

Chapter 4

EVALUATION OF SIGNIFICANCE AND RECOMMENDATIONS

A. DATA SUMMARY

The following cultural features and artifacts identified during the Phase II archaeological investigations at the Reedy Island Cart Road Site 4 are considered key for the interpretation and evaluation of the site:

1. A scatter of 18th-century artifacts in Locus 2 and Locus 4. There was a very low artifact recovery in Locus 5.
2. Three examples of “Fitch”-type curry combs, a type normally associated with the grooming of Cattle or oxen.
3. Several cast iron cauldron fragments.
4. One possible structural feature (19th-century post pit) in Locus 2, Excavation Unit 5.
5. A pair of parallel ditch features, traced by geophysical survey and conventional archaeological methods for a distance of approximately 650 feet. The ditches are approximately 12 feet apart on center, and the berm between them is between seven and eight feet wide. The uniform ditch fills contain very few artifacts but included one of the curry comb pieces (Trench 7).
6. Along the berm were clusters of chiefly square or rectangular post pits, which contained square, rectangular or circular posts. The clusters were generally about 10 feet apart.
7. 1,803 historic and 203 prehistoric artifacts from all loci and trenches.

B. HISTORIC CONTEXT, PROPERTY TYPES AND INTERPRETATIONS

Loci 2 and 4 are part of a larger 18th-century site that may be a farmstead in the ownership of the Armstrong family for several generations in the 18th and early 19th centuries. The Phase I investigations identified a house site, and a second area of intensive 18th-century activity, to the north (Loci 1 and 3). This site, like others on the U.S. Route 301 Corridor, has both a predicted association with potable and navigable water sources, and in this case also a strong linkage to the predicted line of one of the cart roads linking the upper Chesapeake (especially the Bohemia River) with the Delaware drainages (particularly the Appoquinimink and nearby Reedy Island). The property lines reconstructed from the early deeds show that the alignment of the parallel ditches lie on a boundary between two substantial landholdings, and the boundary delineation probably used the pre-existing line of this cart road.

There are therefore two components of this site to be interpreted and evaluated: the two loci that lie within the probable farmstead, and the ditches and their associated features.

While the two loci are considered likely to reflect concentrations of activity in the 18th century, extensive testing failed to identify any cultural features that indicated the presence of an actual structure at either location. A probable 19th-century post pit in Locus 2 was similar in character to those identified on the berm between the ditches in Locus 5. At this point it is considered likely that these loci do represent activity areas that may well have included buildings (perhaps on-ground log or frame structures). Locus 2 produced

considerably more artifacts than 4, with a heavy emphasis on redwares in the ceramic assemblage. On the basis of this slight evidence it might be proposed that activity at Locus 2 included dairying, while Locus 4 was perhaps a barn or animal pen (on the basis of the curry comb find). These are no more than testable suggestions.

The parallel ditches, and the post pits on the berm between them, present interpretational challenges. A minimalist interpretation would see the ditches as drainage features on each side of a long-established fence line with regularly replaced posts spaced at about 10 foot intervals. Against this view is the different character of the ditch fills from that of the post pits. The later are generally more humic and darker than the uniform, brown soils of the ditch fills, and on this admittedly subjective basis the posts appear to be later. The absence of datable materials from most of these contexts renders absolute and relative dating very difficult.

The very even and consistent character of the ditches, with their flat bottoms and shallow-angled sides, was noted in the excavations. While the contours of the field (sloping very gradually down towards the east-southeast in the area of the ditches) would enable them to function as drainage features to catch runoff from the surrounding areas, there is no physical evidence to indicate that they did so. They are definitely not features produced by modern motorized farm machinery. These were observed in several places (Trench 5 in particular) and are much more irregular, shallower, filled with darker plowzone soils, and usually include tire impressions.

The location of the ditches and the understanding that the Reedy Island Cart Road crossed the landscape in this area does suggest that these features are related to the road. During the excavation the idea was entertained that the ditches themselves represent the location of sled runners or wheels, although the

12-foot separation seems rather wide. An alternative explanation is that the ditches were designed to catch runoff from the berm. The subsoil in this area, while fairly well drained, bakes extremely hard on exposure to the sun, and freezes hard in winter also. If the berm was therefore kept free of loose mud and dirt it would form a usable surface for perhaps six months of the year. It might be objected that if this was the case then at least some evidence of use by wagons, carts or pack animals should be present in the form of ruts or hoof-prints. It does however seem probable that there has been deflation of the soil profile here as a result of historic and modern plowing, and so such evidence might well have been destroyed.

