

4.1 INTRODUCTION

4.1.1 CONTEXT

Lower Manhattan is developed with a dense concentration of historic and modern buildings that range in size from small-scale, low-rise structures to large-scale, high-rise structures. They reflect a variety of architectural styles that have been built over the years as commerce has flourished in Lower Manhattan. The streets and open spaces surrounding this rich collection of buildings provide unique views that are distinguished from those of other cities. For 30 years, the World Trade Center's (WTC) Twin Towers were the tallest elements of this landscape and readily identifiable from miles around. Prior to September 11, 2001, the WTC occupied a superblock site, blocking the continuation of Greenwich and Fulton Streets. Due to this configuration, the WTC had a strong presence in the urban design of the area.

On September 11, 2001, the Twin Towers were struck by terrorist hijacked airliners. Within hours, the Twin Towers collapsed onto the WTC and surrounding areas, causing massive death and devastation in Lower Manhattan. An intensive recovery effort took place on the site that continued until July 2002. After the recovery efforts were completed, the WTC Site remained nearly vacant and several streets near the WTC Site were closed to vehicular traffic. Construction activities have continued on the site as part of various phases of recovery, stabilization, and, most recently, construction and opening of the temporary WTC PATH station.

Following the terrorist attacks, there was a massive outpouring of support for the physical, financial, and emotional recovery efforts that continue to this day. In the aftermath, the Twin Towers became a symbol of antiterrorist sentiment and widespread sentiment in the city, the state, and the nation called for the rebuilding of the WTC Site to restore the iconic center of Lower Manhattan and to honor those who died there on September 11, 2001 and on February 26, 1993. To carry out this mission, the Lower Manhattan Development Corporation (LMDC) was formed by Governor George Pataki and former Mayor Rudolph Giuliani and charged with the responsibility for coordinating the remembrance, rebuilding, and renewal efforts. With input from every affected and interested community, 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) to introduce new and distinct features to the existing urban design and visual character of Lower Manhattan, to re-establish the New York City skyline, to revitalize the area's commercial life, and to create a Memorial that would respect the area where the Twin Towers were located.

This chapter considers potential impacts of the Proposed Action on the urban design character and visual resources of the study area. The study area has been delineated as the area generally bounded by Murray Street to the north, Joseph P. Ward Street and Exchange Place to the south, the Hudson River to the west and Nassau and Broad Streets to the east (see Figure 4-1). Urban design characteristics and visual resources create the "look" of a neighborhood—its physical

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appearance, including the size and shape of buildings, their arrangement on blocks, the street pattern, and noteworthy views that may give an area a distinctive character and contribute to its unique sense of place. Urban design characteristics of a neighborhood are composed of the various components in the buildings and streets of the area and include building bulk, use and height, block forms and street patterns, streetscape elements and natural features. An area's visual resources are its unique or important public view corridors, vistas, and natural or built features, as seen from publicly accessible locations.*

4.1.2 CONCLUSIONS

The Proposed Action was analyzed with respect to urban design and visual resources under two scenarios, the Pre-September 11 Scenario and the Current Conditions Scenario.

PRE-SEPTEMBER 11 SCENARIO

As described in greater detail below, the Proposed Action would not result in any significant adverse impact on urban design or visual resources. On the contrary, the Proposed Action is expected to significantly enhance the urban design and visual characteristics of the area.

