

C. Archeological Survey Research Design and Methods

Prior to the field investigations, the APE was evaluated for archeological potential. This evaluation exercise was performed to identify areas of low, medium, and high potential for containing intact archeological materials.

1. *Potential for Prehistoric Sites*

From a regional perspective, the project APE falls within a portion of Calvert County that is considered as having considerable potential for containing prehistoric archeological sites. Specifically, the project APE is located in the Patuxent River watershed, a watershed within which prehistoric sites from all contexts have been discovered (Steponaitis 1983; Barse 1988; Dent 1995). The prior discoveries of sites along Halls Creek and its associated waterways, clearly demonstrate that the general region was frequented by past Native American groups.

The discovery of various prehistoric archeological sites along various branches of Halls Creek is not unusual. Given the frequency of small waterways, the close distances between them and their confluences with Halls Creeks, as well relatively close distance to the confluence of Halls Creek and the Patuxent River (~3.0 miles; 4.8 km), the environs of the project APE would have contained a variety of wetland settings. These settings would have supported a diversity of floral and faunal resources, and as such, would have been considered a favorable settlement locale by past human groups. Considering the environmental setting of the project APE, namely along a freshwater stream with both upland and terrace settings, and prior discoveries of sites in similar settings (e.g., 18Cv6 and 18Cv168), it was concluded that the project APE had the potential for containing prehistoric archeological deposits.

Several portions of the project APE were identified as having a medium to high potential for archaeological resources. On the stream terrace, target areas included well-drained, level, and fast lands around natural bends of the stream, as well as some of the more subtle topographic settings on the terrace such benches, smaller terraces, and slight knolls near the hill's toe of slope. The upland setting at the north end of the project APE was also recognized as medium to high archeological probability area. Stratigraphically intact, level flats on top of the hill, as well as benches in the hillslope, were also identified as archeological target areas.

Steeply-sloped, poorly-drained, and heavily-eroded areas within the project APE were identified as having a low probability for archeological sites. The southern portion of the project APE that coincides with the path of the proposed access road between the wood line and Town Center Boulevard was identified as having a virtually no to low probability for intact archaeological sites due to its recurrent historic use as an access road, and the extent of modern subsurface disturbance associated with the construction of the Town Center complex and a large stormwater management facility.

In sum, it was concluded that overall, the project APE had a high probability for prehistoric archeological sites. Prehistoric site type expectancies for the project APE ranged from small procurement/processing locales to base camp sites. Of the temporal contexts developed for

Maryland, it was concluded that the project APE would be most apt to contain occupations ranging from the Late Archaic through Late Woodland Periods.

2. *Potential for Historic Archeological Sites*

Based on the results of previous studies in the general vicinity, the project APE was also recognized as having some potential for containing historic archeological resources.

Current models of historic archeological research has shown that identification of major transportation routes is one of the more significant factors that needs to be examined when discerning potential locations of historic archeological sites (Catts et al. 1989). On Maryland's Western Shore, early transportation routes consisted primarily of navigable waterways supplemented with a rudimentary network of private lanes, local roads, and public roads. Eventually, these routes were supplemented by the establishment of a public road and crossing system during the eighteenth century.

The settlement history of a region is also an important factor that must be taken into consideration. The historic period of Calvert County begins quite early. By the end of the eighteenth century, the general path of MD 4 was established as a main north-south transportation corridor. By the onset of the nineteenth century, various settlements, crossroad communities, and farmsteads could be found along roadway.

Background research did not encounter any readily available information that suggests that the project APE served as anything other than a woodlot between agricultural fields. Based on a review of historic mapping, it does not appear that the APE coincides with the location of any former structures. However, considering the region's history, the APE's historic association with the Eisenman Farm, an extant tobacco barn to the south of the project APE, and the documentation of other barns (e.g., CT-1140) in the general vicinity, it was recognized that the APE had a medium potential for containing archaeological materials associated with its nineteenth century agricultural past.

3. *Expected Results*

Based on the results of the assessment, overall, the project APE was concluded to have a high potential for containing intact archeological resources, which could yield significant information. It was expected that the archeological survey would provide information that would allow for the identification of such sites. Furthermore, it was also expected that the archeological survey would be able to provide sufficient information that can be used to develop preliminary evaluations of the NRHP/MRHP-eligibility of any archeological resources therein.

4. *Standardized Archeological Field Methodology*

After the archeological assessment, the project APE was subjected to a detailed systematic archeological field testing program. The primary objective of the fieldwork was to collect data that would assist in identifying and assessing the integrity of any archeological resources contained within the project APE.

Field efforts consisted of a combination of pedestrian inspection and subsurface testing procedures and all lands within the APE were subjected to examination. Although the APE was the focus of this project, careful pedestrian surface inspections were conducted along the peripheries of the APE. Select areas adjacent to the APE were also subjected to subsurface testing. The purpose of these inspections was to ascertain any potential probability zones that may be located directly adjacent to the established APE.

The first step of the subsurface archeological testing entailed the excavation of shovel test pits (STPs) at controlled intervals across the project APE. The STP excavations were conducted in order to establish a baseline for the field investigations. In general, the implemented testing scheme entailed the excavation of STPs, approximately 0.40 meter in diameter at 10- and 20-meter intervals in high and medium probability areas respectively. Selective STPs were also placed in areas with a low to medium probability in order to acquire control samples. Areas with virtually no to low archeological probability were subjected to detailed pedestrian inspection. Whenever possible, STPs were excavated at least 0.15-meter into sterile subsoil. The open remains of geotechnical soil borings within the project APE were also subjected to visual inspection.

Based on field observations of site stratigraphy, artifact concentrations, and detection of any artifact-bearing stratigraphic contexts, the intervals of STP was reduced to better discern the extent of such aspects. In such cases, the standard initial procedure for subsequent excavations entailed STP excavations in all cardinal directions (radials at 10-meter intervals), whenever possible.

When warranted, 1- by 1-meter test units (TUs) were excavated. The placement of TUs within the project APE was contingent upon the results of the STP excavations. TUs were excavated to accurately define site limits, examine subsurface stratigraphy of archeological interest, explore unusual artifact concentrations, acquire stratigraphic control samples, and compensate for limitations in testable lands.

Sampling procedures was subjected to change depending on any pertinent data discovered during the course of fieldwork. The distance between test excavations may have been tightened, widened, or offset to control sampling errors. Factors that warrant such actions included the need to avoid untestable surfaces (e.g., paved areas, deep standing water) or the presence of natural obstacles, utility or fence lines. STPs were also offset in locations with obvious previous subsurface disturbances (e.g., geotechnical soil borings, tree falls, rodent burrows). In such instances, test excavations were positioned to acquire the best, unbiased sample.

STP excavations extended into at least 15 centimeters of culturally sterile subsoil. At least two 10-cm levels of sterile subsoil will be excavated in each TU. In addition to providing a comprehensive stratigraphic window of the APE, the test excavations also served to better define the vertical and horizontal boundaries and the subsurface integrity of discovered resources.

Soils removed from archeological field investigations were screened through 1/4-inch mesh. Cultural materials recovered from field excavations were bagged by provenience. When appropriate, field-culling was performed for certain artifact classes, specifically coal, plastic, and slag. Field-culling efforts entailed recordation of recovery and collection of a representative sample. Detailed stratigraphic and plan view mapping was recorded on standardized field forms, as well as on photographic film (35mm black and white) and digital media.

Archeological testing of the project APE was performed within a standardized grid system. For accuracy, grid patterns were keyed-in and checked against established surveyor stations and landmarks accordingly.

5. *Standardized Laboratory and Data Analysis*

Laboratory processing consisted of the cleaning, inventorying, and preparation for storage of all artifacts recovered during field excavations. Artifacts were washed, marked, sorted, and packed for eventual curation at the Maryland Archeological Conservation Laboratory in accordance with procedures developed by the MHT (MHT 2005). A catalog of the artifacts pursuant to systems established by the MHT was generated.

Laboratory work also included standard applicable analyses of the artifacts that could assist in identifying the temporal contexts and functional uses of any identified archeological resources.

Prehistoric artifacts were examined by material and type. Lithic artifacts were cataloged by raw material and function type. Appropriate physical attributes (e.g., flake size, presence of cortex, thermal alteration, etc.) of lithic artifacts were also examined. Examinations for evidence of edge-wear on lithic artifacts was performed using low and high power magnification. The analyses of the lithic assemblage was conducted for the purposes of acquiring information that could be applied toward identifying activities as well as regional lithic technologies represented at the site. Prehistoric ceramic sherds were cataloged by standard cultural-historical types and analyzed for variability. Attributes noted for each sherd included its position on the vessel body, tempering agents, and evidence of any apparent surface treatments. Whenever possible, minimum vessel counts were also estimated.

Historic artifacts were first grouped based on artifact class (e.g., architectural, domestic, etc.) and then categorized by primary usage (e.g., food storage, lighting, etc.). Various attributes were also recorded for each individual artifact. These attributes included material composition, decoration, manufacturing technique, and color. When applicable, additional characteristics, such as positions on the vessel body and secondary physical alterations, were also noted. Whenever possible, projected date ranges for the artifacts were also estimated.

Plotted distributions of artifacts were generated to better assess concentrations across the project APE.

The results of documentary research, field investigations, and laboratory/data analyses were applied toward determining if the artifacts recovered from the project APE represented an archeological site. These analyses were also applied toward identifying the temporal contexts and functional uses of any identified archeological materials. Analyses were also conducted to assess project effects to any archeological resources.

All project records, photographs, notes, and artifacts of this survey will be curated with the Maryland Archeological Conservation Laboratory at the JPPM.

VII. RESULTS OF THE HISTORIC ARCHITECTURAL SURVEY

This section presents the results of the historic architectural survey. Two properties with aboveground structures that meet the fifty years or older age requirement necessary for consideration as a historic property were examined by this survey. Both properties contain structures that are located within or immediately adjacent to the Area of Potential Effect (APE) of the proposed Dunkirk Park and Ride project. Four structures were examined. One of the four structures is located on the Howes Property. The other three structures are located on the Ewing Property. All four structures are located on the east side of MD 4.

The locations of the examined structures (and the properties within which they are located) in relation to the project parcel and historic architectural APE are presented in **Figure 13** and **Figure 14**. Completed MHT survey forms, plans, and photos of the surveyed structures are on file at the MHT.

A. Summary Descriptions of Surveyed Structures

All four structures are previously undocumented buildings. Three of the surveyed structures, Howes Barn, Ewing Barn, and Ewing Barn South, are twentieth century tobacco barns that are located southeast of the proposed park and ride. Howes Barn and Ewing Barn were initially identified during a preliminary reconnaissance survey of the project APE. Howes Barn is in the project APE. Ewing Barn is located outside of the project APE, along its eastern edge. The fourth structure, designated Ewing Bungalow, is a twentieth century dwelling. Ewing Bungalow and Ewing Barn South were identified during a controlled field inspection of the portion of Ewing Property that abuts the project APE.

Due to substantial landscape alterations over the past decade, Ewing Barn was originally suspected to be the Whitehall/Eisenman Tobacco Barn D (MIHP# CT-1140), a previously documented tobacco barn that was recorded as part of a comprehensive tobacco barn survey of Calvert County. Since previous studies of the Whitehall/Eisenman Tobacco Barn D had not extended beyond the identification level, it was deemed prudent for the purposes of this project and pursuant to MHT consultation (letter dated May 16, 2008) to complete the DOE documentation for the barn and prepare any update forms as warranted.

