

## 4.0 RESEARCH DESIGN AND METHODS

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The purpose of the Phase I archaeological resources identification survey was to identify archaeological resources in the Clarence Street Extension Project APE. The survey aimed to determine the range of historic and precontact-era activities that occurred in the APE and to preliminarily assess the integrity of archaeological deposits that might be identified in the APE. A.D. Marble & Company performed the investigation in a staged manner that included Phase IA background research and Phase IB field work, artifact processing and cataloging, and report writing. Artifact curation and deed of gift acquisition will be completed as part of the Phase IB work (if deemed necessary by the DESHPO).

### **4.1 Background Research**

The investigation commenced with a field view and a review of archaeological literature relevant to the study area and consisted of the scrutiny of relevant Delaware archaeological site files, National Register of Historic Places files, and cultural resource management reports. Research also included a review of current and past aerial photographs, historic maps and atlases, and an examination of environmental attributes (e.g., water, slope of terrain, soil types) that pertained to the geographic and ecological makeup of the project area.

The background information supplied investigators an idea of the archaeological properties that might be encountered in the APE and helped assess the suitability of the proposed Phase I field work methods. The results of the background research were discussed with DeIDOT Cultural Resources Professional David Clarke, who assessed and approved the field work methods proposed in the Phase I field work plan.

### **4.2 Field Methods**

Archaeological survey was undertaken using a systematic sampling strategy that employed standard interval (15-meter) STP excavations in the APE. A.D. Marble & Company excavated a total of 38 STPs during the survey. All STPs measured approximately 30 centimeters in diameter and were excavated at least 10 centimeters into culturally sterile deposits (when possible). All excavated sediments were sifted through 0.25-inch wire mesh cloth. Excavation data from all

STPs were recorded on standard field forms. When the field team encountered modern debris (asphalt, concrete, plastic, aluminum foil, etc.) in an STP, the team noted these finds on the field forms. A ten percent sample of nails (e.g., wire and cut) and window glass was retained from all depositional contexts, as discussed with and permitted by DelDOT archaeologist David Clarke. Otherwise, all artifacts recovered from the tests were retained for processing and analysis. The locations of the STPs were recorded. It was anticipated that 500 artifacts would be recovered and that one archaeological site would be identified during the investigation. It is the opinion of A.D. Marble & Company that three sites were identified during the survey, and a total of 1,884 artifacts were recovered during the investigation.

An estimated 2.7 acres of the 4.4-acre APE (61 percent of the APE) underwent Phase I field work. The 1.7 acres of the APE that did not undergo testing were determined to be previously disturbed by the placement of underground utilities and construction of modern drainage ditches. These disturbed areas were encountered in the narrow, linear sections of the APE located on the edges of West North Street, Clarence Street, Slaughter Street, Vine Street, Lincoln Street, and Forest Street. STPs were not excavated at these locations. The decision to forego shovel testing at these locations involved consultation between the principal investigator and the DelDOT archaeologist, David Clarke.

An area containing a large warehouse structure and numerous large storage containers sitting on the back (western) edge of the industrial park precluded testing in the east-central portion of the APE, east of Tar Ditch. Evidence collected from the STPs excavated on the west-central side of the APE west of Tar Ditch, coupled with the undulating surface expression on the east side of Tar Ditch, strongly suggested that the eastern edge of Tar Ditch had also likely been severely disturbed and filled in the recent past. As mentioned above, aerial photography from 1968 appears to confirm this suspicion. The area between the storage container farm and the waterway exhibited a steep slope, which also prevented testing along the near-eastern edge of Tar Ditch.

### **4.3 Lab Methods**

All artifacts recovered during the Phase I testing were washed, inventoried, cataloged, and prepared for curation according to the most current standards of the DESHPO. It was anticipated

that 500 artifacts would be recovered during the investigation. A total of 1,884 artifacts were recovered, and an artifact catalog was generated. Artifacts were analyzed according to their type, function, period of attribution, and diagnostic features. Analyses included numerical and qualitative assessments of the artifacts to evaluate the nature of the artifact deposits and their depositional contexts. Together with stratigraphic and background research data, these analyses helped to determine if any artifact concentrations qualified per DESHPO definitions for archaeological properties (i.e., sites).

#### **4.4 Deed of Gift and Artifact Curation**

A.D. Marble & Company will not proceed with the Deed of Gift task until DESHPO concurs that a site(s) was identified and concurs with the assemblage makeup of any identified site(s). Note also that CRS forms will not be prepared until after DESHPO concurs with the sites identified during the investigation and concurs with the assemblage makeup of each site. If archaeological properties are determined to have been identified during the archaeological investigations, A.D. Marble & Company will attempt to obtain Deed of Gift agreement(s) to curate the site artifacts.

It is the opinion of A.D. Marble & Company that three sites were identified during the survey. Contact with the landowners may take the form of registered letters, phone calls, and face-to-face meetings. Landowners will be asked to donate the artifacts to the State Museum and to sign a Deed of Gift agreement form that will be prepared by A.D. Marble & Company. If landowners wish to retain the archaeological materials, they will be asked to sign a Rejection form that will also be prepared by A.D. Marble & Company. The Deed of Gift agreement or Rejection form will be included with the investigation documents that will ultimately be submitted to the State Museum for curation. Copies of the Deed of Gift agreement or Rejection form will be provided to Century Engineering, Inc., the City of Dover, and DeIDOT. Site artifacts will be curated according to the Delaware Division of Historical and Cultural Affairs guidelines and delivered to the Delaware State Museum for long-term repository upon completion of the project.