

A. INTRODUCTION

This attachment considers the potential of the Preferred Alternative to affect archaeological and architectural resources on the project sites and in the surrounding areas. The project sites are Catherine Slip/Catherine Street between South and Madison Streets, Rutgers Slip between South and Cherry Streets, and Montgomery Street between South and Madison Streets (see Figure 2B-1).

Cultural resources include archaeological and architectural resources. This assessment of cultural resources was conducted pursuant to Section 106 of the National Historic Preservation Act of 1966 (NHPA) since funding is being sought from the United States Department of Housing and Urban Development (HUD) to undertake the Proposed Action. The Lower Manhattan Development Corporation (LMDC) informed the New York State Historic Preservation Office (SHPO) and the Advisory Council on Historic Preservation of its intent to coordinate the environmental and Section 106 reviews and consultation. LMDC consulted with both SHPO and the City of New York, through the New York City Landmarks Preservation Commission (LPC), throughout the coordinated review process, including sharing designs and information and holding meetings. LMDC will also provide opportunities for public comment on the environmental assessment through publication and distribution of a notice of the National Environmental Policy Act (NEPA), the New York State Environmental Quality Review Act (SEQRA), and Section 106 findings. In addition, the City independently held several meetings with members of the community, including members of the local community board, to receive input on the proposed project design.

In accordance with Section 106 regulations, archaeological and architectural resource areas of potential affect (APEs) were defined. The archaeological APE for each of the three project sites is the area of planned construction and disturbance—the project site itself (see Figures 2B-1, 2B-2, 2B-6, and 2B-9). Based on a preliminary evaluation of each project site, LPC recommended the preparation of Phase 1A archaeological documentary studies for each site, finding that the Catherine Slip site has the “potential for the recovery of remains from 18th and 19th Century occupation;” the Rutgers Slip site has the “potential for the recovery of remains from 19th Century land fill;” and the Montgomery Slip site has the “potential for the recovery of remains from 19th Century occupation” (see Appendix C), LPC comments dated December 20, 2006). In a letter dated February 13, 2007, SHPO also recommended that a Phase 1A survey be prepared for each of the three project sites (see Appendix C), SPHO letter dated February 13, 2007). The Phase 1A Archaeological Assessment Reports prepared for each of the three project sites are summarized below in “Existing Conditions” and their recommendations are described below in “Probable Impacts of the Proposed Action.”

In general, potential impacts 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 could also be damaged from vibration (i.e., from construction blasting or pile driving), and additional damage from

adjacent construction 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) #10/88.¹ 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. The Preferred Alternative would generally be limited to repaving sidewalks, constructing medians, and installing new plantings and street trees.

Therefore, to assess the potential for physical and contextual effects due to on-site construction activities, the architectural resources APE is defined as the area within 90 feet of the project sites (see Figures 2B-2, 2B-6, and 2B-9). Within the architectural resources APE for each of the three project sites—Catherine, Rutgers, and Montgomery Slips—the architectural resources considered include properties or historic districts listed on the State and National Registers of Historic Places (S/NR) or determined eligible for such listing (S/NR-eligible), New York City Landmarks (NYCLs), New York City Historic Districts (NYCHDs), and properties determined eligible for NYCL designation.

PRINCIPAL CONCLUSIONS

As described below, Phase 1B archaeological investigation or archaeological monitoring is recommended in all previously undisturbed areas of the project sites which would be impacted by construction and/or in all areas in which the depth of disturbance would reach previously undisturbed areas 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 approval prior to testing.

The Preferred Alternative would provide public amenities and improve pedestrian connections between the East River Waterfront and adjacent Lower Manhattan neighborhoods, including Chinatown, the Lower East Side, and East River Park. The Preferred Alternative would improve public access to and utilization of the waterfront area and would enhance Catherine, Rutgers, and Montgomery Slips. Now active roadways, these areas were once an integral part of the working waterfront, involving commerce, ship-building, repair, and maintenance. These slips have been filled in over time leaving wide city streets. The Preferred Alternative would improve the median open space in Catherine Slip and create a paved median in a portion of Montgomery Street. Like Catherine Slip and Montgomery Slip, Rutgers Slip would be improved with unifying elements including paving and plantings. The Preferred Alternative would improve the current conditions of the slips by providing multiple, attractive pedestrian access points to the East River waterfront from the interior of Lower Manhattan and would enhance the surrounding areas by improving public open space.

¹ 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.

B. PROJECT SITE DEVELOPMENT

At the time of the colonization of Manhattan by European settlers in the 17th century, much of what is now Manhattan's waterfront in the vicinity of the Catherine and Rutgers Slips and Montgomery Street 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 was originally located in the vicinity of modern Water Street near Catherine Slip, at Cherry Street near Rutgers Slip, and at Front Street near Montgomery Street. The shoreline was extended to South Street, where it exists today, by the early 19th century.

The East River waterfront 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 in the area, the Lower East Side soon became developed with lower-class slums overpopulated with recent immigrants and the working class. In order to eliminate the poor living conditions associated with the tenements of the Lower East Side, in the first half of the 20th century many old tenements were torn down and the land was redeveloped with large-scale housing projects.