A review of historic aerial photographs and topographic maps show a structure that matches in size and orientation to the Whitehall/Eisenman Tobacco Barn D in the vicinity of a current stormwater management facility. Historic aerials also revealed that the Whitehall/Eisenman Tobacco Barn D was located west of a hedgerow. Like most of the barns documented during the 1990 tobacco barn survey, the Whitehall/Eisenman Tobacco Barn D was visible from the road whereas, Ewing Barn was not, and is still not, visible from the road. Based on field inspections, it was concluded that the Whitehall/Eisenman Tobacco Barn D was likely razed

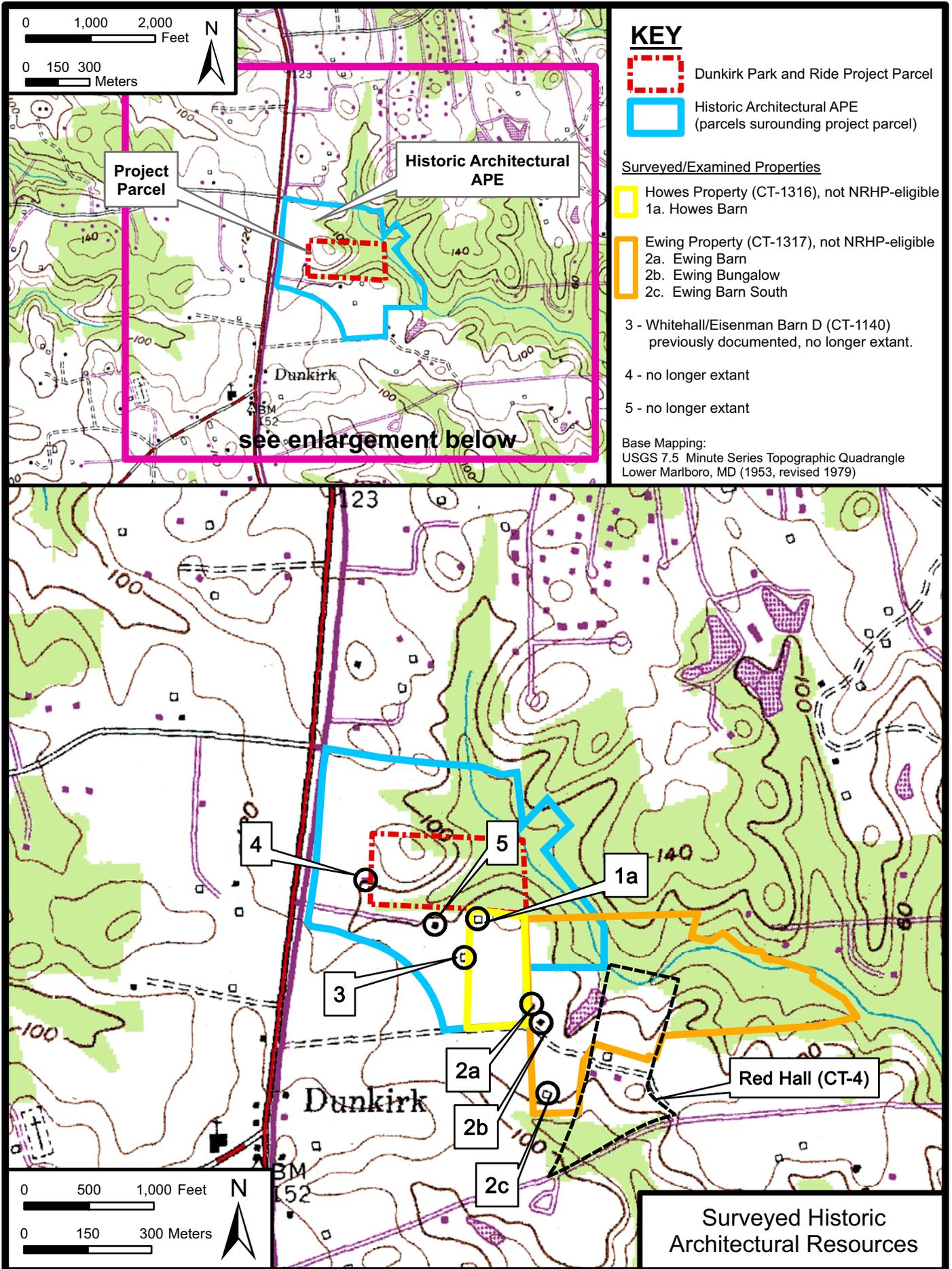


FIGURE 13

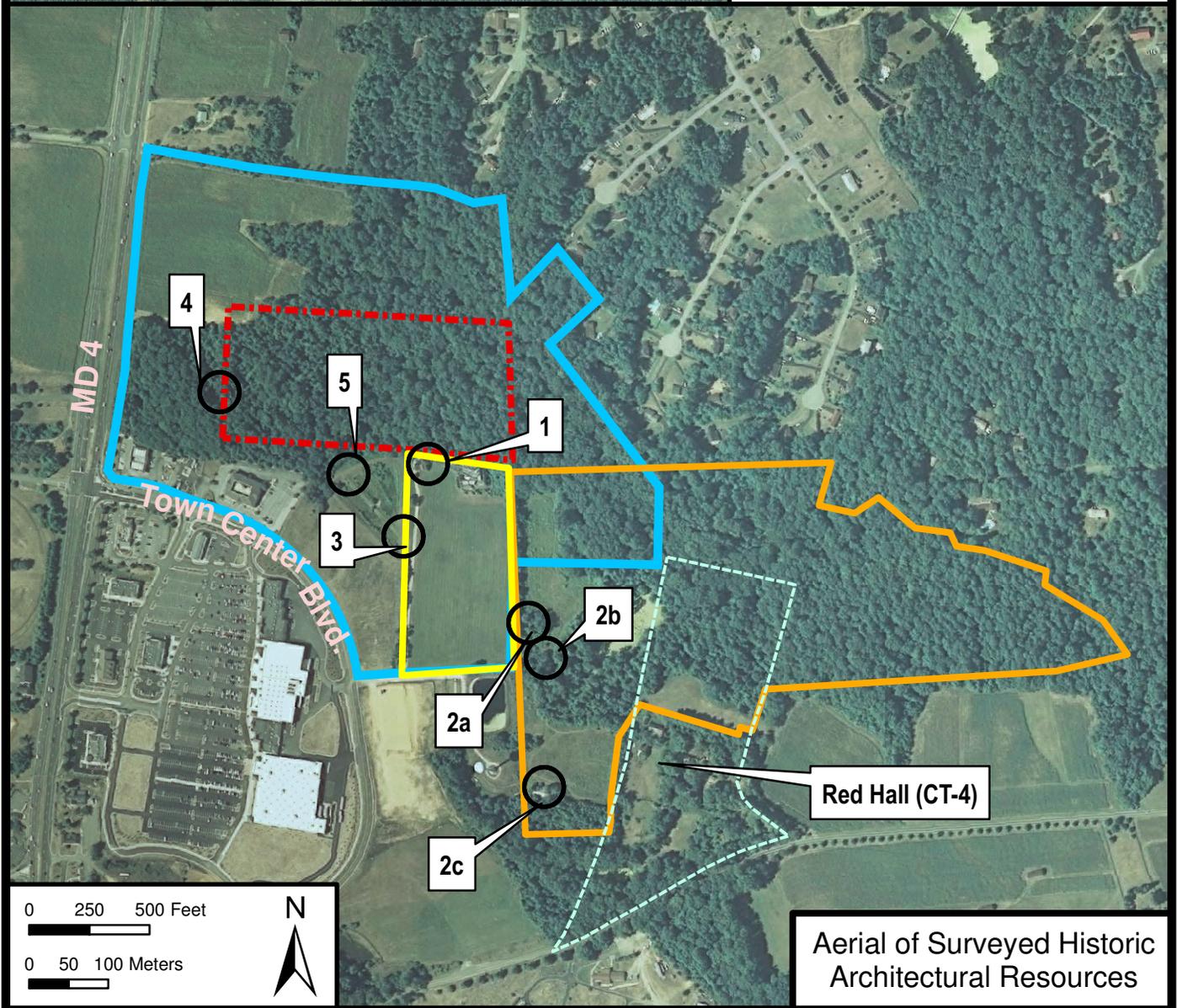
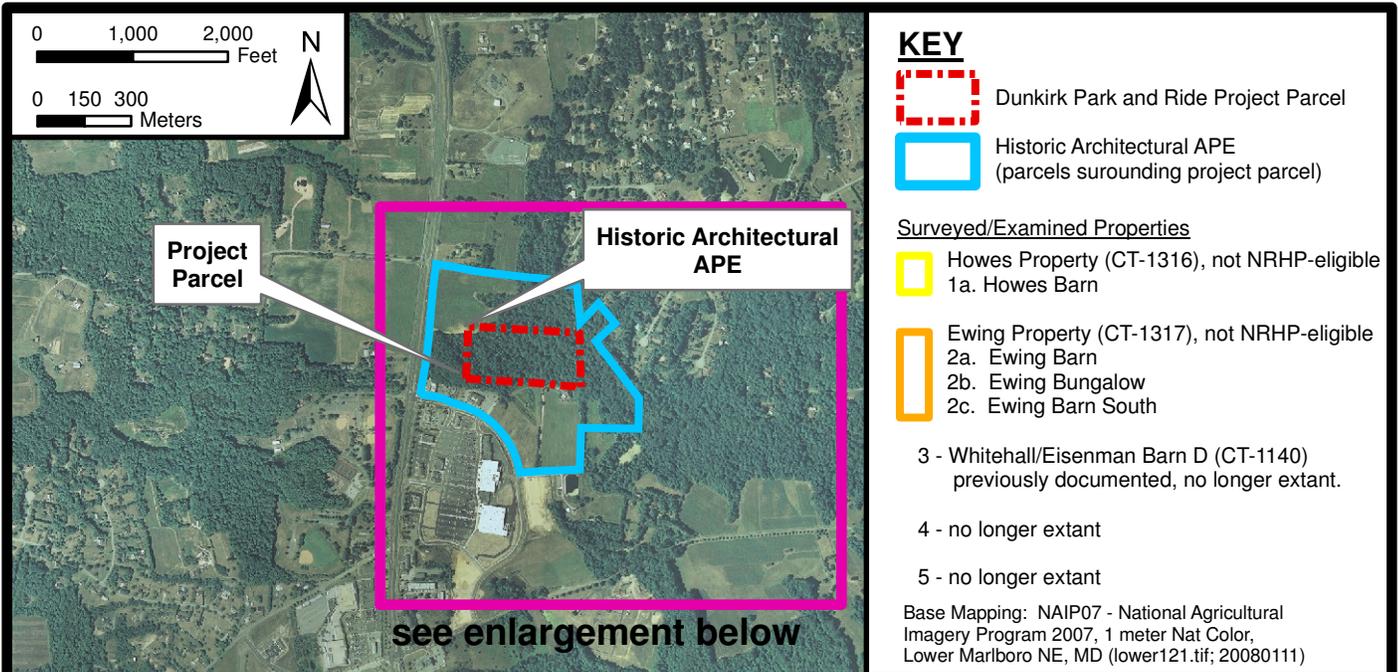


FIGURE 14

sometime during the last decade for the construction of the aforementioned stormwater management facility.

After detailed field inspection, comparative analysis of existing documentation, as well as consultation with K. Uunila of the Calvert County Planning Office, confirmed that the Whitehall/Eisenman Tobacco Barn D is no longer extant, it also became apparent that Ewing Barn had not been subjected to any prior historic examinations. The documentary reviews and project coordination also revealed that Howes Barn and Ewing Barn South were also unsurveyed structures (**Figure 13** and **Figure 14**).

Pursuant to coordination with the MHT, MIHP DOE documentation for the Howes Barn and Ewing Property was prepared and submitted to the MHT for review and comment. Pursuant to their comment letter dated October 21, 2008, it is the Trust's opinion that due to the overall deteriorated conditions of the standing structures on both properties, the Howes Barn and the Ewing Property are unable to illustrate historic significance within any of the NRHP Criteria of Evaluation and as such, the Howes Barn and Ewing Property are not eligible for listing in the NRHP.

Summary discussions of the structures identified and evaluated by this survey are presented below.

1. *Howes Barn*
MIHP # CT-1316
Tax Map 3, Parcel 61

Howes Barn (10835 Southern Maryland Boulevard/MD 4) is located in an approximate 8.26-acre property that is located on the east side of east side of MD 4/Southern Maryland Boulevard and the north side of Town Center Boulevard in Dunkirk. Howes Barn is the only one extant building fifty years or older in age on the property.

