

5.1 INTRODUCTION

5.1.1 CONTEXT

Lower Manhattan is home to many of New York City’s most important historic resources and some of its finest architecture. It is the oldest and one of the most culturally rich sections of the city. Thus, numerous buildings, street fixtures, and other structures have been identified as historically significant. Officially recognized resources include National Historic Landmarks, other individual properties and historic districts listed on the State and National Registers of Historic Places, properties eligible for such listing, New York City Landmarks and Historic Districts, and properties pending such designation. National Historic Landmarks (NHL) are nationally significant historic places designated by the Secretary of the Interior because they possess exceptional value or quality in illustrating or interpreting the heritage of the United States. All NHLs are included on the National Register, which is the nation’s official list of historic properties worthy of preservation. Historic resources include both standing structures and archaeological resources.

Historically, Lower Manhattan’s skyline was developed with the most technologically advanced buildings of the time. As skyscraper technology allowed taller buildings to be built, many pioneering buildings were erected in Lower Manhattan, several of which were intended to be—and were—the tallest building in the world, such as the Woolworth Building. These modern skyscrapers were often constructed alongside older low buildings. By the mid-20th century, the Lower Manhattan skyline was a mix of historic and modern, low- and high-rise structures, demonstrating the evolution of building technology, as well as New York City’s changing and growing streetscapes.

By the early 1960s, the neighborhood surrounding the Project Site was developed with a collection of historic and modern, low and mid- to high-rise structures. Early 20th century skyscrapers in the vicinity included the Transportation Building (44 stories), the Woolworth Building (60 stories), the former AT&T Building (29 stories), the Equitable Building (41 stories), Liberty Tower (33 stories), 90 West Street (23 stories), and the former Electric Bond and Share Company Building (27 stories). Prior to the construction of the WTC, the site itself was an integral link in the city’s transportation system and was partially occupied by the Hudson Terminal, two 19-story towers on Church Street between Cortlandt and Fulton Streets.

Construction of the WTC in the mid-1960s dramatically altered the study area when a 12-block area was cleared to create the 16-acre superblock. Five city streets were closed, buildings on the site were demolished, and the site was extensively excavated, especially the area west of the No. 1/9 IRT subway line where the “bathtub” that became the base for the Twin Towers was created. Although many skyscrapers were located in the immediate vicinity, the new WTC introduced structures of a much larger scale. The 110-story Twin Towers were the tallest buildings in the

world when completed and were the most prominent features of the new WTC and Lower Manhattan's skyline.

On September 11, 2001, terrorists hijacked two commercial jetliners and used them to strike each of the Twin Towers. Within hours, the Twin Towers collapsed onto the WTC and surrounding areas, causing massive death and devastation in Lower Manhattan. Debris from the airplanes used in the attacks, as well as debris from collapsing WTC buildings, damaged historic structures in the immediate vicinity. These historic structures include the Barclay-Vesey Building (Verizon Building), the Federal Office Building/U.S. Post Office, the former East River Savings Bank, 114 Liberty Street, 120 Liberty Street, and 90 West Street. Remarkably, all survived, and those damaged are being restored.

In the aftermath of the terrorist attacks, the Twin Towers became a symbol of antiterrorist resolve, and the collective determination of the city, the state, and the nation called for rebuilding to restore the iconic center of the financial district and to honor those who died there on September 11, 2001, and on February 26, 1993. These attacks and the death of nearly 2,800 people were a catalyst for major changes in local and national security programs, including the establishment of the Department of Homeland Security. The Lower Manhattan Development Corporation (LMDC) was formed by Governor George Pataki and former Mayor Rudolph Giuliani to help plan and coordinate the rebuilding and revitalization of Lower Manhattan. The centerpiece of LMDC's efforts is a permanent Memorial remembering and honoring the innocent men, women, and children lost in the terrorist attacks and cooperation with other public and private entities in the revitalization and redevelopment of the WTC Site. With broad public input, LMDC and the Port Authority of New York and New Jersey (the Port Authority) developed the World Trade Center Memorial and Redevelopment Plan (Proposed Action).

This chapter considers the potential for the Proposed Action to affect historic and archaeological resources. The Plan proposes to conserve portions of the slurry wall and *tower perimeter column bases as part of* an appropriate Memorial. Part of the historic street plan on the site would be restored and new buildings with cultural, office and retail space would be constructed. The study area (the Area of Potential Effect) has been defined as the Project Site itself and the area bounded by Murray and Spruce Streets to the north, Exchange Place and Joseph P. Ward Street to the south, Route 9A to the west, and Nassau and Broad Streets to the east.

Based on the events of September 11, the WTC Site has been found eligible for listing on the National Register as part of a Coordinated Determination of National Register Eligibility, dated March 31, 2004 (Coordinated DOE).

5.1.2 CONCLUSIONS

This section summarizes the conclusions of the analysis that follows in this chapter. The Proposed Action was analyzed with respect to historic resources under two scenarios, the Pre-September 11 Scenario and the Current Conditions Scenario.

Potential effects to historic resources can include both direct physical effects and indirect contextual effects. Potential effects to archaeological resources would occur during excavation and below-grade construction activities. These effects would occur within the area where construction and excavation for the Proposed Action would occur. In order to identify historic properties and assess the potential effects of the proposed project, a study area or Area of Potential Effect (APE) was defined and an inventory of historic and architectural resources

located in the APE was compiled *in consultation with the New York State Historic Preservation Officer (SHPO)*.

The Proposed Action would memorialize the tragic events of September 11 while returning the commercial, open space and other uses that existed on the Project Site on that date and reintroducing streets that pre-existed the WTC. The Memorial has been designed to reflect the former presence of the Twin Towers, and to provide access to portions of the west slurry wall and box-beam column bases outlining portions of the perimeters of the former Twin Towers. The Memorial Center would be a museum that would exhibit or incorporate significant artifacts from the former WTC.

Under either the Pre-September 11 or Current Conditions Scenario, the Proposed Action is not expected to have significant adverse impacts on historic resources on the Project Site—namely the WTC Site itself—or elsewhere in the APE. The Proposed Action would, however, have the potential to adversely affect some of the remaining remnants at the WTC Site. In implementing the Proposed Action, LMDC and the Port Authority would undertake appropriate efforts to avoid, minimize or mitigate any such adverse effects or any unexpected adverse effects on other historic resources. These efforts would include both the Environmental Performance Commitments described in Chapter 21, “Construction,” and the measures described in Chapter 22, “Mitigation,” and the Programmatic Agreement under consideration referred to below. Overall, the Proposed Action would serve to enhance the historic significance of the WTC Site and its role in the city’s and the nation’s consciousness.

PRE-SEPTEMBER 11 SCENARIO

As described in greater detail below, it is not expected that the Proposed Action would have *any significant adverse impact* on historic resources.

2009

Archaeological Resources

All below-grade construction activities would have occurred by 2009, with the possible exception of the foundation of Tower 5. Therefore, this phase is analyzed for potential effects to archaeological resources. Construction of the former Twin Towers and associated excavations on the west side of the WTC Site to create the existing bathtub have limited the potential for significant archaeological resources to exist in this area. However, the north and south portions of the WTC Site east of the No. 1/9 IRT subway and portions of the Southern Site may be potentially sensitive for archaeological resources, such as shaft features and wharf and/or cribbing features. In order to identify any potential impacts to archaeological resources, Phase IB investigations are recommended in those areas.

Architectural Resources

In the Pre-September 11 Scenario, *the SHPO had determined that the WTC was not eligible for listing on the National Register, and no other agency had identified any historic resources on the Project Site. Therefore, absent the events of September 11, redevelopment would have no impact on historic resources on the Project Site.*

Fulton Street and Greenwich Street would be extended through the WTC Site, restoring the street linkage between historic resources to the north and south of the WTC Site. This would be particularly beneficial to resources south of Liberty Street that were isolated by the superbblock of

the WTC and the lack of view corridors through the WTC Site. The WTC Site would be divided at grade level into four separate blocks, instead of one large superblock, thus restoring part of the street grid and allowing development to relate better to the neighboring historic resources.

Lower Manhattan, specifically the WTC Site, has historically been developed with technologically advanced buildings—such as the Hudson and Manhattan (H&M) Terminal and the Twin Towers—that were pioneering achievements for their time of construction. The Proposed Action would continue this tradition of building evolution and design and would introduce a new and more modern skyscraper, Freedom Tower, to the Project Site and surrounding neighborhood.

The Proposed Action would shift the bulk of the buildings away from the footprints of the Twin Towers located in the southwest quadrant of the site, altering views of adjacent historic resources to the north of the Project Site. Freedom Tower would rise immediately south of the Barclay-Vesey Building, blocking views of the structure from the southwest that were previously afforded by the lower-rise 6 WTC. Although the Proposed Action would in these respects shift the bulk of development as compared to pre-September 11 conditions, this change would not be an adverse effect as the Project Site and immediate study area have historically been developed with tall and modern structures in close proximity to historic buildings.

On the other hand, the open spaces that would be part of the Proposed Action would benefit certain historic resources. *Liberty Park* would greatly improve the setting of 90 West Street and the Beard Building (125 Cedar Street). It would also generally improve the neighborhood for all the other historic resources south of the Project Site. Farther north on the WTC Site, Wedge of Light Plaza would link to St. Paul's Chapel and historic resources east of the WTC Site.

Because the proposed construction would take place within 90 feet of historic structures, adherence to Construction Protection Plans would be required to avoid potential damage to architectural resources located near the Project Site. (See Chapter 21, "Construction.")

The increased traffic levels expected as a result of the Proposed Action are expected to have some effect on the setting of historic resources, but not to a degree that they would constitute an adverse effect. This is primarily because most of the traffic impacts would occur on streets already burdened with high levels of traffic, thus historic resources located in these areas have already existed in an urban environment with well-traveled city streets.

2015

The full development of the Proposed Action would further alter the Project Site. However, since there would have been no historic resources on the site, there would have been no impacts to *on-site* historic resources.

In addition to the impacts on off-site resources described in 2009, completion of the four other office towers would increase bulk along Church Street on the WTC Site and on the south end of the Southern Site. The proposed office tower and hotel on the northeast quadrant would face directly into the Federal Office Building/U.S. Post Office and block views of it from the southeast that were formerly afforded by the much lower 5 WTC building. The proposed office building south of the permanent WTC PATH Terminal entrance would tower over the former East River Savings Bank. Finally the tower at the southeast corner of the WTC Site would be taller and have a greater bulk than 4 WTC, altering the context of the Beard Building and 114-118 Liberty Street. Again this change would not be an adverse effect as the study area has historically been developed with tall, modern structures among smaller-scaled historic buildings.

As described for conditions in 2009, it is not expected that the increased traffic levels would have an adverse effect on historic resources.

CURRENT CONDITIONS SCENARIO

As described in greater detail below, it is not expected that the Proposed Action would have *any significant adverse impact* on historic resources.

2009

Archaeological Resources

All below-grade construction activities would have occurred by 2009, *except, possibly, the foundation of Tower 5*. Therefore, this phase is analyzed for potential effects to archaeological resources. As described above under the Pre-September 11 Scenario, the north and south portions of the WTC Site east of the No. 1/9 IRT subway and portions of the Southern Site may be potentially sensitive for archaeological resources, such as shaft features and wharf and/or cribbing features. In order to identify any potential impacts to archaeological resources, Phase IB investigations are recommended in those areas.

Architectural Resources

Based on the events of September 11, the WTC Site has been found eligible for listing on the National Register. Although the eligibility of the site does not depend on existing remnants of the prior structures, the Proposed Action would have an adverse effect on some of these remnants. LMDC will consult with SHPO, the Port Authority, and Silverstein Properties in order to minimize or mitigate such effects. LMDC is also considering a Programmatic Agreement with the Advisory Council on Historic Preservation (ACHP) and SHPO that would include additional consultation with the consulting parties who participated in the Section 106 process.

By 2009, Fulton Street and Greenwich Street would be extended through the WTC Site, restoring the street linkage between historic resources to the north and south of the WTC Site. This would be particularly beneficial to resources south of Liberty Street that are now isolated by the large construction site that remains on the WTC Site.

Although the Proposed Action would change the study area through the addition of tall and modern towers, this is not expected to have an adverse effect. The Project Site and immediate study area have historically been developed with tall and modern structures in close proximity to low-rise and high-rise historic buildings. In addition, the Proposed Action would be in keeping with the character of the Project Site and surrounding area, which were located in a densely developed urban setting.

New office towers would be constructed on the Project Site that would re-introduce tall, modern structures to this portion of the Lower Manhattan skyline. The towers of the Proposed Action would block views across the now largely open WTC Site to historic resources on the other side. In particular, views of the Barclay-Vesey Building and the Federal Office Building/U.S. Post Office from Church and Liberty Streets, and from the Winter Garden to St. Paul's Chapel and the former East River Savings Bank would be blocked. Views from the corner of Vesey and Church Streets and along Church Street to the Beard Building and 90 West Street would be blocked. The Proposed Action would create a series of structures with retail frontage along the north and east sides of the WTC Site. Freedom Tower would rise immediately south of the Barclay-Vesey Building.

On the other hand, the open spaces that would be part of the Proposed Action would benefit certain historic resources. *Liberty Park* would greatly improve the setting of 90 West Street and the Beard Building. It would also generally improve the neighborhood for all the other historic resources south of the Project Site. Farther north on the WTC Site, Wedge of Light Plaza would link to St. Paul's Chapel and historic resources east of the WTC Site.

Due to the proximity of historic resources, adherence to Construction Protection Plans would be required to avoid potential construction period damage to architectural resources.

The increased traffic levels expected as a result of the Proposed Action are expected to have some effect on the setting of historic resources, but not to a degree that they would constitute an adverse effect. This is primarily because most of the traffic impacts would occur on streets already burdened with high levels of traffic, thus historic resources located in these areas have already existed in an urban environment with well-traveled city streets.

2015

In addition to the impacts on off-site resources described in 2009, completion of the four other office towers would increase bulk along Church Street on the WTC Site and on the south end of the Southern Site. The proposed office tower and hotel on the northeast quadrant would face directly into the Federal Office Building/U.S. Post Office. The proposed office building south of the permanent WTC PATH Terminal entrance would tower over the former East River Savings Bank. Finally the tower at the southeast corner of the WTC Site would alter the context of the Beard Building and 114-118 Liberty Street. Overall, this change would not be an adverse effect, as the study area has historically been developed with tall, modern structures among smaller-scaled historic buildings.

As described for conditions in 2009, it is not expected that the increased traffic levels would have an adverse effect on historic resources.

5.2 REGULATORY CONTEXT

Both the National Environmental Policy Act (NEPA) and the State Environmental Quality Review Act (SEQRA) require the consideration of potential impacts to historic resources. In addition, potential effects on historic resources are considered in conformance with Section 106 of the National Historic Preservation Act of 1966 (NHPA), Section 4(f) of the United States Department of Transportation Act of 1966 (Section 4(f)), and the New York State Historic Preservation Act of 1980 (SHPA). In addition, the New York City Landmarks Law and potential impacts to New York City Landmarks (NYCLs) and New York City Historic Districts (NYCHDs) have been considered.

5.2.1 NATIONAL HISTORIC PRESERVATION ACT (SECTION 106)

NHPA requires federal agencies to take into account the effects of their undertakings on historic properties. This process, commonly referred to as Section 106 review, provides for review of any federally licensed, financed, or assisted undertaking. Because funds and approvals from a federal agency (United States Department of Housing and Urban Development [HUD] and possibly the Federal Transit Administration [FTA]) would be used to achieve the project, this assessment of historic resources was prepared pursuant to Section 106 of NHPA.

Due to the proximity to the WTC Site of their respective proposed undertakings, LMDC, FTA, and Federal Highway Administration (FHWA) coordinated the Section 106 process in

determining the eligibility of the WTC Site. The coordinated process concluded with the Coordinated DOE finding the entire WTC Site eligible for listing. Each project sponsor is performing its own assessment of effects and identifying mitigation measures, as necessary. On February 9, 2004, LMDC released for comment a Proposed Finding of No Adverse Effect. Substantial input was provided by the consulting parties identified in the Section 106 process, including organizations representing preservation, civic, neighborhood, and family concerns. After consideration of such comments and consultation with ACHP and SHPO, LMDC prepared and released a draft Programmatic Agreement that addresses specific commitments relating to remnants on the WTC Site, consideration of artifacts removed from the site, and any potential adverse effects on historic resources.

Section 106, as implemented by federal regulations appearing at 36 CFR Part 800, mandates that federal agencies take into account the effect of their actions on any properties listed on or determined eligible for listing on the National Register of Historic Places (NR) and afford the federal ACHP a reasonable opportunity to comment on such undertakings. Federal agencies, in consultation with the SHPO, as well as other consulting parties where appropriate, must determine whether a Proposed Action would have any effects on the characteristics of a site that qualify it for the State and National Registers of Historic Places (S/NR) and seek ways to avoid, minimize, or mitigate any adverse effects. The Section 106 process includes the following:

- All properties that may be affected by the project and that are included in or eligible for the National Register must be identified in consultation with SHPO. If properties are found that may be eligible for the National Register, but for which no determination has yet been made, the agency consults with SHPO to determine eligibility or ineligibility.
- If there are such properties, the potential effect of the proposed project on each property must be evaluated, in consultation with SHPO, to determine if the project would have adverse effects on them by applying the criteria of adverse effect (36 CFR § 800.5(a)) must be applied, in consultation with SHPO.
- In general, a proposed project is deemed to have an adverse effect if it would diminish the characteristic of the property that qualifies it for inclusion in the National Register.
- If the analysis indicates that the proposed project would have an adverse effect, ACHP is notified, and SHPO and other consulting parties are consulted to seek agreement on ways to avoid, minimize or mitigate effects. This mitigation is typically implemented through either a Memorandum of Agreement (MOA) or Programmatic Agreement. ACHP may choose to participate in the consultation when there are substantial effects on important historic properties, when a case presents important questions of policy or interpretation, when there is a potential for procedural problems, or when there are issues of concern to Indian tribes or Native Hawaiian organizations. ACHP must be invited to participate when the federal agency sponsoring the project requests ACHP's involvement, when the project would have an adverse effect on a NHL, or when a Programmatic Agreement will be prepared.
- Programmatic Agreements may be used when effects on historic properties are similar and repetitive or are multi-state or regional in scope, when effects on historic properties cannot be fully determined prior to approval of an undertaking, or where other circumstances warrant a departure from the normal Section 106 process, among other reasons. In addition, the federal agency sponsoring the project may request an advisory opinion if it wishes.
- Execution of the MOA or Programmatic Agreement and implementation of the terms therein satisfy the requirement of Section 106 that ACHP be given a reasonable opportunity to

comment on the undertaking as well as demonstrates that the federal agency has taken into account the effects of the action.