CATHERINE SLIP¹

The Catherine Slip project site was included within a parcel of marshland that was reserved by the Dutch government for potential use as a shipyard. A 17th century dam and tide mill built by Abraham Pietersen was located in the vicinity of what is now Catherine Slip, although the developed portion of the city remained to the southwest until the 18th century. In the early 18th century, the farmland surrounding the Catherine Slip project site was purchased by Harmanus Rutgers, Jr., a brewer who owned much of the land that makes up today's Lower East Side. Historic maps show that Catherine Slip was inundated by marshland through the late 18th century, although a small point of land jutted out into the East River near the northeast corner of Cherry Street and what is now Catherine Slip. This area was referred to as "Hughson's Point" in the early 1740s. Later, it was the site of the hanging of John Hughson, a white tavern owner who had been convicted of his involvement in the so-called "Great Negro Plot" to destroy Fort George at the tip of Manhattan.

Beginning in the mid-18th century, water lots along the East River shoreline were granted to private citizens so that they could be filled in and the shoreline extended. Members of the Rutgers family were granted the lots adjacent to Catherine Slip, which was at the time an important docking location for commercial vessels and ferries. The landfilling process was slow, and the Catherine Slip project site appears to have been inundated by marshland and the East River during the Revolutionary War, during which the British Army appears to have used the high ground to the north of the Catherine Slip project site as a burial ground. A seven-gun fortification known as *Waterbury's Battery* was constructed near the project site at the southeast corner of Catherine and Cherry Streets during the war. While originally built as an American fortification, after the British Army took control of New York City, the battery was later used by the British. *Waterbury's Battery* may have been partially located within the modern streetbed of

¹ This section includes text from the *Phase 1A Archaeological Documentary Study—Catherine Slip between Madison and South Streets, New York, New York* prepared by AKRF, Inc., May 2009.

East River Waterfront Access—Catherine, Rutgers, and Montgomery Slips

Catherine Slip, although historic maps do not clearly identify its location. After the end of the war, the development of the waterfront and the expansion of the city intensified and Catherine Slip was gradually filled. By the 1820s, the entire project site was filled in as far as South Street.

Numerous structures lined both sides of Catherine Slip during the historic period and in 1785 a market was established in the center of the slip on the newly filled land between Cherry and Water Streets. The market buildings were rearranged and reconstructed numerous times during the 18th and 19th centuries and stood on Catherine Slip until the first decade of the 20th century. Catherine Market holds a unique place in history because it was the home of popular African-American dancing contests and exhibitions during the 19th century.

During the early 20th century, the blocks adjacent to Catherine Slip were occupied by some of the city's worst slums. In the early 1940s, all the structures on the western side of Catherine Slip between Madison and South Streets were demolished and the land was redeveloped with the Alfred E. Smith housing development. Other housing projects were constructed east of Catherine Slip and Catherine Street. Because of 20th century construction activities that resulted in the widening of the street and the demolition of tenements that had been located along its western side, the modern Catherine Slip and Catherine Street streetbed includes portions of historic lots that were formerly developed with tenements.

RUTGERS SLIP¹

Like Catherine Slip, Rutgers Slip was originally inundated by marshland and the East River. It was later incorporated into Harmanus Rutgers' farm. Little development occurred in the vicinity of the slip until the late 18th century, when members of the Rutgers family were first granted water lots adjacent to it. The slip itself was likely first constructed circa 1785 when a man named Thomas Buchanan constructed a large pier that formed the slip's western side. Buchanan's heirs later operated a store near the intersection of Rutgers Slip and Cherry Street, which may have been located within the Rutgers Slip project site.

Rutgers Slip and the surrounding area became an important location for the shipping and shipbuilding trades during the last years of the 18th century. Like the other slips along the East River, as new docks and piers were constructed at its southern end, Rutgers Slip was gradually filled in between the 1790s and the 1840s. By circa 1850, the slip was entirely filled in as far south as South Street. During the 19th century, the newly filled streetbed was lined with residential and commercial structures, however, none of these appear to have entered the Rutgers Slip project site. The neighborhood became increasingly crowded and Rutgers Park, a public park and playground, was constructed on Rutgers Slip by the 1890s in an attempt to create an open recreational space for the poor neighborhood residents.

In the early 1930s, a subway tunnel was constructed beneath Rutgers Slip by the shield tunneling method which involves the use of a tunnel boring machine that can excavate tunnels many feet below grade without disturbing the soil levels between the tunnel and the ground surface. Because of the use of the shield method, the construction of the subway is not believed to have had any impact on the surface of Rutgers Slip or Rutgers Park. Beginning in the 1950s, the lots adjacent to the Rutgers Slip streetbed were cleared and redeveloped with larger structures. The existing Rutgers Park was constructed in 1979.

¹ This section includes text from the *Phase IA Archaeological Documentary Study—Rutgers Slip between Cherry and South Streets, New York, New York* prepared by AKRF, Inc., May 2009.

MONTGOMERY SLIP¹

During the Dutch and English occupation of New York City, the land north of the main urban center in Lower Manhattan was granted to individual settlers as large tracts of farmland. Montgomery Street was established in 1765 as the boundary between two such farms owned by the Rutgers and DeLancey families. In the 1760s and 1770s, a ropewalk and an estate associated with Elias DeGrushe were located along the eastern side of Montgomery Street and were likely partially situated within the modern streetbed.

