AN ARCHEOLOGICAL ASSESSMENT
OF THE
SOUTHERN PLAZA PROJECT AREA
ALEXANDRIA, VIRGINIA

JOHN MILNER ASSOCIATES
ARCHITECTS • ARCHEOLOGISTS • PLANNERS
1988
AN ARCHEOLOGICAL ASSESSMENT
OF THE
SOUTHERN PLAZA PROJECT AREA
ALEXANDRIA, VIRGINIA

prepared for
Gates, Hudson & Associates
Prosperity Plaza, 3020 Hamaker Court #301
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Southern Plaza is a mixed-use development planned for the four-block area bounded by Duke, Henry, Wolfe, and Fayette Streets in Alexandria, Virginia. Gates, Hudson & Associates, Inc. and Norfolk Southern Corporation, the project developers, selected John Milner Associates, Inc. to conduct an archeological assessment of the project area. The project area includes part of the nineteenth-century Orange and Alexandria Railroad yard which was taken over by Union troops during the Civil War as the operational headquarters of the U.S. Military Railroad. After the war, the railroad was returned to private control. For the remainder of the nineteenth century and into the early twentieth century, the northern blocks of the project area were used by the railroad, and the southern blocks were occupied by working-class blacks and whites. After 1912, the project area was used exclusively by Southern Railway.

The assessment includes historical research, an identification of potential archeological resources, the application of the research to the development project, and a compilation of sources. To assess the potential resources, three historical contexts are developed: Alexandria railroads, 1848-1905; Civil War Alexandria, 1861-1865; and the Orange and Alexandria Railroad yard neighborhood, 1850-1912. The potential resources identified through historical research are inventoried, set within the appropriate historical context, and assessed for potential significance according to the criteria established by Alexandria Archaeology. The recommendations for preservation actions include surface survey, test excavations, determination of significance for identified archeological resources, and a significance evaluation of standing structures.
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PROLOGUE

ALEXANDRIA.

Wednesday Morning, May 7, 1851.

Locomotive of the O. & A. R.R.

The first locomotive was put upon the track of the Orange and Alexandria Railroad yesterday and in the afternoon steam was got up and the locomotive run over the line from the north end of Union Street to the tunnel on Wilkes Street. The performance was good and gave general satisfaction. Great numbers of our citizens collected and much joy was manifested at the successful commencement of railroad travel through our own town (Alexandria Gazette, May 7, 1851).
I. INTRODUCTION

The railroad came to Alexandria in 1851. Both the railroad and surface roads of the mid-nineteenth century reflect the change in the shape and commercial focus of the city, beginning at mid-century. As the focus shifted from the waterfront to growth along the major land transportation arteries, peripheral areas of the city became loci of critical activities. The neighborhood along Little River Turnpike east of Hooff Run changed from a residential and small-business district to a center of railroad activity in Alexandria. Locally, the area is probably best known for its role in the Civil War as the operational headquarters of the U.S. Military Railroad (USMRR). For over one hundred years, the neighborhood was dominated by the railroad yard. In 1988, the neighborhood is about to change dramatically again, but to a character more similar to its late nineteenth-century character. A four-block modern development will bring residences and commerce to the old railroad yard.

Gates, Hudson & Associates (GHA) and Norfolk Southern Corporation are planning a mixed-use development of the four blocks of the Southern Railway yard between Duke and Wilkes Streets from Henry to Payne Streets (Figure 1). The complex, known as Southern Plaza, will not only change the face of the neighborhood, but may affect archeological resources. Because the developers appreciate the area's past and are sensitive to the community's concern for historic preservation, they have decided to include historical and archeological research as part of the development project. In consultation with the City Archaeologist, GHA chose to sponsor an archeological assessment of the construction site. GHA selected the John Milner Associates, Inc. (JMA) team of an archeologist (Donna J. Seifert, Project Manager); two historians (Cecile G. Glendening, Assistant Historian, and Walton Owen, Historical Consultant); and a historical architect (Kenneth F. Jacobs, Historical Architect) to conduct the archeological assessment.

The City Archaeologist prepared the request for proposals, which set forth the four principal tasks included in this archeological assessment: historical research; assessment and mapping of the potential for archeological resources within the project area (the four-block construction site); application of the historical research to the development project; and compilation of sources used in this phase of research as well as sources for further research. Alexandria Archaeology has drafted preservation guidelines which define time periods, cultural themes, and preservation actions appropriate for the city-site of Alexandria (Alexandria
Archaeology 1988). This archeological assessment uses the terminology presented in those guidelines.

The first task, the historical research, consists of several activities, including documentary research, identification of cultural themes, and the development of historic contexts. Primary sources searched include Alexandria city tax assessments, Alexandria city directories, Fairfax County deeds, the Alexandria Gazette, Sanborn Insurance maps and other historic maps at the Lloyd House Library, and photographic collections at the National Archives and the Library of Congress. In addition, secondary sources for both the civilian and military history of the project area were consulted. Professional and avocational resource people were contacted as well.

Among the cultural themes identified for the city-site of Alexandria (Alexandria Archaeology 1988:2-4), the four which are best represented in the history of the project area will be addressed: neighborhood, transportation, military, and economic composition. The facts of history, informed by the cultural themes, are ordered to construct the historical narrative of the project area.

The development of historic contexts is necessary to assess the significance (as defined in the Archaeology Preservation Guidelines [Alexandria Archaeology 1988]) of the potential archeological resources in the project area. Historic context is defined as "an organizational unit that groups information about related historic properties, based on a theme, geographical limits and chronological period" (Federal Register 1983:44718). While this assessment deals specifically only with the resources in the four-block project area, their significance is assessed with reference to the city-site, Alexandria, of which they are a part. This assessment, then, is expressly designed to augment the research plan for Alexandria and be in concert with Alexandria's preservation goals.

The second task, archeological assessment, is an assessment of the potential for archeological resources in the project area. The process of assessment begins with an inventory of potential resources and proceeds to a discussion of significance. The research value, rarity, public value, site [resource] integrity, and presence of materials [preservation] of the resources are addressed (Alexandria Archaeology 1988:6-7). Areas with high potential for archeological resources are plotted on a map of the project area, distinguishing the early nineteenth-century domestic structures; the Orange and Alexandria Railroad yard, the USMRR complex, and the late nineteenth- and early twentieth-
century railroad yard; late nineteenth-century domestic structures; and modern commercial use of the four blocks.

Recommendations for preservation actions and further research are developed from the historical research and assessment of the resources. In addition to recommendations concerning subsurface archeological investigations, the utility and potential of further documentary research are also addressed.

The unusual and engaging task of this archeological assessment involves the third task, application of the research to the development project. The research team has been specifically charged with presenting names to be considered for buildings and rooms; ideas for interior and exterior design and decoration; and anecdotes and interesting historical facts related to the history and archeology of the project area.

The assessment is concluded by a two-part presentation of sources. Standard bibliographic citations for all sources cited in the text are presented at the conclusion of the report. In addition, lists of sources for further research are presented. In most cases, these are sources that have been identified, located, and evaluated for information potential, but not fully exploited at this stage of the research. These sources will include not only conventional documentary and cartographic records, but also resource people—avocational and professional people knowledgeable about some aspect of the project area's history and archeology.
II. HISTORIC CONTEXT

The significance of historical and archeological resources can be assessed most responsibly with reference to historic context. Historic context is not an objective or inherent quality, but is an abstraction from historical facts; context is an analytical unit defined by cultural theme, geographical limits, and chronological period. Archeologists working in Alexandria have the benefit of years of research by Alexandria Archaeology, the city's agency for the study of local archeology. Alexandria, the city-site, is the defined, limited geographical unit. Cultural themes and local chronological periods have been clearly defined by Alexandria Archaeology (1988:1-4). The themes and periods represented by the archeological resources in the Southern Plaza project area are discussed in the terms used by Alexandria Archaeology. This consistency of units and terms is seen as the way to best contribute to the collective understanding of Alexandria’s past.

Historical Narrative of the Project Area and Its Neighborhood

The first step in knowing the history of the project area and the surrounding neighborhood is the development of the narrative, the chronological presentation of the facts of history, the people, places, and events. While historical research always involves selection, critical reading, and focus, the narrative is the simplest, most direct, and most nearly objective presentation. The narrative is the basis for interpretation and evaluation.

Prehistoric Occupation of the Project Area

There is little evidence of Native American occupation of Alexandria, and no known direct evidence of use of the project area by Native Americans, although some prehistoric artifacts have been found several blocks west of the project area (T. Ted Cromwell, personal communication 1988). Native American villages have been reported north and south of Alexandria (Shepard 1988:2 citing Potter 1984:4). Although prehistoric artifacts have been found in Alexandria, particularly along the less developed upper reaches of streams that drain into Cameron Run and Hunting Creek, sites have not been found in developed areas of the city, perhaps because sites in those areas have been destroyed or are deeply buried (Cheek and Zatz 1986:10-11). The project area is adjacent to an unnamed drainage and prehistoric sites are often located along drainages, but no evidence of prehistoric occupation was revealed in the recent archeological excavations conducted along Duke Street (T. Ted Cromwell, personal communication 1988; cf. Cheek and Zatz 1986:64).
European Settlement and Maritime Commerce (1600-1749; 1749-1820)

The land which is now the city of Alexandria was part of a 700-acre tract which was first patented in 1654 by Margaret Brent, formerly of St. Mary's City, Maryland. John Alexander, a Scottish merchant, purchased the land in 1674 (Cheek and Glendening 1986:18). By the early eighteenth century, lands along the Potomac were settled by planters, raising tobacco and other cash crops. By the 1740s, Hugh West had established an ordinary and tobacco warehouses a few miles north of the settlement of Cameron and Hunting Creek, known as the Hunting Creek Warehouses (Munson 1987:9). West's warehouses were at the end of the road now known as Oronoco Street (named for the type of tobacco grown in the area [Hambleton 1983:64]). By 1740, West's property was served by a wharf and public ferry (Shepard 1988:3). By this time, tobacco-producing lands in the area were exhausted, and planters were moving farther west. West's Point, however, was well situated to serve as a shipping point for tobacco and other crops coming from the west. His wharves were at the last major anchorage for ocean-going vessels before the fall line of the Potomac, 16 miles upriver (Cheek and Glendening 1986:19; Munson 1987:9).

Planter and merchant interests petitioned the Virginia Assembly in 1748 for the establishment of a new port and market town on the Potomac to provide trade access with the Shenandoah and Ohio valleys. In 1749 the Virginia Assembly passed an "Act for Erecting a Town at Hunting Creek Warehouse in the County of Fairfax," the site near West's warehouses. Much of the land was owned by the Alexander family, for whom the new town was named (Munson 1987:11). The very founding of the town of Alexandria changed the character and focus of the area, from dispersed plantations to a trade and transportation center (Munson 1983:29), serving the frontier of the trans-Appalachian west (Munson 1987:11).

The town was surveyed by John West, Jr., and laid out in a grid pattern, with eight streets running east-west and three streets running north-south (Cheek and Glendening 1986:19). Lot owners were required to construct a house of wood, brick, or stone, at least twenty feet square with a chimney (Shepard 1988:3) within two years of purchase.

When the town was established, it was situated on a bluff above a bay on the Potomac River, with wharves at each end of the bay. The bay, however, which was four or five feet deep in 1749, soon began to silt in. In order to extend the wharves and move the shoreline to deeper water, earth was cut away from the banks and dumped at the river's edge. By 1791, the bay was largely filled in (Shepard 1988:4-5).
The tobacco shipping business, instrumental in Alexandria's founding, increased in volume with the 1765 tobacco inspection law. All tobacco had to be inspected at designated public warehouses prior to shipment (Shepard 1988:5). In addition to tobacco, grains and grain products (flour and bread) were shipped out of Alexandria, while European imports were received. Alexandria was not seriously damaged during the American Revolution, although it acted as a supply center for the continental armies, and the city continued to prosper as a seaport after the war (Cheek and Glendening 1986:20).

