SECTION 1.0 INTRODUCTION

This report presents the results of a Phase IA (reconnaissance-level) archaeological survey (hereafter Phase IA archaeological survey) conducted by Richard Grubb & Associates (RGA) of Cranbury, New Jersey for the Delaware Department of Transportation (DelDOT), within the Area of Potential Effects (APE) for the proposed U.S. Route 301 Mainline Contract 3: Maryland/Delaware State Line to North of Levels Road in St. Georges and Appoquinimink Hundreds, and the Town of Middletown, New Castle County, Delaware; and Electoral District 1, Cecil County, Maryland (See Figures 1.1-1.4).

The survey includes all portions of the proposed U.S. Route 301 Mainline project starting near the Maryland/Delaware State Line to North of Levels Road, a distance of approximately 4.5 miles, including approximately 2,200 linear feet in Cecil County, Maryland. The APE includes construction of a new four-lane highway; the Levels Road interchange at the northern end of Contract 3; relocated Warwick Road and Strawberry Lane and associated off ramps; concrete barriers; culverts over stream crossings; an earthen berm near the Warwick Road off ramp; and approximately 19 potential stormwater management facilities. A Park and Ride Facility near Levels Road is also part of Contract 3.

This Phase IA archaeological survey was conducted as part of the implementation of a Memorandum of Agreement (MOA) developed between the Federal Highway Administration (FHWA), the DelDOT, the Delaware State Historic Preservation Office (DESHPO), and the Maryland Historical Trust (MHT) (executed in November and December of 2007). As part of the development of the U.S. Route 301 project, a Final Environmental Impact Statement (FEIS) was completed in December of 2007 (DelDOT 2007) and a Record of Decision (ROD) was issued by the FHWA on April 30, 2008. Consultation with the FHWA and the DESHPO has taken place. Stipulation 1.A. of the MOA requires the completion of identification/evaluation-level (i.e. Phase I/II) archaeological surveys to determine if archaeological historic properties (i.e. National Register-eligible) are present in the APE (see Appendix A).

All work was performed in accordance with the June 13, 2008 Scope of Work (SOW) prepared by RGA and approved by the DelDOT on September 2, 2008 (see Appendix B) and the Secretary of the Interior's *Standards and Guidelines for Archaeology, Historic Preservation* and *the Guidelines for Architectural and Archaeological Surveys in Delaware* (DESHPO 1993) and the *Standards and Guidelines for Archeological Investigations in Maryland* (Shaffer and Cole 1994). Because federal funds are being used,

this work was performed in accordance with Section 106 of the National Historic Preservation Act and its regulations (36 CFR 800). The Principal Investigator for this survey was Ilene Grossman-Bailey, Ph.D., RPA, whose qualifications exceed the requirements of 36 CFR 61 (see Appendix C).

This Phase IA archaeological survey will comply with the Delaware Unmarked Human Remains Act (7DE Code Chapter 54, 66 Del. Laws, c.38§ 1; 75 Del. Laws, c. 153, §§4, 5) and Maryland State Burial law (Title 10 Subtitle 4 §§ 10-401 through 10-404 of the Annotated Code of Maryland) if human remains are discovered. Future archaeological surveys for this project will be conducted in accordance with the MOA, and in compliance with Delaware and Maryland state laws and guidelines regarding human remains should any be recovered.

The purpose of this Phase IA archaeological survey was to determine whether the APE could contain significant historic or prehistoric archaeological resources, and to develop a Phase IB testing strategy to locate such resources, if present. The scope of work (see Appendix B) included background research, pedestrian reconnaissance performed by the Principal Investigator, preparation of a testing strategy for the Phase IB archaeological survey, management recommendations, and report production. Preliminary results of the Phase IA archaeological survey were presented to the DelDOT/DESHPO at a meeting on January 7, 2009. All field notes, photographs, and project documents are housed at the office of RGA in Cranbury, New Jersey.

1.1 Project Description and the Area of Potential Effects

The APE is defined in 36 CFR 800.16(d) as "the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if any such properties exist. The APE is influenced by the scale and nature of an undertaking and may be different for different kinds of effects cause[d] by the undertaking." For the Phase IA archaeological survey, the APE includes all locations where an undertaking may result in ground disturbance.

The description of the APE is based on maps provided by the DelDOT and dated April, May, and October 2008. The APE for U.S. Route 301 Mainline Contract 3 extends north from Cecil County, Maryland, near the border of Maryland and Delaware through Appoquinimink and St. Georges Hundreds, to just north of Levels Road in Middletown, New Castle County, Delaware, a distance of approximately 4.5 miles (see Figures 1.3a and 1.3b). The APE includes construction of a new four-lane highway; the Levels Road interchange at the northern end of Contract 3; relocated Warwick Road and Strawberry Lane and associated off ramps; concrete barriers; culverts over stream

crossings; an earthen berm near the Warwick Road off ramp; and approximately 19 potential stormwater management facilities (see Figures 1.3a and 1.3b).