The review under Section 106 can be conducted in coordination with analyses conducted for NEPA, and where consistent with the procedures set forth in 36 CFR Part 800, information developed for the NEPA environmental review may be used to meet the requirements of Section 106. The views of the public are essential to informed federal decision-making in the Section 106 process, and therefore, the public should be informed about, and given the opportunity to comment on, the project and its effects on historic properties. An agency may use its procedures for public involvement under NEPA if those procedures provide adequate opportunities for public involvement consistent with 36 CFR Part 800. In the case of the Proposed Action, LMDC is coordinating its Section 106 review with that of the other federal agencies carrying out Lower Manhattan recovery projects and using its NEPA review of the Proposed Action to provide additional opportunities for comment by the public, SHPO, ACHP, and a broad range of consulting parties.

In addition, Section 110 of NHPA addresses federal agencies' responsibility to preserve and use historic properties. Section 110(f) mandates additional protection for NHLs by requiring that federal agencies exercise a higher standard of care when considering undertakings that may directly and adversely affect NHLs. Section 110(g) allows agencies to include costs of preservation as project costs. Further, Section 110(a)(2) requires, among other things, that an agency's procedures for compliance with Section 106: (1) be consistent with ACHP's regulations; and (2) provide a process for identification and evaluation of historic properties and development and implementation of agreements about how adverse effects on historic properties will be considered.

5.2.2 SECTION 4(F) OF THE FEDERAL DEPARTMENT OF TRANSPORTATION ACT

Historic properties are also protected from adverse effects by Section 4(f) of the Department of Transportation Act of 1966.¹ Section 4(f) prohibits actions by the Secretary of Transportation that require "use" of a historic property that is listed on or eligible for inclusion on the National Register, unless a determination is made that there is no feasible and prudent alternative to the use of such land, and all possible planning has been undertaken to minimize harm to the 4(f) property. For historic properties, "use" includes direct physical impacts, such as demolition or removal of part of a historic property. It also includes adverse contextual impacts (these can result in "constructive use," when changes caused by the project that are near the historic structure cause a substantial impairment in the historic resource's important qualities). Constructive use could occur from such changes as noise, visual intrusion, or other such elements that would significantly alter the setting of the historic resource.

5.2.3 STATE HISTORIC PRESERVATION ACT

SHPA closely resembles NHPA, and requires that state agencies consider the effect of their actions on properties listed on or determined eligible for listing on the State Register of Historic Places. Compliance with Section 106 satisfies the requirements of SHPA, set forth in Section 14.09 of the New York State Parks, Recreation and Historic Preservation Law.

¹ Section 4(f) has been recodified as Section 303 of Title 49 of the United States Code as well Section 138 of Title 23, although it is commonly referred to as Section 4(f).

5.2.4 NEW YORK CITY LANDMARKS LAW

The New York City Landmarks Preservation Commission (LPC) designates historically significant properties in New York City as NYCLs and/or NYCHDs, following the criteria provided in the *Local Laws of the City of New York, New York City Charter, Administrative Code, Title 25, Chapter 3*. Properties designated as NYCLs or NYCHDs are protected under the New York City Landmarks Law, which requires LPC review and approval before any alterations or demolition can occur. Although the New York City Landmarks Law is not applicable to the Proposed Action, potential impacts to NYCLs and NYCHDs have been considered.

5.3 METHODOLOGY

5.3.1 IDENTIFICATION OF HISTORIC PROPERTIES/STRUCTURES

Once the APE is defined, a list of officially recognized historic resources within the APE is compiled. This includes NHLs; other properties or districts listed on the S/NR or properties determined eligible for such listing; and New York City Landmarks (NYCL) or Historic Districts (NYCHD), or properties pending NYCL or NYCHD designation. A list of potential historic resources within the APE is also compiled. These are identified based on field surveys of the APE and, where available, information from historic societies or preservation organizations with knowledge of the area. Potential historic resources comprise properties that may be eligible for listing on the S/NR and/or designation as NYCLs.

The National Register Criteria for Evaluation are found in 36 CFR Part 60. Following these criteria, districts, sites, buildings, structures, and objects are eligible for the S/NR if they possess integrity of location, design, setting, materials workmanship, feeling, and association, and:

- A. that are associated with events that have made a significant contribution to the broad patterns of our history; or
- B. that are associated with the lives of significant persons in our past; or
- C. that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. that have yielded, or may be likely to yield, information important in history or prehistory.

Properties that have been constructed within the last 50 years are ordinarily not eligible. Determinations of eligibility are made by SHPO. Generally, all properties that are listed on the National Register are listed on the State Register, *which has the same criteria for evaluation as the National Register*.

Buildings, properties, or objects are eligible for designation as a NYCL or NYCHD when a part is at least 30 years old. Landmarks have a special character or special historical or aesthetic interest or value as part of the development, heritage, or cultural characteristics of the city, state, or nation. There are four types of landmarks: individual, interior, historic district, and scenic.

The identification of historic resources for the Proposed Action was unique due to the historic events of September 11. As described above, LMDC, FTA, and FHWA issued a Coordinated DOE regarding the WTC Site's eligibility for inclusion in the National Register. SHPO concurred with this determination and found the WTC Site eligible for listing in the National Register.

In addition to the resources with official designation or status, a number of other potential historic resources have been identified by the Lower Manhattan Emergency Preservation Fund (LMEPF), a consortium of historic preservation organizations that was formed in response to the events of September 11. This consortium includes the Municipal Art Society, the National Trust for Historic Preservation, the New York Landmarks Conservancy, the Preservation League of New York State, and the World Monuments Fund. The LMEPF produced a map, entitled *Corridors of Concern*, which shows the potential historic resources in addition to the officially recognized (or known) resources. Information obtained from this map was used to assist in the identification of potential historic resources. *SHPO and LPC have determined that some of these resources are S/NR-eligible and NYCL-eligible, and these resources have been included in Table 5-1. Other potential resources determined ineligible for such listing or designation by SHPO and LPC are included in Table 5-2.*

Known historic resources as well as potential resources are identified and described below in section 5.5, “Current Conditions Scenario.”

5.3.2 ASSESSMENT OF POTENTIAL EFFECTS ON HISTORIC RESOURCES

Once the historic resources in the APE are identified, the effects of the project on those resources are assessed. As described above, project effects on known historic resources and those potential resources determined to meet eligibility criteria for listing on the NR identified in this section may include both physical and contextual effects. Direct effects could include physical destruction, damage, or alteration of a historic resource. In addition, visual effects, such as changes in the appearance of a historic resource or in its setting—including introduction of incompatible visual, audible, or atmospheric elements to a resource’s setting—are considered.

5.4 IDENTIFICATION OF THE AREA OF POTENTIAL EFFECT

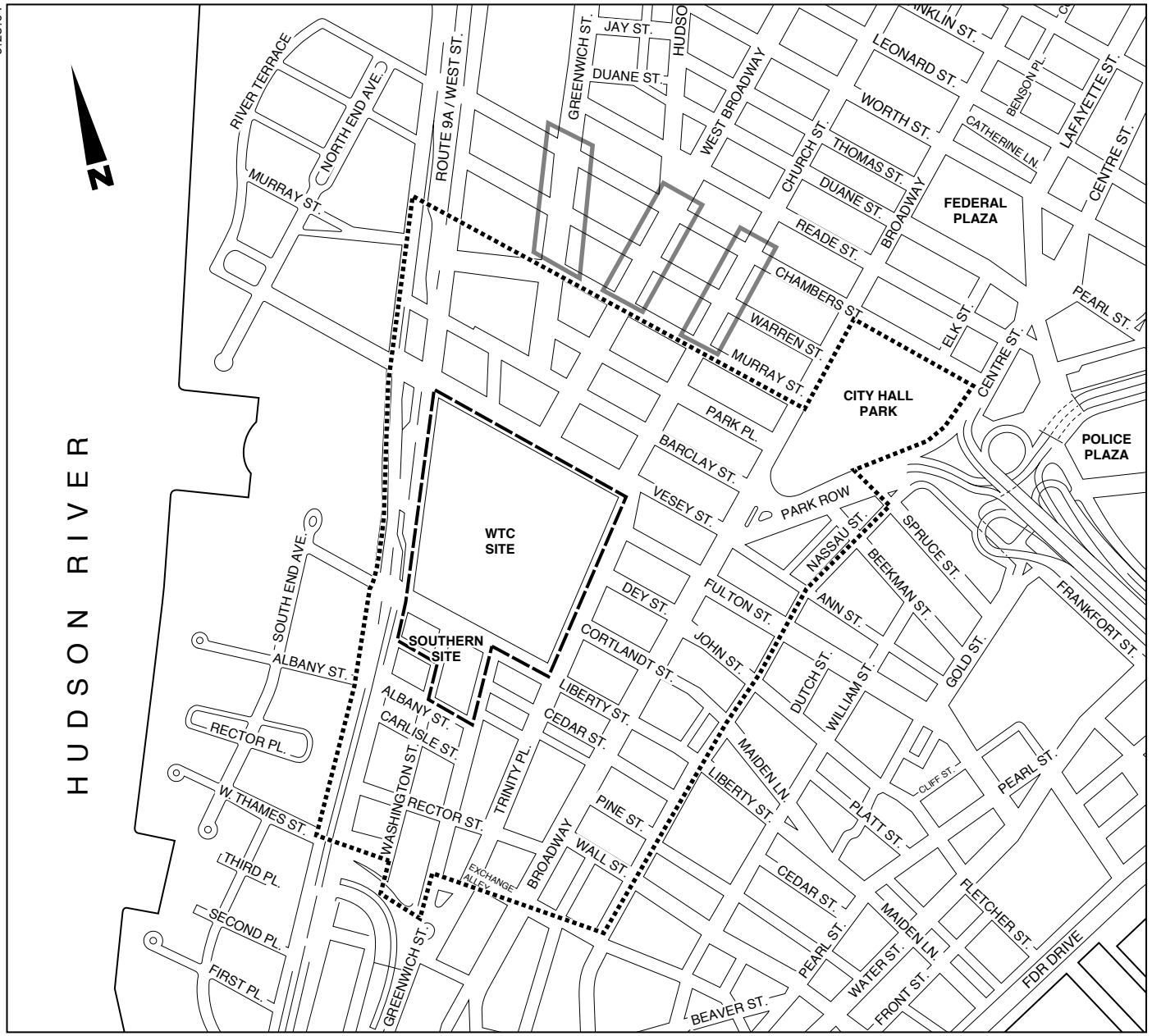
In general, potential effects on historic or architectural resources can include both direct physical effects (e.g., demolition, alteration, or damage from construction on nearby sites) and indirect, contextual effects, such as the isolation of a property from its surrounding environment, or the introduction of visual, audible, or atmospheric elements that are out of character with a property or that alter its setting. To assess the potential effect of a project, an Area of Potential Effect (APE) is defined and an inventory of historic and architectural resources located in the APE is compiled.

5.4.1 ARCHAEOLOGICAL RESOURCES

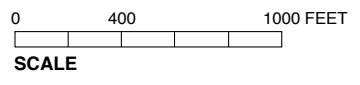
For archaeological resources, the APE is generally the area to be excavated by the Proposed Action, since this is the area where any artifacts or features could be disturbed. For this Proposed Action, the APEs for archaeological resources are the WTC Site, the Southern Site (bounded by Liberty, Albany, Cedar, and Greenwich Streets, and Route 9A), and the location of the potential vehicular ramp at Route 9A and Liberty Street (see Figure 5-1).

Archaeological resources are typically evaluated through a three-step process. The first step, Phase 1, consists of documentary research into the history of the site to determine the likelihood that archaeological resources may be present within the APE. Often, this step is divided into two phases: Phase 1A, which requires identifying areas that may contain archaeological resources, and Phase 1B, which involves subsurface testing to try to determine whether any resources are actually present. The second step, Phase 2, consists of more extensive subsurface investigations

HUDSON RIVER



- Project Site Boundary
- Primary Area of Potential Effect
- Secondary Area of Potential Effect



(if Phase 1B testing indicated that resources are present) and additional research to establish the age, integrity and research potential of the resources, and whether they may be eligible for the Registers. The third step, Phase 3, is considered the mitigation phase; mitigation may consist of either avoidance of the resource or data recovery in the form of a full-scale excavation and documentation.

5.4.2 ARCHITECTURAL RESOURCES

To account for visual and contextual effects, as well as possible construction-related structural damage, the primary APE for architectural resources is defined as the WTC Site, the Southern Site, and the adjacent area within approximately two to three blocks of these sites. Thus, the primary APE is generally bounded by Murray and Spruce Streets to the north, Joseph P. Ward Street and Exchange Place to the south, the *Battery Park City* (BPC) property line to the west, and Nassau and Broad Streets to the east (see Figure 5-1). The primary APE was divided into three subareas established on geographic boundaries as well as common neighborhood characteristics: (1) North of WTC, (2) Broadway Corridor, and (3) Greenwich South Corridor.

A secondary APE was defined to extend along routes with important changes in traffic volumes. This secondary APE is located along Greenwich Street, West Broadway, and Church Street, between Murray and Chambers Streets. The secondary APE is limited to buildings fronting these streets (see Figure 5-1). Roadways such as Broadway and Route 9A were not included in this APE as these are already well traveled, and it is not expected that increased traffic would have any potential effect on resources located on these roadways.

5.5 CURRENT CONDITIONS SCENARIO

5.5.1 EXISTING CONDITIONS 2003

ARCHAEOLOGICAL RESOURCES

The potential for archaeological resources on the WTC Site was considered in *Phase IA Archaeological Assessment—World Trade Center Property*, prepared by Historical Perspectives, Inc. in October 2003 (see Appendix K.1). The archaeological potential of the Southern Site was considered in *Phase IA Archaeological Assessment—Southern Site, Block 54, Lot 1, and Block 56, Lots 15, 20 and 21*, prepared by Historical Perspectives, Inc. in October 2003 (see Appendix K.2). The archaeological sensitivity of Route 9A was previously considered in extensive documentation in connection with the Westway Project and the Route 9A Reconstruction Project. In particular, reports consulted included: Cultural Resources Summary Report April 1996 prepared by Vollmer Associates LLP and Allee King Rosen & Fleming, Inc. and Appendix C: Cultural Resources to the Final Environmental Impact Statement, May 1994 prepared by Allee King Rosen & Fleming, Inc./Hartgen Archaeological Associates, Inc.

Based on the Phase 1A Archaeological Assessments, LPC requested individual lot histories of each potentially archaeologically sensitive lot. Topic Intensive Studies were prepared for the WTC Site and the Southern Site in March 2004 (see Appendices K.3 and K.4). The results of these studies are included in the discussion below.

Prehistoric Resources

Prior to European contact in the early 17th century, Native Americans speaking a Munsee dialect of the Eastern Algonquin language inhabited Manhattan Island. Native Americans

referred to the island of Manhattan as "Minna-atn" which meant "Island of Hills." The first contacts between Native Americans and Europeans occurred when early explorers began to trade with the native population. Dutch trading expeditions had been visiting the Hudson River for many years prior to the founding of New Amsterdam at the southern tip of Manhattan in 1626. These groups made contact with the native population; Robert Juet, who traveled with Henry Hudson on his 1609 voyage, provides in his journal a description of the native population and their trading practices. Dutch colonization in Manhattan began in earnest in 1625 when an expedition of farmers from the Dutch West India Company arrived at the southern tip of Manhattan with the purpose of building a fort and laying out nine Company farms.

Prior to landfilling activities in the 18th and early 19th centuries, the Hudson River shoreline originally ran approximately along the path of Greenwich Street. Research on the Paleo-shoreline indicates the possibility of a bay from Cedar Street to north of the WTC and an irregular shoreline forming a spit of land near Vesey Street at about 40 feet below current sea level.

There is little likelihood that precontact archaeological resources have survived within the WTC Site. West of Greenwich Street, excavation for the bathtub extends about 70 feet below grade, below the lowest level that precontact deposits could have survived (about 40 feet below grade). East of Greenwich Street it is likely that precontact resources would have been destroyed by basement construction in these areas as well as construction activities associated with the WTC.

On the Southern Site, any precontact archaeological resources that may have once existed have almost certainly been destroyed by exposure to the elements along the ancient Hudson River shoreline. The location of the potential vehicular ramp from the upper concourse at Liberty Street to grade in Route 9A, would also run across the Paleo-shoreline. The Route 9A Cultural Resources Summary Report identified potential prehistoric sites between Liberty and Dey Streets, but they were eliminated because their depth was far greater than construction anticipated with the highway project at the time. However, since that time additional analysis of similar resources has indicated (as stated in the conclusions for the Southern Site) any precontact archaeological resources that may have once existed under the Route 9A right-of-way (West Street) would have almost certainly been destroyed by exposure to the elements along the Hudson River shoreline.

Therefore, the Project Site is not considered sensitive for prehistoric archaeological resources.




Historic Period

WTC Site

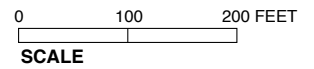
Prior to 1700, a large portion of the WTC Site was either under water or was undeveloped farmland. During the Dutch period, a wooden ship called the Tyjger burned and was abandoned along the shoreline in 1613.

The first known structures on the WTC Site were a house and windmill belonging to Peter Mesier. Shown on the Miller Plan (1696), they were located in the area that is now west of Church Street between Liberty and Cortlandt Streets. Landfilling along the Hudson River shoreline began around the turn of the 18th century. Between 1699 and 1701 several entrepreneurs built docks on the three blocks between Cedar and Cortlandt Streets and Greenwich Street and Washington Street.



-  Area of Potential Effect (APE)
-  High Archaeological Sensitivity
-  Former Lot Numbers

Source: Sanborn Map Company, 1951



Areas of Potential Archaeological Sensitivity-WTC Site

Figure 5-2

Activity along the Hudson River waterfront accelerated in the 18th century and continued through the 19th century. Many streets were planned and developed during this period and the busy waterfront supported many successful business ventures. By 1852 all the streetfronts within the APE had been solidly filled with buildings.

The WTC Site was disturbed by construction of the 1/9 subway line and the Hudson & Manhattan Railroad and its Terminal on the west side of Church Street and between Cortlandt and Fulton Streets. During construction of the IRT subway (1916), the remains of a wooden ship thought to be the *Tyjger* were found in the excavation of Greenwich Street at Dey Street.

During the 1960s, the site was extensively disturbed by construction of the WTC. The entire area west of Greenwich Street and the 1/9 subway was excavated to bedrock, 70 feet below grade to create the so-called bathtub where the Twin Towers along with the hotel and 6 WTC stood. In 1967 during excavation for the WTC, archaeologists attempted to find the rest of the *Tyjger*, but their efforts were unsuccessful.

Areas of Potential Sensitivity. The Phase IA Archaeological Assessments for the WTC Site found the following areas to be sensitive and warrant further consideration (see Figure 5-2):

- At the northeast corner of the WTC Site: former Lots 8-17 on former Block 85 (south side of Vesey Street between Greenwich and Church Streets).
- At the southeast corner of the WTC Site: former lots 5, 6, and 10 on former Block 60 (north side of Liberty Street between Greenwich and Church Streets).

