

**S.R. 0273 Multi-Use Trail Facility Project
New Castle
New Castle County, Delaware**

**PHASE I/II ARCHAEOLOGICAL SURVEY
REPORT**

Prepared for

Delaware Department of Transportation
P.O. Box 778
Dover, Delaware 19903
www.deldot.gov



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New Castle
New Castle County, Delaware**

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by

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and

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February 2013

ABSTRACT

This report documents the results of the Phase I/II Archaeological Survey performed for the S.R. 0273 Multi-Use Trail Facility located in New Castle, New Castle County, Delaware. The Area of Potential Effect (APE) for this Phase I/II Archaeological Survey consisted of an approximately 0.01-hectare (0.03-acre) linear parcel of land defined as the limits of disturbance for the proposed trail. Approximately 34% (0.003 hectares [0.01 acres]) of the archaeological APE consisted of the extant paved trail or a restrictive slope. Testing was limited to the area east of the extant paved trail. The existing trail is part of the New Castle Industrial Track Trail, which within the archaeological APE sits atop the path of the former New Castle and Wilmington Railroad line. The New Castle and Wilmington Railroad line was in use from the early 1850s. A stone retaining wall, which may date from as early as the railroad line, is also located within the APE. The archaeological survey work was performed for the Delaware Department of Transportation.

This Phase I/II archaeological survey identified an archaeological site, the Pennsylvania Railroad New Castle Industrial Cutoff Site, Locus A (7NC-E-193A). Nearly 900 artifacts were recovered from ten shovel test pits and a measured test unit. The artifact assemblage was dominated by bottle glass. Small quantities of other domestic related items, architectural items, and railroad related items were also present in small numbers. The artifacts recovered include items that date from the late nineteenth or early twentieth century to the early twenty-first century. The deposits at the site were temporally mixed and no significant patterns were present in the data. The site lacks integrity.

The Pennsylvania Railroad New Castle Industrial Cutoff Site, Locus A (7NC-E-193A) is not associated with one or more events that have made a significant contribution to the broad patterns of our history and is not eligible for listing in the National Register of Historic Places under Criterion A. The property is not associated with any notable individuals and is recommended not eligible under Criterion B. There are no substantial patterns in artifacts or features that reflect distinctive characteristics of a type, period or method of construction; or representative works of a master; or possession of high artistic values; or significant and distinguishable entities whose components may lack individual distinction (districts); the property is not eligible for listing in the National Register of Historic Places under Criterion C. Based on the analysis of the archaeological data, the site has not yielded or is not likely to yield information important to prehistory or history and is not eligible under Criterion D. This site is not eligible for listing in the National Register of Historic Places. No further archaeological work is recommended.

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INTRODUCTION

This report documents the results of the Phase I/II Archaeological Survey performed for the S.R. 0273 Multi-Use Trail Facility located in New Castle, New Castle County, Delaware (Figure 1; USGS 1997). The Area of Potential Effect (APE) for this Phase I/II Archaeological Survey consisted of an approximately 0.01-hectare (0.03-acre) linear parcel of land defined as the limits of disturbance for the proposed trail. Approximately 34% (0.003 hectares [0.01 acres]) of the archaeological APE consisted of the extant paved trail or a restrictive slope. Testing was limited to the area east of the extant paved trail. The existing trail is part of the New Castle Industrial Track Trail, which within the archaeological APE sits atop the path of the former New Castle and Wilmington Railroad line. The New Castle and Wilmington Railroad line was in use from the early 1850s. A stone retaining wall, which may date from as early as the railroad line, is also located within the APE. The purpose of this Phase I/II archaeological survey is to determine the National Register eligibility of archaeological resources within the Project's Area of Potential Effect (APE). This *Phase I/II Archaeological Survey Report* was performed for the Delaware Department of Transportation.

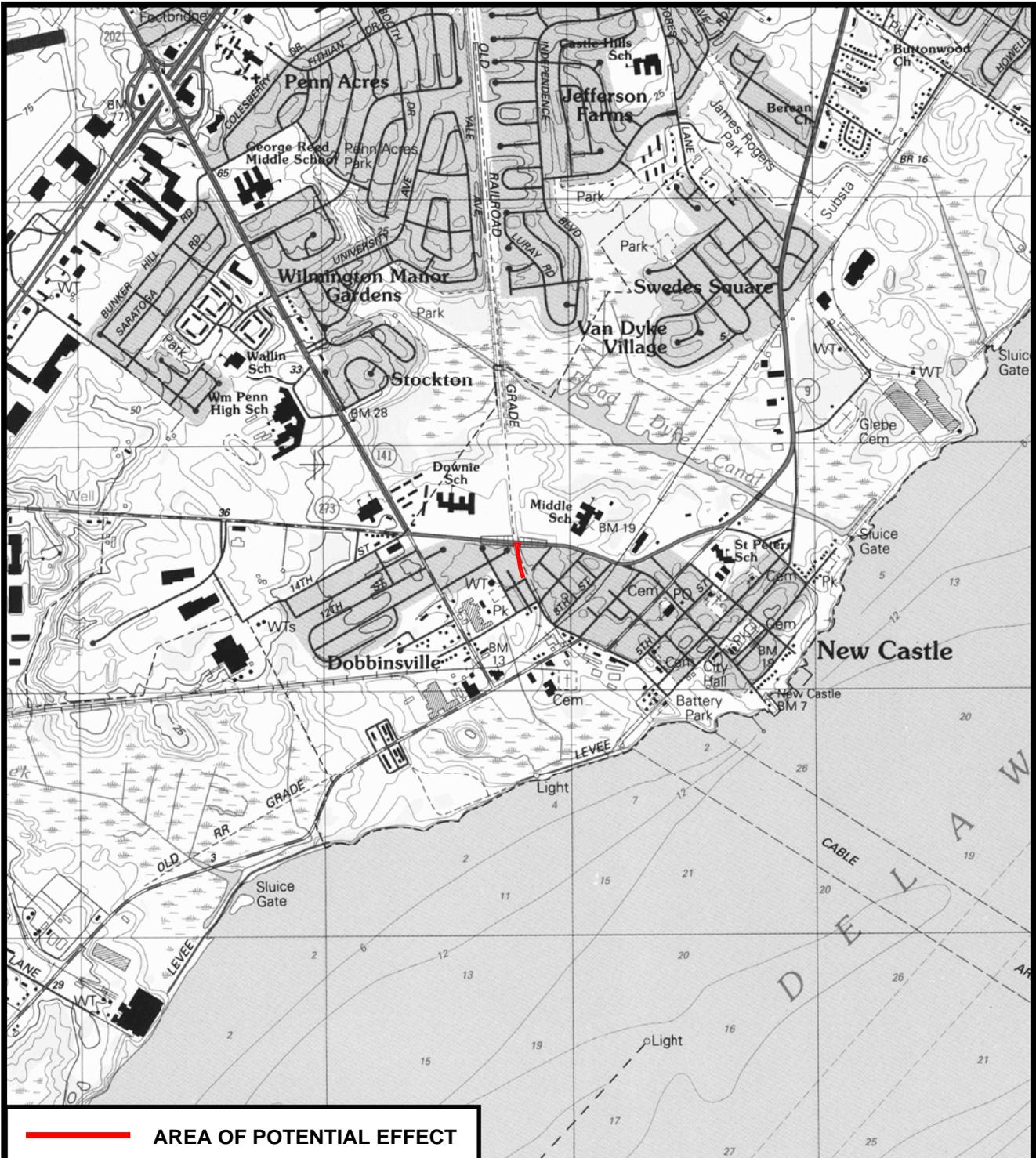
The Phase I/II Archaeological Survey was conducted in accordance with federal and state laws that protect significant cultural resources, including historic and archaeological sites. Federal and state mandates for cultural resource protection include: the National Environmental Policy Act of 1969; the National Historic Preservation Act of 1966 (NHPA) (as amended); Executive Order 11593; and the Archaeological and Historic Preservation Act of 1974. This legislation requires that the effect of any federally assisted undertaking on historically significant buildings, structures, objects or sites be taken into account during project planning. All work was performed in accordance with 36 CFR §800, and the Delaware State Historic Preservation Office (DSHPO), *Guidelines for Architectural and Archaeological Surveys in Delaware* (DSHPO 1993, revised 2010).

The research and field analysis for this project were undertaken in January 2013. The work was performed by Cultural Heritage Research Services, Inc. (CHRS, Inc.) of Lansdale, Pennsylvania. Kenneth J. Basalik, Ph.D. served as the project's Principal Investigator. Rachael E. Fowler served as the Field Archaeologist. Philip Ruth conducted the historical research. Christina Civello conducted the artifact identification and processing. Graphics for the report were prepared by Crystal Hall, and editorial work was executed by Kevin Quigg and Maria Rossi of the CHRS staff (Appendix A). The work was performed under contract to the Delaware Department of Transportation.

BACKGROUND RESEARCH

Introduction

Background research was conducted in order to identify and provide a context for evaluating cultural resources within and immediately adjacent to the Area of Potential Effect (APE). A variety of source materials were consulted, including regional and municipal histories, historical and archaeological resource files, as well as environmental, geological, archaeological, and other



AREA OF POTENTIAL EFFECT

QUADRANGLE LOCATION	SCALE	SOURCE
 <p>DELAWARE</p>	 <p>0ft 2000ft 0m 609.5m</p>	<p>USGS 1997 WILMINGTON SOUTH, DEL.-NJ.</p>
<p>Prepared by CHRS, Inc.</p> <p>PROJECT LOCATION MAP</p>		<p>FIGURE 1</p>

pertinent studies. Historic maps and aerial photographs were consulted in an attempt to identify and pinpoint the locations of historic structures within or immediately adjacent to the APE. The APE comprises a corridor approximately 42.67 meters by 3.04 meters (140 feet by 10 feet), embracing a portion of the New Castle Industrial Track Trail, immediately south of S.R. 0273 (Delaware Street) in the City of New Castle, Delaware (Figure 1; USGS 1997).

Environment

The APE is in an urbanized area within the right-of-way for a railroad. The Area of Potential Effect (APE) is located within the Coastal Plain Section of the Atlantic Plain Physiographic Province. The primary drainage in the area is the Delaware River. A small ephemeral stream within a wetland runs parallel to the immediate west of the APE. The underlying geology consists of sedimentary deposits. The archaeological APE for this Phase I/II survey is located primarily within moderately well-drained Aldino-Keyport-Mattapex-Urban land complex (Am) with poorly drained Othello silt loam (Ot) at the northernmost tip. Soils within the archaeological APE were formed in silt underlain by sand (USDA 1970; USDA, NRCS 2005).

Prehistory

The following prehistoric overview was abstracted, with minor editing, from *A Phase I and II Survey of Lancaster Pike (Route 48) from Newport Gap Pike (Route 41) to Centre Road (Route 141) and Phase III Investigations of the Oak Hill School House, New Castle County, Delaware* (Thunderbird Archeological Associates, Inc. 2009:7-12). The references cited below can be found in the original document.

Custer (1984, 1986a, 1986b, and 1989) has divided the regional prehistory into four major time periods: the Paleo-Indian Period, ca. 12,000 BC to 6500 BC; the Archaic Period, from 6500 BC to 3000 BC; the Woodland I Period, from 3000 BC to AD 1000; and the Woodland II Period, from AD 1000 to 1650. In the following discussion, paleoecological data is correlated with the cultural episodes; these time periods reflect changing environmental conditions in the past and their accompanying cultural responses that are evident in the archaeological record as settlement patterns and varying types and styles of artifacts. Information derived from the archaeological record includes changes in projectile point morphology, additions or deletions to the general tool inventory, and/or indications of changes in resource exploitation procedures. Following these prehistoric time periods is the Contact Period, from 1600 to 1750, which terminates with the aboriginal populations' shift to an acculturated way of life.

