

PHASE IA ARCHAEOLOGICAL STUDY
CHRISTINA RIVERWALK (PHASE III AND IV)

Project Compliance

Archaeological investigations were conducted over a two-day period in December of 1997 within a narrow ROW located along the waterfront of the Christina River running west from Market Street to the Delaware Transit corporation in the city of Wilmington, Delaware (**Figure I-1**). Operations are planned to construct the Christina Pedestrian Walkway project at this location, to extend from Market Street. The walkway will be approximately 15 feet wide and will require the exposure of existing sheet steel bulkheading for the purpose of installing more secure shoring and to allow for the construction of a modern and safe brick-paved walkway along the waterfront. The project will also require the burying of utility lines. These processes may destroy any intact cultural resources lying at the depths to be impacted within the ROW.

Since the construction of the Christina Pedestrian Walkway will be done with Federal funding, provided under the Intermodal Surface Transportation Enhancement Act (ISTEA), the project is subject to Section 106 regulations and falls under the jurisdiction of the Delaware Division of Historical and Cultural Affairs, Historic Preservation Office. Accordingly, a decision was made to require the employment of Cultural Resources Management consultants to determine if intact archaeological resources occur within the impact area. Previous archaeological investigations by various organizations have led the Division of Historical and Cultural Affairs to conclude that, within the general area, intact cultural resources could be anticipated.

The work was undertaken by MAAR Associates, Inc. of Newark, Delaware, under the overall direction of Ronald A. Thomas, SOPA. Background research was conducted by Dr. Lauren C. Archibald, Research Associate, with assistance in editing and graphic illustration from Jessica L. Billy and Christopher B. Thomas, respectively. Gwen Davis of the Historic Preservation Office acted as liaison for the project.

Background Research Approach

Two objectives are proposed for the brief historical background study in conjunction with the archaeological investigations at the Christina Riverwalk, namely:

- to review the historic contexts and management plans pertinent to a study of the project area; and
- provide documentary evidence for the kinds of historical development that might be encountered during construction within the study area.

A number of primary sources were reviewed to structure the historic research. These include Wilmington: A Plan for the City's Historic Archaeological Resources (**Guerrant 1983**);

the Delaware Comprehensive Historic Preservation Plan (Ames, Callahan, Herman, and Siders 1989); the Management Plan for Delaware's Historical Archaeological Resources (De Cunzo and Catts 1990); and the Wilmington Archaeological Resources Management Plan; Block-By-Block Archaeological Analysis of the Waterfront Management Unit (Bromberg 1988).

The Delaware Comprehensive Historic Preservation Plan (Ames, Herman, and Siders 1987:84-89) defined five geographic zones as an appropriate geographical framework for the investigation of the state's historic resources. The Management Plan for Delaware's Historical Archaeological Resources (De Cunzo and Catts 1990:119-120) considered only the first four geographic zones and dropped the fifth zone (Urban) because Wilmington had developed its own management plan for historic preservation (Goodwin 1986). Since the Christiana Pedestrian Walkway project area lies wholly within the City of Wilmington urban zone, the Goodwin document was used as the primary organization source for this study.

The Delaware Comprehensive Historic Preservation Plan (Ames, Herman, and Siders 1987) defined five temporal study units as an appropriate chronological framework for the investigation of the state's historic resources. These temporal study units were adopted unaltered in the Management Plan for Delaware's Historical Archaeological Resources (De Cunzo and Catts 1990:119) and have been utilized as a basis for the historical background and site documentation”

- Exploration and Frontier Settlement (1630-1730)
- Intensified and Durable Occupation (1730-1770)
- Early Industrialization (1770-1830)
- Industrialization and Early Urbanization (1830-1880)
- Urbanization and Suburbanization (1880-1940)

The Delaware Comprehensive Historic Preservation Plan (Ames, Herman, and Siders 1987) also designated 22 thematic units defining various cultural behaviors which might be effectively addressed through the investigation of the state's archaeological resources. These thematic units were subsequently reorganized into the Management Plan for Delaware's Historical Archaeological Resources (De Cunzo and Catts 1990:120-121), four research domains within which the various thematic units are interpreted:

