

## A. INTRODUCTION

This attachment considers the potential of the Proposed Project to affect archaeological and architectural resources on the project site and in the surrounding area. The project site consists of the twelve existing center malls on Allen and Pike Streets between Delancey and South Streets in Lower Manhattan (see **Figure 2B-1**). The six median malls between Hester and Madison Streets have not yet been designed; however, it is expected that the DPR design will follow the design concept for the other project site malls.

Cultural resources include archaeological and architectural resources. This cultural resources assessment was conducted pursuant to Section 106 of the National Historic Preservation Act (NHPA) of 1966 since funding is being sought from the United States Department of Housing and Urban Development (HUD) to undertake the Proposed Project.

In accordance with Section 106 regulations, archaeological and architectural resource Areas of Potential Effect (APEs) were defined. The archaeological APE for the project site is the area of planned construction and disturbance—the project site itself (see **Figure 2B-1**). Since the proposed project would require excavation, the New York City Landmarks Preservation Commission (LPC) was contacted on August 10, 2006, for a preliminary evaluation of the project site’s archaeological sensitivity. In a comment letter dated August 22, 2006, LPC recommended that a Phase 1A Archaeological Assessment be prepared to determine whether building foundations (related to the former buildings that were once located in these areas) may still be present in the project site that could require stabilization and to determine whether other types of archaeological resources may be located in the project site. The Phase 1A Archaeological Assessment was submitted to LPC and the New York State Historic Preservation Office (SHPO) in March 2010. As indicated in a letter dated March 25, 2010, LPC concurred with the findings and recommendations of the report (see **Appendix C** for correspondence with LPC). The Phase 1A Archaeological Assessment is summarized below.

In general, potential effects to architectural resources can include both direct, physical impacts and indirect, contextual impacts. Direct impacts include demolition of a resource and alterations to a resource that cause it to become a different visual entity. A resource can also be damaged from vibration (i.e. from construction blasting or pile driving) and additional damage from adjacent construction that could occur from falling objects, subsidence, collapse, or damage from construction machinery. Adjacent construction is defined as any construction activity that would occur within 90 feet of an architectural resource, as defined in the New York City Department of Buildings (DOB) *Technical Policy and Procedure Notice (TPPN) #10/88*.<sup>1</sup>

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<sup>1</sup> *TPPN #10/88* was issued by DOB on June 6, 1988, to supplement Building Code regulations with regard to historic structures. *TPPN #10/88* outlines procedures for the avoidance of damage to historic structures resulting from adjacent construction, defined as construction within a lateral distance of 90 feet from the historic resource.

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Contextual impacts can include the isolation of a property from its surrounding environment, or the introduction of visual, audible, or atmospheric elements that are out of character with a property or that alter its setting.

Therefore, to assess the potential for physical and contextual effects due to on-site construction activities, and also to account for the project's potential visual and/or contextual effects, the architectural resources study area is defined as the area within 90 feet of the project site which generally encompasses the blockfronts facing the project site (see **Figure 2B-1**). Within the architectural resources study area, the architectural resources considered include individual properties and historic districts designated as National Historic Landmarks (NHL), listed on the State or National Registers of Historic Places (S/NR) or determined eligible for or pending such listing, and New York City Landmarks (NYCLs) and New York City Historic Districts (NYCHDs) or properties determined eligible for landmark status ("known architectural resources"). A survey of the study area was also undertaken to identify if there were any properties that appeared to meet S/NR and/or NYCL eligibility.

### **B. PROJECT SITE DEVELOPMENT<sup>1</sup>**

#### **INTRODUCTION**

At the time of Manhattan's colonization by European settlers in the 17th century, much of what is now Manhattan's waterfront in the vicinity of Pike Slip (the southern portion of Pike Street between Cherry and South Streets) was inundated by the East River. After the Dutch and English established trade networks which were largely based along the shores of the East River, the waterfront became crucial to New York's burgeoning economy. Throughout the 17th, 18th, and early 19th centuries, the waterfront was expanded through landfilling and the construction of piers, docks, and wharves. The shoreline, originally located in the vicinity of modern Cherry Street near Pike Slip, was extended to South Street, where it exists today, by the early 19th century.

The East River waterfront, including the Pike Slip portion of the project site, maintained a prominent role in the shipping industry until the mid-19th century, when the invention of steam-powered ships forced the focus of New York's trade economy to shift to the deeper waters of the Hudson River. After the decline of the shipping industry along the East River, the Lower East Side soon became developed with multi-family dwellings overpopulated with recent immigrants and the working class. In the 1930s tenements along Allen and Pike Streets between DeLancey and East Broadway were demolished as part of a street widening and urban renewal effort that resulted in the creation of landscaped center medians. Other tenements were demolished in the first half of the twentieth century to eliminate the poor living conditions in the vicinity of Pike Street south of Madison Street, and the land was redeveloped with larger residential developments, including the Rutgers Houses.

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<sup>1</sup> This section includes text from the *Phase IA Archaeological Documentary Study—Pike and Allen Streets: Center Median Construction between Delancey and South Streets, New York, New York* prepared by AKRF, Inc., January 2010.