Unlike Catherine and Rutgers Slips, the majority of the Montgomery Street project site is composed of fast (original) land rather than man-made land. The street was located in the vicinity of Jones' Hill (also known as "Mount Pitt"), a large elevated area that was fortified during the Revolutionary War. Portions of the fortification walls constructed at this time may have been located in the area now covered by the Montgomery Street streetbed. Because of the military presence in the area, the area surrounding Montgomery Street was not substantially developed until after the war ended in the early 1780s. The development in this area was spurred by the division and sale of the DeLancey farm after the DeLancey family, who remained loyal to the British crown during the war, fled America and their property was confiscated. Although the Rutgers family sided with the Americans and therefore maintained ownership of their property, by the end of the 18th century, they began to sell portions of their land as the city began to spread northward and their land became more valuable as real estate than as farmland.

In 1792, the "Belvedere House," one of the first country clubs in existence, was constructed on the west side of Montgomery Street between Clinton and Monroe Streets. The opulent retreat was a favorite of many wealthy New Yorkers and visiting dignitaries—including French Prince Jerome Bonaparte, brother of the French emperor Napoleon Bonaparte—until it was demolished in 1830. The club was so popular that Jones' Hill was cut down and used to fill in the low ground to the south to improve access to the club.

In the first half of the 19th century, the city continued to expand to the north and the waterfront was expanded with landfill. The southernmost portion of Montgomery Street, the only part that was originally inundated by the East River, was filled in as far south as South Street by the late 1820s. Numerous residential and commercial structures lined both sides of the street by the mid-19th century. During the second half of the 19th century, as the shipping industry relocated to the Hudson River waterfront, crowded tenements became increasingly common along Montgomery Street, although not all of the blocks in this area were as bad as the slums elsewhere on the Lower East Side.

In the second half of the 20th century, many of the tenements located along Montgomery Street were demolished and replaced with the large housing projects that now characterize this area. In association with the construction of these large housing developments, the streetbed of Montgomery Street was widened by 40 feet to the east. Therefore, portions of almost 30 former domestic lots are now located within the modern Montgomery Street streetbed.

¹ This section includes text from the *Phase 1A Archaeological Documentary Study—Montgomery Street between Madison and South Streets, New York, New York* prepared by AKRF, Inc., May 2009.

C. EXISTING CONDITIONS

CATHERINE SLIP

PROJECT SITE

The Catherine Slip project site comprises Catherine Slip between South and Cherry Streets, including the streetbeds, two raised center medians with plantings, adjacent sidewalks, and a portion of Tanahey Playground. The project site also includes the streetbed and portions of the adjacent sidewalks on Catherine Street between South and Madison Streets (see Figure 2B-2 and Views 1 and 2 of Figure 2B-3).

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 Catherine Slip Phase 1A archaeological report and mentioned above, the Catherine Slip project site is situated in an area that was formerly inundated by marshland or the East River. Therefore, it is unlikely that Native American habitation, hunting, or camping sites would have been located within the Catherine Slip APE. Although there were periods of time when the water levels were lower, leaving the Catherine Slip project area dry enough for potential human exploitation, any archaeological resources dating to those times would be very deeply buried and could have been disturbed during the dredging of Catherine Slip during the historic period. Therefore, the Catherine Slip project site is determined to have low sensitivity for precontact period archaeological resources.

Historic Period Resources

As discussed above, the majority of the Catherine Slip APE likely rests atop a network of landfill and various types of landfill retaining devices. The documentary record suggests that historic wharves, piers, and docks were most likely incorporated into this landfill. These could have included landfill retaining devices associated with the 18th century shipyards located in the area and the wharf upon which a Revolutionary War battery was constructed on the east side of Catherine Slip.

In addition, it is likely that collections of debris—including animal bones and commercial and domestic refuse dumped by Catharine Market's employees and patrons and nearby residents into the water are present within the fill deposits below the surface. Some of this debris would have been intentionally used as fill material while some could have been refuse that was dumped into the slip by nearby merchants and residents when it was an open waterway. The practice of dredging in the 18th and 19th centuries could have significantly disturbed any historic period archaeological resources within the open waterway at Catherine Slip. Because dredging did not always clear a slip completely, it is possible that some garbage deposits could have survived within the Catherine Slip APE. However, if such resources did remain within Catherine Slip despite the many dredging episodes intended to clean the slip of debris, those deposits would be very deeply buried and are not likely to be impacted by the proposed project.

In addition to the landfill, numerous structures were formerly located within the west side of the Catherine Slip APE. In addition to the market buildings which once lined the central portion of Catherine Slip between South and Cherry Streets, the western 25 feet of the streetbed covers an

area formerly occupied by domestic and commercial structures. On Catherine Street between Cherry and Madison Streets, the western 37 feet of the streetbed was formerly lined with structures. The Catherine Slip project site also extends partially into two historic lots at the southeast corner of Catherine Slip and Cherry Street. It appears that only the front portions of these historic lots is within the Catherine Slip project site boundaries, and therefore only the areas formerly located within the footprints of these historic buildings are included in the Catherine Slip APE.