Howes Barn is situated between a cell phone tower and water retention ponds behind the shops on Town Center Boulevard. This barn was constructed in the first half of the twentieth century. The barn was constructed in a single phase and does not have any additions.

This barn was constructed as a center aisle barn measuring 30 by 40 feet. The center aisle is oriented north-south. The materials are circular sawn boards and fastened with wire nails. The six by six inch sills are raised above ground by concrete blocks. Peeled log poles, roughly six inches round, are spaced three-and-a-half feet apart on center. Four of these poles are placed on the east axis and four are on the west axis. Each peeled log pole has four notches, separated by 51-53 inches of vertical distance. The tobacco hanging system consists of peeled log poles resting in these notches and extending to the north and south walls of the barn where they rest on the framework of the barn. The roof is supported by a common rafter system. The southern roof face is standing seam metal on top of wooden shingles. The north roof face has no metal and the wooden shingles are deteriorating. The exterior of the barn is clad with one foot wide by ¾-inch thick sawn planks. The west gable end has wooden letters nailed to it that spell out "FOR SALE" with a phone number below. The east and west faces have single doors. The north and south ends have double doors. All doors

operate on strap hinges held in place with wire nails. The barn is heavily overgrown. The east gable end is barely distinguishable through the growth. The north face of the barn is deteriorating and one of the double doors is missing. The interior exhibits deterioration as well with broken and missing framing members.

Although the Howes Barn is a Southern Maryland tobacco barn that retains its original 20th century form, it is not an exemplary example. The north face of the barn is in a serious state of deterioration, a result of neglect. The exterior of the structure is overgrown and one of its doors is missing. Several of its interior framing members are also missing or broken. The physical integrity of the Howes Barn is poor. The barn also does not retain its sense of place - i.e. an agricultural setting - as it is now located between a cell tower and water retention ponds. The barn is not an exemplary style of craftsmanship nor is it associated with persons or events important in history. It is not a significant type, period, or method of construction. The barn is not the work of a master or in possession of high artistic value. Although the structure is a Southern Maryland tobacco barn, it does not possess sufficient physical integrity, sense of place, craftsmanship, or artistic value to be eligible for listing in the NRHP. In recognition of regional research priorities for Southern Maryland tobacco barns, a field plan view of Howes Barn was also prepared as part of the documentary record.

2. *Ewing Property*
MIHP # CT-1317
Tax Map 6, Parcel 450

Ewing Property (10350 Ward Road; Liber KPS 1471/Folio 714) is an approximate 49.89-acre property that is located on the north side of Ward Road and the east side of Town Center Boulevard in Dunkirk. This property contains three extant early-mid twentieth century buildings. These buildings are two tobacco barns (Ewing Barn and Ewing Barn South) and one c. 1940 dwelling (Ewing Bungalow). A portion of Ewing Property (~7.8+ acres) is located inside the delineated bounds of Red Hall, a previously documented National Register-eligible resource (MIHP CT-4). As delineated, Red Hall encompasses 20 acres and is a Calvert County-designated historic district (locally-designated). The portion of Ewing Property that is located within the bounds of Red Hall does not contain any extant structures. Ewing Barn, Ewing Barn South, and Ewing Bungalow, which are located outside of the previously-delineated Red Hall boundaries, postdate the 1700 to 1899 (early 18th – late 19th centuries) period of significance that has been established for Red Hall.

Ewing Property – Ewing Barn. Ewing Barn is located east of Town Center Boulevard in Dunkirk. The barn is a side aisle tobacco barn oriented north-south with the aisle extending west. The barn measures 60 by 30 feet. The barn is constructed of circular sawn boards, wire nails, and sits atop concrete block. The doors swing on pintels which is suggestive of early twentieth century construction. An enclosed subterranean stripping room of concrete block is located in the southwest corner with two metal casement windows located on the south wall. The tobacco hanging system consists of circular sawn boards formed into a U-shaped and nailed in place with wire nails. Circular sawn posts are placed in the U-shaped brackets. The U-shaped brackets are separated by roughly 40 inches of vertical distance. There are ventilation doors in the peaks of the gable ends. Ventilation doors are hinged at the top and can be propped open and are found every three feet on all faces of the barn.

Although Ewing Barn is a Southern Maryland tobacco barn, it is not an exemplary example. Due to its overall deteriorated condition, Ewing Barn is not eligible for the NRHP.

Ewing Barn was constructed after the period of significance of Red Hall plantation (MIHP# CT-4). Due to its 20th century construction, which postdates the period of significance of Red Hall plantation (late 17th - late 18th century), Ewing Barn is not a contributing element to Red Hall plantation or the local Red Hall Historic District. Ewing Barn also lies outside the established boundary of the local Red Hall Historic District.

Ewing Property – Ewing Bungalow. This 20th century bungalow is one-and-one-half stories tall. According to tax assessment records, the bungalow was constructed in 1940 as a guest house for Red Hall plantation (MIHP# CT-4). It is located on the east side of Maryland Route 4 behind the shops on Town Center Boulevard. The house is oriented southwest-northeast inside of a tree-line separating the house from a field. The exterior of the structure is clad in white asbestos siding and sits atop a concrete block foundation. Asphalt shingles cover the roof. The front porch and main entrance, which face southwest, is screened-in. The interior exhibits remnants of 1970s décor, such as shag carpeting and faux wood graining. The house is abandoned. The house is in ruinous condition and retains no physical integrity. The house is not an exemplary example of 20th century bungalow architecture. The house is not an exemplary style of craftsmanship. The house is not a significant type, period, or method of construction. The house is not the work of a master or in possession of high artistic value. Ewing Bungalow does not retain sufficient physical integrity, craftsmanship, or artistic value to be individually listed in the NRHP.

Although Ewing Bungalow is located on the same parcel as Red Hall (MIHP# CT-4), it postdates Red Hall's period of significance (late 17th – late 18th century) by over one century. Ewing Bungalow is not a contributing element of Red Hall and lies outside of the established bounds of the locally designated Red Hall Historic District. Due to its 20th century construction and lack of any significant architectural or historical characteristics, Ewing Bungalow is not eligible for inclusion NRHP as a contributing element of the Red Hall Historic District.

Ewing Property – Ewing Barn South. Ewing Barn South, the southernmost building on Ewing Property, is an early to mid-twentieth century tobacco barn that is located about 600 feet southeast of Ewing Bungalow. This barn is located in the southwest corner of Ewing Property and is situated in a wood line that runs along the east edge of an open field. A modern water tower is located due west of Ewing Barn South in the aforementioned field. Ewing Barn South is denoted “Ex. Barn” on the November 8, 2005 survey plat of Red Hall (Liber KPS 2, Folio 371; MSA S1239-2621, see attached sheet).

Ewing South Barn measures 31 feet wide and 101 feet long. Ewing Barn South is generally oriented northeast-southwest. The entire barn dates to the early twentieth century as is evidenced by the wire nails and circular sawn boards. All doors, including the ventilation doors, swing on strap hinges. Ewing Barn South is composed of four sections, an original structure and three additions. The additions were built off of the original structure and one

another from west to east. The physical characteristics of the additions indicate that the time between the episodes of construction was relatively short.

The original structure, which is at the northwest end of Ewing Barn South, is 16 feet long and has a double door on the north face. It is distinguishable by brick piers upon which the sills rest. The original structure of Ewing Barn South has a standing seam metal roof that is supported by a common rafter system. The original structure is the only section of the barn that has a standing seam roof. The additions have corrugated metal roofing. The function of the original section of Ewing Barn South appears to have changed from its original use as a tobacco barn to that of a machine shed.

The first addition measures 36 feet long. The corrugated metal roof is supported by a common rafter system. This addition is differentiated from the original structure (to its west) and the subsequent addition (to its east) by its purlins. The purlins in the first addition are little wider and little more rough than the purlins in either the original structure or the second addition. The purlins in the first addition are also not in line with those of the adjacent sections of the barn. Peeled log poles, both vertical and horizontal create the tobacco hanging system with some sawn posts. This addition has double doors on its north and south sides.

The second addition measures 33 feet long. This addition, which has a corrugated metal roof, is distinguishable by the use of king posts in the rafter. The eastern end of the second addition is easily discernable from the subsequent addition (built off the east end) by its use of corner framework. For the construction of the third addition, the clapboard siding was removed but the corner framework was left in place. The second addition of Ewing Barn South is straighter and more plumb than the rest of the barn sections. The tobacco hanging system consists exclusively of sawn posts, both vertical and horizontal. The vertical posts sit atop poured concrete. Double doors are also present on both the north and south sides.

The third (last) addition, which is the east end of Ewing Barn South, measures 16 feet. The sills, plates, and framework are butted against the framework of the previous addition to its west, and are held in place by the same wooden brackets used for the tobacco hanging system. This addition has a corrugated metal roof and also exhibits the use of king posts in the rafters. The purlins of this addition are very similar to those in the addition to its west. This addition has double doors. The doors are located at the gable end, which faces east.

The additions were constructed one after another within a rather short period of time. These modifications were made to enlarge the barn, probably to accommodate increases in tobacco production in the twentieth century

Ewing Barn South is a poor representative example of a Southern Maryland tobacco barn. The barn possesses poor physical integrity and has been severely altered from its original form by the construction of three linear additions to the original structure. Due to its overall deteriorated condition, Ewing Barn South is not eligible for the NRHP.

Ewing Barn South was constructed after the period of significance of Red Hall plantation (MIHP# CT-4). Due to its 20th century construction, which postdates the period of significance of Red Hall plantation (late 17th - late 18th century), Ewing Barn South is not a contributing element to Red Hall plantation or the local Red Hall historic district. Ewing Barn South also lies outside the established boundary of the local Red Hall historic district

Summary of Ewing Property. Overall, Ewing Property contains little aboveground architecture associated with its twentieth century agricultural use. Ewing Barn, Ewing Barn South, and Ewing Bungalow are the only three remaining structures, and collectively, they are a poor representation of Ewing Property's use as a twentieth century farmstead. Based on the results of the survey and MHT review, it has been concluded that due to the overall deteriorated conditions of Ewing Barn, Ewing Bungalow, and Ewing Barn South, Ewing Property is unable to illustrate significance within any of the NRHP Criteria of Evaluation. All of the buildings possess poor physical integrity and none of the buildings are exemplary examples of a significant type, period, or method of construction. They are also not the work of a master or in possession of high artistic value. Pursuant to the survey results and MHT project coordination, it has been concluded that Ewing Property is not eligible for listing in the NRHP.

B. Project Effects Analysis of Historic Architectural Resources

No NRHP-eligible or -listed aboveground historic properties were identified by the Cultural Resources Survey of the Dunkirk Park and Ride.

Based on a review of the current design scheme, it has been concluded that construction of the Dunkirk Park and Ride will not affect any historic architectural resources (**Table 2**). No construction work will take place on any properties that contain any aboveground architecture fifty years or older in age.

Although Howes Barn and Ewing Property are not NRHP-eligible, the existing viewsheds and settings of these properties will also be maintained. While the project will involve new construction, the project will not result in the introduction of any new forms of aboveground elements beyond those that have already been built to the south, north, east, and west of the properties. The parking lot, its associated structures, and access road will be shielded from view by the current woods and vegetation. In sum, the properties will not be subjected to any physical or visual impacts.

In conclusion, it has been concluded that the Dunkirk Park and Ride project will have no effect on any NRHP-eligible or -listed aboveground historic properties.