Paleo-Indian Period – 12,000 – 6500 BC

This time period dates to the terminal Late Pleistocene and early Holocene eras, a time that marks the final retreat of the glaciers and the beginning of the gradual development of modern climatic conditions. The earlier part of this period fell within the Late Glacial Episode (up to 8000 BC), a time when the Middle Atlantic region would have been affected by the northern ice sheets. A mosaic of different vegetation communities—grassland settings within a broader coniferous matrix dominated by spruce, with deciduous elements in the riverine zones—apparently supported an admixture of mammals, some now extinct (mastodon, mammoth, woodland musk ox, giant moose) and some modern (white-tailed deer, caribou, and elk); some of these mammals were browsers, while others were grazers. The latter part of the Period, falling within the Pre-Boreal/Boreal Episode (8000 BC to 6500 BC), marked the transition between the end of the Pleistocene and the

beginning of the Holocene and was characterized by a reduction in grassland areas and the spread of mixed woodland settings dominated by boreal species, particularly pine. A hydrophytic sere (floodplain climax forest) would have been present along the stream courses, with the forest here—with its river birch, willow, cottonwood, and sycamore—being more closed. Boggy areas around low-lying areas of the floodplains were also attractive habitats to be exploited (Carbone 1976:185-186). The effect of this environmental change on faunal distribution was that of the extinction of many of the Pleistocene megafauna dependent on open grassland habitats and a redistribution in habitat areas for those animals affected by the reduction in forest edge settings. Within these settings, the Paleo-Indian lifestyle is assumed to have been one of both hunting and gathering, but with a marked emphasis on hunting. The tools in general appear to be for the acquisition of game animals and for the processing of these animals and their by-products. These tools include projectile points for killing, bifacial knives for butchering, and various flake tools for scraping, cutting, and piercing meat, bone or hide.

Large bifaces were carried away from the quarry to be used as hand axes that would be knapped down into flake tools in the travels away from the quarries (Gardner 1974). Diagnostic artifacts include such spear point styles as the Clovis, Mid-Paleo, and Dalton-Hardaway points and, towards the latter part of the period (referred to as the Early Archaic in most traditional schemes), corner and side notched styles such as Palmer, Amos and Kirk points. A preference for a high quality cryptocrystalline lithic material is one of the diagnostic features of the Paleo-Indian tool kit (Gardner 1977 and 1983), and the careful resharpening and maintenance of tools was common. This reliance on such high quality lithics had important implications for Paleo-Indian settlement patterns. Gardner (1974, 1977, 1983 and 1989) observed that base camps were frequently located in the vicinity of quarries, with hunting camps and special resource procurement sites radiating out from the base camp/quarry locale. Cavallo (1981:11) also identified this pattern at the Turkey Swamp site in New Jersey. This model was reflected in the model postulated by Custer, Cavallo, and Stewart (1983) in which they stated that Paleo-Indian and Early Archaic groups restricted their movements to “a catchment area of variable size with a radius up to 200 km centered around one or more cryptocrystalline lithic sources,” relying upon the biface tool technology in the large bifaces which served as a core source for flakes to be worked into specialized tools (in Haynes 2002). A fairly mobile lifestyle in which groups focused on the quarries and on game-attractive environments is hypothesized, with a society organized by the interaction of single and multiple family bands. A number of Paleo-Indian sites are known for northern Delaware, but because of the absence of quarries and favorable environmental settings within the project area, it was not expected that any Paleo-Indian sites would be located.

Archaic Period – 6500 – 3000 BC

The continually changing climatic conditions resulted in the emergence of essentially modern environmental conditions by approximately 6500 BC. A corresponding change in the adaptive strategies of aboriginal groups living in the Middle Atlantic region is also evident in the prehistoric record. Most important to these early settlers was the extinction of the large game species caused, at least in part, by the reduction in the grassland environments and their replacement by the closed mesic forests of oak and hemlock of the Atlantic Episode (6500 BC to 3100 BC); this period is defined in many pollen profiles by the maximum expansion of nut bearing trees (Carbone 1976:183). A general warming trend and an increase in precipitation favored the expansion of the

dense mesic forests; swampy and boggy areas were probably widely distributed in areas of poor drainage. Faunal components were essentially modern, with deer and turkey figuring as major game animals. Thus the aboriginal hunting patterns adapted to the habits of these more solitary species, and the gathering of plant foods became increasingly important in their subsistence systems. This change in subsistence patterns is indicated in the archaeological record by the increasing presence of various types of ground stone tools such as axes, celts, gouges, and grinding stones, by plant processing tools such as mortars and pestles, and by a variety of new projectile point styles (bifurcated and stemmed) made from a wide variety of lithic materials. A simple expedient tool technology to produce multipurpose, generalized tools was adopted, and the tools were used briefly before being discarded (Gardner 1976).

Archaic sites are located in a wider variety of environmental settings and in different locations than are the earlier Paleo-Indian sites (Gardner 1987). Many of the new site settings were related to emerging environmental zones associated with the spread of the mesic forests, variations in the water table, and sea level rise. This increase in the variety of environmental settings would have been reflected in a concomitant increase in the variety of seasonally available resources. Settlement patterns were now characterized by three types of sites: macroband or multiple family base camps in areas of maximum habitat overlap; microband base camps, apparently occupied by fewer family units; and special resource procurement sites, exhibiting a more limited range of activities oriented towards the extraction of locally available resources. A fusion/fission social organization, based on seasonal activity, is apparently represented by these different site types in which microband and special resource procurement sites radiate out from the base camp. In the Piedmont a more complex system of functional site types is represented, perhaps an adaptation to the more varied resource settings resulting from the greater topographic relief than one finds in the Coastal Plain of Delaware (Custer 1986b).

Areas of high probability for Archaic sites in the Piedmont would be low rises located around marshy or swampy areas away from major drainages, and locations at sheltered locales along smaller streams which allowed the utilization of available resources such as plant or animal foods or lithic resources.

Woodland I Period – 3000 BC – AD 1000

This period is correlated with the Sub-Boreal Episode (3110 BC to 810 BC) and the Sub-Atlantic Episode (810 BC to AD 1000). The Sub-Boreal Episode begins with a pronounced warm and dry period characterized by an increase in the xeric oak/hickory forest cover and a waning of the mesic forests, at least in the northern portion of Delaware, an increase in grassland areas, and a decrease in the rate of sea level rise sufficient to allow the formation of estuarine resources. During the Sub-Atlantic Episode, a cooling trend accompanied by increasing precipitation led to the development of forest communities that approximate modern distributions. The northern Piedmont and the Fall Line Zones would have fallen within the oak/chestnut biome.

By 3000 BC, then, the rising sea level and climatic/environmental changes—the beginning of a climatic period Carbone describes as “a period of major environmental stress which limited opportunity in some areas and opened up new avenues in others” (Carbone 1982:45)—led to a reorganization of the prehistoric way of life. This rise in the ocean’s water level resulted in the

development of brackish water estuaries along the continent's coastal areas, creating a rich environmental zone that could support the occupants of large base camps on a seasonal schedule; these base camps most likely represent a population that was semi-sedentary for a large part of the year. An increase in the overall population for the region may be noted for this time period. Earlier groups seem to have had relatively mobile lifestyles associated with flexible social organizations and an easily transported tool technology. Now one may recognize, in addition to the more sedentary lifestyle and the large population aggregates, a less portable storage technology, elaborate exchange systems, and complex burial patterns (Custer 1986b).

The 3000 BC to AD 1000 time range is based on similarities as delineated by Custer (1986:87; 1989:43, 144):

1. The development of estuarine and riverine adaptations that are stable and intensive enough to produce large macroband base camps in the zone of freshwater/saltwater interface and along the major drainages;
2. Population growth (or more intensive site utilization) at single site locations much larger than Archaic macroband base camps;
3. The appearance of foraging and collecting adaptations in areas less productive than the estuarine and riverine settings;
4. The participation in exchange networks that result in the movement of raw materials and finished artifacts, across large areas; and
5. The occasional participation in complex mortuary ceremonies that create cemeteries with rich grave offerings.

The Woodland I tool kit is characterized by broad-bladed, bifacially chipped Broadspears, as well as by the appearance of a solid container technology. This technology is first apparent in the appearance of soapstone, or steatite, bowls, which were later replaced by ceramic vessels at ca. 1,000 BC. Ground stone tools continue to be a part of the tool kit, and there was an increase in the number and variety of such tools as adzes, gouges, celts and axes. Participation in regional trade networks also seems evident for this era, as indicated by the extensive use of nonlocal materials such as argillite, rhyolite and steatite, used both for tools as well as for non-utilitarian items. This is most evident at Delmarva Adena sites.

The settlement pattern exhibits an increase in the number and variety of procurement sites and an increase in the size of macroband base camps that appear to represent sedentism, with semi-subterranean pit houses and storage and/or trash features.

Woodland II Period – AD 1000 – 1650

The environmental setting of the Woodland II Period is essentially modern in character. It is at this time period that a stable agricultural adaptation appears to have been achieved throughout much of the Middle Atlantic region, accompanied by the development of sedentary lifestyles (Custer 1989:298). While a movement to the more arable lands in the floodplains of major drainages, accompanied by the appearance of more permanent structures and large villages, was typical for the Middle Atlantic at this time, the Delaware Piedmont continues to exhibit many of the characteristics of Woodland I settlements. Indeed, many Woodland I settlements were also occupied during the

Woodland II Period, with few changes in overall lifestyle and artifact assemblages. A shift to large village sites has not been found in the Piedmont Uplands (Stewart et al. 1986; Custer and Cunningham 1986:24). Settlement patterns continued to focus on areas of reliable water sources, with smaller camps being found that probably represent short-term exploitative sites. There is a breakdown in the trade and exchange systems that existed during the Woodland I Period, possibly caused by the disruption of social networks as a result of 11 fissioning communities, resulting in fewer and less distinctive non-local materials. The lack of non-local lithics may also be related to the changing settlement system at the source areas (Custer 1984).

It is the various new ceramic types, with their complex decorations including incised lines and cord-wrapped stick impressions, that characterized the Woodland II Period in Delaware. These wares evolved out of the earlier Woodland I ceramics. Crushed shell Townsend Ware with fabric impressed exterior surfaces and Minguannon ceramics tempered with sand, grit and crushed quartz with smooth or cord marked surfaces are the primary types. Townsend Ware is associated with the Slaughter Creek Complex in southern Delaware, while the Minguannon Complex is found in New Castle County and surrounding areas. Small triangular projectile points that appeared late in the Woodland I period become ubiquitous, and indicate the use of the bow and arrow. These are generally made from high quality cryptocrystalline stone (Custer 1984).

High probability areas in the Piedmont Uplands would be well-drained terraces near high order streams and stream confluences, sinkhole/spring complexes, upland slopes near ephemeral streams, low order stream floodplains, particularly swampy areas, and locations near lithic sources.

Early European Contact Period – AD 1600 – 1675

It was during the period from 1600 to ca. 1675 that the Delaware Indians developed an active interaction with the newly arrived European traders and settlers. There are no clear-cut examples of archaeological sites belonging to this period, but documented evidence refers to Indian contact: Henry Hudson entered the Delaware Bay in 1609 and encountered Native Americans; Cornelius Hendrickson traded with Native American groups along the Delaware Bay in 1616 (Weslager, personal communication 1981, in Custer 1984); and in 1632 there is the destruction of the Dutch whaling station at Swanendael which had been established in 1629. Because the fur trade moved swiftly to the west, a result of the depletion of fur-bearing animals along the eastern seaboard, and Native Americans in Delaware were blocked to the west by the Susquehannocks, the Delaware groups were prevented from actively participating in the emerging fur trade by the middle of the seventeenth century. By 1675 the Susquehannocks left Lancaster County and ceased to affect the Native American groups in Delaware. But ethnohistorical accounts chronicle a rapid disruption of the Indian way of life, brought about by deculturation resulting from a combination of factors: the expulsion of the Indians from their land; introduced European diseases, to which the indigenous populations had no immunity and which frequently struck down the people even before direct contact was made; a new dependence on European manufactured goods; and an increase in intergroup warfare due to competition for access to fur trading (Custer 1984). Large quantities of trade goods are not found in Delaware sites, making Contact Period sites difficult to recognize. The artifact assemblages are thought to otherwise resemble Woodland II sites, based on two Contact Period sites excavated in New Castle County (Custer and Silber 1995:16).

At this time in their history, the Indians in the northern part of Delaware were a part of the rather loosely defined Delaware Nation. All of the groups belonged to the larger linguistic grouping known as the Coastal Algonquin, of which Delaware is a subdivision. The Delaware Nation consisted of widely scattered, rather fluidly organized and relatively independent local groups that seemed to be organized at a band or tribal level, lacking large scale organization and large communities. During the later part of this period, Native American groups began to leave areas of relatively dense European settlement, further disrupting traditions and cultural institutions (Custer 1984). It was much later in time that the shattered remnants of these groups were able to form a cohesive Pan-Delaware polity.