In general, the portions of historic lots that are now situated within the modern streetbeds of Catherine Slip and Catherine Street were entirely occupied by structures rather than open rear yards which may have contained shaft features such as privies, cisterns, and wells. There has also been some disturbance in this area as a result of basement excavation, road construction, and utility installation. It is therefore unlikely that archaeological resources associated with the former structures that once lined the west side of the Catherine Slip APE are present in the area to be impacted by the proposed project. However, there may be a historic period archaeological resources located in the centre of Catherine Slip in the vicinity of the former market buildings. While roadwork and the construction of the center medians may have generated some disturbance in the area, relatively few utilities are located within the streetbed beneath Catherine Slip's raised center medians, which roughly occupy the footprints of the later market buildings constructed in 1854. Because this area has experienced less disturbance as a result of utility installation, it is more likely that historic period archaeological resources have survived in the vicinity of the center medians than elsewhere in the Catherine Slip APE (see Figure 2B-5).

The Catherine Slip streetbed has a low to moderate potential for the recovery of historic period archaeological resources that could include historic landfill and landfill retaining devices, wharves, docks, piers, bulkheads, structural remnants and refuse from the 18th and 19th century Catharine Market, and early 19th century infrastructure (wooden water pipes, wells, pumps, and early brick sewers). These resources are expected at depths greater than 2 feet below the ground surface in previously undisturbed locations.

Architectural Resources

There are no structures on the project site and, therefore, no known or potential architectural resources have been identified on the Catherine Slip project site.

STUDY AREA

Known Architectural Resources

The **Two Bridges Historic District** (S/NR) comprises nine blocks of the Lower East Side in the area between the Brooklyn and Manhattan Bridges (see Figure 2B-2). The district's period of significance extends from the late 18th century through the early 1930s. Historic district buildings in the study area include four- to six-story tenement buildings, many with ground floor retail, that characterize Pre-Law, Old Law, and New Law tenement design regulations. The historic district also includes rowhouses; churches; the First Shearith Israel Cemetery; and Knickerbocker Village. **Knickerbocker Village**—designed by VanWart & Ackerman and the Fred F. French Company and built in 1934—occupies the block bounded by Monroe, Market, Catherine, and Cherry Streets and comprises two 12-story brown brick buildings with stepped, ziggurat-like upper floors, each with a central courtyard (see View 3 of Figure 2B-4). Knickerbocker Village was one of the first State Board of Housing projects to implement slum clearance and introduced modern affordable housing to the poor and working class.

Outside the study area but visible from some vantage points within the Catherine Slip project site and study area are the Brooklyn and Manhattan Bridges, southwest and northeast of the project site, respectively.

The **Brooklyn Bridge** (NHL, S/NR, NYCL) spans the East River between City Hall Park in Manhattan and Cadman Plaza in Brooklyn. Construction of the bridge was originally conceived in 1867 by John A. Roebling, a German immigrant engineer who invented wire cable and was an accomplished bridge builder. When it opened in 1883, the Brooklyn Bridge, a steel suspension bridge, was the first physical link between Brooklyn and Manhattan. It has two massive granite-clad towers with Gothic arches and a network of steel cables and vertical wires. This architectural resource is visible from many vantage points along the East River.

The **Manhattan Bridge** (S/NR, NYCL-eligible) is a two-level, steel suspension bridge that spans the East River between Canal Street in Manhattan and Flatbush Avenue in Brooklyn. The bridge's design was the result of the work of several engineers and architects, with the final design developed by Leon Moisseiff in 1904. The bridge opened in 1909. A grand arch and flanking colonnades designed by Carrere & Hastings is located at the bridge entrance on Canal Street in Manhattan and is a designated NYCL. Like the Brooklyn Bridge, the Manhattan Bridge is visible from several East River vantage points.

Potential Architectural Resources

Public School 126/Jacob August Riis School, located at 80 Catherine Street, is a four-story elementary school designed by architect Percival Goodman and built in 1966 (see View 4 of Figure 2B-4). The school, rectangular in shape with a central courtyard, is a Modern building faced in red brick with contrasting tan concrete horizontal and vertical slabs. The school is sited within the Alfred E. Smith Houses housing development, and contrasts with the uniformity of these taller, brown brick residential buildings.

RUTGERS SLIP

PROJECT SITE

The Rutgers Slip project site includes the Rutgers Slip streetbed and adjacent sidewalks in the area between South and Cherry Streets (see Figure 2B-6 and Views 1 and 2 of Figure 2B-7).

Archaeological Resources

Precontact Period Resources

As described above for the Catherine Slip project site, precontact period sensitivity in the New York City is generally evaluated by proximity to high, level ground, fresh water courses, well-drained soils, and previously identified precontact period archaeological sites. Because the Rutgers Slip project site is situated in an area that was formerly inundated by marshland or the East River, it is unlikely that Native American habitation, hunting, or camping sites would have been located within the Rutgers Slip APE. Although there were periods of time when the water levels were lower, leaving the Rutgers Slip project site dry enough for human exploitation, documentary research suggests that the coastal area of Lower Manhattan was rocky and not ideally suited for precontact habitation. The varied resources provided by both the wetlands and the river would have been essential to Native American life, and it is highly likely that such resources were frequently exploited. The presence of a Native American trail leading to the East River situated immediately west of the Rutgers Slip project site confirms this.