**Table 2:
Summary of Project Effects Analysis**

DEFINITION OF EFFECT	EVALUATION
<p>An effect may occur when there is alteration to the characteristics of a historic property qualifying it for inclusion in or eligibility for the National Register as defined in Section 800.16(i)</p>	<p>No NRHP-listed or –eligible historic architectural resources are contained within the project APE.</p> <p>The construction of the Dunkirk Park-N-Ride will not have a physical impact on any properties that contain any aboveground structures fifty years or older in age.</p> <p>Although Howes Barn and Ewing Property are not NRHP-eligible characteristic, the existing viewshed and setting of these properties will also be maintained. Although the project will involve new construction, the project will not result in the introduction of any new above-ground elements beyond those that have already been built to the south, north, east and west of the properties. The parking lot, its associated structures, and access road will be shielded from view by the current woods and vegetation.</p>
FINDING	<p><i>This project will have No Effect on any NRHP-listed or –eligible historic architectural resources.</i></p>

C. Conclusions and Recommendations

Table 3 presents a summary of the documentation efforts, NRHP-eligibility evaluations, project effects analyses conducted for the four aboveground structures examined by this survey. These structures are Howes Barn on Howes Property (MIHP# CT-1316), and Ewing Barn, Ewing Bungalow, and Ewing Barn South on Ewing Property (MIHP# CT-1317). Based on the results of the survey, it has been concluded that the Dunkirk Park and Ride project will have No Effect on any NRHP-listed or -eligible historic architectural resources.

**Table 3:
Summary of Examined Historic Structures**

Resource	Construction Date	NRHP Eligibility	Documentation	Project Effects
Howes Barn (CT-1316)	early - mid 20 th cent.	ineligible MHT Opinion, (October 21, 2008)	MHT MIHP DOE forms	No Effect
Ewing Property (CT-1317)	Ewing Barn: early - mid 20 th cent. Ewing Bungalow: c. 1940 Ewing Barn South: early - mid 20 th cent.	ineligible MHT Opinion, (October 21, 2008)	MHT MIHP DOE forms	No Effect

VII. ARCHEOLOGICAL EXCAVATION RESULTS

The following discussion presents the results of the field investigations and data analysis of the archeological survey of the project APE.

A. Summary of Subsurface Archeological Testing

Using the results of the documentary research as a foundation, controlled subsurface archeological testing was conducted in order to physically confirm the absence or presence of archeological resources within the project APE. One of the key objectives of the excavations was also to ascertain if any significant archeological deposits, as per the NRHP Criteria, were present within the project APE.

As a means for organizing the fieldwork, the project APE was divided into two primary zones. These zones, designated stream terrace and upland, are based on elevation and landscape position. The stream terrace and upland sections were also divided into subsections based on cardinal direction and natural divisions in the landscape.

Area A and Area B are located on the stream terrace. In general, Area A and Area B follow the curve of the stream, which marks the south and east limits of the project APE. In general, Area A and Area B run along the portions of the terrace along the southern and eastern bounds of the project APE.

Area C and Area D are located in the upland setting at the north end of the project APE. These subsections, which encompass the hilltop, are separated by a broad erosional gully that bisects the hilltop. Area C and Area D are the east and west halves of the hilltop, respectively.

A total of sixty-eight shovel test pits (STPs) and two 1- by 1-meter test units (TUs) were excavated (**Table 4; Figure 15**). A total of 123 artifacts were recovered and analyzed. The recovered assemblage contains 116 prehistoric artifacts and seven historic artifacts. **Table 5** presents a summary catalog of the recovered artifacts by section. Summary catalogs of recovered artifacts by provenience are presented in **Appendix I**. The excavation results for the stream terrace and upland sections of the project APE are presented separately in the following discussion. A representative soil profile of non-archaeological site areas within the project APE is presented in **Figure 16**.

Two archeological sites were identified and evaluated by this survey. Both sites, designated Dunkirk P&R 1 and Dunkirk P&R 2, are prehistoric sites located on the stream terrace of the project APE. The Dunkirk P&R 1 Site and the Dunkirk P&R 2 Site have been registered with the MHT as 18Cv491 and 18Cv492, respectively. No archeological sites were identified in the upland section of the project APE.

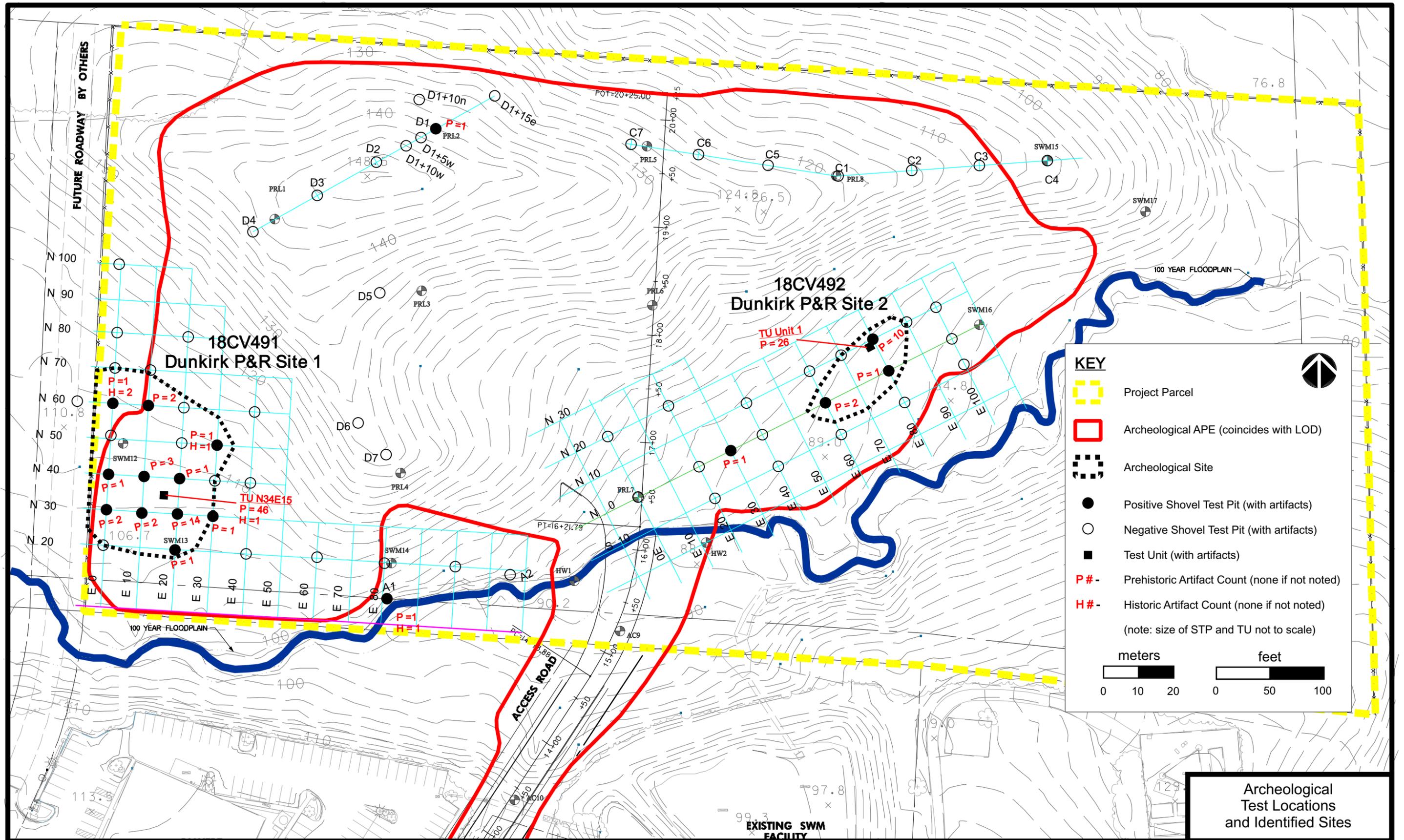


FIGURE 15

**Table 4:
Summary of Subsurface Testing**

Testing	Terrace		Upland	
	A	B	C	D
Shovel Test Pit (STP)	30	20	7	11
1- by 1-meter Test Unit (TU)	1	1	-	-

B. Stream Terrace Zone

Fifty STPs and two units were excavated on the stream terrace. Soil profiles of these excavations revealed that most of the terrace possesses a subsurface stratigraphy composed of a thin humus followed by irregular deposits of modern alluvium/slopewash, which lay atop cultural sterile subsoils (**Figure 16**). Along the southern section of the terrace, Area A, the upper depths of the subsoil is characterized as yellowish brown, fine-grained, moderately compacted, silty loam that becomes increasingly clayier, more orange, and mottled with depth. Along the eastern section of the terrace, Area B, soils consist of sandy loams and were noted to be slightly more yellow in color than the soils along the southern edge of the APE. In several of the STPs excavated in both Area A and Area B, standing water was reached around 0.70 meters below the surface. These occurrences were most frequent in the STPs excavated along transects laid about ten meters off of the stream edge.

In some of the STPs in both Area A and Area B, an intact, buried A horizon (Ab) was identified beneath the modern alluvium/slopewash. In places where this stratigraphy was present, the modern alluvium/slopewash overburden bears striking resemblance to sterile subsoil. This buried A horizon was also discovered to coincide with two slight rises situated at the base of the hillslope. One of the rises is located in the southwest corner of the project APE in Area A. In Area A, the Ab horizon lies about 0.25 meter below the surface.

The other rise is located toward the center of the stream terrace along the east edge of the project APE in Area B. In Area B, the top of the Ab horizon lies about 0.40 meter below the surface.

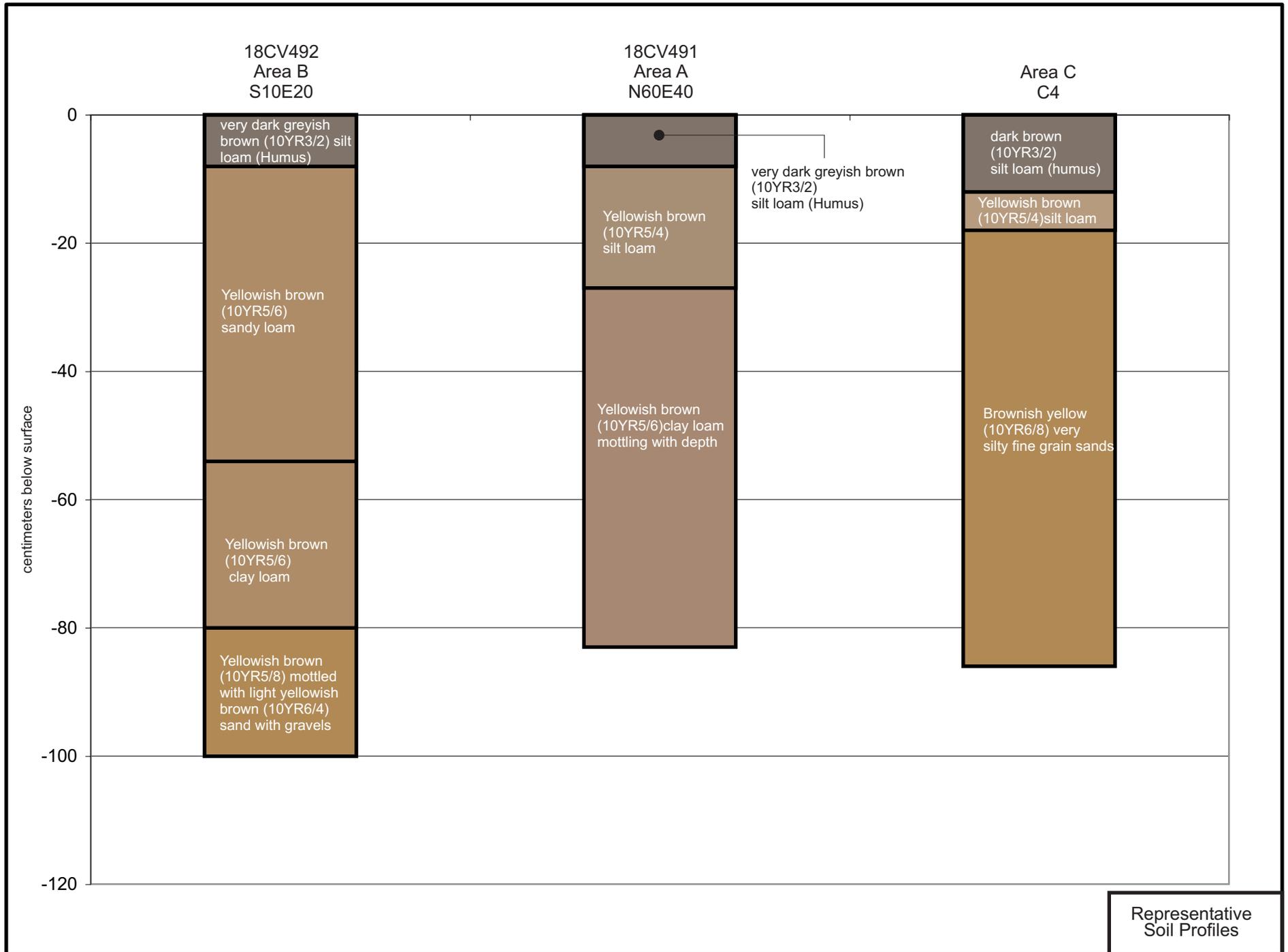
Given the position of these rises on the landscape, it is likely that the overburden that caps the buried A horizon is an accumulation of sediment that originated from adjacent hill.