Although shipping was the focus of Alexandria's economy, for about twenty years there was a ship-building industry at the port. In 1752, the first ocean-going vessel built in Alexandria, the Ranger, was launched. Other businesses of the time included maritime service industries, such as bakeries, cooperers, distillers and brewers, and rope walks (Shepard 1988:5-6). By 1754 Alexandria had a commercial bakery, supplying both ships and residents (Sharrer 1977:18). Although Alexandria lacked the water power necessary to be a milling center, Alexandria merchants established reciprocal relationships with rural millers in Fairfax, Loudoun, Fauquier, and Prince William Counties. Laws requiring flour inspection, like the tobacco inspection laws, contributed to channeling goods through Alexandria's port (Sharrer 1977:19).

In 1791, under proclamation of President Washington, new boundaries (crossing Duke Street at Hooff Run) were drawn for ten square miles ceded by Virginia to the United States government for the new permanent seat of the federal government, Washington, D.C. (Cheek and Zatz 1986:11-12). By this time, Alexandria had grown considerably, extending north four streets to Montgomery Street, south eight streets to Great Hunting Creek, and inland nine streets to West Street (Shepard 1988:7). Society was definitely stratified by socioeconomic status: landed gentry and merchants, professionals and craftspeople, laborers and servants, and slaves. However, there was relatively little residential segregation (Cressey et al. 1982:151), although the elite residences were generally closer to the original wharf locations and along the original river bluff (Shepard 1988:7, Figure 3).

By 1800, Alexandria had grown to an international port city of 5,000 people. The focus of the city, however, had begun to shift inland, away from the waterfront (Shepard 1988:9). Local industry continued to develop, encouraged by the British blockade of the Chesapeake in 1813 as well as by high tariffs after the war (Sharrer 1977:22). After 1800, tobacco
was superceded by grain, flour, and bread as primary exports. The major flour market was the West Indies, which specialized in sugar production at the expense of production of food for local consumption (Sharrer 1977:18). The refining of West Indian sugar was one of Alexandria's most valuable industries in the early nineteenth century (Sharrer 1977:22).

As trade with the agricultural hinterlands became more diverse, the need for adequate roads increased. Tobacco could be rolled from plantation to riverbank in hogsheads (along "rolling roads"), but the transportation of grain, flour, and other agricultural products required wagon roads (Williams 1977:49). In 1801, a commission was organized by act of the Virginia Assembly to build a turnpike from the west end of Duke Street at Hooff Run to the Little River at the town of Aldie. Although there were roads through the area prior to 1801, Little River Turnpike was at least a greatly improved roadway, if not a new road all together. An 1802 amendment stipulated that the road would be fifty feet wide, with a center of crushed and pounded stone, and passable during winter and wet months. In addition, the amendment called for scales along the turnpike to enforce the weight restrictions (Shepard 1970:452-453). The company received eminent domain and the right to use materials for construction from the land over which the roadway was to be built. When stock sales lagged, the state assembly authorized the purchase of one hundred shares to get the project under way. The first ten miles were in use by 1806, and the turnpike was completed in 1815 (Williams 1977:50).

Although the Southern Plaza project area lies along the route of Little River Turnpike, there is little evidence for early occupation of the area. The project area was part of a 6,000-acre tract granted to Robert Howsing (Howson) in 1669. Howson immediately sold the tract to John Alexander (Cheek and Zatz 1986:13-14). John's son Robert Alexander inherited the lands in the eastern portion of the tract, including the project area. Robert conveyed a one-half interest in the Howson patent to his brother Philip in 1690, and Philip reconveyed his half interest to Robert, except for 500 acres in the southeast corner of the patent which he kept for himself. Philip's son, also named Philip, inherited this property and lived on the land by 1741. Part of this 500-acre tract became part of Old Town Alexandria (Cheek and Zatz 1986:16).

After the younger Philip Alexander died in 1753, his son John inherited the Howson tract as well as town lots in Alexandria. John's son William Thornton Alexander inherited the property through John's will dated May 1, 1775. The executors surveyed and sold tracts adjoining the city between Hooff Run and the west boundary of Alexandria (between Royal
and Pitt Streets). In 1794, William Thornton Alexander and his wife, Lucy, conveyed a large tract of land to John Wise (Cheek and Zatz 1986:16). The tract is described as

beginning in a point in Duke Street and Henry Street directly produced will intersect at right angles on the west side of Henry Street and the south side of Duke Street. Parallel with Duke Street to Gibbon Street west to Gillbrand Street south to Hunting Creek to Mr. West's land then north to the intersection, of the south edge of Duke Street to the beginning (Fairfax County Deed Book 1794 [A2]:216).

Wise leased this portion of what was known as Spring Garden Farms, including the project area, to Matthew Franklin Broune and Theodorus James Hamilton, who then purchased the land from John and Elizabeth Wise in 1795. Broune and Hamilton had land surveyor Colonel George Gilpin lay out "squares with lanes or allies of the breath [sic] of 16 feet each dividing and separating the square from each other and conform to the grid of streets already there" (Fairfax County Deed Book 1797 [A2]:123) (Figure 1). Each square included two and one-quarter acres (Cheek and Zatz 1986:17).

On May 6, 1796, Jesse Sims purchased the same tract, subject to a yearly rent of 300 pounds (Fairfax County Deed Book 1796 [Y]:407), but the rent agreement was extinguished three day later by a deed dated May 9, 1796. The tract was described as

beginning at the intersection of Henry Street, (lately laid out by William Thornton Alexander, contiguous to the town of Alexandria and conformable to the plan prescribed by an act of the assembly) and Duke Street, upon the west side of Henry Street and the south side of Duke Street and running thence Southwardly with Henry Street and binding therewith 873 feet 7 inches to the north of Gibbon Street (extended) along the north side of a piece of ground granted and conveyed by William Thornton Alexander unto John Gill thence northwardly with Gill line 50 feet then southwardly with the division line between the said Gill and him the said John Wise and Parallel to Henry Street (extended) until it reaches Hunting Creek thence westwardly with meander of Creek and binding therewith to the north of the Gutt, northward on the meander binding
therewith to that part of the said Gutt where
the Branch of the spring at the place called
Spring Gardens enters the Gutt, thence a
straight line to the west corner of a fence
erected by Wise on Duke Street, thence
eastward to the Beginning . . . . (Fairfax
County Deed Book 1796 [Y]:403).

Within a few weeks of purchase, Jesse Sims began to divide
the property, selling or leasing Spring Garden lots that
conformed to those previously laid out in Alexandria (Fairfax

The project area was within Spring Garden lots (lots 1-4;25-
32; and 51-54) which were sold in 1796 (Cheek and Zatz
1986:40). Although purchases are recorded, there is no clear
evidence that any of the new owners built structures or
occupied the lots in the eighteenth century. By 1810, there
were some lower class residences in the neighborhood in the
blocks to the east (Cressey et al. 1984:Alexandria
Neighborhoods 1810 map), in a neighborhood known as the
Bottoms or the Dip (Shepard 1988:10), and free blacks were
apparently living along the south side of Duke Street between
Payne and Fayette Streets (Cressey 1983:13).

Commercial Decline (1820-1845)
The fortunes of Alexandria began to change in the spring of
1817, when agricultural prices began to fall. Merchants
offered less to rural producers, who increased their debt
burden, and commercial properties declined in value. Rising
imports in consumer goods contributed to an unfavorable
balance of trade. In 1827, a fire which started in James
Green's furniture factory, destroyed forty houses, stores,
and warehouses (Sharrer 1977:23). More serious for the
economic health of the city, however, was the decline in the
volume of trade with northern Virginia and the Shenandoah
Valley, which went instead to Baltimore and Richmond (Sharrer
1977:23). Both cities, which had access to water power as
well as raw materials from the hinterlands, were
industrializing while Alexandria remained primarily a trade
center dealing in agricultural products. Moreover, the trade
in tobacco and flour fell. The demand for Virginia flour
declined in the West Indies after the abolition of slavery in
the British colonies caused the collapse of the sugar
industry (Sharrer 1977:23).

While these markets declined, trade in fish and slaves
increased. Locally caught fish were prepared for export,
often to feed slaves in the lower South (Sharrer 1977:26).
In the late 1820s, slave trading became a major business in
Alexandria. With the shift from tobacco to wheat farming,
less labor required fewer slaves. Virginia planters sold off
slaves, most of whom were "sold down river" to the deep South, where slaves were in demand for labor-intensive cotton production (Sharrer 1977:24). The largest slave-trading company in the country, the firm of Isaac Franklin and John Armfield, was established in Alexandria. During their peak years of business, they purchased between 300 and 1,500 people per year (Shepard 1988:12). Two other large slave-trading firms, those of William H. Williams and Joseph Bruin, George Kephart, and Horatio Harbin, operated in Alexandria. All three had pens for holding slaves between purchase and resale at the west end of Duke Street (Sharrer 1977:24-25), one of which was directly across Duke Street from the project area (Plate 1). Even after the slave trade was abolished in the District of Columbia, as part of the Compromise of 1850, the trade continued in Alexandria, which had retroceded to Virginia in 1846 (Sharrer 1977:25).

The availability of slave labor was, however, a deterrent to industrialization. Immigrant laborers avoided cities in slave states because of the difficulty in finding employment. The lack of water power, distance from resources, and smaller supply of potential factory workers inhibited industrialization (Shepard 1988:13).

To increase access to the western markets, Alexandria needed a canal to connect with the Chesapeake and Ohio Canal at Georgetown (Figure 4). The Alexandria Canal Company was incorporated in 1830, but construction was not completed until 1845 (Williams 1977:55). From Georgetown, the canal crossed the Potomac on an aqueduct bridge, then crossed level ground to Alexandria, where four locks lowered vessels 38 feet to the Potomac River. By the time of the canal's completion, however, Baltimore had a railroad line to Cumberland, Maryland (Shepard 1988:13).

Although Alexandria's economy focused on commerce, some industry developed. In 1830, Thomas Smith built a factory on Union Street near Wolfe Street and began to manufacture steam engines. During the 1830s he built engines primarily for mills, but in 1837 Smith built the engine for the Richmond, Fredericksburg, and Potomac Railroad's locomotive Washington (Sharrer 1977:28). The increasing use of steam engines increased the demand for coal, which was expensive to transport the 200 miles along the Potomac from Cumberland. The completion of the canal dramatically lowered the shipping rates from 20 cents per ton mile in 1817 to .25 cent per ton mile in 1850 (Sharrer 1977:28).

During this period of commercial decline, there is limited evidence for occupation of the project area (cf. Henry 1983:27-28; Figure 2). Although no historic maps of the period show land owners or occupants, some occupant/owners
names appear on later maps. By searching the Alexandria city
tax assessment records, some early landowners were traced.
There was some residential development in the project area
before 1845. The two western blocks were occupied by 1830;
the northwest block of the project area, the block defined by
Duke, Fayette, Wolfe, and Payne Streets was apparently
occupied by free blacks and whites (Henry 1983:27-28). Tax
assessment records indicate that by 1839, lots in two of the
blocks in the project area were individually owned but not
improved. The northwest block contained one lot owned by
Patton and Richard Hartshorn, valued at $800 (Alexandria City
Tax Assessments 1839:9). Thomas Travers was assessed $1,800
for a house and lot at Henry, Wolfe, and Fayette Streets
(records do not list the fourth street). This house appears
to have been one of the earliest residences in the project
area. In 1843, William B. Richards was assessed $1000 for
the block bounded by Duke, Henry, Wolfe, and Fayette Streets.
Ewing's Plan (1845) (Figure 2) shows a rectangle in the
northeast corner of the northeast block, but it is not clear
if this is a structure. Richards and Hartshorn continued to
own property in the project area until 1850 (Alexandria City
Tax Assessments 1850:9).