## DEVELOPMENT HISTORY BETWEEN DELANCEY AND CHERRY STREETS

After New Amsterdam was established in the early 17th century, the Dutch West India Company created several large farms known as *bouweries*. The Allen and Pike Street project site is located within portions of four such farms: Bouweries 4, 5, and 6 and the Mansion House Plot. As the original high water mark was located at modern Cherry Street, the southern portion of the project site was almost completely inundated by the East River throughout the 17th and 18th centuries. Marshland separated Bouwery 6 from the East River and was used for mooring and repairing ships, sloops, and barges. It is also possible that the marshy tract was used exclusively by the tenants of Bouwery 6. The bouwery properties changed hands several times throughout the 17th and 18th centuries before they were consolidated into two farms—the Rutgers and DeLancey Farms.

After the Revolutionary War, the Lower East Side experienced rapid urbanization. Development and street construction were spurred in the late-18th century by the division and sale of both the Rutgers and DeLancey farms. Allen and Pike Streets were at least partially constructed by the late 18th century. Early 19th century maps suggest that all of the blocks adjacent to Allen and Pike Streets as far north as Broome Street had been developed with both residential and commercial buildings. These buildings relied on shaft features—such as cisterns, privies, and wells—for the purposes of water and sanitation. Throughout the early 19th century, road construction and paving continued, with the portion of Allen Street between Grand and Houston Streets not being paved until 1810.

By 1852 every lot within and adjacent to the project site was occupied by one or more structures—including residential, industrial, and commercial structures—and nearly all had an open rear or center yard. Most buildings were brick or wood framed. Although, by that time, water and sewer lines would have been accessible in the original Allen and Pike Street streetbeds, many of the buildings in the area continued to have outbuildings (such as privies). With the mid-19th century influx of immigrants to the neighborhood, many of the old two-story wood frame rowhouses that had lined the streets of the Lower East Side were replaced with four- to five-story brick tenements designed to house large numbers of people. Nearly all of the lots bordering the original Allen and Pike Streets were occupied by attached brick structures, many of which had open rear yards. Although a few wood frame structures remained in the area, many new larger structures were built that occupied entire lots.

Despite the increased development in the area near the East River during the second half of the 19th century, the Hudson River grew more prominent in the shipping industry and the industries that once characterized the Lower East Side began to relocate to other parts of the city. By that time, the neighborhood was occupied by the working class—including mechanics, longshoremen, and sailors—and new immigrants and soon became overcrowded.

In 1879, a branch of the Second Avenue Elevated (El) rail line was constructed along Allen Street north of Division Street. The El line covered nearly the entire width of Allen Street (which at that time was only 50 feet), with stations located at Grand and Canal Streets. By the 1890s, the neighborhood included many factories and industrial buildings interspersed with the tenements along Allen and Pike Streets, along with several schools, churches, and synagogues.

The neighborhood surrounding Allen and Pike Streets was also affected by large infrastructure improvements that resulted from the 1898 consolidation of the boroughs of New York City, including construction of the Manhattan Bridge. The Manhattan Bridge opened in 1909 and became the third East River bridge linking Manhattan with Queens and Brooklyn. To make way

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for the bridge's construction, the City acquired large tracts of land through condemnation or purchase, demolishing many tenements and displacing hundreds of families. In addition, between 1901 and 1905 Delancey Street was widened to 150 feet in conjunction with the construction of the Williamsburg Bridge, resulting in the demolition of several buildings on the southeast corner of Delancey and Allen Streets.

In the 1920s, plans were made to widen Allen and Pike Streets as a slum clearance project and to alleviate traffic congestion. The widening of these streets between Delancey and East Broadway did not begin until 1931, with the demolition of almost 100 buildings lining the east side of the street. The widened streetbeds were completed between Houston Street and East Broadway by the spring of 1932 and were reconstructed with parks on center medians through the entire Allen Street corridor. DPR plans from 1931 and 1936 indicate that each median was paved with asphalt and lined with poplar trees, benches, and a 2.5-foot high iron fence. DPR's 1937 and 1938 planting plans indicate that the medians were remodeled at that time with new plantings and replaced water fountains. These plans note that "during excavation [for tree planting] any old foundations encountered shall be broken off to a depth of 2'-0" below grade and all depressions shall be filled with good earth." Tree pits to be excavated at that time were planned to be 6 feet in diameter and 2.5 feet in depth and the shrub beds that lined the perimeter of the medians were to be dug to a depth of 1.5 feet below grade. The portion of Pike Street between Division Street and East Broadway was initially widened to include a single center median but was redeveloped by 1956 with two parallel medians. At that time, the median between Division and Canal Streets, which was formerly linear, was reconstructed at an angle reflecting the curve in the street.

In 1942, the Second Avenue El was closed and its elevated structure demolished, including those portions that ran along Allen Street. Pike Street between East Broadway and Cherry Street was finally widened in 1958, as part of a new planned truck route through the length of Manhattan between the Willis Avenue and Manhattan Bridges. At that time, the Pike Street streetbed was widened to the west by approximately 87 feet to the same width as Allen Street to the north, and central medians designed as park spaces were constructed in the center of the roadway. The Allen and Pike Street corridor has remained a functioning City streetbed since that time.