In both Areas A and B, prehistoric artifacts were recovered from both the buried A horizon and the underlying B horizon (Bb). Subsequent test excavations revealed that the distribution of prehistoric material across the terrace coincides with the presence of this buried A horizon.

TABLE 5
Dunkirk Park and Ride
Summary Artifact Catalog by Area

	Stream Terrace							Upland		TOTAL	
	Area A			Area B			Area C	Area D			
	18CV491 STPs	TU (N34E15)	Non-site STP	Sum <i>Area A sum</i>	18CV492 STPs	TU Unit 1	Non-site STP	Sum <i>Area B sum</i>	STPs (no TUs) <i>sum</i>		STPs (no TUs) <i>sum</i>
PREHISTORIC											
Flakes											
Quartzite	11 (5)	13 (8)	0 (-)	24 (13)	1 (-)	2 (1)	1 (1)	4 (2)		0 (-)	28 (15)
Quartz	16 (7)	16 (5)	0 (-)	32 (12)	1 (-)	9 (4)	0 (-)	10 (4)		0 (-)	42 (16)
Chert	0 (-)	1 (-)	0 (-)	1 (-)	0 (-)	0 (-)	0 (-)	0 (-)		0 (-)	1 (-)
Rhyolite	1 (-)	1 (-)	0 (-)	2 (-)	0 (-)	0 (-)	0 (-)	0 (-)		1 (-)	3 (-)
Early Stage Biface Rejects											
Quartzite	0 (-)	1 (-)	0 (-)	1 (-)	0 (-)	0 (-)	0 (-)	0 (-)		0 (-)	1 (-)
Worked Stone											
Quartz	1 (1)	1 (1)	0 (-)	2 (2)	0 (-)	0 (-)	0 (-)	0 (-)		0 (-)	2 (2)
Ceramic											
Mockley	0	0	0	0	0	3	0	3		0	3
Accokeek	0	0	0	0	10	7	0	17		0	17
Fire-Cracked Rock											
count	0	13	1	14	1	4	0	5		0	19
SUM PREHISTORIC	29 (13)	46 (14)	1 (-)	76 (27)	13 (-)	25 (5)	1 (1)	39 (6)		1 (-)	116 (33)
HISTORIC											
Glass											
Unid. Manufacture, olive bottle glass	2	0	0	2	0	0	0	0		0	2
Ceramic											
Whiteware, indeterminate dec.	1	0	0	1	0	0	0	0		0	1
Architectural											
nail:											
<u>cut</u>	0	1	0	1	0	0	0	0		0	1
unidentifiable	0	0	1	1	0	0	0	0		1	2
Miscellaneous											
Coal & By-Products: coal											
bone	0	0	0	0	0	0	0	0		Y	Y
	0	0	0	0	0	1	0	1		0	1
SUM HISTORIC	3	1	1	5	0	1	0	1		1	7
TOTAL ARTIFACTS	32 (13)	47 (14)	2 (-)	81 (27)	13 (-)	26 (5)	1 (1)	40 (6)		2 (-)	123 (33)

(#) = Artifacts with cortex



Representative Soil Profiles

FIGURE 16

Only two STPs devoid of the buried A horizon yielded artifacts. These STPs were STP A-A1 and STP B-N0E30. STP A-A1 yielded one piece of fire-cracked rock and a heavily-corroded nail. STP B-N0E30 yielded one small quartzite flake. Because of their recovery from modern alluvium/slopewash overburden, it was concluded that all three of the aforementioned artifacts represent isolated finds.

Based on the distribution of the artifact-bearing buried A horizon, two archeological sites were delineated on the stream terrace. These sites have been designated the Dunkirk P&R 1 Site (Area A) and the Dunkirk P&R 2 Site (Area B). The locations of these sites are presented in **Figure 15**. The Dunkirk P&R 1 Site and the Dunkirk P&R 2 Site have been registered with the MHT as 18Cv491 and 18Cv492, respectively.

1. Summary of Dunkirk P&R 1 Site (18Cv491)

The Dunkirk P&R 1 Site (18Cv491) encompasses an approximate 60 by 40-meter area located in the southwest corner of the project APE. This site was delineated based on the recovery of seventy-five prehistoric artifacts from intact, buried A and B horizons located on a slight rise. Twenty-nine of these artifacts were recovered from eleven STPs excavated at 10-meter intervals. The highest number of artifacts from a single STP was eleven artifacts, which were recovered from STP N30E20. Forty-six of the artifacts were recovered from one TU, TU N34E15, which was excavated five meters northwest of STP N30E20. **Table 6** presents a summary artifact catalog by provenience of artifacts recovered from the Dunkirk P&R 1 site. In addition to fifty-nine flakes, the recovered assemblage contains one quartzite early stage biface fragment, one piece of worked quartz cobble, and thirteen pieces of fire-cracked rock. Although four historic artifacts were also collected from the site, all of these artifacts were collected from an approximate 0.25-meter thick overburden of modern alluvium/slopewash that caps the site.

Figure 17 and **Figure 18** presents a representative soil profile of TU N34E15, which was excavated in the center of the site after the recovery of the fourteen artifacts from STP N30E20. In TU N34E15, the Ab horizon was observed to consist of a medium brown to grey brown (10 YR 4/4-10 YR 5/4), fine-grained, moderately compacted sandy loam. The buried A horizon, which is located between 0.25 and 0.32 meters below the surface, does not reflect any evidence of historic plowing. In addition to ten flakes (5 quartz, 5 quartzite) and seven pieces of fire-cracked rock, the buried A horizon of the test unit also yielded the aforementioned quartzite early stage biface fragment (**Figure 19**) and worked quartz cobble.

Soils of the underlying Bb1 and Bb2 horizons are characterized as a light brown to yellow-brown (10 YR 5/6), slightly sticky, fine-grained, moderately compacted sandy loam. In TU N34E15, a thin transitional horizon between the Bb1 and Bb2 horizon was identified. The Bb2 horizon is slightly more red in color (10 YR 5/8) than the overlying Bb1 horizon.

TABLE 6
Summary Artifact Catalog by Provenience
Dunkirk Park and Ride 1 Site

Catno. Site Area STP/TU	3	4	5	6	8	9	10	11	12	13	15	17	18	19	20	21	22	23	TOTAL
	P&R 1 A N20E20	P&R 1 A N30E0	P&R 1 A N30E10	P&R 1 A N30E20	P&R 1 A N30E30	P&R 1 A N40E0	P&R 1 A N40E10	P&R 1 A N40E20	P&R 1 A N50E30	P&R 1 A N60E0	P&R 1 A N60E10	P&R 1 A N34E15							
PREHISTORIC																			
Flakes																			
Quartzite	0 (-)	0 (-)	1 (-)	10 (5)	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	1 (1)	3 (3)	5 (2)	3 (2)	0 (-)	1 (-)	0 (-)	24 (13)
Quartz	1 (-)	2 (-)	1 (-)	2 (1)	1 (1)	1 (1)	3 (2)	1 (-)	1 (1)	1 (1)	2 (-)	1 (1)	1 (-)	5 (3)	0 (-)	6 (-)	2 (-)	1 (1)	32 (12)
Chert	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	1 (-)	0 (-)	0 (-)	0 (-)	1 (-)
Rhyolite	0 (-)	0 (-)	0 (-)	1 (-)	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	1 (-)	0 (-)	0 (-)	0 (-)	2 (-)
Early Stage Biface Rejects																			
Quartzite	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	1 (-)	0 (-)	0 (-)	0 (-)	0 (-)	1 (-)
Worked Stone																			
Quartz	0 (-)	0 (-)	0 (-)	1 (1)	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	1 (1)	0 (-)	0 (-)	0 (-)	0 (-)	2 (2)
Ceramic																			
Mockley	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Accokeek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fire-Cracked Rock																			
Count/wt.(oz.)	0	0	0	0	0	0	0	0	0	0	0	3	0	7	3	0	0	0	13
SUM PREHISTORIC	1 (-)	2 (-)	2 (-)	14 (7)	1 (1)	1 (1)	3 (2)	1 (-)	1 (1)	1 (1)	2 (-)	5 (2)	4 (3)	19 (6)	8 (2)	6 (-)	3 (-)	1 (1)	75 (27)
HISTORIC																			
Glass																			
Unid. Manufacture, olive bottle glass	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2
Ceramic																			
Whiteware, indeterminate dec.	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Architectural																			
nail:																			
cut	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
unidentifiable	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous																			
Coal & By-Products: coal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bone	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUM HISTORIC	0	0	0	0	0	0	0	0	1	2	0	0	1	0	0	0	0	0	4
TOTAL ARTIFACTS	1 (-)	2 (-)	2 (-)	14 (7)	1 (1)	1 (1)	3 (2)	1 (-)	2 (1)	3 (1)	2 (-)	5 (2)	5 (3)	19 (6)	8 (2)	6 (-)	3 (-)	1 (1)	79 (27)

(#) = artifacts with cortex

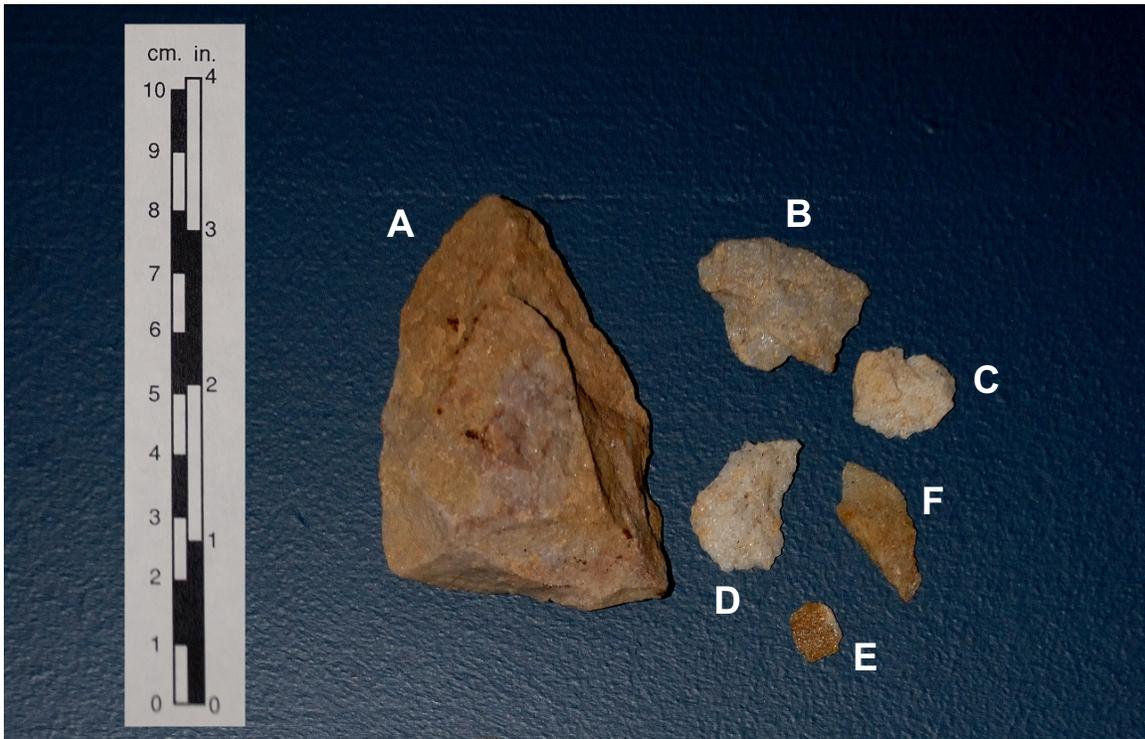


Buried A

Photograph taken facing south.
June 2008

18CV491
TU N34E15
Closing Profile

FIGURE 18



Key: Representative artifacts from TU N34E15, Level 3 - Buried A

- A. Early stage biface reject; quartzite
- B. Flake; quartzite
- C. Flake; quartzite
- D. Flake; quartzite
- E. Flake with cortex; quartzite
- F. Flake with cortex; quartzite

Artifacts not pictured include 5 quartz flakes (2 with cortex), 1 worked piece of quartz with cortex, and 7 fire-cracked rock.

