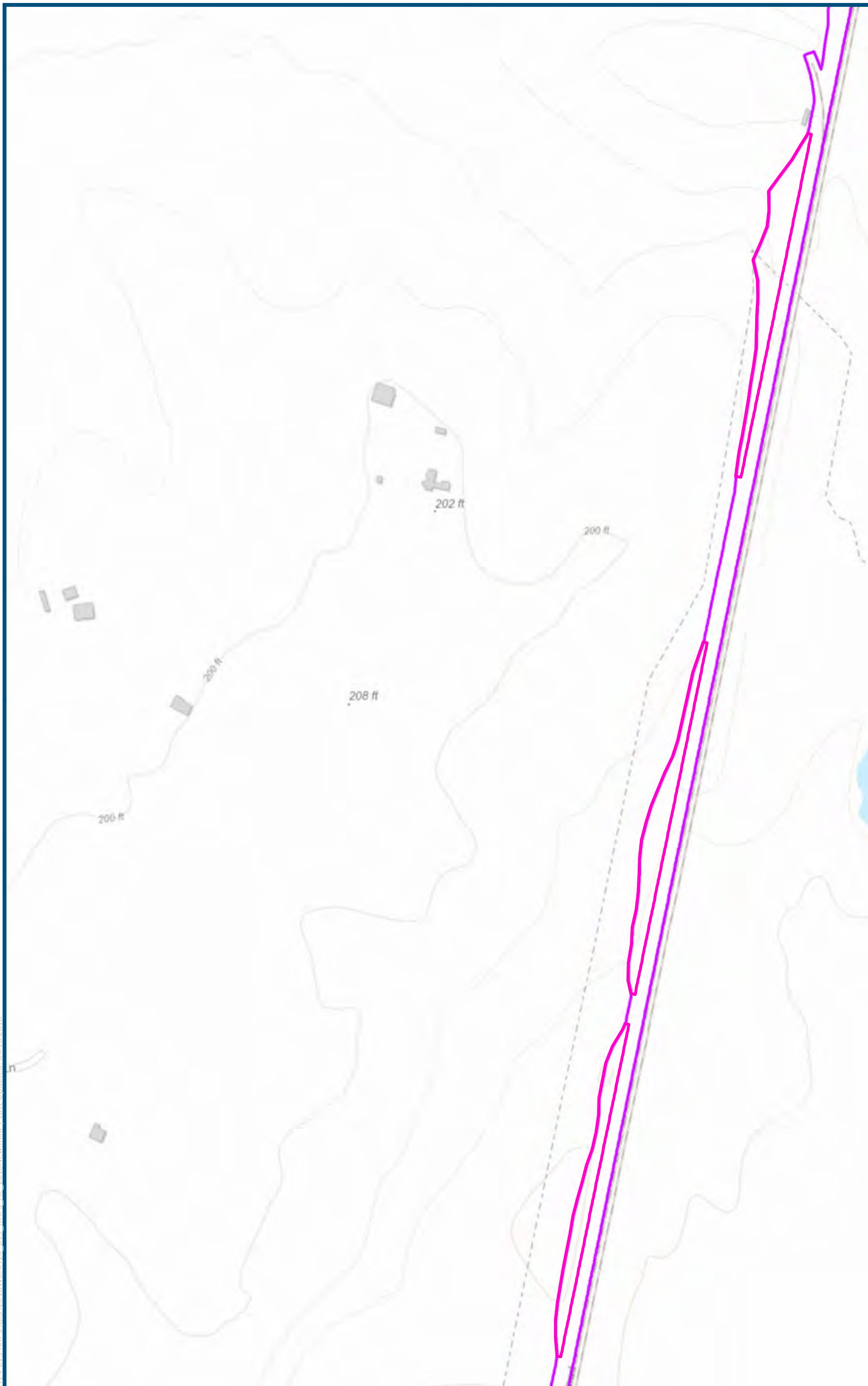
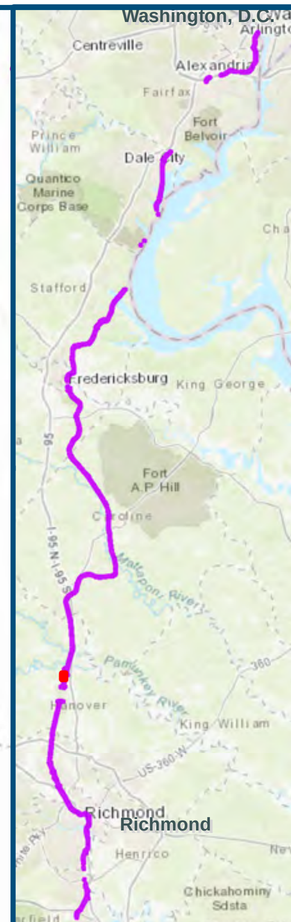
DC TO RICHMOND
SOUTHEAST HIGH SPEED RAIL





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Feet

0 50 100
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

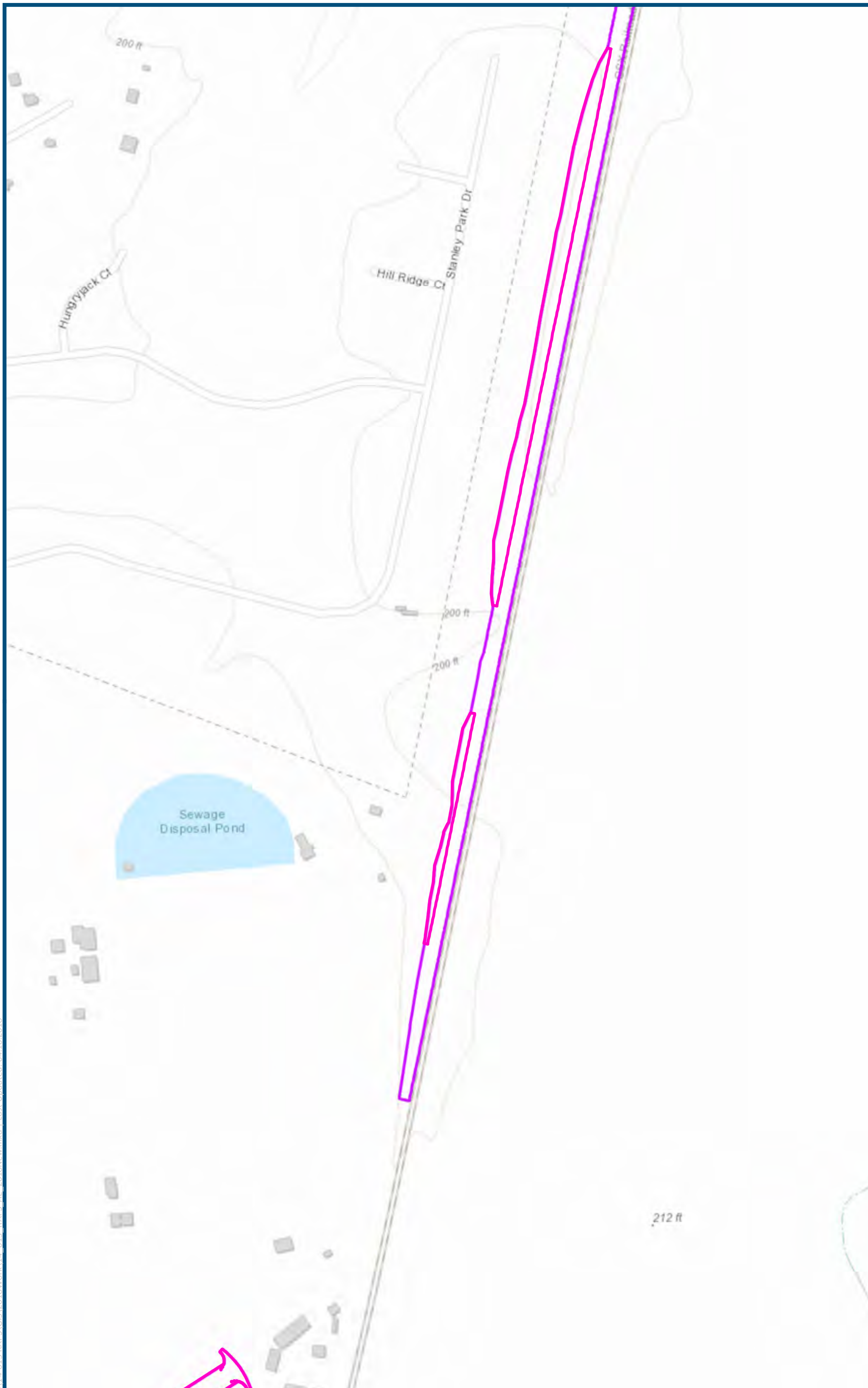
Base Mapping: ESRI
World Topo

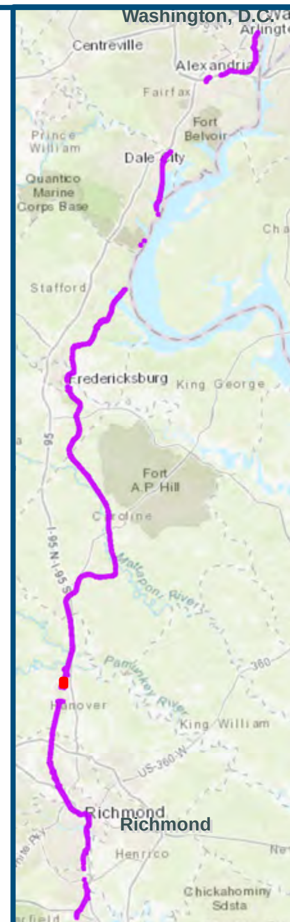
Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE

Overview of Archaeological Area 5b (Map 1 of 4)

04/2018





0 200 400
Feet
0 50 100
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Topo

Legend

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Overview of Archaeological Area 5b (Map 2 of 4)

04/2018

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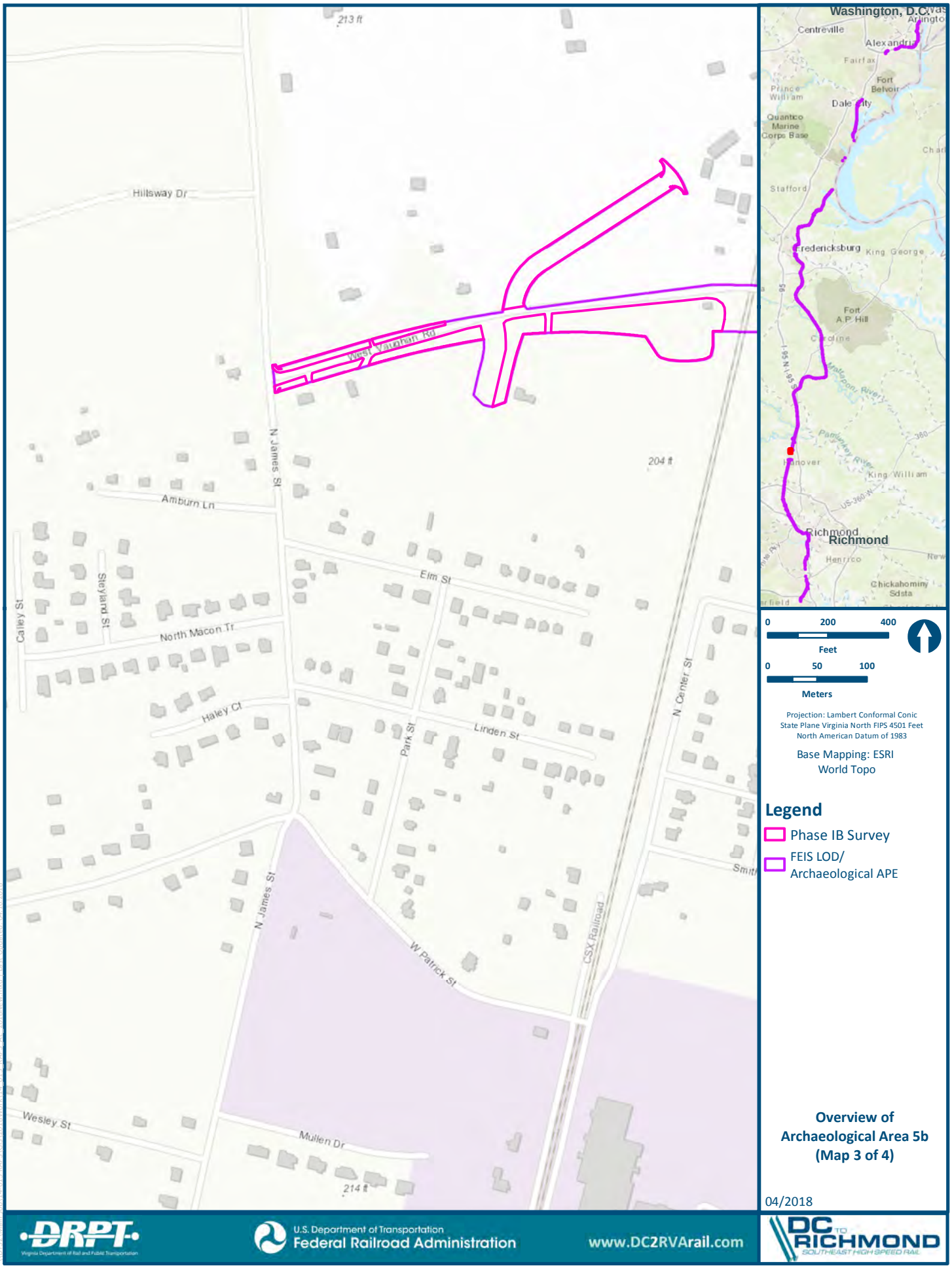
213 ft
Hillsway Dr
West Vaughan Rd
N James St
204 ft
Amburn Ln
Caley St
Steyland St
North Macon Tr
Haley Ct
Elm St
Park St
Linden St
N Center St
N James St
W Patrick St
CSX Railroad
Wesley St
Mullen Dr
214 ft
Washington, D.C.
Centreville
Alexandria
Fairfax
Fort Belvoir
Prince William
Dale City
Quantico Marine Corps Base
Stafford
Fredericksburg
King George
Fort A.P. Hill
Caroline
Hanover
King William
Richmond
Henrico
Chickahominy
0 200 400
Feet
0 50 100
Meters
Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983
Base Mapping: ESRI
World Topo
Legend
Phase IB Survey
FEIS LOD/
Archaeological APE
Overview of
Archaeological Area 5b
(Map 3 of 4)
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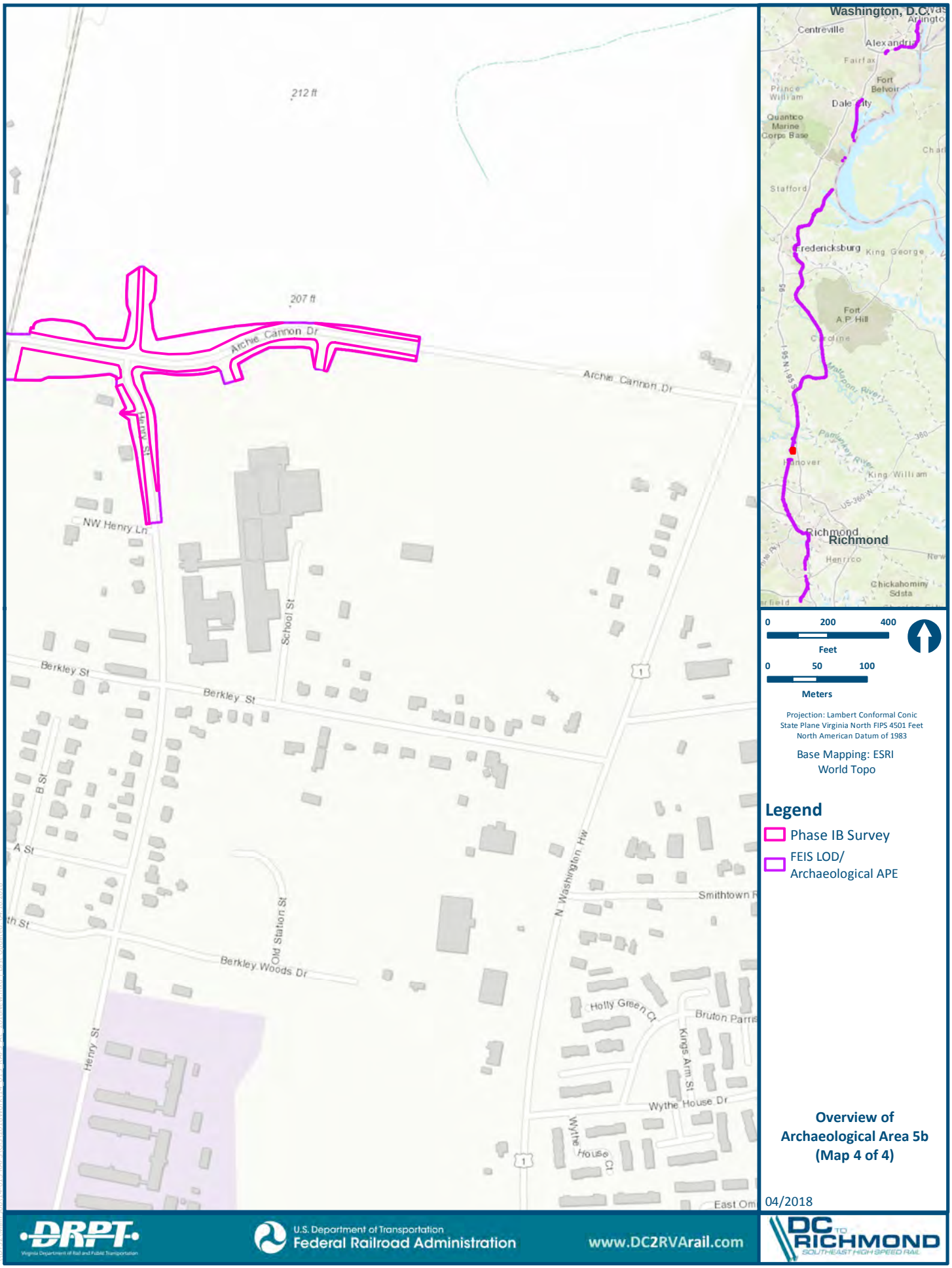
212 ft
207 ft
Archie Cannon Dr
Archie Cannon Dr
Henry St
NW Henry Ln
School St
Berkley St
Berkley St
B St
A St
Old Station St
Berkley Woods Dr
Henry St
N Washington Hw
Smithtown R
Holly Green Ct
Bruton Parris
Kings Arm St
Wythe House Dr
Wythe House Ct
East Om
Washington, D.C.
Centreville
Alexandria
Fairfax
Fort Belvoir
Prince William
Dale City
Quantico Marine Corps Base
Stafford
Fredericksburg
King George
Fort A.P. Hill
Caroline
Mattaponi River
Pamunkey River
Hanover
King William
Richmond
Richmond
Henrico
Chickahominy
0 200 400
Feet
0 50 100
Meters
Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983
Base Mapping: ESRI
World Topo
Legend
Phase IB Survey
FEIS LOD/
Archaeological APE
Overview of
Archaeological Area 5b
(Map 4 of 4)
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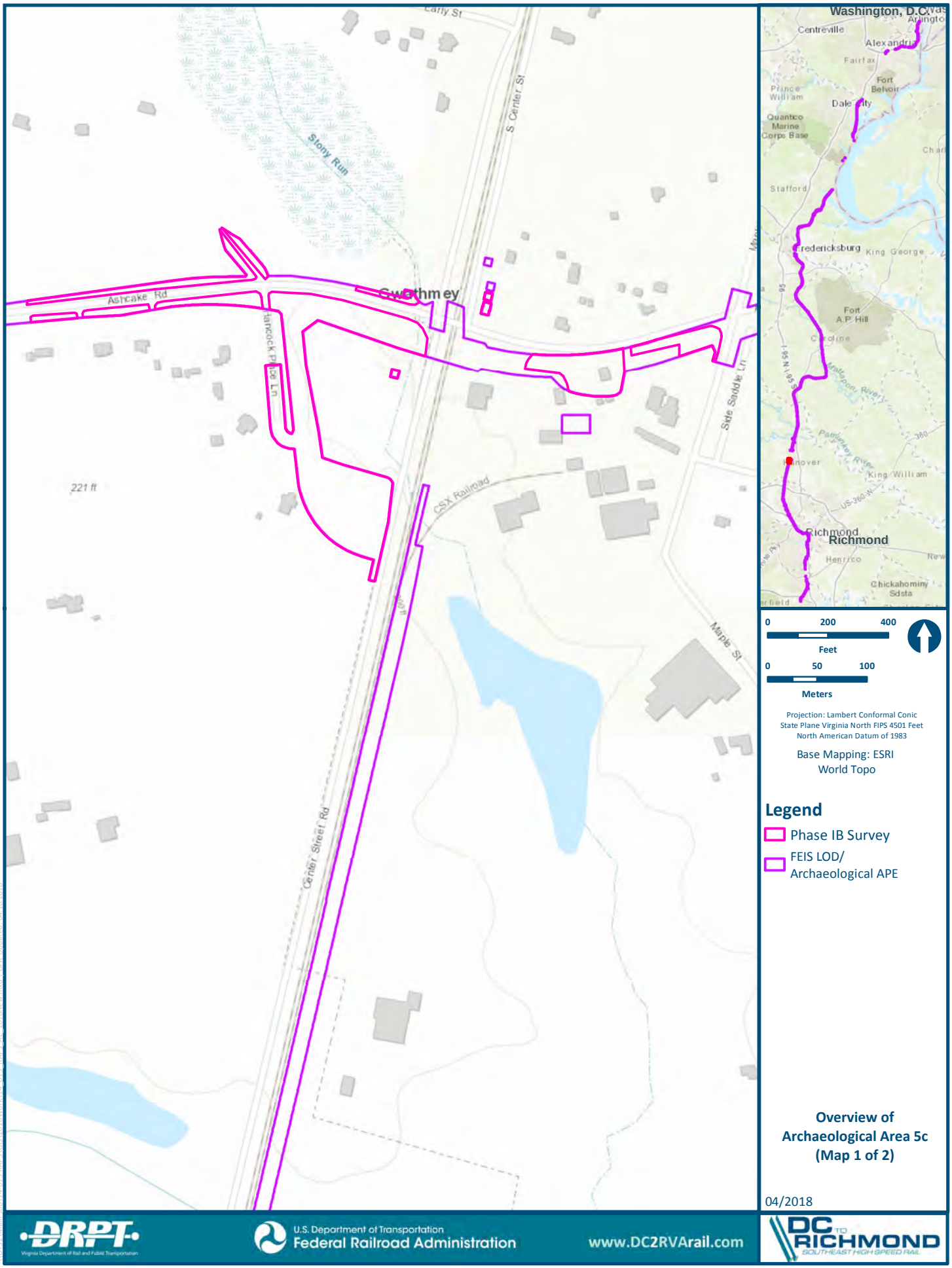
Washington, D.C.
Centreville
Alexandria
Fairfax
Fort Belvoir
Prince William
Dale City
Quantico Marine Corps Base
Stafford
Fredericksburg
King George
Fort A.P. Hill
Caroline
Hanover
King William
Richmond
Henrico
Chickahominy
Ashcake Rd
Hancock Place Ln
Swathmey
S Center St
Stony Run
Side Saddle Ln
CSX Railroad
Center Street Rd
Maple St
221 ft
0 200 400
Feet
0 50 100
Meters
Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983
Base Mapping: ESRI
World Topo
Legend
Phase IB Survey
FEIS LOD/
Archaeological APE
Overview of
Archaeological Area 5c
(Map 1 of 2)
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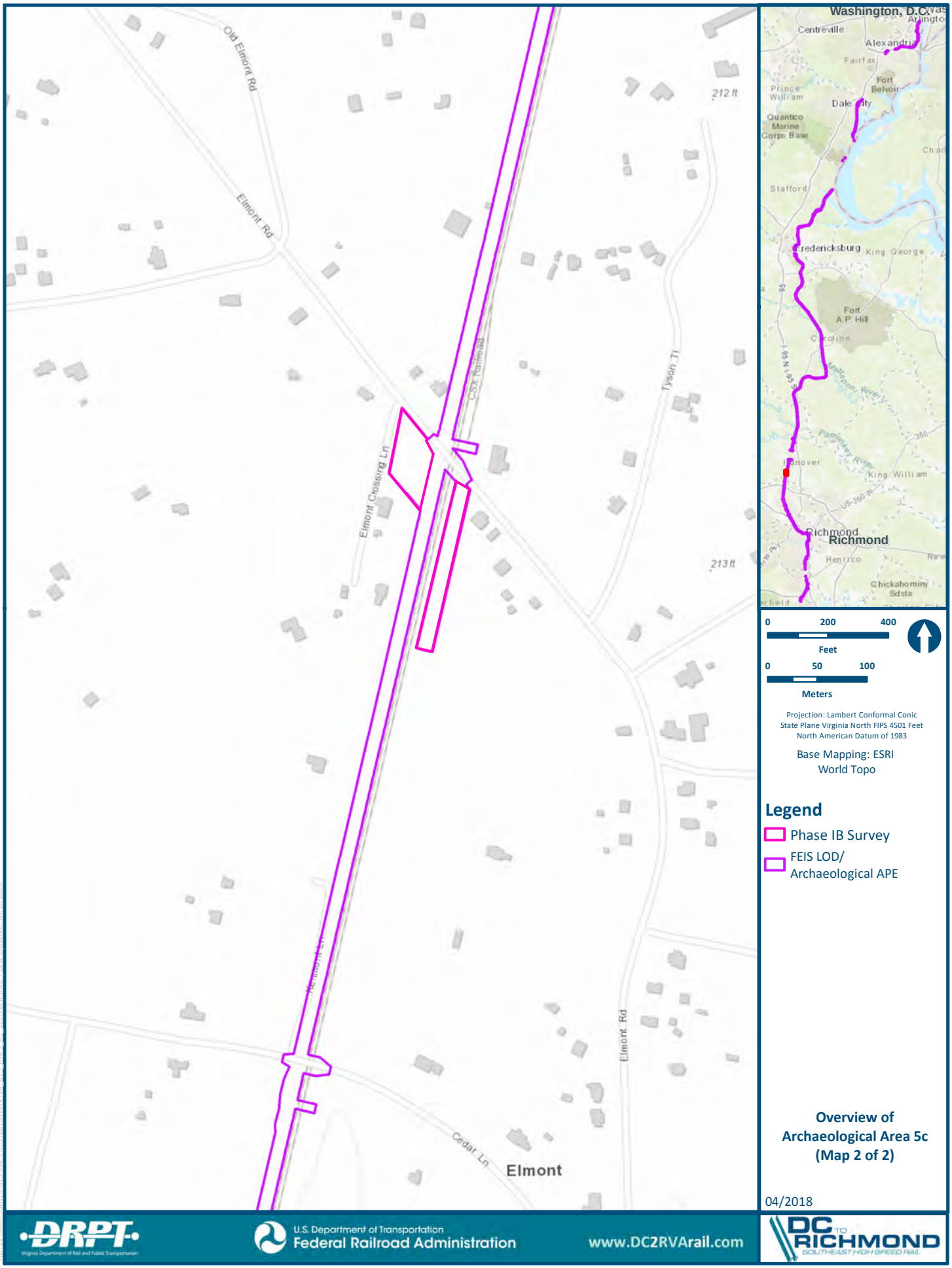
Old Elmont Rd
Elmont Rd
212 ft
CSX Railroad
Tyson Tr
Elmont Crossing Ln
213 ft
Kennon Ln
Elmont Rd
Cedar Ln
Elmont
Washington, D.C.
Centreville
Alexandria
Fairfax
Fort Belvoir
Prince William
Dale City
Quantico Marine Corps Base
Stafford
Fredericksburg
King George
Fort A.P. Hill
Caroline
Mattaponi River
Pamunkey River
Hanover
King William
US-360
Richmond
Henrico
Chickahominy
0 200 400
Feet
0 50 100
Meters
Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983
Base Mapping: ESRI
World Topo
Legend
Phase IB Survey
FEIS LOD/
Archaeological APE
Overview of
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(Map 2 of 2)
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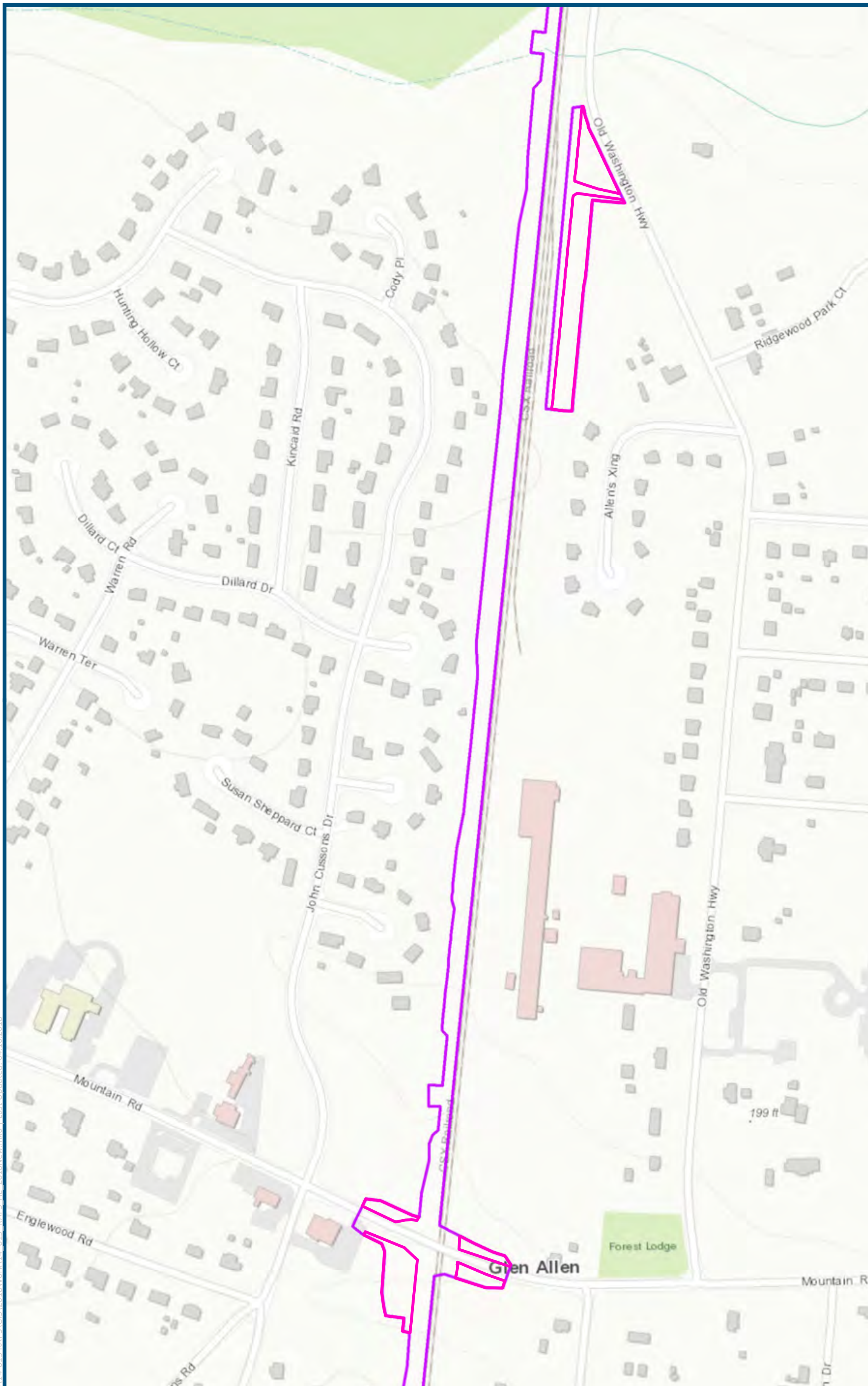

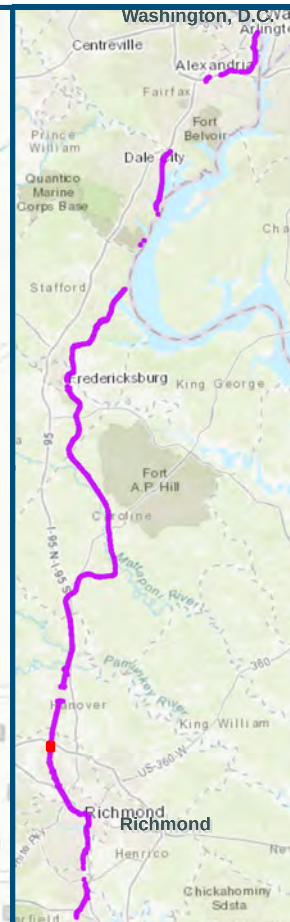

0	200	400

Feet

0	50	100

Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Topo

Legend

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Overview of Archaeological Area 6a (Map 1 of 3)

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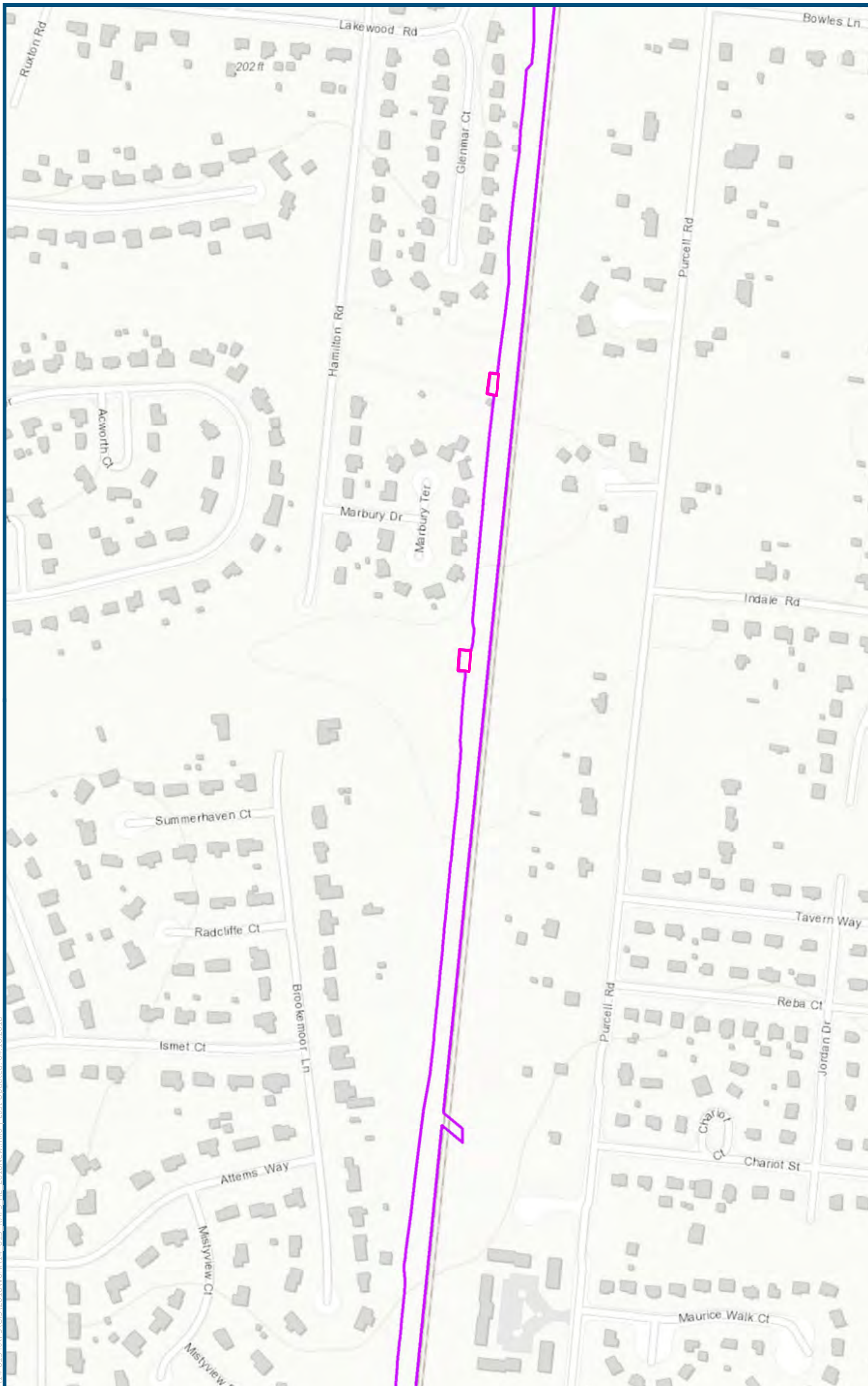