Despite the likelihood that Native Americans used the Rutgers Slip project site as a temporary hunting or fishing location, the swift currents of the East River and the frequent 18th and 19th century dredging episodes, would most likely have disturbed any precontact period archaeological resources which could have been located there at one time. Therefore, the Rutgers Slip project site is determined to have no sensitivity for precontact period archaeological resources.

Historic Period Resources

As discussed previously, the majority of the Rutgers Slip APE rests atop a network of landfill and landfill retaining devices of unknown construction. The documentary record suggests that historic wharves, piers, and docks were likely incorporated into this landfill. These could have been associated with the 18th and 19th century ship yards and maritime industries located along Rutgers Slip at that time. It is also likely that collections of debris including both commercial and domestic refuse were dumped into the slip by individuals who lived and worked nearby. These refuse deposits would be present within the fill many feet below the ground surface. The practice of dredging in the 18th and 19th centuries could have significantly disturbed any historic period archaeological resources within the open waterway at Rutgers Slip. However, dredging did not always clear a slip completely and it is possible that some garbage deposits could have survived within the Rutgers Slip APE. However, these, too, would be very deeply buried.

No historic maps depict specific structures within the Rutgers Slip APE, although some early 19th century maps suggest that a small area west of the APE may have been developed with structures which may have partially entered the Rutgers Slip streetbed. However, there is no explicit evidence which suggests that any commercial or residential structures were ever located within the boundaries of the Rutgers Slip APE.

The Rutgers Slip project site is composed of landfill and landfill retaining structures. Relative to other streets in the area, few utilities are present within Rutgers Slip. The utilities within the project site include gas, electric, and telecommunications lines, which are generally located at relatively shallow depths of between 2 and 3 feet below the ground surface. Therefore, it is possible that the installation of these utilities may not have significantly impacted the network of landfill retaining devices present in Rutgers Slip. Because the elevation of the streetbed has not changed significantly since the late 19th century, landfill deposits and landfill retaining structures may be present at relatively shallow depths where utility disturbance is minimal. Therefore, the entire project site is sensitive for landfill deposits and landfill retaining structures at depths greater than 2 feet below the ground surface (see Figure 2B-8).

The entire project site is sensitive for historic period archaeological resources including landfill deposits and landfill retaining devices. However, as a result of street construction, paving, and grading and the installation of utilities, the entire area has also been disturbed to a depth of 2 feet below the ground surface. Therefore, archaeological resources would only be impacted by the proposed project in those locations where project impacts are expected to exceed 2 feet in depth.

Architectural Resources

There are no structures on the project site and, therefore, no known or potential architectural resources have been identified on the Rutgers Slip project site.

STUDY AREA

There are no known or potential architectural resources in the Rutgers Slip project study area. The study area includes three tall residential buildings and a one-story Consolidated Edison (ConEd) building, located west and north of the project site. The three residential buildings range in height from 10 to 21 stories, have slab-like forms, and are faced in brown or red brick. The ConEd building, located northwest of the project site, is a one-story brick and cinder block building with equipment on the property and is surrounded by a tall chain link fence. East of the project site is Rutgers Park. It contains playground equipment, a basketball court, seating, and mature trees. Its north and west borders are defined by a black cast iron fence set atop a stone curb with graffiti in some areas; the southern and eastern borders have a chain link fence. The study area south of the project site includes South Street and the area below the FDR Drive which is characterized by parked vehicles, paved walkways and bike paths, and seating areas.

MONTGOMERY SLIP

PROJECT SITE

The Montgomery Slip project site is the Montgomery Street streetbed and adjacent sidewalks in the area between South and Madison Streets (see Figure 2B-9 and Views 1 and 2 of Figure 2B-10).

Archaeological Resources

Precontact Period Resources

As described above for both the Catherine and Rutgers Slip project sites, precontact period sensitivity in New York City is generally evaluated by proximity to high, level ground, fresh water courses, well-drained soils, and previously identified precontact period archaeological sites. The tall hills north of the Montgomery Slip project site would have been ideal for a habitation site and the East River to the south would have provided a wide variety of exploitable resources. There has been a great deal of Native American activity documented in the immediate vicinity of the Montgomery Slip project site, including the village of *Nechtanc*, which was occupied during the precontact and contact periods, and was located several hundred feet north of the Montgomery Slip project site.

Described in detail in the Montgomery Slip Phase 1A report, the habitation site would likely have been confined to the high ground associated with Jones' Hill. The Viele map of 1865 suggests that this hill extended across Montgomery Street as far south as Cherry Street, although not all maps depict the hill in the same alignment. This hill was leveled at the end of the 18th century, possibly by as much as 60 feet. Precontact archaeological sites are usually identified at relatively shallow depths within several feet of the precontact period ground surface. Therefore, the significant landscape modification that altered the landscape of the Montgomery Slip project site and vicinity in the late 18th and early 19th centuries would have had a significant impact on precontact period archaeological resources in the area. The soils that formerly made up the large hill may have been used to fill in the low-lying areas in the southern portion of the project site or as landfill materials in the East River. Because the southern end of the Montgomery Slip project site is situated in an area that was formerly inundated by the East River, it is unlikely that precontact archaeological resources would be located south of modern Water Street.