Although the project area is within the city of Alexandria
during this period, it is clearly at the end of town. Even
though it is along Duke Street, which extends to Little River
Turnpike, the area was peripheral to developed Alexandria.

Economic Expansion (1845-1861)
The economy of Alexandria was clearly on the move again by
1845. The waterfront was no longer the only focus of
commercial activity, and the distribution of the city's
population reflected the emphasis on ground transportation.
The Alexandria Canal was completed in 1845 and the Orange
and Alexandria Railroad (O&ARR) was chartered in 1848 (Williams
1977:53). The Baltimore and Ohio Railroad, established in
1833, completed track to the Shenandoah Valley by connecting
with the Winchester and Potomac Railroad at Harpers Ferry in
1848 (Figure 4). This connection had the potential to divert
the important western trade to Baltimore, but Alexandria
venture capital still supported wagon roads and failed to
recognize the potential of the railroad (Williams 1977:51).

In 1847, Lewis McKenzie and his associates organized the
Alexandria and Harpers Ferry Railroad Company, but he was not
able to attract adequate capital. It took ten years before
his project was realized as the Alexandria, Loudoun and
Hampshire Railroad. The Alexandria and Washington Railroad,
chartered in 1854, was also completed in 1857. This was a
short line running from the corner of St. Asaph and Princess
Streets to the Virginia side of the Long Bridge (Fourteenth-
Street Bridge), where passengers had to transfer to carriages for the trip into Washington, D. C. (Williams 1977:57).

The O&ARR was the first of the Alexandria railroads to lay track. The first organizational meeting was held on May 9, 1849 in Warrenton, Virginia. Officers elected included George H. Smoot, president; Dr. William L. Powell, vice-president; and Henry Daingerfield, director, all from Alexandria. T. C. Atkinson, selected as the chief engineer, began working on the selection of a route. Several routes were presented to the 2,244 stockholders in December 1849. Staking of the chosen route began in January 1850, and, in spite of bad weather and the refusal of several Fauquier County residents to allow access to their property, staking was completed by August 1850 (Wilkinson 1968:2).

Construction of the line presented several problems. The contract for the construction of the section between Alexandria and Culpepper was awarded to Messrs. Eggleston, McDonald & Company, but they proved unsatisfactory. In President Smoot’s report to the stockholders, one day before his resignation, he stated that "not withstanding the embarrassment arising from the failure and abandonment of the work by the first company of contractors in November 1850, which resulted in a delay and loss of time equal to six months, the eastern section of the road is nearly completed" (Wilkinson 1968:3).

By 1850, the O&ARR had purchased land at the west end of Duke Street including the project area for its yard (Alexandria City Tax Assessments 1850:9) and constructed shops by 1852 (Alexandria City Tax Assessments 1852:14); the roundhouse was probably built at this time. In May of 1851, the O&ARR's first locomotive, the Pioneer, built by the local iron foundry of T. W. and R. C. Smith, made its first run (Williams 1977:57) (Figure 3). Richard Marshall Scott, a Fairfax resident who furnished lumber for railroad ties to the O&ARR, noted in his journal various contract proposals sent to the railroad for the purchase of lumber. His July 4, 1851 entry also included this account:

We witnessed for the first time today, a train passing over the Orange and Alexandria Railroad carrying about 600 people who were going on an excursion up the road to Backlick, a distance of 11 miles from Alexandria and the present termination of the rails—as seen from the north window passing through our meadow with their gay passengers, presented a very pretty sight and to me one of much interest (Wilkinson 1968:7).
Passenger and freight service to Manassas Junction began in October 1851. Track was laid to Culpeper by 1852. In 1853, a branch line was extended to Warrenton, and track was completed to Gordonsville by way of the Orange courthouse by 1854. The Manassas Gap Railroad, the first line to cross the Blue Ridge Mountains, completed track to Strasburg in 1854. The Manassas Gap line joined the O&ARR at Manassas Junction, giving Alexandria access to the Shenandoah Valley (Williams 1977:53; Modelski 1984:20).

The completion of the O&ARR line made it possible to travel by rail most of the way from Boston to Richmond. When the O&ARR extended the line to Lynchburg, it joined with other lines extending to New Orleans.

Manufacturing increased in Alexandria. The 1850 Census of Manufactures for Alexandria listed 91 firms with an annual product value of $500 or more. Businesses included agricultural processing, shipping, milling, and trade (Sharrer 1977:30). Successful businesses attracted investment capital and immigrants.

Alexandria's population enjoyed considerable growth during this period. The population, which was nearly 9000 in 1850 (Shepard 1988:15), reached 12,652 in 1860 (Sharrer 1977:30). An increasing number of immigrant German Jewish families engaged in retail business were included in the growing middle class (Cressey et al. 1982:154; Shepard 1988:15). The composition of the black population of Alexandria also changed: in 1850, there were 1,308 free blacks in the city, 15 percent of the total population; the 1,067 slaves in Alexandria represented 12 percent of the total population. (In 1790, free blacks made up 2 percent of the population and slaves, 21 percent) (Cressey et al. 1984:Appendix I; Shepard 1988:16).

With increasing heterogeneity, residential segregation increased. The free black neighborhood east of the project area, known as the Bottoms or the Dip, expanded at mid-century. As the city's core extended west along King Street, small industries, such as a tannery and brickyards were established along Duke Street (T. Ted Cromwell, personal communication 1988). By 1850, the O&ARR had purchased the blocks owned by Hartshorn and Richards, although Richards was assessed for "one square and barn" in the southeast block, the block defined by Wolfe, Fayette, Wilkes, and Payne Streets (Alexandria City Tax Assessments 1850:9). Gottlieb Appich was assessed $1,650 for a house and one-half square at Henry, Wolfe, and Payne Streets (the fourth street is not listed but is probably Wilkes Street). In the Alexandria Business Directory for 1852, Gottlieb Appich is listed as a confectioner, with a shop on the north side of King Street.
between Pitt and Royal Streets (Elliot & Nye 1852:12). Appich was assessed for two houses in the project area in 1852, but it is not clear if he lived in either of these houses.

At mid-century, the future looked bright for Alexandria. The 1850s were by all accounts a time of prosperity and growth for the city, as markets and manufacturing expanded. Although the city was still small, it was vital:

A resident of the ancient city may not be able to perceive, as readily as a stranger can who visits the place at intervals, the steady improvement visible all over Alexandria: yet, the "spirit" of activity and life in trade and business is obvious to every one. And it is our candid and deliberate judgment and opinion, that a better and brighter day for the city is now dawning. She has a most fortunate position as the terminus of several important railroads penetrating rich sections of country, and has an active, and, to some extent, industrious population, who are resolved to go-ahead and make Alexandria what she ought to be—-one of the chief cities of the Old Dominion (Rockingham Register in the Alexandria Gazette, November 7, 1859, p. 3, cited in Miller 1987:191-192).

The Civil War (1861-1865)
Early on the morning of May 24, 1861, the day Virginia's vote of secession became effective, Federal troops and 90-day volunteers crossed over the Potomac River bridges to take possession of the city of Alexandria and the Arlington ridges that overlooked the city of Washington. The 11th New York Volunteer Infantry, led by 24-year-old Elmer Ellsworth, traveled by steamers to the waterfront docks at Alexandria. These troops were supported by a Federal ship-of-war, the USS Pawnee, which was anchored on the Potomac River at the foot of King Street. While the New York troops landed at the dock and organized themselves to take possession of the city, Confederate troops assembled in front of the Lyceum on Washington Street. From that spot about 800 citizen-soldiers of Alexandria marched west on Duke Street past the offices of the O&ARR and out of the city (U.S. Government Printing Office 1880-1901:Series I, Volume 2:40-42). As one Alexandria soldier remembered the moment years later, "Soon, the welcome sound of the car-whistle reached our ears, and striking for the O. and A. R.R. track, we had the pleasure of stopping the trains moving towards Alexandria" (Wise,
1870:13-14). The soldiers boarded the cars on the train and traveled to Manassas Junction and the Confederate lines.

During the occupation of Virginia, Alexandria was brought into national attention when it was learned that James W. Jackson, a local citizen, and Colonel Ellsworth had been killed in an incident after Ellsworth removed a secessionist flag hoisted above the Marshall House (Harper's Weekly, June 15, 1861). Both men became martyrs for their causes; Ellsworth died suppressing rebellion and Jackson died defending his private property and the flag of his new-found country. The news of Ellsworth's death sent a shock through his regiment. "The excitement was intense," recorded H. H. Comings, a private commanded by Ellsworth. "I honestly believe that had precaution not been taken, and guards placed around the regiment, Alexandria would have been razed to the ground" (Comings 1886:6). Private Comings was a member of company E, which had been dispatched to the O&ARR station to intercept and hold any train that might be leaving the city. When he arrived at the yard his captain ordered the soldiers to destroy all the switches. Private Comings also witnessed the capture of Balls Cavalry, a contingent of about 30 Confederates, that took place in front of the Slave Pen along Duke Street (Plate 1). "Having no place or tents to lie under," Comings recalled, "our company was ordered to the locomotive or round house, where we were told to make ourselves as comfortable as we could" (Comings 1886:6).

The reactions of Alexandria's railroad executives during this early period of national turmoil is notable. Lewis McKenzie, born in 1810, of Scottish ancestry, was a lifelong bachelor and one of Alexandria's most successful politicians and businessmen. McKenzie served as president of the Alexandria, Loudoun & Hampshire Railroad (AL&HRR) and was a staunch Unionist. Unfortunately, his devotion to the Union brought him into conflict with many of his friends who supported the Confederacy. However, as one historian has pointed out, even his Unionist views, and the American flags flying on his locomotives on the morning of the Federal invasion of Virginia, did not save his railroad from military seizure (Williams 1984:10). In contrast, Colonel James S. French, President of the Alexandria and Washington Railroad (A&WRR), upon learning of the Union advance, transferred two locomotives and rolling stock to the O&ARR and fled into the Confederate lines (Williams 1984:9-10). President of the O&ARR, John S. Barbour, Jr., a Virginia aristocrat, organized a company of railroad guards for night duty along exposed sections of his line and fled to Charlottesville, Virginia, where temporary offices were set up. His railroad's most serious loss was the extensive repair shops in Alexandria and the company's office records (Johnston 1961:23-25).
Alexandria was placed under martial law, and all the railroad facilities were seized, including eleven hundred tons of fine quality imported rails. Shortly after the occupation, all of Alexandria's railroads were incorporated into the USMRR. The Quartermaster Corps took control of the AL&HRR's two-story brick building that served as the passenger station and general office, and also the freight station, roundhouse and machine shops. By February 1862, all the railroads within the city were interconnected for the first time and tracks were laid over Long Bridge to link the system with the Baltimore & Ohio Railroad (B&ORR) on Maryland Avenue in Washington (Williams 1984:59). In order to expedite the movement of troops and supplies north-south, the USMRR extended the tracks of the O&ARR north on Henry Street from the Duke Street terminal, to form a junction with the A&WRR. With these rail links, trains could cross the Potomac River without interruption and travel directly to the theaters of war. The facilities of the O&ARR (including the project area) were taken over as the field headquarters of the USMRR (Figures 5-7, Plates 2-6). Exposed to attack on the southwest edge of the city, forts were constructed, and then extended to the ridges south and west of Alexandria to protect the valuable supply and railroad center. During a period of inactivity for the construction corps in June 1863, a palisade was constructed around the 12-square-block area of O&ARR yard (Haupt to Halleck, June 15, 1863, in Haupt 1862-1863, Letterbook, I, 350-51) (Plate 7). Complete with flanking bastions and loopholes for small arms, the complex was the site of several unique and historically significant contributions to the Union war effort. Under the direction of Brigadier General Herman Haupt, a program of research and development was established; the army first used photography for documentation and training; a specialized military railroad construction corps using black laborers was established; and a presidential passenger car was constructed that was used as Lincoln's funeral car.