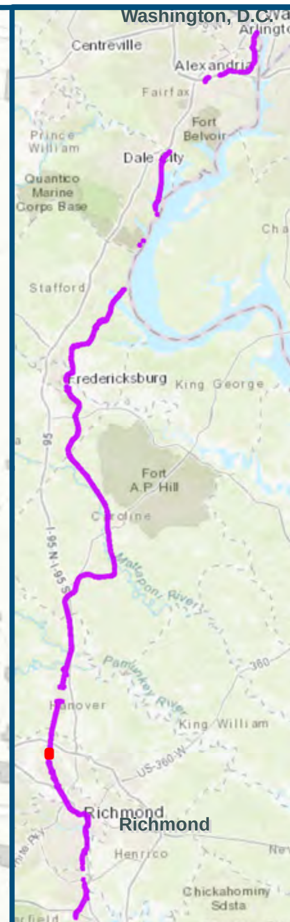

0 200 400
Feet
0 50 100
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI World Topo

Legend

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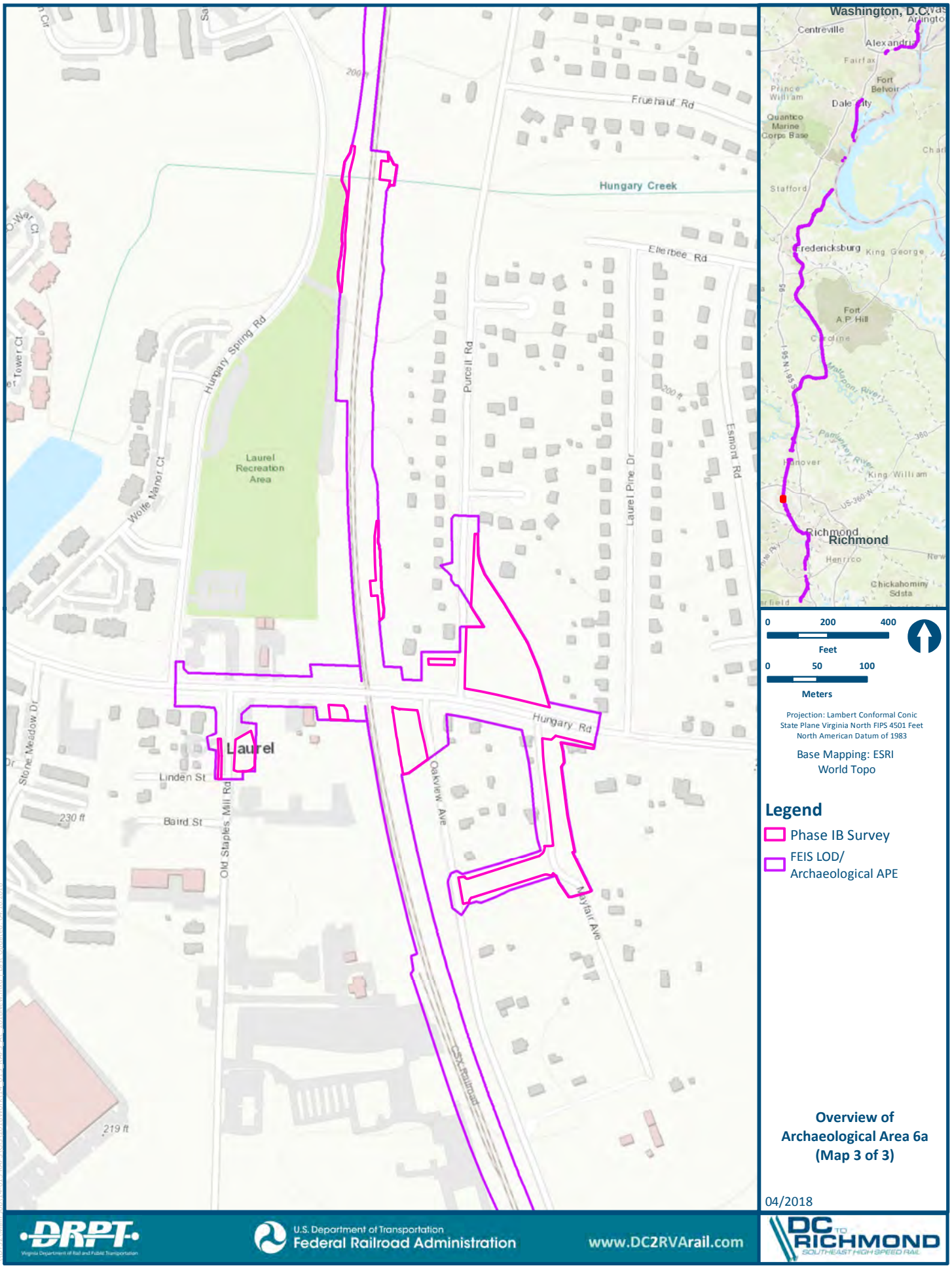
Overview of Archaeological Area 6a (Map 2 of 3)

04/2018


Washington, D.C.
Centreville
Alexandria
Fairfax
Fort Belvoir
Prince William
Dale City
Quantico Marine Corps Base
Stafford
Fredericksburg
King George
Fort A.P. Hill
Caroline
Hanover
King William
Richmond
Henrico
Chickahominy Sdsta
Fruehauf Rd
Hungary Creek
Elterbee Rd
Purcell Rd
Hungary Spring Rd
Wolfe Manor Ct
Laurel Recreation Area
Laurel Pine Dr
Esmont Rd
Hungary Rd
Laurel
Linden St
Baird St
Old Staples Mill Rd
Oakview Ave
Mayfair Ave
CSX Railroad
Stone Meadow Dr
200 ft
230 ft
219 ft
0 200 400
Feet
0 50 100
Meters
Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983
Base Mapping: ESRI
World Topo
Legend
Phase IB Survey
FEIS LOD/
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Overview of
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(Map 3 of 3)
04/2018
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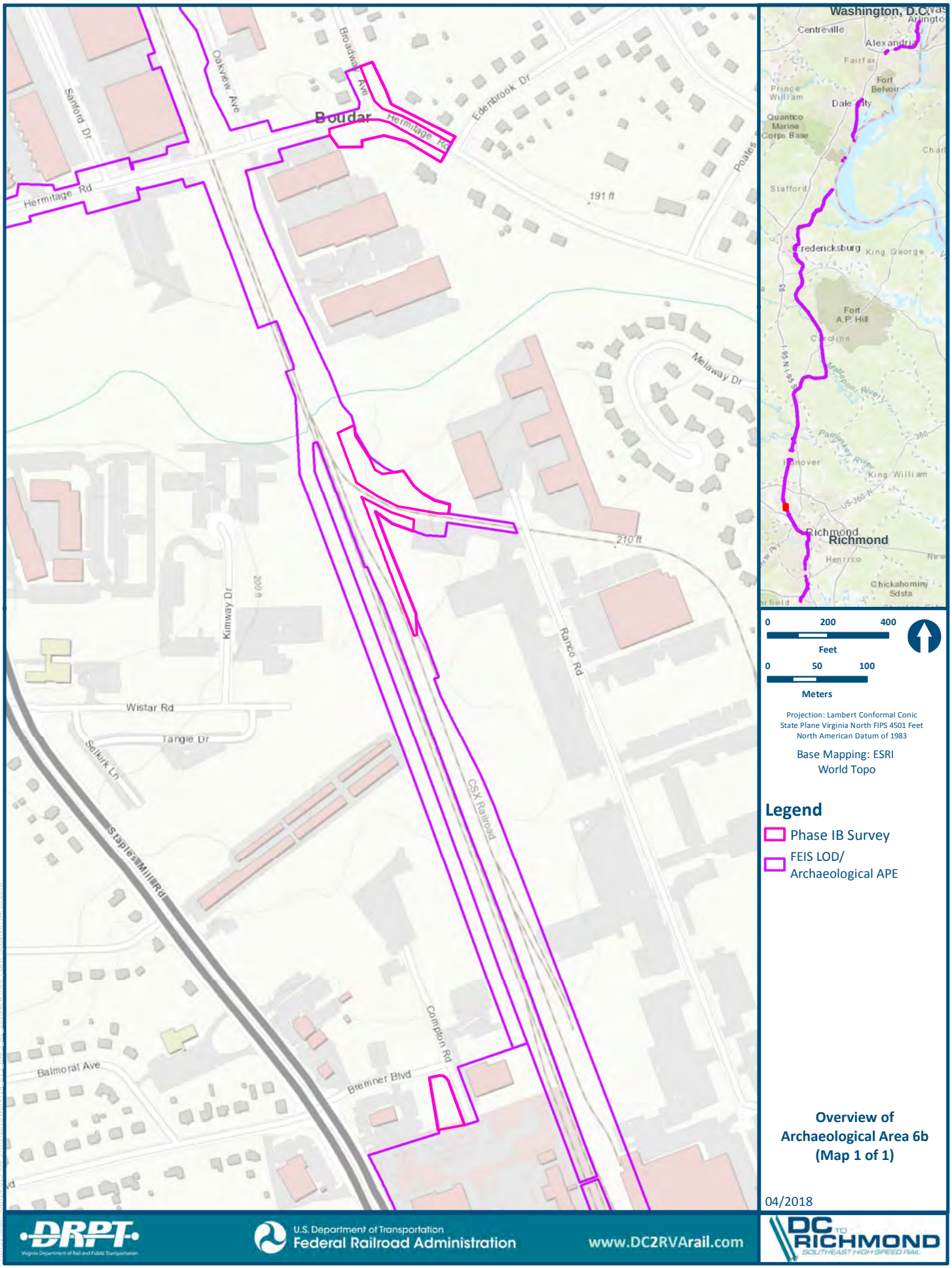
Boudar
Hermitage Rd
Oakview Ave
Broadway Ave
Edenbrook Dr
Sanford Dr
Melaway Dr
Kimway Dr
Wistar Rd
Tangle Dr
Selkirk Ln
Staples Mill Rd
Balmoral Ave
Bremner Blvd
Compton Rd
CSX Railroad
Ranco Rd
191 ft
210 ft
200 ft
Washington, D.C.
Centreville
Alexandria
Fairfax
Fort Belvoir
Prince William
Dale City
Quantico Marine Corps Base
Stafford
Fredericksburg
King George
Fort A.P. Hill
Caroline
Hanover
King William
Richmond
Henrico
Chickahominy
0 200 400
Feet
0 50 100
Meters
Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983
Base Mapping: ESRI
World Topo
Legend
Phase IB Survey
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Overview of
Archaeological Area 6b
(Map 1 of 1)
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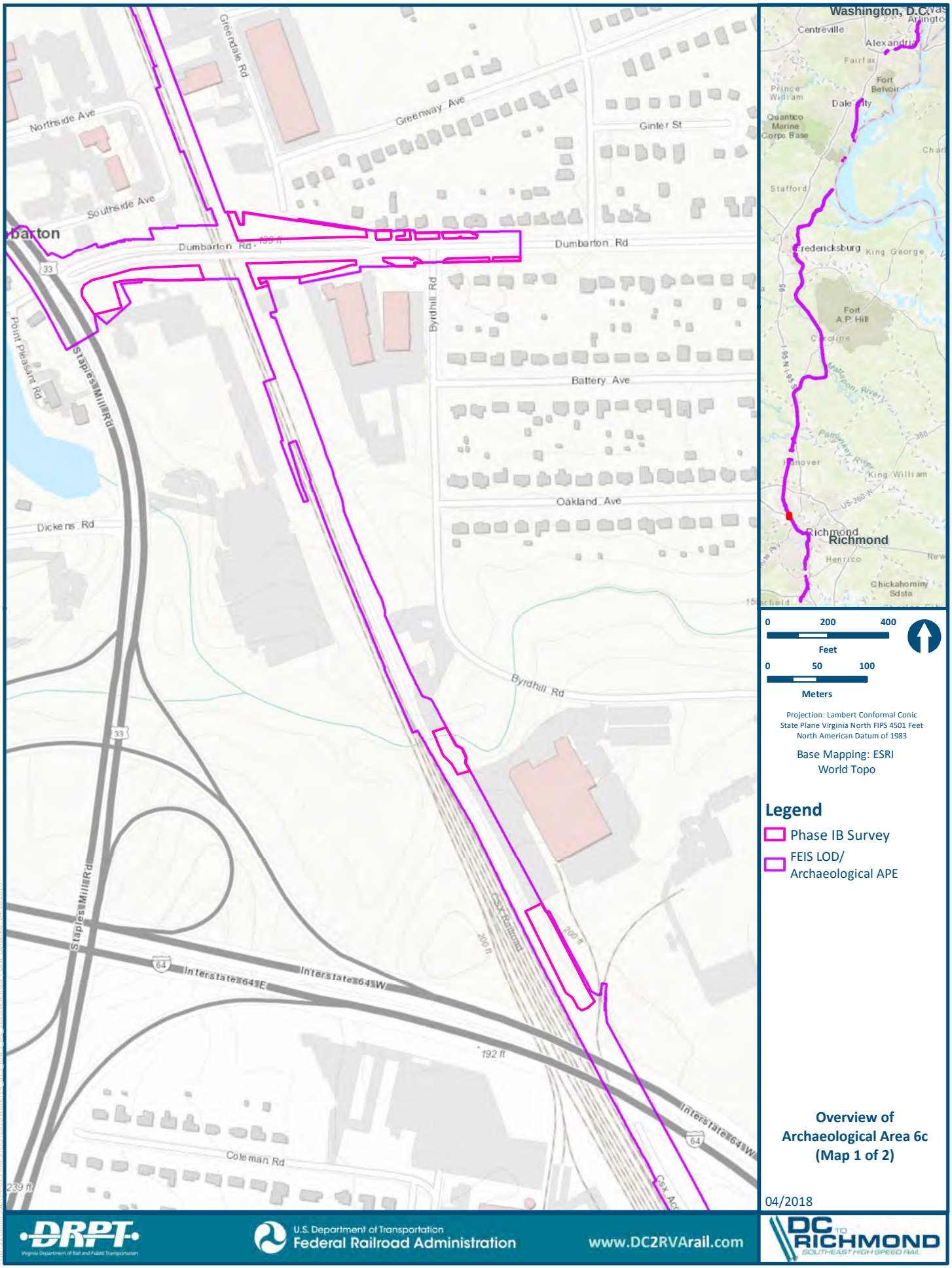
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Northside Ave
Greenway Ave
Ginter St
Southside Ave
Dumbarton Rd
Dumbarton Rd
Byrdhill Rd
Point Pleasant Rd
Staples Mill Rd
Battery Ave
Oakland Ave
Dickens Rd
Byrdhill Rd
Staples Mill Rd
Interstate 64 E
Interstate 64 W
CSX Railroad
Coleman Rd
Interstate 64 W
200 ft
192 ft
239 ft
Washington, D.C.
Centreville
Alexandria
Fairfax
Fort Belvoir
Prince William
Dale City
Quantico Marine Corps Base
Stafford
Fredericksburg
King George
Fort A.P. Hill
Caroline
Hanover
King William
Richmond
Henrico
Chickahominy
0 200 400
Feet
0 50 100
Meters
Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983
Base Mapping: ESRI
World Topo
Legend
Phase IB Survey
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Overview of
Archaeological Area 6c
(Map 1 of 2)
04/2018
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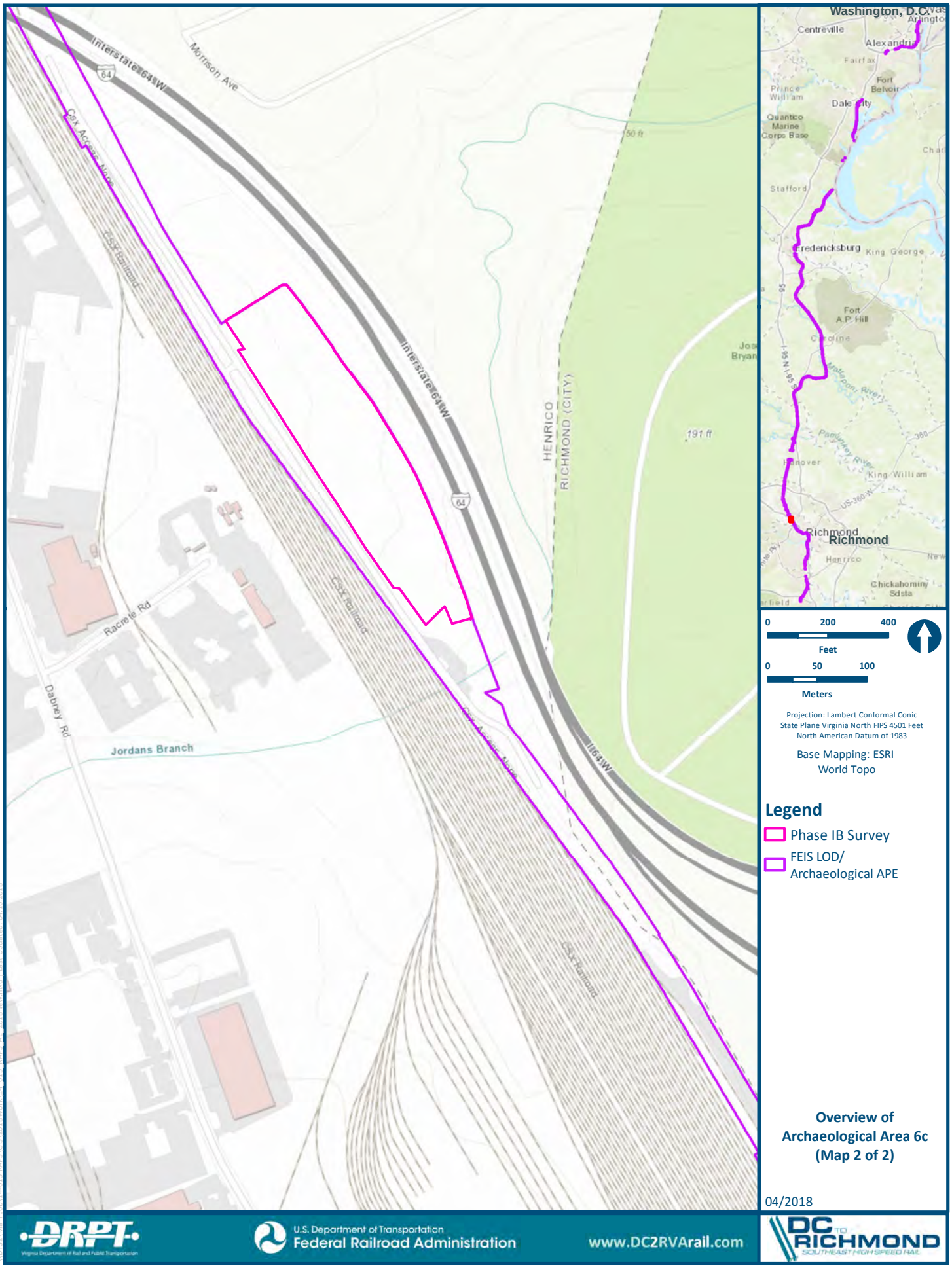
Interstate 64 W
Morrison Ave
CSX Access Alignment
CSX Railroad
Interstate 64 W
HENRICO
RICHMOND (CITY)
191 ft
Racrete Rd
Dabney Rd
Jordans Branch
I 64 W
CSX Railroad
CSX Railroad
Washington, D.C.
Centreville
Alexandria
Fairfax
Fort Belvoir
Prince William
Dale City
Quantico Marine Corps Base
Stafford
Fredericksburg
King George
Fort A.P. Hill
Caroline
Hanover
King William
Richmond
Henrico
Chickahominy
0 200 400
Feet
0 50 100
Meters
Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983
Base Mapping: ESRI
World Topo
Legend
Phase IB Survey
FEIS LOD/
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Overview of
Archaeological Area 6c
(Map 2 of 2)
04/2018
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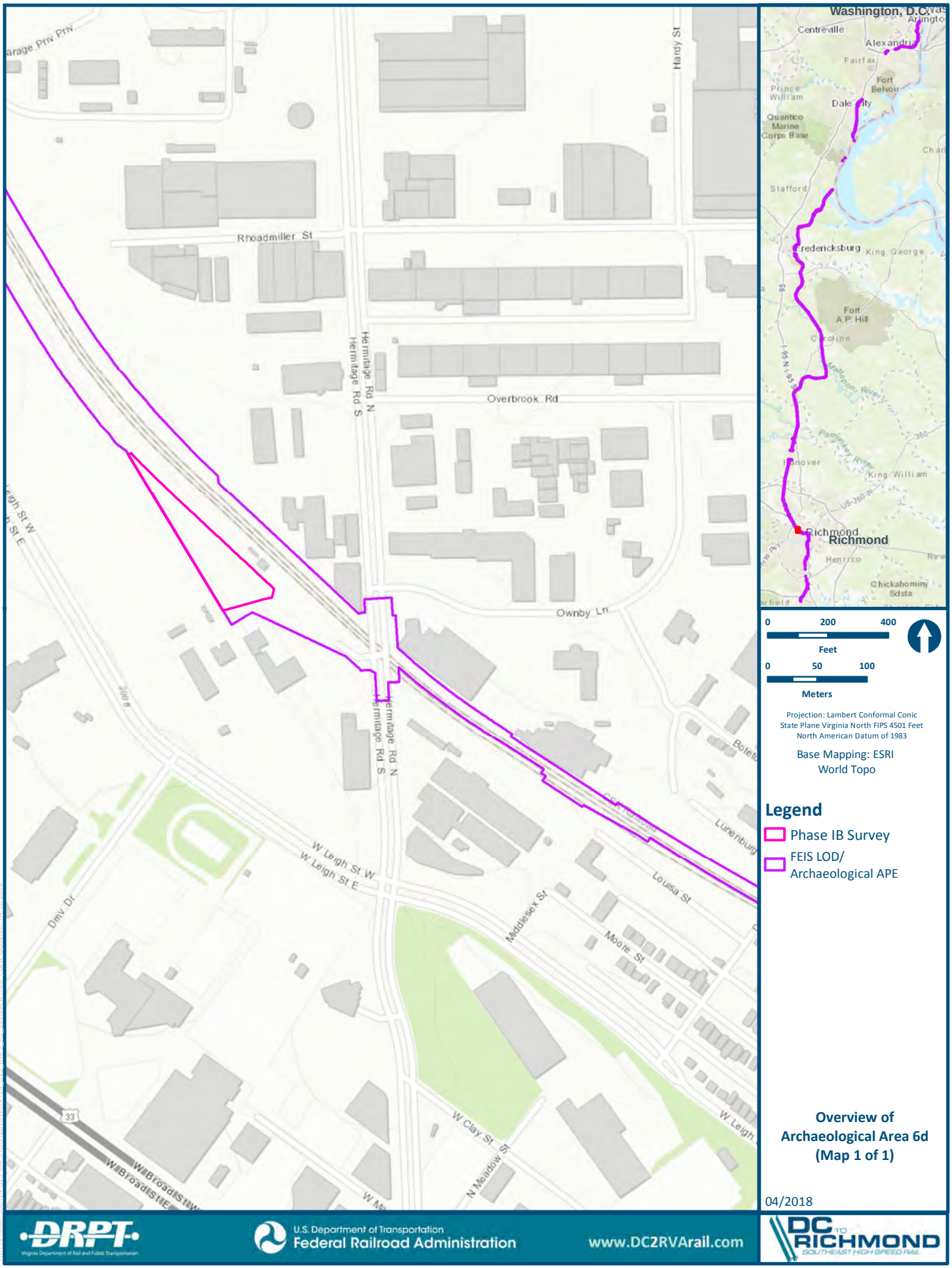
Rhoadmiller St
Hermitage Rd N
Hermitage Rd S
Overbrook Rd
Ownby Ln
W Leigh St W
W Leigh St E
Dmv Dr
Middlesex St
Louisa St
Moore St
W Clay St
N Meadow St
W Broad St
Hardy St
Washington, D.C.
Centreville
Alexandria
Fairfax
Fort Belvoir
Prince William
Dale City
Quantico Marine Corps Base
Stafford
Fredericksburg
King George
Fort A.P. Hill
Caroline
Hanover
King William
Richmond
Henrico
Chickahominy
0 200 400
Feet
0 50 100
Meters
Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983
Base Mapping: ESRI
World Topo
Legend
Phase IB Survey
FEIS LOD/
Archaeological APE
Overview of
Archaeological Area 6d
(Map 1 of 1)
04/2018
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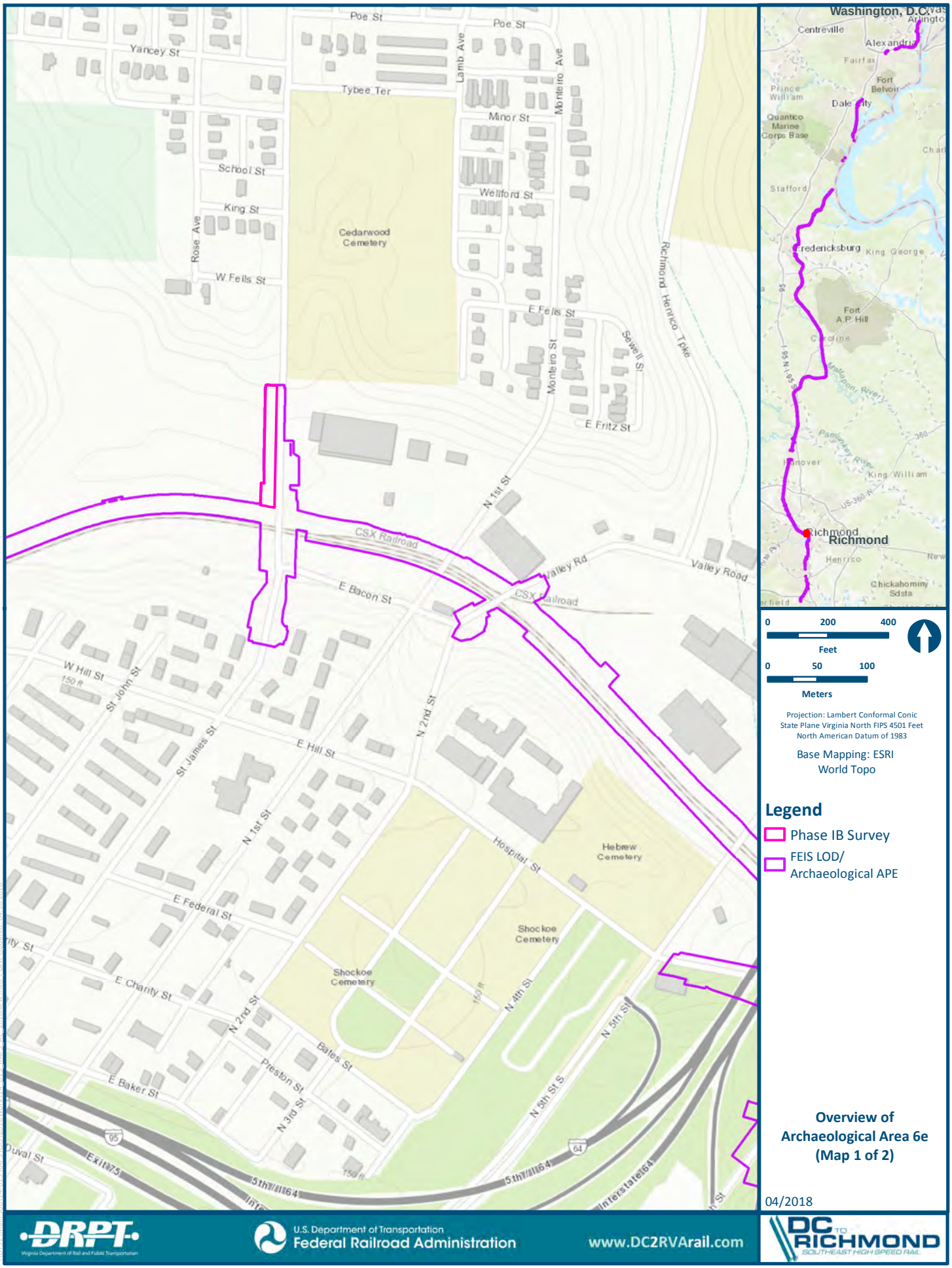
SOUTHEAST HIGH SPEED RAIL


Poe St
Yancey St
Tybee Ter
Lamb Ave
Monteiro Ave
Minor St
School St
Wellford St
King St
Rose Ave
Cedarwood Cemetery
W Fells St
E Fells St
Monteiro St
Sewell St
Richmond Henrico Tpke
E Fritz St
N 1st St
CSX Railroad
Valley Rd
Valley Road
E Bacon St
W Hill St
150 ft
St John St
St James St
E Hill St
N 2nd St
N 1st St
Hospital St
Hebrew Cemetery
E Federal St
Shockoe Cemetery
Shockoe Cemetery
E Charity St
N 4th St
N 5th St
N 2nd St
Bates St
Preston St
N 3rd St
E Baker St
N 5th St S
Duval St
Exit 75
5th St/I-64
Interstate 64
Washington, D.C.
Centreville
Alexandria
Fairfax
Fort Belvoir
Prince William
Dale City
Quantico Marine Corps Base
Stafford
Fredericksburg
King George
Fort A.P. Hill
Caroline
Hanover
King William
Richmond
Henrico
Chickahominy
0 200 400
Feet
0 50 100
Meters
Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983
Base Mapping: ESRI
World Topo
Legend
Phase IB Survey
FEIS LOD/
Archaeological APE
Overview of
Archaeological Area 6e
(Map 1 of 2)
04/2018
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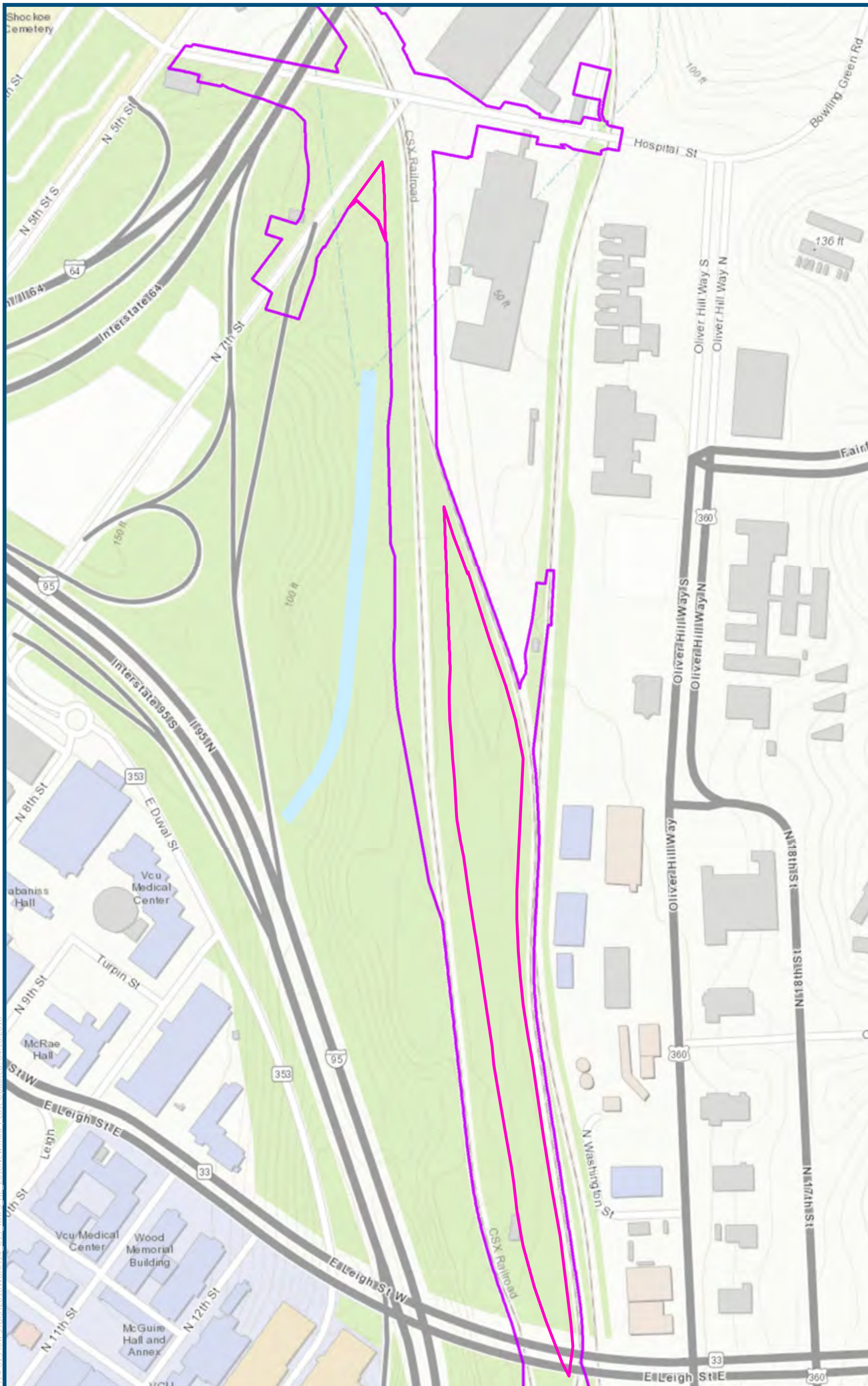
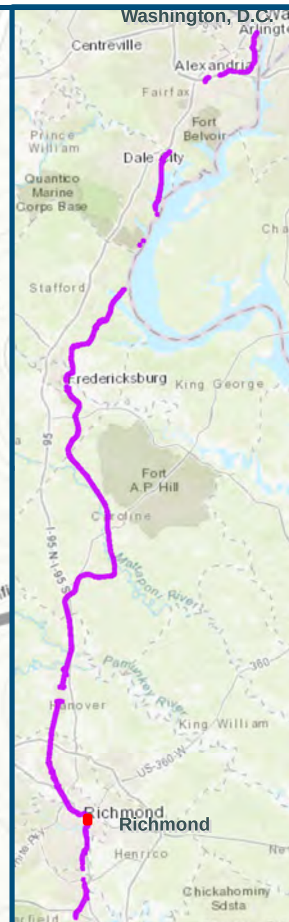




0 200 400
Feet

0 50 100
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI
World Topo

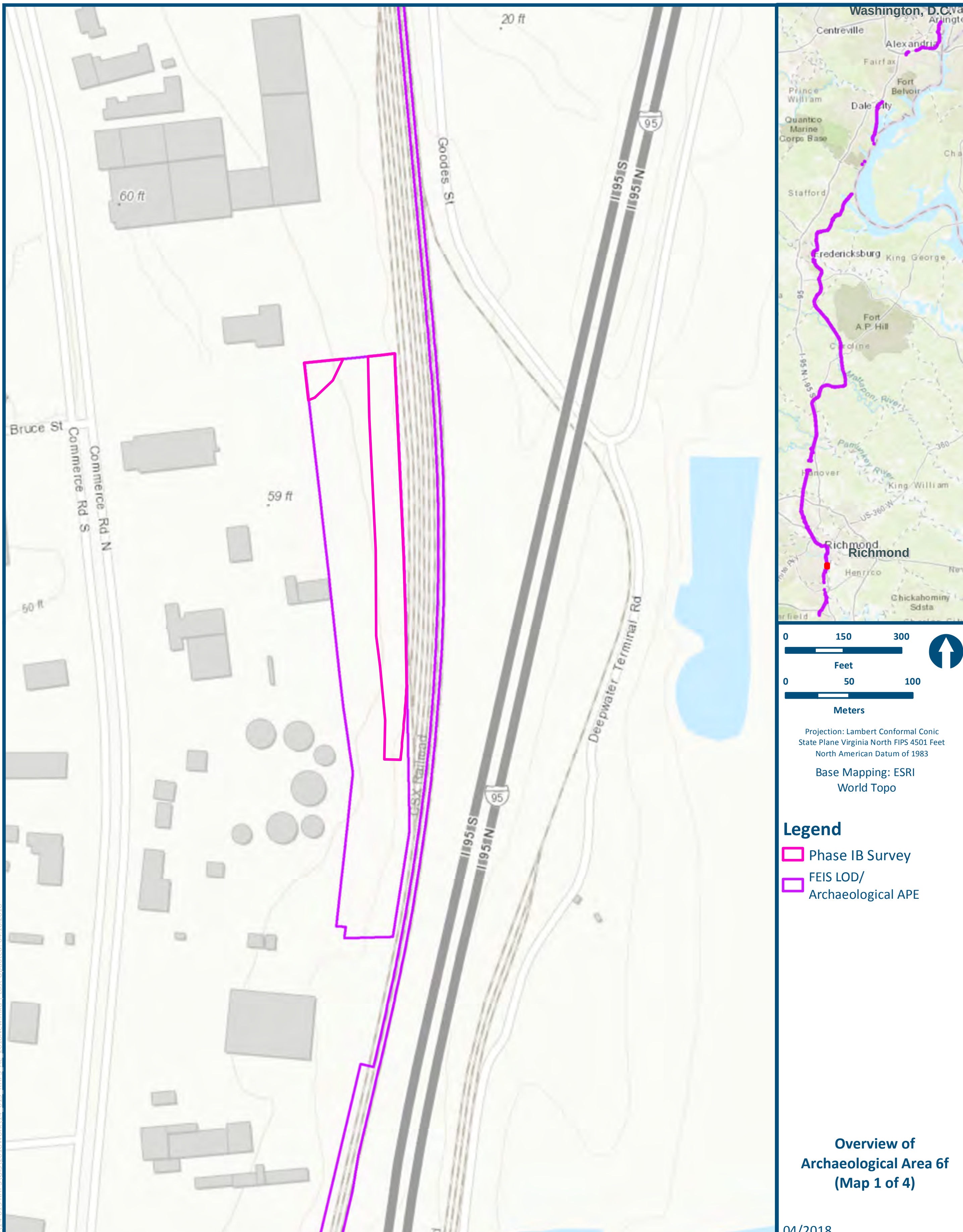
Legend

Phase IB Survey

FEIS LOD/
Archaeological APE

Overview of Archaeological Area 6e (Map 2 of 2)