Despite the likelihood that Native Americans likely used the Montgomery Slip project site as a habitation or resource exploitation location, the significant landscape modifications that took

place in the late-18th century and the continued development of the area in the 19th and 20th centuries would most likely have disturbed any precontact period archaeological resources which could have been located there. Therefore, the Montgomery Slip project site is not sensitive for precontact archaeological resources.

Historic Period Resources

During the 17th and 18th centuries, the Montgomery Street streetbed marked the dividing line of the Rutgers and DeLancey farms. An 18th century estate belonging to Elias DeGrushe, a rope maker, appears to have been located immediately east of Montgomery Street and a portion of it may have been located within the Montgomery Slip APE. During the Revolutionary War, there were many fortifications constructed in the immediate vicinity of the Montgomery Slip project site and battery walls may have been situated within what is presently the streetbed. Because the fortifications were reconstructed several times throughout the course of the war, they are depicted differently on different maps, some of which indicate that fortification walls may have been present within the Montgomery Slip streetbed. However, the landscape in this area was heavily modified after the war and it is possible that any remnants of Revolutionary War activity within the streetbed were destroyed.

The area had not experienced a significant amount of development by the early 19th century, although the Belvedere House, America's first country club, was located in this area. The landscape modifications that occurred during the late-18th and early-19th centuries could have disturbed historic period archaeological resources dating to before that time.

By the mid-19th century, however, the northward expansion of the city changed the neighborhood's character and Montgomery Street was soon lined with tenements. Because of subsequent street widening episodes, many structures on the east side of Montgomery Street, which appear to have been constructed before sewer and water lines were installed in the area, were situated within what is now part of the streetbed of the Montgomery Slip project site. Any open rear yard areas that were located within the APE and that were not developed at a later date could contain shaft features such as privies, cisterns, and wells, which were often filled with domestic refuse and can provide insight into the lives of the individuals who used them.

In addition, a small portion of the project site was formerly inundated by the East River. Late-18th century maps indicate that a small dock or pier was located in the vicinity of the project site that was likely constructed by and for soldiers during the Revolutionary War. The shoreline in this area was subsequently extended out into the East River. Therefore, landfill deposits and landfill retaining structures such as cribbing, wharves, piers, or docks could be located within the Montgomery Slip project site between Water and Front Streets (see Figure 2B-11).

The Montgomery Slip APE is determined to have moderate sensitivity for historic period archaeological resources, including landfill deposits and landfill retaining device, in the vicinity of undisturbed former rear yard areas and in a small area near Front Street, south of the former shore line. Because of disturbance caused by street construction, grading, and utility installation, it is assumed that historic period archaeological resources in the Montgomery Street roadbed would be located at depths greater than 2 feet below grade.

Architectural Resources

There are no structures on the project site and, therefore, no known or potential architectural resources have been identified on the Montgomery Slip project site.

STUDY AREA

Architectural Resources

There are no known or potential architectural resources in the Montgomery Slip project study area. The study area includes six buildings. On the east side of Montgomery Street are three 21-story, H-shaped residential buildings faced in brown brick. Two 16-story, X-shaped residential buildings faced in red brick are on the west side of Montgomery Street and are part of the LaGuardia Houses complex. Also on the west side of the Montgomery Slip project site is Public School (P.S.) 137, a four-story, rectangular school building faced in painted brick.

D. NO ACTION ALTERNATIVE

In the future without the Preferred Alternative, the East River Esplanade and Piers project will be constructed south of the three project sites. It will be complete by 2012. This project will involve 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. Basketball City will be a recreational facility built on a portion of Pier 36, near the Montgomery Slip project site. This project may also involve the removal of the Pier 42 pier shed to create an urban beach.

It is possible that the potential architectural resource within the Catherine Slip study area identified above may be listed or determined eligible for listing on the State/National Registers or designated as a NYCL or determined eligible for such designation in the future without the Preferred Alternative. No other potential architectural resources were identified in the three project study areas.

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 impacts on such resources through a notice, review, and consultation process. Properties listed on the State Register are similarly protected against impacts resulting from state-sponsored or state-assisted projects under the SHPA. Private property owners using private funds can, however, alter or demolish their properties without such a review process. 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.

E. PREFERRED ALTERNATIVE

PROJECT SITES

ARCHAEOLOGICAL RESOURCES

Catherine Slip

Precontact Period Resources

As described in “Existing Conditions,” the Catherine Slip project site has been determined to have low sensitivity for precontact period archaeological resources. Therefore, the proposed streetscape and landscaping improvements at the Catherine Slip project site are not expected to adversely affect any such resources.

Historic Period Resources

As described above, the Catherine Slip streetbed has been determined to have low to moderate potential for the recovery of historic period archaeological resources that could include historic landfill and landfill retaining devices, wharves, docks, piers, bulkheads, structural remnants and refuse from the 18th and 19th century Catharine Market, and early 19th century infrastructure (wooden water pipes, wells, pumps, and early brick sewers). These resources are expected at depths greater than 2 feet below the ground surface in previously undisturbed locations. However, most excavation required for construction of the proposed project would be to depths of 1 to 2 feet though the specific location, size, and depth of subsurface impacts have not yet been finalized. Therefore, only potential historic 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 Figure 2B-5R).