Set against the background of military necessity, the citizens of Alexandria endured four years of occupation while a vast complex of commissary and quartermaster storehouses, camps, hospitals, a large bakery, remount depots for cavalry and artillery horses, and barracks for soldiers and ex-slaves were constructed in the city. Looking down from the ridge at Fort Lyon, one soldier from the 27th New York Infantry predicted the city's legacy without knowing it. "Alexandria lay beneath us, like a sullen child—its Confederate sympathizers cowed into silence by the presence of troops and the frowning cannon (Fairchild 1888:61).

Alexandria's Civil War experience is closely tied to establishment of the USMRR, headquartered at the O&ARR yard in Alexandria. On April 27, 1861, Secretary of War Simon
Cameron had placed 26-year-old Thomas A. Scott, vice-president of the Pennsylvania Railroad, in charge of opening the railway and telegraph line between Washington and Annapolis, Maryland. Scott's chief assistant was 26-year-old Andrew Carnegie. In three days the task had been completed and soldiers were arriving to reinforce the Capital (Weber 1952:36). On May 23, the day before the Federal occupation of Virginia, Scott's jurisdiction was extended to "all railroads and telegraphs appropriated for government use" (U.S. Government Printing Office 1880-1901:Series III, Volume I:228). Scott and his energetic assistant went to work repairing the Virginia lines. Simon Cameron, writing of Scott's accomplishments twenty years later said, "He built a line of railway through the streets of Washington to the Long Bridge, so as to make a direct connection with the Orange and Alexandria Railroad . . . In less than a month . . . he could tell the capacity for transportation toward every division of the army" (Wilson 1899:244-45).

July 21, 1861, brought defeat for the Federal volunteers at the First Battle of Bull Run. Andrew Carnegie had been sent to Alexandria to organize military transportation and during the battle was overcome by sunstroke while superintending the transport of wounded on the cars (Leech 1962:128).

In August, Scott became Assistant Secretary of War to supervise government railways and transportation, and his former position was filled by Quartermaster Captain R. N. Morley with the title of General Manager of USMRR. Under his supervision, the government expanded its transportation facilities in Virginia. Morley's report of November 1861 showed that the army in Virginia was operating nine miles of the O&ARR, and eleven miles of the AL&HRR. A machine shop was in operation in Alexandria to repair rolling stock and to fabricate ironwork for bridge construction. Sidings were built in both Alexandria and Washington to connect with wharves and warehouses (Weber 1952:38).

The passage of the Railways and Telegraph Act of January 31, 1862, gave the government the authority to control the operation of captured Southern railroads through a central agency (U.S. Government Printing Office 1880-1901: Series III, Volume I:879). Daniel C. McCallum, former superintendent of the Erie Railroad, was appointed Military Director and Superintendent of Railroads in the United States. His organizational structure was placed under the Quartermaster General, but McCallum regarded himself as independent. He fulfilled the function of liaison officer between government and railroad presidents and railroad equipment manufacturers. McCallum's career achievement in the military railroads was the successful supply of Sherman's army in its 1864 campaign from Chattanooga to Atlanta. The
principles and methods used by the railroads in that campaign, however, were worked out in the eastern theater of operations under the direction of Herman Haupt (Weber 1952:135-136).

More than any other individual, Haupt left an indelible impression on the Civil War railroad history of Alexandria, especially as it relates to the O&ARR complex of the USMRR. Herman Haupt was born in Philadelphia in 1817 and graduated from West Point at the age of 18. Resigning his commission after three months of service, he worked for the Western Maryland Railroad where he became interested in bridge construction and its engineering theories (Ward 1973:148-170). Later he was appointed Professor of Mathematics and Engineering at the Pennsylvania College in Gettysburg. While teaching, he wrote a book, The General Theory of Bridge Construction (1851), which established him as an authority on the subject. During 1851-52, Haupt was general superintendent of the Pennsylvania Railroad and later served on the company's board of directors. In 1856, he resigned to begin construction of the four-and-one-half-mile tunnel through the Hoosac Mountain in western Massachusetts. Despite construction difficulties and criticism, he engineered and helped fund the project that became embroiled in political conflict and financial failure. Throughout his military service, Haupt would not consent to restrictions on his freedom to protect his private business interests (Ward 1973:148-170). This fact was the key reason for his forced resignation by Edwin Stanton in September 1863.

Herman Haupt served for nearly one and a half years as chief of the construction and transportation corps of the USMRR. As a railroader, he preferred service in the field to any desk job. Sometimes described as "pigheaded," red tape irritated this man of action whose success can be attributed to his enormous capacity for hard work and organization. His stubborn resilience helped him deal with difficult situations and military interference. Soldiers were freight to be shipped and officers were the men who interfered with the shipments. On one occasion, an inebriated General Samuel D. Sturgis informed Haupt that "I have just sent a guard to your office to put you under arrest for disobedience of my orders in failing to transport my command (Sturgis to Haupt, August 23, 1862; Haupt 1901:87). Sturgis had stopped four trains on the O&ARR several miles from the USMRR depot to demand transportation to the front. The locomotives were nearly out of wood and water and the blocked track was preventing the movement of supplies. Haupt telegraphed his superior for support and was informed that no military officer had the authority to interfere with the railroads. On showing the reply to Sturgis, the drunken general replied,
"Take your damned railroad" (Haupt 1901:83; the story is recounted in Lord 1969:126-27; see also testimony of the conductors and engineers on the O&ARR, August 23, 1862, in Haupt 1862:7,8,13).

Haupt's energy and alertness kept Washington informed of the progress of the Battle of Second Bull Run in August 1862, after General Pope's communications had been severed with Lincoln and the War Department. When Pope's defeated army retreated into the Defenses of Washington, Lincoln's private secretary, John Hay, said of Haupt:

It is in great measure [due] to his indomitable will, that Army movements have been characterized by such energy and celerity for the last few days. There is one man who seems thoroughly to reflect and satisfy . . . [Lincoln] in everything he undertakes . . . [Haupt] has, as Chase says, a Major General's head on his soldiers. The President is particularly struck with the business-like character of his dispatches, telling in the fewest words the information most sought (Lord 1969:12).

For his meritorious services in the field, Haupt was thanked in the presence of Lincoln and the Cabinet and was commissioned a brigadier general (Haupt 1901:135). He later refused the commission, saying that he would gladly serve without official rank or pay, if only he could continue to have the freedom to pursue his private business interests when not required at the front (Haupt 1901:264). Faced with a demand that he accept the commission with its restrictions, he resigned from military service on September 14, 1863, with a long list of accomplishments (Stanton to Haupt, September 14, 1863; Haupt 1901:264).

The project area is within the area taken over by the U.S. government and occupied by Union troops during the Civil War (Figure 8). The map of the USMRR (1865) (Figure 5) shows the structures on the property which were built by the O&ARR as well as the structures built during the military occupation. In addition, at least three structures on the map are labeled "Gottlieb Appich," the name of the confectioner assessed for two houses in the project area in 1852. Appich may have still owned these structures which, along with the O&ARR facilities, were occupied by the U.S. military.

At the end of the war, the U.S. military dismantled most of the structures which were erected during the occupation, leaving the O&ARR roundhouse, shops, track, and Appich's structures.
Reconstruction (1865-1875)
Virginia was devastated by the Civil War. Besides the destruction of property, crops, and livestock, the slave-based economy was dismantled. Alexandria's economy declined. Two of the most important pre-war businesses, the Mount Vernon Cotton Factory and the Pioneer Flour Mill were closed (Sharrer 1977:30). Small-scale craft and trade businesses survived and some even prospered, however. One of the first signs of recovery was the reconstruction of the railroads. After the war, the railroads were returned to private control. New track was laid, private shipping resumed, and rail lines merged. In 1867, the O&ARR and the Manassas Gap Railroad (MGRR) merged. In 1872, the Orange, Alexandria and Manassas (OA&MRR) merged with the Lynchburg and Danville to form the Washington City, Virginia Midland and Great Southern Railway (WCVM&GSRR) under the control of the Baltimore and Ohio Railroad (B&ORR) (Williams 1977:62). The Pennsylvania and the B&O railroads were struggling to control the north-south traffic through Washington, D.C. Because the Pennsylvania Railroad controlled the A&WRR and, thereby, access to the Long Street Bridge over the Potomac, in 1873, the B&ORR began construction of the East Alexandria Branch from Hyattsville, Maryland, to Shepherd's Ferry, on the Potomac shore opposite Alexandria. In 1875, car-ferry service from the foot of Wilkes Street to Shepard's Ferry began carrying passenger and freight cars across the river, obviating the passage through Washington, D.C. for traffic from the south (Williams 1977:62).

By the mid-1870s, Alexandria, described in 1862 by Anthony Trollope as "melancholy and miserable a town as the mind can conceive. . . . [where] all trade was at an end. . . . it was killed altogether" (Hurd 1975:101), was clearly recovered to the extent that "with all these. . . signs of prosperity it seems absurd to talk or write of a dead town (Alexandria Gazette, June 19, 1874:1, cited in Miller 1987:276).

Urbanization (1875-1915)
By the Centennial of 1876, the business climate in Alexandria had improved considerably. Though the city was completely overshadowed by Richmond and Baltimore, Alexandria industry and trade increased dramatically. The Mount Vernon Cotton Factory and Pioneer Flour Mill reopened, the Jamieson and Collins (successor to Smith's) foundry produced steam engines, and C. C. Smoot and Son's Tannery was the largest leather manufacturing firm in Virginia. Cumberland coal became a major export (Sharrer 1977:32).

Alexandria experienced further industrialization in the 1880s when the railroads consolidated and organized freight pools (shipping monopolies) (Sharrer 1977:33). In the 1880s, the WCUM&GSRR was reorganized as the Virginia Midland (VMRR) and
sold to interests controlled by the Pennsylvania Railroad. The Southern Railway was formed in 1894 by J. P. Morgan after the demise of the Richmond and West Point Terminal Company (including the VMRR) which had gained control of the railroads through Alexandria. Southern continued to operate along the O&ARR lines to the waterfront via the Wilkes Street tunnel until 1975 (Williams 1977:64). Southern's major twentieth-century yard, however, was the new Potomac Yards, constructed in 1905, which became the center of Alexandria's railroad industry (Sharrer 1977:33).

The population of Alexandria, which had declined during the Civil War, when many residents left the occupied city, had grown to 13,659 in 1880 (Cressey et al. 1984), occupying over 2,500 houses (Sharrer 1977:33). The percentage of blacks in the city had increased from 22 percent in 1860 to nearly 40 percent in 1880, then declined in the early twentieth century to 27 percent in 1910 (Cressey et al. 1984). The neighborhood around the project area was occupied primarily by working-class blacks and whites (cf. Cressey et al. 1984).

Most of the project area was occupied by railroad yard and shops during this period. The VMRR and the Baltimore and Potomac Railroad (a subsidiary of the Pennsylvania Railroad) were apparently both using the project area in 1877: VMRR had the roundhouse, passenger depot and freight houses on the northeast block of the project area, while the Baltimore and Potomac had facilities on the northwest block. Both lines had track entering the yard from the west, passing through the project area, and turning to the north (Figure 9). Train houses and freight sheds were added to the yard by 1885 and a new roundhouse was constructed in 1901-1902. The old roundhouse was torn down after 1885.