The Topic Intensive Study for the WTC Site concluded that the three lots on Liberty Street and the 10 lots on Vesey Street appear to possess potential archaeological significance. Each of the lots was occupied by a household or business for an extended period of time spanning the 1750s through the 1850s. The lots were used for both residences, businesses, and a combination of residences and businesses, where the proprietor lived and worked at the same location. Archaeological resources associated with occupations on these 13 historic lots have the potential to answer a variety of research questions pertaining to use and occupation of home lots by different types of individuals and businesses in Lower Manhattan during the second half of the 18th and first half of the 19th century.

These areas were located outside the former WTC construction footprint and have the potential to contain shaft features (such as privies, cisterns, wells and cesspools) predating the 1850s that may have survived under former basements. Lots with basements 20 feet or more below grade have a lesser likelihood of shaft feature preservation, and have not been recommended for further study. However, Phase IB testing is recommended for former lots with basements 10 feet below grade or less.

Southern Site

No documented resources are located on the Southern Site; the nearest known resource is the *Tyjger*, described above. By 1764 portions of Block 54 were landfilled and two wharves were located within Block 56. By 1852 the blocks had been developed with numerous buildings. These buildings had basements, ranging in depth from 4 to 10 feet below grade. By 1971 all the buildings on Block 54 were demolished and the majority of the block was excavated down to bedrock for the construction of the Deutsche Bank building, thus destroying any archaeological resources that may have been located within this area of the block. By this time some of the lots on the northern half of Block 56 had been cleared of structures; other buildings were demolished

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in 1971 and the lots were turned into parking. St. Nicholas Greek Orthodox Church remained on Lot 21 until it was destroyed on September 11.

Areas of Potential Sensitivity. The Phase IA Archaeological Assessment for the Southern Site found that potential 18th and 19th century shaft features may survive under former basements of Block 56. Wharf and/or cribbing features may survive both under former basements on Block 56 and under active utilities within the Liberty, Washington, Cedar and Albany streetbed portions of the APE (see Figure 5-3). Former wharves were located at various locations and portions of these wharves may have been included as landfill, and wooden cribbing may have been likely used as a method to contain the soil.

The Topic Intensive Study for the Southern Site concluded that of eight potentially sensitive lots, three of them (Lots 19, 27, and 28) do not appear to possess archaeological significance, since they were occupied either by stables or by occupants who stayed on the lots for less than five years. The remaining five lots (Lots 15, 16, 18, 20, and 26) however do appear to retain archaeological sensitivity (see Figure 5-3). Two of these lots (Lots 16 and 26) were also the location of potential wharf and cribbing features, documented in historic records and described in the Phase IA study. The study also concluded that streetbed portions of Liberty, Washington, Cedar, and Albany Streets may contain wharf and/or cribbing features, as discussed in the Phase 1A study.

Since avoidance is not feasible, Phase IB investigation (consisting of archaeological monitoring, rather than testing), is recommended to document potential shaft features and potential wharf and cribbing features. Prior to any excavation work, an archaeological monitoring plan should be developed in consultation with SHPO and LPC.

Vehicular Ramp Location

One known resource—the Hudson River Bulkhead (S/NR-eligible)— is located just outside of the APE for archaeological resources. The bulkhead runs from the Battery to West 59th Street. The bulkhead and its associated structural systems were built between 1871 and 1936 by the New York City Department of Docks. The majority of the construction consisted of masonry walls on a variety of foundation systems, with quarry-faced ashlar granite block forming the visible face along most of the armored frontage. Design of the bulkhead was the responsibility of George B. McClellan, a Civil War general, who became the first Engineer-in-Chief of the Department of Docks. McClellan's plans contemplated the creation of a 250-foot-wide marginal street, from which 60- to 100-foot-wide piers with cargo sheds would project 400 to 500 feet around 150- to 200-foot-wide slips. Initiated to respond to the deteriorated, congested, and silt-filled condition of the waterfront, the carefully built granite walls created a consistent monumental surface to the waterfront that reinforced an image of New York City's commercial prominence. As property was acquired and as commerce warranted, the city built the bulkheads, built or rebuilt pier substructures, and leased redeveloped areas to private companies, which were usually responsible for piershed and headhouse construction.

In the area from Liberty Street to Dey Street where there would be a vehicular ramp from below-grade to street level in Route 9A, if the highway were rebuilt at-grade (without the short by-pass tunnel), 25 potential historic period archaeological sites were identified in the Route 9A Cultural Resources Summary Report matrix. (This number includes sites listed as Cedar-Liberty on the south and Dey-Vesey on the north.) Of these, 24 were piers, wharves and pier sheds; all of these were eliminated from further consideration due to lack of archaeological visibility and lack of

research potential (SHPO letter 8/12/92). One site was a crib bulkhead at Dey Street, which was eliminated due to lack of research potential (SHPO letter 8/12/92). Therefore, the ramp location is not considered sensitive for historic period archaeological resources.

ARCHITECTURAL RESOURCES

Project Site

The Project Site comprises the 16-acre WTC Site *and* the Southern Site (see Figure 5-1). The Southern Site comprises two blocks *and two streets*. The first, located at the corner of Liberty Street and Route 9A, is vacant and is part of the construction staging area for the WTC Site. The second, located to the east, between Liberty, Greenwich, Albany, and Washington Streets, is occupied by a vacant office building at 130 Liberty Street. Its north façade (facing the WTC) was severely damaged in the attacks of September 11, and its two-level plaza was completely destroyed. The building is covered in black netting and has not been repaired.

The former St. Nicholas Greek Orthodox Church, while destroyed in the aftermath of the events of September 11, does not satisfy any criteria for listing on the National Register. Background information on this property was sent to SHPO and LPC, and, in March, both SHPO and LPC concluded that the church site is ineligible for listing on the National Register and for designation as a NYCL.

The WTC Site is the one known resource located on the Project Site, based on the Coordinated DOE, included in Appendix K.5. Surviving elements of the WTC observed during site visits in November 2003 are described below. Elements constructed or installed in association with the recovery and stabilization efforts following September 11, as well as elements associated with the temporary PATH station, are also included to provide a complete picture of the WTC Site today. Photographs of existing elements are included with the Coordinated DOE in Appendix K.5 and also in Appendix K.6.

West Portion of the WTC Site—Bathtub

After the removal of approximately 1.8 million tons of material from the site, the only standing and remaining structure in this portion of the WTC Site was a remnant of the below-grade (basement) levels of 6 WTC, located along Route 9A and Vesey Street. The most visible remnants of the WTC are the slurry walls which surrounded the bathtub.

1. *West wall (constructed pre-September 11): This wall was under the roadbed of Route 9A and adjacent to Tower One, the hotel (3 WTC) and 6 WTC. The north end of the wall is partially covered and obscured from view by remnants of the below-grade structure of 6 WTC. Damage to the wall from September 11 is apparent as is the new concrete used to repair the damage and increase the height of the wall to prevent flooding. Water damage is also apparent on the wall and sections of reinforcement have been exposed. A number of features are visible, including:*
 - a. *Vehicular entrance ramps (constructed pre-September 11): Two sets of rectangular openings are located in the west wall. They were the vehicular entrances/exits for the WTC parking garage from ramps formerly in the median of Route 9A—now beneath the northbound lanes of the temporary roadway. They were located at the B2 basement level and are approximately 42 feet above the bathtub floor. The north pair is located just south of the surviving*

sections of 6 WTC. The south pair flanks the southern set of cooling water pipes. The north ramp of this southern pair was used by the terrorists to drive the vehicle with explosives into the garage in the 1993 attack on the WTC.

- b. *Cooling Water Pipes (constructed pre-September 11):* Openings for two pairs of cooling water intake and outflow pipes are located in the west wall. The pipes painted green are the 60-inch pipes installed with the original construction. These two pipelines ran under West Street between the WTC Site and a subterranean Hudson River Water Pump House facility in BPC. Pipes painted blue are the 66-inch pipes installed in the 1990s. These pipes were routed underneath subgrade entrance ramps under West Street/Route 9A and entered the WTC Site underneath Tower One.
 - c. *Tiebacks (installed post-September 11/temporary):* Nearly 1,000 temporary tiebacks were installed during the recovery to hold the wall in place when the debris and damaged below-grade structures were removed. Some tiebacks extend as much as 40 feet long and are anchored to bedrock around the bathtub area. All the tiebacks visible on this wall have been capped to protect them.
 - d. *Southern Projection (constructed pre-September 11):* This is the largest apparent opening in the wall that is visible. It is near the southern end of the wall. The structure was used for emergency PATH tunnel egress and ventilation, and also as part of the venting system for the garage, as well as emergency diesel generators, and connected to vent structures that were located in the median of Route 9A. Note there is also a similar projection behind the remnants of the 6 WTC substructure.
 - e. *PATH tunnel access (constructed pre-September 11):* This is located in the southern projection for the southern tunnel. The restored tracks, covered and partially walled, emerge from the southern projection at the bottom of the bathtub. Note the second PATH tunnel is in the northern projection and not visible due to the remnants of the 6 WTC substructure.
 - f. *Egress stairs (constructed post-September 11/temporary):* Steel egress stairs for the emergency egress from the PATH Tunnels "E" and "F" are located in the bathtub in the middle of the wall with a emergency walkway access from each tunnel to grade level along Route 9A.
2. *South wall (constructed pre-September 11):* The south wall was located under the middle of Liberty Street. It was adjacent to Tower Two. Damage to this wall is also apparent, as are the new concrete repairs and the vertical extension of the wall to prevent flooding.
 - a. *PATH tracks (constructed post-September 11):* The PATH tracks are adjacent to the base of this wall in the same location that they ran prior to September 11, 2001.

- b. *PATH substation (constructed post-September 11): This is the new blank-walled structure above the PATH tracks providing the traction power for train operations.*
 - c. *Recovery and Construction ramp (constructed post-September 11/temporary): This ramp provides temporary primary construction access for pedestrians and vehicles from street level to the floor of the bathtub, installed in March 2002 during the recovery effort. This is also among the emergency egress routes for the temporary WTC PATH station.*
 - d. *Tiebacks (constructed post-September 11/temporary): Tiebacks were installed during the recovery to hold the wall in place when the debris and damaged below-grade structures were removed.*
3. *East wall (constructed pre-September 11): This wall is visible above the temporary PATH tracks and on either side of the portion of the temporary WTC PATH station in the bathtub. September 11 damage as well as new concrete in repaired sections of the wall are distinguishable.*
 - a. *Hudson Tubes (constructed pre-September 11): Two cast-iron ring tubes are located in the east wall. Only the south tube is visible.*
 - b. *Vehicular access ramp (constructed pre-September 11): A former vehicular ramp into the below-grade service areas on the WTC Site is just west of the east wall. Inside the WTC Site (at approximately Fulton Street) the ramp connects to and runs through a portion of the one of the original Hudson Tubes. It connected to the outside world on Barclay Street under 7 WTC where trucks entered and exited the WTC.*
 - c. *Temporary WTC PATH station (constructed post-September 11/temporary): The new structure of the temporary WTC PATH station is visible, and is adjacent to the eastern wall of the bathtub. The structures are at the same location and elevations as the pre-September 11 station facility. PATH trains enter and exit the station on the track/platform level. Above that is the mezzanine level (also within the bathtub) where the turnstiles are located. Along the west wall of the mezzanine and overlooking the bathtub, the open structure has screen panels that are translucent; they allow light into the mezzanine level but do not obscure most views out to the WTC Site. Printed panels are also located along the walls and have quotes of famous New Yorkers. Four temporary emergency exit staircases lead from the PATH mezzanine to the floor of the bathtub.*
4. *North wall (constructed pre-September 11): This wall is largely obscured by the remnants of the substructure of 6 WTC.*
 - a. *6 WTC (constructed pre-September 11): Remnants of the grade level slab, an egress staircase, and six below-grade floors of 6 WTC (Levels B1-B6) are remaining at the north end of the bathtub. Smoke scars from the September 11 terrorist attacks are visible at levels B1-B5 from the exterior. These areas were used as below-grade parking and have been temporarily stabilized and shored as part of the site recovery following September 11, 2001.*

- b. *Tiebacks (constructed post-September 11/temporary): Some tiebacks have been installed where slabs have been demolished. A few tiebacks near the truck access ramp have cables that have not been cut back and capped.*
 - c. *Vehicular access ramp (constructed pre-September 11): This heavily damaged ramp once connected the WTC Site to Barclay Street (under 7 WTC) and is visible in this area.*
5. *Area within Bathtub: This is the area that was generally excavated to the concrete floor of the bathtub. It is within the slurry walls. Tower One, Tower Two, 3 WTC (the hotel) and 6 WTC all stood above the bathtub. The concrete floor of the bathtub lies over a layer of gravel which varies in thickness depending upon the geology of a particular location within the bathtub. In addition to the portions of 6 WTC and the temporary WTC PATH station, and operations and maintenance facilities and its elements identified above, other features or structures now present in the bathtub include:*
- a. *Tower perimeter column bases (constructed pre-September 11): The original subgrade column grid for the Twin Towers was configured in the bathtub to span above the former H&M tunnels traversing the bathtub as well as the new PATH tracks. During the recovery and site clean-up, the perimeter column bases that outline the space where the Twin Towers stood (sometimes referred to as footprints) were cut off just at or above the concrete floor of the bathtub, but remnants remain. The perimeter outlines of the north tower and south tower are delineated by column bases forming squares. Prior to September 11, 2001, the PATH facility occupied approximately the east half of the south tower's footprint. There were 84 perimeter columns extending into the concrete floor of the bathtub that would outline the north tower and, due to the configuration and crossing of PATH tracks, 73 perimeter columns extending into the concrete floor of the bathtub that outline the south tower. Of the 73 perimeter columns outlining the south tower, 34 of them were in the PATH facility.*
 - b. *Other column bases (constructed pre-September 11): These column bases supported other structures or infrastructure that once existed in the bathtub. They include column bases inside the perimeter of the Twin Towers. Most of the columns were arranged in a 30-foot by 30-foot grid pattern, with notable exceptions and an irregular grid pattern occurring in the areas of the PATH tracks at the north and south ends of the WTC bathtub.*
 - c. *Other infrastructure (constructed pre-September 11): Other infrastructure including elevator pits, sump pumps, ejector pumps and drainage lines are located within the bathtub area.*

East Portion of the WTC Site

This is the portion of the WTC Site outside of the bathtub area. This area is located east of the alignment of Greenwich Street and the restored No. 1/9 subway line which permits service to the Rector and South Ferry Stations. The new temporary WTC PATH station concourse level and street entrance is located in the north half of this area. There are no surviving remnants of buildings 4 WTC and 5 WTC in this area. Features identified in the eastern portion of the WTC Site include the following:

- 1. Temporary WTC PATH station main entrance (constructed post-September 11): This new structure is entered from Church Street at Fulton Street. The station has a sculptural form, with two wings rising from a central truss supported on two vertical trusses.*
- 2. Temporary WTC PATH station concourse (constructed post-September 11): This is located one level below-grade. It connects to the pre-existing downtown platform of the NYCT N/R/W line running under Church Street and at the northeast corner of the WTC Site to the NYCT E line.*
- 3. WTC PATH Terminal underpass (constructed pre-September 11): This is a pedestrian underpass connecting the mezzanine level to the concourse level, located under the No. 1/9 subway line, just as it did in the former WTC. This underpass structure itself remained intact despite the destruction and damage of September 11. New escalators were installed post-September 11.*
- 4. Restored NYCT No. 1/9 subway line (constructed post-September 11): A concrete box enclosing the subway tracks, as well as portions of the former Cortlandt Street station, runs north-south across the WTC Site, just east of the slurry wall. The tracks and enclosure were completely rebuilt after September 11.*
- 5. Plaza and subway access from Vesey Street (constructed pre-September 11): The heavily damaged stair and escalator structure on Vesey Street lead up to the WTC plaza and the bridge to 7 WTC. It also provided access to the No. 1/9 Cortlandt Street subway station which was under the WTC.*
- 6. Remnants of the Hudson Terminal and the H&M Railroad (constructed pre-September 11): These are found below grade in the middle of the WTC Site along Church Street between Fulton and Cortlandt Streets. When the new WTC PATH Terminal opened in 1971, unused portions of the Hudson Tubes were converted to truck ramps. Sections of these unused portions of the cast-iron tubes exist on site. Below-grade portions of the former terminal that were used for truck loading, parking, and commercial storage also exist on site. All components of the former H&M Terminal substation have been removed (during construction of the WTC), and only large openings in the ground where these features were located survive.*
- 7. Sidewalks and fencing (constructed post-September 11): These sidewalks and fencing are located around the perimeter of the WTC Site.*
- 8. Passageway to the NYCT WTC subway station (constructed pre-September 11): Remnants of the WTC passageway to the E subway line are located below-grade and*

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include steps, a ramp, doors and flooring. This passageway has been reopened and connects with the temporary WTC PATH station.

9. *Steel cross (erected post-September 11): A section of two connected beams forming a steel cross was found near 6 WTC and erected by recovery workers on the WTC Site.*

WTC Site (S/NR-eligible)

As detailed in the Coordinated DOE, the WTC Site is significant as the locus of the events of September 11 and the significance of those events and their aftermath to American history makes the WTC Site eligible for listing on the National Register, even at this early date. Although this eligibility does not depend on remaining elements at the site, some elements help convey the events of September 11 and their aftermath. The Coordinated DOE identifies the following elements in particular as contributing to the significance of the WTC Site: the truncated box-beam column bases that help define the perimeter or “footprints” of the former Twin Towers; the slurry walls that form the sides of the underground bathtub for the Twin Towers; the remnants of the parking garage, containing slabs and interior columns charred with smoke; the beams forming a cross erected by recovery workers; the portion of the concrete steps and escalator ramp from Vesey Street to the subway; and the remaining portion of the passageway to the E subway line.

A large number of artifacts recovered from the WTC Site following the events of September 11 currently exist at off-site locations, including the New York State Museum and Hangar 17 at John F. Kennedy Airport. Because these off-site artifacts are not physically located within the APE, they are not included in the Coordinated DOE for this project. However, the SHPO has indicated to LMDC, HUD, FHWA and FTA that artifacts returned to the WTC Site in the future could be considered contributing elements of this historic property (see the Coordinated DOE in Appendix K.5 for a discussion of off-site artifacts).

In addition, the Coalition of 9/11 Families has requested that the National Park Service (NPS), which administers the NHL program, consider the WTC Site for NHL status. The NHL program was authorized by the Historic Sites Act of 1935 (Public Law 74-292). NHL criteria (36 CFR § 65.4[a] and [b]) differ from National Register criteria and establish a stringent test for national significance and high historical integrity. NPS is considering that request but has advised that it does not anticipate a decision in the near future.