Project Area History

The Area of Potential Effect (APE) comprises a corridor approximately 42.67 meters long by 3.04 meters wide (140 feet by 10 feet), embracing the northern portion of the Heritage Greenway Trail segment of the New Castle Industrial Track Trail, immediately south of S.R. 0273 (Delaware Street) in the City of New Castle, Delaware (Figure 1; USGS 1997). Contemporary tax maps indicate that the APE is located within New Castle County Tax Parcel 21-14-528, a 1.14-acre parcel owned by the State of Delaware, abutting the east side of Young Street, and bounded on the north by S.R. 0273 (which marks the northern limit of the Heritage Greenway Trail segment of the New Castle Industrial Track Trail). S.R. 0273 separates the Heritage Greenway Trail from the remainder of the New Castle Industrial Track Trail, which extends northward from S.R. 0273 toward the Wilmington waterfront. The 0.25-mile Heritage Greenway Trail (embracing the APE) was completed by DelDOT in 2005 between S.R. 0273 and 8th Street (Whitman, Requardt & Associates, LLP 2012:1; Delaware Greenways 2013:n.p.). Construction of the 1.8-mile segment of the New Castle Industrial Track Trail north of S.R. 0273 was completed by DelDOT and New Castle County in the summer of 2010 (Whitman, Requardt & Associates, LLP 2012:1).

Between 9th Street in New Castle and the interchange of Routes 13 and 295 (a span of 2 miles, including the APE), the New Castle Industrial Track Trail is located within the former railroad right-of-way. This corridor was created in the early 1850s for the New Castle and Wilmington Railroad (Poor 1860:567). The Delaware Legislature had granted “a charter for the construction of . . . [a] contemplated [rail]road between New Castle and Wilmington” over a decade earlier, in January 1839. By that month, New Castle’s harbor had become a major winter refuge for ships passing over the Delaware River—the tally from January 6 through April 1, 1839 being “18 ships, 26 brigs, and 52 schooners, exclusive of a number of sloops and other small craft.” Organizers of the New Castle and Wilmington Railroad Company declared in the fall of 1839 that “the next consideration is, the safe and speedy transportation of goods, thence to Philadelphia. This is to be accomplished by the erection of a railroad from New Castle to unite with that of the Philadelphia, Wilmington, and Baltimore [Railroad] company at Wilmington—the distance from New Castle to Wilmington being five miles” (Schaeffer and Hedge 1839:255).

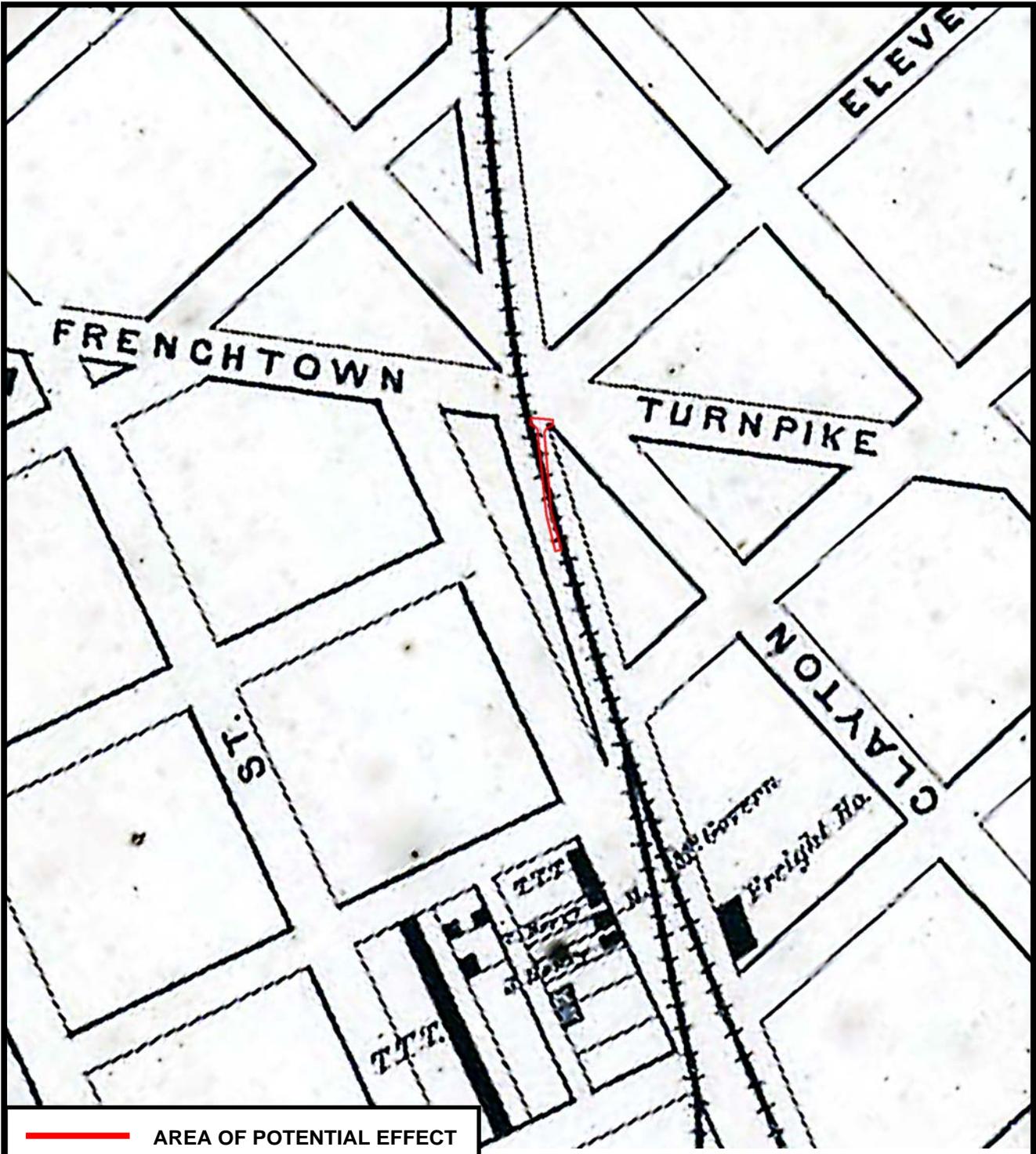
A dozen years lapsed between the granting of a charter to the New Castle and Wilmington Railroad Company and completion of the New Castle and Wilmington Railroad (Interstate Commerce Commission 1929:253-293). Early in that period (1830-32), a railroad was constructed from New Castle southwestward 16.5 miles to Frenchtown, Maryland, “on Elk River, one of the head streams of Chesapeake Bay. . . . In connection with the steamboats on the Delaware and

Chesapeake [, this New Castle and Frenchtown Railroad] for many years formed a part of one of the principal routes between the north and the south. In 1840 the [rail]road was merged into the Philadelphia, Wilmington and Baltimore Company by an exchange of stock, and has since been operated as a part of [that Company's] works," a reporter noted in 1860 (Poor 1860:566). When construction of the 1839-chartered New Castle and Wilmington Railroad was finally completed in either 1852 or 1854 (accounts differ), the new railroad connected with the older New Castle and Frenchtown Railroad several hundred feet southeast of the APE. At its northern terminus, the New Castle and Wilmington Railroad connected with the Philadelphia, Wilmington and Baltimore Railroad (PW&B) at what came to be called "New Castle Junction," and later "Delaware Junction," approximately 2 miles southwest of Wilmington (Beers 1868a; Dare 1877:92). "From the date of its completion, the [New Castle and Wilmington Railroad was] operated under lease" by the PW&B. As of 1860, the New Castle and Wilmington Railroad was regarded as "the connecting link between the railroads of Pennsylvania and Delaware" (Poor 1860:567).

As reflected on maps of New Castle Hundred and the town of New Castle published in 1868, the New Castle and Wilmington Railroad crossed the New Castle and Frenchtown Turnpike at grade just beyond the northern end of the APE (Beers 1868a; Figure 2; Beers 1868b). That section of the Turnpike—extending approximately 2 miles from New Castle westward to Clarke's Corner (later known as Hare's Corner)—had been opened to traffic by the New Castle Turnpike Company in January 1813. Around 1830, the short New Castle Turnpike had been incorporated into the much longer New Castle and Frenchtown Turnpike, which formerly extended westward from Clarke's Corner to the State Line (Scharf 1888:417-18).

No structures were denoted within 300 feet of the APE on the 1868 map of New Castle town (Figure 2; Beers 1868b). It is possible, however, that the stone retaining wall presently lining the east side of the railroad corridor through the APE (Photographs 1 through 7) was in place by 1868, and may have been part of the original railroad construction (a brick wall erected on top of the southern section of the stone wall appears to be of recent construction). It is also possible that the retaining wall was constructed by the operators of the railroad only when the land abutting the east side of the railroad corridor was subjected to residential, commercial, or industrial development. That may have occurred between 1868 and 1881, insofar as two small unidentified structures were depicted side-by-side several dozen feet east of the northern portion of the APE (in the V formed by the railroad corridor and the northern end of Clayton Street) on a map of New Castle published in 1881 (Figure 3; Hopkins 1881). A modern apartment complex currently occupies that location. On a map of New Castle published in 1893, no structures were depicted in that location, but a pair of adjoining brick dwellings was depicted fronting on 10th Street, 130 feet southeast of the APE's southern limit (Figure 4; Baist 1893). The rear yards of the town lots occupied by those dwellings abutted the railroad corridor on or near the alignment of the retaining wall. The dwellings are still standing on the north side of 10th Street, with additions attached to their rear façades. Beyond property delineations and characterizations on the 1868, 1881, and 1893 maps, no documentary evidence of the retaining wall's construction or subsequent alteration has been discovered in the course of this archaeological investigation.

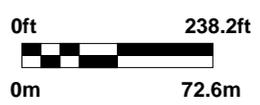
Under an agreement filed in Delaware on May 15, 1877, the New Castle and Wilmington Railroad Company was merged into the Philadelphia, Wilmington and Baltimore Railroad Company, along with the New Castle and Frenchtown Turnpike and Railroad Company, and the