Mr. C. F. Thomas, master mechanic of the Southern Railway in this city, states that he has been officially notified that a contract has been let for the construction of a large roundhouse here which will be modern in every particular. Mr. Thomas says the new building will be much larger than the old one and is to be of brick and steel. The erection of the structure will be commenced at an early day. At the last meeting of the City Council, it will be remembered, a communication was received from a number of residents of the neighborhood of the Southern Railway depot calling attention to the unbearable conditions existing in that locality by reasons of smoke and cinders from locomotives which are stalled in the open
space on which the old roundhouse was formerly located (Alexandria Gazette, 14 November 1901:3, cited in Miller 1987:360).

The larger roundhouse was needed to accommodate the larger steam engines being built by the turn of the century. The original roundhouse, shown on the 1865 USMRR map (Figure 5) and subsequent maps (e.g., Figure 9), was torn down, but not replaced for some years. From the notice in the Alexandria Gazette, it is clear that the project area was hardly a pleasant neighborhood for its residents. Nevertheless, records indicate that there were dwellings which housed railroad workers very close to the railroad shops (Figure 10). Elisha Butler, an engineer for the VMRR, apparently owned and occupied a house in the southwest block, on Payne Street near the intersection with Wilkes Street. Butler may have lived in this house or another one in the northwest block since at least 1870, for he is listed in the Alexandria City Directory as living on "Payne near Duke" in that year (Alexandria City Directory 1870:406). The 1877 directory lists Butler at "Payne, near Wilkes" (Alexandria Directory 1877:51); the house is shown on the 1877 Hopkins map, marked with Butler's name (Figure 9). Butler lived in this house (420 South Payne Street) for about thirty years, from at least 1877 to some time between 1907 and 1912 (when the house no longer shows on the Sanborn map). It is not known whether Butler had a family, but he apparently took in boarders who were probably railroad workers: the 1896 city directory lists James E. Campbell, a black laborer, at 420 South Payne Street (Alexandria City Directory 1896). In 1896, Butler was charged with one tithable (taxable adult in the household) and was assessed $100 for furniture and $15 for watches--perhaps his engineer's watch (Alexandria City Tax Assessments 1896). One other dwelling stood on this block in the mid-1880s. The index map for the 1885 Sanborn maps (Figure 11) notes two frame dwellings for this block, but no other information on a second structure is currently known.

Several structures are also shown in the project area on the southeast block. The structures along the east side of the block, facing Henry Street, were built some time after the Civil War. The structures are frame dwellings with small outbuildings behind them. The estate of Gottlieb Appich, the confectioner whose name appeared on some of the structures on the USMRR map (Figure 8), was assessed in 1896 for houses at 421, 415, 413, 411, 409, and 407 South Henry Street. None of these houses was occupied by Appich family members; they were probably rented to working-class people who were not assessed for any personal property. Some of these residents were listed in the 1896 city directory, however: John W. Johnson, at 409 South Henry Street, was a white laborer; and John
Butler, at 415 South Henry Street, was a white carpenter (Alexandria City Directory 1896:66,122). David Makely, residing at 421 South Henry Street, was the manager of a grocery store at 605 King Street, apparently owned by his relative Catherine Makely. She is shown as a landowner on this block on the 1877 Hopkins map Figure 9). Catherine and two other Makely relatives, Virginia (a widow) and Wesley (a wood measurer) also lived at 421 South Henry Street. This house is larger and set apart from the structures to the north. All of these houses, however, were directly across the street from the railroad machine shops. By 1907, the only privately owned structure on the southeast block is the house at 421 South Henry Street. This structure is gone by 1912. The 1877 Hopkins map (Figure 9) shows the long, narrow structure identified as the USMRR offices on the USMRR map (Figure 8). On the 1891 Sanborn map (Figure 12) the structure is identified as "Negro Tenements" and simply as "tenements" in 1896 (Figure 13). By 1902, the building is much smaller and labeled "lumber storage" (Figure 14). In the center of the north side of this block is a large, rectangular building, identified as a "chapel" in 1896 (Figure 13), and as "R.R. Mission" in 1902 (Figure 14). On the west side of the block is a structure with a small addition on the 1877 map (Figure 9), in the same location as a building labeled "quarters" on the USMRR map (Figure 8). It is a frame dwelling, which appears on Sanborn maps from 1885, 1891, and 1896 (Figures 10, 12, and 13). In 1902, it is labelled as a vacant dwelling and it is gone by 1907, like most of the other structures on the block (Figures 14 and 15). A structure that appears only on the 1885 and 1891 Sanborn maps was located in the middle on the west side of the block, facing South Fayette Street (Figures 10 and 12). Although it is labelled "dwelling" in 1885, it is a "shanty" by 1891, the last time it appears on a map.

During this period of urbanization, the railroad yard continued to be a center of railroad activity, although the major expansion of Southern Railroad was at their new Potomac Yards, north of the project area. The late nineteenth century, however, was the first time any significant residential development is seen in the project area. This zone of industry and manufacturers along the city's periphery generated working-class residential development along with services for the residents. The dwellings in the project area were apparently occupied by working-class people, many of whom probably worked for the railroad. Proximity to the railroad could hardly have made this a desirable neighborhood. It was not without amenities, however. Dwellings occupied by black and white residents were mixed with small business, such as grocery and liquor stores, saloons, and barbers. Saloons occupied the corners at Duke and Henry Streets and Duke and Fayette Streets, to
the north of the roundhouse and passenger depot. According to the 1877 city directory, Mrs. Catherine Gorham ran a variety store and saloon at the corner of Duke and Fayette Streets (north of the project area; see Figure 9). Margaret Shaughnessy, widow of Timothy Shaughnessy, ran a saloon at the corner of Duke and Henry Streets (Alexandria City Directory 1877:196). A survey of the Sanborn maps for the late nineteenth century indicates that there were several corner stores in the neighborhood, some of which were identified as a combination grocery and saloon.

There were several church cemeteries west of the project area, as well as the National Cemetery, established in 1862 by the Federal government (Plate 8). (During the Civil War, there were 3601 interments; no railroad employees are listed in the burial records.) Churches in the neighborhood include the First Baptist Church, located on South Alfred Street between Duke and Wolfe Streets, two blocks east of the project area, labelled on the 1877 Hopkins map as "First Colored Baptist Church." The map shows a second black church which still stands, the Shiloh Baptist Church, located at the corner of Duke and West Streets. The Grace Episcopal Church stood on South Patrick Street between Duke and Prince Streets until some time before 1941.

Suburbanization and Urban Rebirth (1915-1950; 1950-present)
Annexation in 1915 nearly doubled the size of Alexandria, but far larger sections of land were annexed in 1930 and 1952. Relatively small areas were annexed in 1973. Until recently, most of the western periphery was sparsely populated. The far western portion of the city (adjacent to the interstate highways) now has population densities as high as Old Town, the historic core of Alexandria, which remains the administrative and financial center (Cressey 1983:6-7).

Since 1912, the project area has been occupied solely by the Southern Railway shops and yard. Sanborn maps after 1907 show no private dwellings in the project area (Figures 16-19), and since the railroads were self insured, Sanborn maps cannot be used uncritically as accurate documentation of railroad structures. The maps do show the addition of the Southern Railway laboratory on the 1921 map (Figure 17) and the structures belonging to Thomas J. Fannon & Sons (fuel oil distributors) in the northwest corner of the project area. A new structure belonging to Fannon appears on the 1958 map. This portion of the project area continues to be occupied by Fannon at the present.

A building permit from 1916 indicates that additional work was done on the twentieth-century roundhouse, turntable, and cinder pits (Alexandria City Building Permits 1916:317). A photograph taken in 1964 shows the roundhouse, used at that
time as a freight office for the Southern Railway (photograph on file, Lloyd House Library). The roundhouse burned on September 8, 1971 (Jelisarcic 1982:2). The line to the waterfront by way of the Wilkes Street tunnel was used until 1975 (Williams 1977). Railroad activity ceased in the yard in 1980 (T. Ted Cromwell, personnel communication 1988).

Gates, Hudson & Associates and Norfolk Southern Corporation are now planning construction of a mixed-use development of the project area, known as Southern Plaza. The combination of hotel, restaurant, shops, offices and dwellings, while bringing a new face to the neighborhood, is reminiscent of its late nineteenth-century character.

Cultural Themes

The second element in the development of historic context is the identification of cultural themes, a topical focus of historical facts which relate to a given subject. Several cultural themes have been identified for Alexandria, most of which are found within the preceding narrative. Four themes, however, are well represented in the history of the project area: transportation, military, economic composition, and neighborhood (cf. Alexandria Archaeology 1988:1-4).

Transportation

The project area is best known to history because of its role in the nineteenth-century development of two major transportation networks: turnpikes and railroads. Little River Turnpike was one of the first improved roadways connecting the agricultural hinterland with the city, its consumers, merchants, and wharves. While the rough rolling roads sufficed for transporting hogsheads of tobacco relatively short distances to the waterfront, wagon roads were needed for the long-distance transportation of agricultural products, particularly grain. As the core of the city began to shift from the waterfront, business and upper-class residences occupied the corridor along King Street, running parallel to Duke Street, three blocks north. Duke Street (with became Little River Turnpike at the edge of town) never enjoyed the core status of King Street, but did see the mixed residential and business development of the semiperiphery (cf. Cressey et al. 1982:153-155).

The city's first railroad, the O&ARR, was perhaps even more important to the city's transportation history. To reach the agricultural resources of the Shenandoah Valley and the coal of the Appalachians, the railroad provided the necessary link. The railroad yard, shops, and roundhouse along Duke Street, at the edge of town, were the center of rail transportation in nineteenth-century Alexandria.
Military
Four years of Alexandria's history are particularly well known to the city's citizens. Alexandria was occupied by Federal troops in May of 1861 and remained an occupied city, cut off from the Confederacy, where most residents' allegiance lay, for the remainder of the war. It was Alexandria's rail links with the south which the Federal government recognized as critical to the effective movement of supplies and troops to the southern theatres of battle. Civilian life and private business were profoundly disrupted for those four years.

Economic Composition
Knowledge of nineteenth-century commerce and industry in Alexandria is fundamental to understanding the growth and development of the city. The city began as a port of trade, shipping tobacco at first, later, flour and other agricultural products, and receiving imported consumer goods. As the economy diversified, commerce expanded. As the city began to industrialize, new commodities became important, particularly coal. Steam engines—powering mills and locomotives—both created the demand for coal and provided the means for its transportation.

Neighborhood
The variety of domestic life of the city is revealed in its neighborhoods. Power and wealth concentrated in the city's core, along the waterfront at first, later, along the major land routes, north-south and east-west. In the periphery, industry established itself, along with the working-class people who provided labor. Their neighborhoods, increasingly separate from those of the upper class, included not only modest dwellings, but vendors of goods and services for the residents. Class and ethnicity as well as work places and shops characterized the neighborhood.

Historic Contexts for the Project Area
The historic context is the point of reference for assessing the significance of archeological resources. The historic context, comprised of cultural theme, chronological period, and geographical limits, places the archeological resource in social and economic history. Three historic contexts will be developed for the Southern Plaza project area: Alexandria railroads, 1848-1905; Civil War Alexandria, 1861-1865; and the Orange and Alexandria railroad yard neighborhood, 1850-1912. Geographically, each context, by definition, is within Alexandria. Chronological periods correspond closely, though not exactly, to the periods used in the historical narrative. The cultural themes represented in each historic context, as
well as the character of the context itself, are discussed below.