04/2018



0 150 300
Feet
0 50 100
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

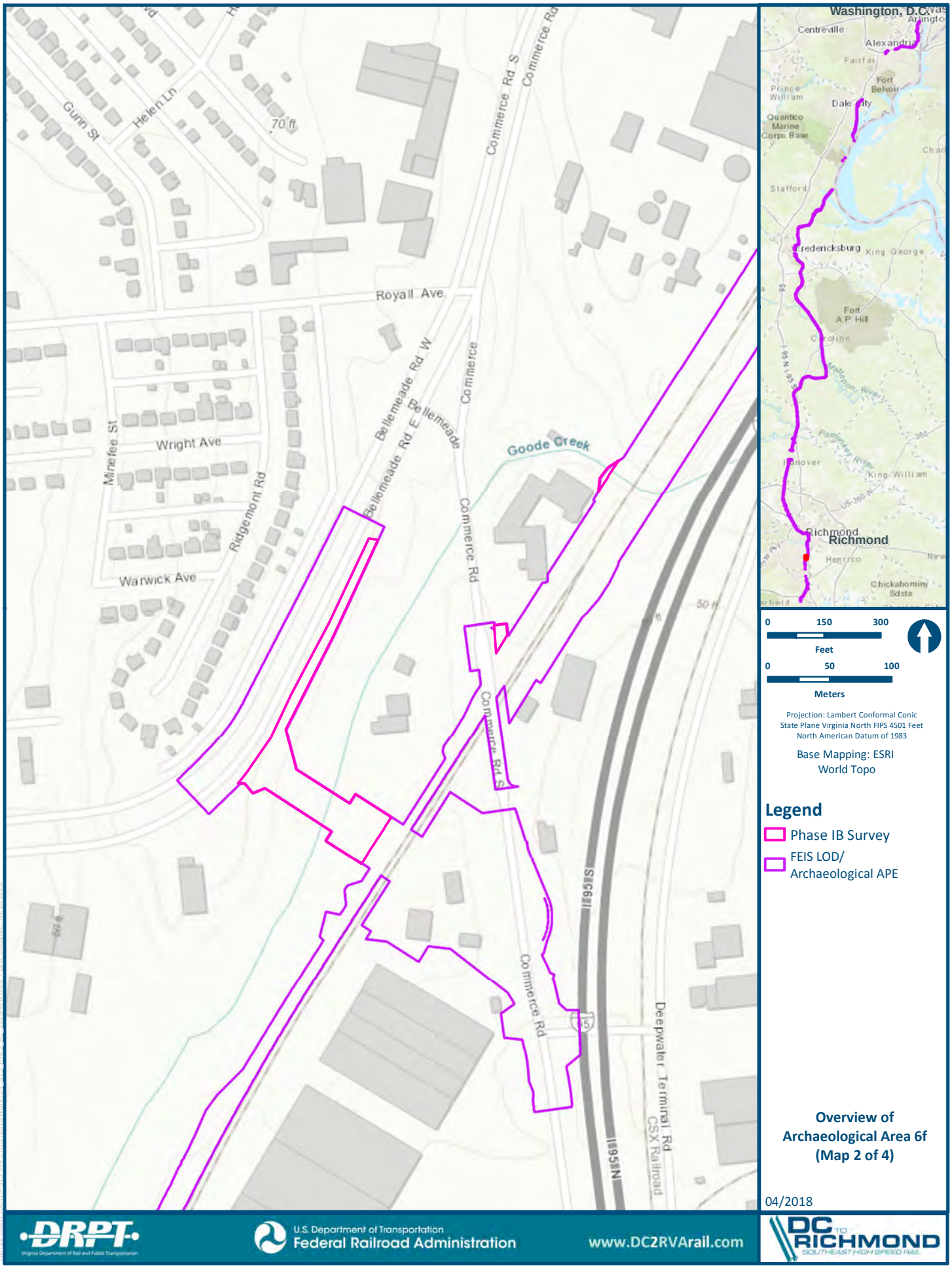
Base Mapping: ESRI World Topo

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE

Overview of Archaeological Area 6f (Map 1 of 4)

04/2018


Gunn St
Helen Ln
70 ft
Commerce Rd S
Commerce Rd
Royall Ave
Bellemeade Rd W
Bellemeade Rd E
Bellemeade
Commerce
Goode Creek
Minefee St
Wright Ave
Ridgemont Rd
Warwick Ave
Commerce Rd
Commerce Rd S
50 ft
Commerce Rd
I-95 S
I-95 N
Deepwater Terminal Rd
CSX Railroad
Washington, D.C.
Centreville
Alexandria
Fairfax
Fort Belvoir
Prince William
Dale City
Quantico Marine Corps Base
Stafford
Fredericksburg
King George
Fort A.P. Hill
Caroline
Rappahannock River
Pamunkey River
Hanover
King William
US-360 W
Richmond
Henrico
Chickahominy
0 150 300
Feet
0 50 100
Meters
Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983
Base Mapping: ESRI
World Topo
Legend
Phase IB Survey
FEIS LOD/
Archaeological APE
Overview of
Archaeological Area 6f
(Map 2 of 4)
04/2018
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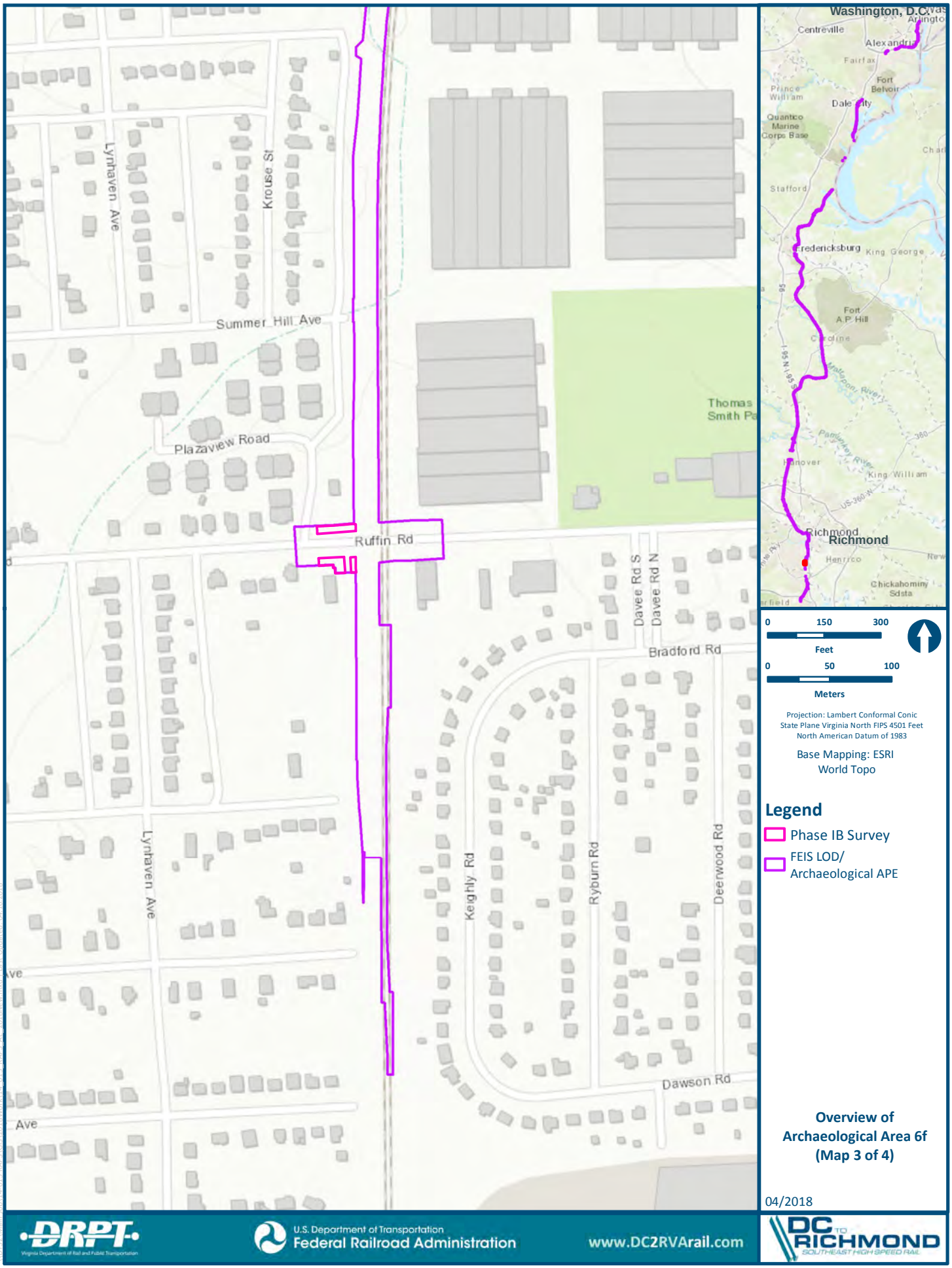
Lynhaven Ave
Krouse St
Summer Hill Ave
Plazaview Road
Ruffin Rd
Thomas
Smith Pa
Davee Rd S
Davee Rd N
Bradford Rd
Lynhaven Ave
Keighly Rd
Ryburn Rd
Deerwood Rd
Dawson Rd
Ave
Washington, D.C.
Centreville
Alexandria
Fairfax
Fort
Belvoir
Prince
William
Dale City
Quantico
Marine
Corps Base
Stafford
Fredericksburg
King George
Fort
A.P. Hill
Caroline
Hanover
King William
Richmond
Richmond
Henrico
Chickahominy
Sdsta
0
150
300
Feet
0
50
100
Meters
Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983
Base Mapping: ESRI
World Topo
Legend
Phase IB Survey
FEIS LOD/
Archaeological APE
Overview of
Archaeological Area 6f
(Map 3 of 4)
04/2018
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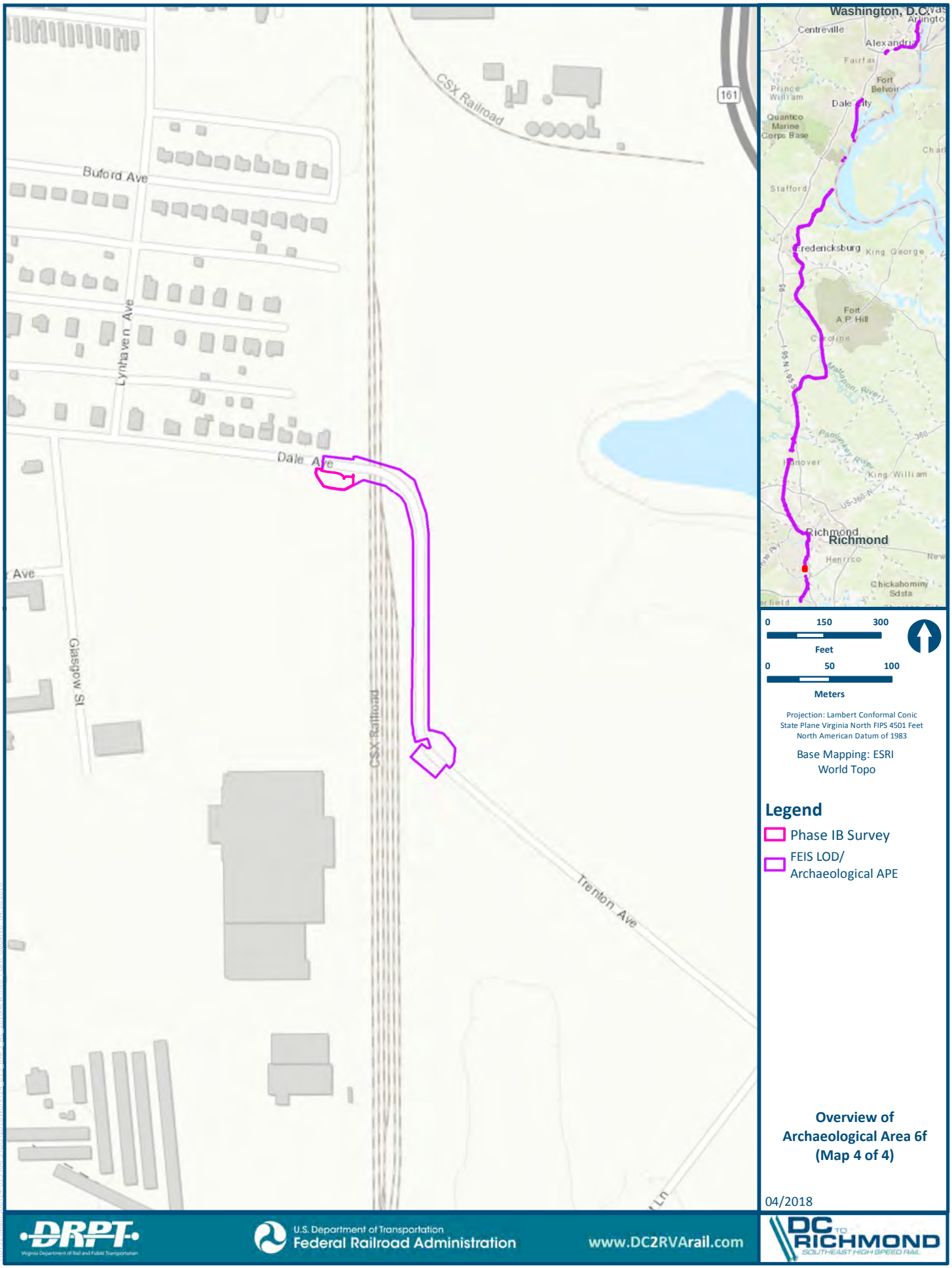

Overview of Archaeological Area 6f (Map 4 of 4)

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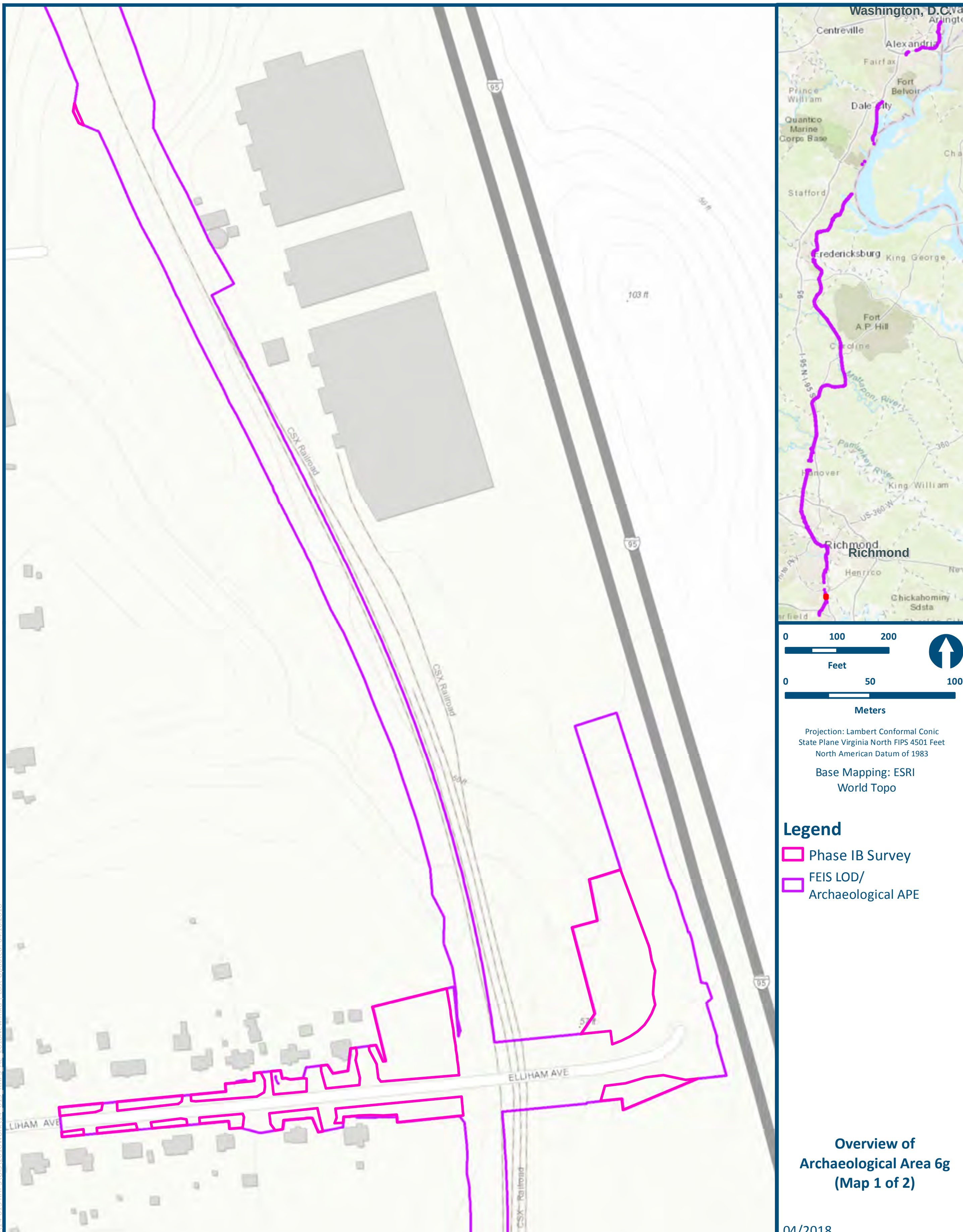
DC TO RICHMOND SOUTHEAST HIGH SPEED RAIL



0 100 200

Feet

0 50 100

Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

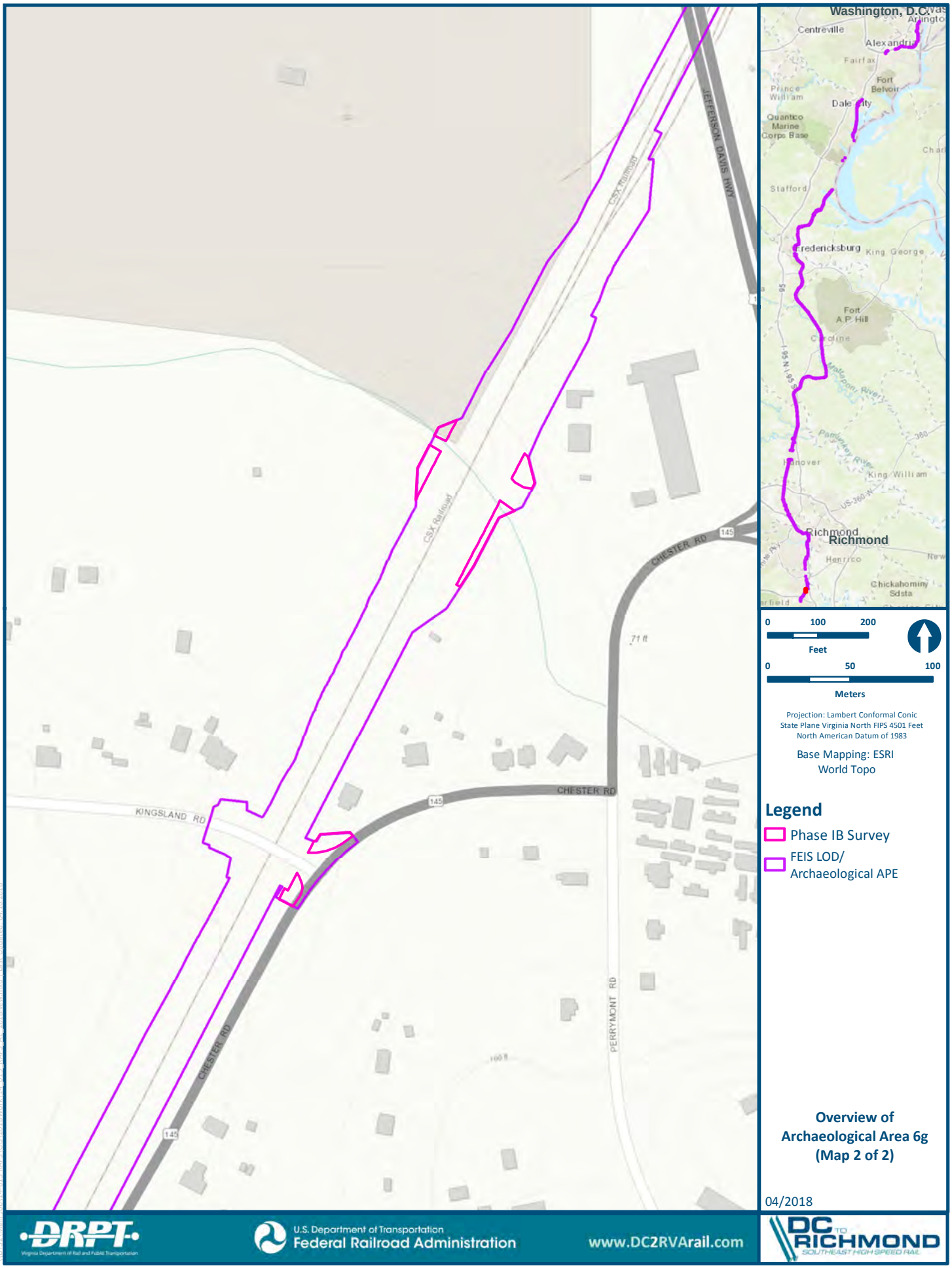
Base Mapping: ESRI
World Topo

Legend

- Phase IB Survey
- FEIS LOD/ Archaeological APE

Overview of Archaeological Area 6g (Map 1 of 2)

04/2018


Washington, D.C.
Centreville
Alexandria
Fairfax
Fort Belvoir
Prince William
Dale City
Quantico Marine Corps Base
Stafford
Fredericksburg
King George
Fort A.P. Hill
Caroline
Hanover
King William
Richmond
Henrico
Chickahominy
Sdsta
JEFFERSON DAVIS HWY
CSX Railroad
CHESTER RD
145
KINGSLAND RD
PERRYMONT RD
71 ft
100 ft
0 100 200
Feet
0 50 100
Meters
Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983
Base Mapping: ESRI
World Topo
Legend
Phase IB Survey
FEIS LOD/
Archaeological APE
Overview of
Archaeological Area 6g
(Map 2 of 2)
04/2018
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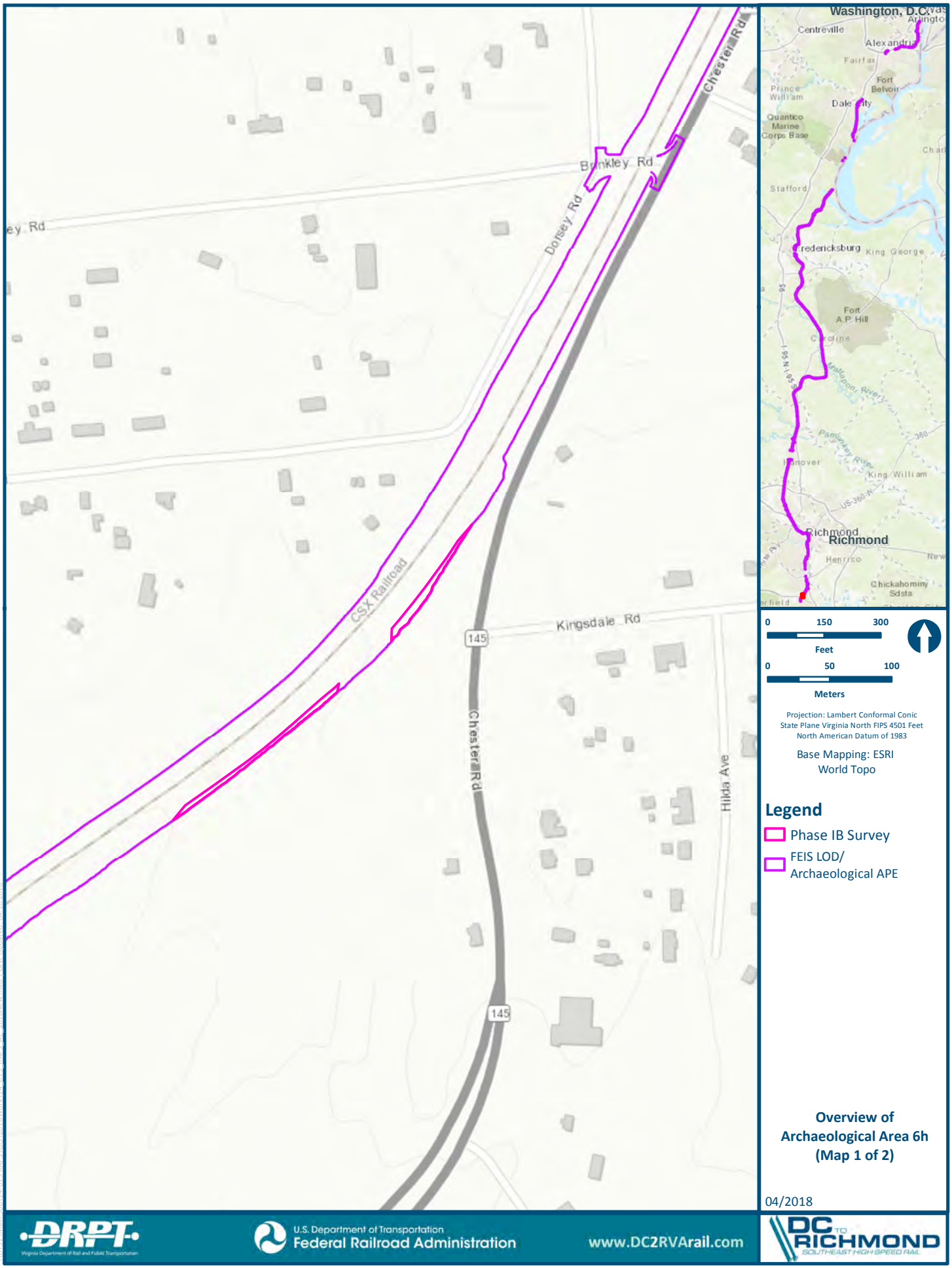
SOUTHEAST HIGH SPEED RAIL


Washington, D.C.
Centreville
Alexandria
Fairfax
Fort Belvoir
Prince William
Dale City
Quantico Marine Corps Base
Stafford
Fredericksburg
King George
Fort A.P. Hill
Caroline
Mattaponi River
Pamunkey River
Hanover
King William
US-360
Richmond
Henrico
Chickahominy
Sdsta
0 150 300
Feet
0 50 100
Meters
Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983
Base Mapping: ESRI
World Topo
Legend
Phase IB Survey
FEIS LOD/
Archaeological APE
Overview of
Archaeological Area 6h
(Map 1 of 2)
04/2018
Bunkley Rd
Dorsey Rd
Chester Rd
CSX Railroad
Kingsdale Rd
145
Hilda Ave
DRPT
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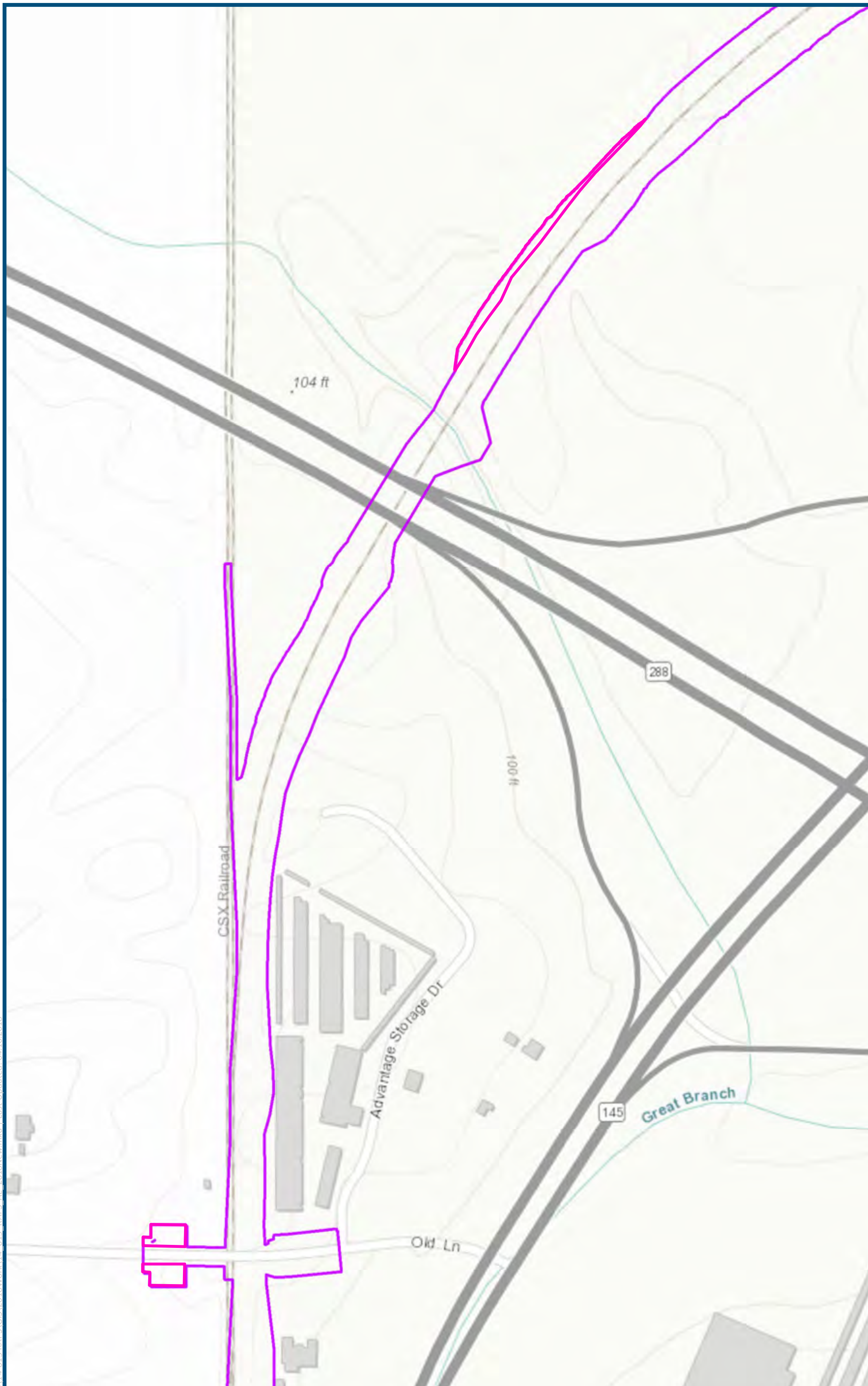
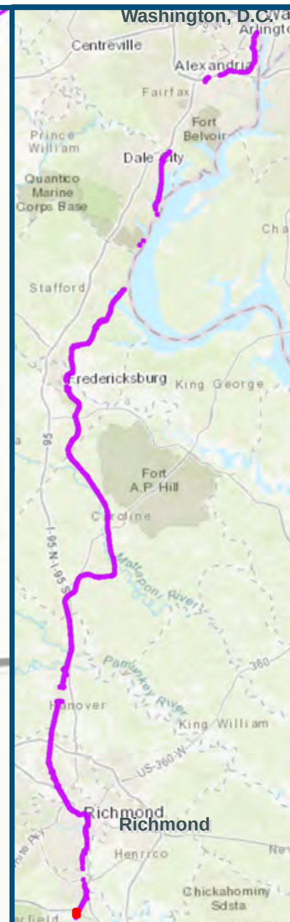
Federal Railroad Administration
www.DC2RVArail.com
DC TO RICHMOND
SOUTHEAST HIGH SPEED RAIL





0 150 300
Feet
0 50 100
Meters

Projection: Lambert Conformal Conic
State Plane Virginia North FIPS 4501 Feet
North American Datum of 1983

Base Mapping: ESRI World Topo

Legend

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Overview of Archaeological Area 6h (Map 2 of 2)

04/2018

APPENDIX B: SHOVEL TEST CATALOG

TABLE B-1: SHOVEL TEST CATALOG

Area	Transect	STP	Radial	Level	Start Depth (ft.)	End Depth (ft.)	Soil Description	Comments
2c	A	1		I	0.00	0.40	10YR 2/1 black silty sand with road gravel and ballast	
2c	A	1		II	0.40	0.90	2.5Y 7/8 yellow clay with ballast	terminated - rock impasse
2c	A	2		I	0.00	0.50	10YR 2/2 very dark brown silt loam	
2c	A	2		II	0.50	0.90	10YR 6/8 brownish yellow clay mottled with 10YR 7/1 light gray clay	disturbed
2c	B	1		I	0.00	0.90	10YR 2/2 very dark brown silt loam	
2c	B	1		II	0.90	1.30	10YR 4/3 brown silty sand with 2.5Y 7/8 yellow clay	
2c	B	1		III	1.30	1.60	2.5Y 7/8 yellow clay	
2c	B	2		I	0.00	0.40	10YR 2/2 very dark brown silt loam	
2c	B	2		II	0.40	0.90	10YR 6/8 brownish yellow clay mottled with 10YR 7/1 light gray clay	
2c	C	1		I	0.00	0.30	7.5YR 4/6 strong brown silty clay	
2c	C	1		II	0.30	1.10	10YR 5/6 yellowish brown with 2.5Y 7/6 yellow silty clay	
2c	C	1		III	1.10	1.70	10YR 5/6 yellowish brown silty clay with 2.5Y 7/6 yellow clay loam	
2c	C	2		I	0.00	0.30	10YR 3/4 dark yellowish brown silt loam	
2c	C	2		II	0.30	1.00	7.5YR 5/8 strong brown silt loam with 2.5Y 7/6 yellow clay loam	
2c	C	3		I	0.00	0.40	10YR 3/4 dark yellowish brown silt loam	
2c	C	3		II	0.40	0.80	7.5YR 5/8 strong brown silt loam with 2.5Y 7/6 yellow clay loam	
2c	C	4		I	0.00	0.50	10YR 3/4 dark yellowish brown silt loam	
2c	C	4		II	0.50	0.90	7.5YR 5/8 strong brown silt loam with 2.5Y 7/6 yellow clay loam	
2d	A	1					Not Excavated	disturbed
2d	A	2					Not Excavated	disturbed
2d	A	3					Not Excavated	disturbed
2d	A	4					Not Excavated	disturbed
2d	A	5					Not Excavated	disturbed
2d	A	6					Not Excavated	disturbed
2d	A	7					Not Excavated	disturbed
2d	A	8					Not Excavated	disturbed
2d	A	9					Not Excavated	disturbed
2d	A	10					Not Excavated	disturbed
2d	A	11					Not Excavated	disturbed
2d	A	12					Not Excavated	disturbed
2d	A	13					Not Excavated	disturbed
2d	A	14					Not Excavated	disturbed
2d	A	15					Not Excavated	disturbed
2d	A	16					Not Excavated	disturbed
2d	A	17					Not Excavated	disturbed
2d	A	18					Not Excavated	disturbed
2d	B	1		I	0.00	0.60	10YR 2/2 very dark brown silty clay with coal and ash	
2d	B	1		II	0.60	0.90	10YR 4/3 brown with 10YR 2/2 very dark brown silty clay with coal and ash	
2d	B	1		III	0.90	1.10	10YR 5/6 yellowish brown with 7.5YR 4/6 strong brown clay and 10YR 7/1 light gray clay	
2d	B	1		IV	1.10	1.80	2.5Y 6/1 gray clay	
2d	B	2		I	0.00	0.50	10YR 2/2 very dark brown silty clay with coal and ash	
2d	B	2		II	0.50	0.90	10YR 4/3 brown with 10YR 2/2 very dark brown silty clay with coal and ash	