The possible configuration of the road is shown in Figure 4.1. If this interpretation is correct, the berm was a narrow but usable roadbed, able for example to accommodate the standard 4-foot-8½-inch wheel separation of cart or wagon axles on English-tradition vehicles, and even at a pinch allowing for an overall vehicle width of about seven feet for a Conestoga-type wagon. In this context it is however worth remembering that these routes are termed “cart roads” in contemporary documents (Photograph 4.1). This is presumably in contrast to “wagon roads” designed for heavier traffic. The expected primary use of these cart roads was evidently by light, two-wheeled carts and probably by pack animals. The width of the berm would of course preclude any ability of two vehicles to pass each other. If boats were indeed transported along this route, as they were documented as being on the Bohemia Landing to Appoquinimink Road, the use of the ditches as guides for sled runners seems to be indicated. Although the evidence is far from conclusive, it is considered to be sustainable, and testable at other locations.

The main Period of Significance of the site falls within the following periods as defined in the Delaware Historic Preservation Plan: 1630-1730± Exploration and Frontier Settlement; 1730-1770±

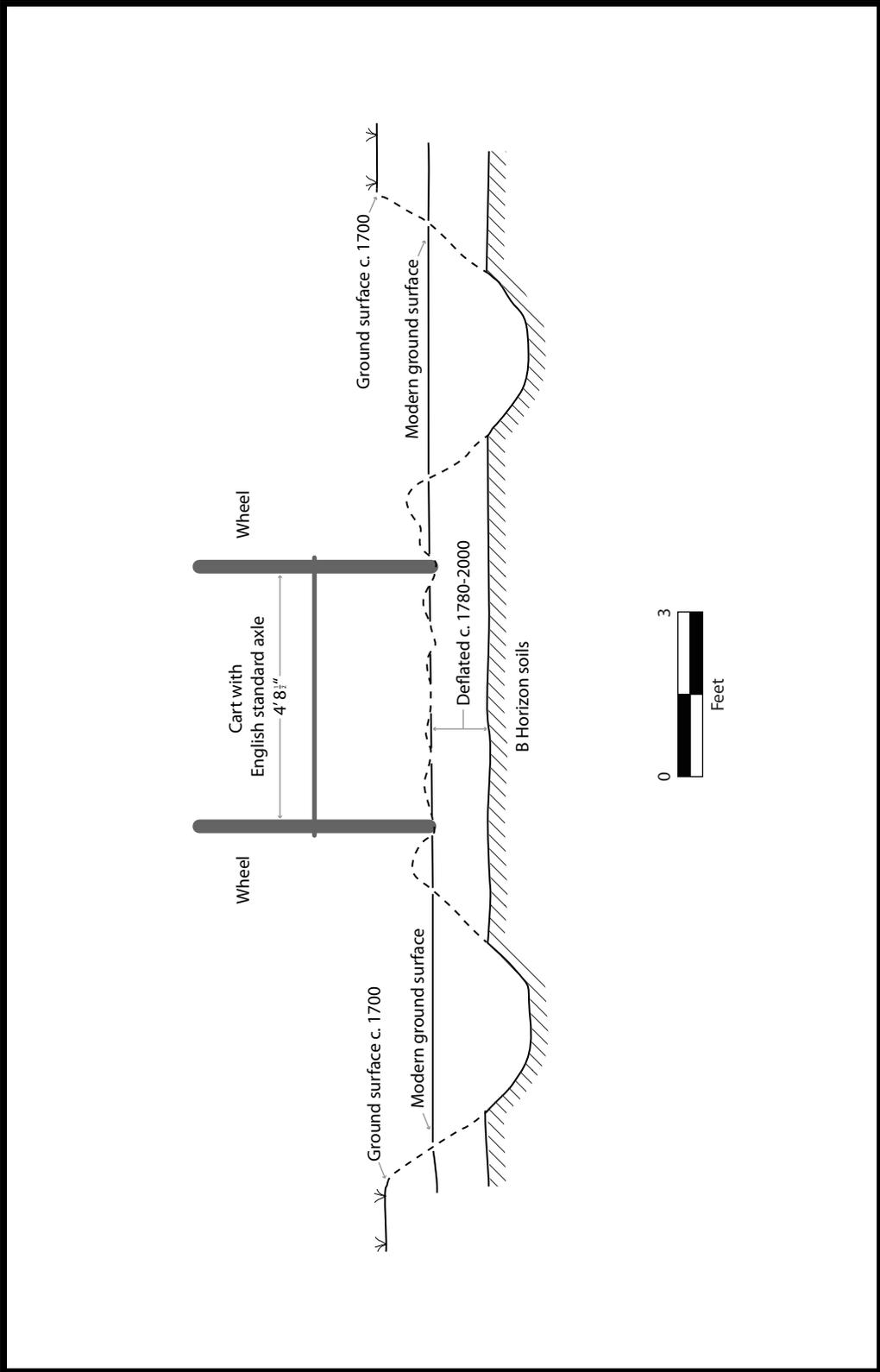


Figure 4.1. Reconstructed Profile of Cart Road in Locus 5 of the Reedy Island Cart-Road Site 4 [7NC-F-153]. Profile assumes the loss of a minimum of one foot of soil since the road was abandoned about 1780. The profile shows how the berm is wide enough for a cart with a standard distance of 4' 8 1/2" between the wheels. The flat-bottomed ditches may have served as guides for sled runners.



Photograph 4.1. Replica ox-cart carrying barrels, Colonial Williamsburg. Source: Crews 2009.

Intensified and Durable Occupation; and 1770-1830± Early Industrialization. The earlier period is included because there is a small amount of material from the site dating to the late 17th and early 18th centuries.

The site is considered to be relevant to the research domains of Agriculture, Transportation and Communication, and Settlement Patterns and Demographic Change identified in the Delaware Historical Archaeological Resources Management Plan (de Cunzo and Catts 1990:16-22).

There are no pre-existing historic contexts that appear to apply to this site. Several contexts were proposed in the Phase II study of the Levels Road Site (Hunter Research, Inc. 2011). Two of these are also applicable here:

1. Landings and Cart Roads

Like the Rumsey Site at Levels Road, the Reedy Island Cart Road Site 4 lies along the historically important transportation corridor between the Bohemia and Appoquinimink Rivers. This corridor was recognized in the early 1660s by Augustine Herrman as a geographically strategic location for carrying on commerce between the Delaware Bay and the upper eastern shore of the Chesapeake Bay. Herrman's Cart Road to Appoquinimink formed one of the earliest and most significant connections linking the upper Chesapeake region with Delaware and Pennsylvania. At New Castle, goods could be loaded aboard ships bound for Dutch New York or Europe. As described in Hunter Research's *Phase IA Cultural Resources Survey, U.S. Route 301, Section 2* (Revised November 2009), a network of cart roads branching from Herrman's Cart Road developed from the 1660s to 1680s.