 AREA OF POTENTIAL EFFECT

SCALE

SOURCE

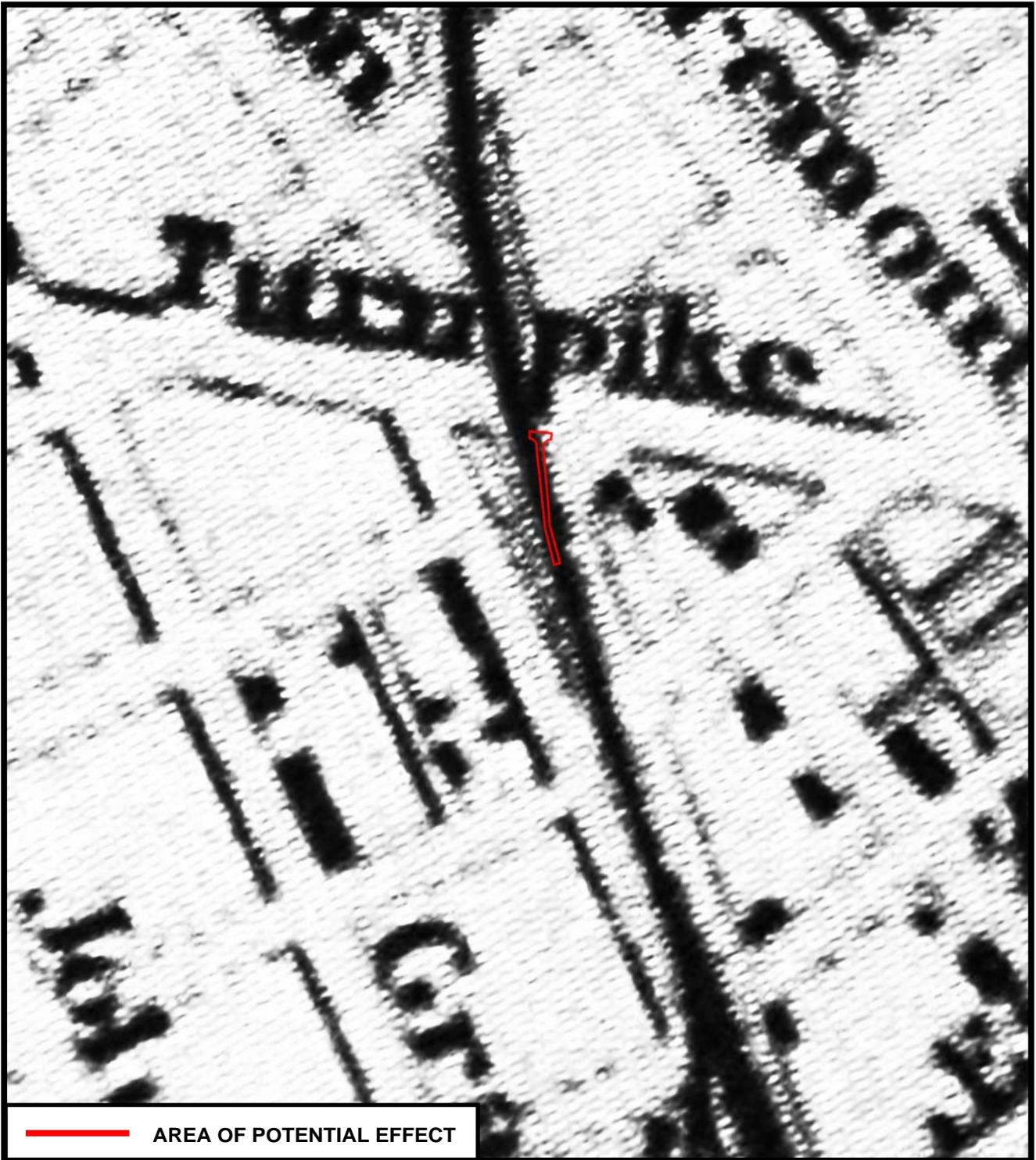


BEERS
1868b

Prepared by CHRS, Inc.

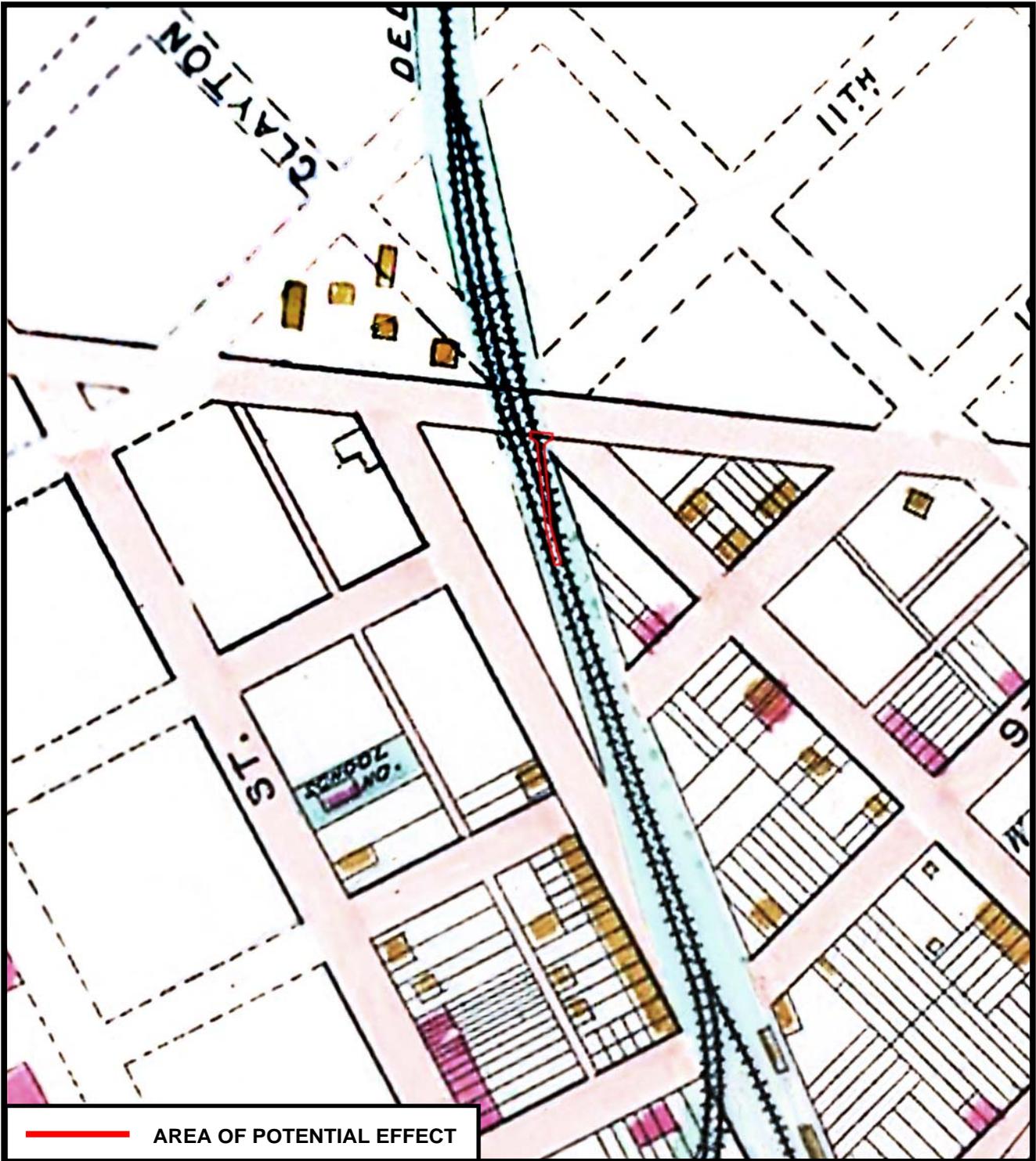
PROJECT AREA CIRCA 1868

FIGURE 2



 AREA OF POTENTIAL EFFECT

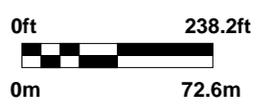
	SCALE	SOURCE
	<p>0ft 238.2ft</p>  <p>0m 72.6m</p> <p>Prepared by CHRIS, Inc.</p>	<p>HOPKINS 1881</p>
<p>PROJECT AREA CIRCA 1881</p>		<p>FIGURE 3</p>



 AREA OF POTENTIAL EFFECT

SCALE

SOURCE



BAIST
1893

Prepared by CHRIS, Inc.

PROJECT AREA CIRCA 1893

FIGURE 4



Photograph 1: Northernmost portion of the stone retaining wall, facing southeast.



Photograph 2: Stone retaining wall, facing northeast.



Photograph 3: Stone retaining wall, facing southeast.



Photograph 4: Stone retaining wall with possible second tier visible on the surface, facing south-southeast.



Photograph 5: Stone retaining wall with modern addition, facing east.



Photograph 6: Stone retaining wall with modern addition, facing southeast.



Photograph 7: Stone retaining wall with modern addition, facing northeast.

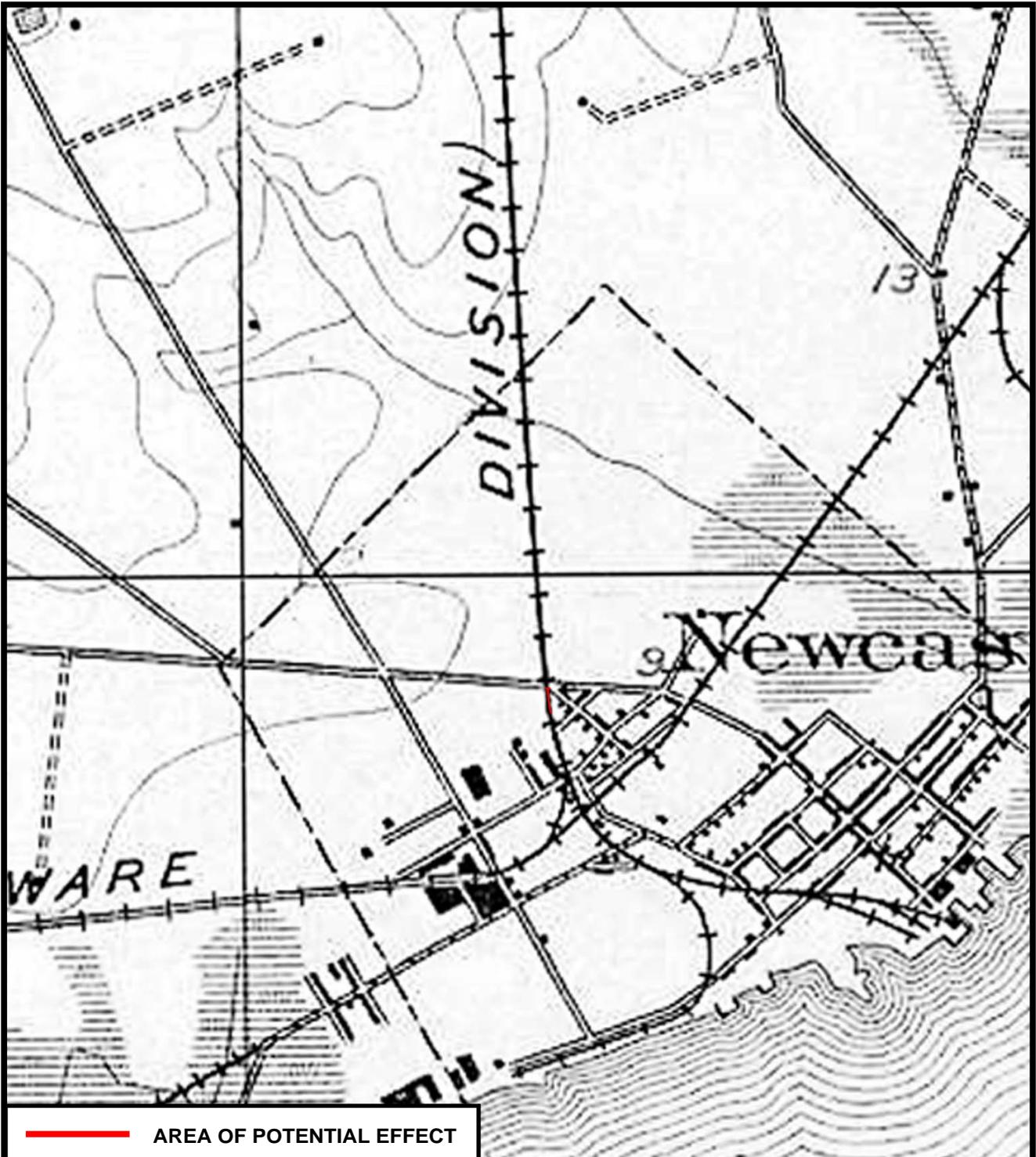
Southwark Rail-Road Company (Interstate Commerce Commission 1929:253-293). Upon this consolidation, the New Castle and Wilmington Railroad became the northernmost segment of the PW&B's "Delaware Railroad" or "Delaware Division," extending nearly 100 miles from Delaware Junction outside Wilmington southward through the length of the State's midsection. As described in a PW&B's guidebook published in 1877:

[The Delaware Division] traverses what may be called the garden of the United States, and more peaches, strawberries, cherries, and other fruits and vegetables are raised along and carried over this rail road, for its length, than on any other road on the Western Continent. The State of Delaware, or the Peninsula, as it is often called, is especially a great peach growing country, and in the peach season thousands of baskets of this luscious fruit are shipped by the car load daily to Philadelphia, New York, Boston, Baltimore and other large cities. . . . The P.W.&B. Company have recently leased the Delaware Road for a term of twenty-one years, and they operate it with their own cars, engines and employees. Although the road branches off at Delaware Junction from the tracks of the P.W.&B. Rail Road, yet this Company own the road as far as Frenchtown, on the Delaware division, and this branch being direct from Wilmington by way of the main line, and running through New Castle, the county-seat of New Castle [C]ounty, is known as the New Castle & Wilmington Rail Road, as far as New Castle, and below that point as the New Castle & Frenchtown Rail Road (Dare 1877:93).