Area	Transect	STP	Radial	Level	Start Depth (ft.)	End Depth (ft.)	Soil Description	Comments
2d	B	2		III	0.90	1.20	10YR 5/6 yellowish brown with 7.5YR 4/6 strong brown clay and 10YR 7/1 light gray clay	
2d	B	2		IV	1.20	1.60	2.5Y 6/1 gray clay	
2d	B	3		I	0.00	0.40	10YR 2/2 very dark brown silty clay with coal and ash	
2d	B	3		II	0.40	1.40	7.5YR 4/6 strong brown clay loam with 10YR 7/1 light gray clay	
2d	B	4		I	0.00	0.50	10YR 2/2 very dark brown silty clay with coal and ash	
2d	B	4		II	0.50	1.00	7.5YR 4/6 strong brown clay loam with 10YR 7/1 light gray clay	
2d	B	5		I	0.00	0.60	10YR 2/2 very dark brown silty clay with coal and ash	
2d	B	5		II	0.60	0.90	7.5YR 4/6 strong brown clay loam with 10YR 7/1 light gray clay	
2d	B	6		I	0.00	0.70	10YR 2/2 very dark brown silty clay with coal and ash	
2d	B	6		II	0.70	1.10	7.5YR 4/6 strong brown clay loam with 10YR 7/1 light gray clay	
2d	B	7		I	0.00	0.40	10YR 2/2 very dark brown silty clay with coal and ash	
2d	B	7		II	0.40	0.80	7.5YR 4/6 strong brown clay loam with 10YR 7/1 light gray clay	
2d	B	8		I	0.00	0.30	10YR 2/2 very dark brown silty clay with coal and ash	
2d	B	8		II	0.30	0.70	7.5YR 4/6 strong brown clay loam with 10YR 7/1 light gray clay	
2d	B	9		I	0.00	0.50	10YR 2/2 very dark brown silty clay with coal and ash	
2d	B	9		II	0.50	1.00	7.5YR 4/6 strong brown clay loam with 10YR 7/1 light gray clay	
2d	B	10		I	0.00	0.70	10YR 2/2 very dark brown silty clay with coal and ash	
2d	B	10		II	0.70	1.10	7.5YR 4/6 strong brown clay loam with 10YR 7/1 light gray clay	
2d	B	11		I	0.00	0.30	10YR 2/2 very dark brown silty clay with coal and ash	
2d	B	11		II	0.30	0.70	7.5YR 4/6 strong brown clay loam with 10YR 7/1 light gray clay	
2d	B	12		I	0.00	0.50	10YR 2/2 very dark brown silty clay with coal and ash	
2d	B	12		II	0.50	0.90	10YR 4/3 brown with 10YR 2/2 very dark brown silty clay with coal and ash	
2d	B	12		III	0.90	1.20	7.5YR 6/1 gray clay	
2d	B	13		I	0.00	0.40	10YR 2/2 very dark brown silty clay with coal and ash	
2d	B	13		II	0.40	0.80	7.5YR 4/6 strong brown clay loam with 10YR 7/1 light gray clay	
2d	B	14		I	0.00	0.70	10YR 2/2 very dark brown silty clay with coal and ash	
2d	B	14		II	0.70	1.10	7.5YR 4/6 strong brown clay loam with 10YR 7/1 light gray clay	
2d	B	15		I	0.00	0.60	10YR 2/2 very dark brown silty clay with coal and ash	
2d	B	15		II	0.60	1.00	7.5YR 4/6 strong brown clay loam with 10YR 7/1 light gray clay	
2d	B	16		I	0.00	0.30	10YR 2/2 very dark brown silty clay with coal and ash	
2d	B	16		II	0.30	0.80	7.5YR 4/6 strong brown clay loam with 10YR 7/1 light gray clay	
2d	B	17		I	0.00	0.60	10YR 2/2 very dark brown silty clay with coal and ash	
2d	B	17		II	0.60	1.00	7.5YR 4/6 strong brown clay loam with 10YR 7/1 light gray clay	
2d	B	18		I	0.00	0.60	10YR 2/2 very dark brown silty clay with coal and ash	
2d	B	18		II	0.60	1.00	7.5YR 4/6 strong brown clay with 10YR 7/1 gray clay	
2e	A	1		I	0.00	0.20	10YR 4/4 dark yellowish brown loam	
2e	A	1		II	0.20	0.40	10YR 4/6 dark yellowish brown clay loam	
2e	A	1		III	0.40	0.80	7.5YR 5/8 strong brown clay	
2e	A	2		I	0.00	0.20	10YR 4/4 dark yellowish brown loam	
2e	A	2		II	0.20	0.60	10YR 4/6 dark yellowish brown clay loam	
2e	A	2		III	0.60	1.10	10YR 5/8 yellowish brown clay loam	
2e	A	3		I	0.00	0.40	10YR 4/4 dark yellowish brown loam	
2e	A	3		II	0.40	0.70	10YR 4/6 dark yellowish brown clay loam	
2e	A	3		III	0.70	0.90	10YR 5/8 yellowish brown clay loam	terminated - root impasse

Area	Transect	STP	Radial	Level	Start Depth (ft.)	End Depth (ft.)	Soil Description	Comments
2e	A	4		I	0.00	0.40	10YR 4/4 dark yellowish brown loam	
2e	A	4		II	0.40	0.60	10YR 4/6 dark yellowish brown clay loam	
2e	A	4		III	0.60	0.90	10YR 5/8 yellowish brown clay loam	
2e	A	5		I	0.00	0.40	10YR 4/4 dark yellowish brown loam	
2e	A	5		II	0.40	0.60	10YR 4/6 dark yellowish brown clay loam	
2e	A	5		III	0.60	1.00	10YR 5/8 yellowish brown clay loam	
2e	A	6		I	0.00	0.20	10YR 4/4 dark yellowish brown loam	
2e	A	6		II	0.20	0.70	10YR 4/6 dark yellowish brown clay loam	
2e	A	6		III	0.70	0.90	10YR 5/8 yellowish brown clay loam	terminated - root impasse
2e	B	1		I	0.00	0.30	10YR 4/4 dark yellowish brown loam	terminated - root impasse
2e	C	1		I	0.00	0.20	10YR 4/4 dark yellowish brown loam	
2e	C	1		II	0.20	0.70	10YR 5/4 yellowish brown loam	
2e	C	1		III	0.70	1.00	10YR 6/4 light yellowish brown sand	
2e	C	2		I	0.00	0.10	10YR 4/4 dark yellowish brown loam	
2e	C	2		II	0.10	0.50	10YR 5/4 yellowish brown loam	
2e	C	2		III	0.50	1.00	10YR 6/4 light yellowish brown sand with pockets of 5Y 6/2 light olive gray clay	
2e	C	3		I	0.00	0.10	10YR 4/4 dark yellowish brown loam	
2e	C	3		II	0.10	0.30	10YR 5/4 yellowish brown loam	
2e	C	3		III	0.30	1.00	10YR 6/4 light yellowish brown sand with pockets of 5Y 6/2 light olive gray clay	
2e	C	4		I	0.00	0.30	10YR 4/4 dark yellowish brown loam	
2e	C	4		II	0.30	0.60	10YR 5/4 yellowish brown loam	
2e	C	4		III	0.60	1.00	10YR 6/4 light yellowish brown sand with pockets of 5Y 6/2 light olive gray clay	
2e	C	5		I	0.00	0.30	10YR 4/4 dark yellowish brown loam	
2e	C	5		II	0.30	0.60	10YR 5/4 yellowish brown loam	
2e	C	5		III	0.60	0.90	10YR 6/4 light yellowish brown sand with pockets of 5Y 6/2 light olive gray clay	
2e	C	6					Not Excavated	buried cable line and push pile
2e	D	1		I	0.00	0.40	10YR 4/2 dark grayish brown sand	
2e	D	1		II	0.40	1.00	2.5Y 6/6 olive yellow sandy clay	
2e	D	2		I	0.00	0.30	10YR 4/2 dark grayish brown sand	
2e	D	2		II	0.30	0.50	10YR 4/6 dark yellowish brown sand	
2e	D	2		III	0.50	0.90	2.5YR 6/6 light red with pockets of 5Y 6/2 light olive gray sandy clay	
2e	D	3		I	0.00	0.30	10YR 4/2 dark grayish brown sand	
2e	D	3		II	0.30	0.60	10YR 4/6 dark yellowish brown sand	
2e	D	3		III	0.60	1.00	2.5YR 6/6 light red with pockets of 5Y 6/2 light olive gray sandy clay	
2e	D	4		I	0.00	0.30	10YR 4/2 dark grayish brown sand	
2e	D	4		II	0.30	0.70	10YR 4/6 dark yellowish brown sand	
2e	D	4		III	0.70	1.00	2.5YR 6/6 light red with pockets of 5Y 6/2 light olive gray sandy clay	
2e	D	5		I	0.00	0.50	10YR 4/2 dark grayish brown sand	
2e	D	5		II	0.50	0.70	10YR 4/6 dark yellowish brown sand	
2e	D	5		III	0.70	1.20	2.5YR 6/6 light red with pockets of 5Y 6/2 light olive gray sandy clay	
2e	D	6		I	0.00	0.20	10YR 4/2 dark grayish brown sand	
2e	D	6		II	0.20	0.70	10YR 4/6 dark yellowish brown sand	
2e	D	6		III	0.70	1.00	2.5YR 6/6 light red with pockets of 5Y 6/2 light olive gray sandy clay	
2e	D	7		I	0.00	0.20	10YR 4/2 dark grayish brown sand	
2e	D	7		II	0.20	0.60	10YR 4/6 dark yellowish brown sand	

Area	Transect	STP	Radial	Level	Start Depth (ft.)	End Depth (ft.)	Soil Description	Comments
2e	D	7		III	0.60	1.10	2.5YR 6/6 light red with pockets of 5Y 6/2 light olive gray sandy clay	
2e	D	8		I	0.00	0.10	10YR 4/2 dark grayish brown sand	
2e	D	8		II	0.10	0.50	10YR 4/4 dark yellowish brown sand	
2e	D	8		III	0.50	1.00	2.5YR 6/6 light red with pockets of 5Y 6/2 light olive gray and mottles of 7.5YR 5/6 strong brown sandy clay	
2e	D	9		I	0.00	0.30	10YR 4/2 dark grayish brown sand	
2e	D	9		II	0.30	0.40	10YR 4/4 dark yellowish brown sand	
2e	D	9		III	0.40	1.00	7.5YR 5/8 strong brown sandy clay	
2e	D	10		I	0.00	0.40	10YR 4/2 dark grayish brown sand	
2e	D	10		II	0.40	0.60	10YR 4/4 dark yellowish brown sand	
2e	D	10		III	0.60	1.00	7.5YR 5/8 strong brown sandy clay	
2f	A	1		I	0.00	0.40	10YR 3/4 dark yellowish brown silty sand with 10YR 7/1 gray degraded sandstone	disturbed
2f	A	1		II	0.40	0.80	10YR 7/1 gray degraded sandstone	
2f	A	2		I	0.00	0.30	10YR 3/4 dark yellowish brown silty sand with 10YR 7/1 gray degraded sandstone	
2f	A	2		II	0.30	0.90	10YR 7/1 gray degraded sandstone	
2f	A	3					Not Excavated	push piles
2f	A	4					Not Excavated	push piles
2f	A	5		I	0.00	0.20	10YR 3/4 dark yellowish brown silty sand with 10YR 7/1 gray degraded sandstone	
2f	A	5		II	0.20	0.60	10YR 7/1 gray degraded sandstone	
2f	A	6		I	0.00	0.40	10YR 3/4 dark yellowish brown silty sand with 10YR 7/1 gray degraded sandstone	
2f	A	6		II	0.40	0.90	10YR 7/1 gray degraded sandstone	
2f	A	7		I	0.00	0.30	10YR 3/4 dark yellowish brown silty sand with 10YR 7/1 gray degraded sandstone	
2f	A	7		II	0.30	0.80	10YR 7/1 gray degraded sandstone	
2f	A	8		I	0.00	0.30	10YR 4/4 dark yellowish brown silt loam with 10YR 7/1 gray clay with degraded sandstone	
2f	A	8		II	0.30	0.70	10YR 7/1 gray degraded sandstone	
2f	A	9		I	0.00	0.40	10YR 4/4 dark yellowish brown silt loam with 10YR 7/1 gray clay with degraded sandstone	
2f	A	9		II	0.40	0.80	10YR 7/1 gray degraded sandstone	
2f	A	10		I	0.00	0.30	10YR 4/4 dark yellowish brown silt loam with 10YR 7/1 gray clay with degraded sandstone	
2f	A	10		II	0.30	0.70	10YR 7/1 gray degraded sandstone	
2f	A	11		I	0.00	0.50	10YR 4/4 dark yellowish brown silt loam with 10YR 7/1 gray clay with degraded sandstone	
2f	A	11		II	0.50	0.90	10YR 7/1 gray degraded sandstone	
2f	A	12		I	0.00	0.30	10YR 3/2 very dark grayish brown silt loam	
2f	A	12		II	0.30	0.60	10YR 6/6 brownish yellow silt loam	
2f	A	12		III	0.60	1.10	10YR 7/1 gray clay	
2f	A	13		I	0.00	0.20	10YR 3/2 very dark grayish brown silt loam	
2f	A	13		II	0.20	0.50	10YR 6/6 brownish yellow silt loam	
2f	A	13		III	0.50	1.20	10YR 7/1 gray clay	
2f	A	14		I	0.00	0.30	10YR 3/2 very dark grayish brown silt loam	
2f	A	14		II	0.30	0.60	10YR 6/6 brownish yellow silt loam	
2f	A	14		III	0.60	1.30	10YR 7/1 gray clay	
2f	A	15		I	0.00	0.60	10YR 3/4 dark yellowish brown with 10YR 7/1 gray degraded sandstone	
2f	A	15		II	0.60	1.30	10YR 7/1 gray degraded sandstone	

Area	Transect	STP	Radial	Level	Start Depth (ft.)	End Depth (ft.)	Soil Description	Comments
2f	A	16		I	0.00	0.40	10YR 3/4 dark yellowish brown with 10YR 7/1 gray degraded sandstone	
2f	A	16		II	0.40	1.10	10YR 7/1 gray degraded sandstone	
2f	A	17		I	0.00	0.50	10YR 3/4 dark yellowish brown with 10YR 7/1 gray degraded sandstone	
2f	A	17		II	0.50	0.90	10YR 7/1 gray degraded sandstone	
2f	A	18		I	0.00	0.40	10YR 3/4 dark yellowish brown with 10YR 7/1 gray degraded sandstone	
2f	A	18		II	0.40	0.80	10YR 7/1 gray degraded sandstone	
2f	A	19		I	0.00	0.40	10YR 3/4 dark yellowish brown with 10YR 7/1 gray degraded sandstone	
2f	A	19		II	0.40	1.10	10YR 7/1 gray degraded sandstone	
2f	A	20		I	0.00	0.40	10YR 3/4 dark yellowish brown with 10YR 7/1 gray degraded sandstone	
2f	A	20		II	0.40	0.90	10YR 7/1 gray clay with degraded sandstone	
2f	A	21		I	0.00	0.40	10YR 3/4 dark yellowish brown with 10YR 7/1 gray degraded sandstone	
2f	A	21		II	0.40	0.80	10YR 7/1 gray clay with degraded sandstone	
2f	A	22		I	0.00	0.40	10YR 3/4 dark yellowish brown with 10YR 7/1 gray degraded sandstone	
2f	A	22		II	0.40	0.90	10YR 7/1 gray clay with degraded sandstone	
2f	A	23					Not Excavated	eroding bank and slope
2f	A	24					Not Excavated	eroding bank and slope
2f	A	25					Not Excavated	eroding bank and slope
2f	A	26					Not Excavated	eroding bank and slope
2f	A	27					Not Excavated	eroding bank and slope
2f	A	28		I	0.00	0.30	10YR 3/4 dark yellowish brown silt loam with 10YR 7/1 gray degraded sandstone	
2f	A	28		II	0.30	0.80	10YR 7/1 gray clay with degraded sandstone	
2f	A	29		I	0.00	0.40	10YR 3/4 dark yellowish brown silt loam with 10YR 7/1 gray degraded sandstone	
2f	A	29		II	0.40	0.90	10YR 7/1 gray clay with degraded sandstone	
2f	A	30		I	0.00	0.40	10YR 4/4 dark yellowish brown with 10YR 7/1 gray silt loam	
2f	A	30		II	0.40	0.90	10YR 7/1 gray clay	
2f	A	31		I	0.00	0.30	10YR 4/4 dark yellowish brown with 10YR 7/1 gray silt loam	
2f	A	31		II	0.30	0.80	10YR 7/1 gray clay	
2f	A	32		I	0.00	0.50	10YR 4/4 dark yellowish brown with 10YR 7/1 gray silt loam	
2f	A	32		II	0.50	1.00	10YR 7/1 gray clay	
2f	A	33		I	0.00	0.30	10YR 4/4 dark yellowish brown with 10YR 7/1 gray silt loam	
2f	A	33		II	0.30	0.70	10YR 7/1 gray clay	
2f	A	34		I	0.00	0.30	10YR 4/4 dark yellowish brown with 10YR 7/1 gray silt loam	
2f	A	34		II	0.30	0.90	10YR 7/1 gray clay	
2f	A	35		I	0.00	0.40	10YR 4/4 dark yellowish brown with 10YR 7/1 gray silt loam	
2f	A	35		II	0.40	0.80	10YR 7/1 gray clay	
2f	A	36		I	0.00	0.30	10YR 4/4 dark yellowish brown with 10YR 7/1 gray silt loam	
2f	A	36		II	0.30	0.80	10YR 7/1 gray clay	
2f	A	37					Not Excavated	disturbed
2f	A	38					Not Excavated	disturbed
2g	A	1		I	0.00	0.50	10YR 3/4 dark yellowish brown silty clay	
2g	A	1		II	0.50	1.20	2.5Y 6/6 olive yellow with 10YR 3/4 dark yellowish brown clay	
2g	A	1		III	1.20	1.70	7.5YR 3/4 dark brown with 7.5YR 6/8 reddish yellow clay	
2g	A	2					Not Excavated	Disturbed
2g	A	3					Not Excavated	Disturbed
2g	A	4					Not Excavated	Disturbed

Area	Transect	STP	Radial	Level	Start Depth (ft.)	End Depth (ft.)	Soil Description	Comments
2g	A	5					Not Excavated	Disturbed
2g	A	6					Not Excavated	Disturbed
2g	B	1		I	0.00	0.30	10YR 3/2 very dark grayish brown silt loam	
2g	B	1		II	0.30	0.70	10YR 4/6 dark yellowish brown clay	
2g	B	2					Not Excavated	Disturbed
2g	B	3					Not Excavated	Disturbed
2g	B	4					Not Excavated	Disturbed
2i	F	1		I	0.00	0.50	10YR 4/3 brown silty sand	
2i	F	1		II	0.50	1.30	10YR 5/8 yellowish brown silty sand	
2i	F	2		I	0.00	0.60	10YR 4/3 brown silty sand	
2i	F	2		II	0.60	1.20	10YR 5/8 yellowish brown silty sand	
2i	F	3		I	0.00	0.60	10YR 2/2 very dark brown silt loam	
2i	F	3		II	0.60	1.10	10YR 5/6 yellowish brown silty clay	
2i	G	1					Not Excavated	gravel drive
2i	G	2					Not Excavated	gravel fill
2i	H	1					Not Excavated	berm
2i	I	1					Not Excavated	berm
2i	J	1		I	0.00	0.40	10YR 3/3 dark brown silty clay loam	
2i	J	1		II	0.40	0.60	10YR 4/6 dark yellowish brown silt	
2i	J	1		III	0.60	1.00	7.5YR 5/6 strong brown clay loam	
2i	J	2		I	0.00	1.00	10YR 5/6 yellowish brown silty clay loam	
2i	J	2		II	1.00	1.40	10YR 5/8 yellowish brown clay loam	
2i	J	3		I	0.00	1.00	10YR 4/6 dark yellowish brown silty clay	
2i	J	3		II	1.00	1.40	10YR 5/4 yellowish brown clay loam	
2i	J	4		I	0.00	0.80	10YR 4/6 dark yellowish brown silty clay loam	
2i	J	4		II	0.80	1.20	7.5YR 5/6 strong brown clay loam	
2i	J	5		I	0.00	0.80	10YR 4/6 dark yellowish brown silty clay loam	
2i	J	5		II	0.80	1.20	10YR 5/4 yellowish brown silty clay	
2i	J	5		III	1.20	1.60	7.5YR 5/6 strong brown clay loam	
2i	J	6		I	0.00	1.00	10YR 4/6 dark yellowish brown silty clay loam	
2i	J	6		II	1.00	1.40	10YR 5/4 yellowish brown silty clay	
2i	J	6		III	1.40	1.80	7.5YR 5/6 strong brown clay loam	
2i	K	1		I	0.00	0.40	10YR 3/3 dark brown silty clay loam	
2i	K	1		II	0.40	0.90	10YR 4/6 dark yellowish brown silt	
2i	K	1		III	0.90	1.30	7.5YR 5/6 strong brown clay loam	
2i	K	2		I	0.00	0.80	10YR 3/3 dark brown silty clay loam	
2i	K	2		II	0.80	1.20	7.5YR 5/6 strong brown clay loam	
2i	K	3		I	0.00	1.10	10YR 4/6 dark yellowish brown silty clay	
2i	K	3		II	1.10	1.50	10YR 5/4 yellowish brown clay loam	
2i	K	4		I	0.00	1.50	10YR 4/6 dark yellowish brown silt loam	
2i	K	4		II	1.50	1.90	10YR 6/4 light yellowish brown sandy loam	
2i	K	5		I	0.00	0.40	10YR 4/6 dark yellowish brown silt loam	
2i	K	5		II	0.40	0.80	10YR 5/4 yellowish brown silt loam	
2i	K	5		III	0.80	1.20	7.5YR 5/6 strong brown clay loam	
2i	L	1		I	0.00	0.40	10YR 3/3 dark brown silty clay loam	

Area	Transect	STP	Radial	Level	Start Depth (ft.)	End Depth (ft.)	Soil Description	Comments
2i	L	1		II	0.40	0.90	7.5YR 5/6 strong brown clay loam	
2i	L	2		I	0.00	0.80	10YR 3/3 dark brown silty clay loam	
2i	L	2		II	0.80	1.20	7.5YR 5/6 strong brown clay loam	
2i	L	3		I	0.00	0.40	10YR 4/3 brown silt loam	
2i	L	3		II	0.40	0.50	10YR 4/4 dark yellowish brown silt loam	
2i	L	3		III	0.50	0.90	7.5YR 5/6 strong brown with 10YR 6/3 pale brown silty clay loam	
2i	L	4		I	0.00	0.60	10YR 4/4 dark yellowish brown silt loam	
2i	L	4		II	0.60	1.00	10YR 6/4 light yellowish brown silty clay loam	
2i	M	1					Not Excavated	road disturbance
2i	M	2					Not Excavated	berm, private utilities
2i	M	3					Not Excavated	berm, private utilities
2i	M	4		I	0.00	0.40	10YR 4/6 dark yellowish brown silt loam	
2i	M	4		II	0.40	0.80	7.5YR 5/6 strong brown clay loam	
2i	M	5		I	0.00	0.20	10YR 4/6 dark yellowish brown silt loam	
2i	M	5		II	0.20	0.40	10YR 5/4 yellowish brown silt loam	
2i	M	5		III	0.40	0.90	7.5YR 5/6 strong brown clay loam	
2i	M	6					Not Excavated	access road, slope
2i	N	6		I	0.00	0.40	10YR 4/6 dark yellowish brown silty clay	
2i	N	6		II	0.40	0.90	10YR 5/6 yellowish brown silty clay loam	
2i	N	6		III	0.90	1.30	10YR 6/4 light yellowish brown clay loam	
2i	O	1					Not Excavated	slope
2i	O	2					Not Excavated	slope
2i	O	3					Not Excavated	slope
2i	O	4					Not Excavated	slope
2i	O	5					Not Excavated	slope
2i	O	6					Not Excavated	slope
2i	O	7					Not Excavated	slope
2i	O	8		I	0.00	0.80	10YR 4/6 dark yellowish brown silt loam	
2i	O	8		II	0.80	1.20	10YR 6/4 dark yellowish brown clay loam	
2i	O	9		I	0.00	0.90	10YR 4/6 dark yellowish brown silt loam	
2i	O	9		II	0.90	1.30	10YR 6/4 dark yellowish brown clay loam	
2i	O	10		I	0.00	0.80	10YR 4/6 dark yellowish brown silt loam	
2i	O	10		II	0.80	1.20	10YR 6/4 dark yellowish brown clay loam	
2i	P	1					Not Excavated	gas line
2i	P	2		I	0.00	0.70	10YR 4/6 dark yellowish brown silt loam	
2i	P	2		II	0.70	0.90	10YR 6/4 light yellowish brown silt loam	
2i	P	2		III	0.90	1.00	10YR 3/3 dark brown silt loam	
2i	P	2		IV	1.00	1.40	10YR 6/4 light yellowish brown with 10YR 5/6 yellowish brown sandy loam	
2i	P	3		I	0.00	0.70	10YR 4/6 dark yellowish brown silt loam	
2i	P	3		II	0.70	1.10	10YR 5/6 yellowish brown with 10YR 6/4 light yellowish brown clay loam	
2i	P	4		I	0.00	0.70	10YR 4/6 dark yellowish brown silt loam	
2i	P	4		II	0.70	1.10	10YR 5/6 yellowish brown silt loam	
2i	P	4		III	1.10	1.50	10YR 6/4 dark yellowish brown clay loam	
2i	P	5		I	0.00	0.80	10YR 4/6 dark yellowish brown silt loam	
2i	P	5		II	0.80	1.20	10YR 6/4 dark yellowish brown clay loam	

Area	Transect	STP	Radial	Level	Start Depth (ft.)	End Depth (ft.)	Soil Description	Comments
2i	P	6		I	0.00	0.80	10YR 4/6 dark yellowish brown silt loam	
2i	P	6		II	0.80	1.20	10YR 6/4 dark yellowish brown clay loam	
2i	P	7		I	0.00	0.30	10YR 6/4 dark yellowish brown clay loam	terminated - disturbed
2i	Q	1					Not Excavated	drainage, slope
2i	Q	2					Not Excavated	drainage, slope
2i	Q	3					Not Excavated	drainage, slope
2i	R	4					Not Excavated	road disturbance
2i	R	5					Not Excavated	road disturbance
2i	S	1					Not Excavated	road disturbance
2i	S	2					Not Excavated	road disturbance
2i	S	3					Not Excavated	slope
2i	S	4					Not Excavated	slope
2i	S	5					Not Excavated	slope
2i	S	6					Not Excavated	slope
2i	T	3					Not Excavated	slope
2i	T	4					Not Excavated	slope
2i	T	5					Not Excavated	drainage
2i	T	6					Not Excavated	slope
2i	T	7					Not Excavated	standing water
2i	T	8					Not Excavated	slope
2i	T	9					Not Excavated	slope
2i	U	5		I	0.00	0.30	10YR 3/2 very dark grayish brown silt loam	
2i	U	5		II	0.30	0.70	10YR 4/3 brown sandy silt	
2i	U	6		I	0.00	0.40	10YR 3/2 very dark grayish brown silt loam	
2i	U	6		II	0.40	0.90	10YR 4/3 brown sandy loam	
2i	U	7		I	0.00	0.80	10YR 4/6 dark yellowish brown with 10YR 3/2 very dark grayish brown silt loam	
2i	U	7		II	0.80	0.90	10YR 4/6 dark yellowish brown silty clay loam	terminated - water
2i	U	8		I	0.00	0.50	10YR 3/2 very dark grayish brown silt loam	
2i	U	8		II	0.50	0.90	10YR 4/3 brown sandy loam	
2i	U	9		I	0.00	0.30	10YR 3/2 very dark grayish brown silt loam	
2i	U	9		II	0.30	0.80	10YR 4/3 brown sandy loam	
2i	V	5					Not Excavated	standing water
2i	V	6					Not Excavated	standing water
2i	V	7					Not Excavated	standing water
2i	V	8		I	0.00	0.70	10YR 4/3 brown silt loam	
2i	V	8		II	0.70	1.20	10YR 6/2 light brownish gray silt loam	
2i	V	9		I	0.00	0.80	10YR 4/3 brown silt loam	
2i	V	9		II	0.80	1.20	10YR 6/2 light brownish gray silt loam	
2i	V	10		I	0.00	0.40	10YR 4/3 brown silt loam	
2i	V	10		II	0.40	0.80	10YR 6/2 light brownish gray silt loam	
2i	W	6		I	0.00	0.70	10YR 6/4 light yellowish brown silt loam	
2i	W	6		II	0.70	1.10	10YR 6/4 light yellowish brown with manganese sandy clay loam	
2i	W	7		I	0.00	0.50	10YR 4/3 brown silt loam	
2i	W	7		II	0.50	0.90	10YR 6/2 light brownish gray with 7.5YR 5/4 brown silty clay loam	
2i	W	8		I	0.00	0.50	10YR 4/3 brown silt loam	

Area	Transect	STP	Radial	Level	Start Depth (ft.)	End Depth (ft.)	Soil Description	Comments
2i	W	8		II	0.50	0.90	10YR 6/2 light brownish gray with 7.5YR 5/4 brown silty clay loam	
2i	W	9		I	0.00	1.00	10YR 4/3 brown silt loam	
2i	W	9		II	1.00	1.40	10YR 6/2 light brownish gray with 7.5YR 5/4 brown silty clay loam	
2i	W	10					Not Excavated	slope
2i	X	7		I	0.00	0.30	10YR 3/3 dark brown silty sand	terminated - water
2i	X	8					Not Excavated	standing water
2i	X	9		I	0.00	0.40	10YR 3/4 dark yellowish brown silty clay	
2i	X	9		II	0.40	0.90	10YR 5/8 yellowish brown silty clay	
2i	X	10					Not Excavated	drainage
2i	X	11		I	0.00	0.40	10YR 3/4 dark yellowish brown silty clay	
2i	X	11		II	0.40	0.80	10YR 4/6 dark yellowish brown silty clay	
2i	X	12					Not Excavated	embankment
2i	Y	8		I	0.00	0.80	10YR 4/3 brown silt loam	
2i	Y	8		II	0.80	1.30	10YR 6/6 brownish yellow clay	
2i	Y	9		I	0.00	0.90	10YR 4/3 brown silt loam	terminated - root impasse
2i	Y	10		I	0.00	0.60	10YR 3/4 dark yellowish brown sandy loam	
2i	Y	10		II	0.60	1.00	10YR 6/4 light yellowish brown sand	
2i	Y	11		I	0.00	0.50	10YR 5/4 yellowish brown silt loam	
2i	Y	11		II	0.50	1.00	10YR 6/3 pale brown silt loam	
2i	Y	12					Not Excavated	sandbar
2i	Z	9		I	0.00	1.00	10YR 4/3 brown silt loam	
2i	Z	9		II	1.00	1.40	10YR 6/2 light brownish gray with 7.5YR 5/4 brown silty clay loam	
2i	Z	10		I	0.00	1.00	10YR 4/3 brown silt loam	
2i	Z	10		II	1.00	1.40	10YR 6/6 brownish yellow clay	
2i	Z	11		I	0.00	1.10	10YR 4/3 brown silt loam	
2i	Z	11		II	1.10	1.50	10YR 6/2 light brownish gray silt loam	
2i	Z	12		I	0.00	1.00	10YR 4/3 brown silt loam	
2i	Z	12		II	1.00	1.40	10YR 6/2 light brownish gray silt loam	
2i	AA	11					Not Excavated	embankment
2i	JM	1					Not Excavated	utility, slope
2j	A	1		I	0.00	0.20	10YR 3/2 very dark grayish brown silt loam	
2j	A	1		II	0.20	0.60	10YR 5/8 yellowish brown sandy loam	
2j	A	2		I	0.00	0.50	10YR 3/2 very dark grayish brown silt loam	
2j	A	2		II	0.50	1.00	10YR 5/8 yellowish brown sandy loam	
2j	A	3					Not Excavated	slope, fiber optic
2j	A	4					Not Excavated	slope, fiber optic
2j	A	5					Not Excavated	slope, fiber optic
2j	A	6					Not Excavated	slope, fiber optic
2j	A	7		I	0.00	0.10	10YR 4/4 dark yellowish brown sandy loam	
2j	A	7		II	0.10	1.40	10YR 6/8 brownish yellow sandy clay	
2j	A	8		I	0.00	0.30	10YR 4/4 dark yellowish brown sandy loam	
2j	A	8		II	0.30	0.80	10YR 6/8 brownish yellow sandy clay	
2j	A	9		I	0.00	0.70	10YR 4/4 dark yellowish brown sandy loam	
2j	A	9		II	0.70	1.10	10YR 6/8 brownish yellow sandy clay	
2j	A	10					Not Excavated	slope, powerline

Area	Transect	STP	Radial	Level	Start Depth (ft.)	End Depth (ft.)	Soil Description	Comments
2j	A	11					Not Excavated	slope, powerline
2j	A	12					Not Excavated	slope, powerline
2j	A	13					Not Excavated	slope, powerline
2j	A	14					Not Excavated	slope, powerline
2j	A	15					Not Excavated	slope, powerline
2k	R	1		I	0.00	0.10	10YR 4/3 brown silt loam	
2k	R	1		II	0.10	0.80	7.5YR 5/6 strong brown silty clay with degrading bedrock	
2k	S	1		I	0.00	0.60	10YR 4/3 brown silt loam	
2k	S	1		II	0.60	1.00	7.5YR 5/6 strong brown silty clay with degrading bedrock	
2k	S	2		I	0.00	0.60	10YR 4/3 brown silt loam	
2k	S	2		II	0.60	1.00	7.5YR 5/6 strong brown silty clay with degrading bedrock	
2k	T	1		I	0.00	0.60	2.5Y 4/2 dark grayish brown silt loam	
2k	T	1		II	0.60	1.00	2.5Y 6/3 light yellowish brown silt loam	
2k	T	1		III	1.00	1.40	10YR 6/4 light yellowish brown silt loam	
2k	T	2		I	0.00	0.50	2.5Y 4/2 dark grayish brown silt loam	
2k	T	2		II	0.50	0.80	2.5Y 6/3 light yellowish brown silt loam	
2k	T	2		III	0.80	1.20	10YR 6/4 light yellowish brown silt loam	
2k	U	1		I	0.00	0.40	2.5Y 4/2 dark grayish brown silt loam	
2k	U	1		II	0.40	1.00	2.5Y 6/3 light yellowish brown silt loam	
2k	U	1		III	1.00	1.40	10YR 6/4 light yellowish brown silt loam	
2k	U	2		I	0.00	0.40	2.5Y 4/2 dark grayish brown silt loam	
2k	U	2		II	0.40	1.00	2.5Y 6/3 light yellowish brown silt loam	
2k	U	2		III	1.00	1.4	10YR 6/4 light yellowish brown silt loam	
2k	V	1		I	0.00	0.10	2.5Y 4/2 dark grayish brown sandy loam	
2k	V	1		II	0.10	1.00	2.5Y 6/3 light yellowish brown sandy loam	
2k	V	1		III	1.00	1.50	10YR 6/4 light yellowish brown sandy clay	
2k	V	2		I	0.00	0.10	2.5Y 4/2 dark grayish brown sandy loam	
2k	V	2		II	0.10	0.70	2.5Y 6/3 light yellowish brown sandy loam	
2k	V	2		III	0.70	1.10	10YR 6/4 light yellowish brown sandy clay	
2k	V	3		I	0.00	0.30	2.5Y 4/2 dark grayish brown sandy loam	
2k	V	3		II	0.30	0.70	2.5Y 6/3 light yellowish brown sandy loam	
2k	V	3		III	0.70	1.10	10YR 6/4 light yellowish brown sandy clay	
2k	W	1		I	0.00	0.60	2.5Y 3/2 very dark grayish brown silt loam	
2k	W	1		II	0.60	1.00	2.5Y 6/4 light yellowish brown silty clay	
2k	W	2		I	0.00	0.50	2.5Y 3/2 very dark grayish brown silt loam	
2k	W	2		II	0.50	0.90	2.5Y 6/4 light yellowish brown silty clay	
2k	W	3		I	0.00	0.60	2.5Y 3/2 very dark grayish brown silt loam	
2k	W	3		II	0.60	1.00	2.5Y 6/4 light yellowish brown silty clay	
2k	W	4		I	0.00	0.30	2.5Y 3/2 very dark grayish brown silt loam	
2k	W	4		II	0.30	1.00	2.5Y 6/4 light yellowish brown silty clay	
2k	W	5		I	0.00	0.40	2.5Y 3/2 very dark grayish brown silt loam	
2k	W	5		II	0.40	1.00	2.5Y 6/4 light yellowish brown silty clay	
2k	X	1		I	0.00	0.30	2.5Y 3/2 very dark grayish brown silt loam	
2k	X	1		II	0.30	0.70	2.5Y 6/4 light yellowish brown silty clay	
2k	X	2		I	0.00	0.50	2.5Y 3/2 very dark grayish brown silt loam	