- Domestic Economy
- Manufacturing and Trade -
- Landscape
- Social Group Identity, Behavior, and Interaction

The principal archival repositories available for consultation include the Historical Society of Delaware in Wilmington, Delaware; various New Castle County offices in Wilmington, Delaware; the Hall of Records in Dover, Delaware; Morris Library of the University of Delaware

in Newark, Delaware; and the Library at Hagley Museum in Wilmington, Delaware. Materials from the in-house library at MAI in Newark, Delaware, were also consulted. Among the principal record groups utilized in the preparation of this report were management plans and reports of previous archaeological investigations in the general study area.

Historical Contexts and Site History

Exploration and Frontier Settlement (1630-1730)

Between the initial settlement of Delaware by the Swedes in 1638 and the end of the period of initial settlement in 1730, New Castle County was under the control of three different colonial jurisdictions: Swedish (1638-1654), Dutch (1654-1664), and English (1664 to the American Revolution). Each of these colonial experiences left their particular mark on historic settlement patterns in northern Delaware.

In 1638, a company of Swedish settlers arrived on the lower Delaware River and established a small, fortified settlement called Fort Christiana in the marshes on the north side of the Christiana River near the present site of Wilmington. Within a decade, Swedish settlements extended along both sides of the Delaware River between Wilmington and Philadelphia. Despite its geographic extent, the Swedish community remained small, with an estimated population of no more than 250-300 people (Printz 1647; Delaware County 1980). The Swedes lived either in small, fortified settlements like that which developed around Fort Christiana or on widely scattered, independent farmsteads located in the marshes along the Delaware River and the lower reaches of the larger rivers and creeks which emptied into it. The Delaware River and its tributaries provided the major means of transportation and communication between these isolated settlement sites. The Swedish colony was commercial, concerned primarily with profit-making ventures such as the cultivation of tobacco and trade with the Indians for pelts and hides.

In 1682, the "Lower Counties" were conveyed to William Penn and annexed to Pennsylvania. In 1704, Delaware became a separate colony with the establishment of its own Assembly but retained close ties with Pennsylvania until the American Revolution. Under English rule, both the Dutch and the Swedes were permitted to maintain their own languages and customs. However, the English initiated many changes in colonial administration, which resulted in the imposition of new settlement patterns. First, the English established a court system accessible to all inhabitants of the region with sessions meeting at Upland (Chester) in Pennsylvania and at New Castle in Delaware. The establishment of courts at these locations served as stimuli to the development of these settlements into regional market towns. During the 1680s, many Quaker settlers took up land in the upland regions of northern Delaware. Between 1704 and 1730, Philadelphia replaced both New Castle and Chester as the principal commercial center on the lower Delaware River, although both communities continued to serve as regional market centers. Agriculture remained the principal economic activity of rural areas. Upland areas were generally cultivated, while the marshes were either used as pasture for cattle or mown for salt hay.

Intensified and Durable Occupation (1730-1770)

In the 1730s, the town of Wilmington (Willington) was laid out on high ground overlooking the Christiana River near its confluence with the Delaware River. Wilmington grew rapidly as a market town, specializing in provisioning ships and the shipment of agricultural products to the West Indies. As the commercial cultivation of grain became a major part of the region's agricultural production, milling became an important part of the local economy. By the end of the colonial period, mills were situated on virtually every stream in northern Delaware which was capable of generating a sufficient head of water to support a merchant mill. The lower reaches of the Brandywine River became a bustling merchant milling center where locally manufactured products could be directly shipped to market.

Early Industrialization (1770-1830) and Industrialization and Urbanization (1830-1880)

The Christiana River waterfront became heavily developed during the latter part of the eighteenth century, primarily to handle the shipping for the Brandywine millers (Bromberg 1988:12). Weslager (1944:58) describes the Christiana as containing many long wharves, hindering navigation along the river to the point where, in 1772, a local law had to be passed to specify wharf dimensions. Bromberg (1988:13) suggests that slips began to replace the earlier wooden piers by 1800 and that by the middle of the century, the original shoreline had been obscured and replaced by artificial bulkheads. She indicates that the north bank of the Christiana River can be expected to contain historic overburden containing evidence of this development.

