

APPENDIX A

**PHASE I ARCHAEOLOGY SURVEY
WORK PLAN**

Excerpted from:

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PHASE I ARCHAEOLOGY SURVEY WORK PLAN

Introduction

A primary means of involving the public in the S.R. 26 Improvements project historical preservation efforts will be through the distribution of a project brochure which seeks to elicit pertinent archaeological/historical information from the general public, and interviews with local residents and landowners, as appropriate.

The Phase I archaeology survey fieldwork is predicated on the combined results of the background research, including that contained in the S.R. 26 Planning Study (McCormick, Taylor & Associates, Inc. 2002) and the geomorphology reconnaissance discussed above, and includes testing for both precontact and historic period archaeological resources. Portions of the S.R. 26 Improvements project APE were coded for testing with regard to numerous variables, such as the presence of *in situ* soils of appropriate age to contain precontact archaeological remains and perceived associations with historic events and/or persons important to local history. Other portions of the project APE were coded as not testable due to the presence of modern period disturbances that have extensively interrupted or obliterated the subsurface stratigraphic record, the presence of natural wetland soils that are typically not associated with precontact habitation, and the presence of paving or other conditions making the subsurface inaccessible.

When these factors are considered, approximately 0.8 ha (1.9 ac) or 6.5 percent of the S.R. 26 (Clarksville to Assawoman Canal) Improvements project APE is categorized as testable at the Phase I survey level. A maximum of 120 shovel test pits (STPs) is anticipated as necessary to complete a Phase I survey of the testable portions of the S.R. 26 Improvements project APE, as currently designed. The breakdowns for the testable versus not testable portions of the project APE are presented below in Table 1. The testable and not testable areas will be refined as the fieldwork for the project progresses, and in concert with information gathered from historic structures and other local historic information supplied by McCormick, Taylor and Associates, Inc., landowners, and the general public.

Work Plan

The archaeological fieldwork will utilize hand excavated STPs in all testable portions of the project APE that contain relatively undisturbed *in situ* developed soil/sediment profiles and sufficient potential for prehistoric and/or historic period archaeological resources to exist based on the previously completed background research, the geomorphological reconnaissance, and field inspections.

**TABLE 1.
PROPOSED PHASE I ARCHAEOLOGY SURVEY OF S.R. 26 (CLARKSVILLE TO ASSAWOMAN CANAL)**

Project APE Segment	Testing Methodology*	Expected Resources	Justification
North Side of S.R. 26 (west to east)			
A	no testing	none	paved parking lot; drainage ditch; Custer's low probability area
Test Area 1	3 STPs	precontact - small to large; temporary or permanent occupation; single to multiple uses historic - none	<i>in situ</i> soils of appropriate age; adjacent to small drainage; well-drained soils (EvB) ² ; Custer's low probability area; within same drainage as previously identified archaeological sites 7S-K-75, 7S-K-76, and 7S-K-77 ca. 0.6 km (0.4 mi) north property use not identified as 50+ years; within non-eligible Clarksville potential historic district
B	no testing	none	paving; disturbances by structures, pavement, landscaping; natural wet depression with no soils appropriate for precontact habitation; ditches; buried utilities; Custer's low probability area
Test Area 2	surface collection, if possible, or 9 STPs	precontact - small; temporary; single to multiple uses historic - none	<i>in situ</i> soils of appropriate age; adjacent to drainage ditch; agricultural fields with minor plow disturbance; well drained soils (EvA ³ , Wo ⁴); Custer's moderate probability area property use not identified as 50+ years; within non-eligible Clarksville potential historic district
C	no testing	none	paved roadways; Custer's low and moderate probability areas
Test Area 3	need to determine exact relationship of project APE to NRHP boundary (potentially 13 STPs)	precontact - none historic - Frontier Settlement period (1630-1730); Intensified and Durable Occupation (1730-1770); rural agriculture	Spring Banke (S-454) - NRHP listed property 1976; 1700-1750; Oak and gum frame, clapboarding and shingling, 1 ½ stories, rectangular, gabled roof sections, interior end chimneys; 2-story shingled addition, early 19th C.; well preserved example of small house type constructed by early area colonists of limited means; one of few area houses basically unaltered from this period; privately owned
D	no testing	none	paving; disturbances by structures and landscaping; front yards of modern residences; ditches; buried utilities; Custer's high probability area
Test Area 4	3 STPs	precontact - small; temporary; single to multiple uses historic - none	<i>in situ</i> soils of appropriate age; old agricultural fields with minor plow disturbance; Custer's moderate probability area; well-drained soils (EvA)