Alexandria Railroads, 1848-1905
In the 1840s and 1850s, the first Alexandria railroads were chartered, but for some, the time between chartering and realization was considerable. The Alexandria and Harpers Ferry Railroad Company was chartered in 1847, but was not built until ten years later, as the AL&HRR. The O&ARR, chartered in 1848, was the first to lay track out of Alexandria. The A&WRR, chartered in 1854, was completed in 1857 (Williams 1977:53-55). These three lines brought Alexandria into the era of steam locomotion. The explicit goal of the railroads was to connect Alexandria with sources of raw materials necessary to revitalize the city's trade and supply developing local industry. Alexandria's trade and industrial development was not keeping pace with her rival port city to the north, Baltimore. Direct access to the west, without going to Baltimore, was critical to increasing the volume of trade through the city and fostering industry by supplying materials at competitive prices. The railroads, in fact, were both the means of transporting resources and the consumer of some of those same resources, most notably, coal. By the Civil War, it was clear that the railroads were strategically important, and it was Alexandria's rail connections with the South which were responsible for the city's early occupation by Federal forces.

For the remainder of the nineteenth century, the railroads continued to be important, both as a means of transportation, and as a source of employment. In addition, the buying, selling, and merging of railroad companies was an important aspect of the rationalization of industry and the development of modern American capitalism.

While railroads continued to be important in the twentieth century, particularly during the first half, the center of railroad activities began to shift away from the project area in 1905, when Southern Railroad established its larger Potomac Yards, north of the project area.

Transportation and economic development are inextricably linked in early railroad history. Both themes, important to understanding the history Alexandria, are well represented by the resources of the project area.

Civil War Alexandria, 1861-1865
On May 24, 1861, the day Virginia's vote of secession became effective, Federal troops entered Alexandria and took possession of the city. Alexandria remained an occupied city for the remainder of the war. The citizens of Alexandria had voted overwhelmingly to secede; allegiance was with the
slave-holding states of the Confederacy. During the four years of occupation, private industry and trade largely ceased and individual and commercial property was requisitioned for military use and even sold. The composition of the population changed significantly, as many citizens left the city to join the Confederates for the duration of the war, and blacks found sanctuary with the Federal forces in the city. One of the city's major trades, the slave trade ceased business abruptly in 1861; the Duke Street slave pen became a detention center for both Confederate prisoners and Federal soldiers being held for misconduct.

The major impetus for Federal occupation of Alexandria was its rail connections with the South. Railroads served as lines of communication and supply. They could distribute troops, arms, ammunition, food, and equipment to the front and return wounded and furloughed soldiers, prisoners of war, and surplus equipment to the rear. Like rivers, they were used as avenues of invasion and retreat. Railroads became military objectives, either to secure lines of communication or destroy lines to prevent enemy use (Weber 1952:25).

Early in the war, it became clear that Washington, D.C. was dependent on the railroads for security, communication, and supply. The city was almost isolated from the North in April 1861. Confronted by a hostile state of Virginia across the Potomac and a threatening state of Maryland, Washington, D.C. was connected to the North only by the 40-mile branch of the B&O RR. The strategic importance of Alexandria's railroads was clear to both sides. In April 1861, Confederates anticipated Federal occupation and began to remove railroad iron, flour, and other goods to Confederate lines. General Robert E. Lee ordered the construction of track between the O&A RR and the AL&H RR (Johnston 1961:25); the joining of the lines in Alexandria was finally accomplished during the Federal occupation.

The military occupation of Alexandria and the city's railroads fostered the contributions of two remarkable individuals: Herman Haupt and Andrew J. Russell. Haupt brought to the USMRR the most recent and sophisticated methods of operation, railroad construction, bridge building, and technological inventions. To make these methods available to commanders who could implement them in the field, Haupt requested the transfer of Captain Andrew J. Russell to the military railroads. Haupt's plan was to use photographs as illustrations for training materials that could be sent to commanders in the field (Haupt 1901:279). Russell and his assistant Edgar Fowx photographed construction workers using Haupt's new methods, pasted the photographs on pages, and assembled books that received
limited distribution (Cooney 1982:35; Davis 1983:11-12,14-15) (Plates 9-11). Russell also took dozens of images of Washington, D.C. and Alexandria during the war.

Herman Haupt was called to Washington by Secretary of War Edwin Stanton, to take charge of railroad construction and rebuild portions of the Richmond & Fredericksburg Railroad. Haupt developed a civilian construction corps which consisted of as many as 200 bridge carpenters and 300 contrabands (fugitive slaves). The construction corps not only constructed blockhouses, straightened rails and cut ties, but became adept at railroad destruction techniques. Haupt invented a bridge-destroying torpedo and instructed troops to destroy a locomotive by firing a cannonball through the boiler (Haupt 1901:197-203). He also developed a number of ways, including pontoon boats and barges, to get troops and railroad cars across rivers (Haupt 1901:278-279). It was these research and development achievements which Russell documented.

The most notable product of the USMRR was the Lincoln railway car, built in the Alexandria car shops (McMurtry 1957:1) (Plate 12). The car was built for President Lincoln in May of 1864. Except for one trial run, however, it was only used to carry Lincoln's body to Springfield, Illinois in 1865 (McMurtry 1957:2).

Military and transportation themes, along with photography and industrial research and development, came together in the project area during Alexandria's Civil War years.

The Orange and Alexandria Railroad Yard Neighborhood, 1850-1912
As Alexandria industrialized in the mid-nineteenth century, businesses and residences were established in the city's periphery. The first half of the century saw some development along Little River Turnpike, as brickyards, a tannery, and dwellings were established near the southwest edge of the city. The peripheral neighborhood of freed slaves, known as the Dip, dates from the early nineteenth century (Henley et al. 1983:41). When the O&ARR purchased several blocks west of the Dip, the neighborhood changed. While still in the city's periphery, it now included the railroad yard, with its shops, roundhouse, and offices. Although there is some evidence for occupation of the project area in the early nineteenth century (cf. Cressey 1983:13; Henry 1983:27-28; Figure 2), the earliest map which shows dwellings in the blocks including the railroad yard is the USMRR map (Figure 8). The Hopkins map of 1877 (Figure 9) and Sanborn maps from the latter part of the nineteenth century (Figures 10-13), along with the city directory and tax assessments, document a neighborhood of working-class black
and white residents (some of them railroad workers), shops, and saloons around the railroad yard.

By 1912, the center of railroad activity had shifted to the Potomac Yards, and there were no longer dwellings on the blocks including the railroad yard. The adjacent neighborhood continued to be occupied primarily by working-class blacks (Cressey et al. 1984).

Neighborhood, transportation, and economic composition themes came together in the O&ARR yard neighborhood. This neighborhood, composed of workers' residences, work place, and shops, has its own character and place in Alexandria's history.
III. ARCHEOLOGICAL ASSESSMENT OF THE PROJECT AREA

Archeological Potential of the Project Area

The Southern Plaza project area, the four blocks defined by Duke, Henry, Wilkes, and Payne Streets, was the site of structures and activities important to the history of Alexandria. Documentary research and limited archeological testing adjacent to the project area (T. Ted Cromwell, personal communication 1988) indicate the archeological remains of these structures and activities may be preserved in the project area.

Inventory of Potential Resources

The inventory of potential resources is based primarily on documentary research, particularly historic maps of the project area dating from 1865 to 1958 (Figures 1-19). Interpretation of these maps was aided by information in primary sources, including tax assessments and city directories; and secondary sources, particularly published research and papers prepared by Alexandria Archeology staff members (Cressey et al. 1982, 1984; Cressey 1983; Henry 1983; Shepard 1988) and reports of Phase I archeological investigations in Alexandria by John Milner Associates (Cheek and Zatz 1986; Cheek and Glendening 1986).

There are two classes of archeological resources which can be expected in the project area: (1) features and structural remains and (2) artifacts. Features are the archeological subsurface evidence of human activity, such as pits or construction trenches. Structural remains are the subsurface evidence of buildings, below-grade structures, or enclosures. Artifacts, whole or partial objects made or used by humans, may be associated with features, in concentrations, distributed across a buried ground surface (on sheet middens) or scattered throughout the soil.

Documentary research on the Southern Plaza project area indicates that many structures stood on the site, at least since the first half of the nineteenth century. While the project area is dominated by railroad structures, there may also be remains of dwellings which stood during the nineteenth century, particularly between the mid-nineteenth century and the early twentieth century.

The original roundhouse with its inspection pits stood in the southeast corner of the northeast block (Figures 5 and 9, Plate 13). Both the inspection pits under the bays in the roundhouse and the turntable that would have been in the
center of the roundhouse were constructed as below-grade structures. The first roundhouse was torn down near the end of the nineteenth century and a new, larger roundhouse was built in 1901-1902 to accommodate the larger steam locomotives in use at the turn of the century. Based on documentary and archeological evidence from the Delaware, Lackawanna & Western Railroad (compiled by JMA), the new roundhouse (which was apparently never more than semi-circular) was probably positioned to use the same turntable pit. Inspection pits for the new roundhouse were probably longer and deeper; the original pits may have been either filled in and new ones built or the original pits may have been enlarged. In either case, because these were below-grade structures, they are likely to be preserved. After the second roundhouse burned in 1970, open pits were probably filled with rubble. The USMRR map (Figure 5) also shows a second turntable at the corner of Duke and Henry Streets. This structure, which is now within the Duke Street right-of-way, was revealed during recent archeological excavations (T. Ted Cromwell, personal communication 1988).

The southwest block may also contain remains of structures associated with the railroad. Sanborn maps from 1902, 1907, 1912, 1921, 1941, and 1958 (Figures 18 and 19) show a large car repair shed at the north end of the block. To the southwest is a planing shed and to the southeast is the dynamo room (identified on the 1921 map as the engine room). The 1988 map (Figure 20) of the project area shows a frame repair shop (in the location of the car repair shed) and a one-story brick building in the location of the dynamo/engine room. The planing shed no longer stands.

The southeast block has railroad buildings which date to the twentieth century. The 1912 Sanborn map (Figure 16) does not cover this block. The 1921 map (Figure 17) shows a building at the corner of Henry and Wilkes Streets identified as the laboratory. By 1941, the office building to the north had been built (Figure 18). Both buildings still stand. The only nineteenth-century map information for the remaining block, the northwest block, comes from the 1865 USMRR map (Figure 5), which shows a brick structure built by the O&ARR, incorporated into the commissary department and labeled "kitchen." Excavations in this block have revealed some structural remains, but these have not been interpreted yet (T. Ted Cromwell, personal communication 1988). The 1941 Sanborn map (Figure 18) shows the Thomas J. Fannon buildings along Payne Street. By 1958, the Fannon office building had been added (Figure 19). These buildings still stand.

Although there were many structures built during the USMRR occupation of the project area, all of the structures built by the military were frame. With the possible exception of a
building at the corner of Fayette and Wolfe Streets in the southeast block, most of the structures built by the military were dismantled after the war. These were built as temporary structures, built directly on the ground, probably without foundations, posts, or pylons. Structural remains of such temporary structures will be elusive, at best. Artifact distributions may offer some indications, if small fragments slipped between floor boards and were deposited under the structures or if broken, lost, or discarded objects accumulated around the buildings (in a sheet midden). The configuration of track running through the yard has remained consistent, at least from 1865 to the present.

The domestic occupation of the project area is somewhat more complicated. Dwellings have only been identified in the southern two blocks of the project area. The earliest known dwellings are three structures which predate the 1861 military occupation of the O&ARR yard on the southeast block (Figure 8). These structures are all labelled "Gottlieb Appich" and may date to the 1850s (Alexandria City Tax Assessments 1852). The one at the corner of Wolfe and Henry Streets is a frame structure, which became part of the hospital (USMRR infirmary) during the military occupation. The building facing Henry Street appears to be a frame structure with a brick addition at the rear. Frame additions were constructed during the war, when the buildings were Russell's photo rooms. The third Appich structure was a brick building on Wilkes Street, identified as a barn. The 1877 Hopkins map (Figure 9) shows the three Appich structures, minus the frame additions built during the war. The map also shows, however, two buildings built as quarters (facing Wilkes and Fayette Streets) and the USMRR offices building on Wolfe Street (built as the O&ARR offices) (Plate 14). Despite the fact that two of these buildings (the quarters) were built by the military, they were not dismantled after the war. The entire block is marked "Catherine Makely," the resident at 421 South Henry Street. These three structures remain on the 1885 Sanborn map (Figure 11), as do the Appich structures. By 1885, five new dwellings were added on Henry Street and one on Fayette Street. A small, octagonal structure behind the new dwellings, which also appeared on the USMRR map is labelled "W.C."