### **DEVELOPMENT HISTORY BETWEEN CHERRY AND SOUTH STREETS**

The streetbed between Cherry and South Streets is known as Pike Slip, in reference to the area's history as a small waterway where ships would dock in the late-18th and early-19th centuries. This portion of the project site is composed of landfill that was gradually deposited until the entire streetbed was filled in from Cherry Street as far south as South Street by the mid-19th century. Land-making accomplished two goals. First, it extended the shoreline beyond the shallow water near the natural shore so that ships could dock at landside wharves instead of anchoring far out in the East River. Second, the waterfront's close proximity to the trade ships led to the construction of markets, storefronts, warehouses, and other commercial structures. In this way, land-making had a crucial impact on the development of New York's burgeoning economy. With the continued success of New York's trade enterprises, more and more land along the East River was required for commercial purposes and the creation of terrain via landfilling was rapidly augmented. With the eventual completion of the piers on either side of Pike Slip, this slip eventually became a successful commercial area like many other slips along the East River waterfront in the early 19th century. Like other slips, it also became a dumping ground used by local residents and commercial institutions to dispose of household and commercial trash.

The East River remained the focus of New York's shipping industry until the mid-19th century, when the invention of steam-powered ships forced the focus of New York's trade economy to shift to the deeper waters of the Hudson River. However, Pike Slip remained an open waterway south of Water Street well into the 19th century and was a successful commercial area for the remainder of the 19th century. The city's boundaries were pushed farther south as old slips were filled in and others were constructed along the expanding shoreline. The older piers and wharves were therefore incorporated into the landfill itself. The Pike Street/Pike Slip area of the project site was further altered in 1909 when the Manhattan Bridge was constructed over a portion of Pike Slip, with one of the bridge's footings located along the west side of Pike Slip/Pike Street in the vicinity of Cherry Street.

### **HISTORIC UTILITIES IN THE PROJECT SITE**

New York City did not have a reliable network of water and sewer lines until the mid-19th century. Until that time, public wells were constructed by the city in publicly accessible areas along city streets and early gutters and drains carried waste directly into the East River. Water and waste management for residential properties was handled by the use of shaft features such as privies, cisterns, and wells.

#### *THE FIRST WATER AND SEWER PIPES*

New York City's first water pipes were wooden and were installed in the early 19th century to carry water from local sources (i.e., the Collect Pond) to other areas in lower Manhattan. Water pipes may have been present within the original streetbeds of Allen and Pike Streets or in the cross streets that extend through the project site, as several hydrants were identified in the 1834 "Firemen's Guide." An 1842 map of the complex distribution system associated with the Croton waterworks depicts water lines and stop cocks running through the original streetbeds of both Allen and Pike Streets within the project site. Additional water lines were also present in each of the cross streets that extend through the project site.

Sewers were probably not installed in the project site until the 1850s, therefore, the use of privies could have continued on domestic lots until sewer lines were constructed and perhaps even well after. A 1942 sewer map (updated through 1958) indicates that sewer lines were installed in the project site (in the historic Allen and Pike Street streetbeds) or in the cross streets extending through the project site in the 1850s and 1860s. By 1864, sewage and wastewater from the houses lining Allen and Pike Streets were likely discharged into Pike Slip from one of two large sewer outlets. However, despite the presence of water and sewer lines in the streets, many tenement buildings were not connected to them immediately. Privies remained in use for many years, although in the 1860s they were more commonly connected to public sewers. Although tenement legislation became increasingly strict in the late 19th century, running water and water closets in every apartment was not mandated until 1901.

After the mid-19th century, as clean water was pumped in and waste was carried away, the city's sanitation efforts were greatly improved. An 1879 map shows more than a dozen fire hydrants lining historic Allen and Pike Streets between Delancey and South Streets and an 1891 map shows utility lines in the original streetbeds of Allen and Pike Streets. A continuous sewer line and a parallel water main are also shown running through the length of Pike Street/Slip between Division and South Streets, and intermittent sewer lines in Allen Street between Delancey and Division Streets. Subsequent historic maps and atlases depict additional water lines in the streetbeds.

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A 1924 *New York Times* article reported that a tunnel—described as being at least 40 to 50 feet long and only tall enough for a man to crawl through—had been uncovered below the street near the intersection of Cherry and Pike Streets. The tunnel's specific location was not disclosed although it was likely in the vicinity of 71 and 73 Pike Slip, at the southeast corner of Cherry Street.

### **MODERN UTILITIES IN THE PROJECT SITE**

Water lines are generally installed at a depth of approximately five feet, while sewer lines are generally placed at a depth of 10 feet or more. Twentieth century utilities—such as telecommunications and gas lines—are usually found at depths of 2 to 3 feet and electrical utilities are usually found 1 to 2 feet below grade, although they are occasionally located at greater depths.

Current utility maps for the project site indicate that several utility lines run through the project site, however, most are located within the original Allen and Pike Street streetbeds. A sewer line runs through the center of Pike Slip from South Street and continues along the eastern side of Pike Street (within the historic streetbed) as far north as Division Street. Additional sewer lines connect to this main from each of the cross streets that intersect with Pike Street and smaller sewers are present in the streetbed as connected storm drains. Sewers in the Allen Street portion of the project site are all located within the western portion of the streetbed, beginning approximately 35 feet north of Division Street although these sewers are not contiguous through the length of Allen Street and most empty into sewer mains running through the project site's cross streets. The larger sewers are generally found at depths around 13 to 14 feet below grade, although the depth varies, while the smaller diameter sewers are at 6 to 7 feet below the street surface.