Former H&M Terminal

Limited portions of the former H&M Terminal still exist below-grade on the eastern portion of the WTC Site. Designed by Clinton & Russell, and constructed in 1908–09, it consisted of two 19-story Renaissance Revival towers that were linked together below ground by a three-level rail terminal. It occupied a two-block-long site on Church Street between Cortland and Fulton Streets. The terminal was linked to the southernmost of two cast iron ring tunnels—known as the Hudson Tubes—built under the Hudson River. These tunnels provided an important transportation link between New York City and Jersey City, N.J. In 1962, when the H&M Railroad was experiencing major financial difficulties, the Port Authority Trans-Hudson (PATH) system was formed as a subsidiary of the Port Authority of New York and New Jersey (Port Authority) and took control of the former H&M rail line. As part of the construction of the WTC, a new PATH station was built west of the H&M Terminal. Although the H&M Terminal office towers were demolished, the Hudson Tubes were still used, but were redirected to swing out farther apart from each other to accommodate the longer length of the new station. As the

new station was located west of the H&M Terminal and at a lower grade, the H&M Terminal was able to maintain normal service during construction of the new station. The new WTC PATH terminal opened in 1971, at which time the H&M Terminal was closed. Unused portions of the Hudson Tubes were converted to truck ramps, and portions of the former terminal were used for truck loading, parking, and commercial storage.

The WTC PATH terminal and the Hudson Tubes were catastrophically damaged as a result of the terrorist attacks on September 11. Some portions of the underground levels of the former H&M Terminal were damaged but remained intact. Based on the Field Inspection Report dated August 19, 2003, SHPO *determined* that the H&M Terminal and the cast iron tubes leading from the station do not meet the criteria for listing on the National Register due to a loss of historic integrity (letter dated October 16, 2003).

Primary Area of Potential Effect

A discussion of the effects of the Proposed Action on the historic resources surrounding the WTC Site follows below. The primary APE has been divided into three subareas established on geographic boundaries as well as common neighborhood characteristics: (1) North of WTC Site, (2) Broadway Corridor, and (3) Greenwich South Corridor. All known and potential resources are listed in Tables 5-1 and 5-2.

North of WTC Site—Known Resources

The North of WTC Site subarea is generally bounded by Murray Street to the north, Vesey Street to the south, the Hudson River Bulkhead along Route 9A to the west, and Park Row to the east. Known and potential resources located in this subarea are mapped on Figure 5-4.

Barclay-Vesey Building (S/NR-eligible, NYCL). Built between 1923 and 1927, the Art Deco Barclay-Vesey Building (140 West Street) occupies the full block bounded by Barclay, Washington, and Vesey Streets and Route 9A and overlooks the WTC Site. Known as the Verizon Building, it is considered one of the most significant structures in the history of skyscraper design, since it was the first building in New York City to exploit the requirements of the 1916 Zoning Resolution, leading to the tower's dramatic massing (see Figure 5-5). Designed by Ralph Walker of McKenzie, Voorhees & Gmelin as an office building and switching center for the New York Telephone Company, this 32-story brick, limestone, and terra cotta structure consists of an 18-story parallelogram base and an 11-story square tower. For 10 stories, the base rises flush with the lot lines. Above the 10th floor, there are setbacks on the north and south façades and light courts on the east and west façades. Above the base, the tower is oriented to the Manhattan grid street pattern. Multiple setbacks above the 10th floor serve to further relieve the building's bulk. Flat piers provide verticality, and on the tower they create buttresses that cap the structure. There are limestone cornices on each setback, and on the first two floors there are terra cotta spandrel panels, and window and door enframements of intricately carved reliefs of people, animals, and vegetation. The ground floor of the Vesey Street façade is an arcade.

The Barclay-Vesey Building suffered façade and structural damage as a result of the collapse of 1 WTC and 7 WTC. It has been restored and partially reopened.

Federal Office Building/U.S. Post Office (S/NR). This building, located at 90 Church Street, was designed by Cross & Cross and Pennington, Lewis & Mills and was constructed in 1934–38. The massive limestone building is 15 stories tall and combines Classical Revival and Art Deco details, as well as exterior sculptural reliefs by Carl Paul Jennewein (see Figure 5-5). It occupies the full block bounded by West Broadway and Barclay, Vesey, and Church Streets, and also

overlooks the WTC Site across Vesey Street. The building has been closed for repair, cleaning, remediation of hazardous materials, and interior reconstruction. It is expected to reopen in spring 2004.

St. Peter's Roman Catholic Church (S/NR, NYCL). Located at 22 Barclay Street, this Greek Revival granite church is home to the oldest Roman Catholic parish in New York City. It was designed by John R. Haggerty and Thomas Thomas in 1836-40, replacing an earlier building dating from 1785. It has a temple-like front with six Ionic columns (see Figure 5-6).

Former St. Peter's School (S/NR-eligible). East of St. Peter's Church at 16 Barclay Street, this five-story brick Greek Revival school building was erected for St. Peter's School ca. 1838. It is three bays wide and is topped with a mansard roof with three pediment dormers (see Figure 5-6).

30 Vesey Street (S/NR-eligible). The 18-story brick Renaissance Revival building at 30 Vesey Street has a tripartite design of base, shaft, and capital. Fluted pilasters embellish its two-story base, and additional ornamentation is found at the upper stories (see Figure 5-6). It was constructed in 1914.

Old New York Evening Post Building (S/NR, NYCL). Robert D. Kohn designed this 13-story limestone-faced building, located at 20 Vesey Street, in 1906-07. It was erected as the offices and printing plant of the *New York Evening Post*. It is a rare example of a New York City building inspired by the early 20th century Central European artistic reform movement known as the Vienna Secession. Its refined classicism, rational expression of structure, and stylized ornament are suggestive of Viennese precedents (see Figure 5-6). Notable features of the building include four statues on the 10th floor known as the *Four Periods of Publicity*—two are by Gutzon Borglum, the sculptor of Mount Rushmore, and two are by Estelle Rumbold Kohn, the architect's wife.

New York County Lawyer's Association (S/NR, NYCL). An example of the 18th-century English Georgian Revival style, this four-story white limestone building is a late work of Cass Gilbert, having been designed in 1929-30 (see Figure 5-6). It is located at 14 Vesey Street and was commissioned by the New York County Lawyer's Association, an organization that had been founded in 1908 to serve the public interest and the legal profession.

Astor Building (S/NR-eligible). The seven-story Renaissance Revival commercial building at 217 Broadway was designed by Charles Platt in 1915. It has a stone façade and lacks ornamentation. The building is crowned by a bracketed cornice.

Transportation Building (S/NR-eligible). Designed by York & Sawyer in 1926-27, this 44-story skyscraper is located at 225 Broadway. It rises straight to the 23rd floor, continues eight stories with narrow setbacks, then a rectangular tower rises an additional 13 floors. It has a four-story stone base with tan brick upper stories and Lombardic details.

**Table 5-1
Known Resources in the Primary and Secondary Areas of Potential Effect**

Ref. No.	Name	Address	NHL	S/NR	S/NR-eligible	NYCL	Pending NYCL	NYCL-eligible
Primary Area of Potential Effect: North of WTC Site								
1.	Hudson River Bulkhead	Battery to West 59th Street			X			
2.	Barclay-Vesey Building	140 West Street			X	X		
3.	Federal Office Building/ U.S. Post Office	90 Church Street		X				
4.	St. Peter's Roman Catholic Church	22 Barclay Street		X		X		
5.	Former St. Peter's School	16 Barclay Street			X			
6.	30 Vesey Street	30 Vesey Street			X			
7.	Old New York Evening Post Building	20 Vesey Street		X		X		
8.	New York County Lawyer's Association	14 Vesey Street		X		X		
9.	Astor Building	217 Broadway			X			
10.	Transportation Building	225 Broadway			X			
11.	Woolworth Building	233 Broadway	X	X		X		
12.	Dun & Bradstreet Building	99 Church Street			X			
13.	Former Dodge Building	53 Park Place			X			
14.	45-47 Park Place	45-47 Park Place			X		X	
15.	23-25 Park Place	23-25 Park Place			X		X	
16.	21 Park Place	21 Park Place			X			
17.	Park Murray Building	9-15 Park Place and 8-12 Murray Street			X			
18.	City Hall IRT Station	City Hall Park			X	X		
19.	City Hall	City Hall Park	X	X		X		
20.	New York County Courthouse	52 Chambers Street	X	X		X		
21.	African Burial Ground and the Commons Historic District	Bounded by Duane Street, Park Row, Broadway and Centre Street	X	X		X		
Primary Area of Potential Effect: Broadway Corridor								
22.	St. Paul's Chapel and Graveyard	Broadway and Fulton Street	X	X		X		
23.	Former American Telephone & Telegraph (AT&T) Company Building	195 Broadway			X			X
24.	Former East River Savings Bank	26 Cortlandt Street			X			X
25.	Former New York Times Building	39-43 Park Row			X	X		
26.	Lamppost 77	147 Nassau Street			X	X		
27.	Potter Building	38 Park Row and 145 Nassau Street			X	X		
28.	Temple Court Building and Annex	3-9 Beekman Street			X	X		
29.	Park Row Building	15 Park Row			X	X		
30.	Bennett Building	139 Fulton Street			X	X		
31.	Fulton Street IRT Station	Fulton Street and Broadway			X	X		
32.	John Street/Maiden Lane Historic District	Fulton, Liberty, Dutch, and Nassau Streets and Broadway			X			
33.	Corbin Building	192 Broadway		X				X

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**Table 5-1 (cont'd)
Known Resources in the Primary and Secondary Areas of Potential Effect**

Ref. No.	Name	Address	NHL	SNR	SNR-eligible	NYCL	Pending NYCL	NYCL-eligible
Primary Area of Potential Effect: Broadway Corridor (cont'd)								
34.	<i>Dennison Building</i>	<i>15 John Street</i>			X			
35.	Hays Building	21-23 Maiden Lane			X			
36.	Chamber of Commerce of the State of New York	65 Liberty Street	X	X		X		
37.	Liberty Tower	55 Liberty Street		X		X		
38.	United States Realty Building*	115 Broadway		X	X	X		
39.	Trinity Building*	111 Broadway		X	X	X		
40.	Trinity Church and Graveyard	Broadway and Wall Street	X	X		X		
41.	Equitable Building	120 Broadway	X	X		X		
42.	Lamppost 6	Adjacent to 10 Pine Street (a.k.a. 120 Broadway)			X	X		
43.	Former American Surety Building	100 Broadway			X	X		
44.	Bankers Trust Building	14 Wall Street			X	X		
45.	Wall Street IRT Station	Wall Street and Broadway			X	X		
46.	Empire Building	71 Broadway		X		X		
47.	American Express Company Building	65 Broadway			X	X		
48.	61 Broadway	61 Broadway			X			
49.	Former Irving Trust Company Building	1 Wall Street			X	X		
50.	Lamppost 5	Adjacent to 80 Broadway			X	X		
51.	New York Stock Exchange	8-18 Broad Street	X	X		X		
52.	Street Plan of New Amsterdam and Colonial New York	Generally bounded by Wall and Pearl Streets and Broadway and Whitehall Street			X	X		
Primary Area of Potential Effect: Greenwich South Corridor								
53.	Beard Building	125 Cedar Street			X			X
54.	114-118 Liberty Street	114-118 Liberty Street			X			
55.	90 West Street	90 West Street			X	X		
56.	123 Washington Street	123 Washington Street			X			
57.	Hazen Building	120 Greenwich Street			X			
58.	<i>21-23 Thames Street</i>	<i>21-23 Thames Street</i>			X			
59.	Western Electric Company Factory	125 Greenwich Street			X			X
60.	American Stock Exchange	86 Trinity Place	X	X				
61.	74 Trinity Place	74 Trinity Place			X			
62.	Former Electric Bond and Share Company Building	2-8 Rector Street			X			
63.	94 Greenwich Street	94 Greenwich Street			X		X	
64.	94½ Greenwich Street	94½ Greenwich Street			X		X	
65.	96 Greenwich Street	96 Greenwich Street			X		X	
66.	Former St. George's Syrian Roman Catholic Church	103 Washington Street			X			X
67.	Lamppost 80†	Adjacent to 107-109 Washington Street			X	X		

Table 5-1 (cont'd)
Known Resources in the Primary and Secondary Areas of Potential Effect

Ref. No.	Name	Address	NHL	S/NR	S/NR-eligible	NYCL	Pending NYCL	NYCL-eligible
Primary Area of Potential Effect: Greenwich South Corridor (cont'd)								
68.	New York Evening Post Building	75 West Street		X				X
69.	40 Rector Street Building	40 Rector Street			X			
70.	Frasch Building	56 West Street			X			
71.	<i>Crystal Building</i>	<i>47-49 West Street</i>			X			
72.	<i>74-80 Washington Street</i>	<i>74-80 Washington Street</i>			X			
73.	19 Rector Street	19 Rector Street		X				X
74.	Battery Garage	56 Greenwich Street			X			
75.	67 Greenwich Street	67 Greenwich Street			X		X	X
Secondary Area of Potential Effect								
76.	Tribeca South Historic District	Roughly bounded by Thomas and Chambers Streets and West Broadway and Church Street and Broadway			X	X		
77.	Tribeca South Historic District Extension	Roughly bounded by Chambers and Murray Streets and West Broadway and Church Street			X	X		
78.	65 Murray Street	65 Murray Street			X			
79.	136 Church Street	136 Church Street			X			
80.	Former Marine Midland Trust Company Building	128-132 Chambers Street			X			
81.	Chambers Street Station	Chambers Street and West Broadway			X			
82.	Gerken Building	90 West Broadway			X			
83.	139 Chambers Street	139 Chambers Street			X			
84.	Cary Building	105-107 Chambers Street		X		X		
<p>Notes: Corresponds to Figures 5-4, 5-8, 5-14, and 5-19. <i>NHL:</i> National Historic Landmark. <i>SR:</i> New York State Register of Historic Places. <i>NR:</i> National Register of Historic Places. <i>S/NR-eligible:</i> Site has been found eligible for listing on the New York State and National Registers of Historic Places. <i>NYCL:</i> New York City Landmark. <i>Pending NYCL:</i> Site has been heard (i.e., under consideration) for designation by LPC. <i>NYCL-eligible:</i> LPC has determined that the site appears eligible for NYCL designation. * The Trinity Building and United States Realty Building are listed on the SR only. They are eligible for listing on the NR. † This lamppost was removed between August 6, 2003, and August 14, 2003. Only the base remains.</p>								

**Table 5-2
Potential Resources in the Primary and Secondary Areas of Potential Effect**

Ref. No.	Name	Address
Primary Area of Potential Effect: Broadway Corridor		
85.	143-145 Fulton Street	143-145 Fulton Street
86.	<i>Girard Building</i>	<i>198 Broadway</i>
87.	<i>196 Broadway</i>	<i>196 Broadway</i>
88.	Germania Building	175 Broadway
89.	First National Bank Building	2 Wall Street
Primary Area of Potential Effect: Greenwich South Corridor		
90.	106 Liberty Street	106 Liberty Street
91.	110 Liberty Street	110 Liberty Street
92.	112 Liberty Street	112 Liberty Street
93.	113 Cedar Street	113 Cedar Street
94.	117 Cedar Street	117 Cedar Street
95.	137-139 Greenwich Street	137-139 Greenwich Street
96.	68 Trinity Place	68 Trinity Place
97.	50 Trinity Place	50 Trinity Place
98.	American Express Company Warehouse	46 Trinity Place
99.	44 Trinity Place	44 Trinity Place
100.	<i>32-42 Trinity Place</i>	<i>32-42 Trinity Place</i>
101.	<i>Tyrell Building</i>	110-112 Greenwich Street
102.	106 Greenwich Street	106 Greenwich Street
103.	102-104 Greenwich Street	102-104 Greenwich Street
104.	<i>98-100 Greenwich Street</i>	<i>98-100 Greenwich Street</i>
105.	<i>109 Washington Street</i>	<i>109 Washington Street</i>
106.	Former Downtown Community House	105-107 Washington Street
107.	<i>Green Exchange Building</i>	<i>130 Cedar Street</i>
Secondary Area of Potential Effect		
108.	59 Murray Street	59 Murray Street
109.	61 Murray Street	61 Murray Street
110.	67 Murray Street	67 Murray Street
111.	32 Warren Street	32 Warren Street
112.	59 Warren Street	59 Warren Street
113.	61 Warren Street	61 Warren Street
114.	60-62 Warren Street	60-62 Warren Street
115.	68 Warren Street	68 Warren Street
116.	71-73 West Broadway	71-73 West Broadway
117.	86 West Broadway	86 West Broadway
118.	88 West Broadway	88 West Broadway
Notes: Corresponds to Figures 5-4, 5-8, 5-14, and 5-19.		

Woolworth Building (NHL, S/NR, NYCL). The 60-story neo-Gothic skyscraper at 233 Broadway was built in 1910–13 to house the headquarters of the Woolworth variety store chain. F.W. Woolworth intended it to be the world’s tallest building and it was for a short time. It was designed by Cass Gilbert and faced in terra cotta (see Figure 5-7).

Dun & Bradstreet Building (S/NR-eligible). Located at 99 Church Street, this 11-story commercial office building was designed by architects Reinhard, Hofmeister & Walquist. It was

erected by the George A. Fuller Company and opened in 1951. When it first opened, Dun & Bradstreet occupied seven floors, and the Western Electric Company occupied a large space in the building.

Former Dodge Building (S/NR-eligible). The former Dodge Building is a 12-story Classical Revival structure, located at 53 Park Place. It was designed by Willhauer, Shape & Bready, Cross & Cross, and John B. Peterkin and was constructed in 1922. It has a tripartite design of base, shaft, and capital. The base and capital are clad with limestone while the middle floors are faced with tan brick. Pilasters, Greek key patterning, and dentilled cornices adorn the façade.

45-47 Park Place (S/NR-eligible, Pending NYCL). The five-story Renaissance Revival building at 45-47 Park Place appears to date to the late 19th century. The ground floor has been altered, but fluted Corinthian pilasters remain. Windows at the upper floors have ornate surrounds with lintels and bracketed sills. There is a simple bracketed cornice. The entire building façade, including all windows, has been painted.

23-25 Park Place (S/NR-eligible, Pending NYCL). The two five-story buildings at 23-25 Park Place were designed by Samuel Adams Warner, architect of the Marble Collegiate Church on Fifth Avenue. They continue through the block to 20 and 22 Murray Street. They were constructed in the late 1850s and share common Italian Renaissance-inspired façades on both streets. Both buildings have stone façades with large window openings and altered ground stories (see Figure 5-7). Originally, there were cast iron and glass storefronts manufactured by Daniel Badger; these original storefronts may exist under the modern corrugated aluminum that covers the ground-floor façades.

21 Park Place (S/NR-eligible). The five-story building at 21 Park Place was likely constructed during the second half of the 19th century. It is four bays wide and has a brownstone façade (see Figure 5-7). Windows have stone sills and segmentally arched enframements. The building appears to retain much of its original cast iron storefront.

Park Murray Building (S/NR-eligible). An 18-story through-block structure, the Park Murray Building is located at both 9-15 Park Place and 8-12 Murray Street. It was designed by Ely Jacques Kahn and was built in 1928. The ornate base is clad with stone panels and adorned with either terra cotta or cast stone details. Cast iron details are found below the second-floor window bays. The building has Classical and Art Deco detailing, such as its undulating and projecting brick pilasters that extend from the fourth through 18th floors.