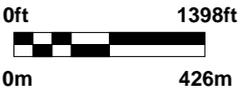
On the 1881 map of New Castle, the railroad passing through the APE was identified as part of the PW&B's "Delaware Railroad" (Figure 3; Hopkins 1881). On the 1893 map, the railroad was labeled "Delaware Division, PW&BRR" (Figure 4; Baist 1893). Neither map reflected the Pennsylvania Railroad Company's acquisition of a controlling interest in the PW&B in June 1881 (Baer 2011:52). On early to mid-twentieth-century maps, the railroad passing through the APE would acknowledge this control by attributing the line to the Pennsylvania Railroad Company.

The 1893 New Castle map indicated that, while the former New Castle and Wilmington Railroad comprised a single track for most of its length north of the New Castle and Frenchtown Turnpike (present-day S.R. 0273), it branched into three tracks where it crossed at grade over the Turnpike, and narrowed to a pair of tracks south of the Turnpike, within the APE. Moreover, five frame buildings were depicted in a cluster on the northwest corner of this crossing. Positioned in proximity to the railroad siding, the structures may have been associated with railroad operations. There would be no structures denoted in that vicinity on a topographical map surveyed in 1904 and published 2 years later (Figure 5; USGS 1906), nor would any structures be apparent in that vicinity on an aerial photograph taken in 1932 (Figure 6; ASCS 1932).

On November 1, 1902, the PW&B Company was consolidated with the Baltimore and Potomac Rail Road Company to form the Philadelphia, Baltimore and Washington Railroad Company, a wholly owned subsidiary of the Pennsylvania Railroad Company (Interstate Commerce Commission 1929:253-293; Lichtenstein Consulting Engineers, Inc. 2000:44). "The name change reflected, in part, Wilmington's declining position after 1890 as a manufacturing center," the authors of *Delaware's Historic Bridges* recently observed. "Changing markets and less dynamic business leadership altered Wilmington's economic base away from intensive industry. Wilmington



 AREA OF POTENTIAL EFFECT

	SCALE	SOURCE
	 Prepared by CHRIS, Inc.	USGS 1906

PROJECT AREA CIRCA 1906

FIGURE 5



 AREA OF POTENTIAL EFFECT

	SCALE	SOURCE
	<p>0ft 238.2ft</p>  <p>0m 72.6m</p> <p>Prepared by CHRIS, Inc.</p>	<p>ASCS 1932</p>
<p>PROJECT AREA CIRCA 1932</p>		<p>FIGURE 6</p>

remained, however, an important railroad town and northern Delaware a vital part of the northeast transportation corridor. With its corporate house in order, the Pennsylvania Railroad embarked beginning in 1902 on a substantial and wholesale rebuilding program designed to bring its Delaware holdings up to the company's engineering standards. New Castle County saw the bulk of the improvements, from relaying and regrading of track to the adoption of the Pennsylvania's trademark stone construction for bridges and stations on its main line" (Lichtenstein Consulting Engineers, Inc. 2000:44).

In a September 1916 reorganization, the Pennsylvania Railroad Company merged the Philadelphia, Baltimore and Washington Railroad Company with the Elkton and Middletown Railroad Company of Cecil County, the Philadelphia and Baltimore Central Railroad Company, and the Columbia and Port Deposit Railway Company to form a new Philadelphia, Baltimore and Washington Railroad Company (Interstate Commerce Commission 1929:253-293). On Delaware State highway maps published from 1920 through the mid-1960s, the railroad passing through the APE was simply attributed to the Pennsylvania Railroad Company ("PRR").

In an aerial photograph taken in 1932, the former New Castle and Frenchtown Turnpike appeared to be carried over the former New Castle and Wilmington Railroad tracks immediately north of the APE via an arching two-lane overpass (Figure 6; ASCS 1932). The elimination of a grade crossing there had probably been effected by the Delaware State Highway Department within the previous few years, as part of a "systematic program of eliminating [such] hazardous crossings" initiated in 1926. "The railroad companies acted in cooperation with the department to replace grade intersections with separated crossings. In some cases, grade crossings could be eliminated by relocating the road or the railroad tracks, or both, but this program generally involved the construction of overpasses or underpasses" (Lichtenstein Consulting Engineers, Inc. 2000:13-14). The grade crossing abutting the APE would have been a prime candidate for elimination, as the former New Castle and Frenchtown Turnpike had been "completed as a Delaware State Highway" by 1932, and was now incorporated into a toll-free highway designated "U.S. 40" ([Delaware] State Highway Department 1932).

An aerial photograph taken in 1937 offers visual evidence that the section of U.S. 40 crossing the PRR tracks immediately north of the APE was considerably widened and improved during the mid-1930s (Figure 7; ASCS 1937). The narrow, arching span that could be seen carrying the road over the tracks on the 1932 aerial photograph was either much widened or replaced by a much wider bridge as part of the recent improvements. Evidence of extensive grading on either side of the bridge suggests that the roadway and shoulders had been built up on either side of the new or improved overpass, in order to provide greater clearance.

The railroad passing through the APE carried both freight and passengers through the early 1950s, but only freight thereafter. Presumably after the discontinuation of passenger service, the line became known as "the New Castle Industrial Track," or the less-common "New Castle Industrial Cutoff" (Whitman, Requardt & Associates, LLP 2012:1; AbandonedRails.com 2013:n.p.). The railroad was operated by the PRR until 1968, when the PRR merged with the New York Central Railroad Company to form the Penn Central Transportation Company (Lichtenstein Consulting Engineers, Inc. 2000:51). On a USGS topographical map published in 1968, the former



 AREA OF POTENTIAL EFFECT

	SCALE	SOURCE
	<p>0ft 238.2ft</p>  <p>0m 72.6m</p> <p>Prepared by CHRIS, Inc.</p>	<p>ASCS 1937</p>

PROJECT AREA CIRCA 1937

FIGURE 7

New Castle and Wilmington Railroad was attributed to “Penn Central” and reputed to comprise “4 tracks” (USGS 1967).

The “unwieldy Penn Central collapsed in on itself within two years,” reported the authors of *Delaware’s Historic Bridges*. “The Penn Central bankruptcy and the ailing condition of the industry in general convinced Congress that a legislative solution was needed. In 1970, Congress created the National Railroad Passenger Corporation, better known as Amtrak, to run the nation’s passenger train service, including the Northeast Corridor through Delaware. . . . The Penn Central’s freight side was reorganized, along with that of several other northeastern bankrupt railroads (including part of the Reading/Wilmington & Northern tracks in Delaware), into a quasi-public company, the Consolidated Rail Corporation or Conrail. . . . The formation of Conrail and the creation of CSX Transportation through a merger of the Chessie and the Seaboard systems in 1980 produced a spate of abandonments of smaller feeder lines throughout Delaware and the Eastern Shore” (Lichtenstein Consulting Engineers, Inc. 2000:51-52).

As reported by local railroad buffs on AbandonedRails.com, the former New Castle & Wilmington Railroad was abandoned “in two sections. The northern section was abandoned first [by Conrail] in 1972. The southern part [embracing the APE] was abandoned in 1984; the tracks were removed in the mid-90s” (AbandonedRails.com 2013:n.p.). Those dates of the line’s two-phase abandonment are also recited on a wayside marker mounted along the segment of the New Castle Industrial Track Trail north of the APE and S.R. 0273. At some point prior to March 15, 1992, the S.R. 0273 overpass was eliminated, and replaced by an earthen berm (Figure 8; Google Earth 1992). As noted above, the 0.25-mile section of the line between S.R. 0273 and 8th Street (including the APE) was converted into the Heritage Greenway Trail by DelDOT in 2005. Five years later, with the opening of the New Castle Industrial Track Trail north of S.R. 0273, the Heritage Greenway Trail became the southern segment of the Industrial Track Trail (Whitman, Requardt & Associates, LLP 2012:1; Delaware Greenways 2013:n.p.).

METHODS

The purpose of this Phase I/II Archaeological Survey was to identify archaeological resources, and if found, to further define the horizontal and vertical limits of the archaeological resources, establish the integrity of those resources, and evaluate the eligibility of the archaeological resources for listing in the National Register of Historic Places.

Soils were excavated by hand following natural stratigraphy to a depth of 10 centimeters into culturally sterile subsoil or until standing water impeded further excavation. All excavated soils were screened through ¼-inch hardware cloth. Artifacts were bagged by provenience. Descriptions of each stratum, including Munsell color, texture, sediments, and presence or absence of cultural material, were recorded on standardized forms.

Artifact processing was performed according to the *Guidelines and Standards for the Curation of Archaeological Collections* prepared by the Delaware Division of Historical and Cultural Affairs, Delaware State Museum (Fithian 2006). Artifacts were washed and inventoried (Appendix B).



	SCALE	SOURCE
	<p>0ft 238.2ft</p>  <p>0m 72.6m</p> <p>Prepared by CHRIS, Inc.</p>	<p>GOOGLE EARTH 1992</p>

PROJECT AREA CIRCA 1992	FIGURE 8
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Recovered artifacts were placed into resealable polyethylene bags with accompanying tags that list the appropriate provenience information.

Analysis of the data was structured to permit an assessment of the site's eligibility for listing in the National Register of Historic Places. The National Register eligibility of the identified resources was established with reference to local and state historic context documents and to the *Guidelines for Evaluating and Registering Archaeological Properties* (Little et al. 2000). Artifact analysis included qualitative assessments (what objects were recovered, what were they made out of, how were they used, etc.) as well as quantitative assessments (how are the artifacts and artifact groups distributed across the sites, what are the relative proportions of artifact classes for the site, and/or within identified activity areas, etc.). The site identified during the archaeological investigations was evaluated for inclusion in the National Register of Historic Places based on one or more of the following criteria: Criterion A, site is important to the broad patterns of our history or prehistory; Criterion B, site is associated with the lives of individuals important to our past; Criterion C, as an embodiment of a type, period, or method of construction; and Criterion D, site is a resource that has yielded or is likely to yield information important to our understanding of prehistory or history.