Area	Transect	STP	Radial	Level	Start Depth (ft.)	End Depth (ft.)	Soil Description	Comments
2k	X	2		II	0.50	1.00	2.5Y 6/4 light yellowish brown clay loam	
2k	X	3		I	0.00	0.60	2.5Y 3/2 very dark grayish brown silt loam	
2k	X	3		II	0.60	1.00	2.5Y 6/4 light yellowish brown sandy loam	
2k	Y	1					Not Excavated	fiber optic line
2k	Y	2					Not Excavated	fiber optic line
2k	Y	3					Not Excavated	fiber optic line
2k	Y	4					Not Excavated	fiber optic line
2k	Y	5					Not Excavated	fiber optic line
2k	Z	1		I	0.00	0.40	10YR 2/2 very dark brown sandy loam	
2k	Z	1		II	0.40	1.00	10YR 6/6 brownish yellow sandy clay	
3a	C	1		I	0.00	0.70	10YR 3/3 dark brown clay loam	
3a	C	1		II	0.70	1.00	7.5YR 5/4 brown sandy clay loam	
3a	C	1		III	1.00	1.60	10YR 5/4 yellowish brown sand	root impasse on floodplain
3a	C	2					Not Excavated	floodplain
3a	C	3					Not Excavated	
3a	C	4					Not Excavated	
3a	D	1		I	0.00	0.50	10YR 4/2 dark grayish brown sandy clay loam	
3a	D	1		II	0.50	1.00	7.5YR 5/6 strong brown and 10YR 4/2 dark grayish brown clay	
3a	D	2		I	0.00	0.40	10YR 4/2 dark grayish brown sandy clay loam	
3a	D	2		II	0.40	0.70	7.5YR 5/6 strong brown and 10YR 4/2 dark grayish brown clay	
3a	D	3		I	0.00	0.50	10YR 4/2 dark grayish brown sandy loam	
3a	D	3		II	0.50	0.70	10YR 4/6 dark yellowish brown sand	
3a	D	3		III	0.70	1.10	10YR 5/8 yellowish brown sand	
3a	D	4		I	0.00	0.50	10YR 4/2 dark grayish brown sandy loam	
3a	D	4		II	0.50	0.80	10YR 4/6 dark yellowish brown sand	
3a	D	4		III	0.80	1.10	10YR 5/8 yellowish brown sandy clay with approximately 25% surrounded - sub angular rocks	
3a	D	5		I	0.00	0.40	10YR 4/4 dark yellowish brown sandy loam	
3a	D	5		II	0.40	0.60	10YR 4/6 dark yellowish brown sandy loam	
3a	D	5		III	0.60	0.90	10YR 5/6 yellowish brown mottled with 2.5Y 8/2 pale yellow sandy clay	
3a	D	6		I	0.00	0.40	10YR 4/2 dark grayish brown sandy loam	
3a	D	6		II	0.40	0.60	10YR 4/6 dark yellowish brown sandy loam	
3a	D	6		III	0.60	1.20	10YR 5/8 yellowish brown sandy loam	
3a	D	7		I	0.00	0.40	10YR 4/2 dark grayish brown sandy loam	
3a	D	7		II	0.40	0.60	10YR 4/6 dark yellowish brown sandy loam	
3a	D	7		III	0.60	1.00	10YR 6/8 brownish yellow sand	
3a	D	8		I	0.00	0.40	10YR 4/2 dark grayish brown sandy loam	
3a	D	8		II	0.40	0.70	10YR 4/6 dark yellowish brown sandy loam	
3a	D	8		III	0.70	1.00	10YR 6/8 brownish yellow sand	
3a	D	9		I	0.00	0.20	10YR 4/2 dark grayish brown sandy loam	
3a	D	9		II	0.20	0.70	10YR 4/6 dark yellowish brown sandy loam	
3a	D	9		III	0.70	1.00	10YR 5/6 yellowish brown sand	
3a	D	10		I	0.00	0.30	10YR 4/2 dark grayish brown sandy loam	
3a	D	10		II	0.30	0.70	10YR 4/6 dark yellowish brown sandy loam	
3a	D	10		III	0.70	1.00	10YR 5/6 yellowish brown sand	

Area	Transect	STP	Radial	Level	Start Depth (ft.)	End Depth (ft.)	Soil Description	Comments
3a	D	11		I	0.00	0.20	10YR 4/2 dark grayish brown sandy loam	
3a	D	11		II	0.20	0.40	10YR 4/6 dark yellowish brown sandy loam	
3a	D	11		III	0.40	0.80	10YR 5/8 yellowish brown sandy loam	
3a	D	12		I	0.00	0.10	10YR 4/2 dark grayish brown sandy loam	
3a	D	12		II	0.10	0.60	10YR 4/6 dark yellowish brown sand	
3a	D	12		III	0.60	0.90	10YR 5/8 yellowish brown sandy clay	
3a	D	13					Not Excavated	steep slope
3a	D	14					Not Excavated	steep slope
3a	D	15					Not Excavated	steep slope
3a	D	16					Not Excavated	graded slope behind nursing home
3a	D	17					Not Excavated	graded slope behind nursing home
3a	D	18					Not Excavated	graded slope behind nursing home
3a	D	19					Not Excavated	graded slope behind nursing home
3a	D	20					Not Excavated	graded slope behind nursing home
3a	D	21					Not Excavated	graded slope behind nursing home
3a	D	22					Not Excavated	graded slope behind nursing home
3a	D	23					Not Excavated	graded slope behind nursing home
3a	D	24					Not Excavated	graded slope behind nursing home
3a	D	25					Not Excavated	graded slope behind nursing home
3a	D	26					Not Excavated	slope up to east in woods
3a	D	27		I	0.00	0.20	10YR 4/2 dark grayish brown sandy loam	
3a	D	27		II	0.20	0.50	10YR 4/2 dark grayish brown sandy loam with 7.5YR 5/8 strong brown sandy clay	
3a	D	27		III	0.50	1.10	7.5YR 5/8 strong brown sandy clay	
3a	D	28					Not Excavated	slope up to east
3a	D	29					Not Excavated	slope up to east
3a	D	30					Not Excavated	slope south to floodplain
3a	D	31					Not Excavated	slope south to floodplain
3a	D	32					Not Excavated	slope south to floodplain
3a	D	33					Not Excavated	slope south to floodplain
3a	D	34					Not Excavated	slope south to floodplain
3a	D	35		I	0.00	0.10	7.5YR 4/3 brown sandy loam and root mat	
3a	D	35		II	0.10	0.70	7.5YR 4/3 brown sandy loam	
3a	D	35		III	0.70	1.10	7.5YR 6/8 reddish yellow and 5Y 8/2 pale yellow mottled with 7.5YR 5/8 strong brown clay	
3a	D	36		I	0.00	0.80	7.5YR 4/3 brown clay loam	
3a	D	36		II	0.80	1.30	7.5YR 6/8 reddish yellow clay with 7.5YR 5/8 strong brown mottles	
3a	D	37		I	0.00	1.20	10YR 4/4 dark yellowish brown clay loam	
3a	D	37		II	1.20	2.10	7.5YR 5/6 strong brown clay/ clay loam	water seeping in
3a	D	38		I	0.00	1.20	10YR 4/4 dark yellowish brown clay loam	
3a	D	38		II	1.20	2.20	7.5YR 5/6 strong brown clay/ clay loam	
3a	D	39					Not Excavated	bank of river
3a	E	1					Not Excavated	slope
3a	F	1					Not Excavated	old access road, disturbed
3a	F	2					Not Excavated	old access road, disturbed
3a	JM	1		I	0.00	1.90	10YR 4/3 brown sand	

Area	Transect	STP	Radial	Level	Start Depth (ft.)	End Depth (ft.)	Soil Description	Comments
3a	JM	1		II	1.90	2.00	10YR 6/3 pale brown sand	
3a	JM	2		I	0.00	2.00	10YR 4/3 brown sand	
3a	JM	2		II	2.00	3.00	10YR 6/3 pale brown sand	
3b	A	1		I	0.00	0.90	10YR 2/1 black sandy loam with road gravels at surface and pebbles and cobbles below	
3b	A	1		II	0.90	1.30	10YR 5/4 yellowish brown coarse sand with pockets of 5Y 8/2 pale yellow and 7.5YR 5/6 strong brown	
3b	A	2		I	0.00	0.30	7.5YR 2.5/3 very dark brown sand	
3b	A	2		II	0.30	1.60	7.5YR 4/3 brown sand with cobbles, brick, shell, charcoal, wood, and bone	
3b	A	2		III	1.60	2.20	7.5YR 4/3 brown sand with very small fragments of shell	
3b	A	3		I	0.00	2.10	10YR 2/2 very dark brown coarse sand	possible intact brick at base of STP
3b	A	4		I	0.00	1.00	10YR 3/6 dark yellowish brown clay loam	
3b	A	4		II	1.00	2.20	10YR 3/4 dark yellowish brown sand	
3b	A	4		III	2.20	2.70	10YR 5/6 yellowish brown clay loam	
3b	A	4		IV	2.70	3.00	10YR 4/6 dark yellowish brown sandy clay loam	
3c	A	1		I	0.00	0.20	10YR 4/3 brown clay loam	
3c	A	1		II	0.20	0.90	10YR 5/4 yellowish brown clay loam	
3c	A	1		III	0.90	1.30	7.5YR 5/8 strong brown clay	
3c	A	2		I	0.00	0.20	10YR 4/3 brown clay loam	
3c	A	2		II	0.20	0.60	10YR 5/4 yellowish brown clay loam	
3c	A	2		III	0.60	1.00	7.5YR 5/8 strong brown clay	
3c	A	3		I	0.00	0.20	10YR 4/3 brown clay loam	
3c	A	3		II	0.20	0.70	10YR 5/4 yellowish brown clay loam	
3c	A	3		III	0.70	1.10	7.5YR 5/8 strong brown clay	
3c	B	1		I	0.00	0.10	10YR 4/3 brown clay loam	
3c	B	1		II	0.10	0.40	10YR 5/4 yellowish brown clay loam	
3c	B	1		III	0.40	0.90	7.5YR 5/8 strong brown clay	
3c	B	2		I	0.00	0.10	10YR 4/3 brown clay loam	
3c	B	2		II	0.10	0.60	10YR 5/4 yellowish brown clay loam	
3c	B	2		III	0.60	1.00	7.5YR 5/8 strong brown clay	
3c	B	3		I	0.00	0.10	10YR 4/3 brown clay loam	
3c	B	3		II	0.10	0.40	10YR 5/4 yellowish brown clay loam	
3c	B	3		III	0.40	1.00	10YR 4/3 brown clay loam	
3c	C	1		I			Not Excavated	flooded
3c	C	2		I	0.00	0.70	10YR 4/3 brown clay loam	wet
3c	C	2		II	0.70	0.90	7.5YR 5/6 strong brown mottled with 7.5YR 5/8 strong brown clay	
3c	C	3		I	0.00	0.60	10YR 4/4 dark yellowish brown clay loam	
3c	C	3		II	0.60	0.90	7.5YR 5/6 strong brown clay	
3c	D	1					Not Excavated	graded slope down to drainage ditch
3c	D	2		I	0.00	0.40	10YR 4/4 dark yellowish brown clay loam	
3c	D	2		II	0.40	0.80	7.5YR 5/6 strong brown clay with pockets of 10YR 6/8 brownish yellow clay	
3c	D	3		I	0.00	0.40	10YR 4/4 dark yellowish brown clay loam	
3c	D	3		II	0.40	0.80	7.5YR 5/6 strong brown clay with pockets of 10YR 6/8 brownish yellow clay	
3c	D	4		I	0.00	0.60	10YR 4/4 dark yellowish brown clay loam	

Area	Transect	STP	Radial	Level	Start Depth (ft.)	End Depth (ft.)	Soil Description	Comments
3c	D	4		II	0.60	0.90	10YR 4/4 dark yellowish brown clay loam and 7.5YR 5/8 strong brown clay	
3c	D	4		III	0.90	1.20	7.5YR 5/8 strong brown clay	
3c	D	5					Not Excavated	ditch and rocks
3c	E	1					Not Excavated	graded area near road
3c	E	2		I	0.00	0.50	10YR 4/3 brown clay loam	
3c	E	2		II	0.50	0.90	7.5YR 5/6 strong brown clay with pockets of 10YR 6/8 brownish yellow clay	
3c	E	3		I	0.00	0.50	10YR 4/3 brown clay loam	
3c	E	3		II	0.50	0.90	7.5YR 5/6 strong brown clay with pockets of 10YR 6/8 brownish yellow clay	
3c	E	4	East	I	0.00	0.50	10YR 4/3 brown clay loam	
3c	E	4	East	II	0.50	0.90	7.5YR 5/6 strong brown clay with pockets of 10YR 6/8 brownish yellow clay	
3c	E	4	North	I	0.00	0.50	10YR 4/3 brown clay loam	
3c	E	4	North	II	0.50	1.00	7.5YR 5/6 strong brown clay with pockets of 10YR 6/8 brownish yellow clay	
3c	E	4	South	I	0.00	0.60	10YR 4/3 brown clay loam	
3c	E	4	South	II	0.60	1.00	7.5YR 5/6 strong brown clay with pockets of 10YR 6/8 brownish yellow clay	
3c	E	4	West	I	0.00	0.70	10YR 4/3 brown clay loam	
3c	E	4	West	II	0.70	1.00	7.5YR 5/6 strong brown clay with pockets of 10YR 6/8 brownish yellow clay	
3c	E	4		I	0.00	0.40	10YR 4/4 dark yellowish brown clay loam	
3c	E	4		II	0.40	0.80	7.5YR 5/6 strong brown with large pockets of 10YR 6/8 brownish yellow clay	
3c	F	1					Not Excavated	graded area near road
3c	F	2		I	0.00	0.40	10YR 4/3 brown clay loam	
3c	F	2		II	0.40	1.00	7.5YR 5/6 strong brown clay with pockets of 10YR 6/8 brownish yellow clay	
3c	F	3		I	0.00	0.60	10YR 4/3 brown clay loam	
3c	F	3		II	0.60	1.00	7.5YR 5/6 strong brown clay with pockets of 10YR 6/8 brownish yellow clay	
3c	F	4		I	0.00	0.40	10YR 4/3 brown clay loam	
3c	F	4		II	0.40	0.70	7.5YR 5/6 strong brown clay with pockets of 10YR 6/8 brownish yellow clay	
3c	G	1		I	0.00	0.40	10YR 4/3 brown clay loam	
3c	G	1		II	0.40	0.80	7.5YR 5/8 strong brown clay	
3c	G	2		I	0.00	0.60	10YR 4/3 brown clay loam	
3c	G	2		II	0.60	1.00	7.5YR 5/8 strong brown clay	
3c	G	3					Not Excavated	standing water
3c	G	4		I	0.00	1.40	10YR 2/1 black sand	
3c	G	4		II	1.40	1.80	2.5Y 3/2 very dark grayish brown sand	wet
3c	G	5		I	0.00	0.60	10YR 2/1 black sand	water at 0.3'
3c	G	6		I	0.00	0.60	10YR 4/3 brown sand	
3c	G	6		II	0.60	0.90	10YR 8/2 very pale brown sand	wet
3c	G	7		I	0.00	0.60	10YR 4/3 brown sand	
3c	G	7		II	0.60	1.00	10YR 8/2 very pale brown sand	wet
3c	G	8					Not Excavated	disturbed, utilities
3c	H	1					Not Excavated	roots and large trees
3c	H	2		I	0.00	0.40	10YR 2/2 very dark brown sand	
3c	H	2		II	0.40	0.70	10YR 6/4 light yellowish brown sand	
3c	H	2		III	0.70	1.20	10YR 4/6 dark yellowish brown sand	
3c	H	3		I	0.00	0.60	10YR 2/2 very dark brown sand	
3c	H	3		II	0.60	0.90	10YR 6/4 light yellowish brown sand	
3c	H	3		III	0.90	1.20	10YR 4/6 dark yellowish brown sand	

Area	Transect	STP	Radial	Level	Start Depth (ft.)	End Depth (ft.)	Soil Description	Comments
3c	H	4		I	0.00	0.80	Mix of 10YR 2/2 very dark brown, 10YR 6/4 light yellowish brown, and 10YR 4/6 dark yellowish brown sand	
3c	H	4		II	0.80	1.10	10YR 4/6 dark yellowish brown sandy clay	
3c	H	5		I	0.00	0.60	10YR 2/2 very dark brown sand	
3c	H	5		II	0.60	0.90	10YR 6/4 light yellowish brown sand	
3c	H	5		III	0.90	1.30	10YR 4/6 dark yellowish brown sandy clay	
3c	H	6		I	0.00	0.20	10YR 4/4 dark yellowish brown loam and root mat	terminated - root impasse
3c	H	7		I	0.00	0.30	10YR 6/4 light yellowish brown sand	
3c	H	7		II	0.30	0.60	10YR 4/6 dark yellowish brown sandy clay	
3c	H	7		III	0.60	0.90	10YR 4/4 dark yellowish brown loam and root mat	
3c	H	8					Not Excavated	large roots
3c	H	9		I	0.00	0.40	10YR 2/1 black fine sand	
3c	H	9		II	0.40	1.00	7.5YR 5/6 strong brown sand	flooding
3c	H	10		I	0.00	0.50	10YR 2/1 black fine sand	
3c	H	10		II	0.50	0.90	7.5YR 5/6 strong brown sand	hydric
3c	H	11					Not Excavated	roots
3c	H	12		I	0.00	0.30	10YR 2/1 black sand	wet, flooding
3c	H	13		I	0.00	0.50	10YR 4/2 dark grayish brown sand	
3c	H	13		II	0.50	0.90	7.5YR 5/6 strong brown mottled with 7.5YR 5/8 strong brown sandy clay	
3c	H	14		I	0.00	0.60	10YR 4/2 dark grayish brown sand	
3c	H	14		II	0.60	0.80	7.5YR 5/6 strong brown mottled with 7.5YR 5/8 strong brown sandy clay	
3c	I	1					Not Excavated	utility
3c	I	2					Not Excavated	utility
3c	I	3					Not Excavated	utility
3c	J	1		I	0.00	0.70	10YR 3/4 dark yellowish brown with 10YR 6/4 light yellowish brown compact silt loam	
3c	J	1		II	0.70	1.30	10YR 4/3 brown silt loam	
3c	J	1		III	1.30	1.70	10YR 5/6 yellowish brown silty clay loam	
3c	J	2					Not Excavated	utility
3c	J	3		I	0.00	1.00	10YR 3/4 dark yellowish brown with 10YR 6/4 light yellowish brown and 7.5YR 5/6 strong brown silty clay loam	
3c	J	3		II	1.00	1.40	7.5YR 5/6 strong brown silty clay loam	
3c	J	4		I	0.00	1.00	10YR 5/3 brown silt loam	
3c	J	4		II	1.00	1.30	10YR 5/3 brown with 10YR 5/6 yellowish brown silty clay loam	
3c	J	4		III	1.30	1.40	10YR 3/2 very dark grayish brown silt loam	terminated - root impasse
3c	J	5		I	0.00	1.00	10YR 4/4 dark yellowish brown silt loam	
3c	J	5		II	1.00	1.40	10YR 4/6 dark yellowish brown silty clay loam	
3c	K	1					Not Excavated	utility
3d	A	1		I	0.00	0.70	10YR 4/4 dark yellowish brown silt loam	
3d	A	1		II	0.70	1.10	10YR 7/8 yellow silt loam	
3d	A	2		I	0.00	0.50	10YR 4/4 dark yellowish brown silt loam	
3d	A	2		II	0.50	0.90	10YR 7/8 yellow clay loam	
3d	A	3		I	0.00	0.80	10YR 4/4 dark yellowish brown silt loam	
3d	A	3		II	0.80	1.20	10YR 7/8 yellow clay loam	
3d	A	4		I	0.00	0.30	10YR 4/4 dark yellowish brown silt loam	

Area	Transect	STP	Radial	Level	Start Depth (ft.)	End Depth (ft.)	Soil Description	Comments
3d	A	4		II	0.30	0.80	10YR 7/8 yellow clay loam	
3d	A	5		I	0.00	0.80	10YR 4/4 dark yellowish brown silt loam	
3d	A	5		II	0.80	1.20	10YR 7/8 yellow clay loam	
3d	A	6		I	0.00	0.40	10YR 4/4 dark yellowish brown silt loam	
3d	A	6		II	0.40	0.80	5YR 4/6 yellowish red clay loam	
3d	A	7		I	0.00	0.40	10YR 4/4 dark yellowish brown silt loam	
3d	A	7		II	0.40	0.60	5YR 4/6 yellowish red clay loam	root disturbance
3d	A	8		I	0.00	0.60	10YR 4/4 dark yellowish brown silt	
3d	A	8		II	0.60	1.00	5YR 4/6 yellowish red clay	
3f	A	1		I	0.00	0.30	10YR 2/1 black loam with humus and road gravels	
3f	A	1		II	0.30	0.40	10YR 5/8 yellowish brown clay loam with road gravels	
3f	A	1		III	0.40	0.60	10YR 5/8 yellowish brown compacted clay	
3f	A	2					Not Excavated	push pile
3f	A	3					Not Excavated	push pile
3f	A	4					Not Excavated	push pile
3f	A	5		I	0.00	0.30	10YR 2/1 black loam with humus and road gravels	
3f	A	5		II	0.30	0.70	10YR 5/8 yellowish brown clay loam with road gravels	
3f	A	5		III	0.70	0.80	10YR 5/8 yellowish brown compacted clay	terminated - root impasse
3f	A	6		I	0.00	0.20	10YR 2/1 black loam and gravels	disturbed
3f	A	6		II	0.20	0.40	10YR 5/8 yellowish brown clay loam with road gravels	
3f	A	6		III	0.40	0.90	10YR 2/2 very dark brown clay loam with gravels	
3f	A	6		IV	0.90	1.50	10YR 4/4 dark yellowish brown clay loam and gravels	
3f	A	7					Not Excavated	road
3f	A	8					Not Excavated	gravels
3f	A	9					Not Excavated	tower
3f	A	10					Not Excavated	in cemetery
3f	A	11		I	0.00	0.20	10YR 2/1 black sand and root mat	
3f	A	11		II	0.20	0.90	2.5Y 4/2 dark grayish brown sand	
3f	A	11		III	0.90	1.20	2.5Y 5/6 light olive brown sandy clay and clay loam	
3f	A	12					Not Excavated	gravel road
3f	A	13		I	0.00	0.40	10YR 2/1 black sand	
3f	A	13		II	0.40	0.80	2.5Y 4/2 dark grayish brown sand	
3f	A	13		III	0.80	1.10	10YR 2/1 black sand	
3f	A	13		IV	1.10	1.40	2.5Y 4/2 dark grayish brown sand	
3f	A	13		V	1.40	1.70	2.5Y 5/6 light olive brown sandy clay and clay loam	
3f	B	8	East	I	0.00	0.20	10YR 4/2 dark yellowish brown sand	
3f	B	8	East	II	0.20	0.90	7.5YR 5/6 strong brown sandy clay	
3f	B	8	North	I	0.00	0.60	10YR 4/2 dark yellowish brown sandy loam	
3f	B	8	North	II	0.60	0.90	7.5YR 5/6 strong brown sandy clay	
3f	B	8		I	0.00	0.10	10YR 2/1 black sand and humus	terminated - brick bats immediately below surface
3f	B	9		I	0.00	0.30	10YR 2/1 black sand and humus	
3f	B	9		II	0.30	0.60	2.5Y 4/2 dark grayish brown sand	
3f	B	9		III	0.60	1.00	2.5Y 5/6 light olive brown sandy clay loam	
3f	B	10		I	0.00	0.10	10YR 2/1 black sand and humus	

Area	Transect	STP	Radial	Level	Start Depth (ft.)	End Depth (ft.)	Soil Description	Comments
3f	B	10		II	0.10	0.50	2.5Y 4/2 dark grayish brown sand	
3f	B	10		III	0.50	1.00	2.5Y 5/6 light olive brown sandy clay loam	
3f	C	1		I	0.00	0.20	10YR 2/1 black sand	
3f	C	1		II	0.20	0.40	mix of 2.5Y 4/2 dark grayish brown and 2.5Y 5/6 light olive brown sandy clay	
3f	C	1		III	0.40	0.80	2.5Y 4/2 dark grayish brown sand	
3f	C	1		IV	0.80	1.10	7.5YR 5/6 strong brown sand	
3f	C	2		I	0.00	0.10	10YR 2/1 black sand and root mat	
3f	C	2		II	0.10	0.80	2.5Y 4/2 dark grayish brown sand	
3f	C	2		III	0.80	1.10	7.5YR 5/6 strong brown sand	
3f	C	3		I	0.00	0.20	10YR 2/1 black sand and root mat	
3f	C	3		II	0.20	0.70	10YR 3/4 dark yellowish brown and 10YR 5/6 yellowish brown coarse sand	
3f	C	3		III	0.70	0.80	10YR 2/1 black sand	
3f	C	3		IV	0.80	1.10	10YR 5/2 grayish brown silt sand with brick flecks	
3f	C	3		V	1.10	1.30	2.5Y 5/4 light olive brown fine sand	
3f	C	4		I	0.00	0.10	10YR 2/1 black sand and root mat	
3f	C	4		II	0.10	0.20	2.5Y 5/4 light olive brown fine sand	
3f	C	4		III	0.20	0.30	10YR 2/1 black sand	
3f	C	4		IV	0.30	0.40	10YR 5/2 grayish brown sand	
3f	C	4		V	0.40	0.80	10YR 4/4 dark yellowish brown sand	
3f	C	4		VI	0.80	1.20	2.5Y 5/4 light olive brown fine sand	
3f	C	5					Not Excavated	push pile and road
3f	C	6					Not Excavated	road
3f	C	7					Not Excavated	road
3f	C	8					Not Excavated	road
3f	C	9		I	0.00	0.20	10YR 2/1 black sand and root mat	
3f	C	9		II	0.20	0.80	2.5Y 4/2 dark grayish brown sand	
3f	C	9		III	0.80	1.10	7.5YR 5/6 strong brown sand	
3f	C	10					Not Excavated	push pile
3f	C	11					Not Excavated	push pile, slope
3f	C	12		I	0.00	1.00	mix of 10YR 2/1 black sand, 10YR 5/8 yellowish brown sand, 2.5Y 4/2 dark grayish brown sand, 7.5YR 5/8 strong brown sandy clay, and 2.5Y 4/2 dark grayish brown sandy clay	
3f	C	13		I	0.00	0.20	10YR 2/1 black sand with road gravels	
3f	C	13		II	0.20	0.60	10YR 5/2 grayish brown sand with gravels	
3f	C	13		III	0.60	1.00	7.5YR 5/8 strong brown sandy clay with gravels	
3f	C	14					Not Excavated	slope, above ravine
3f	C	15					Not Excavated	ravine
3f	C	16					Not Excavated	ravine
3f	C	17					Not Excavated	ravine
3f	C	18					Not Excavated	ravine
3f	C	19		I	0.00	0.20	10YR 2/1 black sand and roots	
3f	C	19		II	0.20	0.30	2.5Y 4/2 dark grayish brown sand	
3f	C	19		III	0.30	0.70	7.5YR 5/6 strong brown sandy clay loam	
3f	C	20		I	0.00	0.70	10YR 2/1 black and root	
3f	C	20		II	0.70	1.00	7.5YR 5/6 strong brown sandy clay with gravels	

Area	Transect	STP	Radial	Level	Start Depth (ft.)	End Depth (ft.)	Soil Description	Comments
3f	C	20		III	1.00	1.30	7.5YR 5/8 strong brown sandy clay with gravels	on ridge top
3f	C	21		I	0.00	0.50	10YR 2/1 black and root	
3f	C	21		II	0.50	0.70	7.5YR 5/6 strong brown sandy clay with gravels	
3f	C	21		III	0.70	0.80	7.5YR 5/8 strong brown sandy clay with gravels	terminated - root impasse, on ridge top
3f	C	22		I	0.00	2.00	10YR 2/1 black sand with pockets and lenses of 7.5YR 5/8 strong brown and charcoal	
3f	C	23		I	0.00	0.30	10YR 2/1 sand root mat	
3f	C	23		II	0.30	0.40	10YR 4/3 brown sand	
3f	C	23		III	0.40	0.60	7.5YR 5/6 strong brown sandy clay	
3f	C	24		I	0.00	0.10	10YR 4/3 brown sandy clay with gravels	
3f	C	24		II	0.10	0.70	10YR 4/3 brown sandy clay with 10YR 6/8 brownish yellow clay	
3f	C	24		III	0.70	1.10	10YR 6/8 brownish yellow clay	
3f	C	25	East	I	0.00	0.70	10YR 2/1 black sand and humus	
3f	C	25	East	II	0.70	1.10	10YR 4/4 dark yellowish brown sand	
3f	C	25	North	I	0.00	0.80	mix of 10YR 2/1 black sand with coal and charcoal, 10YR 4/2 dark grayish brown sand, and 7.5YR 5/6 strong brown sandy clay	
3f	C	25	North	II	0.80	1.10	10YR 2/1 black sand with coal and charcoal	
3f	C	25	North	III	1.10	1.40	10YR 4/2 dark grayish brown sand	
3f	C	25	North	IV	1.40	1.70	7.5YR 5/6 strong brown sandy clay	
3f	C	25	South	I	0.00	0.15	10YR 2/1 black sand and humus	
3f	C	25	South	II	0.15	0.50	7.5YR 5/6 strong brown sandy clay with gravels	
3f	C	25	West	I	0.00	0.40	10YR 2/1 black sand with coal	
3f	C	25	West	II	0.40	1.00	7.5YR 5/6 strong brown sandy clay	
3f	C	25		I	0.00	0.60	10YR 2/1 black sand	cut nail
3f	C	25		II	0.60	1.00	mix of 10YR 4/3 brown sand with 10YR 2/1 black sand	
3f	C	25		III	1.00	1.30	7.5YR 5/6 strong brown sandy clay	disturbed
3f	C	26					Not Excavated	push pile, slope
3f	C	27					Not Excavated	push pile, slope
3f	C	28					Not Excavated	push pile, slope
3f	C	29					Not Excavated	push pile, slope
3f	C	30					Not Excavated	push pile, slope
3f	C	31					Not Excavated	push pile, slope
3f	C	32					Not Excavated	push pile, slope
3f	C	33					Not Excavated	push pile, slope
3f	C	34					Not Excavated	push pile, slope
3f	C	35					Not Excavated	push pile, slope
3f	C	36					Not Excavated	push pile, slope
3f	C	37					Not Excavated	push pile, slope
3f	C	38					Not Excavated	push pile, slope
3f	C	39					Not Excavated	push pile, slope
3f	C	40					Not Excavated	push pile, slope
3f	C	41					Not Excavated	push pile, slope
3f	C	42					Not Excavated	push pile, slope
3f	C	43					Not Excavated	push pile, slope

Area	Transect	STP	Radial	Level	Start Depth (ft.)	End Depth (ft.)	Soil Description	Comments
3f	C	44					Not Excavated	push pile, slope
3f	C	45					Not Excavated	push pile, slope
3f	C	46					Not Excavated	push pile, slope
3f	C	47					Not Excavated	push pile, slope
3f	C	48					Not Excavated	push pile, slope
3f	C	49					Not Excavated	push pile, slope
3f	C	50					Not Excavated	push pile, slope
3f	C	51					Not Excavated	push pile, slope
3f	C	52					Not Excavated	push pile, slope
3f	C	53					Not Excavated	push pile, slope
3f	C	54					Not Excavated	push pile, slope
3f	C	55					Not Excavated	slope, buried utilities
3f	C	56					Not Excavated	slope, buried utilities
3f	C	57					Not Excavated	slope, buried utilities
3f	C	58					Not Excavated	slope, buried utilities
3f	C	59					Not Excavated	slope, buried utilities
3f	C	60					Not Excavated	slope, buried utilities
3f	C	61					Not Excavated	slope, buried utilities
3f	C	62					Not Excavated	slope, buried utilities
3f	C	63					Not Excavated	slope, buried utilities
3f	C	64					Not Excavated	slope, buried utilities
3f	C	65					Not Excavated	slope, buried utilities
3f	C	66					Not Excavated	slope, buried utilities
3f	C	67					Not Excavated	slope, buried utilities
3f	C	68					Not Excavated	slope, buried utilities
3f	C	69					Not Excavated	slope, buried utilities
3f	C	70					Not Excavated	slope, buried utilities
3f	C	71					Not Excavated	slope, buried utilities
3f	C	72					Not Excavated	slope, buried utilities
3f	C	73					Not Excavated	slope, buried utilities
3f	C	74					Not Excavated	slope, buried utilities
3f	C	75					Not Excavated	slope, buried utilities
3f	C	76					Not Excavated	slope, buried utilities
3f	C	77					Not Excavated	slope, buried utilities
3f	D	3		I	0.00	0.30	10YR 2/1 black sand and root mat	
3f	D	3		II	0.30	0.50	10YR 4/4 dark yellowish brown sand and gravels	
3f	D	3		III	0.50	0.80	7.5YR 5/6 strong brown sandy clay and gravels	
3f	D	4					Not Excavated	tire/ refuse dump
3f	D	5		I	0.00	0.40	10YR 2/1 black sand and root mass	
3f	D	5		II	0.40	0.70	10YR 4/3 brown sand	terminated - root impasse
3f	D	6		I	0.00	0.20	10YR 2/1 black sand and root mass	
3f	D	6		II	0.20	0.60	10YR 4/3 brown sand with pockets of 7.5YR 5/6 strong brown sandy clay	
3f	D	6		III	0.60	1.00	7.5YR 5/6 strong brown sandy clay	
3f	D	7		I	0.00	0.30	10YR 2/1 black sand and root mat	
3f	D	7		II	0.30	0.40	10YR 5/2 grayish brown sand	

Area	Transect	STP	Radial	Level	Start Depth (ft.)	End Depth (ft.)	Soil Description	Comments
3f	D	7		III	0.40	0.80	2.5Y 5/4 dark grayish brown sandy clay with gravels	
3f	D	8					Not Excavated	slope, buried utilities
3f	D	15					Not Excavated	ridge to west of road
3f	D	16					Not Excavated	slope
3f	D	17					Not Excavated	in road
3f	D	18					Not Excavated	in road
3f	D	19					Not Excavated	slope
3f	D	20		I	0.00	0.10	10YR 2/1 black root mat and sand	
3f	D	20		II	0.10	0.30	mix of 10YR 4/4 dark yellowish brown sand and 7.5YR 5/8 strong brown sandy clay	
3f	D	20		III	0.30	0.70	7.5YR 5/8 strong brown sandy clay	
3f	D	21					Not Excavated	in road
3f	D	22					Not Excavated	slope
3f	D	23					Not Excavated	steep slope
3f	D	24					Not Excavated	steep slope
3f	D	25		I	0.00	0.50	10YR 2/1 black sand and humus	
3f	D	25		II	0.50	0.90	10YR 4/4 dark yellowish brown sand	
3f	D	25		III	0.90	1.20	10YR 6/8 brownish yellow sandy clay	
3f	D	26					Not Excavated	outside project area
3f	D	27					Not Excavated	outside project area
3f	D	28					Not Excavated	push pile
3f	D	29		I	0.00	0.20	10YR 2/1 black sand and humus	
3f	D	29		II	0.20	0.40	10YR 4/4 dark yellowish brown sand	
3f	D	29		III	0.40	0.70	10YR 6/8 brownish yellow sandy clay	
3f	D	30		I	0.00	0.20	10YR 2/1 black sand and humus	
3f	D	30		II	0.20	0.30	10YR 4/4 dark yellowish brown sand with 50% gravels	
3f	D	30		III	0.30	0.70	10YR 6/8 brownish yellow sandy clay	
3f	D	31		I	0.00	0.10	10YR 2/1 black sand and humus	
3f	D	31		II	0.10	0.40	10YR 4/4 dark yellowish brown sand	
3f	D	31		III	0.40	1.00	10YR 6/8 brownish yellow sandy clay with 50% gravels	
3f	D	32		I	0.00	0.30	10YR 2/1 black sand and humus	
3f	D	32		II	0.30	0.70	10YR 4/6 dark yellowish brown sand	
3f	D	32		III	0.70	1.20	10YR 6/8 brownish yellow sandy clay	
3f	D	33		I	0.00	0.10	10YR 2/1 black sand and humus	
3f	D	33		II	0.10	0.20	10YR 4/4 dark yellowish brown sand	
3f	D	33		III	0.20	0.70	10YR 6/8 brownish yellow sandy clay	
3f	D	34		I	0.00	0.10	10YR 2/1 black sand and roots	
3f	D	34		II	0.10	0.50	10YR 4/6 dark yellowish brown sand	
3f	D	34		III	0.50	1.00	10YR 6/8 brownish yellow sandy clay	
3f	D	35		I	0.00	0.20	10YR 2/1 black sand and roots	
3f	D	35		II	0.20	0.60	10YR 4/6 dark yellowish brown sand	
3f	D	35		III	0.60	1.10	10YR 6/8 brownish yellow sandy clay	
3f	D	36		I	0.00	0.30	10YR 2/1 black sand and roots	
3f	D	36		II	0.30	0.50	10YR 4/6 dark yellowish brown sand	
3f	D	36		III	0.50	0.70	10YR 6/8 brownish yellow sandy clay	terminated - root impasse
3f	D	37		I	0.00	0.20	10YR 2/1 black sand and roots	