At its inception, the cart road network was intended to strengthen the ties of trade between the Dutch in Delaware and the English then moving into the upper

Chesapeake. Herrman likely intended to use the road to circumvent the Navigation Act of 1661, which restricted English trade in tobacco with the Dutch. The network of roads as it developed during the colonial period is shown on several important maps including the Eastburn map of 1737, the Rumsey map of *circa* 1740, the Mason map of 1768, and the Faden map of 1778. Research into smuggling and contraband, as described below, strengthens the perception of this road as a vital overland link that lay largely beyond the scrutiny of customs officials.

2. Smuggling and Contraband

Supplemental research for the Levels Road study identified smuggling and contraband as an important theme related to the general area lying between the upper eastern shore of the Chesapeake Bay and the Delaware River. In general terms, this smuggling appears to have involved ships lying off of Reedy Island or calling on the Appoquinimink Creek to avoid the customs agents in Philadelphia. At these locations, ships' captains could offload goods for transport across St. Georges Hundred to the Chesapeake. Chesapeake planters could ship tobacco or other marketable goods back across the watershed avoiding the import duties of the more tightly regulated Maryland and Virginia ports. Delaware with its historical ties to the Dutch both in the Old and New Worlds offered potentially lucrative contacts for shipping tobacco outside of the networks regulated by the Navigation Acts. The disputed boundary between Maryland, Pennsylvania and Delaware and the difficulties that the colonies' officials faced in identifying their jurisdictions only served to abet illicit activity.

American avoidance of the Navigation Acts was ongoing throughout the colonial period and has been long noted by historians. Historic documentation of smuggling is fragmentary at best, as would be expected. Existing documentation is almost always from the point of view of the officials who attempted to uphold

the laws governing trade, particularly during periods of time when the English government was energetically asserting imperial control. This documentation must be interpreted carefully but it does point to illicit trade as a common and engrained activity within colonial society that became only worth noting when tensions ran high with the mother country or a particularly energetic governor or proprietor. By the eve of the American Revolution, many colonists had come to see the Navigation Acts not only as trampling on civic rights of representative government but impinging on their customary economic relationships with one another and the rest of the world.

Two periods of time stand out for smuggling activities since they relate to times when smugglers would have been forced to be particularly wary, and perhaps forced to move with some extra care. The first period is the 1680s to 1690s in the tumultuous period following the transition from Dutch to English rule in Delaware. The second period is the mid-1760s to 1770s in the tense years leading up to the American Revolution.