18Cv491
Representative Artifacts Recovered
TU N34E15 Level 3 - Buried A

In TU N34E15, five flakes (3 quartzite, 1 chert, 1 rhyolite) and three pieces of fire-cracked rock were recovered from the Bb1 horizon. Six quartz flakes were recovered from the Bb1/Bb2 interface. Two consecutive arbitrary 10-centimeter excavation levels of the Bb2 horizon yielded an additional 4 flakes (level 1 = 3 flakes, level 2 = 1 flake). Based on the excavation results of TU N34E15, it is estimated that the site contains intact prehistoric archaeological deposits that extend to a depth of roughly 0.60 meter below the surface.

Although cobble quartz and quartzite are the prevailing lithic material in the site assemblage, two other lithic materials are also present. These materials include chert and rhyolite, which are represented by one flake and two flakes, respectively. The recovery of debitage and the discarded tools, namely the early stage biface fragment and the worked quartz cobble, are suggestive of general lithic tool kit maintenance. The small areal size of the site (~2400 sq. meters) and the recovered artifact types are common characteristics of temporary habitation sites. The site likely functioned as a small transient base camp or procurement/processing locale. The limited assemblage also suggests that repeated use of the site during the prehistoric period, if any, was minimal. Due to the absence of any diagnostic artifacts in the recovered artifact assemblage, the temporal occupation of the site is unknown.

Although site excavation did not yield a substantial quantity or diversity of artifacts, the excavation results do indicate that the site contains well-preserved intact archaeological deposits with good subsurface integrity. The absence of any evidence of past plowing and lack of any historic artifacts in the buried A and B horizons (Ab and Bb horizons) indicate that the artifacts at the site have experienced little, if any, post-occupational subsurface disturbance since their original deposition.

The Dunkirk P&R 1 Site (18Cv491) has a strong potential for yielding significant archaeological information pertaining to the usage of short-term sites in interior portions of Maryland's Western Shore. While many sites similar in size and archaeological composition to 18Cv491 have been recorded elsewhere, to date, few sites have been subjected to detailed study in this portion of the county. Unlike more substantial and larger base camps which often contain well-preserved deposits in the form of subsurface pit features or dense artifact concentrations, archeological remains of transient camps and procurement/processing locales tend to be less robust due to their short-term usage. Many of the region's more temporary sites have since been severely disturbed or destroyed by historic plowing and modern development. In more instances than not, remnants of these sites tend to be found in mixed archaeological contexts or represented as lithic scatters contained within plow zone contexts. Consequently, the research capacity of these sites tends to be limited. Because of its good preservation and undisturbed character, the Dunkirk P&R 1 Site (18Cv491) has already proven to possess a subsurface integrity that differentiates it from others that have been examined. The Dunkirk P&R 1 Site (18Cv491) presents a unique opportunity to closely examine the dynamics of a short-term, possibly single-occupation, site. Because of its small size, subsurface integrity, and low frequency of use, the site is capable of providing a complete and sound dataset of the site that can be applied toward detailed site-specific studies. Analysis of the activities performed, lithic technologies employed, and resources utilized at the site will provide information that can be used to better understand the role of temporary sites at interior, low-order wetland settings in regional settlement patterns.

2. *Summary of Dunkirk P&R 2 Site (18Cv492)*

The Dunkirk P&R 2 Site (18Cv492) is located in the center of the terrace on the east side of the project APE. The site stretches across a small 35- by 15-meter rise located at the base of the hill that abuts the landward edge of the terrace. This site was delineated based on the recovery of thirty-nine prehistoric artifacts from an intact, buried A and B horizons. Fourteen of the artifacts were recovered from three STPs excavated in select locations on the rise. Most of the STP artifact assemblage, ten artifacts, was recovered from a single STP, STP N10E80. Twenty-five of the artifacts were recovered from TU Unit 1, which was excavated roughly three meters south of STP N10E80. **Table 7** presents a summary artifact catalog by provenience of artifacts recovered from the site. The recovered artifact assemblage from the Dunkirk P&R 2 Site (18Cv492) contains fourteen flakes (4 quartzite, 10 quartz), three Mockley ceramic sherds, seventeen Accokeek ceramic sherds, and five fragments of fire-cracked rock. One small calcined bone fragment was also recovered. All of the recovered artifacts were recovered from intact stratigraphic contexts beneath an approximate 0.40-meter thick overburden of modern alluvium/slopeswash. No historic artifacts were collected from the site.

Figure 20 and **Figure 21** presents a representative soil profile of TU Unit 1. TU Unit 1 was excavated after the recovery of ten Accokeek ceramic sherds from STP N10E80. Since the sherds from the STP appeared to originate from a single vessel, one of the primary reasons for this excavation unit was to determine if STP N10E80 coincided with the location of a subsurface feature.

In TU Unit 1, the buried A horizon consists of a medium brown (10YR5/4) to dark yellowish brown (10 YR 4/4), fine-grained, moderately compacted sandy loam. The buried A horizon, which is located between about 0.42 and 0.58 meter below the surface, does not reflect any evidence of historic plowing. Soils of the underlying B1 and B2 horizons are characterized as a yellowish-brown (10 YR 5/6) to brown yellow (10YR6/6), slightly sticky, fine-grained, moderately compacted sandy loam. The B2 horizon is slightly more orange in color (10 YR 5/8-10YR 5/6) than the overlying B1 horizon.

One quartz flake, two Mockley sherds, one Accokeek sherd, and one piece of fire-cracked rock were collected from the buried A of TU Unit 1. The collective assemblage from two consecutive arbitrary 10-centimeter excavation levels of the B1 horizon in the unit yielded six flakes, one Mockley sherd, six Accokeek sherds, two fragments of fire-cracked rock, and the aforementioned piece of calcined bone. No artifacts were recovered from the third, and last 10-centimeter level of the B1 horizon; however, four additional flakes and one fire-cracked rock fragment was collected from the first 10-centimeter level of the B2 horizon. Based on the excavation results, it is estimated that the prehistoric archaeological deposits at the Dunkirk P&R 2 site extend to a depth of approximately 1.0 meter below the surface.

Figure 22 presents a photograph of the prehistoric ceramic assemblage collected from the site.

As apparent in **Table 7**, prehistoric ceramic sherds comprise the majority of the recovered artifact assemblage. Despite its limited diversity, this assemblage is of much archeological interest. These sherds, all of which were recovered from the intact buried A horizon and the underlying B horizon, indicate that the Dunkirk P&R 2 Site (18Cv492) contains well-preserved, intact, datable subsurface archeological deposits. Like 18Cv491, this site also does not show any evidence of subsurface historic or natural disturbance.

Given the similarity of physical characteristics and several mends amongst the recovered sherds, it is believed that the sherds represent the fractured remains of one Mockley vessel and one or two Accokeek vessels. Based on the concentration of artifacts around TU Unit 1 and STP N10E80, it is likely that the archaeological deposits therein may represent a small activity area of a small base camp. The projected date ranges of Accokeek ware (900 B.C. – 300 B.C.) and Mockley ware (ca. A.D. 200 – A.D. 900), imply that the site contains an Early Woodland and a Middle Woodland occupation.

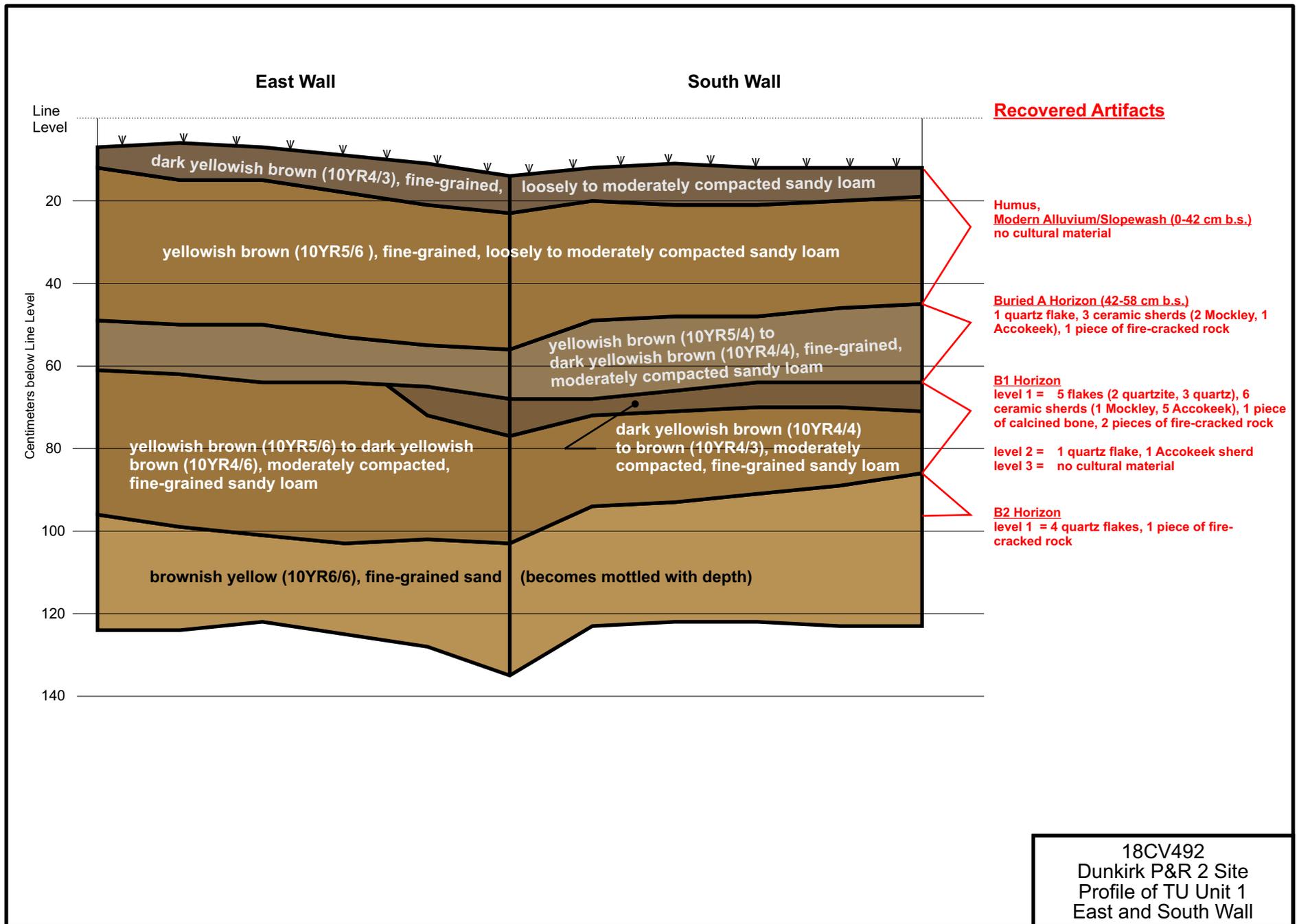
The stratigraphic positions from which the sherds were recovered are also noteworthy. In the buried A horizon, two Mockley sherds were recovered with one Accokeek sherd, whereas in the first 10 centimeters of the B1 horizon, one Mockley sherd was recovered with five Accokeek sherds. In the second level of the B1 horizon, one Accokeek sherd was collected. While the wares were found in association with one another in both the A and B horizons of TU Unit 1, their vertical distribution in an intact soil profile implies that the site may be stratified.