Area	Transect	STP	Radial	Level	Start Depth (ft.)	End Depth (ft.)	Soil Description	Comments
3f	D	37		II	0.20	0.40	10YR 4/6 dark yellowish brown sand	
3f	D	37		III	0.40	0.80	10YR 6/8 brownish yellow sandy clay	
3f	D	38		I	0.00	0.40	10YR 2/1 black sand and roots	
3f	D	38		II	0.40	0.80	10YR 4/6 dark yellowish brown sand	
3f	D	38		III	0.80	1.20	10YR 6/8 brownish yellow sandy clay	
3f	D	39		I	0.00	0.30	10YR 2/1 black sand and roots	
3f	D	39		II	0.30	0.70	10YR 4/6 dark yellowish brown sand	terminated - root impasse
3f	D	40		I	0.00	0.20	10YR 2/1 black sand	
3f	D	40		II	0.20	0.70	10YR 4/4 dark yellowish brown sand	
3f	D	40		III	0.70	1.10	10YR 6/8 brownish yellow sandy clay	slope
3f	D	41		I	0.00	0.10	10YR 2/1 black sand	
3f	D	41		II	0.10	0.30	10YR 4/4 dark yellowish brown sand	
3f	D	41		III	0.30	0.80	10YR 6/8 brownish yellow sandy clay	slope
3f	D	42		I	0.00	0.10	10YR 2/1 black sand	
3f	D	42		II	0.10	0.40	10YR 4/4 dark yellowish brown sand	
3f	D	42		III	0.40	0.90	10YR 6/8 brownish yellow sandy clay	slope
3f	D	43		I	0.00	0.10	10YR 2/1 black sand	
3f	D	43		II	0.10	0.40	10YR 4/4 dark yellowish brown sand	
3f	D	43		III	0.40	1.00	10YR 6/8 brownish yellow sandy clay	slope
3f	D	44					Not Excavated	slope
3f	D	45		I	0.00	0.30	10YR 2/1 black sand	
3f	D	45		II	0.30	0.60	10YR 4/4 dark yellowish brown sand	
3f	D	45		III	0.60	1.00	10YR 6/8 brownish yellow sandy clay	
3f	D	46	East	I	0.00	0.40	10YR 2/1 black sand and root mass	
3f	D	46	East	II	0.40	0.80	10YR 4/4 dark yellowish brown sand with gravels	
3f	D	46	East	III	0.80	1.10	7.5YR 5/6 strong brown sandy clay with gravels	
3f	D	46	North	I	0.00	0.30	10YR 2/1 black sand and root mat	
3f	D	46	North	II	0.30	0.50	10YR 4/4 dark yellowish brown sand	
3f	D	46	North	III	0.50	1.10	10YR 6/8 brownish yellow sandy clay	
3f	D	46	South	I	0.00	0.40	10YR 2/1 black sand and root mass	
3f	D	46	South	II	0.40	0.80	10YR 4/4 dark yellowish brown sand with gravels	
3f	D	46	South	III	0.80	1.20	7.5YR 5/6 strong brown sandy clay with gravels	
3f	D	46	West				Not Excavated	write-off
3f	D	46		I	0.00	0.30	10YR 2/1 black sand with humus	
3f	D	46		II	0.30	0.60	10YR 4/4 dark yellowish brown sand	
3f	D	46		III	0.60	0.90	10YR 6/8 brownish yellow sandy clay	atop possible earthwork
3f	D	47		I	0.00	0.30	10YR 2/1 black sand with humus	
3f	D	47		II	0.30	0.40	10YR 4/4 dark yellowish brown sand	
3f	D	47		III	0.40	1.00	10YR 6/8 brownish yellow sandy clay	north of possible earthwork
3f	D	48		I	0.00	0.10	10YR 2/1 black sand with humus	
3f	D	48		II	0.10	0.50	10YR 4/4 dark yellowish brown sand	
3f	D	48		III	0.50	1.00	10YR 6/8 brownish yellow sandy clay	
3f	D	49		I	0.00	0.20	10YR 2/1 black sand with humus	
3f	D	49		II	0.20	0.60	10YR 4/4 dark yellowish brown sand	

Area	Transect	STP	Radial	Level	Start Depth (ft.)	End Depth (ft.)	Soil Description	Comments
3f	D	49		III	0.60	0.90	10YR 6/8 brownish yellow sandy clay	gentle slope down to edge of ridge top
3f	D	50		I	0.00	0.30	10YR 2/1 black sand with humus	
3f	D	50		II	0.30	0.40	10YR 4/4 dark yellowish brown sand	
3f	D	50		III	0.40	0.60	10YR 6/8 brownish yellow sandy clay	terminated - root impasse
3f	D	51		I	0.00	0.20	10YR 2/1 black sand with humus	
3f	D	51		II	0.20	0.60	10YR 4/4 dark yellowish brown sand	
3f	D	51		III	0.60	1.00	10YR 6/8 brownish yellow sandy clay	gentle slope
3f	D	52		I	0.00	0.30	10YR 2/1 black sand	
3f	D	52		II	0.30	0.60	10YR 4/4 dark yellowish brown sand with gravels	
3f	D	52		III	0.60	1.10	10YR 6/8 brownish yellow sandy clay with gravels	gentle slope down
3f	D	53		I	0.00	0.30	10YR 2/1 black sand	
3f	D	53		II	0.30	0.70	10YR 4/4 dark yellowish brown sand with gravels	
3f	D	53		III	0.70	1.00	10YR 6/8 brownish yellow sandy clay with gravels	
3f	D	54		I	0.00	0.30	10YR 2/1 black sand	
3f	D	54		II	0.30	0.60	10YR 4/4 dark yellowish brown sand with gravels	
3f	D	54		III	0.60	1.00	10YR 6/8 brownish yellow sandy clay with gravels	level upland
3f	D	55		I	0.00	0.40	10YR 2/1 black sand	
3f	D	55		II	0.40	0.80	10YR 4/4 dark yellowish brown sand with gravels	
3f	D	55		III	0.80	1.00	10YR 6/8 brownish yellow sandy clay with gravels	terminated - root impasse, level upland
3f	D	56		I	0.00	0.20	10YR 2/1 black sand	
3f	D	56		II	0.20	0.40	10YR 4/4 dark yellowish brown sand with gravels	
3f	D	56		III	0.40	0.90	10YR 6/8 brownish yellow sandy clay with gravels	
3f	D	57					Not Excavated	slopes and water
3f	D	58					Not Excavated	slopes and water
3f	D	59					Not Excavated	slopes and water
3f	D	60					Not Excavated	slopes and water
3f	D	61					Not Excavated	slopes and water
3f	D	62					Not Excavated	slopes and water
3f	D	63		I	0.00	0.40	10YR 2/1 black sand and roots	
3f	D	63		II	0.40	0.80	10YR 4/4 dark yellowish brown sand and gravels	
3f	D	63		III	0.80	1.10	7.5YR 5/6 strong brown sandy clay	
3f	D	64		I	0.00	0.40	10YR 2/1 black sand and humus with 50% gravels	
3f	D	64		II	0.40	0.60	10YR 4/2 dark grayish brown sand with 50% gravels	
3f	D	64		III	0.60	1.00	7.5YR 5/6 strong brown sandy clay with 50% gravels	
3f	D	65		I	0.00	0.20	10YR 2/1 black sand and humus with 50% gravels	
3f	D	65		II	0.20	0.30	10YR 4/2 dark grayish brown compacted sand with 50% gravels	
3f	D	65		III	0.30	0.60	7.5YR 5/6 strong brown sandy clay with 50% gravels	
3f	D	66		I	0.00	0.30	10YR 2/1 black sand and humus with 50% gravels	
3f	D	66		II	0.30	0.50	10YR 4/2 dark grayish brown sand with 50% gravels	
3f	D	66		III	0.50	0.90	7.5YR 5/6 strong brown sandy clay with 50% gravels	
3f	D	67		I	0.00	0.20	10YR 2/1 black sand and humus with 50% gravels	
3f	D	67		II	0.20	0.30	10YR 4/2 dark grayish brown sand with 50% gravels	
3f	D	67		III	0.30	0.70	7.5YR 5/6 strong brown sandy clay with 50% gravels	

Area	Transect	STP	Radial	Level	Start Depth (ft.)	End Depth (ft.)	Soil Description	Comments
3f	D	68		I	0.00	0.10	10YR 2/1 black sand and humus with 50% gravels	
3f	D	68		II	0.10	0.30	10YR 4/2 dark grayish brown sand with 50% gravels	
3f	D	68		III	0.30	0.80	7.5YR 5/6 strong brown sandy clay with 50% gravels	
3f	D	69					Not Excavated	on slope
3f	D	70		I	0.00	0.10	10YR 2/1 black sand and humus	
3f	D	70		II	0.10	0.50	10YR 4/4 dark yellowish brown sand	
3f	D	70		III	0.50	0.90	7.5YR 5/6 strong brown sandy clay with gravels	
3f	D	71		I	0.00	0.10	10YR 4/2 dark grayish brown sand and humus	
3f	D	71		II	0.10	0.40	10YR 4/2 dark grayish brown sand	
3f	D	71		III	0.40	0.90	10YR 6/8 brownish yellow sand	
3f	D	72		I	0.00	0.20	10YR 4/2 dark grayish brown sand and humus	
3f	D	72		II	0.20	0.60	10YR 4/2 dark grayish brown sand	
3f	D	72		III	0.60	1.00	10YR 6/8 brownish yellow sand	
3f	D	73		I	0.00	0.10	10YR 4/2 dark grayish brown sand and humus	
3f	D	73		II	0.10	0.30	10YR 4/2 dark grayish brown sand	
3f	D	73		III	0.30	0.80	10YR 6/8 brownish yellow sand	
3f	D	74					Not Excavated	ravine
3f	D	75					Not Excavated	ravine
3f	E	16					Not Excavated	steep slope
3f	E	17		I	0.00	0.10	10YR 2/1 black sand and root mat	
3f	E	17		II	0.10	0.30	10YR 4/4 dark yellowish brown sand	
3f	E	17		III	0.30	1.00	7.5YR 5/6 strong brown sand with 25-50% gravels	
3f	E	18					Not Excavated	wet
3f	E	19		I	0.00	0.40	10YR 2/1 black sand and root mat	
3f	E	19		II	0.40	0.80	10YR 4/2 dark grayish brown sand	
3f	E	19		III	0.80	1.20	7.5YR 5/6 strong brown sandy clay	
3f	E	20		I	0.00	0.20	10YR 2/1 black sand and root mat	
3f	E	20		II	0.20	0.40	10YR 4/2 dark grayish brown sand	
3f	E	20		III	0.40	1.00	7.5YR 5/6 strong brown sandy clay	
3f	E	21		I	0.00	0.10	10YR 2/1 black sand and root mat	
3f	E	21		II	0.10	0.40	10YR 4/2 dark grayish brown sand	
3f	E	21		III	0.40	1.00	7.5YR 5/6 strong brown sandy clay	
3f	F	16					Not Excavated	steep slope
3f	F	17		I	0.00	0.10	10YR 2/1 black sand and root mat	
3f	F	17		II	0.10	0.50	10YR 4/4 dark yellowish brown sand	
3f	F	17		III	0.50	1.10	7.5YR 5/6 strong brown sand with 25-50% gravels	
3f	F	18					Not Excavated	wet
3f	F	19		I	0.00	0.30	10YR 2/1 black sand and root mat	
3f	F	19		II	0.30	0.70	10YR 4/4 dark yellowish brown sand	
3f	F	19		III	0.70	1.00	7.5YR 5/6 strong brown sandy clay	
3f	F	20		I	0.00	0.20	10YR 2/1 black sand and root mat	
3f	F	20		II	0.20	0.50	10YR 4/2 dark grayish brown sand	
3f	F	20		III	0.50	0.90	7.5YR 5/6 strong brown sandy clay	
3f	F	21		I	0.00	0.20	10YR 2/1 black sand and root mat	
3f	F	21		II	0.20	0.30	10YR 4/2 dark grayish brown sand	

Area	Transect	STP	Radial	Level	Start Depth (ft.)	End Depth (ft.)	Soil Description	Comments
3f	F	21		III	0.30	0.90	7.5YR 5/6 strong brown sandy clay	
3f	G	16					Not Excavated	steep slope
3f	G	17		I	0.00	0.10	10YR 2/1 black sand and root mat	
3f	G	17		II	0.10	0.30	10YR 4/4 dark yellowish brown sand	
3f	G	17		III	0.30	1.10	10YR 6/8 brownish yellow sand with 25-50% gravels	
3f	G	18					Not Excavated	wet
3f	G	19					Not Excavated	slope
3f	G	20					Not Excavated	slope
3f	G	21		I	0.00	0.30	10YR 2/1 black sand and root mat	
3f	G	21		II	0.30	0.70	10YR 4/2 dark grayish brown sand	
3f	G	21		III	0.70	1.10	7.5YR 5/6 strong brown sandy clay	
3f	H	16					Not Excavated	steep slope
3f	H	17		I	0.00	0.20	10YR 4/2 dark grayish brown sand with gravels	
3f	H	17		II	0.20	0.60	10YR 4/4 dark yellowish brown sand with gravels	
3f	H	17		III	0.60	1.00	10YR 6/8 brownish yellow sand with gravels	terminated - root impasse, wet
3f	H	18					Not Excavated	wet
3f	H	19					Not Excavated	slope
3f	H	20					Not Excavated	slope
3f	H	21		I	0.00	0.30	10YR 2/1 black sand and root mat	
3f	H	21		II	0.30	0.70	10YR 4/2 dark grayish brown sand	terminated - root impasse
3f	I	1		I	0.00	0.10	10YR 2/1 black sand	
3f	I	1		II	0.10	0.20	10YR 4/6 dark yellowish brown sand	
3f	I	1		III	0.20	1.20	10YR 6/8 brownish yellow sandy clay with gravels	
3f	I	2					Not Excavated	steep slope
3f	I	3					Not Excavated	steep slope
3f	I	4					Not Excavated	steep slope
3f	I	5					Not Excavated	steep slope
3f	I	6					Not Excavated	steep slope
3f	I	7					Not Excavated	steep slope
3f	I	8					Not Excavated	steep slope
3f	I	9					Not Excavated	steep slope
3f	I	10					Not Excavated	steep slope
3f	J	1					Not Excavated	ravine
3f	J	2					Not Excavated	ravine
3f	J	3					Not Excavated	ravine
3f	J	4					Not Excavated	eroded road cut
3f	J	5					Not Excavated	eroded road cut
3f	J	6					Not Excavated	eroded road cut
3f	J	7					Not Excavated	eroded road cut
3f	J	8					Not Excavated	eroded road cut
3f	J	9					Not Excavated	eroded road cut
3f	J	10					Not Excavated	eroded road cut
3f	K	1					Not Excavated	ravine, slope
3f	K	2					Not Excavated	ravine, slope
3f	K	3					Not Excavated	ravine, slope

Area	Transect	STP	Radial	Level	Start Depth (ft.)	End Depth (ft.)	Soil Description	Comments
3f	K	4					Not Excavated	ravine, slope
3f	K	5					Not Excavated	ravine, slope
3f	K	6					Not Excavated	ravine, slope
3f	K	7					Not Excavated	ravine, slope
3f	K	8					Not Excavated	ravine, slope
3f	K	9					Not Excavated	ravine, slope
3f	K	10					Not Excavated	ravine, slope
3f	K	11					Not Excavated	ravine, slope
3f	K	12					Not Excavated	ravine, slope
3f	K	13					Not Excavated	ravine, slope
3f	K	14					Not Excavated	ravine, slope
3f	K	15					Not Excavated	ravine, slope
3f	K	16					Not Excavated	ravine, slope
3f	K	17					Not Excavated	ravine, slope
3f	K	18					Not Excavated	ravine, slope
3f	K	19					Not Excavated	ravine, slope
3f	K	20					Not Excavated	ravine, slope
3f	K	21					Not Excavated	ravine, slope
3f	K	22					Not Excavated	ravine, slope
3f	K	23					Not Excavated	ravine, slope
3f	K	24		I	0.00	0.10	10YR 2/1 black organic loam	
3f	K	24		II	0.10	0.70	10YR 6/6 brownish yellow clay loam with 25% gravels	
3f	K	24		III	0.70	1.00	10YR 6/6 brownish yellow clay with 25% gravels	
3f	K	25		I	0.00	0.10	10YR 2/1 black organic loam	
3f	K	25		II	0.10	0.70	10YR 6/6 brownish yellow clay loam with 25% gravels	
3f	K	25		III	0.70	1.00	10YR 6/6 brownish yellow clay with 25% gravels	
3f	K	26		I	0.00	0.20	10YR 2/1 black organic loam	
3f	K	26		II	0.20	0.60	10YR 6/6 brownish yellow clay loam with 25% gravels	
3f	K	26		III	0.60	1.00	10YR 6/6 brownish yellow clay with 25% gravels	
3f	K	27					Not Excavated	ravine, slope
3f	K	28		I	0.00	0.40	10YR 2/1 black sand and root mass	
3f	K	28		II	0.40	0.60	10YR 4/4 dark yellowish brown sand with gravels	
3f	K	28		III	0.60	1.00	7.5YR 5/6 strong brown sandy clay with gravels	
3f	K	29		I	0.00	0.10	10YR 2/1 black organic loam	
3f	K	29		II	0.10	0.60	10YR 6/6 brownish yellow clay loam with 25% gravels	
3f	K	29		III	0.60	0.90	10YR 6/6 brownish yellow clay with 25% gravels	
3f	K	30		I	0.00	0.10	10YR 2/1 black organic loam	
3f	K	30		II	0.10	0.70	10YR 6/6 brownish yellow clay loam with 25% gravels	
3f	K	30		III	0.70	1.10	10YR 6/6 brownish yellow clay with 25% gravels	
3f	L	2					Not Excavated	ravine, slope
3f	L	3					Not Excavated	ravine, slope
3f	L	4					Not Excavated	ravine, slope
3f	L	5					Not Excavated	ravine, slope
3f	L	6					Not Excavated	ravine, slope
3f	L	7					Not Excavated	ravine, slope

Area	Transect	STP	Radial	Level	Start Depth (ft.)	End Depth (ft.)	Soil Description	Comments
3f	L	8					Not Excavated	ravine, slope
3f	L	9					Not Excavated	ravine, slope
3f	L	10					Not Excavated	ravine, slope
3f	L	11					Not Excavated	ravine, slope
3f	L	12					Not Excavated	ravine, slope
3f	L	13					Not Excavated	ravine, slope
3f	L	14					Not Excavated	ravine, slope
3f	L	15					Not Excavated	ravine, slope
3f	L	16					Not Excavated	ravine, slope
3f	L	17					Not Excavated	ravine, slope
3f	L	18					Not Excavated	ravine, slope
3f	L	19					Not Excavated	ravine, slope
3f	L	20		I	0.00	0.10	10YR 2/1 black sand and humus	
3f	L	20		II	0.10	0.50	7.5YR 5/6 strong brown sandy clay with 50% gravels	
3f	L	21		I	0.00	0.10	10YR 2/1 black organic loam	
3f	L	21		II	0.10	0.60	10YR 6/6 brownish yellow clay loam with 25% gravels	terminated - root impasse
3f	L	22		I	0.00	0.20	10YR 2/1 black organic loam	
3f	L	22		II	0.20	0.70	10YR 6/6 brownish yellow clay loam with 25% gravels	
3f	L	22		III	0.70	1.00	10YR 6/6 brownish yellow clay with 25% gravels	
3f	L	23		I	0.00	0.10	10YR 2/1 black organic loam	
3f	L	23		II	0.10	0.80	10YR 6/6 brownish yellow clay loam with 25% gravels	
3f	L	23		III	0.80	1.20	10YR 6/6 brownish yellow clay with 25% gravels	
3f	L	24					Not Excavated	ravine, slope
3f	L	25					Not Excavated	ravine
3f	L	26					Not Excavated	ravine
3f	L	27		I	0.00	0.10	10YR 2/1 black sand and root mass	
3f	L	27		II	0.10	0.20	10YR 4/4 dark yellowish brown sand with gravels	
3f	L	27		III	0.20	0.70	7.5YR 5/6 strong brown sandy clay with gravels	
3f	L	28		I	0.00	0.50	10YR 2/1 black sand and root mass	
3f	L	28		II	0.50	0.80	10YR 4/4 dark yellowish brown sand with gravels	
3f	L	28		III	0.80	1.10	7.5YR 5/6 strong brown sandy clay with gravels	
3f	L	29		I	0.00	0.50	10YR 2/1 black sand and root mass	
3f	L	29		II	0.50	0.80	10YR 4/4 dark yellowish brown sand with gravels	
3f	L	29		III	0.80	1.10	7.5YR 5/6 strong brown sandy clay with gravels	
3f	L	30		I	0.00	0.50	10YR 2/1 black sand and root mass	
3f	L	30		II	0.50	0.80	10YR 4/4 dark yellowish brown sand with gravels	
3f	L	30		III	0.80	1.10	7.5YR 5/6 strong brown sandy clay with gravels	
3f	M	1		I	0.00	0.90	10YR 4/3 brown silty sand	
3f	M	1		II	0.90	1.10	10YR 2/1 black with 10YR 6/6 brownish yellow silty sand	
3f	M	1		III	1.10	1.50	10YR 6/6 brownish yellow silty sand	
3f	M	2					Not Excavated	disturbed/utilities
3f	M	3					Not Excavated	disturbed/utilities
3f	M	4					Not Excavated	disturbed/utilities
3f	M	5					Not Excavated	disturbed/utilities
3f	M	6					Not Excavated	disturbed/utilities

Area	Transect	STP	Radial	Level	Start Depth (ft.)	End Depth (ft.)	Soil Description	Comments
3f	N	1		I	0.00	0.40	10YR 4/3 brown silty sand	
3f	N	1		II	0.40	0.80	10YR 6/6 brownish yellow silty sand	
3f	N	2					Not Excavated	railroad berm
3f	N	3		I	0.00	0.40	10YR 4/3 brown silty sand	
3f	N	3		II	0.40	0.80	10YR 6/6 brownish yellow silty sand	
3f	N	4		I	0.00	0.30	10YR 4/3 brown silty sand	
3f	N	4		II	0.30	0.70	10YR 6/6 brownish yellow silty sand	
3f	N	5		I	0.00	0.40	10YR 4/3 brown silty sand	
3f	N	5		II	0.40	0.80	10YR 6/6 brownish yellow silty sand	
3f	N	6		I	0.00	0.20	10YR 4/3 brown silty sand	
3f	N	6		II	0.20	0.60	10YR 6/6 brownish yellow silty sand	
3f	N	7		I	0.00	0.30	10YR 4/3 brown silty sand	
3f	N	7		II	0.30	0.90	10YR 6/6 brownish yellow silty sand	
3f	N	8		I	0.00	0.20	10YR 4/3 brown silty sand	
3f	N	8		II	0.20	0.60	10YR 6/6 brownish yellow silty sand	
3f	N	9		I	0.00	0.30	10YR 4/3 brown silty sand	
3f	N	9		II	0.30	0.70	10YR 6/6 brownish yellow silty sand	
3f	N	10		I	0.00	0.30	10YR 4/3 brown silty sand	
3f	N	10		II	0.30	0.70	10YR 6/6 brownish yellow silty sand	
3f	N	11		I	0.00	0.20	10YR 4/3 brown silty sand	
3f	N	11		II	0.20	0.60	10YR 6/6 brownish yellow silty sand	
3f	N	12		I	0.00	0.10	10YR 4/3 brown silty sand	
3f	N	12		II	0.10	0.50	10YR 6/6 brownish yellow silty sand	
3f	N	13		I	0.00	0.20	10YR 4/3 brown silty sand	
3f	N	13		II	0.20	0.60	10YR 6/6 brownish yellow silty sand	
3f	N	14		I	0.00	0.30	10YR 4/3 brown silty sand	
3f	N	14		II	0.30	0.60	10YR 6/6 brownish yellow silty sand	
3f	N	15		I	0.00	0.30	10YR 4/3 brown silty sand	
3f	N	15		II	0.30	0.70	10YR 6/6 brownish yellow silty sand	
3f	N	16		I	0.00	0.20	10YR 3/4 dark yellowish brown silty sand	
3f	N	16		II	0.20	0.60	10YR 6/6 brownish yellow silty sand	
3f	N	17		I	0.00	0.30	10YR 3/4 dark yellowish brown silty sand	
3f	N	17		II	0.30	0.70	10YR 6/6 brownish yellow silty sand	
3f	N	18		I	0.00	0.20	10YR 3/4 dark yellowish brown silty sand	
3f	N	18		II	0.20	0.70	10YR 6/6 brownish yellow silty sand	
3f	N	19		I	0.00	0.30	10YR 3/4 dark yellowish brown silty sand	
3f	N	19		II	0.30	0.70	10YR 6/6 brownish yellow silty sand	
3f	N	20		I	0.00	0.20	10YR 3/4 dark yellowish brown silty sand	
3f	N	20		II	0.20	0.60	10YR 6/6 brownish yellow silty sand	
3f	N	21		I	0.00	0.30	10YR 3/4 dark yellowish brown silty sand	
3f	N	21		II	0.30	0.70	10YR 6/6 brownish yellow silty sand	
3f	N	22		I	0.00	0.20	10YR 3/4 dark yellowish brown silty sand	
3f	N	22		II	0.20	0.60	10YR 6/6 brownish yellow silty sand	
3f	N	23		I	0.00	0.30	10YR 3/4 dark yellowish brown silty sand	
3f	N	23		II	0.30	0.80	10YR 6/6 brownish yellow silty sand	

Area	Transect	STP	Radial	Level	Start Depth (ft.)	End Depth (ft.)	Soil Description	Comments
4b	A	1		I	0.00	0.90	10YR 3/4 dark yellowish brown silt loam	
4b	A	1		II	0.90	1.30	10YR 5/6 yellowish brown silty clay with high percentage of rounded gravel	
4b	A	2		I	0.00	0.90	10YR 3/4 dark yellowish brown silt loam	
4b	A	2		II	0.90	1.30	10YR 5/6 yellowish brown silty clay with high percentage of rounded gravel	
4b	A	3		I	0.00	0.90	10YR 3/4 dark yellowish brown silt loam	
4b	A	3		II	0.90	1.30	10YR 5/6 yellowish brown silty clay with high percentage of rounded gravel	
4b	A	4		I	0.00	0.80	10YR 4/4 dark yellowish brown sandy loam	
4b	A	4		II	0.80	1.20	10YR 5/6 yellowish brown silty clay	
4b	A	5		I	0.00	0.90	10YR 4/4 dark yellowish brown sandy loam	
4b	A	5		II	0.90	1.30	10YR 5/6 yellowish brown silty clay	
4b	A	6		I	0.00	1.00	10YR 4/4 dark yellowish brown sandy loam	
4b	A	6		II	1.00	1.40	10YR 5/6 yellowish brown silty clay	
4d	B	1		I	0.00	0.30	10YR 4/3 brown sandy loam	
4d	B	1		II	0.30	1.50	10YR 6/3 pale brown clay sand with banding and angular gravel	
4d	B	1		III	1.50	1.90	10YR 4/1 dark gray sandy clay	
4d	B	2		I	0.00	0.30	10YR 4/3 brown sandy loam	
4d	B	2		II	0.30	1.00	10YR 6/3 pale brown sandy loam with pockets of various clay	
4d	B	2		III	1.00	1.40	7.5YR 6/6 reddish yellow sandy clay	
4d	B	3		I	0.00	0.30	10YR 4/3 brown sandy loam	
4d	B	3		II	0.30	1.00	10YR 6/3 pale brown sandy loam with pockets of various clay	
4d	B	3		III	1.00	1.40	7.5YR 6/6 reddish yellow sandy clay	
4d	B	4					Not Excavated	narrow berm between access road and slope down to railroad, disturbed
4d	B	5					Not Excavated	narrow berm between access road and slope down to railroad, disturbed
4d	B	6					Not Excavated	narrow berm between access road and slope down to railroad, disturbed
4d	B	7					Not Excavated	narrow berm between access road and slope down to railroad, disturbed
4d	B	8					Not Excavated	narrow berm between access road and slope down to railroad, disturbed
4d	B	9					Not Excavated	narrow berm between access road and slope down to railroad, disturbed
4d	B	10		I	0.00	0.40	10YR 5/3 brown sandy loam	
4d	B	10		II	0.40	1.10	10YR 6/3 pale brown sandy loam with pockets of various clay	
4d	B	10		III	1.10	1.20	10YR 2/1 black sandy loam	
4d	B	10		IV	1.20	1.60	10YR 6/6 brownish yellow sandy clay	
4d	B	11					Not Excavated	ditch/berm at railroad grade
4d	C	1		I	0.00	1.00	2.5Y 4/2 dark grayish brown sandy loam	
4d	C	1		II	1.00	1.40	10YR 6/6 brownish yellow sandy clay	

Area	Transect	STP	Radial	Level	Start Depth (ft.)	End Depth (ft.)	Soil Description	Comments
4d	C	2					Not Excavated	sewer line and rail grade
4d	C	3					Not Excavated	sewer line and rail grade
4d	C	4					Not Excavated	sewer line and rail grade
4d	C	5					Not Excavated	sewer line and rail grade
4d	C	6					Not Excavated	sewer line and rail grade
4d	C	7					Not Excavated	sewer line and rail grade
4d	C	8		I	0.00	0.90	2.5Y 4/3 olive brown sandy loam	
4d	C	8		II	0.90	1.20	10YR 6/4 light yellowish brown sandy clay	
4d	C	9					Not Excavated	eroded road/sewer line
4d	D	1		I	0.00	0.20	2.5Y 4/2 dark grayish brown sandy loam	
4d	D	1		II	0.20	1.00	7.5YR 5/8 strong brown sandy clay	
4d	D	2		I	0.00	0.20	10YR 4/3 brown sandy loam	
4d	D	2		II	0.20	0.60	7.5YR 6/6 reddish yellow sandy clay	
4d	D	2		III	0.60	1.00	10YR 6/6 brownish yellow sandy clay	
4d	D	3					Not Excavated	push pile
4d	D	4		I	0.00	0.20	10YR 3/3 dark brown sandy loam	
4d	D	4		II	0.20	0.80	10YR 6/6 brownish yellow sandy clay	
4d	E	1		I	0.00	0.30	2.5Y 4/2 dark grayish brown sandy loam	
4d	E	1		II	0.30	1.00	10YR 6/6 brownish yellow sandy clay	
4d	E	2		I	0.00	0.20	2.5Y 4/2 dark grayish brown sandy loam	
4d	E	2		II	0.20	0.80	10YR 6/6 brownish yellow sandy clay	
4d	E	3		I	0.00	0.20	2.5Y 4/2 dark grayish brown sandy loam	
4d	E	3		II	0.20	0.60	10YR 6/6 brownish yellow sandy clay	
4d	E	4		I	0.00	0.20	2.5Y 4/2 dark grayish brown sandy loam	
4d	E	4		II	0.20	1.10	60% 10YR 6/3 pale brown, 20% 10YR 6/8 brownish yellow, and 20% 10YR 2/1 black sandy clay loam	
4d	E	4		III	1.10	1.50	10YR 6/6 brownish yellow sandy clay	
4f	A	1		I	0.00	1.50	Various clumps and bands of 10YR 6/8 brownish yellow, 2.5Y 4/2 dark grayish brown, and 10YR 6/6 brownish yellow sandy loam and sandy clay with 40% gravel	disturbed
4f	A	2		I	0.00	1.50	Various clumps and bands of 10YR 6/8 brownish yellow, 2.5Y 4/2 dark grayish brown, and 10YR 6/6 brownish yellow sandy loam and sandy clay with 40% gravel	disturbed
4f	A	3		I	0.00	1.50	Various clumps and bands of 10YR 6/8 brownish yellow, 2.5Y 4/2 dark grayish brown, and 10YR 6/6 brownish yellow sandy loam and sandy clay with 40% gravel	disturbed
4f	A	4		I	0.00	1.50	Various clumps and bands of 10YR 6/8 brownish yellow, 2.5Y 4/2 dark grayish brown, and 10YR 6/6 brownish yellow sandy loam and sandy clay with 40% gravel	disturbed
4f	A	5		I	0.00	1.50	Various clumps and bands of 10YR 6/8 brownish yellow, 2.5Y 4/2 dark grayish brown, and 10YR 6/6 brownish yellow sandy loam and sandy clay with 40% gravel	disturbed
4f	A	6		I	0.00	1.50	Various clumps and bands of 10YR 6/8 brownish yellow, 2.5Y 4/2 dark grayish brown, and 10YR 6/6 brownish yellow sandy loam and sandy clay with 40% gravel	disturbed
4f	A	7		I	0.00	1.50	Various clumps and bands of 10YR 6/8 brownish yellow, 2.5Y 4/2 dark grayish brown, and 10YR 6/6 brownish yellow sandy loam and sandy clay with 40% gravel	disturbed
4f	A	8		I	0.00	1.50	Various clumps and bands of 10YR 6/8 brownish yellow, 2.5Y 4/2 dark grayish brown, and 10YR 6/6 brownish yellow sandy loam and sandy clay with 40% gravel	disturbed
4f	A	9		I	0.00	1.50	Various clumps and bands of 10YR 6/8 brownish yellow, 2.5Y 4/2 dark grayish brown, and 10YR 6/6 brownish yellow sandy loam and sandy clay with 40% gravel	disturbed
5a	A	1		I	0.00	0.10	2.5Y 5/3 light olive brown clay loam	

Area	Transect	STP	Radial	Level	Start Depth (ft.)	End Depth (ft.)	Soil Description	Comments
5a	A	1		II	0.10	1.00	2.5Y 6/4 light yellowish brown silty clay	
5a	A	2		I	0.00	0.10	2.5Y 5/3 light olive brown clay loam	
5a	A	2		II	0.10	0.60	2.5Y 6/4 light yellowish brown silty clay	
5a	A	3		I	0.00	0.10	2.5Y 5/3 light olive brown clay loam	
5a	A	3		II	0.10	0.60	2.5Y 6/4 light yellowish brown silty clay	
5a	A	4	East	I	0.00	0.40	2.5Y 5/3 light olive brown clay loam	
5a	A	4	East	II	0.40	1.00	2.5Y 6/4 light yellowish brown silty clay	
5a	A	4	West	I	0.00	0.50	2.5Y 5/3 light olive brown clay loam	
5a	A	4	West	II	0.50	1.00	2.5Y 6/4 light yellowish brown silty clay	
5a	A	4		I	0.00	0.30	2.5Y 5/3 light olive brown clay loam	
5a	A	4		II	0.30	1.00	2.5Y 6/4 light yellowish brown silty clay	
5a	A	5		I	0.00	0.40	2.5Y 5/3 light olive brown clay loam	
5a	A	5		II	0.40	1.00	2.5Y 6/4 light yellowish brown silty clay	
5a	A	6		I	0.00	0.50	2.5Y 5/3 light olive brown clay loam	
5a	A	6		II	0.50	1.00	2.5Y 6/4 light yellowish brown silty clay	
5a	B	1		I	0.00	0.60	2.5 3/3 dark olive brown silt loam with 40% gravel	
5a	B	1		II	0.60	1.00	2.5Y 6/4 light yellowish brown silty clay	
5a	B	2		I	0.00	1.50	mixed sands and clays	disturbed
5a	C	1		I	0.00	0.40	2.5Y 4/3 olive brown sandy loam	
5a	C	1		II	0.40	0.80	10YR 6/6 brownish yellow sandy clay	
5a	C	2		I	0.00	0.60	2.5Y 4/3 olive brown sandy loam	
5a	C	2		II	0.60	1.00	10YR 6/6 brownish yellow sandy clay	
5a	C	3		I	0.00	0.80	2.5Y 4/3 olive brown sandy loam	
5a	C	3		II	0.80	1.20	10YR 6/6 brownish yellow sandy clay	
5a	C	4		I	0.00	0.70	2.5Y 4/3 olive brown sandy loam	
5a	C	4		II	0.70	1.10	10YR 6/6 brownish yellow sandy clay	
5b	U	1		I	0.00	0.30	2.5Y 4/3 olive brown silt loam	
5b	U	1		II	0.30	0.70	7.5YR 5/6 strong brown silty clay	
5b	V	1		I	0.00	0.30	10YR 4/3 brown sandy loam	
5b	V	1		II	0.30	1.00	10YR 5/4 yellowish brown sandy loam mottled with 10YR 6/8 brownish yellow sandy clay and 35% rounded gravels and cobbles	
5b	V	2		I	0.00	0.30	10YR 4/3 brown sandy loam	
5b	V	2		II	0.30	1.00	10YR 5/4 yellowish brown sandy loam mottled with 10YR 6/8 brownish yellow sandy clay and 35% rounded gravels and cobbles	
5b	V	3		I	0.00	0.30	10YR 4/3 brown sandy loam	
5b	V	3		II	0.30	1.00	10YR 5/4 yellowish brown sandy loam mottled with 10YR 6/8 brownish yellow sandy clay and 35% rounded gravels and cobbles	
5b	V	4		I	0.00	0.60	10YR 4/3 brown sandy loam	
5b	V	4		II	0.60	1.00	10YR 5/2 grayish brown mottled with 7.5YR 5/6 strong brown sandy clay	
5b	V	5		I	0.00	0.20	10YR 4/3 brown sandy loam	
5b	V	5		II	0.20	0.80	10YR 5/2 grayish brown mottled with 10YR 5/6 yellowish brown sandy clay and 30% gravel	
5b	V	6					Not Excavated	sewer main
5b	V	7					Not Excavated	creek/stream
5b	V	8		I	0.00	1.30	10YR 4/3 brown sandy loam	