Water lines are also present in the Allen and Pike Street streetbeds, although like sewers, in many locations they only run through the historic boundaries of the streetbeds. A water line is located along the west side of Pike Street between East Broadway and Monroe Street and another short water main is present on the east side of Allen Street in the vicinity of Canal Street. With the exception of electric and gas lines and the occasional steam line, few utilities are present within the widened portions of Allen and Pike Streets or below the center medians. Therefore, there does not seem to be a significant amount of disturbance generated in the vicinity of the former historic lots now incorporated into the streetbeds as a result of utility installations except in those locations where cross streets cover former historic lots.

### **SUMMARY OF CEMETERIES AND INTERMENT OF HUMAN REMAINS IN THE VICINITY OF THE PROJECT SITE**

On October 20, 2009, Amanda Sutphin, Director of Archaeology for the LPC, stated that an anonymous note entered into LPC's GIS database in 2007 contained the following information:

LPC research files for designation of The African Burial Ground and The Commons have newspaper articles from c. 1900 dating to the construction of the Sun Building [near City Hall] and indicating that human remains were disinterred and reinterred on Allen Street and that there may also be a reference to re-interment of burials on Allen Street in Stokes' *Iconography of Manhattan Island*; further research is needed to verify this reference.

Ms. Sutphin explained that she reviewed the files of the African Burial Ground and The Commons to which the note referred, but found no articles or references relating to Pike or Allen Streets. In response to this comment, preliminary research was conducted to determine the potential for buried human remains associated with the African Burial Ground to exist within the project site.

As described in greater detail in the Phase 1A, the preliminary research yielded no evidence of a connection between excavation at the Sun Building site at 280 Broadway/53-63 Chambers/31-39 Reade Street and the deposition of soils in or in the vicinity of Allen or Pike Streets. As indicated by Ms. Sutphin, no references to such a connection were found in the LPC files for the African Burial Ground or The Commons sites. Furthermore, in comparing the timeline of the Sun Building's major construction episodes with that of known alterations to Allen and Pike Streets, no clear chronological correlations appear to exist. Therefore, research suggests that there is no correlation between the project site and human remains associated with the African Burial Ground in the Sun Building vicinity. In addition, additional research conducted to determine whether other burial grounds may have existed within the project site showed that several former churchyards, vaults, and burial grounds were identified between one and three blocks of the project site although no documented burial locations were present within the project site.

## **C. EXISTING CONDITIONS**

### **PROJECT SITE**

#### *ARCHAEOLOGICAL RESOURCES*

##### *Precontact Period Resources*

The precontact period sensitivity of project sites in New York City is generally evaluated by a site's proximity to high, level ground, fresh water courses, well-drained soils, and previously identified precontact period archaeological sites. As detailed in the Allen and Pike Street Phase 1A archaeological report and mentioned above, the portion of the project site south of Cherry Street is located in an area that was formerly inundated by the East River. Therefore, it is unlikely that Native American habitation, hunting, or camping sites would have been located within that portion of the project site. Although there were periods when the water levels were lower, leaving the project site dry enough for potential human exploitation, documentary research suggests that the coastal area of Lower Manhattan was rocky and not ideally suited for precontact period habitation. The remainder of the project site (the Allen and Pike Street streetbeds between Delancey and Cherry Streets) would also not likely have been the location of a habitation site. However, it is possible that the area surrounding the project site was used for the gathering and processing of resources, which is supported by the presence of a Native American trail through the area in the vicinity of modern Division Street. Despite the likelihood that Native Americans used the project site as a temporary hunting or fishing location, Native American archaeological sites tend to be shallowly buried, often within 4 to 5 feet of the precontact period ground surface. It appears that the original ground surface in this area would have been substantially altered by historic period farming, grading, the removal of hills, cutting of streets, and the construction of buildings so as to have disturbed any precontact period archaeological resources, if any had once been present. In addition, utility installations would have generated additional disturbance. Therefore, the project site is determined to have low sensitivity for precontact period archaeological resources.

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### *Historic Period Resources*

The documentary record includes multiple accounts of the paving and grading of the original (prior to widening) streetbeds of Allen and Pike Streets since the early 19th century and the construction and renovation of the center medians since the 1930s. As a result, the entire project site is likely disturbed to a depth of 1 to 2 feet below grade. Numerous utilities are located within the original boundaries of the Allen and Pike Street streetbeds as well as the cross streets that intersect with the project site. The portions of those streets constructed as a result of early-20th-century street widening have experienced significantly less disturbance from utility line installation. Utility lines present within the project site are likely at depths of 1 to 3 feet below grade. Therefore, their installation likely disturbed between 2 and 4 feet below the ground surface. Additional water and stormwater sewer lines and catch basins also connect to the medians in several locations, which would have resulted in disturbance to greater depths.

Most of the historic lots located within the current Allen and Pike Street streetbeds were developed with structures with basements that covered the full extent of the lot. The excavation of each basement would therefore have generated disturbance beyond the depths to which the Proposed Project would require excavation (4 to 5 feet). This disturbance is confirmed by soil borings, which show the presence of 8.5 to 37 feet of fill (associated with backfilling the historic building basement levels) throughout the project site, with most of the borings taken in the vicinity of historic basements.