In these areas, further study in the form of a Phase 1B archaeological investigation or archaeological monitoring would be undertaken. The goal of the testing/monitoring would be to determine if any significant archaeological resources are present. All archaeological testing/monitoring 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/monitoring. Steps to be taken if resources are encountered, and the procedures by which consultation would be undertaken, are described in “F. Conclusions.”

Rutgers Slip

Precontact Period Resources

As described in “Existing Conditions,” the Rutgers Slip project site has been determined to have no sensitivity for precontact period archaeological resources. Therefore, the proposed creation of a neck-down (sidewalk widening at the corner of an intersection) on the east and west sides of the slip, curb reconstruction, pedestrian walkways, and landscaping improvements at the Rutgers Slip project site are not expected to adversely affect any such precontact period resources.

Historic Period Resources

As described in the Rutgers Slip Phase 1A report, potential archaeological resources including landfill deposits and landfill retaining devices could be impacted by the proposed project, depending upon the location, size and depth of subsurface impacts. Adverse impacts could occur if construction disturbance extends into potentially sensitive levels. Conversely, adverse impacts

may be avoided if disturbance is restricted to the strata above potentially sensitive areas. At the Rutgers Slip project site, the Preferred Alternative is expected to disturb approximately 1 to 2 feet below the ground surface throughout the majority of the Rutgers Slip APE. The Rutgers Slip project site has already been disturbed to this depth as a result of road paving and grading. However, in other locations, the depth of disturbance could extend to between 4 and 5 feet. This deeper disturbance would be necessary for the proposed tree pits along the east side of the Rutgers Slip APE and the new storm sewers and catch basins at the northwest and northeast corners of Rutgers Slip and South Street. The relocation of two manholes on the west side of Rutgers Slip may also require excavation to this depth, although the new locations of those manholes are not known at this time.

Further study in the form of a Phase 1B archaeological investigation or archaeological monitoring would be undertaken for those areas where excavation for the proposed project at Rutgers Slip would exceed 2 feet below the ground surface. A map of the areas where archaeological testing/monitoring is recommended is shown in Figure 2B-8. The goal of the testing/monitoring would be to determine if any significant archaeological resources are present. All archaeological testing/monitoring 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 approval prior to testing/monitoring. Steps to be taken if resources are encountered, and the procedures by which consultation would be undertaken, are described in “F. Conclusions.”

Montgomery Slip

Precontact Period Resources

As described in “Existing Conditions,” the Montgomery Slip project site has been determined to have no sensitivity for precontact period archaeological resources. Therefore, the proposed roadway, streetscape, and landscaping improvements at the Montgomery Slip project site are not expected to adversely affect any such resources.

Historic Period Resources

The Montgomery Slip APE has been determined to have moderate sensitivity for historic period archaeological resources in the vicinity of undisturbed former rear yard areas and in a small area near Front Street, south of the former shore line. Because of previous disturbance caused by street construction, grading, and utility installation, it is assumed that historic period archaeological resources in the Montgomery Street roadbed would be located at depths greater than 2 feet below grade. The proposed Montgomery Slip project is expected to disturb approximately 1 to 2 feet below the ground surface throughout the majority of the APE. In other locations, the depth of disturbance could extend to between 4 and 5 feet. This deeper disturbance would be necessary for proposed tree pits and new storm sewers and catch basins in several locations throughout the Montgomery Slip APE. However, current project plans show that all of the proposed sewers and associated catch basins are expected to be constructed in areas with no archaeological sensitivity. New trees are proposed along the eastern edge of the site.

As described above, several types of potential archaeological resources on the Montgomery Slip project site could be impacted by the proposed project, depending upon the location, size and depth of subsurface impacts. Adverse impacts to archaeological resources could occur if construction disturbance extends into potentially sensitive levels, e.g., more than 2 feet below the surface. Conversely, adverse impacts may be avoided if disturbance is restricted to the level above potentially sensitive areas, e.g. within 2 feet of the ground surface. Therefore, no additional archaeological research is recommended for these areas.

However, further study in the form of a Phase 1B archaeological investigation or archaeological monitoring would be undertaken for former rear yard or landfill areas where excavation for the proposed project would exceed 2 feet below the ground surface. Current project plans do not indicate that all of the historic rear yards located within the Montgomery Slip APE would be impacted by disturbance to depths of more than 2 feet below ground surface. Additional archaeological testing or monitoring is only recommended in those areas that would be impacted by the proposed project, as illustrated in Figure 2B-11. The goal of the testing or monitoring would be to determine if any significant archaeological resources are present. All archaeological testing/monitoring 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/monitoring. Steps to be taken if resources are encountered, and the procedures by which consultation would be undertaken, are described in “F. Conclusions.”