FIELD DATA

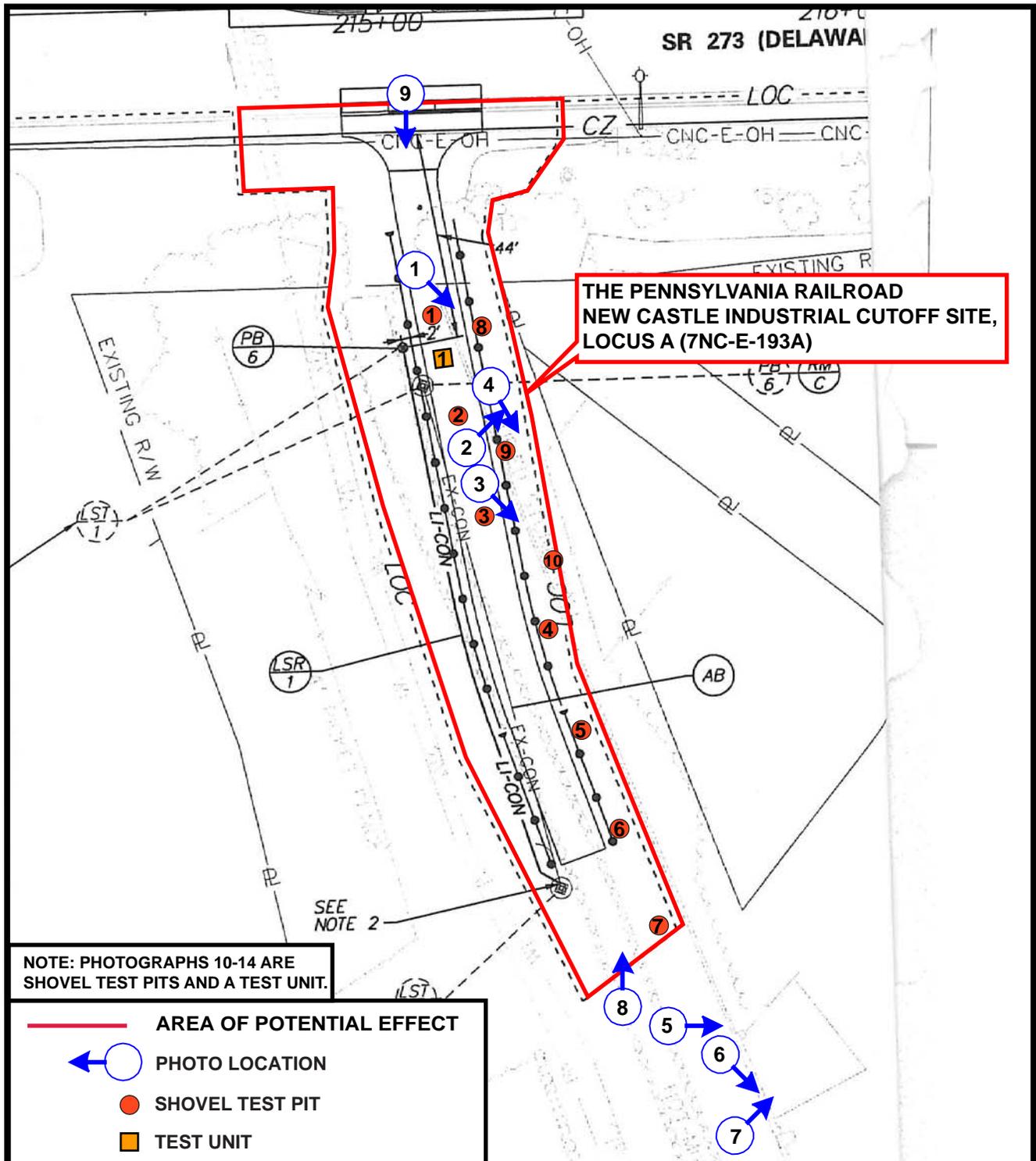
Introduction

The archaeological APE is located along the New Castle Industrial Track Trail, a paved pedestrian and bicycle trail (Photographs 8 and 9). The trail is located within a former right-of-way created in the early 1850s for the New Castle and Wilmington Railroad (Poor 1860:567). A stone retaining wall, which may date as early as the railroad, runs approximately 94.75 meters (310.86 feet) between 10th Street and S.R. 0273 (Photographs 1-7). A modern brick wall has been constructed atop the southern half of the stone retaining wall. The stone retaining wall is approximately 76 centimeters (2.5 feet) high in the center, with the height tapering to either end. Approximately 15.24 centimeters (6 inches) are visible at the northernmost end (Photograph 1). A portion of this wall is located within the proposed new alignment of the New Castle Industrial Track Trail.

Field Data

Testing within the archaeological APE consisted of excavating ten shovel test pits (STPs) and one 1-meter by 1-meter test unit (TU). Shovel test pits were placed at 7.5-meter (24.6-foot) intervals in two transects. Transect 1, which included STPs 1-7, was placed between the paved path and the retaining wall. Transect 2, which consisted of STPs 8-10, was located to the east of Transect 1 (Figure 9).

Shovel Test Pits 2-7 contained similar profiles. The stratigraphy was comprised of approximately 18 centimeters of light olive brown (2.5Y 5/3) clay loam overlaid on approximately 20 centimeters of a very dark gray (10YR 3/1) to black (10YR 2/1) coal silt with rocks. These soils were underlain by a dark grayish brown (10YR 4/2) course sand (Figure 10). Shovel Test Pit 1, placed at the foot of a slope, had a profile consisting of 17 centimeters of black (10YR 2/1) silt atop



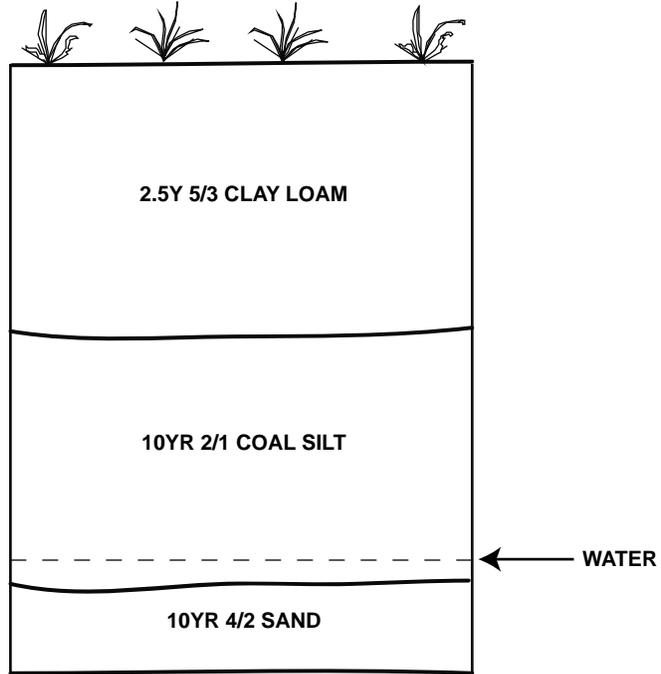
NOTE: PHOTOGRAPHS 10-14 ARE SHOVEL TEST PITS AND A TEST UNIT.

- AREA OF POTENTIAL EFFECT
- ← ○ PHOTO LOCATION
- SHOVEL TEST PIT
- TEST UNIT

SCALE		SOURCE
	0ft 32ft 	WHITMAN, REQUARDT & ASSOCIATES, LLP 2008
	0m 9.77m	
Prepared by CHRS, Inc.		

ARCHAEOLOGICAL TEST LOCATIONS AND PHOTOGRAPH LOCATIONS	FIGURE 9
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SHOVEL TEST PIT 4



0in 7.87in



0cm 20cm

Prepared by CHRS, Inc.

REPRESENTATIVE PROFILE - SHOVEL TEST PIT 4

FIGURE 10



Photograph 8: Overview of the archaeological APE, facing north.



Photograph 9: Overview of the archaeological APE, facing south.

a 72-centimeter-thick layer of mottled very dark gray (10YR 3/1) coal silt with brown (10YR 4/3) sand. These soils were underlain by a dark yellowish brown (10YR 4/6) course sand (Figure 11). Water was encountered in STPs 1-7 at an average depth of 50 centimeters below grade. One feature, a possibly *in situ* railroad tie, was present within STP 6 at a top height of approximately 29 centimeters below grade (Photograph 10). Fragments of displaced railroad ties were visible in the walls of STP 1, but were not collected.

Test Unit 1 was placed between STPs 1 and 2. The stratigraphy exposed in the test unit was comprised of approximately 16 centimeters of very dark gray (10YR 3/1) coal silt atop an approximately 25-centimeter-thick layer of mottled very dark gray (10YR 3/1) coal silt mixed with yellowish brown (10YR 5/4) sandy clay. These soils were underlain by approximately 7 centimeters of black (10YR 2/1) gritty coal silt atop approximately 15 centimeters of dark grayish brown (10YR 4/2) sand mottled with yellowish brown (10YR 5/4) sand. These soils were encountered above a yellowish brown (10YR 5/4) sand with pebbles (Photograph 11) (Figure 12). Water began to enter TU 1 at approximately 67 centimeters below grade. One feature, Feature 1, an *in situ* railroad tie, was found within the black (10YR 2/1) gritty coal silt at 40 centimeters below grade (Photograph 12).

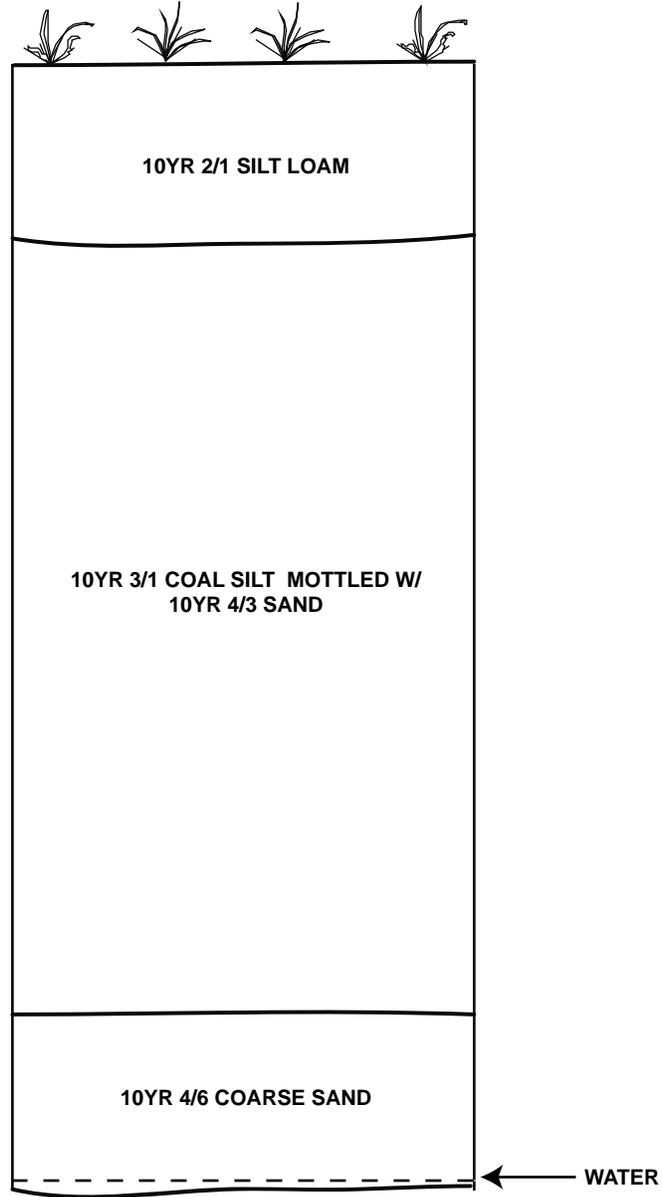
Shovel Test Pits 8, 9 and 10 were placed to the east of and atop the retaining wall to test for features due to the presence of a soil mound and historic artifacts evident on the surface. Shovel Test Pit 8, which was placed east of the retaining wall, had a profile consisting of 17 centimeters of yellowish brown (10YR 5/4) clay loam atop 31 centimeters of dark brown (10YR 3/3) mottled with yellowish brown (10YR 5/4) silt clay loam. These soils were underlain by a yellowish brown (10YR 5/8) silt clay (Figure 13).

Shovel Test Pits 9 and 10 were placed on the retaining wall to provide a cut profile of the soil “mound” above the wall. Soils in this area sloped upward from the retaining wall to the eastern boundary of the APE. Shovel Test Pits 9 and 10 shared similar profiles and features. Within STPs 9 and 10, there were two distinct tiers separated by a layer of rock. The profiles of STPs 9 and 10 consisted of approximately 20 centimeters of light olive brown (2.5Y 5/3) clay loam atop approximately 35 centimeters of dark brown (10YR 3/3) silt loam. These soils rested above a buried second tier of the retaining wall. The stratigraphy of the buried tier was comprised of approximately 25 centimeters of light olive brown (2.5Y 5/3) clay loam, which sat atop the visible portion of the retaining wall (Photographs 13 and 14). Several stones, which could be associated with the buried second tier of the stepped retaining wall, are present at the surface further to the south, outside of the APE (Photograph 4).