### *Allen and Pike Streets between Delancey and Cherry Streets*

The majority of the project site between Delancey and Cherry Streets is located in the vicinity of former historic lots rather than historic streetbeds. Therefore, there is little likelihood that undisturbed 19th century infrastructure (i.e. early wooden water mains) is located on the project site. However, the former side and rear yard areas surrounding the lots at 40-42 Allen Street/95 Hester Street are determined to have moderate sensitivity for archaeological resources (i.e., shaft features) below a depth of 2 feet. The project site also has the potential to contain archaeological resources such as shaft features in the former rear yard areas of 310 Grand Street and 72 Allen Street which are determined to have moderate sensitivity for such archaeological resources below a depth of at least 2 to 3 feet (see **Figures 2B-2 and 2B-3**).

In addition, the former rear yard areas of the following lots are determined to have moderate sensitivity for potential shaft features below a depth of 2 to 3 feet: 108 to 114 East Broadway and 99 to 105 Division Street, 108-110 Division Street/2 Allen Street, 69-71 Canal Street/14 Allen Street, and 28-34 Allen Street (see **Figures 2B-3 and 2B-4**).

### *Pike Slip between Cherry and South Streets*

The portions of the Pike Slip project site between Cherry and South Streets that do not contain utilities are determined to have moderate sensitivity for the recovery of historic-period archaeological resources associated with the landfill or landfill technology or 19th-century infrastructure at depths greater than 2 feet below the ground surface except in the locations of existing utility lines (see **Figure 2B-6**).

### *ARCHITECTURAL RESOURCES*

The project site malls are generally long, narrow paved areas with broken or displaced pavement, trees, planters, streetlamps and signage, perimeter fencing, benches, and bicycle racks (see **Figures 2B-2 through 2B-11**). A pair of shorter malls located parallel to one another on



Pike Street is between Division Street and East Broadway. The eastern mall includes an art installation piece—an approximately ten-foot-tall curving brown brick wall. The western mall has trees and fence posts but no fence at its perimeter (see View 7 of **Figure 2B-10**). The project site also includes the DPR Demonstration Mall—the mall between Delancey and Broome Streets—that was reconstructed in 2008 by DPR as part of the planning for the Proposed Project. The Demonstration Mall contains decorative pavers and curbs, fences, benches, trees and smaller plantings, streetlamps, and a Chinese stone art installation (see View 1 of **Figure 2B-7**). The project site also contains the 2009 NYDOT-implemented interim plan that includes bicycle lanes on the east and west sides of the existing Allen and Pike Street malls and the three plaza connectors with temporary planters and benches at the former intersections of Broome, Hester, and Monroe Streets (see View 2 of **Figure 2B-7**).

The project site does not contain any architectural resources except for the mall between Division and Canal Streets. This mall is within the boundaries of the Lower East Side Historic District (S/NR), described below, at the southwest corner of the district (see View 6 of **Figure 2B-10**). This section of the Allen Street mall, like the other project site malls, has broken and displaced pavement, and planters, perimeter trees, and fencing. The Lower East Side Historic District and Extension NR nomination form does not describe this mall or the Allen and Pike Street malls.<sup>1</sup> The report's only references to the Allen Street mall are related to the 1920s and 1930s street widening episodes that resulted in the demolition of buildings that had previously lined Allen Street's east side.

## STUDY AREA

The study area includes portions of 21 blocks, eight of which are in the Lower East Side Historic District and Extension (S/NR). The study area also includes portions of four historic districts that LPC identified as part of the 2008 East Village/Lower East Side Rezoning EIS as appearing eligible for NYCL designation. In addition, the study area includes six individual historic resources. **Figure 2B-1** shows the location of the study area historic resources. No potential resources that appeared to meet the eligibility criteria for S/NR listing or NYCL designation were identified in the study area.

### *LOWER EAST SIDE HISTORIC DISTRICT AND EXTENSION (S/NR)*

Most of the eastern section of the study area and the single block west of Allen Street between Canal and Division Streets are within the boundaries of the Lower East Side Historic District and Extension (see **Figure 2B-1**). The entire historic district—roughly bounded by Houston Street and East Broadway on the north; Essex and Jackson Streets on the east; Henry, Madison, and Water Streets on the south; and Allen and Eldridge Streets on the west—includes all or parts of 31 blocks. The historic district comprises an area that was once a middle class residential neighborhood inhabited largely by native-born Protestants and later became a largely German immigrant neighborhood. By the late nineteenth/early twentieth centuries, the area had become home to tens of thousands of Eastern European Jewish immigrants. The historic district is largely characterized by residential structures with ground-floor commercial spaces. Most buildings are five- to six-story brick tenements with ground-floor retail or basement-level and

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<sup>1</sup> “Lower East Side Historic District.” National Register of Historic Places Registration Form. Andrew Scott Dolkart, July 2000 and “Lower East Side Historic District (Boundary Increase).” National Register of Historic Places Registration Form. Kathy Howe, July 2003.