The major development in this area during the nineteenth century was the construction of the Philadelphia, Wilmington, and Baltimore Railroad along the north side of the Christiana River. The railroad, which was completed in 1837, ran at grade through this area, bisecting a number of properties which formerly extended from the river to the upland roadways. Together with the riverfront, the railroad spurred industrial and commercial development of this part of the Wilmington scene.

Urbanization and Suburbanization (1880-1940)

During the late nineteenth and twentieth centuries, the area along the north side of the Christiana River in Wilmington was an area of mixed land use including transportation, commercial, industrial and residential. As late as 1930, industrial sites, housing tracts, and commercial establishments lay in close proximity to each other in most of the city. The northern portion of the block crossed by the Christiana Pedestrian Walkway, adjacent to and with direct access to a railroad, as is noted below, had been used for many purposes, including industrial sites, during most of the late nineteenth and twentieth centuries. During the late nineteenth century, the building of ships and railroad cars became Wilmington's most important industry. The population of Wilmington grew many-fold during this period, increasing from around 8,000 in 1840 to 110,000 by the turn of the century (Hoffecker 1974).

Study Area Archaeological Potential

Previous archaeological management plans indicate a low probability for archaeological integrity for the area between Market and Tatnall Streets (**Guerrant 1983: Figure 27**), however; the archaeological potential of the project area may be high for in-ground remains associated with cultural resources dating to the last half of the nineteenth century. For the project area between Tatnall and Madison Streets, we assume that the archaeological integrity would be somewhat lower since that area appears to be less developed until the later nineteenth century.

In general, the potential for early historic period resources and prehistoric archaeological resources is expected to be somewhat lower, but still moderate to high, for reasons noted above. Earlier historic period resources, or those dating to before A.D. 1850, might be located in the project area, owing primarily to two factors: 1) the fact that the area extending from Market to West Streets is situated close to the early historic core area of the City of Wilmington first developed by the Swedes and the Dutch; and 2) the fact that the Christiana River served as the main artery for transportation and communication, particularly during the seventeenth century and throughout much of the eighteenth century as well.

The actual prehistoric site potential, although difficult to assess due to the substantial changes which have affected the waterfront portions of the city, was thought to be moderate to high, since the aboriginal inhabitants of the region not only would have used the river for transportation purposes, but certainly were aware that the river itself, along with its fringing wetlands, would have constituted a rich environmental zone from which they could have drawn their sustenance.

For the prehistoric period, the site types likely to be, or have been, represented in the project area include both base camps and procurement camps. This is true for all of the periods comprising the prehistoric continuum from the Paleo-Indian period, ca. 10,000 BC, on up through the end of the Woodland II period, ca. A.D. 1600. This same potential also exists for Contact period settlements.

Historic development of the project area can be documented to some extent through an examination of historic maps. The cartographic data is ambiguous, particularly for the earlier periods including the late seventeenth, eighteenth, and early nineteenth centuries, because these early maps lack detail and usually do not depict individual structures. The presence of structures or any other kinds of facilities located along the waterfront can only be inferred or extrapolated from investigations conducted in the waterfront portions of other cities such as Philadelphia or Baltimore.

The data could also be obtained, possibly, from deeds or other types of primary documents which sometimes contain references to specific structures located on land parcels. It is not until the middle of the nineteenth century that the cartographic data becomes detailed, specific and relatively accurate. The early maps are useful in one particular respect, particularly as they

relate to the original course of the Christiana River. Although one for one correlation is not possible, owing to the absence of identifiable landmarks and also due to the inherent inaccuracy of many of the early maps, it is still possible to get an "impressionistic" picture of how much modification of the original shoreline has occurred along some segments of the river.