TABLE 1.
PROPOSED PHASE I ARCHAEOLOGY SURVEY OF S.R. 26 (CLARKSVILLE TO ASSAWOMAN CANAL)
(Continued)

Project APE Segment	Testing Methodology*	Expected Resources	Justification
E	no testing	none	paving; disturbances by structures and landscaping; graded areas; road; Custer's low probability area
Test Area 5	surface collection, if possible, or 4 STPs	precontact - small, temporary, single to multiple uses historic - rural domestic and agriculture; ca. 1920-recent past	<i>in situ</i> soils of appropriate age; agricultural field with minor plow disturbance; well drained soils (EvA); Custer's low probability area adjacent to O.T. Collins Family Limited Partnership Property (S-9769); potentially NRHP eligible
F	no testing	none	paving; disturbances by structures and landscaping; Custer's low probability area
Test Area 6	surface collection, if possible, or 4 STPs at 30 m intervals	precontact - small, temporary, single to multiple uses historic - rural domestic and agriculture; ca. 1920-recent past	<i>in situ</i> soils of appropriate age; old agricultural field with potential localized modern disturbances; well-drained soils (EvA); Custer's low probability area O.T. Collins Family Limited partnership Property (S-9769); potentially NRHP eligible
G	no testing	none	paving; disturbances by structures; Custer's low probability area
Test Area 7	need to determine exact relationship of project APE to existing cemetery boundary (scraping to determine if unmarked graves exist)	precontact - none historic - potential unmarked graves	proximity to existing Messick Cemetery; established ca. 1890; family cemetery; not NRHP eligible
H	no testing	none	paving; disturbances by commercial/industrial development; landscaping; buried utilities; road; Custer's moderate probability area
Test Area 8	3 STPs	precontact - small, temporary, single to multiple uses historic - none	<i>in situ</i> soils of appropriate age; wooded area; well drained soils (EvA); Custer's low and moderate probability areas property use not identified as 50+ years

TABLE 1.
PROPOSED PHASE I ARCHAEOLOGY SURVEY OF S.R. 26 (CLARKSVILLE TO ASSAWOMAN CANAL)
(Continued)

Project APE Segment	Testing Methodology*	Expected Resources	Justification
I	no testing	none	paving; severely disturbed by commercial/industrial development; structures and landscaping; front yards of modern residences; buried utilities; road; graded areas; wet areas; poorly drained soils; ditches; Custer's low probability area
Test Area 9	6 STPs	precontact - small, temporary, single to multiple uses historic - domestic; urbanization; suburbanization; ca. 1935-recent past	<i>in situ</i> soils of appropriate age; wooded area; Custer's low and moderate probability areas; storm water management facility is located well off of existing S.R. 26 in undisturbed soils Ruby Quillen House (S-9740); not NRHP eligible
J	no testing	none	paving; disturbances by commercial/industrial development; structures and landscaping; front yards of modern residences; buried utilities; roads; wet areas; ditches; Custer's low and moderate probability areas
South Side of S.R. 26 (west to east)			
K	no testing	none	paving; disturbances by church structure and landscaping; roads; Custer's low probability area
Test Area 10	need to determine exact relationship of project APE to existing cemetery boundary (scraping to determine if unmarked graves exist)	precontact - none historic - potential unmarked graves	proximity to St. Georges United Methodist Church Cemetery; established ca. 1880; not NRHP eligible
L	no testing	none	paving; disturbances by structures and landscaping; buried utilities; road; Custer's low probability area