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first-floor retail. Most of these buildings have fire escapes or fire balconies on their front elevations. The commercial buildings in the historic district include several industrial loft structures, a few large stores, and many one- and two-story brick stores. The district also includes institutional buildings such as synagogues, a firehouse, schools, and a library. Many buildings on the east side of Allen Street were demolished in the 1920s as part of a slum clearance project that involved widening Allen Street. Many smaller structures were built on the remaining lots fronting on Allen Street's east side. Some of these are independent structures and others are additions to the rear of tenements that face Orchard Street. Several of these structures are within the project study area (see Views 11 and 12 of **Figure 2B-12**).

### *ORCHARD STREET AND ORCHARD STREET EXTENSION HISTORIC DISTRICTS (NYCL-ELIGIBLE)*

The Orchard Street and Orchard Street Extension Historic Districts are roughly bounded by Allen, Delancey, Ludlow, Essex, and Canal Streets (see **Figure 2B-1**). These districts are located wholly within the boundaries of the S/NR Lower East Side Historic District and Extension. Buildings in these districts that are in the Proposed Project's study area include 19th century tenements and 19th and 20th century commercial buildings (see Views 11 and 12 of **Figure 2B-12**). These historic districts were identified by LPC in the 2008 East Village/Lower East Side Rezoning EIS as appearing to be eligible for NYCL designation.

### *ELDRIDGE STREET NORTH AND ELDRIDGE STREET SOUTH HISTORIC DISTRICTS (NYCL-ELIGIBLE)*

The NYCL-eligible Eldridge Street North and Eldridge Street South Historic Districts are roughly bounded by Forsyth, Delancey, Allen, and Division Streets (see **Figure 2B-1**). Portions of the western section of the study area are located within these districts' boundaries. Buildings in the study area located within these districts include 19th-century tenements and 19th- and 20th-century commercial buildings (see View 13 of **Figure 2B-13**). These historic districts were identified by LPC in the 2008 East Village/Lower East Side Rezoning EIS as appearing to be eligible for NYCL designation.

### *BANK OF THE UNITED STATES BUILDING (S/NR-ELIGIBLE, CONTRIBUTING BUILDING TO THE S/NR LOWER EAST SIDE HISTORIC DISTRICT AND EXTENSION AND THE NYCL-ELIGIBLE ORCHARD STREET HISTORIC DISTRICT)*

The Bank of the United States Building at 77 Delancey Street, designed by architect Samuel Sass and constructed in 1913, is a seven-story Classical Revival-style marble and terra-cotta commercial building. Its temple-front façade has four large Corinthian columns supporting an entablature (see View 14 of **Figure 2B-13**). This building was identified by LPC in the 2008 East Village/Lower East Side Rezoning EIS as appearing to meet the eligibility criteria for S/NR listing.

### *LOWER EAST SIDE TENEMENT MUSEUM (NHL, S/NR, CONTRIBUTING BUILDING TO THE LOWER EAST SIDE HISTORIC DISTRICT AND EXTENSION)*

The Lower East Side Tenement Museum at 97 Orchard Street is a National Historic Landmark and a contributing building in the Lower East Side Historic District. This five-story Italianate brick tenement was built circa 1863. The building's lower two floors originally served as commercial space. On these two floors, large metal and glass storefront windows project from

the brick facade on either side of the entrance. These storefronts date from 1905. The upper floor windows are arched with stone lintels (see View 12 of **Figure 2B-12**). Since the widening of Allen Street in the 1920s, the rear yard of the tenement building has fronted onto Allen Street and is within the current project's study area.

*FORMER E. RIDLEY & SONS DEPARTMENT STORE AT 66 ALLEN STREET/315-321 GRAND STREET (CONTRIBUTING BUILDING TO THE LOWER EAST SIDE HISTORIC DISTRICT AND EXTENSION, CALENDARED FOR NYCL DESIGNATION)*

The former E. Ridley & Sons Department Store at 66 Allen Street/315-321 Grand Street is a five-story, Neo-Grec cast-iron building. It was built in two phases with the original section dating from 1876 and designed by architect John B. Snook. The building was extended in 1886 and designed by architect Paul F. Schoen. The building has several rear additions and the building's west end was removed when Allen Street was widened. That building section was then rebuilt in brick with limestone trim in the Art Deco style (see View 15 of **Figure 2B-14**).

*S. JARMULOWSKY BANK BUILDING (CONTRIBUTING BUILDING TO THE S/NR LOWER EAST SIDE HISTORIC DISTRICT AND EXTENSION, NYCL)*

The 12-story S. Jarmulowsky Bank Building at 54-58 Canal Street/5-9 Orchard Street was designed by architects Rouse & Goldstone and built in 1911-1912. This neo-Renaissance-style building occupies the southwest corner of Canal and Orchard Streets (see View 16 of **Figure 2B-14**). It has a rounded corner entrance. The building's tripartite configuration includes a three-story base faced in rusticated Indiana limestone with two-story round arch window openings. The building's Canal Street frontage has a large storefront opening.