The specific types of historic period resources likely to be located in the project area relate to the maritime activities one would expect to take place in a waterfront setting. It is known that the project area as a whole was never used for "residential" purposes, but rather that it was set aside for the types of commercial and industrial development typically associated with port facilities. The specific types of resources known to have been located in the project area include a carriage factory, planing mills and lumber yards, saw mills, ship yards, machine shops, railroad depots, boiler shops, a rope works, warehouses, piers, docks, wharves, and boat slips. There were a variety of support structures relating to the maintenance and servicing of watercraft, as well as of the adjacent railroad lines which were used to move goods inland from the port facilities. Other types of resources not documented in the project area, but which may be encountered, include facilities relating to shipbuilding such as chandleries and other commercial establishments servicing the needs of boats and their crews. On the waterfront at Justison Street was the vast Harlan & Hollingsworth iron ship and car works, with numerous structures and railroad spurs throughout their property.

The specific archaeological potential of each block in the project area is discussed below and is based on what could be ascertained from the cartographic data. The sources found to be useful include:

- Willington, now Wilmington, as it was laid out in the year 1736 (Figure I-2)
- An 1804 Map of Wilmington & Its Environs (Figure I-3)
- Rea and Price Map of 1847 (Figure I-4;
- Sidney Clark Map of 1850 (Figure I-5)
- Bird's Eye Views of the City of Wilmington, Delaware, drawn circa 1865, E. Sachse & Co, Baltimore and 1874 (Figure I-6)
- Beer's 1868 Atlas, Wilmington Sheet (Figure I-7)
- Wilmington City Atlas, 1876 from Hopkin's Map of Wilmington (Figures I-8)
- Sanborn Fire Insurance Maps of 1884 (Figure I-9)
- Baist's Property 1901 Atlas of the City of Wilmington (Figures I-10)
- Sanborn Fire Insurance Maps of 1927 (Figures I-11)

Early eighteenth century maps of the present-day Market to Justison Streets area indicate that the modern day shoreline is relatively close to the eighteenth century shoreline. An "Historical Map of Wilmington" dated to A.D. 1736 shows two separate property owners for the area, with one structure on Water Street and another to the west of Tatnall Street situated approximately one-half block from the waterfront (Figure I-2). Nothing is shown directly along the waterfront at this early date, although it can be expected that Water Street development would have included facilities focusing on the Christiana River. In 1842, the area between Tatnall Street to Justison Streets is shown as marshland (Fairlamb 1842); since that time that land has

been filled. The Rea and Price map of 1847 (Figure 1 - 4) is the earliest that shows detail along the waterfront and it is obvious that by this time considerable ground modification had already taken place in the form of slips and boat docking facilities along the shoreline. The circa 1874 "Bird's Eye View" shows considerable development along all of the blocks of the Christiana River waterfront with several large structures lining the river's edge between Market and Tatnall Streets; from Tatnall to Justison Streets there are large buildings along Water Street but not directly at river's edge. Beginning at present-day Tatnall Street and moving west to Justison Street and beyond, large expanses of land along the waterfront (the marshy area) remained open.

Block 1: Market Street to Shipley Street

That portion of the study area that lies between Market and King Streets falls within Wilmington Block 882 and has been discussed within Wilmington's Archaeological Resources Management Plan (Bromberg 1988), based on original research by Patricia Maley and Conrad Goodwin. This study includes a "Block-by-Block Archaeological Analysis of the Waterfront Management Unit." The following is taken verbatim from that document:

Development of Block 882 began during the Merchant Milling Phase of Wilmington's history. A structure appears at the corner of Market and Water Streets on the earliest map available of the town, and shipbuilding activities may have occurred in that area during the late 18th century. Any evidence of use from the 1730 to 1830 period would have high significance according to Study Units 8-11 in Goodwin (1986:69-91). In particular, information about waterfront activities during this era would be of importance (Study Unit 9 in Goodwin 1986:75-80).

In addition, Block 882 has the potential to yield prehistoric material.... [The area between the two creeks on the north side of the Christina would have been particularly attractive for prehistoric populations....

During the mid-19th century, a wharf was present on the block which served as a storage area for lumber.... [E]xcavation in the wharf area, which was filled sometime between 1850 and 1876, could shed light on the maritime activities of this era.