TABLE 1.
PROPOSED PHASE I ARCHAEOLOGY SURVEY OF S.R. 26 (CLARKSVILLE TO ASSAWOMAN CANAL)
(Continued)

Project APE Segment	Testing Methodology*	Expected Resources	Justification
Test Area 11	5 STPs	precontact - small, temporary, single to multiple uses historic - domestic; urbanization; suburbanization; ca. 1920-recent past; domestic; early urbanization; ca. 1885 to recent past	<i>in situ</i> soils of appropriate age; some wooded area; well drained soils (EvA); adjacent to small drainage; Custer's low probability area St. George's Church Parsonage (S-2424), not NRHP eligible; Sylvester G. Quillen, Sr. property (S-2474), not NRHP eligible; within non-NRHP eligible Clarksville potential historic district
M	no testing	none	paving; disturbances by structures and landscaping; buried utilities, roads; Custer's low and moderate probability areas
Test Area 12	4 STPs	precontact - small to large; temporary or permanent occupation; single to multiple uses historic - none	<i>in situ</i> soils of appropriate age; agricultural field with minor plow disturbance; well drained soils (EvA); adjacent to Custer's high probability area; within same drainage as previously identified archaeological sites 7S-K-75 and 7S-K-77 ca. 1.0 km (0.6 mi) northwest property use not identified as 50+ years
N	no testing	none	paving; disturbances by structures and landscaping; buried utilities; Custer's high probability area
Test Area 13	surface collection, if possible, or 6 STPs	precontact - small to large; temporary or permanent occupation; single to multiple uses historic - rural, domestic?	precontact - <i>in situ</i> soils of appropriate age; agricultural field with minor plow disturbance; adjacent to Custer's high probability area; well and poorly drained soils (EvA, Fa ³); within same drainage as previously identified archaeological sites 7S-K-75 and 7S-K-77 ca. 1.0 km (0.6 mi) northwest Esther Hudson House (S-2470); not evaluated for NRHP; demolished or removed
O	no testing	none	paving; disturbances by commercial/industrial development; structures and landscaping; front yards of modern residences; buried utilities; roads; graded areas; wet areas; poorly drained soils; ditches; Custer's low and moderate probability area

TABLE 1.
PROPOSED PHASE I ARCHAEOLOGY SURVEY OF S.R. 26 (CLARKSVILLE TO ASSAWOMAN CANAL)
(Continued)

Project APE Segment	Testing Methodology*	Expected Resources	Justification
Test Area 14	5 STPs at 30 m intervals	precontact - small, temporary, single to multiple uses historic - domestic; urbanization and early suburbanization; ca. 1915-recent past	<i>in situ</i> soils of appropriate age; one of few lightly disturbed properties on south side of S.R. 26 in this portion of project APE; poorly drained soils (Fa); Custer's low probability area Franklin S. and Diane M. Bennett Property (S-2450); potentially NRHP eligible
P	no testing	none	paving; disturbances by structures and landscaping; front yards of modern residences; roads; Custer's moderate probability area
Test Area 15	4 STPs at 30 m intervals	precontact - small to large; temporary or permanent occupation; single to multiple uses historic - none	<i>in situ</i> soils of appropriate age; adjacent to wetland; poorly drained soils (Pm ⁶); Custer's low and moderate probability areas; within same drainage as previously identified archaeological site 7S-K-54 ca. 0.6 km (0.4 mi) northeast property use not identified as 50+ years
Q	no testing	none	paving; disturbances by structures and landscaping; road
Test Area 16	surface collection, if possible, or 3 STPs	precontact - small to large; temporary or permanent occupation; single to multiple uses historic - none	<i>in situ</i> soils of appropriate age; agricultural field with minor plow disturbance; well drained soils (EvA); Custer's low probability area; within same drainage as previously identified archaeological site 7S-K-54 ca. 0.6 km (0.4 mi) northeast property use not identified as 50+ years
R	no testing	none	paving; disturbances by structures and landscaping; road; Custer's low probability area
Test Area 17	surface collection, if possible, or 11 STPs	precontact - small, temporary, single to multiple uses historic - rural agriculture; ca. 1850-recent past	<i>in situ</i> soils of appropriate age; agricultural field with minor plow disturbance; well drained soils (EvA, Wo); Custer's low probability area Pearl G. Robinson Property (S-9121); only corn crib is potentially NRHP eligible
S	no testing	none	paving; disturbances by structures and landscaping; buried utilities; road; Custer's low probability area