Area	Transect	STP	Radial	Level	Start Depth (ft.)	End Depth (ft.)	Soil Description	Comments
5b	V	8		II	1.30	1.70	10YR 4/3 brown sandy clay with 40% 7.5YR 4/6 strong brown oxidation	
5b	V	9		I	0.00	1.30	10YR 4/3 brown sandy loam	
5b	V	9		II	1.30	1.70	10YR 6/4 light yellowish brown sandy clay	
5b	W	1		I	0.00	0.30	2.5Y 4/3 olive brown silt loam	
5b	W	1		II	0.30	0.70	7.5YR 5/6 strong brown silty clay	
5b	W	2		I	0.00	0.30	2.5Y 4/3 olive brown silt loam	
5b	W	2		II	0.30	0.70	7.5YR 5/6 strong brown silty clay	
5b	W	3		I	0.00	0.20	2.5Y 4/3 olive brown silt loam	
5b	W	3		II	0.20	0.60	7.5YR 5/6 strong brown silty clay	
5b	W	4		I	0.00	0.20	2.5Y 4/3 olive brown silt loam	
5b	W	4		II	0.20	0.80	7.5YR 5/6 strong brown silty clay	
5b	W	5		I	0.00	0.40	2.5Y 4/3 olive brown sandy loam	
5b	W	5		II	0.40	0.80	10YR 6/6 brownish yellow sandy clay	
5b	W	6		I	0.00	0.40	2.5Y 4/3 olive brown sandy loam	
5b	W	6		II	0.40	0.80	10YR 6/6 brownish yellow sandy clay	
5b	X	1		I	0.00	0.90	2.5Y 4/3 olive brown sandy loam	
5b	X	1		II	0.90	1.30	10YR 6/4 light yellowish brown sandy clay	
5b	X	2		I	0.00	0.90	2.5Y 4/3 olive brown sandy loam	
5b	X	2		II	0.90	1.30	10YR 6/4 light yellowish brown sandy clay	
5b	X	3		I	0.00	0.30	2.5Y 4/3 olive brown sandy loam	
5b	X	3		II	0.30	0.70	10YR 6/4 light yellowish brown sandy clay	
5b	X	4		I	0.00	0.40	2.5Y 4/3 olive brown sandy loam	
5b	X	4		II	0.40	0.80	10YR 6/4 light yellowish brown sandy clay	
5b	X	5		I	0.00	0.20	2.5Y 4/3 olive brown sandy loam	
5b	X	5		II	0.20	0.80	10YR 6/4 light yellowish brown sandy clay	
5b	X	6		I	0.00	0.40	2.5Y 4/3 olive brown sandy loam	
5b	X	6		II	0.40	0.80	10YR 6/4 light yellowish brown sandy clay	
5b	Y	1					Not Excavated	disturbed
5b	Y	2		I	0.00	0.80	10YR 4/3 brown sandy loam	
5b	Y	2		II	0.80	1.20	10YR 6/6 brownish yellow sandy clay	
5b	Y	3		I	0.00	0.70	10YR 4/3 brown sandy loam	
5b	Y	3		II	0.70	1.10	10YR 6/6 brownish yellow sandy clay	
5b	Y	4		I	0.00	0.90	10YR 4/3 brown sandy loam	
5b	Y	4		II	0.90	1.30	10YR 6/6 brownish yellow sandy clay	
5b	Y	5		I	0.00	0.90	10YR 4/3 brown sandy loam	
5b	Y	5		II	0.90	1.30	10YR 6/6 brownish yellow sandy clay	
5b	Z	1		I	0.00	0.60	10YR 4/3 brown sandy loam	
5b	Z	1		II	0.60	1.00	10YR 6/6 brownish yellow sandy clay	
5b	Z	2		I	0.00	0.70	10YR 4/3 brown sandy loam	
5b	Z	2		II	0.70	1.10	10YR 6/6 brownish yellow sandy clay	
5b	Z	3		I	0.00	0.80	10YR 4/3 brown sandy loam	
5b	Z	3		II	0.80	1.20	10YR 6/6 brownish yellow sandy clay	
5b	Z	4		I	0.00	0.40	10YR 4/3 brown sandy loam	
5b	Z	4		II	0.40	0.80	10YR 6/6 brownish yellow sandy clay	
5b	Z	5		I	0.00	0.70	10YR 4/3 brown sandy loam	

Area	Transect	STP	Radial	Level	Start Depth (ft.)	End Depth (ft.)	Soil Description	Comments
5b	Z	5		II	0.70	1.10	10YR 6/6 brownish yellow sandy clay	
5c	A	1		I	0.00	1.00	10YR 4/4 dark yellowish brown sandy loam	
5c	A	1		II	1.00	1.40	10YR 6/6 brownish yellow sandy clay	
5c	A	2		I	0.00	1.00	10YR 4/4 dark yellowish brown sandy loam	
5c	A	2		II	1.00	1.40	10YR 6/6 brownish yellow sandy clay	
5c	A	3		I	0.00	0.90	10YR 4/4 dark yellowish brown sandy loam	
5c	A	3		II	0.90	1.30	10YR 6/6 brownish yellow sandy clay	
5c	A	4		I	0.00	0.90	10YR 4/4 dark yellowish brown sandy loam	
5c	A	4		II	0.90	1.30	10YR 6/6 brownish yellow sandy clay	
5c	A	5		I	0.00	0.90	10YR 4/4 dark yellowish brown sandy loam	
5c	A	5		II	0.90	1.30	10YR 6/6 brownish yellow sandy clay	
5c	A	6		I	0.00	0.90	10YR 4/4 dark yellowish brown sandy loam	
5c	A	6		II	0.90	1.30	10YR 6/6 brownish yellow sandy clay	
5c	B	1		I	0.00	0.90	10YR 3/4 dark yellowish brown sandy loam	
5c	B	1		II	0.90	1.30	10YR 6/6 brownish yellow sandy clay	
5c	B	2		I	0.00	0.90	10YR 3/4 dark yellowish brown sandy loam	
5c	B	2		II	0.90	1.30	10YR 6/6 brownish yellow sandy clay	
5c	B	3		I	0.00	0.90	10YR 3/4 dark yellowish brown sandy loam	
5c	B	3		II	0.90	1.30	10YR 6/6 brownish yellow sandy clay	
5c	B	4		I	0.00	0.40	10YR 3/4 dark yellowish brown sandy loam	
5c	B	4		II	0.40	0.80	10YR 6/6 brownish yellow sandy clay	
5c	B	5		I	0.00	1.00	10YR 3/4 dark yellowish brown sandy loam	
5c	B	5		II	1.00	1.40	10YR 6/6 brownish yellow sandy clay	
5c	B	6		I	0.00	0.90	10YR 3/4 dark yellowish brown sandy loam	
5c	B	6		II	0.90	1.30	10YR 6/6 brownish yellow sandy clay	
5c	B	7		I	0.00	1.00	10YR 3/4 dark yellowish brown sandy loam	
5c	B	7		II	1.00	1.40	10YR 6/6 brownish yellow sandy clay	
5c	C	1		I	0.00	0.80	10YR 4/3 brown sandy loam	
5c	C	1		II	0.80	1.20	10YR 6/4 light yellowish brown sand	
5c	C	2		I	0.00	0.80	10YR 4/3 brown sandy loam	
5c	C	2		II	0.80	1.20	10YR 6/4 light yellowish brown sand	
5c	C	3		I	0.00	1.10	10YR 4/3 brown sandy loam	
5c	C	3		II	1.10	1.50	10YR 6/4 light yellowish brown sand	
5c	C	4		I	0.00	0.70	10YR 4/3 brown sandy loam	
5c	C	4		II	0.70	1.10	10YR 6/4 light yellowish brown sand	
5c	C	5		I	0.00	0.70	10YR 3/3 dark brown sandy loam	
5c	C	5		II	0.70	1.10	10YR 6/4 light yellowish brown sand	
5c	C	6		I	0.00	0.70	10Y 4/3 brown sandy loam	
5c	C	6		II	0.70	1.10	10YR 6/4 light yellowish brown sand	
5c	C	7		I	0.00	0.70	10Y 4/3 brown sandy loam	
5c	C	7		II	0.70	1.10	10YR 6/4 light yellowish brown sand	
5c	C	12		I	0.00	0.90	2.5Y 3/3 dark olive brown sandy loam	
5c	C	12		II	0.90	1.30	10YR 6/6 brownish yellow sandy clay	
5c	C	13		I	0.00	0.80	2.5Y 3/3 dark olive brown sandy loam	
5c	C	13		II	0.80	1.20	10YR 6/6 brownish yellow sandy clay	

Area	Transect	STP	Radial	Level	Start Depth (ft.)	End Depth (ft.)	Soil Description	Comments
5c	C	17		I	0.00	0.60	10YR 5/4 yellowish brown sandy loam	
5c	C	17		II	0.60	0.90	10YR 3/3 dark brown sandy loam	
5c	C	17		III	0.90	1.30	10YR 6/4 light yellowish brown compact sandy loam	
5c	C	18					Not Excavated	write off
5c	D	5		I	0.00	1.00	10YR 3/4 dark yellowish brown sandy loam	
5c	D	5		II	1.00	1.40	10YR 6/6 brownish yellow sandy clay	
5c	D	6		I	0.00	0.50	10YR 3/4 dark yellowish brown sandy loam	
5c	D	6		II	0.50	0.90	10YR 6/4 light yellowish brown sand	
5c	D	7		I	0.00	0.60	10YR 3/4 dark yellowish brown sandy loam	
5c	D	7		II	0.60	1.00	10YR 6/4 light yellowish brown sand	
5c	D	8					Not Excavated	drainage
5c	D	9		I	0.00	0.90	2.5Y 3/3 dark olive brown sandy loam	
5c	D	9		II	0.90	1.30	10YR 6/6 brownish yellow sandy clay	
5c	D	10		I	0.00	0.60	10YR 3/4 dark yellowish brown sandy loam	
5c	D	10		II	0.60	1.00	10YR 6/4 light yellowish brown sand	
5c	D	11		I	0.00	0.90	2.5Y 3/3 dark olive brown sandy loam	
5c	D	11		II	0.90	1.30	10YR 6/6 brownish yellow sandy clay	
5c	D	12		I	0.00	1.20	10YR 3/4 dark yellowish brown sandy loam	
5c	D	12		II	1.20	1.60	10YR 6/4 light yellowish brown sand	
5c	D	13		I	0.00	1.20	10YR 3/4 dark yellowish brown sandy loam	
5c	D	13		II	1.20	1.60	10YR 6/4 light yellowish brown sand	
5c	D	14		I	0.00	0.70	10YR 3/4 dark yellowish brown sandy loam	
5c	D	14		II	0.70	1.10	10YR 6/4 light yellowish brown sand	
5c	D	15		I	0.00	0.80	2.5Y 3/3 dark olive brown sandy loam	
5c	D	15		II	0.80	1.20	10YR 6/6 brownish yellow sandy clay	
5c	D	16		I	0.00	0.90	10YR 3/3 dark brown sandy loam	wet
5c	D	16		II	0.90	1.30	10YR 6/4 light yellowish brown sand	wet
5c	D	17		I	0.00	0.90	2.5Y 3/3 dark olive brown sandy loam	
5c	D	17		II	0.90	1.20	10YR 6/6 brownish yellow sandy clay	
5c	D	18					Not Excavated	
5c	E	1		I	0.00	0.30	10YR 3/3 dark brown sandy loam	
5c	E	1		II	0.30	1.00	10YR 6/4 light yellowish brown sandy clay	
5c	E	2					Not Excavated	compacted gravel
5c	E	18					Not Excavated	
5c	F	1		I	0.00	0.30	10YR 3/3 dark brown sandy loam	
5c	F	1		II	0.30	1.00	10YR 6/4 light yellowish brown sandy clay	
5c	F	2					Not Excavated	compacted gravel
5c	G	1		I	0.00	0.80	10YR 3/3 dark brown sandy loam	
5c	G	1		II	0.80	1.20	1YR 6/4 light yellowish brown sandy clay	
5c	G	2					Not Excavated	compacted gravel
5c	G	3					Not Excavated	compacted gravel
5c	H	1		I	0.00	1.00	10YR 4/4 dark yellowish brown sandy loam	
5c	H	1		II	1.00	1.40	10YR 6/4 light yellowish brown silty clay	
5c	H	2		I	0.00	0.90	10YR 4/4 dark yellowish brown sandy loam	
5c	H	2		II	0.90	1.30	10YR 6/4 light yellowish brown silty clay	

Area	Transect	STP	Radial	Level	Start Depth (ft.)	End Depth (ft.)	Soil Description	Comments
5c	H	3		I	0.00	0.90	10YR 4/4 dark yellowish brown sandy loam	
5c	H	3		II	0.90	1.30	10YR 6/4 light yellowish brown silty clay	
6a	A	1		I	0.00	0.40	10YR 3/2 very dark grayish brown silt loam	
6a	A	1		II	0.40	1.00	85% 10YR 6/1 gray with 15% 10YR 6/4 light yellowish brown sandy clay	
6a	A	2					Not Excavated	inundated
6a	A	3		I	0.00	0.40	10YR 3/2 very dark grayish brown silt loam	
6a	A	3		II	0.40	0.80	10YR 5/1 gray clay sand	water oozing in
6a	A	4		I	0.00	0.40	10YR 3/2 very dark grayish brown silt loam	
6a	A	4		II	0.40	0.80	10YR 5/1 gray clay sand	
6a	A	5		I	0.00	0.30	10YR 3/2 very dark grayish brown silt loam	
6a	A	5		II	0.30	0.70	10YR 5/1 gray clay sand	
6a	A	6					Not Excavated	access road
6a	A	7		I	0.00	0.40	2.5YR 2.5/2 very dusky red sandy loam	
6a	A	7		II	0.40	0.80	10YR 5/1 gray sandy clay	
6a	A	8					Not Excavated	terminated - water oozing in
6a	B	1		I	0.00	0.40	10YR 2/1 black loam	graded with road gravels
6a	C	1		I	0.00	0.20	10YR 2/1 black loam	
6a	C	1		II	0.20	0.70	10YR 4/2 dark grayish brown sandy loam	
6a	C	1		III	0.70	1.00	7.5YR 6/6 reddish yellow mottled with 10YR 5/1 gray clay	
6a	T	1					Not Excavated	grading and utilities
6a	T	2		I	0.00	1.00	2.5Y 2.5/1 black sandy loam	
6a	T	2		II	1.00	1.40	10YR 6/4 light yellowish brown sandy clay	
6a	T	3	East				Not Excavated	ditch
6a	T	3	North	I	0.00	0.80	2.5Y 2.5/1 black sandy loam	
6a	T	3	North	II	0.80	1.20	10YR 6/4 light yellowish brown sandy clay	
6a	T	3	West	I	0.00	0.90	2.5Y 2.5/1 black sandy loam	
6a	T	3	West	II	0.90	1.30	10YR 6/4 light yellowish brown sandy clay	
6a	T	3		I	0.00	0.80	2.5Y 2.5/1 black sandy loam	
6a	T	3		II	0.80	1.20	10YR 6/4 light yellowish brown sandy clay	
6a	T	4	East				Not Excavated	ditch
6a	T	4	South	I	0.00	0.90	2.5Y 2.5/1 black sandy loam	
6a	T	4	South	II	0.90	1.30	10YR 6/4 light yellowish brown sandy clay	
6a	T	4	West	I	0.00	0.90	2.5Y 2.5/1 black sandy loam	
6a	T	4	West	II	0.90	1.30	10YR 6/4 light yellowish brown sandy clay	
6a	T	4		I	0.00	0.70	2.5Y 2.5/1 black sandy loam	
6a	T	4		II	0.70	0.90	2.5Y 4/2 dark grayish brown sandy loam	
6a	T	4		III	0.90	1.30	10YR 6/4 light yellowish brown sandy clay	with gravel from old driveway
6a	U	5		I	0.00	0.80	2.5Y 4/3 olive brown sandy loam	
6a	U	5		II	0.80	1.20	10YR 6/4 light yellowish brown sandy clay	
6a	U	6		I	0.00	0.80	2.5Y 4/3 olive brown sandy loam	
6a	U	6		II	0.80	1.30	10YR 6/4 light yellowish brown sandy clay	
6a	W	4		I	0.00	0.90	2.5Y 4/3 olive brown sandy loam	
6a	W	4		II	0.90	1.30	10YR 6/4 light yellowish brown sandy clay	
6a	W	5		I	0.00	0.90	2.5Y 4/3 olive brown sandy loam	
6a	W	5		II	0.90	1.30	10YR 6/4 light yellowish brown sandy clay	

Area	Transect	STP	Radial	Level	Start Depth (ft.)	End Depth (ft.)	Soil Description	Comments
6a	W	6		I	0.00	1.10	2.5Y 4/3 olive brown sandy loam	
6a	W	6		II	1.10	1.50	10YR 6/4 light yellowish brown sandy clay	
6a	W	7					Not Excavated	grading
6a	X	1		I	0.00	0.90	2.5Y 5/3 light olive brown sandy loam	
6a	X	1		II	0.90	1.30	10YR 6/4 light yellowish brown sandy clay	
6a	X	2		I	0.00	0.80	2.5Y 5/3 light olive brown sandy loam	
6a	X	2		II	0.80	1.20	10YR 6/4 light yellowish brown sandy clay	modern refuse discarded
6a	X	3		I	0.00	0.80	2.5Y 5/3 light olive brown sandy loam	
6a	X	3		II	0.80	1.20	10YR 6/4 light yellowish brown sandy clay	modern refuse discarded
6a	X	4		I	0.00	0.90	2.5Y 4/2 dark grayish brown sandy loam	
6a	X	4		II	0.90	1.30	2.5Y 6/4 light yellowish brown sandy clay	modern refuse discarded
6a	X	5		I	0.00	0.40	2.5Y 4/2 dark grayish brown sandy loam	
6a	X	5		II	0.40	0.80	2.5Y 6/4 light yellowish brown sandy clay	
6a	X	6		I	0.00	0.10	2.5Y 4/2 dark grayish brown sandy loam	
6a	X	6		II	0.10	0.50	2.5Y 6/4 light yellowish brown sandy clay	
6a	X	7		I	0.00	0.20	2.5Y 4/2 dark grayish brown sandy loam	
6a	X	7		II	0.20	0.60	2.5Y 6/4 light yellowish brown sandy clay	very small brick flecks and gravel
6a	X	8					Not Excavated	driveway
6a	Y	5		I	0.00	0.90	2.5YR 3/2 very dark grayish brown with 40% pea gravel	
6a	Y	5		II	0.90	1.30	10YR 6/4 light yellowish brown sandy clay	
6a	Y	6		I	0.00	0.10	2.5Y 3/2 very dark grayish brown sandy loam	terminated - gravel impasse
6a	Y	7					Not Excavated	gravel, probably driveway
6a	Z	1					Not Excavated	buried utilities
6a	Z	2		I	0.00	0.40	10YR 3/2 very dark grayish brown sandy loam	
6a	Z	2		II	0.40	0.70	10YR 6/4 light yellowish brown sandy loam	
6a	Z	2		III	0.70	1.10	10YR 5/6 yellowish brown sandy clay	
6a	Z	3		I	0.00	0.30	10YR 3/2 very dark grayish brown sandy loam	
6a	Z	3		II	0.30	0.90	10YR 5/2 grayish brown sandy loam with pockets of clay	
6a	Z	3		III	0.90	1.30	10YR 6/4 light yellowish brown sandy clay	
6a	Z	4		I	0.00	0.40	10YR 3/2 very dark grayish brown sandy loam	
6a	Z	4		II	0.40	0.80	10YR 5/3 brown sandy loam	
6a	Z	4		III	0.80	1.20	10YR 6/2 light brownish gray sandy clay	
6f	A	1		I	0.00	0.30	2.5Y 4/3 olive brown silty clay loam	
6f	A	1		II	0.30	0.70	10YR 6/8 brownish yellow silty clay	
6f	A	2		I	0.00	0.20	10YR 4/3 brown sandy loam	
6f	A	2		II	0.20	1.00	10YR 6/2 light brownish gray sandy clay	
6g	A	1		I	0.00	0.10	10YR 3/2 very dark grayish brown silt loam	terminated - compact gravel
6g	A	2		I	0.00	1.00	10YR 3/4 dark yellowish brown silt loam	
6g	A	2		II	1.00	1.40	10YR 6/6 brownish yellow silty clay	
6g	A	3		I	0.00	0.90	10YR 3/4 dark yellowish brown silt loam	
6g	A	3		II	0.90	1.30	10YR 6/6 brownish yellow silty clay	
6g	B	1		I	0.00	0.10	10YR 3/2 very dark grayish brown silt loam	
6g	B	1		II	0.10	0.70	10YR 6/6 brownish yellow and 10YR 6/1 gray clay	overburden
6g	B	1		III	0.70	1.00	10YR 3/3 dark brown silt loam	
6g	B	1		IV	1.00	1.40	10YR 6/4 light yellowish brown silty clay	

Area	Transect	STP	Radial	Level	Start Depth (ft.)	End Depth (ft.)	Soil Description	Comments
6g	B	2		I	0.00	1.00	10YR 6/6 brownish yellow and 10YR 6/1 gray clay	terminated - compaction, overburden
6g	C	1		I	0.00	0.10	10YR 4/3 brown sandy loam	
6g	C	1		II	0.10	0.80	10YR 5/6 yellowish brown sandy clay with 60% gravel	
6g	C	2		I	0.00	0.10	10YR 4/3 brown sandy loam	
6g	C	2		II	0.10	0.60	10YR 5/6 yellowish brown sandy clay with 60% gravel	
6g	C	3		I	0.00	0.10	10YR 4/3 brown sandy loam	
6g	C	3		II	0.10	0.60	10YR 5/6 yellowish brown sandy clay with 60% gravel	
6g	C	4		I	0.00	0.10	10YR 4/3 brown sandy loam	
6g	C	4		II	0.10	0.50	10YR 5/6 yellowish brown sandy clay with 60% gravel	
6g	C	5		I	0.00	0.10	10YR 4/3 brown sandy loam	
6g	C	5		II	0.10	0.50	10YR 5/6 yellowish brown sandy clay with 60% gravel	
6h	A	1		I	0.00	0.70	10YR 4/3 brown sandy loam	
6h	A	1		II	0.70	1.10	10YR 6/4 light yellowish brown clay sand	

APPENDIX C: ARTIFACT CATALOG

TABLE C-1: ARTIFACT CATALOG

Site	Prov.	Strat	Level	Object	Part	Material	Ware	Decoration/Color	Manufacture Tech.	Comments	Count
44ST1223	2k-MD-1	I	I	Nail	Head and Shaft	Iron Alloy			Cut, Machine Cut Head		1
44ST1223	2k-MD-2	I	I	Nail	Head and Shaft	Iron Alloy			Cut, Machine Cut Head		1
44ST1223	2k-MD-3	I	I	Barrel Banding	Fragment	Iron Alloy			Indeterminate		1
44ST1223	2k-MD-4	I	I	Nail	Head and Shaft	Iron Alloy			Cut, Machine Cut Head		1
44ST1223	2k-MD-5	I	I	Nail	Head and Shaft	Iron Alloy			Cut, Machine Cut Head		1
44ST1223	2k-MD-5	I	I	Nail	Complete	Iron Alloy			Cut, Machine Cut Head		1
44ST1223	2k-MD-6	I	I	Horseshoe	Fragment	Iron Alloy			Hand Wrought		1
44SP0768	3f-B-8 East	I	I	Bottle	Body Fragment	Glass		Clear	Indeterminate		5
44SP0187	3b-A-1	I	I	Nail	Head and Shaft	Iron Alloy			Cut, Machine Cut Head		1
44SP0187	3b-A-1	I	I	Indeterminate	Rim Fragment	Refined Earthenware	Whiteware	Painted/Green			1
44SP0187	3b-A-1	I	I	Jug/Bottle	Body Fragment	Stoneware	American Stoneware	None Present, Indeterminate Decoration			1
44SP0187	3b-A-1	I	I	Indeterminate	Body Fragment	Refined Earthenware	Whiteware	Transferprint Underglaze/Blue			1
44SP0187	3b-A-1	I	I	Insulator	Base Fragment	Glass		Aqua	Machine-made		1
44SP0187	3b-A-1	I	I	Shell	Fragment	Shell				Oyster/12.1 g	1
44SP0187	3b-A-2	II	I	Window Glass	Fragment	Glass		Aqua	Indeterminate		4
44SP0187	3b-A-2	II	I	Brick	Fragment	Clay			Hand-made	320 g	2
44SP0187	3b-A-2	II	I	Mug/Cup/Drinking Pot	Base/Body Fragment	Coarse Earthenware	Redware	Iron Glaze			6
44SP0187	3b-A-2	II	I	Indeterminate	Body Fragment	Refined Earthenware	Ironstone	Painted/Chrome Colors			1
44SP0187	3b-A-2	II	I	Indeterminate	Body Fragment	Refined Earthenware	Whiteware	None Present, Indeterminate Decoration			1
44SP0187	3b-A-2	II	I	Bottle	Body Fragment	Glass		Clear	Indeterminate		4
44SP0187	3b-A-2	II	I	Bottle	Body Fragment	Glass		Amber	Indeterminate		6
44SP0187	3b-A-2	II	I	Spring	Fragment	Iron Alloy			Machine-made		2
44SP0187	3b-A-2	II	I	Shell	Fragment	Shell				Oyster/ 40.1 g	4
44SP0187	3b-A-2	II	I	Bead	Complete	Glass		Red		triangle shaped	1
44SP0187	3b-A-2	II	I	Smoking Pipe	Pipe Stem	White Ball Clay				5/64th	1

Site	Prov.	Strat	Level	Object	Part	Material	Ware	Decoration/Color	Manufacture Tech.	Comments	Count
44SP0187	3b-A-2	III	I	Nail	Complete	Iron Alloy			Ungalvanized Wire	Finishing nails	3
44SP0187	3b-A-2	III	I	Nail	Complete	Iron Alloy			Ungalvanized Wire		I
44SP0187	3b-A-2	III	I	Cap	Complete	Aluminum				SCREW TOP	I
44SP0187	3b-A-3	I	I	Nail	Complete	Iron Alloy			Machine-made	large nail/spike (size of test unit nail)	I
44SP0187	3b-A-3	I	I	Indeterminate	Fragment	Iron Alloy			Indeterminate	iron fragment with small pebbles attached from corrosion.	I
44SP0187	3b-A-3	I	I	Strap	Fragment	Iron Alloy			Indeterminate	Iron strapping. Possible barrel banding	2
44SP0187	3b-A-3	I/II		Window Glass	Fragment	Glass		Clear	Indeterminate		5
44SP0187	3b-A-3	I/II		Bottle	Body Fragment	Glass		Molded Pattern/Clear	Indeterminate	square	3
44SP0187	3b-A-3	I/II		Tumbler	Body Fragment	Glass		Clear	Indeterminate		I
44SP0187	3b-A-3	I/II		Lamp Part	Base Fragment	Glass		Clear	Indeterminate		I
44SP0187	3b-A-3	I/II		Indeterminate	Body Fragment	Glass		Clear	Indeterminate	crizzled	2
44SP0187	3b-A-3	I/II		Bottle	Base/Body Fragment	Glass		Stippled/Clear	Machine-made		3
44SP0187	3b-A-3	I/II		Bottle	Body Fragment	Glass		Clear	Indeterminate		9
44SP0187	3b-A-3	I/II		Lamp, Chimney	Fragment	Glass		Clear	Indeterminate		5
44SP0187	3b-A-3	I/II		Bottle	Body Fragment	Glass		Amber	Indeterminate		4
44SP0187	3b-A-3	I/II		Bottle	Finish	Glass		Clear	Machine-made	Small Mouth External Thread	I
44SP0187	3b-A-3	I/II		Indeterminate	Indeterminate Part	Copper Alloy			Indeterminate	two copper tubes from one sheet of copper alloy	I
44SP0187	3b-A-4	I/II		Window Glass	Fragment	Glass		Aqua	Indeterminate		I

Site	Prov.	Strat	Level	Object	Part	Material	Ware	Decoration/Color	Manufacture Tech.	Comments	Count
44SP0187	3b-A-4	I/II		Indeterminate	Body Fragment	Porcelain	Soft Paste	Painted/Green			1
44SP0187	3b-A-4	I/II		Bottle	Body Fragment	Glass		Aqua	Indeterminate		1
44SP0187	3b-A-4	I/II		Bottle	Base/Body Fragment	Glass		Embossed/Clear	Machine-made	Units in CC'S	14
44SP0187	3b-MD-1	1	1	Indeterminate	Complete	Iron Alloy			Indeterminate	Rectangular iron. Too dense to be harness or carriage related.	1
44HE1202	6a-T-3	1	1	Bottle	Body Fragment	Glass		Aqua	Indeterminate		1
44HE1202	6a-T-3	1	1	Bottle	Body Fragment	Glass		Brilliant Green	Machine-made		2
44HE1202	6a-T-3	1	1	Bottle	Body Fragment	Glass		Clear	Indeterminate		2
44HE1202	6a-T-3	1	1	Bottle	Body Fragment	Glass		Embossed/Clear	Machine-made	possible Orange Crush bottle fragment "ru Beverage"	1
44HE1202	6a-T-3 North	1	1	Nail	Head and Shaft	Iron Alloy			Cut, Machine Cut Head		1
44HE1202	6a-T-3 North	1	1	Nail	Head and Shaft	Iron Alloy			Indeterminate		2
44HE1202	6a-T-3 North	1	1	Window Glass	Fragment	Glass		Aqua	Indeterminate		1
44HE1202	6a-T-3 North	1	1	Bottle	Body Fragment	Glass		Clear	Indeterminate		2
44HE1202	6a-T-3 West	1	1	Nail	Shaft	Iron Alloy			Indeterminate		2
44HE1202	6a-T-3 West	1	1	Hollowware	Body Fragment	Refined Earthenware	Ironstone	Colored Glaze		Blue-tinted ironstone	1
44HE1202	6a-T-3 West	1	1	Bottle	Body Fragment	Glass		Clear	Indeterminate		2
44HE1202	6a-T-4	1	1	Nail	Head and Shaft	Iron Alloy			Indeterminate		1
44HE1202	6a-T-4	1	1	Bottle	Body Fragment	Glass		Clear	Indeterminate		1
44HE1202	6a-T-4 South	1	1	Indeterminate	Body Fragment	Milk Glass			Indeterminate		1
44HE1202	6a-T-4 South	1	1	Bottle	Body Fragment	Glass		Clear	Indeterminate		2

Site	Prov.	Strat	Level	Object	Part	Material	Ware	Decoration/Color	Manufacture Tech.	Comments	Count
ISF 2e-1	2e-1	0		Insulator	Almost Complete	Glass		Embossed/Aqua	Machine-made	" PAT. NOV. 13 1883. FAB. 12.1884	1
ISF 3c-1	3c-E-4	1	1	Debitage	Fragment	Quartz				Size Class 2 0 % Cortex No Platform	1
ISF 3f-1	3f-C-25	1	1	Nail	Complete	Iron Alloy			Cut, Machine Cut Head		1
ISF 3f-1	3f-C-25 West	1	1	Bottle	Body Fragment	Glass		Clear	Indeterminate		1
ISF 5a-1	5a-A-4	1	1	Debitage	Fragment	Quartz				Size Class 3 0 % Cortex No Platform	1
ISF 5a-1	5a-A-4 East	1	1	Debitage	Fragment	Quartz				Size Class 2 0 % Cortex No Platform	1

APPENDIX D: STATE LANDS PERMIT

COMMONWEALTH of VIRGINIA

Department of Historic Resources

Matt Strickler
Secretary of Natural Resources

2801 Kensington Avenue, Richmond, Virginia 23221

Julie V. Langan
Director

Tel: (804) 367-2323
Fax: (804) 367-2391
www.dhr.virginia.gov

February 20, 2018

Ms. Kerri Barile
Dovetail Cultural Resource Group
300 Central Road, Suite 200
Fredericksburg, VA 22401

Re: Request for Permit to Conduct Archaeological Investigations on State-Controlled Land
Southeast High Speed Rail Project - DC2RVA Section
Leesylvania State Park, Prince William County, VA
DHR File No. 2014-0666

Dear Ms. Barile:

Thank you for your request for permission to conduct field investigations on state-controlled lands. Find enclosed the requested permit. This permit is valid for the investigations as described in the approved research design. Please be aware that there are several conditions that must be met to satisfy the permit requirements, and these are listed in the permit.

The permit is valid for a period of one year dating from February 20, 2018. According to the stipulations of the permit, a final report of all investigations is due in the Department by February 20, 2019. This report should thoroughly document the findings of this archaeological work and provide recommendations on the need for and scope of additional work.

Should there be extenuating circumstances that make you unable to meet the conditions of this permit, please contact the Department. If you have any questions concerning the stipulations of the permit, or if we may provide any further assistance, please do not hesitate to contact me at roger.kirchen@dhr.virginia.gov.

Sincerely,

Roger W. Kirchen, Director
Review and Compliance Division

encl.

c. Mr. Craig Seaver, DCR

Western Region Office
962 Kime Lane
Salem, VA 24153
Tel: (540) 387-5443
Fax: (540) 387-5446

Northern Region Office
5357 Main Street
PO Box 519
Stephens City, VA 22655
Tel: (540) 868-7029
Fax: (540) 868-7033

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2801 Kensington Avenue
Richmond, VA 23221
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COMMONWEALTH of VIRGINIA

Department of Historic Resources

Matt Strickler
Secretary of Natural Resources

2801 Kensington Avenue, Richmond, Virginia 23221

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February 20, 2018

Ms. Kerri Barile
Dovetail Cultural Resource Group
300 Central Road, Suite 200
Fredericksburg, VA 22401

Re: Permit to Conduct Archaeological Investigations on State-Controlled Land
Southeast High Speed Rail Project - DC2RVA Section
Leesylvania State Park, Prince William County, VA
DHR File No. 2014-0666

Dear Ms. Barile:

Thank you for your request for permission to conduct field investigations on state-controlled lands. In accordance with §10.1-2300 of the *Code of Virginia*, the Virginia Antiquities Act, effective July 1, 1989, the Department of Historic Resources ("Department") on this 20th day of February, 2018 hereby grants to Kerri Barile ("Permittee") of the Dovetail Cultural Resource Group permission to conduct archaeological investigations at Leesylvania State Park in Prince William County in support of the Southeast High Speed Rail Project - DC2RVA Section. This permit is to be considered effective as of today's date.

The granting of this permit signifies that:

1. The Department finds that granting the permit is in the best interests of the Commonwealth;

2. The Department finds that the archeologist selected to perform the work is qualified pursuant to §10.1-2302(B) of the *Code of Virginia* to conduct these investigations;

3. The Department has received from the Permittee acknowledgement that all materials resulting from the study, including artifacts, field records and photographs, are the property of the Commonwealth of Virginia in accordance with §10.1-2302(C); and

4. The Department has received from the Permittee and has approved, pursuant to §10.1-2302(D), a statement detailing the goals and objectives of the project and the proposed research strategy.