The same configuration of buildings shows on the 1891 Sanborn map (Figure 12). The old O&ARR offices building is labelled "Negro Tenements," and the dwelling to the south (on Fayette Street) is labelled "shanty." In 1896 the shanty is gone, as is the "W.C." and a small outbuilding (Figure 13). The east end of the tenement is gone and a structure labelled "chapel" faces Wolfe Street. There is an addition to the east side of the Appich brick structure facing Wilkes Street. By 1902,
only the addition remains, as a carriage house (Figure 14). The tenement on Wolfe Street has become a lumber storage shed, the chapel is identified as "R.R. Mission," and the dwellings along Henry Street have added outbuildings at the back of the lots.

By 1907, only the dwelling at 421 South Henry Street and a small outbuilding that was behind a dwelling on Wilkes Street remain standing on the block (Figure 15). The railroad buildings were built on the block during the remainder of the twentieth century. The construction of the twentieth-century railroad buildings may have destroyed portions of the nineteenth-century remains. However, judging from the maps of the block, some portions of structural remains (foundations) and yards (which could include trash pits, privies, and sheet middens) may be preserved, particularly the Appich structure at the corner of Wolfe and Henry Streets (Figures 8 and 20).

The southwest block also had dwellings during the nineteenth century. There is no evidence that USMRR structures remained on this block after the war. The 1877 Hopkins map (Figure 9) shows a dwelling labelled "Butler." The remainder of the block is labelled "James Green & J. W. Green," but no structures show. The dwelling, at 420 South Payne Street, is the dwelling of railroad engineer Elisha Butler. Butler's house last shows on the 1907 Sanborn map. In 1896, a black laborer, James E. Campbell, also lived at 420 South Payne Street, probably as a boarder (Alexandria City Directory 1896). The Sanborn index map of 1885 (Figure 11) indicates other dwellings stood at that time; there is no more specific information available. Modern maps show no new buildings on the site of Butler's house, suggesting that remains of that structure may be preserved (Figure 20). If the surrounding ground surface has not been significantly disturbed, there is potential for artifacts, trash pits, and a privy in the surrounding yard.

The structural remains of the dwellings as well as sheet middens, trash pits, and privies may be preserved in both of the southern blocks.

Potential Significance of the Archeological Resources

Alexandria Archaeology (1988:6-7) has defined five criteria for evaluating the significance of archeological resources: research value, rarity, public value, site integrity, and presence of materials. Since the potential for archeological resources in the project area is based on documentary research alone at this point, significance cannot yet be determined. Until field testing is conducted, there is
inadequate evidence to evaluate site integrity or presence of materials within the project area. Excavations along Duke Street indicate that there are preserved archeological resources, but there is also significant disturbance (T. Ted Cromwell, personal communication 1988). Any consideration of the research value, rarity, and public value is based on the assumption that archeological resources are preserved.

Both railroad and domestic archeological resources have considerable research value. Alexandria Archaeology has studied the archeology of Alexandria neighborhoods for the past several years, including work in the Dip neighborhood, east of the project area. Research in the railroad neighborhood could contribute to understanding life in Alexandria working-class neighborhoods. No extensive archeological research has been conducted in Alexandria railroad yards: while the history of the railroads may be relatively well known, the archeology has not been studied.

The potential railroad resources in the project area are rare, in that this was the site of the operational headquarters of the USMRR during the Civil War: this is the only site of its kind in the country. It is, therefore, important not only to Alexandria’s history, but to national history. Nineteenth-century domestic sites are not rare in Alexandria; however, the railroad neighborhood could be unusual because of its close association with the railroad yard.

The potential railroad resources, particularly those associated with the Civil War are valuable to the Alexandria public. The citizenry retains strong interest in the Civil War and the occupation of Alexandria. The O&ARR yards were of considerable strategic importance to both sides; their presence in Alexandria was a major factor in the early decision to occupy the city. The potential archeological resources of the nineteenth-century railroad neighborhood are probably of less public value generally; however, knowledge of this mixed-race, working-class neighborhood may be of value to the current residents of the surrounding neighborhood.

The potential archeological resources in the project area represent the three historic contexts discussed above: Alexandria railroads, 1858-1905; Civil War Alexandria, 1861-1864; and the Orange and Alexandria railroad yard neighborhood, 1850-1912. Based on the available documentary information and assessment of the potential resources in light of Alexandria Archaeology’s significance criteria, preserved archeological resources of railroad, domestic, and
Civil War contexts are expected to be significant and contribute to understanding nineteenth-century Alexandria's history.
IV. RECOMMENDATIONS FOR PRESERVATION ACTIONS

Documentary research has demonstrated the strong potential for significant archeological resources in the project area. Recommendations for preservation actions are directed toward revealing the nature, extent, and integrity of these potential resources. Determination of the presence of archeological resources requires survey of the existing ground surface and subsurface testing. Based on the potential for archeological resources established through documentary research, we recommend a significance evaluation of the project area.

We recommend a surface survey of the entire project area. A team of archaeologists would walk over the four blocks, examining the ground for artifacts and evidence of subsurface features, structural remains, and disturbance. In addition to survey, we recommend subsurface testing to reveal the presence or absence of resources and recommend evaluation of the identified resources according to Alexandria Archaeology's significance criteria as well as National Register of Historic Places' (NRHP) significance criteria. This evaluation should include both additional historical research, especially primary document research, and the excavation of test units and test trenches, particularly in areas with high potential for structural remains and artifacts. Specific areas to be tested are identified on Figure 20. Tests should be placed to reveal not only structural remains (for example, remains of the roundhouse and nineteenth-century dwellings), but also yard areas, both railroad and domestic. Appropriate evaluation of the archeological resources will require processing and analyzing the artifacts; interpretation of revealed structural remains; additional historical research, particularly to identify residents and document construction history of the railroad yard; and preparation of a formal report of findings. On the basis of the nature, extent, and preservation of archeological resources, understood within the appropriate historic context, the significance of the archeological resources in the project area can be evaluated. The complete significance evaluation, then, would provide the basis for recommending which sections of the project area to select for appropriate archeological excavation (data recovery) and historical research.

In addition to the archeological testing, we recommend that standing structures, particularly those built by the railroad in the early part of the twentieth century, be recorded (on a Virginia Division of Historic Landmarks short survey form), photographed, and evaluated for eligibility for the NRHP. (NRHP eligibility does not inhibit a private owner's
disposition of a property; in this case, it would be an appropriate means of recording structures before they are gone.)
V. APPLICATION OF THE RESEARCH TO THE DEVELOPMENT PROJECT

The Southern Plaza project area's historical significance lies primarily in the working-class neighborhood and railroad yard which occupied the area in the nineteenth century. Much of Alexandria focuses on the colonial and federal periods and the waterfront. This project can offer an attractive complement by focusing on Civil War and Victorian Alexandria and the railroad. The city underwent important changes during the nineteenth century which are reflected in the character of the modern city. Neighborhoods developed and the city expanded, industrialized, and forged overland communication with the western frontier. The railroads were instrumental in these changes and in the progress enjoyed by the city as well as the declines suffered during the Civil War occupation. The essence of the Southern Plaza project area is the nineteenth-century railroad yard and its neighborhood.

Rather than selecting four disparate themes for the four central buildings, we suggest complementary themes from the nineteenth-century railroad yard and neighborhood. First are the railroad names: Orange & Alexandria; Manassas Gap; Virginia Midland; Southern; and U.S. Military Railroad. The first locomotive run in Alexandria was the Pioneer; other O&ARR locomotive names include Virginia, Alexandria, Fauquier, Prince William, Culpeper, Orange, Rapidan, and Cameron. An engine was also named in honor of General Haupt. Stations along the line included Manassas Junction, Warrenton Junction, Rappahannock, Culpeper, Rapidan, Orange, and Gordonsville--names which could be used for a series of meeting rooms, for example. Names of railroad people include John Barbour, George Smoot, William Powell, Henry Daingerfield, and T. C. Atkinson, all associated with the founding of the O&ARR. Railroad structure names could be used for public places, such as roundhouse, turntable, platform, and dynamo room. Track lines could be followed in designing walkways within the interior open space.

Railroad timetables, advertisements, and documents from the Southern Railway archives could provide additional ideas and names. For example, the archives includes menus from the "Dining Saloons" of passenger trains. Not only do these describe what was offered, but they are in themselves railroad memorabilia, illustrating modern transportation of the day and the comfortable, satisfied passengers enjoying train travel.

The Civil War occupation of the railroad yard offers names and themes, also. The contributions of Herman Haupt and Andrew Russell might be commemorated. A series of Russell
photographs of the USMRR yard and the research and development projects of Haupt would make interesting interior decoration of a public space. Haupt's praise for the efforts of the contrabands (fugitive slaves) who worked in his construction corps could be acknowledged through photographs of their work.

The interior appointments of the Lincoln car, constructed at the USMRR yard, could be followed in decorating a lounge or lobby. The car was furnished with corded crimson silk upholstery, reaching halfway to the ceiling. It had light green silk curtains, oak and walnut woodwork, and painted panels containing the coat-of-arms of the states in the Union. The woodwork over the doors and windows was painted zinc white with decoration in gold and the national colors (McMurtry 1957:1).

The names of nineteenth-century residents of the railroad neighborhood could be incorporated in the complex: engineer Elisha Butler, confectioner Gottlieb Appich, grocery-store owner Catherine Makely, and saloon-keepers Catherine Gorham and Margaret Shaughnessy. A bar could be named for one of these nineteenth-century saloon keepers. Perhaps a bar decorated to evoke the military occupation of the railroad yard (for example, the Bite-the-Bullet Bar, named for the practice used during the Civil War in the absence of anesthesia) might offer a Rail-Bender or an Orange & Alexandria and display Russell photographs of the project area during its years as the headquarters of the USMRR.

Further documentary research may provide other suggestions, such as names of neighborhood residents or railroad workers. Archeological research can be expected to provide additional insight and reveal artifacts from the dwellings and the railroad which can be displayed.
VI. REFERENCES CITED

Alexandria Archaeology

Alexandria City Building Permit
1916 Alexandria City Building Permit No. 317. Copy on file, Lloyd House Library, Alexandria, VA.

Alexandria City Directory
1870 Alexandria City Directory. Copy on file, Lloyd House Library, Alexandria, VA.
1877 Alexandria City Directory. Copy on file, Lloyd House Library, Alexandria, VA.

Alexandria City Tax Assessments
1839 Alexandria City Tax Assessment, 1839. Copy on file, Lloyd House Library, Alexandria, VA.
1850 Alexandria City Tax Assessment, 1850. Copy on file, Lloyd House Library, Alexandria, VA.
1852 Alexandria City Tax Assessment, 1852. Copy on file, Lloyd House Library, Alexandria, VA.

Alexandria Gazette
1851 Alexandria Gazette, May 7, 1851. Copy on file, Lloyd House Library, Alexandria, VA.
1874 Alexandria Gazette, June 19, 1874. Copy on file, Lloyd House Library, Alexandria, VA.
1901 Alexandria Gazette, November 14, 1901. Copy on file, Lloyd House Library, Alexandria, VA.