The archaeological survey has confirmed that the Dunkirk P&R 2 Site (18Cv492) contains intact, archaeological materials with good subsurface integrity. Importantly, the recovery of the Accokeek and Mockley sherds from undisturbed, intact buried A and B horizons, clearly indicate that the site possesses archaeological materials in well-preserved, intact, datable subsurface stratigraphic contexts. Based on the ceramic assemblage, it has been concluded that the site is a multi-component base camp with Early Woodland and Middle Woodland Period occupations. The site has already proven to possess an archaeological and stratigraphic complexity that is capable of yielding significant, new archaeological information relevant to regional prehistory. The presence of fire-cracked rock and ceramic artifacts also indicate that the site probably contains cultural features associated with longer periods of stay such as hearth features and subsurface storage pits. The Dunkirk P&R 2 Site (18Cv492) has a potential for yielding significant archeological data that can be used to examine Early to Middle Woodland Period habitation, resource utilization, and settlement patterns associated with low order, wetland settings in interior portions of Maryland's Western Shore.

TABLE 7
Artifact Catalog by Provenience
Dunkirk Park and Ride 2 Site

Catno.	24	25	26	27	28	29	30	31	32	
Site	P&R 2	P&R 2	P&R 2	P&R 2	P&R 2	P&R 2	P&R 2	P&R 2	P&R 2	
Area	B	B	B	B	B	B	B	B	B	
STP/TU	N0E30	N0E60	N0E80	N10E80	Unit 1					
PREHISTORIC										
Flakes										
Quartzite	1 (1)	0 (-)	1 (-)	0 (-)	0 (-)	1 (-)	0 (-)	0 (-)	1 (1)	4 (2)
Quartz	0 (-)	1 (-)	0 (-)	0 (-)	1 (1)	0 (-)	1 (-)	4 (2)	3 (1)	10 (4)
Chert	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)
Rhyolite	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)
Early Stage Biface Rejects										
Quartzite	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)
Worked Stone										
Quartz	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)
Ceramic										
Mockley	0	0	0	0	2	1	0	0	0	3
Accokeek	0	0	0	10	1	5	1	0	0	17
Fire-Cracked Rock										
Count/wt.(oz.)	0	1	0	0	1	0	0	1	2	5
SUM PREHISTORIC	1 (1)	2 (-)	1 (-)	10 (-)	5 (1)	7 (-)	2 (-)	5 (2)	6 (2)	39 (6)
HISTORIC										
Glass										
Unid. Manufacture, olive bottle glass	0	0	0	0	0	0	0	0	0	0
Ceramic										
Whiteware, indeterminate dec.	0	0	0	0	0	0	0	0	0	0
Architectural										
nail:										
_cut	0	0	0	0	0	0	0	0	0	0
unidentifiable	0	0	0	0	0	0	0	0	0	0
Miscellaneous										
Coal & By-Products: coal	0	0	0	0	0	0	0	0	0	0
Bone	0	0	0	0	0	1	0	0	0	1
SUM HISTORIC	0	0	0	0	0	1	0	0	0	1
TOTAL ARTIFACTS	1 (1)	2 (-)	1 (-)	10 (-)	5 (1)	8 (-)	2 (-)	5 (2)	6 (2)	40 (6)

(#) = artifacts with cortex



18CV492
Dunkirk P&R 2 Site
Profile of TU Unit 1
East and South Wall

FIGURE 20

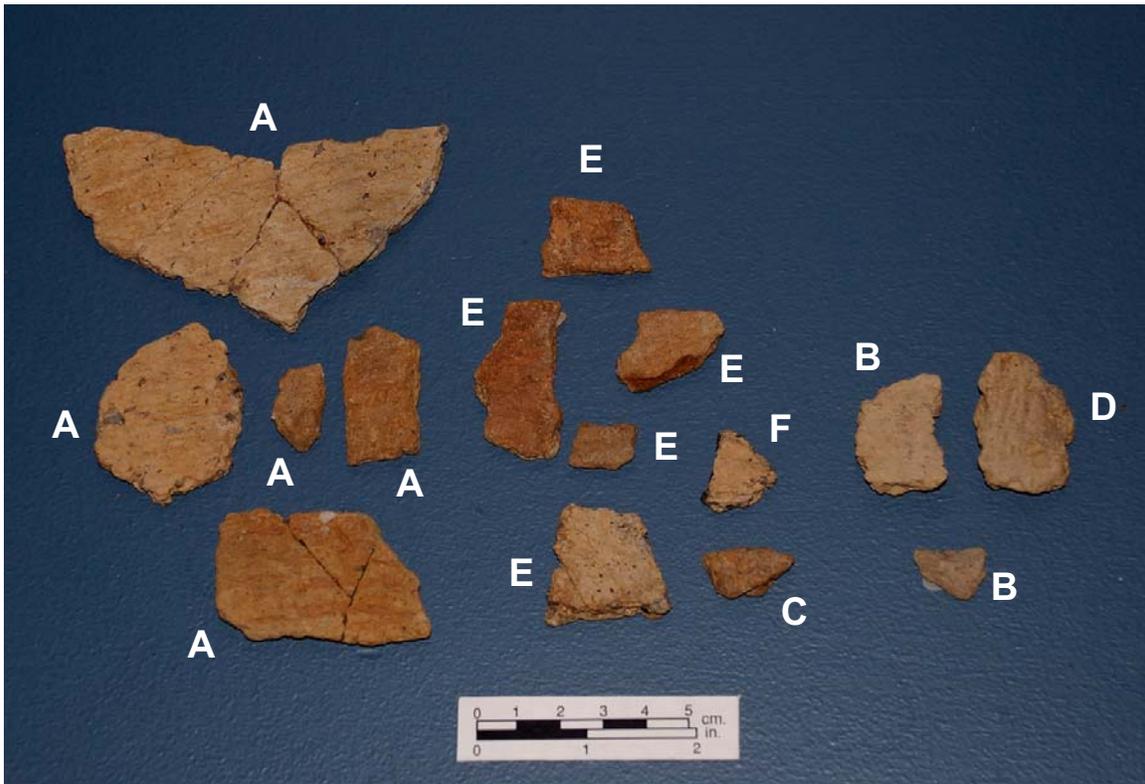


Buried A

Photograph taken facing east.
July 2008

18Cv492
TU Unit 1
Closing Profile

FIGURE 21



Key

- A. Accokeek sherds; STP N10E80; level IV (B1 horizon)
- B. Mockley sherds; TU Unit 1; level III (A horizon)
- C. Accokeek sherd; TU Unit 1; level III (A horizon)
- D. Mockley sherd; TU Unit 1; level IV-a (B1 horizon)
- E. Accokeek sherds; TU Unit 1; level IV-a (B1 horizon)
- F. Accokeek sherd; TU Unit 1; level IV-b (B1 horizon)

18Cv492
Ceramic Sherds Recovered

C. Upland Zone

A total of eighteen STPs were excavated in the upland section of the project APE. These excavations were conducted across the top of the hill that runs along the north edge of the project APE. To maximize the testing of seemingly less disturbed land, STPs were excavated at 20-meter intervals on a linear transect along the most level portion of the hill (**Figure 15**).

Soil profiles of the STPs revealed that the hilltop has experienced considerable erosion. In all of the STPs, sterile subsoils were encountered directly beneath thin humus. The only artifact recovered from the upland zone of the project APE was one, very small, rhyolite flake. This flake was recovered from the humus in STP D- 1. After subsequent radial STP did not yield any additional artifacts, this flake was concluded to be an isolated find.

Based on the results of the survey, it has been concluded that the upland zone of the project APE is devoid of archaeological resources. No further work is warranted in this portion of the project APE.

D. Summary and Conclusions

Two archaeological sites were identified within the project APE. These sites, designated Dunkirk P&R 1 Site (18Cv491) and Dunkirk P&R 2 Site (18Cv492), are located on the stream terrace within the project APE. Both sites contain intact archaeological deposits with good subsurface integrity. These deposits are contained in buried A and B horizons that are capped with thick deposits of modern alluvium and slopewash. Test excavations also indicate that the archeological materials at the Dunkirk P&R 2 Site (18Cv492) may be stratified.

The Dunkirk P&R 1 Site (18Cv491) is a small transient base camp or procurement/processing locale of unknown temporal occupation. Because of its good preservation and undisturbed nature, this site has the potential for providing significant archaeological information pertaining to the usage of short-term sites in interior portions of Maryland's Western Shore. While many sites similar in size and archaeological composition to the Dunkirk P&R 1 Site (18Cv491) have been recorded elsewhere, to date, few sites have been subjected to detailed study in this portion of the county. Unlike many of the region's temporary sites, this site has not been compromised or destroyed by historic plowing and modern development. Because of its subsurface stratigraphic integrity, small size, and low frequency of use, the Dunkirk P&R 1 Site (18Cv491) presents a unique opportunity to accurately acquire and examine a complete and sound archeological dataset of a short-term, possibly single-occupation, site. Site studies will be able to identify and differentiate activities performed, resource utilized, and technologies employed at this interior wetland setting. The results of these comprehensive studies will provide substantial information than

can be used to understand the role of temporary sites in regional prehistoric settlement patterns.

The Dunkirk P&R 2 Site (18Cv492) is an Early Woodland to Middle Woodland, multi-component base camp. This site is of archaeological significant because it contains archaeological materials in well-preserved, intact, datable subsurface stratigraphic contexts. The site possesses an archaeological and stratigraphic complexity that is capable of yielding significant, new archaeological information relevant to regional prehistory. The vertical distribution of the recovered Accokeek and Mockley sherds strongly suggest that the site is stratified. Information recovered from the site will provide new information on Early-Middle Woodland base camps in small interior wetland settings in Calvert County.

As noted earlier, much of the stream terrace, especially the segment between the two sites, has been subjected to considerable alteration due to natural erosion and flooding processes. Consequently, it is quite possible that the two sites represent segmented remains of what was once a larger site. If so, the collective data is of additional archeological interest. Given the differences in their artifact assemblages, these sites represent functionally different, discrete activity areas of a larger site, most of which has since been destroyed.

Based on the presence of intact, archeological deposits with good subsurface integrity, it has been concluded that both the Dunkirk P&R 1 Site (18Cv491), the Dunkirk P&R 2 Site (18Cv492) have the potential for providing significant archaeological data that can be used to examine prehistoric habitation and utilization of interior, low order wetland settings of Maryland's Western Shore. Therefore, both sites are recommended eligible for inclusion in the NRHP.

Per the current design scheme, both sites coincide with the proposed locations of stormwater management facilities. During the construction of these facilities, these sites will incur subsurface disturbance and the loss of significant archaeological data. If avoidance is not feasible, data recovery excavations are recommended as a treatment measure. The purpose of these excavations would be to collect and record a representative sample of the sites' intact archeological deposits. Controlled block excavations within the core area of the sites, namely around the two units that were excavated by this survey, would be an effective means.

VIII. CONCLUSIONS AND RECOMMENDATIONS

The following discussion presents the conclusions of a Cultural Resources Survey of the Dunkirk Park and Ride project, which was conducted by McCormick Taylor, Inc. for the MTA in June 2008. Project recommendations, as relevant to the aforementioned construction project, are also presented. This survey included a historic architectural and an archeological survey. The goal of the survey was to locate and identify any NRHP-eligible or listed historic architectural and/or archeological resources within the project's Area of Potential Effect (APE). In accordance with Section 106, project effects analysis was conducted on all identified NRHP-eligible resources identified by this survey.

A. Summary of Historic Architectural Survey

Two previously undocumented resources that meet the fifty years or older age requirement for consideration as a historic property were identified by this survey. These resources are Howes Barn (CT-1316) and Ewing Property (CT-1317). Howes Barn is located on the Howes Property (10835 Southern Maryland Boulevard; Tax Map 3, Parcel 61) and is the only extant building that is fifty years or older in age on the property. The Ewing Property (10350 Ward Road; Tax Map 6, Parcel 450) contains three structures, Ewing Barn, Ewing Bungalow, and Ewing Barn South, that are fifty years or older in age. All four of the aforementioned structures were examined during the survey.