City Hall IRT Station (S/NR-eligible, NYCL). The underground IRT stations at City Hall, Fulton Street, and Wall Street are among several under- and above-ground stations built as part of Contract 1 of the Interborough Rapid Transit Company's (IRT's) first subway in Manhattan. This first section of the subway, which ran from City Hall to Grand Central Terminal and then ran west and along Broadway to the Bronx, was built between 1899 and 1904 under the direction of Chief Engineer William B. Parsons. The ornamentation of the stations, consisting primarily of white tile with light-colored brick and decorative mosaic sign panels and terra cotta and faience plaques, was designed by Heins & La Farge. The City Hall IRT Station closed in 1945 and is inaccessible to the public.

City Hall (NHL, S/NR, NYCL). Designed by Joseph-Francois Mangin and John McComb, Jr. in 1802-11, City Hall is considered one of the most beautiful early 19th century public buildings in the United States. Its original marble and brownstone exterior stonework was replaced in 1954-56 with limestone above a granite base due to extensive deterioration.

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New York County Courthouse (NHL, S/NR, NYCL). Located at 52 Chambers Street, this building is also known as the Tweed Courthouse. It was designed by John Kellum and Leopold Eidlitz from 1861 to 1881 and was the first permanent government building constructed by New York City after the completion of City Hall in 1811. Kellum's design called for a grand Italianate monument with a Corinthian portico and long staircase facing Chambers Street. When Kellum died before the building was completed, Eidlitz was retained to design the medieval-inspired south wing.

African Burial Ground and the Commons Historic District (NHL, S/NR, NYCHD). Bounded by Duane Street, Park Row, Broadway, and Centre Street, this district incorporates both the Commons—pastureland set aside by the Dutch government in colonial New Amsterdam—and the 18th-century African Burial Ground. The Commons later became a site for parading troops, public gatherings, celebrations, and executions. A portion of the Commons became a public park in the 1780s and was later incorporated into a park setting for City Hall. The section of the Commons between Chambers and Duane Streets became a burial ground for African slaves and freed men and women in the 18th century and possibly earlier. The cemetery was uncovered during investigations for the construction of a federal office building. Portions of the burial ground were completely excavated to construct the government building, but other sections were preserved in situ as a memorial to New York's earliest African residents.

North of WTC Site—Potential Resources

There were no potential resources identified in the North of WTC Site subarea.

Broadway Corridor—Known Resources

The Broadway Corridor subarea largely includes resources located along Broadway and its cross streets. This area is bounded by Vesey Street, Park Row and Spruce Street to the north, Exchange Place to the south, Church Street to the west, and Broad and Nassau Streets to the east. Known and potential resources are mapped on Figure 5-8.

St. Paul's Chapel and Graveyard (NHL, S/NR, NYCL). St. Paul's Chapel, located at Broadway and Fulton Street, was erected between 1764 and 1766; its porch was built in 1767–68; and its tower was designed by James C. Lawrence in 1794. It is Manhattan's oldest surviving church and is also considered one of the finest Georgian buildings in the nation. It is a simplified version of James Gibbs's Saint Martin-in-the-Fields on Trafalgar Square in London. It was built of local stone with brownstone trim. It has a modest portico on its towered west façade, which faces the adjacent 18th-century graveyard (and, across Church Street, the WTC Site). The Broadway elevation features an imposing brownstone Ionic porch, which was part of the original plan but was not built until 1767–68 (see Figure 5-9). Although the design of the church is often ascribed to Thomas McBean, there is no evidence to support this theory. George Washington worshipped at the church during the brief period when New York was the nation's capital. During the recovery effort at the WTC Site, the chapel served as a refuge for rescue workers.

Former American Telephone & Telegraph (AT&T) Company Building (S/NR-eligible, NYCL-eligible). Designed by William Welles Bosworth and built in three sections between 1912 and 1923, this 29-story Neo-Classical Revival commercial office building is located at 195 Broadway. It has been described as a square-topped layer cake, as its façade consists of eight Ionic colonnades, with three stories located within each set (see Figure 5-9). It is clad with Vermont granite and has a Doric colonnade at the lower story. It is reported to have more classical columns than any other façade in the world. Its tower rises to a stepped crown modeled

on the Mausoleum of Halicarnassus. Bronze panels above the Broadway entrances were designed by the sculptor Paul Manship. It has a notable lobby with Greek Temple-like rows of Doric columns.

Former East River Savings Bank (S/NR-eligible, NYCL-eligible). Currently occupied by a department store, the five-story former bank building located at 26 Cortlandt Street was designed by Walker & Gillette in 1931–1934. It has Classical and Art Deco details with stainless steel winged eagles over the entrances (see Figure 5-9). It faces the WTC Site across Church Street.

Former New York Times Building (S/NR-eligible, NYCL). The 16-story office building at 39-43 Park Row was erected for the *New York Times* in 1888–89. It is one of the last survivors of Newspaper Row, the center of New York City newspaper publishing from the 1830s to 1920s. Designed by George B. Post in the Richardsonian Romanesque style, it has a gray Maine granite base with rusticated Indiana limestone blocks on the upper stories (see Figure 5-10). It originally had a mansard roof with gable dormers, compound colonnettes, roll moldings, miniature balustrades, foliate reliefs, and gargoyles. In 1904, the *Times* relocated to Times Square. The former ground-floor offices were converted to retail use, the mansard roof was removed, and four new stories were added to the designs of Robert Maynicke in 1903–05. In 1951, the building was acquired by Pace University; offices were converted to classrooms, and the base of the structure was altered.

Lamppost 77 (S/NR-eligible, NYCL). Lamppost 77, a wall bracket-type lamppost located on 147 Nassau Street, is an example of ornamental lampposts that were erected in Lower Manhattan in the early 20th century. By the late 1880s, the first ornamental lampposts were installed on Fifth Avenue, between Washington Square Park and 59th Street. Beginning around 1900, ornamental arc lampposts were designed, and the earliest of this form was the bishop's crook. Several variations of this style were produced, but the earliest incorporated a garland on the fluted shaft, a short ladder rest, and was made from a single iron casting up to the crook section. By 1913, wall bracket versions of the bishop's crook lamppost, like Lamppost 77, were developed for use on narrow streets and installed on building façades.

Potter Building (S/NR-eligible, NYCL). Designed by Norris G. Starkweather, the 11-story Queen Anne/neo-Grec style building that fronts on 38 Park Row as well as 145 Nassau Street was erected in 1882–86 (see Figure 5-10). It was commissioned by real estate investor and politician Orlando B. Potter after his previous building on the site burned. It featured the most advanced fireproofing available, such as rolled-iron beams, cast iron columns, brick walls, and tile arches for structural support, as well as brick, terra cotta, and cast iron in the exterior load-bearing walls. Potter was so impressed by the extensive terra cotta provided by the Boston Terra Cotta Company that he established his own firm—the New York Architectural Terra Cotta Company in Long Island City. The upper floors of the Potter Building were converted to apartments in 1979–81.

Temple Court Building and Annex (S/NR-eligible, NYCL). This resource consists of two connected structures, one nine stories and one 10 stories, located at 3-9 Beekman Street. The original Temple Court Building was commissioned by Eugene Kelly and built in 1881–83, and was designed by Silliman & Farnsworth. The Queen Anne, neo-Grec, and Renaissance Revival style building has a two-story granite base with red brick, tan Dorchester stone, and terra cotta on the upper stories. It is considered to be the earliest surviving, and basically unaltered, fireproof New York City office building, erected before the era of the skyscraper. The Annex was designed by James Farnsworth and was constructed for Kelly in 1889–90. Clad in Irish limestone, it was designed in an arcade Romanesque Revival style.

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Park Row Building (S/NR-eligible, NYCL). When it was completed in 1899, the 32-story Park Row Building was the tallest in New York City and one of the tallest structures in the world. Located at 15 Park Row, it is one of several surviving late 19th century office towers erected on the street that was once known as Newspaper Row, the center of newspaper publishing in New York City from the 1830s to the 1920s. Designed by R.H. Robertson in the Classical Revival style, it features two cupola-topped towers. It has four large sculpted figures that sit on overscaled brackets, massive columns and pilasters, and several projecting ornamental balconies. The Associated News Press news agency, incorporated in New York in 1900, and the Interborough Rapid Transit Company were once located in the building.

Bennett Building (S/NR-eligible, NYCL). Located at 139 Fulton Street, this building was originally constructed in 1872–73, but was enlarged to its present 10-story size in 1892–93 and 1894. It has three fully designed 10-story cast iron façades that face Fulton, Nassau, and Ann Streets. It is believed to be the tallest cast iron building ever erected. It was commissioned as a real estate investment by James Gordon Bennett, Jr., publisher of the *New York Herald* newspaper. When originally erected, it was a seven-story French Second Empire structure, designed by Arthur D. Gilman. The original mansard roof was removed and four stories were added in 1892–93 in a design by James M. Farnsworth that replicated the original castings. In 1894, Farnsworth designed a 25-foot-wide section on Ann Street.

Fulton Street IRT Station (S/NR-eligible, NYCL). The Fulton Street Station was restored in 1987 by Lee Harris Pomeroy & Associates. It features ceramic tile plaques of Robert Fulton's steamboat the *Clermont*. See further discussion above under "City Hall IRT Station" in the North of WTC section.

John Street/Maiden Lane Historic District (S/NR-eligible). This historic district is roughly bounded by Fulton Street to the north, Liberty Street to the south, Broadway to the west, and Dutch and Nassau Streets to the east. It represents a collection of late 19th and early 20th century early skyscraper office buildings. Many were built on speculation to house collateral businesses that were attracted to the area by the success of the neighboring Financial District. Most buildings in the proposed district were erected before the 1916 Zoning Resolution, which required setbacks and minimal sky-plane exposure. The nine-story Corbin Building (described below) is located within the district boundary. Also included in the proposed district is 63 Nassau Street, built ca. 1860 and believed to be one of James Bogardus's few New York City works. Other buildings within the district were designed by prominent architects, including C.P.H. Gilbert, Gilbert A. Schellinger, John Rochester Thomas, and Clinton & Russell. Also included within its boundaries is the former jewelry district located along Maiden Lane.

Corbin Building (S/NR, NYCL-eligible). Designed by Francis H. Kimball and erected in 1889–89, this nine-story Romanesque Revival building is located at the corner of Broadway and John Street with a narrow façade on Broadway and a long façade with the building entry along John Street. It has a brownstone base with brick and terra cotta details at the upper stories (see Figure 5-10). It features a series of arches with ornate voisoirs. It is notable as an early skyscraper that features an elaborate use of terra cotta detail. Its entry has recently been restored.

Dennison Building (S/NR-eligible). Located at 15 John Street, this nine-story building was constructed in 1902. It is included in the John Street/Maiden Lane Historic District.

Hays Building (S/NR-eligible). An eight-story Romanesque Revival structure located at 21-23 Maiden Lane, the Hays Building was designed by John Rochester Thomas, architect of the Surrogate's Court House, and was erected in 1891. The ground floor appears to have been

altered by the addition of new storefronts. The second floor is clad with rusticated stone while upper stories are faced with orange-colored brick. Ionic and Corinthian pilasters embellish its façade. The building is surmounted by a delicate roof top balustrade.

Chamber of Commerce of the State of New York (NHL, S/NR, NYCL). The five-story marble Beaux Arts building at 65 Liberty Street was erected by the Chamber of Commerce to symbolize its importance in the commercial life of New York City (see Figure 5-11). It was designed by James B. Baker in 1900–01. The chamber occupied the building until 1980. It was restored and converted to a bank in 1990–91.

Liberty Tower (S/NR, NYCL). Designed by Henry Ives Cobb in 1909–10, the neo-Gothic 33-story skyscraper at 55 Liberty Street is clad entirely in white terra cotta (see Figure 5-11). It features fanciful ornament, including birds and alligators. When constructed, it was regarded as the tallest building in the world on so small an area of ground. It was also one of the earliest residential conversion projects in Lower Manhattan (ca. 1981). Damaged terra cotta on the building's façade was restored in the 1990s.

Trinity Building and United States Realty Building (SR, NR-eligible, NYCL). Designed by Francis H. Kimball in 1904–07, the two skyscrapers at 111 and 115 Broadway were designed with Gothic details to harmonize with Trinity Church, located to the south (see Figure 5-11). Both buildings are faced with limestone and feature towers, gables, and delicately carved ornament. Construction of both buildings was a major undertaking, causing the relocation of Thames Street as well as the construction of caissons 80 feet into the marshy subsoil.

Trinity Church and Graveyard (NHL, S/NR, NYCL). This well-known Lower Manhattan church was designed by Richard Upjohn based on English precedents and was built in 1841–46. Located at Broadway and Wall Street, the Gothic Revival style structure is clad in brownstone. For many years the steeple of Trinity Church was the tallest structure in the city (see Figure 5-11). The present church is the third one built on the site for New York's oldest Episcopal congregation. Important additions to the church include the sacristy, Frederick Clarke Withers (1876–77); All Saint's Chapel, Thomas Nash (1911–13); and the Manning Wing, Adams & Woodbridge (1966). Its adjacent cemetery is the oldest in Manhattan and contains the graves of several prominent New Yorkers, including Alexander Hamilton, Robert Fulton, and William Bradford.

Equitable Building (NHL, S/NR, NYCL). Occupying the entire block bounded by Broadway and Nassau Streets between Cedar and Pine Streets, this massive building is located at 120 Broadway. It was designed by Ernest R. Graham & Associates and features classical ornament and entrances in the form of triumphal arches. Built on the site of Equitable's first home office in 1913–1915, the H-shaped building rises 41 stories without setbacks and is faced with brick, limestone, and granite (see Figure 5-12). Its bulk provoked great controversy and was influential in the passage of the first zoning law in the United States in 1916. A restoration of the building was completed in 1990.

Lamppost 6 (S/NR-eligible, NYCL). Located adjacent to 10 Pine Street (the Equitable Building), Lamppost 6 is a later bishop's crook variant from the early 20th century. It lacks the garland and ladder rest found on earlier versions, and its crook ornament is wrought, rather than cast, iron. See further discussion above under "Lamppost 77" in the Broadway Corridor section.

Former American Surety Building (S/NR-eligible, NYCL). Located at 100 Broadway, this structure was designed by Bruce Price between 1894 and 1896 and was a key building in the evolution of the skyscraper. At the time of its construction, the 22-story building was the second

tallest building in the city, and was one of the first to incorporate steel framing, curtain wall construction, and caisson foundation piers. It also set a model for tall buildings on corner sites in the 1890s and for the freestanding tower skyscrapers of the early 20th century. Clad in granite, the building is decorated with such neo-Renaissance sculptural elements as the Ionic colonnade at the entrance and the sculptural figures, designed by J. Massey Rhind, at the third story (see Figure 5-12). The American Surety Company was one of the leading bond insurance companies in the nation. Between 1920 and 1922, the building was expanded by New York architect Herman Lee Meader, by two penthouse stories, and four bays on Pine Street and Broadway.

Bankers Trust Building (S/NR-eligible, NYCL). Designed by Trowbridge & Livingston and completed in 1912, the Neo-Classical inspired Bankers Trust Building at 14 Wall Street rises 32 stories. Its limestone tower is defined by engaged triple-story colossal Ionic colonnades at the third and attic stories. It is crowned by a seven-story stepped pyramidal roof that is both one of the Manhattan skyline's most prominent visual elements and the logo for Bankers Trust. Bankers Trust was organized in 1903 and became a full-service bank in 1917. This office building contained the bank's offices and other leasable office space. In the 1930s, a major 25-story addition designed with Art Deco detail was erected to the north and west of the building (included as part of the NYCL designation). Bankers Trust sold the building in 1987.

Wall Street IRT Station (S/NR-eligible, NYCL). The Wall Street Station was redesigned in 1979 with blue glazed brick by the New York City Transit Authority Architectural Staff. See further discussion above under "City Hall IRT Station" in the North of WTC section.

Empire Building (S/NR, NYCL). This building, located at 71 Broadway, was designed by Kimball & Thompson in 1895–98. It is 22 stories tall and has street frontage on Broadway, Rector Street, and Trinity Place. It has classically inspired details and was designed with a triumphal-arch entry (see Figure 5-13). The building served as the headquarters for the United States Steel Corporation from its establishment by J.P. Morgan in 1901 until 1976. In 1997, it was converted to apartments.

American Express Company Building (S/NR-eligible, NYCL). Designed by James L. Aspinwall of Renwick, Aspinwall & Tucker (1914–17), this 21-story concrete and steel-framed building is located at 65 Broadway. It was erected for the American Express Company and was designed with Neo-Classical style details. It has a white brick and terra cotta façade and a granite base (see Figure 5-13). The building extends through the block to Trinity Place. American Express retained its headquarters in the building until 1975.

61 Broadway (S/NR-eligible). Completed in 1916, this 33-story skyscraper at Broadway and Exchange Alley is considered unusual in New York because it exhibits design characteristics of the Chicago School, including the restrained use of ornament and the clear expression of structural frame (see Figure 5-13). It has a three-story base, brick walls on the upper stories, and a large overhanging cornice. Its architect, Francis Kimball, was known for his use of innovative structural techniques, as in his Manhattan Life Insurance building, the first New York skyscraper to be completely framed in iron and steel.

Former Irving Trust Company Building (S/NR-eligible, NYCL). The former Irving Trust Company Building is a 50-story limestone-clad skyscraper with numerous setbacks that occupies the south side of Wall Street between Broadway and New Street. Designed by Ralph Walker of the firm of Voorhees, Gmelin & Walker and built between 1928 and 1931, its undulating façades, rounded corners, and carving around the entrance at 1 Wall Street in the design of a theater curtain opening make it a preeminent example of the Art Deco Style. Prior to moving to

Wall Street in 1931, the Irving Trust Company had its headquarters in the Woolworth Building. In 1988, Irving Trust and the Bank of New York merged and the building became the Bank of New York's corporate headquarters. An addition built to the south of the building in 1962–1965 is not considered part of the designation.

Lamppost 5 (S/NR-eligible, NYCL). Lamppost 5, located adjacent to 80 Broadway, is an example of the first type of bishop's crook style lamppost from the early 20th century. It has a garland on the shaft and a ladder rest and was fabricated of a single casting up to the crook top. See further discussion above under "Lamppost 77" in the Broadway Corridor section.

New York Stock Exchange (NHL, S/NR, NYCL). This 10-story Neo-Classical style building, located at 8-18 Broad Street, was designed by George B. Post and erected in 1903. Clad in white Georgia marble, a colonnade of six colossal fluted Corinthian columns extend along the building's most familiar Broad Street façade, set on a two-story base (see Figure 5-13). The colonnade supports an entablature bearing the carved inscription "New York Stock Exchange." It is capped by a full-width pediment containing 11 sculpted figures symbolizing American commerce and industry, designed by John Quincy Adams Ward and executed by Paul Wayland Bartlett. A simpler façade faces New Street, also consisting of a massive Corinthian colonnade, but surmounted by a cornice rather than a pediment. In 1922, a 23-story addition was added to the original building. Known as the 11 Wall Street Building, this addition was designed by Trowbridge and Livingston and completed by Marc Eidlitz and Sons in 1922. This structure was designed to complement the older adjacent building and is also clad in white Georgia marble.