The expected archaeological integrity on Block 882 is assessed as medium for sub-surface remains. ... [Waterfront areas are often characterized by considerable historic fill material, and test excavation is the best way to ascertain if any significant resources remain.

The earliest map showing any detail of any block of the study area is the Plan of the City of Wilmington, 1847, which shows a boat slip on the west side of Market Street and a wharf near Shipley Street (Figure I-3). The 1850 Sidney map shows the boat slip along the Market Street bridge, and the wharf has been enlarged into the Christiana River to fill the remainder of the block to Market Street. At that time, the block was occupied by the William Bush lumber yard with two small buildings located away from the waterfront. Along Water Street on the north side of the block was the A. Flagler & Co. Coach Factory. The 1868 Beer Atlas map (Figure I-7) of the block shows that the boat slip has been filled, and there is a similar configuration of buildings to that shown on the 1850 map; the block is labeled as "Carriage Factory". A coal yard is located at the foot of Shipley Street.

The next maps which depict developments on the block are the 1876 City Atlas (**Figure I-8**) and the 1884 Sanborn Insurance Map (**Figure I-9**). The 1876 map depicts William Bush's lumber shed (frame), a brick building along Water Street with two nearby outhouses (one frame, one brick or stone); and a frame house along Market Street and the Christiana River. The H. L. Tatnall & Company lumber yard (no structures) occupies the west half of the block, and carriage/coach factory was gone. On Shipley street is a coal shed and two small outbuildings. The 1884 Sanborn map depicts the same buildings, but not with the addition of a railroad spur through the lumber yard in the western half of the lot. The area near the waterfront is used as a lumber yard and the dwelling, with two stories, a rear one-story wing, and a front porch is still shown. The coal shed on Shipley Street is gone by 1884.

The 1901 Baist Atlas (**Figure I-10**) shows that Market Street has been widened in this area. The lone house is still there, but the remainder of the block has changed. With the addition of more tracks along Water Street for the Baltimore and Ohio Railroad (B & O R.R. Co.), this block has been acquired by the railroad company. Existing buildings there have been razed, and a freight depot building has been erected near the waterfront, and a standard, smaller depot is now shown along the (former) Water Street. The configuration of the waterfront on this block remained essentially intact through the late nineteenth century. On the 1927 Sanborn Map, (**Figure I-11**), this block appears to be similar with the exception of the dwelling which previously existed in the area along Market Street and the river. Some time before 1927, the area was further filled toward the river (approximately 50-70 feet).

The 1972 Sanborn Map shows the block containing only one building: the B & O R.R. building in the northern end of the block. Formerly labeled as "depot", it is now depicted as the B & O R.R. "offices". A simple loading platform as well as another railroad spur has been added directly along Shipley Street. In the Christiana River near the foot of the Market Street Bridge (west side) is the bridge tender's office. By the time the 1992 Sanborn map was produced, the railroad spurs had been removed, and the B & O R.R. building is still there but vacant.

The only standing structure on this lot today is the old B & O R.R. depot/office building, now vacant and boarded up. Archaeological trenching within the project area on this block could potentially encounter portions of the carriage works buildings depicted in 1850 and 1868 maps, the residential structure first shown in 1876 along Market Street at water's edge, as well as remnants of the B & O R.R. freight depot building and associated railroad spurs as shown in 1901 maps. Other historic features and structures could also still be present. Prior to delineating specific trenches, a detailed analysis of historic building footprints should be undertaken to ensure that highly disturbed areas are not subjected to archaeological work.

Block 2: Shipley Street to Orange Street

This portion of the Christina Pedestrian Walkway is encompassed within Wilmington Block 883 of the Archaeological Resources Management Plan (**Bromberg 1988**). The following highlights are from that document:

... During the 18th century, a small stream cut through Block 883 and entered the Christina River near the terminus of Shipley Street.... Ferris (1846:280) [suggests that] ... the entire block was marshland during the late 18th century with the exception of the ground occupied by the old shipyard of John Harris. The 1785 Filson Map ... indicates the presence of a dock to the west of the small stream The 1804 map of Wilmington ... depicts a pier ... near the terminus of Orange Street. Perhaps these wharf areas were part of the old Harris shipyard ...