Analysis

One site, the Pennsylvania Railroad New Castle Industrial Cutoff Site, Locus A (7NC-E-193A), was discovered during Phase I/II archaeological excavations. A total of 888 artifacts were recovered (Table 1). The artifacts were a mix of historic and modern items, including modern refuse. The recovered objects consisted of domestic, industrial and building materials. The artifact assemblage was grouped into categories following the method established by Stanley South (1977). Artifacts may be categorized as kitchen related (such as ceramics, bottle glass, vessel glass,

SHOVEL TEST PIT 1



0in 7.87in



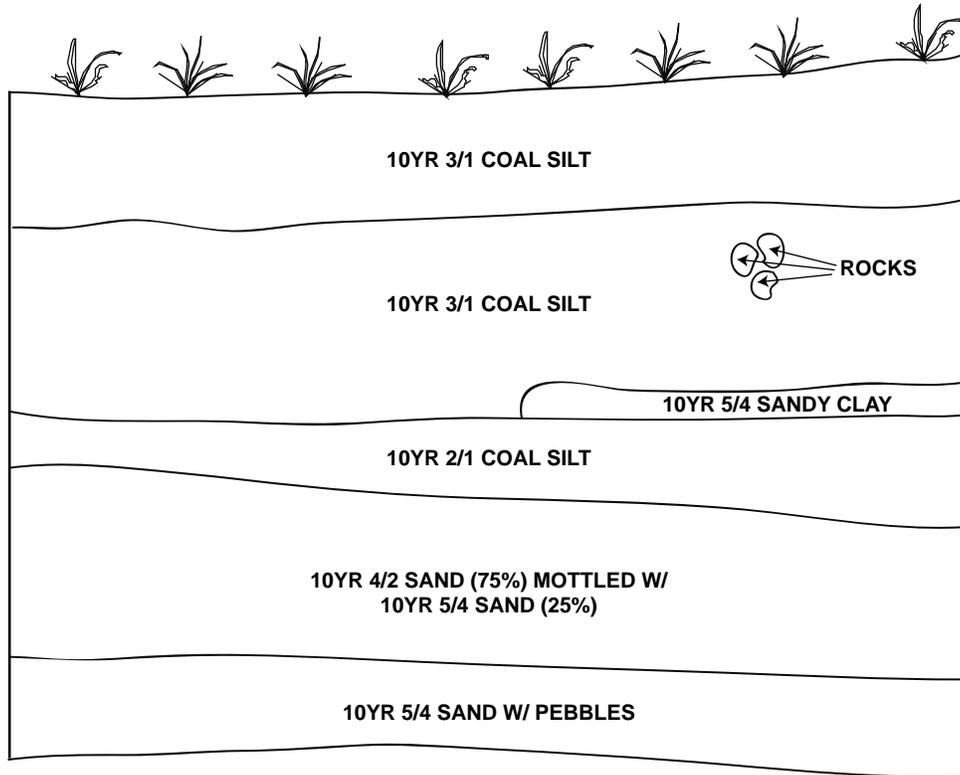
0cm 20cm

Prepared by CHRS, Inc.

REPRESENTATIVE PROFILE - SHOVEL TEST PIT 1

FIGURE 11

**TEST UNIT 1
SOUTH WALL**



0in 7.87in



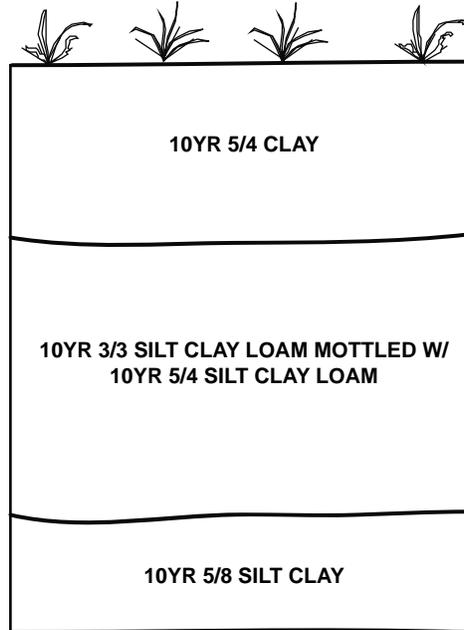
0cm 20cm

Prepared by CHRS, Inc.

REPRESENTATIVE PROFILE - TEST UNIT 1

FIGURE 12

SHOVEL TEST PIT 8



0in 7.87in



0cm 20cm

Prepared by CHRS, Inc.

REPRESENTATIVE PROFILE - SHOVEL TEST PIT 8

FIGURE 13



Photograph 10: Railroad tie in Shovel Test Pit 6.



Photograph 11: Test Unit 1, closing profile view, facing west.



Photograph 12: Test Unit 1, Feature 1, plan view, facing east.



Photograph 13: Shovel Test Pit 9, facing east.



Photograph 14: Shovel Test Pit 10, facing east.

tableware, etc.) or architecturally related (such as window glass, nails, architectural hardware, etc.). The other groups include furniture related items (knobs, pulls, lamps, upholstery tacks, etc.), personal items (pocket knives, combs, coins, jewelry, eyeglass lenses, etc.), clothing, arms-related objects, tobacco pipes, activity related (tools, toys, etc.). A variety of items are not included in the functional analysis. These include brick, mortar, slate, and ceramic block fragments, bone, shell, and other biological items, and ash, cinders, and coal.

Kitchen related items were the most common group of artifacts collected at the site, comprising approximately 70% of the inventory. The kitchen assemblage consisted of ceramics, bottle glass, and vessels. Bottle glass was the most common of the recovered artifacts, both within the kitchen assemblage and throughout the site. Over half of the entire inventory and 91.4% of the kitchen assemblage consists of bottle glass ($n=456$). Ceramics, which represented 7% of the kitchen assemblage, included whiteware (85.6%), redware (5.7%), stoneware (2.9%), porcelain (2.9%) and semi-porcelain (2.9%).

Architectural items comprised 14.8% of the artifact assemblage. Slightly more than half of this material was window glass (51%). Nails and other items (spikes, building hardware, etc.) made up the remainder of this category. Activity related items and furniture related items were the next most prevalent functional groups. Activity related items comprised 9.2% of the assemblages, and included artifacts connected to the railroad. Two percent (2.7%) of the assemblage were furniture items (mostly lamp chimney glass). Other recovered items included clothing items (such as shoe parts), arms-related objects (skeet fragments), and items associated with tobacco (a kaolin pipe fragment).

The artifacts were differentially distributed across the APE. The densest concentration of material was encountered in the soils over the retaining wall. More than 100 artifacts were recovered from both STPs 9 and 10. Between ~50 and ~80 were recovered in each of the shovel test pits in the northern portion of the APE (STPs 1 and 8). The remaining shovel test pits contained smaller amounts of material. Although the number of artifacts varied across the site, the types of artifacts present were very similar. Each test contained a large quantity of bottle glass, with a small number of brick fragments, cinders, architectural debris, and modern artifacts.

The artifacts recovered varied in age of manufacture. Only one artifact had a manufacturing mark that allowed it to be dated. This object, a Seagram's flask fragment, had a mark indicating a post-1954 date. The date of other objects could be broadly inferred. Several bottle sherds had screw cap or crown cap finishes, indicating a twentieth-century manufacturing date. There were a variety of different colorings in the glass. Light greens and aqua colored glass bottles were generally more popular in the nineteenth century and early twentieth century. There are a number of proprietary/medicinal embossed panel bottles of the type popular in the late nineteenth and early twentieth century. The small size of the ceramics found makes temporal assignments difficult. However, most of the material is consonant with a late nineteenth and early twentieth-century date. A large number of mid- to late twentieth-century and twenty-first-century items are represented in the artifact assemblage as well. Styrofoam, flexible plastic, a fabric appliqué, aluminum push tabs, and asbestos house siding fragments are found across the site. Although multiple strata were encountered, modern and historic artifacts were nearly always found within the same context. The deposits lack temporal integrity.

TABLE 1				
PERCENTAGE OF HISTORIC ARTIFACTS BY FUNCTIONAL TYPE				
CERAMICS ASSEMBLAGE BY WARE TYPE				
S.R. 0273 Multi-Use Trail Facility Project				
New Castle				
New Castle County, Delaware				
Group ^o	Percent of Assemblage		Ceramic Type	Percent
Kitchen	70.8		Redware	5.7
Ceramics		7.0	Stoneware	2.9
Bottle glass		91.4	Whiteware	85.6
Vessel		1.6	Porcelain	2.9
Architecture	14.8		Other (semi-porcelain)	2.9
Window		51.0		
Nails		29.8		
Other ^e		19.2		
Furniture	2.7			
Personal	0.0			
Clothing	1.3			
Arms	1.1			
Tobacco	0.1			
Activities	9.2			
N	705 ^e			
^o after South 1977				
^e brick and mortar excluded				
^e coal, cinder, wire, bone, and shell excluded				

Conclusions

One site, the Pennsylvania Railroad New Castle Industrial Cutoff Site, Locus A (7NC-E-193A), was discovered during Phase I/II archaeological excavations. This site is located, in part, atop the New Castle and Wilmington Railroad line right-of-way, which was active from the early 1850s until 1984. Although the “tracks were removed in the mid-90s” (AbandonedRails.com 2013:n.p.), evidence of the railroad is still present. During the course of this Phase I/II archaeological investigation, railroad ties, spikes, insulators, and assorted ferrous railroad components were recovered. In addition, a buried railroad tie was encountered during the archaeological testing. Testing along the retaining wall, which may date to the same period as the

railroad line, revealed a buried second tier of stone, indicating that at least a portion of the wall was stepped back to strengthen the wall and slow collapse due to the weight of dirt behind the wall.

Non-railroad related artifacts included domestic and architectural items. This “domestic” assemblage was dominated by bottle glass. Cultural material recovered included a mix of both modern and historic artifacts. The majority of the historic artifacts appear to date to the late nineteenth or early twentieth century. Artifacts from the mid- to late twentieth century and from the twenty-first century were also present. Although multiple strata were encountered, modern and historic artifacts were nearly always found within the same context. The deposits lack temporal integrity. While it is possible that the deposits represent domestic trash associated with brick dwellings fronting on 10th Street that were built in the late nineteenth century (see Figure 4; Baist 1893), the mixing of historic and modern artifacts suggests that much of the material may be redeposited.

Artifacts are differentially distributed throughout the APE. Although the number of artifacts varied across the site, the types of artifacts present were very similar. Each test contained a large quantity of bottle glass, with a small number of brick fragments, cinders, architectural debris, and modern artifacts. The distribution of artifacts does not appear to be meaningful. The site lacks contextual integrity.

The Pennsylvania Railroad New Castle Industrial Cutoff Site, Locus A (7NC-E-193A) is not associated with one or more events that have made a significant contribution to the broad patterns of our history and is not eligible for listing in the National Register of Historic Places under Criterion A. The property is not associated with any notable individuals and is recommended not eligible under Criterion B. There are no substantial patterns in artifacts or features that reflect distinctive characteristics of a type, period or method of construction; or representative works of a master; or possession of high artistic values; or significant and distinguishable entities whose components may lack individual distinction (districts); the property is not eligible for listing in the National Register of Historic Places under Criterion C. Based on the analysis of the archaeological data, the site has not yielded or is not likely to yield information important to prehistory or history and is not eligible under Criterion D. This site is not eligible for listing in the National Register of Historic Places. No further archaeological work is recommended.

SUMMARY

This report documents the results of the Phase I/II Archaeological Survey performed for the S.R. 0273 Multi-Use Trail Facility located in New Castle, New Castle County, Delaware (Figure 1; USGS 1997). The Area of Potential Effect (APE) for this Phase I/II Archaeological Survey consisted of an approximately 0.01-hectare (0.03-acre) linear parcel of land defined as the limits of disturbance for the proposed trail. Approximately 34% (0.003 hectares [0.01 acres]) of the archaeological APE consisted of the extant paved trail or a restrictive slope. Testing was limited to the area east of the extant paved trail. The existing trail is part of the New Castle Industrial Track Trail, which within the archaeological APE sits atop the path of the former New Castle and Wilmington Railroad line. The New Castle and Wilmington Railroad line was in use from the early 1850s. A stone retaining wall, which may date from as early as the railroad line, is also located

within the APE. The archaeological survey work was performed for the Delaware Department of Transportation.

This Phase I/II archaeological survey identified an archaeological site, the Pennsylvania Railroad New Castle Industrial Cutoff Site, Locus A (7NC-E-193A). Nearly 900 artifacts were recovered from ten shovel test pits and a measured test unit. The artifact assemblage was dominated by bottle glass. Small quantities of other domestic related items, architectural items, and railroad related items were also present in small numbers. The artifacts recovered include items that date from the late nineteenth or early twentieth century to the early twenty-first century. The deposits at the site were temporally mixed and no significant patterns were present in the data. The site lacks integrity.

The Pennsylvania Railroad New Castle Industrial Cutoff Site, Locus A (7NC-E-193A) is not associated with one or more events that have made a significant contribution to the broad patterns of our history and is not eligible for listing in the National Register of Historic Places under Criterion A. The property is not associated with any notable individuals and is recommended not eligible under Criterion B. There are no substantial patterns in artifacts or features that reflect distinctive characteristics of a type, period or method of construction; or representative works of a master; or possession of high artistic values; or significant and distinguishable entities whose components may lack individual distinction (districts); the property is not eligible for listing in the National Register of Historic Places under Criterion C. Based on the analysis of the archaeological data, the site has not yielded or is not likely to yield information important to prehistory or history and is not eligible under Criterion D. This site is not eligible for listing in the National Register of Historic Places. No further archaeological work is recommended.