Street Plan of New Amsterdam and Colonial New York (S/NR-eligible, NYCL). The street plan of Lower Manhattan, south of Wall Street, dates from the 17th century and is located within the confines of the Dutch settlement of New Amsterdam. It is the only visible above-ground evidence in Manhattan of the colonial settlement. It is generally bounded by Wall and Pearl Streets and Broadway and Whitehall Street. The street pattern of Lower Manhattan, unlike the formal 1811 grid imposed on the majority of the city, was determined by the natural terrain and the settlement's original primary functions of defense and trade, accounting for its hilly, narrow, and winding character. The financial center of the nation was built on the colonial street plan, which underwent only minor additions and alterations by the British, and other subsequent modest changes in the grade, composition, and paving of the streets throughout the past two centuries.

Broadway Corridor—Potential Resources

These potential resources were identified by the LMEPF. They were determined ineligible for S/NR listing or NYCL designation by SHPO and LPC.

143-145 Fulton Street. A unique structure for the neighborhood, this three-story gabled building features half-timbering on its façade. Windows are replacements, and original window openings appear to have been altered. Decorative bargeboard adorns its front gable. It appears to have been constructed during the early to mid-20th century.

Girard Building. This 12-story building at 198 Broadway was designed and built in 1902 by Walter H. Wickes. It is a narrow building with Beaux Arts details. Window pediments, bracketed cornices and cartouches are used to embellish its façade. Delicate wrought iron balconies are found at the upper stories.

196 Broadway. The three-story building at 196 Broadway was likely built in the late 19th century. In 1910, the Childs Company purchased the building and opened a restaurant at the site in 1912. The building has an ornate façade with bracketed and dentilled cornices.

Germania Building. Located at 175 Broadway, between Cortlandt and Dey Streets, this five-story building was erected ca. 1865. It has an ornate façade that is adorned with Corinthian columns, segmental arches, and a fourth-floor balcony. It is crowned with a bracketed and dentilled cornice. The second floor façade is obscured by a large storefront sign.

First National Bank Building. Designed by Walter & Gillette in 1933, this 21-story Classical Revival building is located at 2 Wall Street. Double-height windows, supported by bracketed sills with cast star panels below, dominate its ground floor. Its façade is clad with stone panels and windows are grouped in pairs.

Greenwich South Corridor—Known Resources*

The Greenwich South Corridor is bounded by Liberty Street and the Southern Site to the north, Joseph P. Ward Street and Exchange Place to the south, the Hudson River Bulkhead along Route 9A to the west, and Church Street to the east. Known and potential resources are mapped on Figure 5-14.

Beard Building (S/NR-eligible, NYCL-eligible). Oswald Wirz designed the 12-story Beard Building at 125 Cedar Street (a.k.a. 120 Liberty Street) as an office building. Constructed in 1895–97, it is a through-block, brick and stone building with Romanesque Revival-style façades (see Figure 5-15). Its north façade is on Liberty Street overlooking the WTC Site, and it looks west toward the Southern Site. It has a two-story stone base composed of pilasters and deeply recessed window bays; the north façade of the base is clad in limestone, while the south façade appears to be clad in sandstone. On the shaft, wide piers frame corner window bays and create a wide central bay broken up by thin, closely spaced mullions. An entablature caps the shaft. The two-story building capital contains pedimented windows. A bracketed cornice crowns the building. Converted to residential use long before September 11, it has been restored and reoccupied except for the ground floor on Liberty Street.

114-118 Liberty Street (S/NR-eligible). This 11-story Renaissance Revival-style building was constructed in 1900–01 and designed by John T. Williams. Due to the irregular lot shape, the through-block loft building is three bays wide on Liberty Street and two bays wide on Cedar Street. The main façade fronts on Liberty Street overlooking the WTC Site. It has a two-story rusticated stone base and a brick shaft crowned with a modillioned cornice (see Figure 5-15). The base contains an entrance porch, arched show windows with keystones, and a frieze. Projecting cartouches and an entablature mark the mezzanine (third) story. The upper floors are articulated with brick pilasters, spandrels, and mullions. At the two-story capital, swags crown the double-height piers, and the top-floor windows are arched. The Cedar Street façade is divided into a rusticated base, a shaft composed of piers and window bays, and a cornice-crowned capital, but it is less ornate. Converted to residential use prior to September 11, it is being restored to residential use.

* LPC's 1997 designation report for Historic Street Lampposts also identified Lamppost 79, located at the northeast corner of Albany Street and Route 9A. However, during a field inspection on August 6, 2003, this lamppost could not be located.

90 West Street (S/NR-eligible, NYCL). Designed by Cass Gilbert and built in 1905–07, the 90 West Street Building is among the most important early 20th century skyscrapers in New York City, and the aesthetic precursor of Gilbert’s Woolworth Building from 1910–13. The 23-story former commercial office building is also the earliest example of the use of Gothic detail on a skyscraper with distinctly vertical massing. It has a C-shaped plan with a light court facing east and its primary façade fronting on Route 9A. Its north elevation faces the Southern Site and beyond that the WTC Site across Liberty Street. Above a two-story granite base, the façades of the shaft are clad in white terra cotta with modest marble and polychromed terra cotta trim. The shaft is articulated with recessed window bays and clustered columns that form piers. These piers, along with colonettes between the windows, rise uninterrupted for most of the building’s height, creating vertical emphasis. The building’s heavy three-story capital is ornately designed as an arcade with engaged columns. A mansard roof with dormers and pinnacles crowns the building. The building was covered in scaffolding for ongoing façade repair on September 11. It was heavily damaged due to burning debris from the WTC and the plane that hit Tower Two. It is being restored and renovated for residential use.

123 Washington Street (S/NR-eligible). The nine-story Renaissance Revival-style commercial building at 123 Washington Street was known as the National Surety Building when it was constructed in 1921–23. It was designed by Arthur C. Jackson and has a tripartite design of base, shaft, and capital (see Figure 5-16). The two-story, rusticated stone base contains bay windows set between engaged Doric columns. The columns support a simple stone entablature with triglyphs and metopes. Clad in brick, the upper floors are articulated with piers and windows bays. Stone trim gives the piers the appearance of pilasters, and stone diamonds are used at the spandrels for ornamentation. The attic floor rests on a stone cornice, and a modillioned, metal cornice caps the building.

Hazen Building (S/NR-eligible). The 12-story Hazen Building at 120 Greenwich Street was designed in 1905 by Jardine, Kent & Jardine. The Renaissance Revival-style brick structure has a tripartite design of base, shaft, and capital (see Figure 5-16). The three-story base is rusticated and contains arched window bays with pronounced voussoirs and keystones. A stone cornice with egg and dart molding runs above the base. The main entrance fronting Albany Street is crowned with a large broken pediment and an ornate shield above the door. The Greenwich Street corners are rounded, with protruding horizontal bands of brick that create the appearance of quoining and emphasize the curved design. Brick quoining also marks the northwest and southwest corners. The small office windows on the shaft have stone sills and keystones. The building’s two-story capital is embellished with brick pilasters and ornate, arched bay windows with stone voussoirs and keystones. A denticulated cornice caps the shaft, and a projecting, modillioned cornice crowns the building.

21-23 Thames Street (S/NR-eligible). This five-story brick tenement was built in 1872 by John Lerscher. It features a galvanized iron cornice and was originally designed to house three families on each of its upper stories.

Western Electric Company Factory (S/NR-eligible, NYCL-eligible). Built in 1888–89, the 10-story former Western Electric Company Factory at 125 Greenwich Street was designed by Cyrus L. W. Eidlitz in the Romanesque Revival style. The former factory is clad in brick and terra cotta, and designed in, what was proclaimed at the time, a utilitarian and structural style. It fronts on Greenwich and Thames Streets, and the northwest corner is designed as a heavy structural pier. This corner is composed of a large expanse of masonry wall surface punctured on each façade with windows that are smaller than the building’s other factory windows. In comparison,

the majority of the building's street façades are articulated with brick piers and wide, recessed window bays. Within each bay are factory windows of three lights separated by thin brick spandrels. On the loft floors, the only ornamentation consists of dark colored terra cotta bands and dark colored window frames that contrast with the building's orange face brick. The Romanesque Revival elements are provided on the top two floors. A modillioned cornice runs above the ninth floor, the windows on the 10th floor are arched with pronounced archivolt, a corbelled cornice marks the roofline, and a parapet at the corner creates the impression of a battlement. At the base, the entrances on Greenwich and Thames Streets are framed with double-height, arched porches.

American Stock Exchange (NHL, S/NR). Now the American Stock Exchange, and once known as the New York Curb Exchange, this building at 86 Trinity Place consists of two components. In 1921, the New York Curb Market Association (so named for being an outdoor market) moved into a new seven-story Renaissance Revival-style office and exchange building at 111-123 Greenwich Street. In 1930-31, the facility was expanded with a 14-story Art Deco addition designed by Starrett and Van Vleck at 78-86 Trinity Place (see Figure 5-17). Clad in brick, the Greenwich Street façade consists of largely blank and unornamented wall surface. The most notable features are five large, arched windows in the center of the façade and a stone plaque reading "New York Curb Market" set in the wall above these windows. Other features include arched corner entrances, stone door and window lintels and sills, brick panels, and a simple cornice. The Art Deco limestone façade on Trinity Place is more ornate.

74 Trinity Place (S/NR-eligible). Located at 74 Trinity Place and 109 Greenwich Street, this 27-story commercial building features decorative terra cotta and bronze spandrel panels (see Figure 5-17). Designed by H.I. Oser in 1925-27, its design includes Renaissance Revival and Art Deco details.

Former Electric Bond and Share Company (EBASCO) Building (S/NR-eligible). Formerly known as the Electric Bond and Share Company Building, this 27-story Beaux Arts commercial office building is located at 2-8 Rector Street. It was designed by Clinton & Russell (1905-07) with a terra cotta-clad façade. It rises 23 stories without setback; beginning at the 24th floor there are a series of setbacks. Large round-arched openings are located at the ground floor that encloses the arcade (see Figure 5-17).

94-96 Greenwich Street (S/NR-eligible, Pending NYCL). The three brick structures located at 94, 94-1/2, and 96 Greenwich Street were built circa 1800. They are each four stories tall and three bays wide (see Figure 5-18). Windows have stone sills and lintels. No. 94 appears to retain its original six-over-six sash windows, and iron tie rods are visible on its façade. No. 94-1/2 has stucco applied over its brick walls. The fourth-floor windows on No. 96 have been replaced with a band of modern windows.

Former St. George's Syrian Roman Catholic Church (S/NR-eligible, NYCL-eligible). The former St. George's Syrian Roman Catholic Church at 103 Washington Street was originally built as a tenement in 1871. It was converted into a church in 1920 to serve a Middle Eastern Christian community that lived in Lower Manhattan at that time and was given a new, Gothic terra cotta façade. Confined to a narrow lot, the church expresses its Gothic character through applied façade details, rather than through a typical church form of nave, tower, and side aisles. The Gothic details include pointed-arch side entrances; a central, arched entrance with a tympanum and flanking colonnette; Tudor-arched windows; piers and pinnacles; and Gothic tracery (see Figure 5-16).

Lamppost 80 (S/NR-eligible, NYCL). Lamppost 80, located adjacent to 107 and 109 Washington Street, is a later bishop's crook variant from the early 20th century. It lacks the garland and ladder rest found on earlier versions. Sometime between August 6 and August 14, 2003, this lamppost was removed, and only its base remains. See further discussion above under "Lamppost 77" in the Broadway Corridor section.

New York Evening Post Building (S/NR, NYCL-eligible). Located at 75 West Street, the New York Evening Post Building occupies the entire blockfront on Carlisle Street, between West and Washington Streets (see Figure 5-15). Horace Trumbauer designed the 16-story Art Deco building in 1925. It has a two-story stone base with recessed window bays and an entablature with stylized balustrades. The upper floors are clad in brick, and massed with light courts and a series of setbacks that form a central tower. Projecting brick piers with stone caps emphasize the verticality of the massing. Colorful panels of geometric tiles ornament the upper stories. Stone detailing is also used on the upper setbacks to add further emphasis to the verticality of the building's design.

40 Rector Street Building (S/NR-eligible). The 17-story Renaissance Revival-style 40 Rector Street Building (also originally known as the Barrett Building) was designed in 1920–21 by Warren Wetmore as an office building on what was then the Hudson River waterfront. This large, boxy building with no setbacks has an eight-story wing at the southeast corner. It was originally L-shaped, wrapping around several old tenement buildings at 100-106 Washington Street. The building's owners intended to tear them down when their leases expired and develop the site with a small park to protect the light to the 40 Rector Street Building's east façade. Sometime after 1951, an addition was constructed on this parcel adjacent to the north of the eight-story wing. This addition does not replicate the original façade treatment. The original building is designed with a large, rusticated stone base and upper floors clad in brick (see Figure 5-18). Tall arched and rectangular windows puncture the base on all three street façades, and a stone balustrade runs above the base. A brick and stone mezzanine transitions the design from the stone base to the brick upper floors. Metal spandrel panels and stone quoins add some detail to the office floors. The top two floors are designed as a loggia with stone pilasters. A stone entablature and projecting metal cornice crown the buildings. The Rector Street Bridge, a modern, metal pedestrian bridge over Route 9A constructed in the wake of September 11, abuts the west façade.

Frasch Building (S/NR-eligible). This narrow building is located at 56 West Street, at the corner of Rector Street. Designed by Henry Otis Chapman in 1921, it has a Classically inspired tripartite design (base, shaft, capital). It has a four-story base with tan upper stories and stone cladding at the top floors (see Figure 5-18). The building has a bracketed cornice with an attic story. A stone carved plaque on the Rector Street façade tells that the building was named for Herman Frasch (1851–1914), the founder and first president of the Union Sulphur Company.

Crystal Building (S/NR-eligible). The building at 47-49 West Street was once part of B.T. Babbitt's soap making complex near the Hudson River. In 1882 an eight-story building designed by William Graul was constructed at 47-49 West Street. The building, as well as the adjacent building at 74-80 Washington Street, was sold to the real estate firm of B. Crystal & Son in 1911. Soon after, George and Edward Blum were retained for an alteration to the building, which likely involved the construction of the existing mansard roof (see Figure 5-18). It appears that Crystal owned the building until at least 1949, when it installed a new entrance and lobby as part of an effort to market the building for office uses in the downtown area. In 1996, the top three floors of the building were remodeled for live-work space.

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74-80 Washington Street (S/NR-eligible). Like the *Crystal Building* (described above) this building at 74-80 Washington Street was once part of B.T. Babbitt's soap making complex. It was likely constructed before 1897. The building, as well as the adjacent *Crystal Building*, was sold to the real estate firm of B. Crystal & Son in 1911. George and Edward Blum were retained for an alteration to the building in 1911, which may have involved the design and construction of its current façade and cornice.

19 Rector Street (S/NR, NYCL-eligible). Located on Rector Street between Washington and Greenwich Streets, 19 Rector Street is an Art Deco building constructed in 1929–30. Designed by Lafayette A. Goldstone, it rises 37 stories and is an L-shaped office building clad in beige brick with limestone, granite, glazed terra cotta, and colored brick trim (see Figure 5-17). It has a granite water table and two-story limestone base that is built out to the lot line on its three street façades. The lobby is intact and retains much of its original Art Deco design features, including marble walls, floors, and bronze ornament. In 1955, a 10-story addition was added to the southwest corner of the building (at Rector and Greenwich Streets). In 2000, the building was converted to apartments, with retail and commercial uses remaining on the first and second floors.

Battery Garage (S/NR-eligible). Located at 56 Greenwich Street, this seven-story International style concrete parking garage was designed by Ole Singstad (see Figure 5-17). It was built by the Triborough Bridge and Tunnel Authority in conjunction with the Brooklyn Battery Tunnel. When it opened in 1950, it was the city's first publicly owned parking garage and was operated by the Socony-Vacuum Oil Company. Horizontal openings and bands of glass block windows dominate its façade. It is connected to a larger parking facility to the west.

67 Greenwich Street (S/NR-eligible, NYCL-eligible, Pending NYCL). This Federal mansion at the corner of Edgar Street is a rare survivor in Lower Manhattan. When it was built ca. 1810, Greenwich Street was a prime residential location lined by other homes of the same scale. This house was probably originally three-and-a-half-stories tall, but the top floor was later replaced with a full fourth floor. It is four bays wide with brick walls of Flemish bond, stone lintels, and, on the central windows on the second and third floors, splayed lintels with raised keystones. The rear elevation on Trinity Place features a projecting, full-height oval bay articulated by three windows on each floor, a feature common only to the larger homes of the time. Despite alterations, this structure retains much of its original fenestration and detailing.

Greenwich South Corridor—Potential Resources

These potential resources were included in the LMEPF's proposed Greenwich Street South Historic District. These properties were determined ineligible for S/NR listing or NYCL designation by SHPO and LPC.

106-112 Liberty Street. Three five-story buildings are located at 106, 110, and 112 Liberty Street. All windows have been replaced and the ground-floor storefronts have been altered. Nos. 106 and 112 appear to retain their original cornices; No. 110 has no cornice. They were likely constructed in the 1850s.

113 and 117 Cedar Street. The brick building at 113 Cedar Street appears to have been constructed during the second half of the 19th century, while 117 Cedar Street was built in 1908. No. 117 is four stories tall, while No. 113 is five stories tall. Both buildings have projecting cornices with dentils and modillions.

137-139 Greenwich Street. The five-story building at 137-139 Greenwich Street and 120 Cedar Street was built in 1839. The simple brick building has window openings with stone sills. A plain cornice crowns the building. The ground floor has been altered with a new storefront, and the windows have been replaced. *It is one of the few pre-Civil War commercial buildings remaining on lower Greenwich Street. It was rehabilitated after a 1992 fire but was not substantially altered.*

68 Trinity Place. Located at 68 Trinity Place, this five-story building was built in 1920–22 by F.P. Platt & Brother. It was originally constructed for the Horn & Hardart Company with an Automat on its first and mezzanine levels and offices above. It has a stone façade and is three bays wide. A large segmentally arched window and doorway spans the first and second floors. It is crowned with an ornate stone cornice (see Figure 5-17).

50 Trinity Place. The building at 50 Trinity Place was designed by Clinton & Russell in 1908. It is clad in terra cotta and was built for the U.S. Express Company. It is three stories tall with an ornate façade. Pilasters and colonnettes, as well as decorative spandrel panels, are used to embellish the façade. It has a dentilled cornice and is topped by a delicate rooftop balustrade.