ARCHITECTURAL RESOURCES

Catherine Slip

The Preferred Alternative would alter the Catherine Slip project site by widening the segment of the existing planted median between Water and Cherry Streets and extending it eastward to Tanahey Park. The widened median in this area would include benches; trees, plantings, and other landscaping elements; and pavers at the entrance to Tanahey Park. A small triangular area near Cherry Street would extend into Tanahey Park. These changes to the median would require the closure of the portion of the Catherine Slip right-of-way between Water and Cherry Streets. The existing median between South and Water Streets would also be altered with new trees, plantings, and other landscaping elements; pavers; maritime-themed bollards; and a seating area with benches. The walkways would be relocated from the outer edges of the median to the north and south ends with a walkway extending through the median’s center. Alterations to the portion of the Catherine Slip project site between Cherry and Madison Streets would involve changing the existing curbside parallel parking with curbside diagonal parking. Other changes to the project site would involve repaving the sidewalks on the west side of Catherine Slip/Catherine Street and the sidewalk on the north side of Cherry Street and adding new street trees and neck-downs (see “Project Description,” Figures 1-2 through 1-4). These proposed changes to the project site would not directly affect architectural resources as there are no such resources on the Catherine Slip project site. Further, the Preferred Alternative would not adversely affect views to the Brooklyn or Manhattan Bridges available from the Catherine Slip project site.

Rutgers Slip

The Preferred Alternative would alter the Rutgers Slip project site by improving access to the East River waterfront with the addition of a neck-down on the north and south sides of the slip to formalize the parking lane, new street trees, the construction of a new sidewalk and curb on the east side of the slip, and the reconstruction of the curb on the slip’s west side. Crosswalks spanning across Rutgers Slip would also be striped at Cherry and South Streets (see “Project Description,” Figure 1-5). The Preferred Alternative would not directly affect architectural resources as there are no such resources on the Rutgers Slip project site.

Montgomery Slip

With the Preferred Alternative, the Montgomery Slip project site would be altered with the construction of four new medians—two would be located between South and Cherry Streets and two would be between Cherry and Madison Streets. Each median would have raised planters

with native grasses. The Preferred Alternative would also involve repaving the Montgomery Street sidewalks, planting new street trees, and adding new neck-downs on the east side of Montgomery Street (see “Project Description,” Figure 1-6). These proposed changes to the project site would not directly affect architectural resources as there are no such resources on the Montgomery Slip project site.

CATHERINE SLIP STUDY AREA

In general, the closure of the portion of Catherine Slip between Water and Cherry Streets would not be expected to adversely alter the contextual or visual character of the Two Bridge Historic District to the north. The proposed improvements to the median would maintain existing views to and from the historic district through the Catherine Slip project site. The closure of this section of Catherine Slip and its replacement with additional landscaping connecting to the existing Tanahey Park would be expected to improve the physical and visual context of Knickerbocker Village.

Further, the proposed project elements would not compete visually with the architectural resources in the historic district since existing views to architectural resources would largely be maintained across the Catherine Slip project site. Views to the Manhattan and Brooklyn Bridges would not be adversely affected by the proposed changes to the Catherine Slip project site. In addition, the proposed design would improve views to the East River waterfront.

Public School 126/Jacob August Riis School and Knickerbocker Village are located within 90 feet of proposed construction activities at Catherine Slip. Therefore, to avoid potential adverse physical impacts these architectural resources, the Preferred Alternative would develop and implement a CPP prior to the commencement of any demolition or construction activities on the northern median in the Catherine Slip project site. The CPP would follow the New York City Department of Buildings *Technical Policy and Procedure Notice (TPPN) #10/88* and would be prepared in consultation with SHPO and LPC. With a CPP in place, it is not expected that there would be any adverse physical effects to architectural resources in the study area.

As described above, the Preferred Alternative would be expected to enhance the context of study area architectural resources. The proposed changes to the Catherine Slip project site would not be expected to have any adverse physical, visual, or contextual effects on the Knickerbocker Village, or any other architectural resources in the Two Bridges Historic District, or Public School 126. Further, these changes would maintain and improve physical and visual access to the East River waterfront. Therefore, it is not expected that the Preferred Alternative would have any adverse effects on architectural resources.

RUTGERS SLIP STUDY AREA

As there are no known or potential architectural resources in the Rutgers Slip study area, the proposed changes to the Rutgers Street project site would not be expected to have any adverse physical, visual, or contextual effects on any architectural resources.

MONTGOMERY SLIP STUDY AREA

There are no known or potential architectural resources in the Montgomery Slip study area, therefore, the Preferred Alternative would not be expected to have any adverse physical, visual, or contextual effects on any architectural resources.

F. CONCLUSION

If any archaeological resources are encountered during testing/monitoring at the project sites, further investigations 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 among HUD, LMDC, and SHPO.

The Preferred Alternative would be expected to enhance the context of nearby architectural resources by improving physical and visual access to the East River waterfront. The project components would also improve the overall visual character of Catherine, Rutgers, and Montgomery Slips. With the implementation of a CPP for Catherine Slip, the Preferred Alternative would not be expected to have adverse physical, visual, or contextual effects on architectural resources in the surrounding study area.

Implementation of the measures set forth in the Programmatic Agreement with respect to archaeological resources and protection measures for architectural resources at Catherine Slip 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. The draft Programmatic Agreement is included in Appendix C, "Historic Resources." *