TABLE 1.
PROPOSED PHASE I ARCHAEOLOGY SURVEY OF S.R. 26 (CLARKSVILLE TO ASSAWOMAN CANAL)
(Continued)

Project APE Segment	Testing Methodology*	Expected Resources	Justification
Test Area 18	4 STPs	precontact - small, temporary, single to multiple uses historic - none	<i>in situ</i> soils of appropriate age; well-drained soils (EvA); Custer's moderate probability area property use not identified as 50+ years
T	no testing	none	paving; disturbances by structures and landscaping; wetland; slope adjacent to drainage; Custer's low, moderate, and high probability areas
Test Area 19	5 STPs	precontact - small to large; temporary or permanent occupation; single to multiple uses historic - none	<i>in situ</i> soils of appropriate age; wooded; Custer's high probability area; adjacent to wetland area and nearby stream; well drained soils (KI ⁷); within same drainage as previously identified archaeological sites 7S-K-29 and 7S-K-103 ca. 1.3 km (0.8 mi) north property use not identified as 50+ years
U	no testing	none	paving; disturbances by structures and landscaping; front yards of modern residences; well drained soils (KI); Custer's high probability area
Test Area 20	3 STPs	precontact - small, temporary, single to multiple uses historic - none	<i>in situ</i> soils of appropriate age; wooded; well drained soils (KI); Custer's high probability area; previously recorded archaeological site 7S-K-101 located nearby property use not identified as 50+ years
V	no testing	none	paving; disturbances by structures and landscaping; road; well-drained soils (KI); Custer's low and high probability areas
Test Area 21	need to determine exact relationship of project APE to existing cemetery boundary (scraping to determine if unmarked graves exist)	precontact - none historic - potential unmarked graves	proximity to Mariners Bethel United Methodist Church Cemetery; established ca. 1899; not NRHP eligible
W	no testing	none	paving; disturbances by structures and landscaping; front yards of modern residences; roads; buried utilities; Custer's low probability area

TABLE 1.
PROPOSED PHASE I ARCHAEOLOGY SURVEY OF S.R. 26 (CLARKSVILLE TO ASSAWOMAN CANAL)
(Continued)

Project APE Segment	Testing Methodology*	Expected Resources	Justification
Test Area 22	6 STPs	precontact - small, temporary, single to multiple uses historic - none	<i>in situ</i> soils of appropriate age; well-drained soils (Wo); Custer's low probability area property use not identified as 50+ years; within non-NRHP eligible Ocean View potential historic district
X	no testing	none	paving; disturbances by structures and landscaping; graded areas; buried utilities; Custer's low probability area
Test Area 23	5 STPs	precontact - small, temporary, single to multiple uses historic - none	<i>in situ</i> soils of appropriate age; wooded area; well drained soils (Wo); Custer's moderate probability area; stormwater management facility is located well off of existing S.R. 26 in undisturbed soils property use not identified as 50+ years; within non-NRHP eligible Ocean View potential historic district
Windmill Road			
Test Area 24 (at Windmill Road)	5 STPs	precontact - small, temporary, single to multiple uses historic - rural; agriculture	<i>in situ</i> soils of appropriate age; well and poorly drained soils (EvA, Pm); Custer's moderate probability area property use identified as 50+ years

*maximum number of STPs based on a 15.0 m STP interval, unless otherwise stated.