The new four-lane highway will be approximately 400 feet in width. In the southern end of the APE, the new highway divides off the existing U.S. Route 301/Blue Star Memorial Highway approximately 2,200 feet south of the state line, and gradually diverges to the west through agricultural fields and woodlands in Maryland and Delaware. It crosses Strawberry Lane at approximately 100 feet west of the existing U.S. Route 301, and continues north in a gentle curve to the west, crossing Warwick Road, a tributary to the Great Bohemia Creek, and Middle Neck Road. At Middle Neck Road, the APE is approximately 270 feet west of existing U.S. Route 301. The U.S. Route 301 Mainline Contract 3 portion of the new highway ends approximately 3,100 feet north of Middle Neck Road. The northern end of the APE is contained within the Levels Road interchange. The interchange is approximately 1,500 feet wide at its northern end, and contains four lanes, associated Ramps 2 and 3, the northern end of relocated Warwick Road, and the Levels Road access ramp, extending approximately 3,020 feet west of the current U.S. Route 301. Concrete barriers will be placed along the lanes of traffic and an earthen berm will be placed near the Warwick Road off ramp. Culverts over stream crossings will be placed in the northern portion of the APE within the Levels Road Interchange and between Middle Neck and Warwick Roads.

Additionally the APE contains the relocated Warwick Road, approximately 1.5 miles long, west of the proposed new highway. The relocated Warwick Road will join the existing Warwick Road approximately 900 feet west of the current intersection of Warwick Road with U.S. Route 301. Access to Strawberry Lane will be via a 2,750-foot long curvilinear access road north of Strawberry Lane and east of existing U.S. Route 301, approximately 270 feet east of the existing intersection of U.S. Route 301 and Strawberry Lane. Improvements to Strawberry Lane will extend into Maryland and include elevating the road over proposed U.S. Route 301.

Approximately 19 potential stormwater management facilities or drainage basins of varying sizes are proposed within the APE. Four are planned for the area north of Levels Road. Three are proposed for the area between Levels and Middle Neck Roads, including a triangular basin planned for the area between the northern end of relocated Warwick and Levels Road Interchange Ramp 3 and two oval basins east of the interchange. Two large irregularly shaped basins will be placed north and south of a stream between Middle Neck and Warwick Roads. Four small oval basins are planned for the area surrounding Strawberry Lane, with three additional oval basins in the southern portion of the APE.

A Park and Ride Facility approximately 3 acres in size located northwest of Levels Road and northeast of the Levels Road on-ramp is included in Contract 3 (David Clarke, Personal Communication, December 15, 2008).

1.2 Methodology

The methodology for the Phase IA archaeological survey was described in the SOW for the project (see Appendix B, June 13, 2008). The survey included background research, a pedestrian reconnaissance of the APE, development of a Phase I field strategy, and report preparation. Background research tasks included documenting the environmental settings present in the APE, consultation with individuals knowledgeable about the APE and its vicinity, review of registered archaeological site files, National Register nominations, cultural resource management reports on file with the DESHPO, the MHT, and the DelDOT, and the development of site-specific prehistoric and historic contexts to aid in the identification and interpretation of archaeological sites. Detailed site-specific documentary research resulted in the construction of a chain of historic land ownership through an examination of deeds, probate records, and genealogies. This record of land use will aid in determining the potential for historic archaeological resources within the APE and guide the development of a research design or field strategy for the Phase IB archaeological survey.

The goals of the pedestrian reconnaissance or walkover performed by the Principal Investigator included identifying visible structural remains and surface scatters, examining current land use patterns in the APE, delineating zones of archaeological potential, and documenting recent impacts that may have reduced archaeological sensitivity within portions of the APE. Topographic settings, hydrological settings, and vegetation cover were observed throughout the APE. Areas showing structures on historic atlases and maps were examined for the presence of structures, foundations, structural remains, or depressions. A predictive model of prehistoric and historic sensitivity developed by A.D. Marble & Company and delineated on project maps provided by the DelDOT was utilized in this effort (A.D. Marble & Company 2006a). Existing conditions were recorded via field notes and digital photography.

1.3 Acknowledgements

Paul J. McEachen served as the project manager for this survey, and Ilene Grossman-Bailey, Ph.D., RPA, was the Principal Investigator/Senior Archaeologist and principal report author. Allison Gall, Philip A. Hayden, and Ilene Grossman-Bailey performed background research (see Appendix C). The pedestrian reconnaissance was conducted on October 17, November 11, and November 14,

2008 by Ilene Grossman-Bailey. The report was written by Ilene Grossman-Bailey and Philip A. Hayden with report graphics created by Patricia McEachen, Catherine Reagan, and Ilene Grossman-Bailey. Paul J. McEachen, Christina Dunn, and Richard Grubb edited and produced this report.