The first period in the 1680s and 1690s followed William Penn's receipt of his Royal Charter in 1681. Information about smuggling during this period figures prominently in the writings of Maryland Governors Edward Randolph and Francis Nicholson both of whom decried the illegal trade between Maryland and Delaware (then the Lower Counties of Pennsylvania) and the ability of European ships, many sailing directly from Scotland, to circumvent the Navigation Acts. The complicity of Maryland planters in this trade was largely overlooked. As recounted by historian Gary B. Nash, this eventually led to an important but little known episode in Delaware history when in 1696 Governor Nicholson used military force in an ill-fated attempt to invade Delaware and enforce the Navigation Acts on the less-than-compliant population of the Town of New Castle. Nicholson was countered by local militia who thwarted his attempt to seize

a suspect ship. Pennsylvania's Governor William Markham was deeply offended and Nicholson eventually beat a strategic retreat back to Maryland. When reported to the Court of St. James, the episode only served to deepen the disputes between William Penn and Lord Baltimore over the boundary between their proprietary grants (Nash 1965:229-239).

The second period of heightened scrutiny of smuggling occurred between 1763 and extended through the American Revolution. From the mid-1760s to the start of the Revolution, the prime focus of smuggling was to avoid duties on goods imported from the Caribbean and continental Europe. If Philadelphia customs records are any indication, this trade was largely unregulated outside of the city's immediate port. As in past times, goods delivered to Delaware could be transshipped a short distance to points in Maryland thus avoiding the Chesapeake ports of call and the more numerous customs officials and British ships that prowled the Chesapeake and regulated the trade in tobacco.

C. CRITERIA OF EVALUATION

No investigated components of the Reedy Island Cart Road 4 site are considered to meet National Register significance Criteria A, B or C. Historical research does not indicate association with notable historical figures (Criterion B) or with significant events (Criterion A). Consideration was given to eligibility under Criterion C (for properties showing "the distinctive characteristics of a type, period or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction"). Guidance in Little *et al.* 2000 indicates that Criterion C may be applicable to archaeological properties where they show a "pattern of features common to a particular class of resources", or where relatively intact architec-

tural remains have been buried through either cultural or natural processes. At this point in research there are insufficient analogues to the proposed road features in Locus 5 for these considerations to be applied.

Consideration of eligibility is therefore focused on Criterion D, which focuses on the ability of a property to yield information important in history.

The National Register Guidelines identify two characteristics necessary for an archaeological property to meet Criterion D:

1. Data Sets

This refers to the demonstrated presence of artifacts and features in physical relationships that will permit analysis pertinent to relevant research questions. The informative archaeological data sets at the Reedy Island Cart Road 4 site chiefly comprise the parallel ditches following the early property line, and the presence of curry combs.

2. Relevant Research Themes, and the Ability of the Data Sets to Address Them

The existing state contexts and research trends, site-specific background research, and the analysis of the archaeological data from the site suggests the following as research themes that are in accord with the overall state plan objectives: Landings and Cart Roads; and Smuggling and Contraband.

Loci 2 and 4 fail to meet Criterion D, in that they do not have data sets that integrate plowzone artifact data with cultural stratigraphy and features. This is in contrast to Loci 1 and 3, which appear to possess this level of integrity and therefore to meet Criterion D. In National Register parlance, Loci 2 and 4 are essentially considered here to be non-contributing components of Reedy Island Cart Road Site 4. It is not however recommended that the site boundary be

adjusted, since Loci 2 and 4 do appear to reflect genuine activity areas of the site, even if their information potential is limited.

The parallel ditches and the spatially associated post pits and other features are somewhat challenging to evaluate. If it could be conclusively demonstrated that the ditches and the berm do indeed represent features of the late 17th- and 18th-century cart road there would be little question of their eligibility under Criterion D and (arguably) under Criteria C and possibly B. The alignment of the ditches along an early property boundary line, and the contrast between the fills of the features and those of the probably later post pits on the berm, have been presented here as arguments in support of the cart road hypothesis. Additionally it has been argued that the berm was wide enough and firm enough to support standardized carts (and certainly smaller vehicles such as narrow tobacco wagons), although deflation has removed key evidence to support this suggestion.

The post pits appear to relate to a long-lasting fence line post-dating the cart road (and therefore probably 19th and 20th century). Although containing quite specific structural information, these are considered to be examples of a commonplace feature and not to meet eligibility criteria.

National Register guidance additionally identifies seven aspects or qualities of integrity under Criterion D:

Location: the site meets National Register integrity for location, since it lies at its original location, the general character of which remains comprehensible.