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APPENDIX A

QUALIFICATIONS OF RESEARCHERS

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Principal Investigator: Kenneth J. Basalik, Ph.D.
Professional Experience: 36 years
Education: Ph.D. Anthropology, Temple University
M.A. Anthropology, Temple University
B.A. Anthropology, University of Pennsylvania
Project Responsibility: Administration, report writing and review

Project Archaeologist: Rachael E. Fowler, RPA
Professional Experience: 4 years
Education: M.A. Art History and Archaeology, Temple University
B.F.A. Painting and Art History, Temple University's Tyler School of Art
Project Responsibility: Fieldwork, analysis, report writing

Senior Historian: Philip Ruth
Professional Experience: 26 years
Education: M.A. English, University Of New Hampshire
B.A. English, Goshen College
Project Responsibility: Historical research, review, analysis, and report writing

Archaeology Lab Manager: Christina Civello
Professional Experience: 20 years
Education: B.A. Anthropology/Art History, University of Delaware
Project Responsibility: Artifact processing, supervision, artifact inventories and curation

Graphic Illustrator: Crystal Hall
Professional Experience: 3 years
Education: Advertising Design, Hussian School of Art
Social Services, Bucks County Community College
Project Responsibility: Graphics preparation

Editor: Kevin Quigg
Professional Experience: 17 years
Education: M.A. English, Beaver College
B.A. Communications, Temple University
Project Responsibility: Report editing

Editor: Maria Rossi
Professional Experience: 7 years
Education: B.A. English with Communications, Gwynedd-Mercy College
Project Responsibility: Report editing

APPENDIX B

ARTIFACT INVENTORY

ARTIFACT INVENTORY

STP 1, Stratum A

- 1 amber bottle glass
- 6 colorless bottle glass
- 1 aqua bottle base; crazed
- 1 brick (1.0 grams)
- 1 ferrous wire fragment
- 3 cinder/slag (19.8 grams)
- 1 Styrofoam

STP 1, Stratum B

- 7 amber bottle glass
- 4 green bottle glass
- 5 lt. green tint bottle glass
- 2 aqua bottle glass
- 40 colorless bottle glass; 1 embossed grid pattern
- 3 colorless bottle glass; modern machine-made
- 1 colorless bottle glass; embossed ...CH / ...RK
- 1 colorless bottle glass; applied paint, embossed PEPSI
- 1 plastic screw cap
- 3 colorless bottle lip; crown cap finish
- 3 oyster
- 4 brick (32.7 grams)
- 3 window glass
- 1 window glass; ribbed
- 1 lamp chimney glass
- 1 kaolin pipe fragment
- 1 record album fragment
- 1 railroad spike fragment
- 2 sheet metal
- 2 cellophane; 1 potato chips
- 4 plastic; 2 spray paint can lid, 1 bottle lip
- 2 coal (22.2 grams)
- 7 cinder/slag (64.5 grams)

STP 2, Stratum A

- 3 amber bottle glass
- 4 colorless bottle glass

- 1 green bottle glass
- 4 cinder/slag (36.1 grams)
- 1 Styrofoam

STP 2, Stratum B

- 3 amber bottle glass
- 1 amber bottle lip; screw top finish
- 12 colorless bottle glass
- 1 colorless bottle base; modern machine-made
- 1 green bottle glass; applied paint label
- 2 lt. green tint bottle glass
- 1 aqua bottle glass; melted
- 3 brick; burned (51.0 grams)
- 2 terra cotta sewer pipe
- 1 ferrous wire fragment
- 1 thick glass; smoked
- 1 flexible plastic
- 8 cinder/slag (38.4 grams)

STP 2, Stratum C

- 1 wire fragment; nail?
- 7 cinder/slag (60.2 grams)

STP 3, Stratum A

- 1 colorless panel bottle glass
- 1 amber bottle glass; stippled
- 1 amber bottle glass; embossed HALF

STP 3, Stratum B

- 1 colorless bottle glass
- 1 colorless soda bottle neck, molded
- 2 ferrous railroad tie fastener plate with spike fragment
- 1 plastic frisbee BEST BUY

STP 4, Stratum A

- 1 colorless bottle glass
- 1 colorless bottle shoulder;

- empanelled
- 1 colorless bottle glass; embossed POW...NG
- 1 amber bottle base
- 1 cinder/slag (1.3 grams)

STP 4, Stratum B

- 1 amber bottle glass
- 2 colorless bottle glass; stippled
- 1 green bottle glass
- 1 window glass
- 4 cinder/slag (82.8 grams)

STP 5, Stratum A

- 1 whiteware plate marley
- 2 oyster
- 1 aluminum push tab
- 1 ceramic tile fragment
- 1 fabric appliqué flower
- 1 coal ash (8.9 grams)

STP 6, Stratum A

- 1 colorless bottle lip
- 2 brick; machine-made (1374.5 grams)
- 3 concrete (1326.2 grams)
- 1 coal ash (46.7 grams)

STP 7, Stratum A

- 2 colorless bottle glass
- 2 oyster
- 2 brick; machine-made, 1 with mortar (12.1 grams)
- 1 railroad tie wood
- 1 hard plastic
- 1 cellophane with plastic strip

STP 7, Stratum B

- 1 amber bottle glass

STP 8, Stratum B

- 1 redware; clear lead glaze

1 redware; eroded
 3 amber bottle glass
 3 aqua bottle glass
 1 aqua bottle lip; crown cap finish
 7 lt. green tint bottle glass; 1 embossed ...ERED
 19 colorless bottle glass
 1 colorless jar lip; internal groove finish
 1 milk glass lid liner
 1 vessel glass; press molded
 3 oyster
 3 window glass
 2 brick; 1 machine-made (43.4 grams)
 1 mortar (3.3 grams)
 1 coarse ceramic tile fragment
 1 wire nail fragment
 1 lamp chimney glass
 1 bolt
 3 can fragments
 1 pencil fragment
 1 coal (7.2 grams)
 2 slag/cinder (17.6 grams)

STP 9, Stratum A

1 Chinese porcelain rim; blue painted
 4 whiteware; 1 handle
 9 amber bottle glass
 3 green bottle glass
 3 aqua bottle glass
 20 colorless bottle glass
 1 milk glass lid liner
 2 bone; 1 burned
 1 oyster
 6 window glass
 13 thick flat glass; crazed
 4 brick; machine-made (296.5 grams)
 1 cut nail fragment
 3 wire nails
 2 asbestos tile fragments
 1 lamp chimney glass

7 shoe fragments; burned sole
 1 plastic cap
 1 cellophane
 1 glass; melted
 5 coal (24.3 grams)

STP 9, Stratum B

3 whiteware
 3 amber bottle glass
 1 green bottle glass
 4 lt. green tint bottle glass
 18 colorless bottle glass; 3 crazed
 4 colorless bottle glass; embossed
 ...N & ... / ...WING...
 AB MARGU.../...E.CO...
 1 colorless bottle lip; machine-made prescription finish
 22 aqua bottle glass; 2 embossed
 1 aqua jar lip; straight threaded finish
 1 colorless table glass rim
 1 lt. green tint vessel glass; press molded
 1 clam
 3 window glass
 1 brick (10.2 grams)
 1 coarse ceramic tile fragment
 1 asbestos tile fragment
 1 thick window glass; crazed
 7 wire nails
 2 roofing tacks
 13 lamp chimney glass; 2 crimped rims
 1 aqua glass insulator fragment
 5 ferrous wire fragments
 1 bottle cap fragment
 1 thick plastic bag/wrap
 3 coal (9.8 grams)
 1 coal ash (4.8 grams)

STP 10, Stratum A

12 whiteware
 2 amber bottle glass
 1 amber flask base; SEAGRAM & SON / CANADA Owens Illinois Glass Co. mark 1954-on (Toulouse 1971:403)
 2 lt. green tint bottle glass
 4 aqua bottle glass
 1 aqua bottle base; THE SEAGULL SPECIALTY CO
 22 colorless bottle glass; 1 embossed
 1 milk glass lid liner
 3 milk glass vessel glass; 1 painted
 1 oyster
 3 window glass
 2 thick window glass
 12 brick; 2 machine-made (1124.7 grams)
 3 cut nail fragments
 5 wire nail fragments
 2 lamp chimney glass
 1 aluminum bottle cap
 1 bakelite bottle cap
 1 screw
 1 spike fragment
 10 ferrous wire fragments
 1 thick plastic bag/wrap
 4 coal (8.3 grams)
 3 cinder/slag (42.2 grams)

STP 10, Stratum B

1 whiteware cup base
 1 amber bottle glass
 7 colorless bottle glass
 2 colorless jar glass; B
 1 milk glass vessel handle; painted
 2 window glass
 1 brick; glazed (2.2 grams)
 4 wire nails

- 2 asbestos tile fragments
- 3 ferrous wire fragments
- 3 coal (18.1 grams)
- 1 coal ash (2.8 grams)
- 2 cinder/slag (13.0 grams)

Unit 1 , Stratum A

- 1 whiteware
- 2 amber bottle glass; 1 embossed
- 2 green bottle glass
- 2 aqua bottle glass
- 1 aqua panel bottle glass
- 12 colorless bottle glass; 1 sun-purpled
- 1 colorless bottle lip; crown cap finish
- 1 smoked vessel glass
- 1 oyster
- 1 brick (4.3 grams)
- 1 concrete; sidewalk? (314.6 grams)
- 1 plastic
- 1 coal (2.4 grams)
- 11 cinder/slag (2.4 grams)
- 3 ferrous wire fragments
- 1 ferrous metal; weight?

Unit 1 , Stratum B

- 1 buff stoneware; applied alkali decoration
- 4 whiteware
- 1 whiteware rim; molded
- 1 whiteware; decal
- 1 olive green bottle glass
- 19 amber bottle glass
- 3 amber bottle bases; machine-made (mni=3)
- 13 green bottle glass
- 2 lt. green tint bottle glass
- 4 aqua bottle glass; 1 base
- 48 colorless bottle glass; 1 embossed, 5 textured
- 1 oyster
- 4 window glass
- 1 ceramic tile fragment

- 1 coarse ceramic tile fragment
- 2 terra cotta sewer pipe
- 2 asbestos tile fragments
- 3 asphalt shingle fragments
- 1 brick (19.5 grams)
- 1 concrete (57.8 grams)
- 3 wire nails
- 1 leather heel fragment
- 8 skeet fragments
- 1 hardware washer
- 1 trigger hook fragment
- 1 ferrous pipe fragment
- 1 rebar fragment
- 1 ferrous strap with bolt spike
- 7 hard plastic; 3 cups
- 2 cellophane wrapper; KEYSTONE SNACKS/ CORN CHIPS
- 1 coal (2.3 grams)
- 9 cinder/slag (89.5 grams)

Unit 1 , Stratum C

- 2 whiteware
- 1 semi-porcelain rim
- 1 olive green bottle glass
- 1 amber bottle glass
- 1 cobalt bottle glass
- 3 lt. green tint bottle glass
- 1 lt. green tint bottle lip; crown cap finish
- 3 amber bottle glass; 1 base
- 5 lt. gray bottle glass
- 9 colorless bottle glass; 1 stippled
- 1 colorless flask base; ONE HALF PINT
- 1 oyster
- 5 window glass
- 1 wire n ail fragment
- 1 asbestos tile fragment
- 4 brick; 1 machine-made, 1 burned (609.6 grams)
- 1 light bulb glass
- 1 aqua glass insulator

- fragment
- 1 misc. metal
- 1 coal (2.2 grams)
- 6 cinder/slag (154.5 grams)

Unit 1 , Stratum D

- 1 amber bottle glass
- 4 amber medicine bottle glass; ground pontil STOMACH BITTERS
- 4 aqua bottle glass
- 1 aqua bottle base; embossed DEL....
- 7 aqua bottle glass; x-mend, crown cap finish lip, E.M. LEONARD
- 6 colorless bottle glass; 2 base
- 1 colorless bottle lip; machine-made brandy finish
- 1 colorless bottle glass; embossed
- 8 lt. green tint bottle glass; embossed
- 1 oyster
- 5 window glass
- 1 brick (7.4 grams)
- 3 aqua glass insulator
- 1 can fragment
- 1 thick ferrous metal
- 8 cinder/slag (109.6 grams)

APPENDIX C

CULTURAL RESOURCE SURVEY FORMS