By the mid-nineteenth century, this block was no longer marshland and the 1850 Sidney map (**Figure I-5** shows J. Harris' shipyard here. The 1850 map also shows several structures on the east side of the block as belonging to an L. & A. Kirby. The 1868 Beers Atlas (**Figure I-7**) shows a large slip on the eastern half of this block, as well as a soap and candle works, all of which is shown as being owned by J. Harris. The Hopkins atlas of 1876 (**Figure I-8**) continues to show Harris' wharf and large slip. On the map, there is a pair of perpendicular lines at the head of the slip (possibly suggesting a ship's way) terminating at an octagonal configuration toward the north of the block. Craig's lumber yard and Samuel Bush's Hrs. (horse stables?) are also shown, as are a small wheelwright and blacksmith structures along Shipley Street. Just over a decade later in 1884, the Sanborn map (**Figure I-9** clearly indicates that the slip has been filled in and the block has definitively changed. The railroad spurs and a freight house are now shown, with nearby sheds for flour, lime, and other materials. Also included in this complex is a two-story "lumber house" at water's edge, coal bins and coal sheds, a cement house, and two small office buildings at the back (north side) of the lot.

At the turn of the twentieth century, even further changes had taken place on Block 883. The 1901 Baist Atlas (**Figure I-10**) shows the Wilmington Paper Box Company along the waterfront and near Elizabeth & Mary Harris's wood yard. The remainder of the block is occupied by T. Blumenthal & Company, with warehouse (the "Kent Building") behind it near the railroad tracks (previously Water Street). By 1927, the Sanborn map (**Figure I-11**) shows that the east half of the block contains five railroad spurs, all terminating near the water's edge. The former large T. Blumenthal & Company building is now occupied by the Wilmington Warehousing Company. The structure includes sections for furniture storage, woodworking, the Perfection incubator Company, and a grocer toward the north end of the block.

The layout of the block was the same in 1972, but the large warehouse structure was then owned by Berger Brothers, Inc. By 1992, all railroad spurs had been removed. Today, the warehouse continues to be occupied by Berger Brothers, Inc.

Bromberg (1988) states:

Evidence of the various structures, features, and activities dating to the mid-19th century may ... exist on the block.... In 1876, a blacksmith and wheelwright shop were situated there. Remains of these structures would have medium significance...

... Remains of the shipyard and wharves would fall into this category [medium level of

significance]... In particular, excavation in the wharf area, which was filled sometime between 1876 and 1901, could shed light on maritime activities of the 19th century....

Archaeological trenching in this area could potentially locate remains or indications of Ja. Harris' Ship Yard, including wharf and slips, railroad spurs and storage buildings (as shown on the 1884 map), and the Wilmington Paper Box Company (shown on 1901 Baist map). Also, as shown in 1927, the warehouse currently occupied by Berger Brothers had a small, one-story frame wing at the south end of the building near the waterfront that could be potentially located. Prior to undertaking the trenching, a detailed analysis should be undertaken to ensure that highly disturbed areas are not subjected to archaeological work.

Block 3: Orange Street to Tatnall Street

In the Archaeological Resources Management Plan (Bromberg 1988), Block 884 is discussed in detail. The plan states:

...the 1785 Filsen map ...depicts a pier which may have been in this area, and the 1804 Map of Wilmington ... shows a dock near the terminus of Thorn Street ... By 1850 [Sidney map ...], bulkheads and slips were present along the waterfront in [this block].... At that time, most of Block 884 served as the Simmons Lumber Yard, and there were several small structures present on it. ...

Jonathan Rumford, a wealthy 19th century merchant, operated his business from a wharf near the terminus of Thorn Street ... Information on waterfront activities in highly significant for the 1730-1830 period and of medium significance for the 1830-1880 phase ... There has been minimal subsequent disturbance in the wharf areas ..., and the potential archaeological integrity is high.