Cheek, Charles D., and Cecile G. Glendening

Cheek, Charles D., and Karyn L. Zatz
Comings, Charles

Cooney, Charles
1982 Andrew J. Russell, the Union Army's Forgotten Photographer. Civil War Times Illustrated, April.

Cressey, Pamela J.
1983 Sharing the Ivory Tower. In Approaches to Preserving a City's Past, pp. 3-20. Alexandria Urban Archaeology Program, City of Alexandria, VA.

Cressey, Pamela J., John F. Stephens, Steven J. Shepard, and Barbara H. Magid

Cressey, Pamela J., Barbara H. Magid, and Steven J. Shepard

Davis, William (editor)

Eleutherian Mills-Hagley Foundation
1981 Mid-Atlantic Canals and Railroads, 1860. The Regional Economic History Research Center. Eleutherian Mills-Hagley Foundation, Greenville, DE.

Elliot & Nye
1852 Elliot & Nye's Virginia Directory and Business Register, Richmond, VA.

Ewing, Maskell C.

Fairchild, Charles
Fairfax County Deed Book
1794 Liber A2, p. 216, William Thornton Alexander and Lucy, his wife, to John Wise, December 13, 1794.
1796 Liber Y, p. 403, John Wise and Elizabeth, his wife, to Jesse Simms.
1796 Liber Y, p. 407, Matthew Franklin Boun and Elizabeth, his wife, and Theodorous James Hamilton and Eunrah, his wife to Jesse Simms.
1796 Liber Z, p. 11, Jesse Simms to John Wise, May 24, 1796.
1796 Liber Z, p. 25, Jesse Simms to John Mandeville, May 24, 1796.
1796 Liber Z, p. 31, Jesse Simms to Robert Patton and Charles Robert Scott, May 24, 1796.
1796 Liber Z, p. 132, Jesse Simms to John Darby, May 25 1796.
1796 Liber Z, p. 268, Jesse Simms to William Hartshorn, May 24, 1796.
1796 Liber Z, p. 361, Jesse Simms to Amos Alexander, May 24 1796.
1796 Liber Z, p. 479, Jesse Simms to Francis Payton, May 24, 1796.

Federal Register

Gilpin, George, Colonel
1798 Plan of the Town of Alexandria in the District of Columbia. I. V. Thomas, Publisher.

Hambleton, Elizabeth

Haupt, Herman
1862 Letters Received, Records of the Office of the Quartermaster General, Record Group 92, National Archives, Washington, D.C.
1862- Letterbook, November 1, 1862, through August 18, 1863. Lewis Haupt Papers, Library of Congress, Washington, D.C.

Harper's Weekly

Henley, Laura, Ann Palkovich, and Jonathan Haas
1983 The Other Side of Alexandria: Archeology in an Enduring Black Neighborhood. In Approaches to Preserving a City's Past, pp. 41-44. Alexandria Urban Archeology Program, City of Alexandria, VA.

Henry, Susan L.

Hopkins, Griffith M.

Hurd, William B.

Jelisarcic, Micha
1982 Untitled ms. on file, Lloyd House Library, Alexandria, VA.

Johnston, Angus James

Leech, Margaret

Lord, Francis
1969 Lincoln's Railroad Man: Herman Haupt. Fairleigh Dickinson University Press, NJ.

Magnus, Charles
1864 Soldiers' Rest, Alexandria, VA. Lithograph on file, Lloyd House Library, Alexandria, VA.
McMurtry, Gerald (editor)  
1957 The Lincoln Car. Lincoln Lore, May. Fort Wayne, IN.

Miller, T. Michael (editor)  

Models, Andrew M.  

Munson, James D.  

Potter, Stephen R.  

Sanborn Map Company  

Sharrer, G. Terry  
Shepard, Samuel

Shepard, Steven J.

U.S. Government Printing Office

U.S. Military Railroad (USMRR)
1865 Map of the U.S. Military Railroad Station at Alexandria, VA. Drawn at Office of Chief Engineer and Gen'l Sup't U.S. Military Railroads of Va., September-1865. From Actual Survey by Wm. M. Marrick. Map on file, National Archives and Records Administration, Record Group 77, Washington, D.C.

Ward, James

Weber, Thomas

Wilkinson, Joyce E.
1968 The Early Orange and Alexandria Railroad, 1849-1854. Ms. on file, Lloyd House Library, Alexandria, VA.

Williams, Ames W.

Wilson, William
1899 History of the Pennsylvania Railroad Company.
Philadelphia, PA.

Wise, George
1870 History of the Seventeenth Virginia Infantry.
VII. SOURCES FOR FURTHER RESEARCH

Documents

Lloyd House Library, Alexandria
Alexandria Gazette, 1784-presentation (no index).
Advertisements, news items on the railroad, and neighborhood businesses.
Virginia Census Records.
Useful for researching residents of the project area, such as Appich, Makely, and Butler.
Alexandria City and County Court Records.
Information on land ownership and litigation involving the railroads or neighborhood residents.
Alexandria Tax Assessments, 1784-1854; 1895-present.
Separated by ward; some street information given, such as assessments for house and lot.
Alexandria City Directories, 1791-1938, discontinuous.
City, business, and telephone listings; useful to identify business and residents in the project area.

Library of Congress, Washington, D.C.
Geography and Map Division.
Railroad maps, Sanborn insurance maps
Newspapers and Current Periodicals.
Herman Haupt’s Letterbook, November 1, 1862, to August 18, 1863; Lewis M. Haupt Papers.
Haupt's official correspondence while he was in charge of the USMRR.

National Archives and Records Administration, Washington, D.C.
Record Group 92, Quartermaster General's Office.
Consolidated correspondence file, for information on improvements and construction of buildings within the railroad yard; also books of letters sent from headquarters.

Virginia State Library, Richmond, Virginia
Alexandria Tax Assessments, 1854-1895.
Useful for information on property ownership in project area during second half of the nineteenth century. (These records are not currently available in Alexandria.)
Photographic Collections

Library of Congress, Washington, D.C.
Still Pictures Division.
Andrew J. Russell Collection; Russell photographs of the project area, Alexandria, and Washington, D.C. during the Civil War. (Good-quality prints may be ordered.)

Virginia Historical Society, Richmond, Virginia
Andrew J. Russell Collection; Russell photographs from the Civil War.

Huntington Library, San Marino, California
Still Picture Collection.
Andrew J. Russell Collection; collection contains photographs that have never been published; the collection may offer unusual images that have not been identified.

Smithsonian Institution, Washington, D.C.
Museum of American History.
Transportation Division; railroad photographs.

Resource People and Organizations

Norfolk Southern Corporation Headquarters, Atlanta, Georgia
Archives (John Kibler, Assistant Corporation Secretary).
Three filing cabinets of papers, including 1854 advertisement, profile map of the O&ARR line, timetables, weigh bills, candle used in passenger car, 1901 roundhouse construction contract, Civil War photographs, Virginia Midland timetables, menus, list of locomotives, hat checks, and newspaper articles.
Engineering Department (Joe Sims).
Building plans, 1905 map.
Architects' Department (Steve Emmick).

Library of Congress, Washington, D.C.
American Folklife Center and Archives.
Anthologies of railroad lore.

B&ORR Museum, Baltimore, Maryland
Information available only by written request or personal visit.

National Railway Historical Society
Washington, D.C. Chapter, Ronald Dieter, President.

Locomotive Historical Society
Steve Taylor, contact person
Association of American Railroads, Washington, D.C.
Library.
Collections accessible by appointment.

Fort Belvoir, Alexandria
Martin Gordon and Micky Shubert, military historians.

Local Railroad Workers and Enthusiasts
Harry B. Lyon.
Personal collection of memorabilia and old railroad magazines.
James Smith.
Recently retired from Southern Railway.
Mrs. Davis.
Father and uncle worked for the railroad; she used to live at 1115 Duke Street; still lives in Alexandria.
Douglas Powell.
Father worked as a brakeman in the early 1950s on the Southern Railway; maternal grandfather (Bryant) was an engineer.
Michael Powers.
Collector of railroad memorabilia.
FIGURES
Gilpin's Plan of the Town of Alexandria in the District of Columbia (1798)
Ewing's Plan of the Town of Alexandria, D.C. with the Environs (1845)

Figure 2
Locomotive on the O. & A. R. R.

The first locomotive was put upon the track of the Orange and Alexandria Rail Road yesterday, and in the afternoon steam was got up, and the locomotive was run over the line from the north end of Union street, to the tunnel, on Wilkes street. The performance was good, and gave general satisfaction.

Great numbers of our citizens collected, and much joy was manifested at the successful commencement of rail road travel through our town.

Announcement of the First Run of the Pioneer, First Locomotive of the O&ARR
(Alexandria Gazette, May 7, 1851)
Map of the U.S. Military Railroad Station at Alexandria, VA. (1865)
Detail of A Birds Eye View of Alexandria, Virginia (1863)
Lithograph by Charles Magnus, New York
Detail of Soldiers' Rest, Alexandria, VA. (1864)
Lithograph by Charles Magnus, New York
Figure 7
Detail of the Map of the U.S. Military Railroad Station at Alexandria, VA. (1865), Showing Southeast Block of the Project Area

Figure 8
Detail of Hopkin's City Atlas of Alexandria (1877)
(Lloyd House Library, Alexandria, VA.)

Figure 9
Figure 10

Detail of Sanborn Insurance Map of Alexandria (1885), Showing Southeast Block of the Project Area
Detail of Sanborn Insurance Map of Alexandria (1891),
Showing Southeast Block of the Project Area

Figure 12
Detail of Sanborn Insurance Map of Alexandria (1896), Showing Southeast Block of the Project Area

Figure 13
Detail of Sanborn Insurance Map of Alexandria (1902),
Showing Southeast Block of the Project Area

Figure 14
Detail of Sanborn Insurance Map of Alexandria (1907),
Showing Southeast Block of the Project Area

Figure 15
Detail of Sanborn Insurance Map of Alexandria (1912),
Showing Southeast Block of the Project Area

Figure 16
Detail of Sanborn Insurance Map of Alexandria (1921),
Showing Southeast Block of the Project Area

Figure 17
Sanborn Insurance Map of Alexandria (1958)
Alexandria Railroads, 1848-1905
USMRR, 1861-1865
O&ARR Neighborhood, 1850-1861
O&ARR Neighborhood, 1865-1912

Map of the Southern Plaza Project Area Showing Areas with High Potential for Archeological Resources

Figure 20
PLATES
Plate 1. The Slave Pen on Duke Street. (Prints and Photographs Division, Library of Congress.)

Plate 2. Engine General Haupt in Front of the Roundhouse. (Prints and Photographs Division, Library of Congress.)
Plate 3. Man Pointing to Cannon Projectile Hole in Back of Tender. (Still Picture Branch, Vertical File, National Archives and Records Administration [NARA].)

Plate 4. O&ARR Roundhouse, Looking West. (Still Picture Branch, Vertical File, NARA.)
Plate 5. USMRR Commissary Department. (Southern Railway.)

Plate 6. USMRR Iron Yard. (Still Picture Branch, Vertical File, NARA.)
Plate 7. Building the Stockade Around the USMRR Yard. (Still Picture Branch, Vertical File, NARA.)

Plate 9. Workmen Demonstrating the Technique of Bending Rails. (Still Picture Branch, Vertical File, NARA.)

Plate 10. Workmen Demonstrating Straightening Rails. (Still Picture Branch, Vertical File, NARA.)
Plate 11. Workman Straightening a Rail. (Still Picture Branch, Vertical File, NARA.)

Plate 12. The Lincoln Car. (Still Picture Branch, Vertical File, NARA.)
Plate 13. Turntable in the O&ARR Yard. (Prints and Photographs Division, Library of Congress.)

Plate 14. The O&ARR Offices. (Southern Railway.)