EvB² = Evesboro loamy sand, loamy substratum, 2 to 5 percent slopes

EvA³ = Evesboro loamy sand, loamy substratum, 0 to 2 percent slopes

Wo⁴ = Woodstown sandy loam

Fa⁵ = Fallsington sandy loam

Pm⁶ = Pocomoke sandy loam

Kl⁷ = Klej loamy sand

Due to the constricted width of the project APE, there do not appear to be areas within the project APE that would be amenable to plowing/discing strictly for the archaeological resources research; therefore, the survey will utilize STPs spaced at 15.0 m (49.2 ft) intervals along a single transect that is located approximately 12.0-13.0 m (39.4-42.7 ft) off of the existing roadway centerline within testable portions of the project APE. Should the ground surface visibility of any area exceed 85 percent due to landowner plowing/discing, surface reconnaissance may be used in concert with the excavation of STPs. A minimal number of STPs will be excavated in order to adequately characterize the subsurface profile of the area being surface collected. Should artifacts be found during the STP excavations or surface collection, the boundaries of the artifact distribution will be delineated by lessening the STP interval. Judgmental STPs may also be used in areas where field observations warrant their emplacement. The STPs will measure 50.0 cm (19.7 in) in diameter and will be excavated to sterile subsoil. All sediments removed from the STPs will be screened through 0.64 cm (0.25 in) mesh hardware cloth. This proposal includes the excavation of a maximum of 120 STPs within the S.R. 26 Improvements project APE.

Three test areas, Test Areas 7, 10, and 21, are portions of the proposed roadway improvements project that are adjacent to existing historic cemeteries. These three test areas will need to be surveyed to make sure that no unmarked graves will be disturbed by the proposed construction. No marked graves are present in the proposed project APE, but it is possible that unmarked graves may be present. The purposes of the cemetery boundary delineation will be to determine if any graves are present in the project APE, and to plot any discovered graves on project mapping. Although there are numerous remote sensing methods for identifying possible grave locations, the delineation method with the highest clarity is the removal of the plowzone/topsoil. By limiting soil removal to just the topsoil, it is highly unlikely that any coffin, coffin hardware, or human remains will be disturbed during the delineation. The exposed subsoil will be manually shovel-shaved, and all soil anomalies will be transit-mapped. The delineation will not include the excavation or removal of any human remains and only minimal archival research to help delineate the approximate period of the burial(s) will be accomplished under this task. No scraping will occur outside the project APE.

Due to the small size of the three test areas adjacent to the cemeteries and their proximity to heavily traveled roadways and intersections, the stripping of the topsoil will be accomplished either by hand or by using a small Bobcat®-like mechanical backhoe/ bulldozer. The exact method of stripping to be used at each cemetery location will need to be determined in the field based on various areal factors such as type of sediments, obstacles, paving, etc. that are present; safety of the field crew and machine operator during stripping operations due to traffic; time of year when the stripping is accomplished; and availability of mechanical equipment rental. Whatever the method of stripping, the areas that will be stripped will include those which are only inside the proposed project APE and adjacent to the three cemeteries. Based on current mapping, the areas to be stripped appear to total approximately 938.9 m² (10,106.6 ft²).

The backdirt will be temporarily stored on adjacent, non-cemetery areas during the delineation. This will preclude machine impact to the remainder of the cemetery. The contours of the project APE will be restored after completion of the stripping. Reseeding or sodding will be the responsibility of DeIDOT personnel.

Daily notes will be recorded and photographs will be taken of the archaeological resources research. The results of the geomorphology and Phase I survey fieldwork will be presented in a Phase I archaeology report. The report will include an overview of the background and field methods, plan view maps, representative profiles, plotting of suspected grave stains, and drawings and photographs of the stains. Any recovered artifacts will be preliminarily analyzed in order to allow questions of site integrity and occupation span to be addressed. A NRHP eligibility discussion including any Phase II recommendations will be presented for each site identified. If Phase II studies are recommended or unmarked graves are identified, additional research concerning these will need to be covered under a supplement to this agreement.

REFERENCES CITED

McCormick, Taylor & Associates, Inc.

2002 *S.R. 26 Planning Study, Cultural Resources Management Summary, Sussex County, Delaware*. McCormick, Taylor & Associates, Inc., Philadelphia. Submitted to the State of Delaware Department of Transportation, Dover.