The waterfront portion of this block had wharfs, piers, and boat slips for at least the first three quarters of the nineteenth century (Figures I-5 ,I-6 , and I-7). The 1850 Sidney map (Figure I-5) shows the Simmons Lumber Yard, along with several small structures. The 1868 Beers atlas (Figure I-7) shows a machine shop and two small structures; the 1876 Hopkins atlas (Figure I-8) shows a large Poole Machine Shop and another smaller building. The Steam Soap and Candle Works were also located here. By 1884, the Sanborn map (Figure I -9) shows that a railroad spur had reached the block and served the Simmons Brothers Lumber Yard. The large machine shop complex occupied the block between Thorn and Orange Street; and the J. Morton Poole machine works and Simmons Lumber Yards occupied the block between Thorn and Tatnall Streets. During this time, only a few small structures were near the waterfront, including a coal shed, a wood-cutting shed, and a the southern wing of the machine shop complex between Thorn and Orange Streets.

In 1901, it is clear that Poole owned the entire machine shop complex, and there were coal yards along the waterfront (Figure I-). The Simmons lumber yard was still in place on the Shipley Street side. In 1927, the Sanborn map (Figure I-11) shows some significant changes on this block. The slip at the foot of Orange Street has been filled in, railroad spurs now come into

the block, and Poole's machine shop complex is no longer depicted. The property has been converted for use as the Wilmington Provision Company which included a slaughterhouse, stock pens, freezers, pickling rooms, offices, etc. It is likely that the former buildings were reused for the business. The Simmons lumber yard is still there near the waterfront, and an "old" storage building and stock yards also line the waterfront. In 1972 (Sanborn map) the large building between Orange and Thorn Streets is still there, but it was apparently damaged by fire. The area between Thorn has the Grubb Lumber Company and a "concrete products" building, situated away from the waterfront. The former slaughterhouse complex is gone by 1992; in its place was a brick office building near the waterfront, a parking lot, and the Delaware Theater Company building toward the rear (north) of the lot. The lumber yard is gone, but the "concrete products" building is still there. Also extant along Orange street is the front portion of the brick structure of the former Poole Machine shop; it has been converted for office use.

Archaeological trenching in this block could potentially locate: nineteenth century wharfs, piers, and boat slips. Testing could possibly locate former outbuildings or other components of the Poole complex structures, which occupied this block for decades. Remnants of the historic storage warehouse and coal shed along Tatnall Street and near the waterfront might also be found (structure shown on 1884 and 1927 maps). Prior to delineating specific trenches, a detailed analysis of historic structure footprints should be undertaken to ensure that highly disturbed areas will not be subjected to archaeological work.

Block 4: Tatnall Street to Justison Streets

The Archaeological Resources Management Plan (Bromberg 1988) has grouped these blocks together (Blocks 693, 694, 695 together because the "exhibit similar patterns of development, particularly with regard to their use by the Harlan and Hollingsworth Company". For this discussion, this includes the blocks from Tatnall to West and West to Justison.

Most of the upstream area of Block 695 was marshland until the middle of the 19th century. The marshy conditions are indicated on the 1785 Filson Map ... and the 1842 Fairlamb map.... A creek drained through the marshland and entered the Christina in this area.... [It] was eventually channeled and later placed underground.

The first known development in this area is depicted on Ferris's copy of the 1736 map of Willing Town. One structure appears on this map....

After the construction of the railroad in the 1830s, industrial development began in the non-marshy area of these blocks between the tracks and Christina River.

Since the area between Justison and West Avenues south of the railroad tracks was so marshy, construction of wharfs and other structures occurred between West and Tatnall Streets, as shown on the 1850 Sidney map (Figure I-5). The J. Hedges Rope Works runs from Dock Street and along Tatnall Street to down toward the waterfront; to the west of it along Tatnall Street is J. Walter's saw mill. There are wharfs here as well as a fairly small boat slip. The Beers

atlas of 1868 (Figure I-7) no longer shows the rope works; there is a planing mill in its place and a saw mill is still there. The boat slip takes on a new, larger configuration. The Harlan and Hollingsworth Company, boiler works, and shipyard are now shown in the area between West and Justison Streets, but there are still no structures of any kind directly along the waterfront.