American Express Company Warehouse. Located at 46 Trinity Place, this five-story brick structure was designed by Edward H. Kendall in 1885. It was built for the American Express Company and features a terra cotta seal with the company emblem in relief. Stringcourses at each story connect the round arched window openings. The ground-floor storefront has been altered, although an entrance with a broken pediment is located at the south end of the building. It is topped with a castellated parapet.

44 Trinity Place. The building at 44 Trinity Place is a narrow seven-story brick building. It was constructed sometime between 1852 and 1855. The original ground-floor storefront has been altered. The second through fourth floors have ornate window openings with recessed brick pattern details. Windows on the fifth through seventh floors are flat arched and lack the ornamentation found on the lower stories.

32-42 Trinity Place. This building reached its current form in 1913, when it was altered for the Adams Express Company by architect Francis Kimball. Chase Bank acquired the building before 1920, and in 1922 the building reopened as the bank's employees' club. The building was converted into offices in 1966.

Tyrell Building. William Higginson designed the eight-story Tyrell Building at 110-112 Greenwich Street for the printer Benjamin H. Tyrell, who occupied the top two floors. The brick loft building was constructed in 1928–29. The largely unornamented building is characterized by loft windows and slightly projecting brick piers. Minor stone ornament on the utilitarian façades includes an entrance enframing on Greenwich Street, a course above the base, window lintels, denticulated sills below the windows on the eighth floor, and a stone cornice at the roofline.

106 Greenwich Street. The five-story brick Italianate tenement at 106 Greenwich Street was designed by William Graul in 1879. Notable details include stone window lintels and sills, and a projecting metal cornice with scrolled brackets (see Figure 5-18). The ground floor has been altered with modern storefronts, and the windows have been replaced. In addition, some of the stone window elements are heavily deteriorated.

102-104 Greenwich Street. The five-story brick Italianate building at 102-104 Greenwich Street is similar to the adjacent building at 106 Greenwich Street. It also appears to date to the second half of the 19th century and was originally a store and factory building. It has stone window

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lintels and sills and a bracketed metal cornice (see Figure 5-18). The ground floor has been altered with modern storefronts, and the windows have been replaced.

98-100 Greenwich Street. This five-story building was erected circa 1857 as a warehouse. Its cornice has been removed and the ground floor has been altered.

109 Washington Street. John P. Lee designed this five-story tenement in 1885. It is four bays wide with a bracketed cornice.

Former Downtown Community House. John F. Jackson designed the former Downtown Community House at 105-107 Washington Street. Built in 1925–26, it is a brick and stone Neo-Georgian structure (see Figure 5-16). In the late 1930s, the building housed the Works Progress Administration’s Recreation Training School. It currently houses the True Buddha Diamond Temple of New York, and the ground floor has been altered with new cladding and a sloping tile roof. Retaining their original appearance, the upper brick floors are characterized by windows with keystones and angled stone lintels. On the second floor, the windows are recessed and set within arched openings. Additional decorative features include stone labels and stone plaques carved with swags. A stone entablature with swags and a cornice with mutules mark the transition from the façade to the dormered, pitched roof. Removable gold buddhas have been placed within the arched openings on the second floor.

Green Exchange Building. Designed by Renwick, Aspinwall & Guard in 1930, this 12-story building is located at 130 Cedar Street. It is a good representative example of an early 20th century reinforced concrete industrial building. It was damaged on September 11, 2001, and has remained vacant. Its windows are boarded-up and the building is partially covered in black netting.

Secondary Area of Potential Effect

The secondary APE includes buildings fronting Greenwich Street, West Broadway, and Church Street, between Murray and Chambers Streets. Known and potential resources are mapped on Figure 5-19.

Known Resources

Tribeca South Historic District and Tribeca South Historic District Extension (S/NR-eligible, NYCHD). These historic districts document the development history of commercial and industrial architecture in New York City from roughly 1850 through the early 20th century. Originally developed as a residential neighborhood, the area began its transformation into a commercial area with the opening of the A.T. Stewart Store on the corner of Broadway and Reade Street in 1846. Many store and loft buildings were erected in the 1850s and 1860s in the Italian Renaissance style along Broadway and on the nearby side streets. By the 1860s, the area had become the thriving hub of a national system for the distribution of wholesale dry goods. The area began to decline in the 1960s, but since the 1980s large-scale conversions have transformed the neighborhood into a successful residential district.

A portion of the Tribeca South Historic District Extension, roughly bounded by Chambers Street to the north, Murray Street to the south, West Broadway to the west, and Church Street to the east, is located in the secondary APE (see Figure 5-20). Only the southernmost section of the Tribeca South Historic District along Chambers Street is located within the secondary APE.

65 Murray Street (S/NR-eligible). This six-story building at 65 Murray Street (a.k.a. 66 West Broadway) has a two-story base and orange-colored brick upper stories. It was formerly known

as the Gibbes Building. Its ground- floor storefronts have been altered. The second floor retains original cast iron window bays. Cast iron bays are also used at the center bays on the West Broadway façade. The building is topped by a bracketed cornice. It appears to date to the late 19th century (see Figure 5-22).

136 Church Street (S/NR-eligible). This seven-story building is located at 136 Church Street. It was constructed in the early 20th century and was designed in the Classical Revival style. Its base is clad in travertine and is dominated by large double-height round arched windows (see Figure 5-20). Upper stories are of tan brick. Spandrels are embellished with ornamental panels. It is capped with a modillioned cornice.

Former Marine Midland Trust Company Building (S/NR-eligible). Located at 128-132 Chambers Street, this former bank building is two stories tall with stone cladding. Storefronts occupy the ground floor, while double-height windows and Ionic pilasters are at the second floor (see Figure 5-21). An ornate entrance enframingent, surmounted by a clock, is found on the Chambers Street façade. It was erected between 1923 and 1951.

Chambers Street Station (S/NR-eligible). The Chambers Street Station is located at Chambers Street and West Broadway. It was designed by Alfred Craven, chief engineer, and S.J. Vickers, architect, in 1918. Original features of the station include characteristic white tile walls, geometric Arts and Crafts mosaic banding, and plaques.

Gerken Building (S/NR-eligible). Located at 90 West Broadway, this 14-story Beaux Arts building has a tripartite design of base, shaft, and capital (see Figure 5-22). Orange-colored brick is used at the first through third floors, while gray brick is found at the upper stories. The brickwork on the fourth through 10th floors is recessed in areas, created the effect of rustication. An ornate entrance door enframingent is found at the West Broadway façade. Ground-floor storefronts appear to retain original details. Cartouches and a bracketed cornice adorn the building's façade. It was built in the 1890s.

139 Chambers Street (S/NR-eligible). Constructed during the late 19th/early 20th century, this 10-story building at 139 Chambers Street was designed to respond to its triangular-shaped lot at Chambers and Hudson Streets. Its façade is clad in stone (currently covered with scaffolds and netting).

Cary Building (S/NR, NYCL). Located at 105-107 Chambers Street, this five-story cast iron building extends through the block to Reade Street. It was designed by King & Kellum in 1856–57. It is designed in the Italian Renaissance style and features arched windows supported by Corinthian columns (see Figure 5-21.) Its façades were cast at Daniel D. Badger's Architectural Iron Works on East 14th Street. The building was erected by the dry goods firm of Cary, Howard & Sanger.

Potential Resources

These potential resources were identified by the LMEPF. They were determined ineligible for S/NR listing or NYCL designation by SHPO and LPC.

59 Murray Street. This two-story brick structure appears to date to the late 19th/early 20th century. The ground floor has been altered, and a second-floor window has been enclosed and changed to a doorway. Remaining windows at the second floor appear to be original six-over-six sash. An ornamental panel with swags is located above the center second-floor window. The building has a stone cornice.

61 Murray Street. This four-story building appears to date to the second half of the 19th century. Windows have stone sills and lintels, and some windows have been enclosed. It is crowned by a bracketed cornice.

67 Murray Street. Located at 67 Murray Street, this five-story building is three-bays wide. Window openings at the ground floor and second floor have been altered. A portion of the cornice was removed to allow for construction of a fire escape. It appears to date to the late 19th century.

32 Warren Street. Formerly known as the Aldrich Building, this five-story structure at 32 Warren Street extends through the block to 102 Chambers Street. It occupies the entire east side of Church Street between Warren and Chambers Streets. Windows are replacements and have stone sills. It has a simple stone cornice and appears to date to the second half of the 19th century.

59 Warren Street. Located at 59 Warren Street, this six-story brick building has an ornate façade. It has corbelled brick below its bracketed cornice. The building appears to date to the second half of the 19th century.

61 Warren Street. Constructed during the second half of the 19th century, this five-story gray brick building is located at 61 Warren Street. It has segmentally arched windows with stone sills and lintels. Quoins and a bracketed cornice embellish its façade.

60-62 Warren Street. This five-story brick building was constructed during the late 19th/early 20th century. Windows have stone lintels and sills. Rusticated quoins and a bracketed cornice embellish its façade. Portions of its original cast iron storefront appear to remain intact.

68 Warren Street. Located at 68 Warren Street, this five-story brick building appears to date to the second half of the 19th century. Windows have stone sills and lintels. It is crowned with a bracketed cornice with modillions (see Figure 5-22).

71-73 West Broadway. This six-story gray brick building is located at 71-73 West Broadway. It is topped with a bracketed cornice. It appears to date to the second half of the 19th century.

86 West Broadway. This five-story brick building appears to date to the second half of the 19th century. Its ground-floor façade has been altered. Windows are replacements and have stone sills and lintels. The building is crowned with a bracketed cornice with modillions (see Figure 5-22).

88 West Broadway. The five-story building at 88 West Broadway features a rusticated façade. Although the ground-floor storefront has been altered, upper stories appear to retain their original ornamentation. It is topped with a bracketed cornice. It appears to date to the second half of the 19th century (see Figure 5-22).

5.5.2 FUTURE WITHOUT THE PROPOSED ACTION 2009—CURRENT CONDITIONS SCENARIO

Under the Current Conditions Scenario, it is assumed that the WTC Site remains in its current largely vacant state except for completion of the permanent WTC PATH Terminal.

In the future, eligible historic properties in the APE may be listed on the S/NR. Properties pending designation as NYCL or NYCHD may be designated. As discussed in Section 5.2, “Regulatory Context,” properties listed on the S/NR or S/NR-eligible are given a measure of protection from the effects of federally licensed, financed, or assisted projects under Section 106 of the NHPA. NYCLs or properties within a NYCHD are protected under the New York City

Landmarks Law, which requires LPC review and approval before any alteration or demolition can occur.

As discussed below, a number of changes in the identified historic properties or their settings are expected to occur regardless of the Proposed Action. These changes may potentially affect historic properties located within the APE.

ARCHAEOLOGICAL RESOURCES

Potential archaeological resources on the Project Site could be impacted by construction of the permanent WTC PATH Terminal.

ARCHITECTURAL RESOURCES

Project Site

In 2009 without the Proposed Action, it is assumed for analysis purposes that the WTC Site will remain largely vacant, with no development on the site except for the permanent WTC PATH Terminal and the No. 1/9 IRT subway lines crossing the site.

Primary Area of Potential Effect

North of WTC Site

The Barclay-Vesey Building (S/NR-eligible, NYCL) and the Federal Office Building/U.S. Post Office (S/NR), directly north of the WTC Site, will be repaired, renovated, and reopened. The Greenwich Street view corridor and possibly the street itself will be open north into Tribeca. A residential building will be developed on a former parking lot site at 10 Barclay Street in the same block as St. Peter's School Building (S/NR-eligible) and St. Peter's Roman Catholic Church (S/NR, NYCL). The proposed building would be taller than the adjacent small-scale historic buildings. Renovation of part of the Woolworth Building (NHL, S/NR, NYCL) to accommodate New York University's (NYU) School of Continuing and Professional Studies will be completed, with residential units expected to have been created on the upper floors. *In addition, reconstruction of Route 9A between West Thames and Chambers Streets would be complete.*

Broadway Corridor

The Fulton Street Transit Center at Broadway and Fulton Street is expected to be completed by 2008-2009. The Corbin Building (S/NR, NYCL-eligible) is located on the block where the new center is proposed. Portions of the Fulton Street Station will also be altered. Residential conversions under construction or planned include 21-23 Maiden Lane (S/NR-eligible) and 130 Fulton Street (included in the John Street/Maiden Lane Historic District, S/NR-eligible).

Greenwich South Corridor

Residential conversions in the Greenwich South Corridor would involve or be adjacent to historic resources. The conversion of 90 Washington Street, adjacent to the Frasci Building (S/NR-eligible), is complete. 90 West Street (S/NR-eligible, NYCL) will be converted to residential use, with street-level retail space and accessory parking. Most importantly, the façades of 90 West Street are expected to be restored in accordance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties*. In addition, reconstruction of Route 9A between *West Thames and Chambers Streets would be complete*. Construction of the below-grade pedestrian concourse linking the permanent WTC PATH Terminal and the

World Financial Center (WFC) in BPC will involve alteration of the historic Hudson River Bulkhead (S/NR-eligible).

Secondary Area of Potential Effect

In Tribeca, it is anticipated that there will be additional conversions of older loft buildings to residential use and some of those conversions may involve historic structures or structures in historic districts. To the extent that these resources are not NYCLs or NYCHDs and if there is no federal or state action involved, they may be altered or even demolished.

5.5.3 PROBABLE IMPACTS OF THE PROPOSED ACTION 2009—CURRENT CONDITIONS SCENARIO

ARCHAEOLOGICAL RESOURCES

The northeast and southeast corners of the WTC Site, as well as portions of the Southern Site, were found to be potentially sensitive for archaeological resources. Phase IB investigations would be conducted prior to project construction to document any potential resources. These investigations would be developed in consultation with SHPO and LPC.

ARCHITECTURAL RESOURCES

Project Site

By 2009 with the Proposed Action, Fulton and Greenwich Streets would run through the WTC Site and Freedom Tower would rise in the northwest quadrant. A proposed performing arts center would be located east of the Freedom Tower. The Memorial, *the Memorial Center*, *September 11 Place*, and other cultural institutions would occupy the southwest quadrant. Wedge of Light Plaza would occupy a portion of the northeast and southeast quadrants. *The PATH Plaza* would be located in the southeast quadrant. By 2009, the retail bases of three office buildings east of Greenwich Street would be complete. *Liberty Park* and a *below-grade* bus parking facility would be complete in the area south of Liberty Street.

The centerpiece of the Proposed Action is the creation of a Memorial to remember the victims of *September 11, 2001 and February 26, 1993* and to record *the events of September 11, which have changed our lives*. The Memorial would be set in a context that provides a quiet and respectful setting for remembrance and contemplation. LMDC conducted the World Trade Center Site Memorial Competition pursuant to detailed Memorial Competition Guidelines, including diagrams of Libeskind's Memory Foundations design and the Memorial Mission Statement and Program. The Memorial Competition jury recently announced its selection of the design concept "Reflecting Absence" by Michael Arad and Peter Walker from 5,200 other entries (including seven other finalists). This concept *is being* refined in order to accomplish the principles set forth in the Memorial Mission Statement and Program.

The Proposed Action would build up an approximately 4.87-acre area set aside for the Memorial from bedrock to 30 feet below grade in order to stabilize the slurry walls. The Memorial would be constructed in this area and at grade. It would make visible each of the 1-acre areas occupied by the Twin Towers, allow access to a portion of those footprints at bedrock and would keep exposed a portion of the west slurry wall, including a section to bedrock. In addition to the recognition of each victim, the unidentified human remains will be interred at a designated area within the Memorial. Visitors from around the world are expected to come to the WTC Site to learn about the events of September 11, 2001, and February 26, 1993, and to remember those who died and those whose lives were changed forever.

It is not anticipated that the Proposed Action would have any significant adverse impact on the WTC Site. The proposed Memorial and Memorial Center would recognize the history of September 11 and would be constructed around two large voids and other features that would represent the former location of the Twin Towers. The openness of the site plan for the Memorial would recall the openness of the WTC Site as it now exists after the recovery efforts and the openness of the Austin J. Tobin Plaza at the center of the WTC before September 11. The size and the location of the Memorial reflect LMDC's commitment from the very beginning of its planning efforts to leave open the space at grade level where the Twin Towers once stood.

The surviving column bases that outline the space where the Twin Towers stood would remain. The Proposed Action would also allow access to a portion of the west slurry wall. A special facility would be created to preserve the more than 12,000 human remains of victims of the WTC attacks that the Office of the Chief Medical Examiner has not been able to identify. The return of these human remains to rest at the WTC Site where these innocent individuals died would contribute to the feeling of the WTC Site's historic significance.

In implementing the Proposed Action, LMDC and the Port Authority would undertake appropriate efforts to avoid, minimize, or mitigate any such adverse effects or any unexpected adverse effects on other historic resources. These efforts would include both the Environmental Performance Commitments described in Chapter 21, "Construction," and the measures described in Chapter 22, "Mitigation," and a Programmatic Agreement under consideration with ACHP and SHPO. Before construction activities begin, LMDC will submit existing documentation of the current appearance of the WTC Site to SHPO, the New York State Archives, and other organizations as appropriate, to ensure that there is a permanent record of existing historic resources on the site. In developing its plans for the WTC Site, LMDC will also provide for appropriate access to portions of the west slurry wall on the WTC Site and the box-beam column bases outlining portions of the footprints of the former Twin Towers (collectively, the Memorial Access Commitments). LMDC has committed to develop a Memorial Center, establish a Memorial Center Advisory Committee that will review public suggestions and advise LMDC with respect to the installation or display at the Memorial Center of artifacts removed from the WTC Site, and consult with the Port Authority, which is safeguarding all such artifacts that are in its custody and control. The draft Programmatic Agreement (see Appendix K.7) addresses these specific commitments relating to the Memorial Access Commitments, treatment of remnants on the WTC Site, consideration of artifacts removed from the site, and any potential adverse effects on historic resources. Overall, the Proposed Action would serve to enhance the historic significance of the WTC Site and its role in the city's and the nation's consciousness.

Primary Area of Potential Effect

Ground-Borne Vibrations

Several known and potential historic resources are located within 90 feet of the Project Site. Construction of the Proposed Action has the potential to cause damage to these buildings from ground-borne vibrations and dewatering. Specifically, historic buildings or sites located within 90 feet of the Project Site include the Barclay-Vesey Building at 140 West Street, the Federal Office Building/U.S. Post Office at 90 Church Street, 30 Vesey Street, St. Paul's Church Cemetery at Church Street between Vesey and Fulton Streets, the former East River Savings

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Bank at 26 Cortlandt Street, the Beard Building at 125 Cedar Street, 114-118 Liberty Street, the Western Electric Company Factory at 125 Greenwich Street, the American Stock Exchange at 86 Trinity Place, the Hazen Building at 120 Greenwich Street, 123 Washington Street, and 90 West Street. In addition there are potential historic resources at 106, 110, and 112 Liberty Street; *130 Cedar Street*; and, 137-139 Greenwich Street. These resources survived the initial clearance of the WTC Site and the construction of the WTC, and also survived the destruction of the site on September 11. (Other historic resources are more distant from the Project Site and are not within the area that is expected to be affected by project construction.)