*FORMER PIKE STREET SYNAGOGUE (CONTRIBUTING BUILDING TO THE S/NR LOWER EAST SIDE HISTORIC DISTRICT AND EXTENSION, NYCL)*

The former Pike Street Synagogue, located at 13-15 Pike Street, was built in 1903-1904. The three-story building, designed by Alfred E. Badt for the Congregation Sons of Israel Kalwarie, is faced in limestone and has Romanesque and classical design elements, including an arched portico with two staircases leading to a central raised entrance. The former Pike Street Synagogue, one of the largest synagogues on the Lower East Side, was built by immigrants from Kalwarie, Poland at a time when many synagogues were established on the Lower East Side. The building was renovated in the 1990s and now has multiple tenants, including a Buddhist temple (see View 17 of **Figure 2B-15**).

*MANHATTAN BRIDGE<sup>1</sup> AND ARCH AND COLONNADE (S/NR, NYCL<sup>†</sup>)*

A portion of the Manhattan Bridge spans above the southern, Pike Street section of the project site and study area. The structure is a highly visible and significant feature in this area of Manhattan as it is a two-level, steel suspension bridge that spans the East River between Canal Street in Manhattan and Flatbush Avenue in Brooklyn. The final design of the bridge was the result of the work of several engineers and architects. Early plans for the bridge were designed

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<sup>1</sup> The entire Manhattan Bridge, including the Arch and Colonnade, are included in the S/NR designation. Only the Arch and Colonnade have a NYCL designation, however, the bridge itself has been determined NYCL-eligible by LPC.

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by R.S. Buck, but in 1903 plans for the bridge were revised by Gustav Lindenthal in collaboration with Henry Hornbostel. These plans were later rejected, and the final design for the bridge was developed by Leon Moisseiff in 1904. Carrere & Hastings replaced Hornbostel as architectural consultants, but retained much of Hornbostel's design for the towers and anchorages. The bridge opened in 1909. The bridge has a massive granite pier immediately west of the study area that spans over Cherry Street. The bridge's arch and colonnade at the Manhattan Bridge Plaza at Canal Street were designed by Carrere & Hastings and built in 1910-1915. Those components of the structure form a monumental gateway to the bridge (see View 18 of **Figure 2B-15**).

### **D. FUTURE WITHOUT THE PROPOSED PROJECT**

#### **PROJECT SITE**

The Future without the Proposed Project assumes that there will be no construction activity on the project site, and the site will remain in its current condition. The Future without the Proposed Project also assumes there will be no ground disturbance on the project site. Therefore, any archaeological resources, if present on the project site, will not be disturbed in the future without the Proposed Project.

#### **STUDY AREA**

The status of architectural resources could change in the future without the Proposed Project. S/NR-eligible architectural resources could be listed on the Registers and NYCL-eligible properties could be calendared for a designation hearing. It is also possible that some architectural resources in the study area could deteriorate, while others could be restored. In addition, future projects could affect the settings of architectural resources, or accidentally damage such resources through adjacent construction.

Architectural resources that are listed on the National Register or that have been found eligible for listing are given a measure of protection from the effects of federally sponsored or assisted projects under Section 106 of the NHPA. Although preservation is not mandated, federal agencies must attempt to avoid adverse effects on such resources through a notice, review, and consultation process. Properties listed on the State Register are similarly protected against effects resulting from state-sponsored or state-assisted projects under the State Historic Preservation Act. Private property owners using private funds can, however, alter or demolish their properties without such a review process. Thus, while the historic buildings in the architectural study area are protected by federal, state, and local regulations, it is possible that they may be altered in the future. Privately-owned sites that are NYCLs, within NYCHDs, or pending designation, are protected under the New York City Landmarks Law, which requires LPC review and approval before any alteration or demolition can occur.

There are two known development projects within the study area. The East River Esplanade and Piers project will be constructed south of the project site. It will be complete by 2012. This project will provide improvements to public open spaces along the East River Esplanade, a two-mile-long, public open space connecting Whitehall Ferry Terminal and Peter Minuit Plaza to the south to East River Park to the north. New amenities will include benches, plantings, lighting, walkways, and bike paths. Fourteen pavilions will be constructed beneath the FDR Drive and will be sited so as not to obscure views to nearby architectural resources. This project is not

expected to have any direct effects on architectural resources in the Proposed Project's study area.

A new seven-story commercial and community facility building will be built at 1-3 Orchard Street/2 Allen Street, approximately 50 feet east of the project site mall between Division and Canal Streets. The site is within the Lower East Side Historic District and Extension and construction of this project could cause accidental construction damage to contributing historic district buildings located within 90 feet of construction. Adjacent contributing buildings would be offered some protection through DOB controls governing the protection of adjacent properties from construction activities.

## **E. PROBABLE IMPACTS OF THE PROPOSED PROJECT**

### **PROJECT SITE**

#### *ARCHAEOLOGICAL RESOURCES*

##### *Precontact Period Resources*

As described above, the project site has been determined to have low sensitivity for precontact period archaeological resources. Therefore, the Proposed Project would not be expected to adversely affect any such resources.