This permit is granted subject to the following conditions:

1. The Permittee shall ensure that the proposed field investigations are carried out in strict accordance with the approved research statement referred to in Item 4 above, or shall obtain the prior written approval of the Department for any change;

2. The Permittee shall ensure that the Department is informed in writing of the initiation and completion of field work, and allow inspections by representatives or designees of the Department as determined necessary by the Department;

3. The Permittee shall ensure that, at the conclusion of the project, a Virginia State Archaeological Site Inventory form is completed for any identified site or updated for existing sites. All inventory forms shall be submitted to the Department in an electronic format consistent with the Department's Virginia Cultural Resource Information System (VCRIS) at the end of the field investigations and prior to submission of any technical reports;

4. The Permittee shall ensure that a technical report of the investigations is prepared upon completion of all field investigations under this permit. The report shall meet the federal standards entitled *Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines* (48 FR 44716-44742, September 29, 1983) and the Department's *Guidelines for Conducting Historic Resources Survey in Virginia* (rev. 2017). One bound hardcopy and one digital copy of the report shall be submitted to the Department for review and comment;

5. All artifacts recovered as a consequence of the investigations conducted under this permit shall be placed in the collections of the Department upon completion of the study and shall be curated (with the exception of any items used for appropriate exhibit purposes) in accordance with the Department's *State Curation Standards*;

6. The archeologist selected to perform the work shall carry a copy of the permit during all fieldwork;

7. The Permittee shall consult with the Department in the event that human remains are identified during work performed under this permit;

8. The Department reserves the right to revoke this permit upon the initiative of the Director, or upon the request of any interested party for violations of any of the above conditions, or if good cause is demonstrated; and

9. This permit shall be valid for one year from the date of issuance. This permit is not transferable.

If you have any questions regarding this permit and its conditions, or if you require any further assistance, please do not hesitate to contact Roger Kirchen of our project review division at email roger.kirchen@dhr.virginia.gov.

Sincerely,

Julie V. Langan

Julie V. Langan
Director

Western Region Office
962 Kime Lane
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APPENDIX E: NEWLY RECORDED ARCHAEOLOGICAL SITE FORMS

Snapshot

Date Generated: May 10, 2018

Site Name: No Data
Site Classification: Terrestrial, open air
Year(s): No Data
Site Type(s): Artifact scatter
Other DHR ID: No Data
Temporary Designation: site 6a-1

Site Evaluation Status

Not Evaluated

Locational Information

USGS Quad: GLEN ALLEN
County/Independent City: Henrico (County)
Physiographic Province: Coastal Plain
Elevation: 215
Aspect: Flat
Drainage: James
Slope: 0 - 2
Acreage: 0.080
Landform: Urban
Ownership Status: Private
Government Entity Name: No Data

Site Components

Component 1

Category: Domestic
Site Type: Artifact scatter
Cultural Affiliation: Indeterminate
DHR Time Period: Reconstruction and Growth, The New Dominion, World War I to World War II
Start Year: No Data
End Year: No Data
Comments: (Calhoun 2018) This site is a refuse scatter dating to the twentieth century and was initially identified during STP survey, via the recovery of 22 artifacts in five STPs.

Bibliographic Information

Bibliography:

No Data

Informant Data:

No Data

CRM Events

Event Type: Survey:Phase I

Project Staff/Notes:

Survey was conducted by Kevin McCloskey, Dr. Mike Klein, Jonas Schnur, and Kerry Gonzalez

Project Review File Number: 2014-0666

Sponsoring Organization: No Data

Organization/Company: Dovetail CRG

Investigator: Kevin McCloskey

Survey Date: 2/4/2018

Survey Description:

Dovetail 2018: The current archaeological study included a Phase IB survey of the preferred alternative limits of disturbance (LOD) (Arlington [Area 1] through Richmond [Area 6]) of the DC2RVA corridor. The DC2RVA corridor has been the subject of ongoing cultural resource investigations from 2014 to present, including a Phase IA archaeological background review and archaeological predictive model (Klein at al. 2015) and a Phase IB archaeological survey of the mainline based on modeling (McCloskey et al. 2016). The archaeological area of potential effects (APE) for the DC2RVA project includes the footprint of physical improvements associated with the project, inclusive of both the rail modifications and any associated roadwork. Since the conclusion of the previous Phase IB archaeological work, a draft environmental impact statement resulting in the selection of a Preferred Alternative has been completed. Additionally, engineering, and design work has been completed for the corridor resulting in the definition of the physical footprint of improvements for the selected Preferred Alternative, including all road modifications, straightening of curves, the addition of wyes, proposed station locations, parking areas, etc. As such the APE studied as part of the current report was defined by the LOD of the Preferred Alternative, specifically defined as an area e generally along the existing 123-mile (198-km) CSX Transportation (CSXT) rail corridor. The archaeological study consisted of a pedestrian survey and subsurface testing with STPs placed at 50-foot intervals, supplemented by a metal detector survey, where needed, throughout the APE beyond the limits of previous Phase IB investigations.

Current Land Use	Date of Use	Comments
Forest	3/1/2018 12:00:00 AM	(Calhoun 2018) The site is located in a small wooded area on the eastern side of the CSXT rail line, between the rail and Mayfair Avenue, just south of Hungary Road in Glen Allen, Henrico County.

Threats to Resource: Transportation Expansion

Site Conditions: 25-49% of Site Destroyed

Survey Strategies: Observation, Subsurface Testing

Specimens Collected: Yes

Specimens Observed, Not Collected: No

Artifacts Summary and Diagnostics:

The assemblage recovered from the site includes 22 artifacts dating to the early-twentieth century. The artifacts primarily include clear, brilliant green, and aqua bottle glass likely representing casual discard rather than being indicative of a domestic occupation. Additional materials include nails, both machine-cut and those of indeterminate manufacturing, window glass, and a fragment of ironstone.

Summary of Specimens Observed, Not Collected:

No Data

Current Curation Repository: Dovetail Cultural Resource Group

Permanent Curation Repository: Dovetail Cultural Resource Group

Field Notes: Yes

Field Notes Repository: Dovetail Cultural Resource Group

Photographic Media: Digital

Survey Reports: Yes

Survey Report Information:

Dovetail 2018: McCloskey, Kevin, Emily Calhoun, Kerry Gonzalez, and Mike Klein Phase IB Archaeological Survey for the Washington, D.C. to Richmond, Virginia High Speed Rail Project Preferred Alternative Limits of Disturbance

Survey Report Repository: DHR

DHR Library Reference Number: No Data

Significance Statement: The site is a twentieth-century refuse scatter. Given the lack of evidence for a structure in the site boundaries and the widespread disturbance, as well as the abundance of sites dating to this period, it is unlikely that the site would yield significant information about twentieth-century occupation of the Glen Allen area, as such the site is not eligible for NRHP listing under criterion D. Nor is the site associated with a historical event or pattern of events (Criterion A) or significant persons (Criterion B) and the deposits do not illustrate distinctive characteristics of a type, period, or method of construction (Criterion C). As such, it is recommended that the site is not eligible for NRHP listing.

Surveyor's Eligibility Recommendations: Recommended Not Eligible

Surveyor's NR Criteria Recommendations, : No Data

Surveyor's NR Criteria Considerations: No Data

Snapshot

Date Generated: May 10, 2018

Site Name: Grave Yard for Free People of Color and Slaves
Site Classification: Terrestrial, open air
Year(s): No Data
Site Type(s): Cemetery
Other DHR ID: No Data
Temporary Designation: Site 6e-1

Site Evaluation Status

Not Evaluated

Locational Information

USGS Quad: RICHMOND
County/Independent City: Richmond (Ind. City)
Physiographic Province: Coastal Plain
Elevation: 130
Aspect: Facing Southeast
Drainage: James
Slope: 2 - 6
Acreage: 3.300
Landform: Sideslope
Ownership Status: Private
Government Entity Name: No Data

Site Components

Component 1

Category: Funerary
Site Type: Cemetery
Cultural Affiliation: African American
DHR Time Period: Antebellum Period
Start Year: No Data
End Year: No Data
Comments: This site represents the “Grave Yard for Free People of Color and Slaves” identified solely based on historic map analysis. The site was identified based on the Micajah Bates 1835 Plan of the City of Richmond Drawn From Actual Survey and Regional Plans.

Bibliographic Information

Bibliography:

Bates, Micajah
1835Plan of the City of Richmond Drawn From Actual Survey and Regional Plans. Electronic document, search.lib.virginia.edu/catalog/uva-lib:1003728#?c=0&m=0&s=0&cv=0&xywh=-1404%2C-1453%2C23619%2C17511, accessed January 2018.

Beers, F.W.
1877Map of the City of Richmond. F.W. Beers, Richmond, Virginia. Electronic document, www.loc.gov/item/2005630891, accessed January 2018.

Calhoun, Emily
2013Archaeological and Geoarchaeological Assessment of The Slave and Free Black Burying Ground, I-64 Shockoe Valley Bridge Project, City of Richmond, Virginia. Cultural Resource Analysts, Inc., Richmond, Virginia

Informant Data:

No Data

CRM Events

Event Type: Survey:Phase I

Project Staff/Notes:

Survey was conducted by Kevin McCloskey, Dr. Mike Klein, Jonas Schnur, and Kerry Gonzalez

Project Review File Number: 2014-0666

Sponsoring Organization: No Data

Organization/Company: Dovetail CRG

Investigator: Kevin McCloskey

Survey Date: 2/4/2018

Survey Description:

Dovetail 2018: The current archaeological study included a Phase IB survey of the preferred alternative limits of disturbance (LOD) (Arlington [Area 1] through Richmond [Area 6]) of the DC2RVA corridor. The DC2RVA corridor has been the subject of ongoing cultural resource investigations from 2014 to present, including a Phase IA archaeological background review and archaeological predictive model (Klein at al. 2015) and a Phase IB archaeological survey of the mainline based on modeling (McCloskey et al. 2016). The archaeological area of potential effects (APE) for the DC2RVA project includes the footprint of physical improvements associated with the project, inclusive of both the rail modifications and any associated roadwork. Since the conclusion of the previous Phase IB archaeological work, a draft environmental impact statement resulting in the selection of a Preferred Alternative has been completed. Additionally, engineering, and design work has been completed for the corridor resulting in the definition of the physical footprint of improvements for the selected Preferred Alternative, including all road modifications, straightening of curves, the addition of wyes, proposed station locations, parking areas, etc. As such the APE studied as part of the current report was defined by the LOD of the Preferred Alternative, specifically defined as an area e generally along the existing 123-mile (198-km) CSX Transportation (CSXT) rail corridor. The archaeological study consisted of a pedestrian survey and subsurface testing with STPs placed at 50-foot intervals, supplemented by a metal detector survey, where needed, throughout the APE beyond the limits of previous Phase IB investigations.

Current Land Use	Date of Use	Comments
Parking lot	3/1/2018 12:00:00 AM	(Calhoun 2018) The site is located in an urban setting on the west side of the CSXT rail line, along Hospital Street in Richmond.

Threats to Resource: Transportation Expansion

Site Conditions: 75-99% of Site Destroyed

Survey Strategies: Historic Map Projection

Specimens Collected: No

Specimens Observed, Not Collected: No

Artifacts Summary and Diagnostics:

No Data

Summary of Specimens Observed, Not Collected:

No Data

Current Curation Repository: n/a

Permanent Curation Repository: n/a

Field Notes: Yes

Field Notes Repository: Dovetail Cultural Resource Group

Photographic Media: Digital

Survey Reports: Yes

Survey Report Information:

Dovetail 2018: McCloskey, Kevin, Emily Calhoun, Kerry Gonzalez, and Mike Klein Phase IB Archaeological Survey for the Washington, D.C. to Richmond, Virginia High Speed Rail Project Preferred Alternative Limits of Disturbance

Survey Report Repository: DHR

DHR Library Reference Number: No Data

Significance Statement: (Calhoun 2018) The site is a nineteenth-century “Grave Yard for Free People of Color and Slaves” as identified by Bates (1835). According to documentary evidence it was established circa 1816 and likely abandoned circa 1890. No subsurface excavations were conducted within the cemetery area, as such the cemetery has not been delineated. Pedestrian survey of the cemetery area within the current APE indicated a variety of modern disturbances. The APE within the site area is confined to the sidewalks north of Hospital Street, the road itself, and the slope immediately south of Hospital Street. Pedestrian survey of the site location indicates that the disturbance noted within the APE, most notably the grading needed to construct Hospital Street (approximately 10 feet [3 m]) would have disturbed the cemetery location. As such, the portion of the site within the APE lacks subsurface integrity and therefore does not contribute the site’s overall NRHP eligibility. However, it is recommended that the site should be considered unevaluated for the NRHP as no subsurface investigations within site location have been undertaken. It is further noted that Calhoun’s (2013) recommendation that if the cemetery remains intact, it would likely be located at the crest of the valley slope under the footprint of current Tallys Auto Shop,

	remains valid. The current survey noted that the crest of the valley slope, to the north of the current APE, appeared visually intact and not subjected to the extensive grading observed in the portion of the site within the APE.
Surveyor's Eligibility Recommendations:	Recommended Potentially Eligible
Surveyor's NR Criteria Recommendations, :	D
Surveyor's NR Criteria Considerations:	No Data

Snapshot

Date Generated: May 10, 2018

Site Name: Carrington's Mill
Site Classification: Terrestrial, open air
Year(s): 1835 - 1850
Site Type(s): Mill
Other DHR ID: No Data
Temporary Designation: site 6e-2

Site Evaluation Status

Not Evaluated

Locational Information

USGS Quad: RICHMOND
County/Independent City: Richmond (Ind. City)
Physiographic Province: Coastal Plain
Elevation: 50
Aspect: Facing South
Drainage: James
Slope: 0 - 2
Acreage: 3.570
Landform: Urban
Ownership Status: Private
Government Entity Name: No Data

Site Components

Component 1

Category: Industry/Processing/Extraction
Site Type: Mill
Cultural Affiliation: Euro-American
DHR Time Period: Antebellum Period
Start Year: 1835
End Year: 1850
Comments: (Calhoun 2018) The sites is an early-nineteenth-century mill site as identified by Bates 1835. According to documentary evidence it was established circa 1835 and likely abandoned by the 1850s. No subsurface excavations were conducted within the location of the mill site and, as such, the mill and associated infrastructure have not been delineated.

Bibliographic Information

Bibliography:

Bates, Micajah
1835Plan of the City of Richmond Drawn From Actual Survey and Regional Plans. Electronic document, search.lib.virginia.edu/catalog/uva-lib:1003728#?c=0&m=0&s=0&cv=0&xywh=-1404%2C-1453%2C23619%2C17511, accessed January 2018.
Richmond Enquirer [Richmond, Virginia]
1847May 14. Electronic document, https://www.newspapers.com, accessed April 2018.
1849 January 19. Electronic document, https://www.newspapers.com, accessed April 2018.
1850 July 23. Electronic document, https://www.newspapers.com, accessed April 2018.
1852 April 23. Electronic document, https://www.newspapers.com, accessed April 2018.
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1852March 17. Electronic document, https://www.newspapers.com, accessed April 2018.
1854June 24. Electronic document, https://www.newspapers.com, accessed April 2018.
1857 April 20. Electronic document, https://www.newspapers.com, accessed April 2018.

Informant Data:

No Data

CRM Events

Event Type: Survey:Phase I

Project Staff/Notes:

Survey was conducted by Kevin McCloskey, Dr. Mike Klein, Jonas Schnur, and Kerry Gonzalez

Project Review File Number: 2014-0666

Sponsoring Organization: No Data

Organization/Company: Dovetail CRG

Investigator: Kevin McCloskey

Survey Date: 2/4/2018

Survey Description:

Dovetail 2018: The current archaeological study included a Phase IB survey of the preferred alternative limits of disturbance (LOD) (Arlington [Area 1] through Richmond [Area 6]) of the DC2RVA corridor. The DC2RVA corridor has been the subject of ongoing cultural resource investigations from 2014 to present, including a Phase IA archaeological background review and archaeological predictive model (Klein at al. 2015) and a Phase IB archaeological survey of the mainline based on modeling (McCloskey et al. 2016). The archaeological area of potential effects (APE) for the DC2RVA project includes the footprint of physical improvements associated with the project, inclusive of both the rail modifications and any associated roadwork. Since the conclusion of the previous Phase IB archaeological work, a draft environmental impact statement resulting in the selection of a Preferred Alternative has been completed. Additionally, engineering, and design work has been completed for the corridor resulting in the definition of the physical footprint of improvements for the selected Preferred Alternative, including all road modifications, straightening of curves, the addition of wyes, proposed station locations, parking areas, etc. As such the APE studied as part of the current report was defined by the LOD of the Preferred Alternative, specifically defined as an area e generally along the existing 123-mile (198-km) CSX Transportation (CSXT) rail corridor. The archaeological study consisted of a pedestrian survey and subsurface testing with STPs placed at 50-foot intervals, supplemented by a metal detector survey, where needed, throughout the APE beyond the limits of previous Phase IB investigations.

Current Land Use	Date of Use	Comments
Railroad	3/1/2018 12:00:00 AM	(Calhoun 2018) The site is located in an urban setting on the east side of the CSXT rail line, directly north of I-95.

Threats to Resource: Transportation Expansion

Site Conditions: Unknown Portion of Site Destroyed

Survey Strategies: Historic Map Projection

Specimens Collected: No

Specimens Observed, Not Collected: No

Artifacts Summary and Diagnostics:

No Data

Summary of Specimens Observed, Not Collected:

No Data

Current Curation Repository: n/a

Permanent Curation Repository: n/a

Field Notes: Yes

Field Notes Repository: Dovetail Cultural Resource Group

Photographic Media: Digital

Survey Reports: Yes

Survey Report Information:

Dovetail 2018: McCloskey, Kevin, Emily Calhoun, Kerry Gonzalez, and Mike Klein Phase IB Archaeological Survey for the Washington, D.C. to Richmond, Virginia High Speed Rail Project Preferred Alternative Limits of Disturbance

Survey Report Repository: DHR

DHR Library Reference Number: No Data

Significance Statement: (Calhoun 2018) The site is an early-nineteenth-century mill site as identified by Bates 1835. According to documentary evidence it was established circa 1835 and likely abandoned by the 1850s. No subsurface excavations were conducted within the location of the mill site and, as such, the mill and associated infrastructure have not been delineated. Pedestrian survey of the mill site within the current APE indicated a variety of modern disturbances. The APE within the site area is confined to a wooded parcel along CSXT right-of-way. Pedestrian survey of the site location indicates that the disturbance noted within the APE, most notably buried utility corridors, modern development, and construction associated with the modern alignment the railway would likely have removed any trace of the former mill site. As such, the portion of the site within the APE lacks subsurface integrity and therefore cannot contribute the site's overall NRHP eligibility. However, it is recommended that the site should be considered unevaluated for the NRHP as no subsurface investigations within the site location have been undertaken.

Surveyor's Eligibility Recommendations: No Data

Surveyor's NR Criteria Recommendations, : No Data
Surveyor's NR Criteria Considerations: No Data

Snapshot

Date Generated: May 10, 2018

Site Name: No Data
Site Classification: Terrestrial, open air
Year(s): 1914 - 1952
Site Type(s): Cemetery
Other DHR ID: 088-5511
Temporary Designation: site 3f-1

Site Evaluation Status

Not Evaluated

Locational Information

USGS Quad: GUINEA
County/Independent City: Spotsylvania (County)
Physiographic Province: Coastal Plain
Elevation: 230
Aspect: Flat
Drainage: Lower Chesapeake
Slope: 0 - 2
Acreage: 0.060
Landform: Ridge Top
Ownership Status: Private
Government Entity Name: No Data

Site Components

Component 1

Category: Funerary
Site Type: Cemetery
Cultural Affiliation: Euro-American
DHR Time Period: Reconstruction and Growth, World War I to World War II
Start Year: 1914
End Year: 1952
Comments: (Calhoun 2018) The site (088-5511) is a small twentieth-century family cemetery and artifact scatter, including the marked interments of five individuals and the remains of decorative metal fencing. The earliest marked interment indicates the cemetery originated circa 1914 and the latest marked date indicates it fell out of use circa 1952.

Bibliographic Information

Bibliography:

Findagrave.com
2010Family Cemetery, Massaponax (Guinea), Spotsylvania County, Virginia. Electronic document, https://www.findagrave.com/cemetery/2346068/memorial-search?page=1#sr-49775562, accessed April 2018.

Informant Data:

No Data

CRM Events

Event Type: Survey:Phase I

Project Staff/Notes:

Survey was conducted by Kevin McCloskey, Dr. Mike Klein, Jonas Schnur, and Kerry Gonzalez

Project Review File Number: 2014-0666

Sponsoring Organization: No Data

Organization/Company: Dovetail CRG

Investigator: Kevin McCloskey

Survey Date: 2/4/2018

Survey Description:

Dovetail 2018: The current archaeological study included a Phase IB survey of the preferred alternative limits of disturbance (LOD) (Arlington [Area 1] through Richmond [Area 6]) of the DC2RVA corridor. The DC2RVA corridor has been the subject of ongoing cultural resource investigations from 2014 to present, including a Phase IA archaeological background review and archaeological predictive model (Klein at al. 2015) and a Phase IB archaeological survey of the mainline based on modeling (McCloskey et al. 2016). The archaeological area of potential effects (APE) for the DC2RVA project includes the footprint of physical improvements associated with the project, inclusive of both the rail modifications and any associated roadwork. Since the conclusion of the previous Phase IB archaeological work, a draft environmental impact statement resulting in the selection of a Preferred Alternative has been completed. Additionally, engineering, and design work has been completed for the corridor resulting in the definition of the physical footprint of improvements for the selected Preferred Alternative, including all road modifications, straightening of curves, the addition of wyes, proposed station locations, parking areas, etc. As such the APE studied as part of the current report was defined by the LOD of the Preferred Alternative, specifically defined as an area e generally along the existing 123-mile (198-km) CSX Transportation (CSXT) rail corridor. The archaeological study consisted of a pedestrian survey and subsurface testing with STPs placed at 50-foot intervals, supplemented by a metal detector survey, where needed, throughout the APE beyond the limits of previous Phase IB investigations.

Current Land Use	Date of Use	Comments
Forest	3/1/2018 12:00:00 AM	(Calhoun 2018) The cemetery is located in a densely wooded area and is on the west side of the CSXT rail line and north of Summit Crossing Road, situated immediately west and north of a communications tower and associated metal pre-fabricated shed.

Threats to Resource: Transportation Expansion

Site Conditions: Unknown Portion of Site Destroyed

Survey Strategies: Historic Map Projection, Observation

Specimens Collected: Yes

Specimens Observed, Not Collected: Yes

Artifacts Summary and Diagnostics:

(Calhoun 2018) The artifact assemblage consists of five fragments of clear bottle glass.

Summary of Specimens Observed, Not Collected:

(Calhoun 2018) Surface features noted at the site location include two engraved headstones, one footstone, four metal fence posts, and one gate post. One headstone reads “CATLETT/ Vivian 1901–1952/Shirley 1898–1948/Henry 1865–1919/Nellie 1869–1951” and the second reads “Annie Kate/ Gilchrist/ Born/October 11, 1882”. The death date on the second stone was not visible at the time of survey as it was buried, but images of the markers located in the findagrave.com database indicate the death date to be 1914 (Findagrave.com 2010). Based on the presence of these stones, it appears that a minimum of five individuals may be buried within the cemetery. Four metal fence posts and a metal gate post were observed surrounding the marked graves, although no fencing in between these posts remains

Current Curation Repository: n/a

Permanent Curation Repository: n/a

Field Notes: No

Field Notes Repository: No Data

Photographic Media: Digital

Survey Reports: Yes

Survey Report Information:

Dovetail 2018: McCloskey, Kevin, Emily Calhoun, Kerry Gonzalez, and Mike Klein Phase IB Archaeological Survey for the Washington, D.C. to Richmond, Virginia High Speed Rail Project Preferred Alternative Limits of Disturbance

Survey Report Repository: DHR

DHR Library Reference Number: No Data

Significance Statement: (Calhoun 2018) The site (088-5511) is a small twentieth-century family cemetery and artifact scatter, including five artifacts, the marked interments of five individuals, and the remains of decorative metal fencing. No subsurface excavations were conducted within the cemetery area, as such the cemetery has not been delineated. The cemetery appears to be typical of small family burying grounds encountered throughout the region and does not display any unique architectural elements or known association with people or events important in history. As such, it is recommended that the site is not eligible for NRHP inclusion under Criteria A–D. However, it is recommended that the general cemetery area should be avoided or further delineation efforts

	should be undertaken to determine the exact limits of the cemetery.
Surveyor's Eligibility Recommendations:	Recommended Not Eligible
Surveyor's NR Criteria Recommendations, :	No Data
Surveyor's NR Criteria Considerations:	No Data

Snapshot

Date Generated: May 10, 2018

Site Name: Daffan Family Cemetery
Site Classification: Terrestrial, open air
Year(s): 1847 - 1855
Site Type(s): Cemetery
Other DHR ID: 089-5624
Temporary Designation: site 2k-2

Site Evaluation Status

Not Evaluated

Locational Information

USGS Quad: FREDERICKSBURG
County/Independent City: Stafford (County)
Physiographic Province: No Data
Elevation: 140
Aspect: Facing South
Drainage: Potomac
Slope: 0 - 2
Acreage: 0.050
Landform: Ridge Top
Ownership Status: Private
Government Entity Name: No Data

Site Components

Component 1

Category: Funerary
Site Type: Cemetery
Cultural Affiliation: Euro-American
DHR Time Period: Antebellum Period, Civil War, Reconstruction and Growth
Start Year: 1847
End Year: 1855
Comments: (Calhoun 2018) The site is a small mid-nineteenth century family cemetery, known as the Daffan Cemetery. Surface features noted at the site include five headstones, one associated footstone, and at least three unmarked interments. Given the interment dates on the discernible grave markers, the cemetery was established circa 1847 and abandoned circa 1855, suggesting it was in use for a very short period during the mid-nineteenth century.

Bibliographic Information

Bibliography:

No Data

Informant Data:

No Data

CRM Events

Event Type: Survey:Phase I

Project Staff/Notes:

Survey was conducted by Kevin McCloskey, Dr. Mike Klein, Jonas Schnur, and Kerry Gonzalez

Project Review File Number: 2014-0666

Sponsoring Organization: No Data

Organization/Company: Dovetail CRG

Investigator: Kevin McCloskey

Survey Date: 2/4/2018

Survey Description:

Dovetail 2018: The current archaeological study included a Phase IB survey of the preferred alternative limits of disturbance (LOD) (Arlington [Area 1] through Richmond [Area 6]) of the DC2RVA corridor. The DC2RVA corridor has been the subject of ongoing cultural resource investigations from 2014 to present, including a Phase IA archaeological background review and archaeological predictive model (Klein at al. 2015) and a Phase IB archaeological survey of the mainline based on modeling (McCloskey et al. 2016). The archaeological area of potential effects (APE) for the DC2RVA project includes the footprint of physical improvements associated with the project, inclusive of both the rail modifications and any associated roadwork. Since the conclusion of the previous Phase IB archaeological work, a draft environmental impact statement resulting in the selection of a Preferred Alternative has been completed. Additionally, engineering, and design work has been completed for the corridor resulting in the definition of the physical footprint of improvements for the selected Preferred Alternative, including all road modifications, straightening of curves, the addition of wyes, proposed station locations, parking areas, etc. As such the APE studied as part of the current report was defined by the LOD of the Preferred Alternative, specifically defined as an area e generally along the existing 123-mile (198-km) CSX Transportation (CSXT) rail corridor. The archaeological study consisted of a pedestrian survey and subsurface testing with STPs placed at 50-foot intervals, supplemented by a metal detector survey, where needed, throughout the APE beyond the limits of previous Phase IB investigations.

Current Land Use	Date of Use	Comments
Forest	3/1/2018 12:00:00 AM	(Calhoun 2018) The cemetery is densely wooded and located on the north side of the CSXT rail line and south of Leeland Road, situated approximately 6 miles (9.7 km) northeast of Falmouth, Virginia, in Stafford County.

Threats to Resource: Transportation Expansion

Site Conditions: Unknown Portion of Site Destroyed

Survey Strategies: Historic Map Projection, Observation

Specimens Collected: No

Specimens Observed, Not Collected: Yes

Artifacts Summary and Diagnostics:

No Data

Summary of Specimens Observed, Not Collected:

(Calhoun 2018) Surface features noted at the site include five headstones, one associated footstone, and at least three unmarked interments. The first headstone reads “IN / Memory of / WILLIAM DAFFAN / DIED / April 2nd, 1855/in the 78th year of / His age.” The marker is sandstone and has an unmarked associated sandstone footstone. The second headstone, also sandstone, has an engraved circle thought to contain an angel and reads “In memory of” (the rest of the text is buried). The third sandstone marker has been damaged and is represented by detached top half and the bottom half which remains in its original location. The detached top half is decorated with a rose and reads “In memory of”. The in situ base bears the inscription “…ANN M. / BURRUS/ WIFE OF P. H. BURRUS / Caroline County/ Who died / November 22nd 1848 / 29th year of her age.”. The fourth headstone is also sandstone and reads “IN / Memory of / HUGH W. DAFFAN / DIED / Sept, 22. 1847 / In the 11 year / of his age.”. The final headstone is granite and has no discernible inscription.
In addition to the marked interments, at least three additional unmarked graves were noted during the pedestrian survey of the cemetery area. These unmarked interments were identified based on the presences of shallow rectangular depressions. Based on the presence of both marked and unmarked graves, it appears that a minimum of eight individuals may be buried within the cemetery.

Current Curation Repository: n/a

Permanent Curation Repository: n/a

Field Notes: Yes

Field Notes Repository: Dovetail Cultural Resource Group

Photographic Media: Digital

Survey Reports: Yes

Survey Report Information:

Dovetail 2018: McCloskey, Kevin, Emily Calhoun, Kerry Gonzalez, and Mike Klein Phase IB Archaeological Survey for the Washington, D.C. to Richmond, Virginia High Speed Rail Project Preferred Alternative Limits of Disturbance

Survey Report Repository: DHR

DHR Library Reference Number: No Data

Significance Statement: (Calhoun 2018) The site (089-5624) is a small mid-nineteenth-century family cemetery, including the marked interments of five individuals and at least three unmarked graves. No subsurface excavations were conducted within the cemetery area, as such the boundaries of the cemetery have not been delineated. The cemetery appears to be typical of small family

	burying grounds encountered throughout the region and does not display any unique architectural elements or known association with people or events important in history. As such, it is recommended that site is not eligible for NRHP inclusion under Criteria A–D. However, it is recommended that the general cemetery area should be avoided or further delineation efforts should be undertaken to determine the exact limits of the cemetery.
Surveyor's Eligibility Recommendations:	Recommended Not Eligible
Surveyor's NR Criteria Recommendations, :	No Data
Surveyor's NR Criteria Considerations:	No Data

APPENDIX F: QUALIFICATIONS OF THE INVESTIGATORS

Kerri S. Barile, Ph.D., RPA
Dovetail Cultural Resource Group
President

Dr. Barile has over 20 years of professional experience in the fields of archaeology, architectural history, historic research, and cultural resource management (CRM). She has directed the excavation of a wide array of archaeological sites in Virginia, Delaware, Maryland, Texas, South Carolina, and North Carolina, among others, and has recorded and researched an abundance of historic buildings, structures, districts, and objects. She has written and contributed to over 250 CRM reports. In addition to CRM experience, Dr. Barile has taught university courses in historic preservation and preservation law, architectural history, and archaeology. She has also published numerous professional articles and papers on her studies, including articles in Historical Archaeology and several National Register of Historic Places nominations.

Education

University of Texas, Ph.D. in Anthropology & Architectural History, 2004
University of South Carolina, M.A.in Anthropology, 1999
University of South Carolina, Master's Cert. in Museum Management, 1999
Mary Washington College, B.A. in Historic Preservation, 1994

Professional Experience

22 Years

Registration

Secretary of Interior Standards Qualified as Archaeologist, Architectural Historian, Historian
Register of Professional Archaeologists

Sample Project Experience

9th Street Bridge Architectural Study (City of Roanoke, Virginia). Intensive architectural survey of the historic bridge as stipulated in the Memorandum of Agreement for a bridge improvement plan
Berryville Water Line Survey (Clarke County, Virginia). Phase I architectural evaluation and Phases I and II archaeological investigations along 4 miles of the proposed line
Ellis-Bell Archaeological Site (Fredericksburg, Virginia). Investigative archaeological study and archival research of 1830s kiln site
Historic Counting House (Falmouth, Virginia). Intensive architectural survey, archival research, and production of Memorandum of Agreement prior to adaptive reuse project
Interstate 64 Peninsula Study (Richmond to Hampton, Virginia). Archaeological assessment of a 75-mile section of the I-64 corridor as part of a Draft Environmental Impact Statement
Route 301 Construction (New Castle County, Delaware). Cultural resource studies including Phases I, II, and III archaeological studies based on a predictive model, as well as public outreach, and project coordination on behalf of the Delaware Department of Transportation
Wildwood Phase II Archaeological Testing (Loudoun County, Virginia). Archival research and archaeological testing of a nineteenth century domestic site

Emily Calhoun, M.A., RPA

Dovetail Cultural Resource Group

Report Manager

Ms. Calhoun has over 12 years of professional experience in the field of archaeology and has had the opportunity to work in a wide range of geographic and archaeological settings at sites in Colorado, Delaware, Maryland, Massachusetts, Nebraska, North Carolina, South Dakota, Virginia, Wisconsin, and Wyoming. As Dovetail's Report Manager, Ms. Calhoun is responsible for coordinating reporting tasks and assuring that reports and other written media meet internal and external quality standards.

Education

Colorado State University, M.A. in Anthropology, 2010
Virginia Polytechnic Institute and State University, B.S. in Biological Sciences, 2006

Professional Experience

12 Years

Registration

Secretary of Interior Standards Qualified as Archaeologist
Register of Professional Archaeologists

Sample Project Experience

Southeast High Speed Rail Corridor Study (Raleigh, North Carolina, to Washington D.C.). Archaeological Phase I survey, GIS mapping and modeling, and Phase II testing.
Archaeological Survey of Proposed Forest Thinning Parcels, Fort Pickett Military Training Center (Dinwiddie and Nottoway Counties, Virginia). Phase I archaeological survey of 190 acres on behalf of the Virginia Department of Military Affairs.
Mosby's Crossing Development Project (Warrenton, Virginia). Phase I cultural resource survey of approximately 46 acres for a proposed residential development.
Fauquier County Predictive Model (Fauquier County, Virginia). Prehistoric archaeological predictive model for archaeological sites in the county to aid in preservation development planning by the county.
Centerville Turnpike Road Widening (Virginia Beach, Virginia). Phase I archaeological survey of 12 acres associated with proposed road widening, on behalf of the City of Virginia Beach and Virginia Department of Transportation.
Historic Cemetery Delineation, Route 630 Project (Stafford County, Virginia). Cemetery delineation resulting in the identification of three marked and two unmarked graves within a nineteenth and twentieth century family cemetery, completed on behalf of the Virginia Department of Transportation.
Evaluation of the Chamber's Mill Dam (Buckingham County, Virginia). Phase II archaeological evaluation, on behalf of the Virginia Department of Transportation, of an eighteenth-century dam and mill site on the Slate River.
Archaeological Monitoring of the Solitude Water Line (City of Blacksburg, Virginia)**.** Archaeological monitoring of waterline installation at the mid-to-late nineteenth century Historic Solitude Property.

Kevin C. McCloskey

Dovetail Cultural Resource Group

Crew Chief

Mr. McCloskey has seven years of professional experience in the field of archaeology as it relates to cultural resource management. He has had the opportunity to work in a wide range of geographic and archaeological settings at archaeological sites in Virginia, North Carolina, Maryland, Florida, West Virginia, and The District of Columbia. At Dovetail, Mr. McCloskey is responsible for participating in all phases of archaeological field investigations.

Education

University of Richmond, J.D. in Law, 2003
University of Virginia, B.A. in History, 2000

Professional Experience

7 Years

Registration

N/A

Sample Project Experience

Houston-LeCompt Archaeological Site (New Castle County, Delaware). Phase III archaeological data recovery of a late-eighteenth century through early-nineteenth century tenant farmstead to mitigate adverse effects to the site from construction of Route 301.
Armstrong Rogers Archaeological Site (New Castle County, Delaware). Phase III archaeological data recovery at a late-eighteenth through mid-nineteenth century farmstead work yard for Delaware Department of Transportation's U.S. Route 301 project.
Courthouse Road/ Route 1 Widening Project (Stafford County, Virginia). Phase I cultural resource survey, archival research, and reporting for the Courthouse Road/Route 1 Widening Project.
Virginia Beach Transit Extension Study Project (City of Virginia Beach, Virginia). Phase I cultural resource survey for the Hampton Transit Project.
Southeast High Speed Rail (DC2RVA Rail) Project (Richmond to Washington, D.C.). Cultural Resource studies, archival research, GIS field data collection, cultural resource GIS layers, and reporting.
Purple Line Light Rail (Montgomery and Prince Georges County, Maryland). Phase 1A reconnaissance studies, archival research, architectural analysis, Determinations of Eligibility, Phase 1B archaeological surveys, GIS field data collection, cultural resource GIS layers, coordination geomorphological studies, and reporting.
Eastern Shore Natural Gas Company White Oak Lateral Project (Kent County, Delaware). Cultural resource studies to Section 106 (National Historic Preservation Act) and National Environmental Policy Act compliance standards, under the regulatory authority of the Federal Energy Regulatory Commission.
Route 301 Northern Spur (New Castle County, Delaware). Phase II archaeological investigations on behalf of Delaware Department of Transportation.