By 1876, as shown by the Hopkins atlas (Figure I-8), construction in the area has greatly increased. There are railroad spurs entering the block between Tatnall and West Streets, and there is now a coal and lumber yard in addition to the planing mill and saw mill. Harlan and Hollingsworth, Iron Ship and Car Builders, has now erected a large complex in the blocks of West to Justison Streets. There are wharves with launching ways occupying most of the waterfront area; as well as a rigger's house next to the boat slip at the foot of West Street.

In 1884 (Figure I-9), the Harlan and Hollingsworth's operation was flourishing, now with stocks/ways at the wharves along the waterfront. At water's edge, the former creek has been turned into a log slip, which was then "occupied by the United States Ship of War, Amphitrite, Iron Monitor, not finished (1884 Sanborn map)." Railroad spurs run throughout the area, a feature that continues into the twentieth century. In 1901 (Figure I-10) the configuration of the area is similar as it is in 1927 (Figure I-). Along the river's edge were slips with launching "ways" (four of them), the large dry dock, and numerous railroad spurs terminating at wharves at the west bank of the Christiana River. The former log slip used for the Amphitrite has been filled/removed and there was a "covered run" in its place. The Harlan and Hollingsworth plant had changed to Bethlehem Shipbuilding Corporation (the "Harlan Plant").

By 1972, there was no evidence of shipbuilding on these blocks, and the ships' ways, dry dock, and slips had been removed and filled in. Shipley Run had been reopened (previously it was covered). On the north side of Shipley Run were some new buildings, but most of the former car shop structures near the railroad tracks were still intact but served different purposes. The wharf configuration between West and Tatnall Street appeared to be unchanged. By 1992, a few modern warehouses and commercial and industrial structures had been built, and many of the older buildings had different occupants. Today, many of the structures as well as the waterfront layout have remained essentially the same. The forme Harland & Hollingsworth boiler shop building is still extant at the foot of West Street, and it is currently being rehabilitated.

Bromberg (1988) states:

The downstream portions of these blocks may contain evidence for prehistoric occupation. Adjacent to the swampland which was further upstream, the non-marshy areas of [these blocks] ... would have offered access to a wide variety of resources attractive to prehistoric populations....

The 1736 map of Willing Town ... indicates that one structure was present in [the block between Tatnall and West Street] ... Some evidence of this structure or associated features may lie buried in this block...

... Some evidence relating to the rope works, which later became a planing factory, may exist on the west side of Tatnall Street.... This area has medium to high expected integrity. Carriage manufacturing was one of the leading industries in Wilmington at this time, and remains of the planing factory could .. Have medium significance....

The role played by the Harlan & Hollingsworth Company in the economy of Wilmington makes any evidence of their operations highly significant.... The firm was the largest industrial company in Wilmington during the late 19th century and was one of the oldest and most important ship-building concerns of the nation....

The Harlan & Hollingsworth Company and its successors are an important part of Wilmington's and the nation's maritime heritage....

Archaeological trenching in this area could potentially yield remnants of a variety of structures and features. For the area between Tatnall and West Streets, examples include wharves, a boat slip, the rope works and possibly the saw mill as shown on the 1850 map. After the mid-nineteenth century all the waterfront blocks from Tatnall to Justison Streets contained a variety of structures and features belonging to the Harlan and Hollingsworth operation. Structures nearest to the waterfront include a boat slip and rigger's house at the foot of West Street, numerous launching ways and smaller boat slips, a steam riveter, and a store house as shown on the 1876 map. Evidence of railroad spurs as well as cross-walks over some of the slips (as shown in the 1884 map) could also be potentially located. Indeed, portions of stone retaining walls and wooden pier timbers associated with ship-building are still in evidence today along the waterfront. As noted above, archaeological potential for prehistoric sites in the vicinity of Shipley's run may be high. Prior to delineating any specific trenches, a thorough analysis of historic structure footprints should be undertaken to ensure that archaeological testing is not done in highly disturbed areas.