To avoid any potential adverse effects to historic resources, a Construction Protection Plan(s) would be developed in consultation with the SHPO and implemented before commencement of any excavation or construction. The Construction Protection Plan(s) would consist of an overall plan(s) of protection and avoidance of structural and architectural damage for all the potentially affected historic resources. Implementation of these plans would avoid or minimize the potential for adverse effects to historic resources during construction.

The Construction Protection Plans would be based on the requirements laid out in the “New York City Department of Buildings Technical Policy and Procedure Notice (PPN) #10/88,” concerning procedures for avoidance of damage to historic structures from adjacent construction (*see Chapter 21, “Construction” for more information*). The PPN defines an adjacent historic structure as being contiguous to or within a lateral distance of 90 feet from a lot under development or alteration. *In addition, EPCs have been made by LMDC to avoid or minimize any adverse effects on historic resources during construction (see Chapter 21).*

Contextual and Visual Effects

The Proposed Action would extend Fulton and Greenwich Streets through the WTC Site, restoring the street linkage between historic resources to the north and south of the WTC Site. New office towers would be constructed on the Project Site that would re-introduce tall, modern structures to this portion of the Lower Manhattan skyline. By 2009, Freedom Tower would rise immediately south of the Barclay-Vesey Building, blocking views of the structure from the southwest. However, views of this building would be available from other locations within the study area.

Additional open spaces would be part of the Proposed Action and would benefit certain historic resources. *Liberty Park* would greatly improve the setting of 90 West Street and the Beard Building. It would also generally improve the neighborhood for all the other historic resources south of the Project Site. Farther north on the WTC Site, Wedge of Light Plaza would link to St. Paul’s Chapel and historic resources east of the WTC Site.

In terms of contextual or visual impacts, the study area is developed with a mix of historic and modern structures that range in height from one to 60 stories. The size and architectural styles of these buildings vary greatly, reflecting the architectural styles of the eras in which they were designed and constructed. The built fabric of Lower Manhattan is already composed of historic structures near more modern structures, where many streets contain a mixture of historic structures in immediate proximity to contemporary glass and metal structures. Thus, the Proposed Action would continue the existing trend of modern buildings juxtaposed against the historic fabric of Lower Manhattan.

As described earlier, the historic context of the study area was dramatically changed when the 16-acre site was cleared for the construction of the WTC. Thus, the proposed development would not alter the historic context of the surrounding area, as this context was significantly

altered with the completion of the WTC and subsequent modern office buildings that were erected in the following decades. Overall, the Proposed Action is not expected to have any adverse contextual or visual effects on any known or potential historic resources in the area surrounding the WTC Site.

Secondary Area of Potential Effect

Traffic-Related Effects

The increased traffic levels expected as a result of the Proposed Action are expected to have some effect on the setting of historic resources, but not to a degree that they would be expected to have an adverse effect. The increased traffic is not expected to alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. This is primarily because most of the traffic impacts would occur on streets already burdened with high levels of traffic, thus historic resources located in these areas have already existed in an urban environment with well-traveled city streets.

5.5.4 FUTURE WITHOUT THE PROPOSED ACTION 2015—CURRENT CONDITIONS SCENARIO

ARCHAEOLOGICAL RESOURCES

On the Southern Site, construction of two office towers at 130 and 140 Liberty Street could impact any potential archaeological resources that exist.

ARCHITECTURAL RESOURCES

Project Site

In 2015 without the Proposed Action, it is assumed that the WTC Site will continue to remain largely vacant, with only the permanent WTC PATH Terminal on site and the No. 1/9 IRT subway lines crossing the site. On the Southern Site, it is assumed that two office towers would be developed at 130 and 140 Liberty Street. Construction of these towers could potentially affect adjacent historic resources, including 90 West Street.

Primary Area of Potential Effect

North of WTC Site

No specific potential projects have been identified for the North of WTC Site subarea in the 2009–2015 timeframe.

Broadway Corridor

Potential future development in the Broadway Corridor may include residential conversions at 115 Nassau Street and 3-9 Beekman Street (NYCL).

Greenwich South Corridor

New York City's *Vision for a 21st Century Lower Manhattan* calls for the creation of a park, Greenwich Square, over the Brooklyn Battery Tunnel ramps, and for the area to become a center of new residential uses that may renovate and occupy some of the historic structures. There are a number of historic resources in this area that might be altered in use or context.

Secondary Area of Potential Effect

No specific projects in the secondary APE were identified for this time frame. However, it is likely that residential renovation and reuse will continue to occur in historic buildings and districts in Tribeca. To the extent that these resources are not NYCLs or NYCHDs and if there is no federal or state action involved, they may be inappropriately altered or even demolished.

5.5.5 PROBABLE IMPACTS OF THE PROPOSED ACTION 2015—CURRENT CONDITIONS SCENARIO

ARCHAEOLOGICAL RESOURCES

As all construction activities that could potentially impact archaeological resources would be complete by 2009, there would be no potential for adverse effects to archaeological resources in 2015.

ARCHITECTURAL RESOURCES

Project Site

By 2015, it is assumed that the full program for the Project Site would be developed, with the completion of the three towers on the east side of the WTC Site and a fifth tower south of Liberty Street. A 65-story office building (Tower 2) and a 25-story hotel would be completed in the northeast quadrant. In the southeast quadrant, a 62-story office building (Tower 3) and a 58-story office building (Tower 4) would be completed. A 57-story office building (Tower 5) would be completed south of Liberty Street.

As described in “Probable Impacts of the Proposed Action 2009” and in section 5.2.1, it is not anticipated that the Proposed Action would have an adverse effect on the WTC Site.

Primary Area of Potential Effect

The towers of the Proposed Action would re-introduce tall, modern structures to this portion of the Lower Manhattan skyline. These towers would block views across the largely vacant WTC Site to historic resources on the other side. Views of the Barclay-Vesey Building and the Federal Office Building/U.S. Post Office from Church and Liberty Streets would be blocked. Views from the Winter Garden to St. Paul’s Chapel and the Former East River Savings Bank would be blocked. Views from the corner of Vesey and Church Streets and along Church Street to the Beard Building and 90 West Street would be blocked. New structures would create a high-rise wall along the north and east sides of the WTC Site. The proposed office tower and hotel on the northeast quadrant would face directly into the Federal Office Building/U.S. Post Office. The proposed office building south of the permanent WTC PATH Terminal entrance would tower over the former East River Savings Bank. Finally the tower at the southeast corner of the WTC Site would alter the context of the Beard Building and 114-118 Liberty Street.

New open spaces that would be part of the Proposed Action would benefit historic resources by improving their setting.

Due to the proximity of historic resources, adherence to Construction Protection Plans would be required to avoid potential construction period damage to architectural resources.

As described above under “Probable Impacts of the Proposed Action 2009—Current Conditions Scenario,” the study area is developed with a mix of historic and modern structures. The built fabric of Lower Manhattan is already composed of historic structures near more modern structures, where many streets contain a mixture of historic structures in immediate proximity to

contemporary glass and metal structures. Thus, the Proposed Action would continue the existing trend of modern buildings juxtaposed against the historic fabric of Lower Manhattan.

Overall, the Proposed Action is not expected to have any adverse contextual or visual effects on any known or potential historic resources in the area surrounding the WTC Site.

Secondary Area of Potential Effect

As described above under “Probable Impacts of the Proposed Action 2009—Current Conditions Scenario,” it is not expected that the increased traffic levels would have an adverse effect on historic resources.

5.6 PRE-SEPTEMBER 11 SCENARIO

5.6.1 BASELINE CONDITIONS

ARCHAEOLOGICAL RESOURCES

Prior to September 11, the same archaeological resources would have potentially existed on site as under the Current Conditions Scenario.

ARCHITECTURAL RESOURCES

Project Site

In the Pre-September 11 Scenario, the 16-acre WTC complex, built by the Port Authority between 1966 and 1981, comprised six buildings, including the 110-story Twin Towers (1 and 2 WTC). These 1,350-foot-tall aluminum-clad towers were the tallest buildings in the world when completed in 1972 and 1973. Other buildings located *in* the WTC included a 22-story hotel (3 WTC), two nine-story buildings (4 and 5 WTC), and an eight-story U.S. Customs House (6 WTC). These buildings were situated around the Austin J. Tobin Plaza, which was decorated with several sculptures by prominent artists, including Fritz Koenig (the *Sphere*), James Rosati (*Ideogram*), and Masayuki Nagare (unnamed granite). A concourse was located directly below the Plaza and consisted of a retail mall and transportation hub. A pedestrian bridge over Route 9A connected the northern part of the WTC with the commercial core of BPC.

All buildings *in* the WTC, except 3 WTC, were designed by Minoru Yamasaki & Associates and Emery Roth and Sons. The Marriott Hotel (originally the Vista International Hotel), located at 3 WTC, was designed by Skidmore, Owings & Merrill and was constructed in 1981.

Prior to September 11, the block at the corner of Liberty Street and Route 9A was an active parking lot and the site of the St. Nicholas Greek Orthodox Church, destroyed on September 11. This small Greek Orthodox church stood at 155 Cedar Street, south of the WTC. Established in 1916 by Greek immigrants, it was only 35 feet tall with a rooftop bell cote. The church was notable for its small scale and its icons, which were a gift from the last czar of Russia, Nicholas II. The block to the east was occupied by a 39-story office building at 130 Liberty Street. Located directly across Liberty Street from 2 WTC, it was a fully occupied office tower with ground-floor retail. It had a plaza with a fountain, above which was an additional plaza level that was originally intended to connect to the plaza level at the WTC.

As of September 11, none of the buildings *in* the WTC *or on the Southern Site* was listed on or determined *to be* eligible for listing on the S/NR or designated as a NYCL. *Buildings that were part of the WTC were evaluated in 1989 as part of the Route 9A Project and were determined*

ineligible for S/NR listing. Buildings on the Southern Site had never been evaluated for eligibility.

Primary Area of Potential Effect

It is assumed that the identification of known and potential resources would be the same in the Pre-September 11 Scenario. Although several resources were listed on or determined eligible for listing on the NR or designated as NYCL or NYCHD after September 11, these resources would have been determined eligible or designated in any event because their characteristics that qualify them for listing were not altered.

All the historic buildings that were damaged on September 11 would not have been damaged and would still be occupied as they were on September 11. The Barclay-Vesey Building would be fully occupied by New York Telephone. The Federal Office Building/U.S. Post Office would be occupied with office tenants and the Church Street Station of the post office would be open and serving its customers. The offices in the building at 90 West Street would be fully tenanted.

Secondary Area of Potential Effect

The identification of known and potential resources would be the same in the Pre-September 11 Scenario, as described above. Resources in this area were distant from the WTC and not directly damaged in the attacks.

**5.6.2 FUTURE WITHOUT THE PROPOSED ACTION 2009—
PRE-SEPTEMBER 11 SCENARIO**

For purposes of the Pre-September 11 analysis, it is assumed that the Twin Towers and other WTC-related buildings would be standing and occupied as they were prior to September 11. Other projects expected to be completed in 2009 and 2015 are identified in Chapter 2, “Methodology.”

ARCHAEOLOGICAL RESOURCES

No construction was anticipated on the WTC Site or the Southern Site. Therefore, no archaeological resources would be affected.

ARCHITECTURAL RESOURCES

Project Site

In the Pre-September 11 Scenario, it is assumed that the WTC—including the Twin Towers and related buildings—would still be standing. In addition, the pre-September 11 WTC PATH station and the underground levels of the former H&M Terminal are assumed to exist. On the Southern Site, it is assumed that the block at the corner of Liberty Street and Route 9A would remain a parking lot and that St. Nicholas Greek Orthodox Church would still be standing. On the block to the east, it is assumed that the building at 130 Liberty Street, now damaged and proposed for demolition, would have remained a fully occupied office building.

Primary Area of Potential Effect

North of WTC Site

The Barclay-Vesey Building would remain undamaged. It is assumed that the Federal Office Building/U.S. Post Office would be open to the public and in active office and postal use. *Route 9A would not be changed from its relationship to historic resources east of the highway and it would not have altered the Hudson River Bulkhead.*

Broadway Corridor

Prior to September 11, the Fulton Street Transit Center was not a funded project. Therefore in 2008-2009, the Corbin Building and the Fulton Street subway station would not be altered. However, residential conversions would have taken place at 21-23 Maiden Lane, 130 Fulton Street, and the Woolworth Building. Additional projects planned or proposed prior to September 11 include conversions of 75-81 Nassau Street (included in the John Street/Maiden Lane Historic District, S/NR-eligible), which would be complete by 2009.

Greenwich South Corridor

It is expected that 90 West Street would have remained a fully occupied office building. The building at 114 Liberty Street (S/NR-eligible) would have remained a fully occupied residential building. Route 9A would not be changed from its relationship to historic resources east of the highway, and it would not have altered the Hudson River Bulkhead (S/NR-eligible).

Secondary Area of Potential Effect

In Tribeca, it is likely that conversion of older loft buildings to residential use would have continued and that some of these conversions may have involved historic structures located within historic districts. To the extent that the resources are not NYCLs or NYCHDs, the alterations may cause a loss of historic integrity.

**5.6.3 PROBABLE IMPACTS OF THE PROPOSED ACTION 2009—
PRE-SEPTEMBER 11 SCENARIO**

ARCHAEOLOGICAL RESOURCES

The northeast and southeast corners of the WTC Site, as well as portions of the Southern Site, were found to be potentially sensitive for archaeological resources. Phase IB investigations would be conducted prior to project construction to document any potential resources. These investigations would be developed in consultation with SHPO and LPC.

ARCHITECTURAL RESOURCES

Project Site

This scenario assumes that the buildings on the Project Site would be replaced by the Proposed Action. Buildings that were part of the WTC were evaluated in 1989 as part of the Route 9A Project and were determined ineligible for S/NR-listing. The building at 130 Liberty Street had never been evaluated for eligibility. Since these buildings were not officially recognized historic resources, their replacement would not be considered an adverse effect.

Primary Area of Potential Effect

The extension of Fulton and Greenwich Streets through the WTC Site would restore the street linkage between historic resources to the north and south of the WTC Site. This would be beneficial to resources south of Liberty Street that were isolated by the superblock of the WTC and the lack of view corridors through the WTC Site. The WTC Site would be divided at grade level into four separate blocks, instead of one large superblock, thus restoring part of the street grid and allowing development to relate better to historic resources in the surrounding area.

The Proposed Action would shift the bulk of the buildings away from the footprints of the Twin Towers located in the southwest quadrant of the site. Freedom Tower would rise immediately south of the Barclay-Vesey Building, blocking views of the structure from the southwest that

were previously afforded by the lower-rise 6 WTC. However, the open spaces that would be part of the Proposed Action would benefit certain historic resources. *Liberty Park* would greatly improve the setting of 90 West Street and the Beard Building. It would also generally improve the neighborhood for all the other historic resources south of the Project Site. Farther north on the WTC Site, Wedge of Light Plaza would link to St. Paul's Chapel and historic resources east of the WTC Site.

Because the proposed construction would take place within 90 feet of historic structures, adherence to Construction Protection Plans would be required to avoid potential damage to architectural resources located near the Project Site.

Overall, the Proposed Action is not expected to have an adverse effect on historic resources in this scenario, since the historic context of the study area was significantly altered with the completion of the WTC as well as the construction of later modern skyscrapers.

Secondary Area of Potential Effect

The increased traffic levels expected as a result of the Proposed Action are expected to have some effect on the setting of historic resources, but not to a degree that they would be expected to have an adverse effect *on those resources*. The increased traffic is not expected to alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. This is primarily because most of the traffic impacts would occur on streets already burdened with high levels of traffic ; historic resources located in these areas have *long* existed in an urban environment with well-traveled city streets.

**5.6.4 FUTURE WITHOUT THE PROPOSED ACTION 2015—
PRE-SEPTEMBER 11 SCENARIO**

ARCHAEOLOGICAL RESOURCES

Potential construction at 140 Liberty Street would destroy or at least disturb any potential resources on that portion of the Southern Site.

ARCHITECTURAL RESOURCES

Project Site

In the Pre-September 11 Scenario, it is assumed that the WTC—including the Twin Towers and related buildings—would still be standing. In addition, the pre-September 11 WTC PATH station and the underground levels of former H&M Terminal are assumed to exist. On the Southern Site, the block at the corner of Liberty Street and Route 9A may have been developed, possibly involving demolition of St. Nicholas Greek Orthodox Church. On the block to the east, it is assumed that the building at 130 Liberty Street, now damaged and proposed for demolition, would have remained a fully occupied office building.

Primary Area of Potential Effect

Overall, proposed projects under the Pre-September 11 Scenario are similar to those identified under the Current Conditions Scenario for the time period 2009–2015. Exceptions include the buildings that would be created by New York City's *Vision for a 21st Century Lower Manhattan*, which was a response to the destruction of September 11 and the opportunities to rebuild. These plans are unlikely to have been formulated in the Pre-September 11 Scenario.

Secondary Area of Potential Effect

No specific projects were identified in the secondary APE under this scenario for this time period.

**5.6.5 PROBABLE IMPACTS OF THE PROPOSED ACTION 2015—
PRE-SEPTEMBER 11 SCENARIO**

ARCHAEOLOGICAL RESOURCES

As all construction activities that could potentially impact archaeological resources would be complete by 2009, there would be no potential for adverse effects to archaeological resources in 2015.

ARCHITECTURAL RESOURCES

Project Site

As no historic resources would be located on the Project Site, there would be no potential for adverse effects to historic resources.

Primary Area of Potential Effect

By 2015, all the office towers as well as the hotel would be completed. The proposed office tower and hotel on the northeast quadrant would face directly into the Federal Office Building/U.S. Post Office and block views of it from the southeast that were formerly afforded by the much lower 5 WTC building. The proposed office building south of the permanent WTC PATH Terminal entrance would tower over the former East River Savings Bank. Finally the tower at the southeast corner of the WTC Site would be taller and have a greater bulk than 4 WTC, altering the context of the Beard Building and 114-118 Liberty Street. Although the Proposed Action would shift the bulk of development as compared to pre-September 11 conditions, this would not be an adverse effect as the Project Site and immediate study area has historically been developed with tall and modern structures in close proximity to low-rise historic buildings.

Because the proposed construction would take place within 90 feet of historic structures, adherence to Construction Protection Plans would be required to avoid potential damage to architectural resources located near the Project Site.

Overall, the Proposed Action is not expected to have an adverse effect on historic resources in this scenario, since the historic context of the study area was significantly altered with the completion of the WTC as well as the construction of later modern skyscrapers.

Secondary Area of Potential Effect

As described in greater detail in Chapter 13A, “Traffic and Parking,” traffic volumes with the Proposed Action in 2015 would only be about 5 percent higher than volumes that would have been expected had the events of September 11 not occurred. Therefore, as described above under “Probable Impacts of the Proposed Action 2009—Pre-September 11 Scenario,” it is not expected that the increased traffic levels would have an adverse effect on historic resources. *