##### *Historic Period Resources*

The project site, as described above, has been determined to have low to moderate potential for the recovery of historic period archaeological resources that could include shaft features, 19th-century infrastructure, landfill deposits, and landfill retaining devices, depending on the location, size, and depth of subsurface impacts. The proposed project is expected to disturb approximately 1 to 2 feet below the ground surface throughout the majority of the project site and could extend to depths of 3 to 5 feet in areas where tree pits, water lines, catch basins, and other deep infrastructure improvements are planned. Because plans for the malls between Hester and Madison Streets have not yet been finalized, it is unclear if the project would impact potentially sensitive levels (i.e. deeper than 2 to 3 feet below grade) in these areas. The project site has already been disturbed to a depth of 2 to 3 feet as a result of road construction, paving, and grading as well as tree pit and fence post excavation in the vicinity of the center medians. Deeper disturbance was generated within those former lots that contained buildings with basements. Therefore, only potential historic period resources in previously undisturbed areas that would be excavated to depths of more than 2 feet are likely to be impacted by the proposed project (see **Figures 2B-2 through 2B-6**). For the purposes of NEPA and SEQRA, the Proposed Project is not expected to have any significant adverse effects on archaeological resources.

For the purposes of satisfying any obligations under Section 106, further study in the form of a Phase 1B archaeological investigation is recommended for those areas where excavation for the Proposed Project will exceed 2 feet below the ground surface in those areas not previously disturbed by basement or utility excavation. Maps of those areas where archaeological testing is recommended are included in this report as **Figures 2B-2 through 2B-6**. While preliminary determinations of archaeological sensitivity for the malls between Hester and Madison Streets were included in the Phase 1A, the project plans for these malls are not yet finalized. Upon their completion, the final plans for the malls between Hester and Madison Streets should be reviewed by a professional archaeologist to determine if the proposed work could affect potential

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archaeological resources in these areas. If so, additional documentary research may be necessary for those areas to identify the historic occupants of those lots in various historic records such as census records, tax assessments, directories, etc. The goal of the testing would be to determine if any significant archaeological resources are present. All archaeological testing would be designed and conducted in consultation with SHPO and LPC, including preparation of a testing protocol to be submitted to SHPO and LPC for review prior to testing.

If any archaeological resources are encountered during testing at the project site, further investigation and research may be required to document the extent of the find and its potential significance. This work would also be undertaken in consultation with SHPO and LPC. The process by which ongoing consultation would proceed with respect to archaeological resources would be set forth in a Programmatic Agreement or other monitoring agreement among HUD, LMDC, and SHPO.

Implementation of the measures set forth in the Programmatic Agreement or other monitoring agreement with respect to archaeological resources would ensure that the project's potential effects on cultural resources have been fully considered and fulfill HUD's and LMDC's responsibilities under Section 106 of NHPA.

### *ARCHITECTURAL RESOURCES*

The Proposed Project would alter the project site with landscaping—including existing and new trees, decorative paving, seating, lighting, fencing, walkways, and bicycle lanes and bicycle racks. This would result in a pedestrian park promenade that would serve as a linear community park linking the adjacent Lower East Side, Two Bridges, and Chinatown neighborhoods to the East River waterfront. The existing, primarily concrete malls would be widened to include the NYCDOT Interim Plan bicycle lanes and intersection plaza connectors. The redeveloped malls would follow the design aesthetics of the Demonstration Mall, described above (see **Figures 1-8 through 1-17**, “Project Description”). The walkways and bicycle lanes would extend through the entire length of the project site. Although DPR has not designed the malls between Hester and Madison Streets, it is expected that the design of these malls would be similar to the design of the other project site malls.

The anticipated changes to the project site mall located within the Lower East Side Historic District would be expected to maintain existing trees, repave the mall, replace existing seating, and add narrow grassy areas at the mall's perimeter. These changes would not alter the existing mall's use, nor obstruct views or significantly alter the context of the historic district. Therefore, the Proposed Project would not result in adverse effects to this mall within the Lower East Side Historic District. The remaining project site malls do not contain any architectural resources, therefore, the Proposed Project would not result in adverse effects on any such resources. Further, no new project site elements would obstruct views to nearby architectural resources. Overall, the Proposed Project is expected to have a beneficial effect on architectural resources.

### **STUDY AREA**

The redevelopment of the project site malls with new paving, landscaping elements, walkways, and bicycle paths would not alter the uses of these malls, and therefore, not adversely affect the context of the study area's architectural resources. The Proposed Project would not compete visually with the study area's architectural resources as the reconstructed malls would include landscaping elements that would not obstruct views or adversely affect the physical or visual context of nearby architectural resources. Further, the Proposed Project would maintain physical

and visual access to the study area's architectural resources. Therefore, the Proposed Project would not be expected to result in adverse effects on architectural resources in the study area.

Portions of the Lower East Side Historic District and Extension, the Orchard Street and Orchard Street Extension Historic Districts, and the Eldridge Street North and Eldridge Street South Historic Districts, and five individual architectural resources are located within 90 feet of proposed construction activities on the project site (see **Figures 2B-2, 2B-6 through 2B-8, and 2B-10**). To avoid potential adverse physical effects on these architectural resources, a Construction Protection Plan (CPP) would be developed and implemented prior to the commencement of any demolition or construction activities on the project site. The CPP would follow DOB's *TPPN #10/88*, regarding procedures for the avoidance of damage to historic structures resulting from adjacent construction, and would be prepared in consultation with SHPO and LPC. *TPPN #10/88* requires a monitoring program to reduce the likelihood of construction damage to adjacent NYCLs and S/NR-listed properties (within 90 feet) and to detect at an early stage the beginnings of damage so that construction procedures can be changed. \*