Howes Barn, Ewing Barn, and Ewing Barn South are twentieth century tobacco barns. Ewing Bungalow is a c. 1940 dwelling. Howes Barn is in the project APE. Although the Ewing Barn, Ewing Bungalow, and Ewing Barn South are located outside of the project APE, these buildings were surveyed due to their close proximity to the south east edge of the project APE.

As part of this project and in coordination with the MHT, MIHP DOE documentation for the Howes Barn and Ewing Property was prepared and submitted to the MHT for review and comment. Pursuant to their comment letter dated October 21, 2008, it is the Trust's opinion that due to the overall deteriorated conditions of the standing structures on both properties, the Howes Barn and the Ewing Property are unable to illustrate historic significance within any of the NRHP Criteria of Evaluation and as such, the Howes Barn and Ewing Property are not eligible for listing in the NRHP.

Based on a review of the current design scheme, it has been concluded that the construction of the Dunkirk Park and Ride will have no effect on any NRHP-listed or -eligible historic architectural resources.

B. Summary of Archeological Survey

Two previously undocumented archeological sites, the Dunkirk P&R 1 Site and Dunkirk P&R 2 Site were identified within the project APE. The Dunkirk P&R 1 Site has been registered with the MHT as 18Cv491. The Dunkirk P&R2 Site has been registered with the MHT as 18Cv492. Both sites are prehistoric sites that contain intact, archaeological deposits with excellent subsurface integrity. These deposits are contained in buried A (Ab) and B (Bb) horizons that are capped with thick deposits of modern alluvium and slopewash. Examination of soil profiles indicate that the buried A horizon has not been subjected historic plowing. The unplowed nature and fact that no historic artifacts were recovered from the buried A and underlying B horizons indicates that subsurface disturbances that postdate the sites have been minimal. Both sites are situated on slight rises that abut base of a hillslope on a stream terrace. No doubt, their landscape positions are the reason for their preservation. While the temporal and functional relationships between the sites are currently unknown, it is possible that these sites represent the last extant remains of two functionally different activity areas of a larger site, most of which has since been destroyed by natural erosion and flooding processes. Given the preservation level of these site, it is also believed that the site data may include ecofacts (floral and faunal materials) that can be used examine the original environmental conditions of these sites. Both sites have the potential for yielding significant archaeological information from good stratigraphic contexts than can be used to explore prehistoric technologies, resource utilization, and habitation activities at low-order, interior wetland settings of Maryland's Western Shore. Both sites are recommended NRHP-eligible under Criterion D.

The Dunkirk P&R 1 Site (18Cv491) is located on the stream terrace in the southwest corner of the project APE. The site encompasses an approximate 60 by 40-meter area situated on a slight rise and was delineated based on the recovery of seventy-five prehistoric artifacts from an intact, buried A and B horizons. It is estimated that the intact archaeological deposits are situated between 0.25 and 0.60 meter below the surface. In addition to debitage, site excavations also yielded a quartzite early stage biface reject, a work quartz cobble, and several pieces of fire-cracked rock. Based on the small aerial size and artifact assemblage, this site has been concluded to be the intact remains of a small transient base camp or procurement/processing locale of unknown temporal context. The site is of archeological interest because it presents an opportunity to study a small, short-term site with good stratigraphic contexts. The small size of the site and its limited artifact assemblage also suggest the recurrent use of the site was minimal, if not limited to a single occupation. Because of its small size, subsurface stratigraphic integrity, and low frequency of reuse, the site has the capacity to provide a complete and sound dataset that will allow accurate analysis of the activities performed, technologies employed, and resources utilized at the site.

The Dunkirk P&R 2 Site (18Cv492) is located in the center of the stream terrace on the east side of the project APE. The site stretches across a small 35- by 15-meter rise located at the base of the hill that abuts the landward edge of the terrace. The site was identified and delineated based on the recovery of thirty-nine prehistoric artifacts from buried A and B horizons. Excavation results indicate that the intact, archaeological deposits lay between

roughly 0.42 and 1.0 meter below the surface. Based on the recovery of Accokeek and Mockley ceramic sherds and fire-cracked rock, the site has been concluded to be an Early Woodland-Middle Woodland Period, multi-component, base camp. These artifacts also imply that the site probably contains subsurface features associated with sites that were subjected to longer periods of stay such as hearth, storage, and refuse pits. Based on the vertical distribution of the ceramic sherds in an intact soil stratigraphy, the site may also be stratified. Information recovered from the site will provide new information on Early-Middle Woodland base camps at small, low-order, interior wetland settings of Maryland's Western Shore.

Per the current design scheme, both 18Cv491 and 18Cv492 will be adversely affected by the proposed project. The locations of these sites coincide with the proposed locations of two stormwater management facilities. During the construction of these facilities, the subsurface disturbance will extend to the depth of the intact site deposits. The sites may also incur additional disturbances associated with overall construction activities such as heavy-machinery mobilization and site grading. The proposed earthmoving activities will result in the loss of the sites' the intact archeological data, which are the defining NRHP characteristic of the sites. If avoidance is not feasible, treatment measures will be necessary to mitigate adverse project effects. It is recommended that treatment measures for these sites entail data recovery excavations. The purpose of the excavations would be to recover and record a sufficient representative sample of all significant archaeological data that would be lost during the construction of the Dunkirk Park and Ride and its associated stormwater management facilities. Given the small sizes of the two sites, controlled block excavations around their core areas, would be an effective and efficient means of data recovery.

C. Conclusions and Recommendations

Based on the results of the survey, it has been concluded that the project will have an Adverse Effect on two NRHP-eligible archaeological sites, 18Cv491 and 18Cv492. If avoidance is not feasible, treatment measures to mitigate and minimize harm are warranted. Archeological data recovery of 18Cv491 and 18Cv492 is recommended as a treatment measure.

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Appendix I

Artifact Catalog by Provenience

APPENDIX I
DUNKIRK PARK AND RIDE
ARTIFACT CATALOG
BY PROVENIENCE

Catno.	3	4	5	6	7	8	9	10	11	12	13	14	15	17	18	19	20	21	
Site Area	P&R 1 A																		
STP/TU	N20E20	N30E0	N30E10	N30E20	N30E20	N30E30	N40E0	N40E10	N40E20	N50E30	N60E0	N60E0	N60E10	N34E15	N34E15	N34E15	N34E15	N34E15	
lv.	3	2	2	2	3	3	1	2	3	2	1	3	2	1	2	3	4	5	
PREHISTORIC																			
Flakes																			
Quartzite			1	3 (2)	7 (3)									1 (1)	3 (3)	5 (2)	3 (2)		
Quartz	1	2	1	1 (1)	1	1 (1)	1 (1)	3 (2)	1	1 (1)	1 (1)		2	1 (1)	1	5 (3)		6	
Chert																		1	
Rhyolite					1													1	
Early Stage Biface Rejects																			
Quartzite																1			
Worked Stone																			
Quartz				1 (1)												1 (1)			
Ceramic																			
Mockley																			
Accokeek																			
Fire-Cracked Rock																			
Count/wt.(oz.)														3 /4.5		7 /8.1	3 /1.1		
SUM PREHISTORIC	1 (-)	2 (-)	2 (-)	5 (4)	9 (3)	1 (1)	1 (1)	3 (2)	1 (-)	1 (1)	1 (1)	0 (-)	2 (-)	5 (2)	4 (3)	19 (6)	8 (2)	6 (-)	
HISTORIC																			
Glass																			
Unid. Manufacture, olive bottle glass																			
Ceramic																			
Whiteware, indeterminate dec.																			
Architectural																			
nail:																			
cut																			
unidentifiable																			
Miscellaneous																			
Coal & By-Products: coal																			
Bone																			
SUM HISTORIC	0	0	0	0	0	0	0	0	0	1	0	2	0	0	1	0	0	0	
TOTAL ARTIFACTS	1 (-)	2 (-)	2 (-)	5 (4)	9 (3)	1 (1)	1 (1)	3 (2)	1 (-)	2 (1)	1 (1)	2 (-)	2 (-)	5 (2)	5 (3)	19 (6)	8 (2)	6 (-)	

(#) = Artifact with cortex

APPENDIX I
DUNKIRK PARK AND RIDE
ARTIFACT CATALOG
BY PROVENIENCE

Catno.	22	23	34	24	25	26	27	28	29	30	31	32	33	35	
Site	P&R 1	P&R 1	A	B	P&R 2	P&R 2	P&R 2	P&R 2	P&R 2	P&R 2	P&R 2	P&R 2	D	D	
Area	A	A	A1	B	B	B	B	B	B	B	B	B	D1	D5	
STP/TU	N34E15	N34E15	A1	N0E30	N0E60	N0E80	N10E80	Unit 1	Unit 1	Unit 1	Unit 1	Unit 1	2	1	
lv.	6	7	2	4	4	4	4	III	IV-a	IV-b	V-a	1V-a			
PREHISTORIC															SUM
Flakes															
Quartzite	1			1 (1)		1			1			1 (1)			28 (15)
Quartz	2	1 (1)			1			1 (1)		1	4 (2)	3 (1)			42 (16)
Chert															1 (-)
Rhyolite													1		3 (-)
Early Stage Biface Rejects															
Quartzite															1 (-)
Worked Stone															
Quartz															2 (2)
Ceramic															
Mockley								2	1						3
Accokeek							10	1	5	1					17
Fire-Cracked Rock															
Count/wt.(oz.)			1 /0.4		1 /0.2			1 <0.1			1 /33.4	2 /5.6			19
SUM PREHISTORIC	3 (-)	1 (1)	1 (-)	1 (1)	2 (-)	1 (-)	10 (-)	5 (1)	7 (-)	2 (-)	5 (2)	6 (2)	1 (-)	0 (-)	116 (33)
HISTORIC															
Glass															
Unid. Manufacture, olive bottle glass															2
Ceramic															
Whiteware, indeterminate dec.															1
Architectural															
nail:															
cut															1
unidentifiable			1										1		2
Miscellaneous															
Coal & By-Products: coal														Y	0
Bone									1						1
SUM HISTORIC	0	0	1	0	0	0	0	0	1	0	0	0	1	0	7
TOTAL ARTIFACTS	3 (-)	1 (1)	2 (-)	1 (1)	2 (-)	1 (-)	10 (-)	5 (1)	8 (-)	2 (-)	5 (2)	6 (2)	2 (-)	0	123 (33)

(#) = Artifact with cortex

Appendix II

Qualifications of Investigators

APPENDIX II: QUALIFICATIONS OF INVESTIGATORS

Contributing Authors:

Barbara Chi Hsiao Silber, Principal Investigator

M.A. in Anthropology, Northwestern University; B.A. in Anthropology, University of Delaware. Twenty-one years of experience in cultural resources research in the Middle Atlantic. Ms. Silber has conducted, directed, and managed more than thirty archaeological field projects in Maryland, Delaware, New Jersey, and Pennsylvania for McCormick Taylor. These projects have ranged from initial scoping efforts to large-scale archeological data recovery excavations of complex, multi-componential prehistoric and historic sites. As Senior Archeologist and Principal Investigator, she has developed implemented and coordinated field, laboratory, research, technical report, and public involvement/awareness methods. Ms. Silber's professional and technical experience also includes the application of GIS technologies, technical report/popular scientific writing, development of research problems and methods, as well as statistical database development. Ms. Silber has conducted and managed cultural resources compliance projects for the Maryland Transit Administration, Maryland Transportation Authority, Prince George's County (MD), New Jersey Department of Transportation, Pennsylvania Department of Transportation, and New Castle County (DE).

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B.S. in Anthropology and History, Longwood College. Twenty years of experience in archaeological research in the Middle Atlantic.

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Jason B. Smith, Architectural Historian and Historian

M.A. in Urban Affairs and Public Policy, Concentration in Historic Preservation Planning, University of Delaware. B.A. in Anthropology, Concentration in Historical Archaeology, University of Delaware. Seven years of experience in cultural resources in the Middle Atlantic.

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