Design: under Criterion D, the design component of integrity refers to the preservation of intra-site patterning within the archaeological record, expressed as

“the preservation of distributional information in the plowzone, and the presence of subplowzone features” (Bedell 2002).

Setting: The setting of the site contributes modestly to its significance.

Materials: Under Criterion D, “integrity of material is usually described in terms of the presence of intrusive artifacts/features, the completeness of the artifact/feature assemblage, or the quality of artifact or feature preservation” (Bedell 2002). Locus 5 has demonstrated good quality preservation of features, even though artifact recovery has been very limited.

Workmanship: This quality is not considered relevant to Locus 5.

Feeling and Association: The site does not possess either of these qualities.

On balance it is considered that the berm and ditches meet the tests in the National Register guidelines for archaeological properties, and therefore that these features are eligible for listing in the National Register of Historic Places.

D. ASSESSMENT OF EFFECT, RECOMMENDATIONS AND CONCLUSIONS

It is concluded that the quality of the information from the two loci (2 and 4) that fall within the farmstead is not sufficient to make these individually eligible components of the Reedy Island Cart Road Site 4 (7NC-F-153, N14533). No additional treatment is considered necessary on these resources, particularly since the more significant loci (1 and 3) are to be protected by covenant and will be preserved in place.

While their date and function have not been precisely defined in this study, the identification of two parallel ditch features and the intervening berm at the predicted alignment of one of the early trans-peninsular cart roads is in this consultant’s opinion, sufficient grounds for determining them to be eligible under Criterion D. This determination is supported by their placement within two proposed historic contexts developed for one of the other U.S. Route 301 investigations. The physical identification of a transportation feature related to these contexts is of considerable importance.

The construction of the new alignment of U.S. Route 301 at this location will comprise an adverse effect on this eligible property. This adverse effect should be addressed according to the provisions of the 2007 Memorandum of Agreement for the project signed by the Federal Highway Administration, the Delaware State Historic Preservation Officer, the Maryland State Historic Preservation Officer and the Delaware Department of Transportation.

Road design considerations mean that there is no preservation-in-place treatment option for the Locus 5 resources. Documentation of adversely affected features through an archaeologically based research program is an alternative treatment. However, it is considered that the information potential of Locus 5 under Criterion D has been largely exhausted in the current Phase II studies, and that further work would largely replicate the information already obtained at this location. Alternative Mitigation is therefore recommended.

The concept of Alternative (sometimes also characterized as Creative) Mitigation of adverse effects to Historic Properties comes out of the requirements placed on Federal Agencies under 36CFR 800.6. Agencies are charged with resolving adverse effects of their undertakings by finding ways to “avoid, minimize or mitigate” those effects. This process calls for consultation with the State Historic Preservation

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Office (and other consulting parties as appropriate) to develop specific plans of treatment for addressing the adverse effects.

In its *Recommended Approach for Consultation on Recovery of Significant Information from Archeological Sites*, the Advisory Council on Historic Preservation notes that “Appropriate treatments for affected archeological sites, or portions of archeological sites, may include active preservation in place for future study or other use, recovery or partial recovery of archeological data, public interpretive display, *or any combination of these and other measures*” (Advisory Council on Historic Preservation 2010, italics added).

The American Association of State Highway and Transportation Officials (AASHTO), defines mitigation as including “any actions that help to offset or compensate for a project’s negative impacts on historic properties”. While noting that standard mitigation methods have been developed by some states and agencies, AASHTO also urges the development of “creative approaches to the mitigation of adverse effects in order to address the interests of all parties”. (AASHTO 2007:17).

Increasingly, there has been a tendency to address adverse effects to certain types of archaeological properties and sites by the use of such creative approaches. These resource types include “marginally eligible sites and sites for which no historic context exists” and “..’sliver takes’ of clearly significant sites.” Such approaches have included “historic contexts and other studies that are needed for the better evaluation and management of archaeological sites”, as well as a considerable range of other measures that have been implemented in different states (Transportation Research Board 2005:30-31; 34).

Since the construction of U.S. Route 301 will adversely affect only a portion of the site, an alternative mitigation approach is an appropriate treatment for the adverse effect.

Appendix E below presents the detailed proposal for supplementary documentation of another portion of the cart road alignment through LIDAR analysis, geophysical survey, limited excavation, and survey of a crossing of the Spring Mill Branch. This proposal is structured as testable hypotheses on the circumstances under which physical remains of these early cart roads will survive as archaeologically detectable features. It is intended as both a specific contribution to the study of the cart road network, and, more broadly, as a methodological contribution to the design of investigations on this property type at other locations.