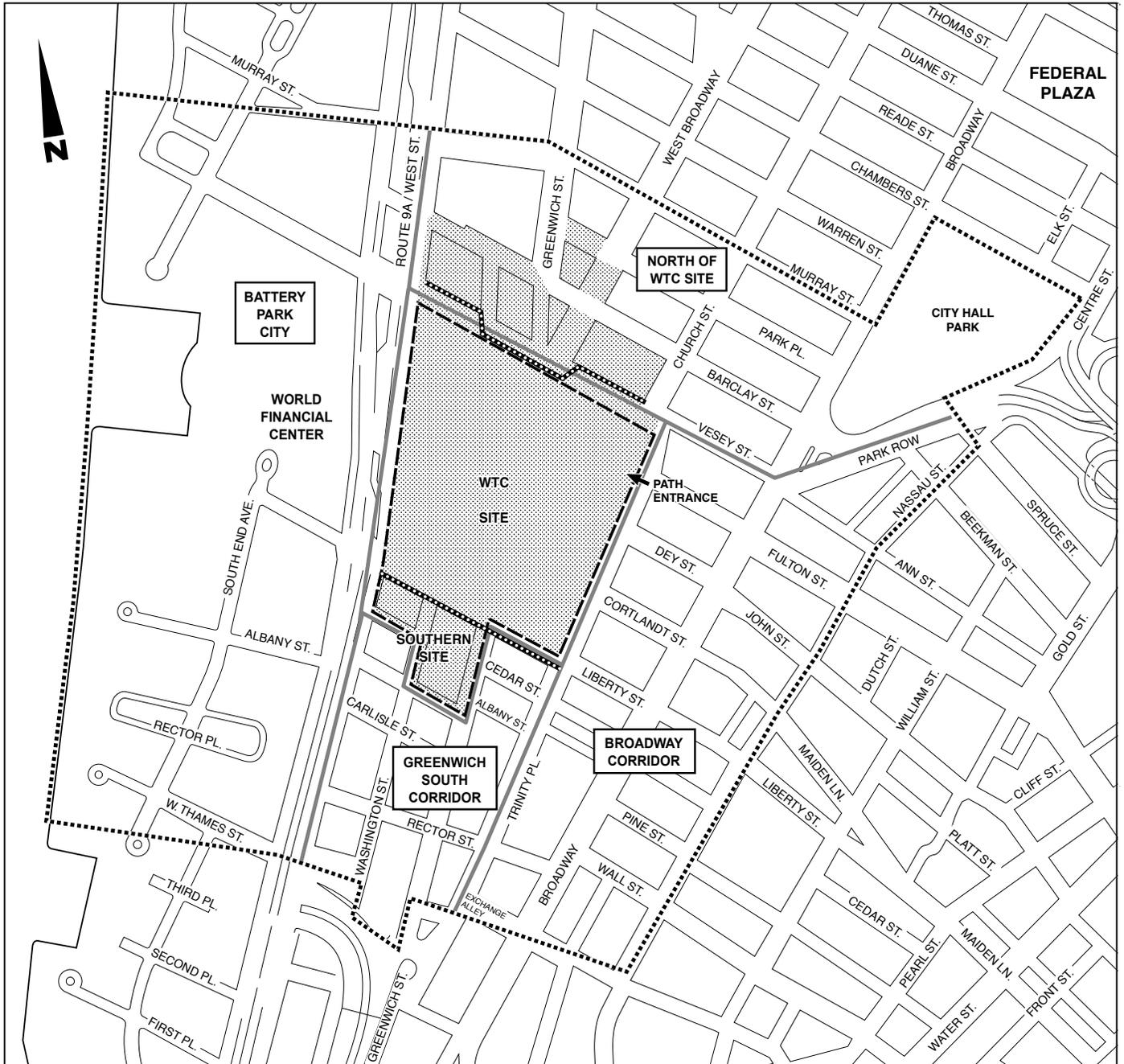
2009

Compared with pre-September 11 conditions, the Proposed Action would create new open spaces that would enliven the Project Site and surrounding area. The WTC Site would be divided into four blocks that would integrate better with the urban design of the neighborhood, compared with the superblock that existed prior to September 11. With retail bases complete, there would be more retail frontage on sidewalks than prior to September 11. The proposed development on the Project Site would also be less dense when compared with development prior to September 11. The tallest element of the development would be shifted from the southwest corner of the WTC Site to the northwest corner of the WTC Site. Freedom Tower would replace the Twin Towers in the skyline, and would reintroduce a modern structure that would be the tallest in Manhattan.

In 2009, the bulk of buildings completed on the Project Site with the Proposed Action would be less dense than the Project Site prior to September 11.

Fulton and Greenwich Streets would be extended through the WTC Site, creating new view corridors to the west and east and north and south, respectively. This would be beneficial to the neighborhood south of Liberty Street that was isolated by the superblock of the WTC and the lack of view corridors through the WTC Site. Cedar Street, between Washington and Greenwich Streets, would also be reopened for both vehicular and pedestrian traffic. These streets would also relate better to the street patterns, block shapes, and streetscape of the study area. The uses with the Proposed Action would be in keeping with former uses at the WTC Site and would add cultural uses supportive of existing uses in the study area. The height and design of buildings in the Proposed Action is similar to the tradition of modern development on the WTC Site, the Southern Site, and the study area.

* As defined in the *City Environmental Quality Review (CEQR) Technical Manual* page 3G-1.



- Project Site Boundary
- Study Area Boundary
- Subarea Boundary
- ▨ Restricted/Construction Zone
- Pedestrian Access



Urban Design and Visual Resources Current Conditions Scenario

Figure 4-1

2015

In 2015 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. These towers would be in keeping with building uses, heights, and designs on the WTC Site and Southern Site prior to September 11 as well as buildings in the study area. These towers would block views across the WTC Site; however, these views were blocked by development on the Project Site prior to September 11. The extension of Greenwich and Fulton Streets through the WTC Site would introduce new view corridors to the study area that were blocked by the superblock of the WTC.

CURRENT CONDITIONS SCENARIO

As described in greater detail below, the Proposed Action would not result in any significant adverse impact to urban design or visual resources. On the contrary, the Proposed Action is expected to significantly enhance the urban design and visual characteristics of the area.

2009

The Proposed Action would create new open spaces that would enliven the Project Site and surrounding area. The creation of such public spaces would be an improvement over the current condition of the Project Site. The WTC Site would be divided into four blocks that would integrate better with the urban design of the neighborhood, compared with the present superblock. Retail frontage along the sidewalks would increase pedestrian traffic.

Fulton and Greenwich Streets would be extended through the WTC Site, creating new view corridors to the west and east and north and south, respectively. This would be beneficial to the neighborhood south of Liberty Street that is isolated by the superblock of the former WTC and the lack of view corridors through the WTC Site. Cedar Street, between Washington and Greenwich Streets, would also be reopened for both vehicular and pedestrian traffic. These streets would also relate better to the street patterns, block shapes, and streetscape of the study area. The uses with the Proposed Action would be in keeping with former uses at the WTC Site and would add cultural uses supportive of existing uses in the study area. The height of buildings in the Proposed Action would be similar to, and the design in keeping with, the tradition of modern development on the WTC Site, the Southern Site, and the study area.

While the Proposed Action would introduce important view corridors, Freedom Tower, located at the northwest corner of the WTC Site, would reintroduce a very tall, iconic structure to the skyline, and would block certain views across the WTC Site, but not view corridors. *Freedom Tower would be designed to feature prominently in the Manhattan skyline, as did the former Twin Towers.*

2015

In 2015 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. Although the Proposed Action would change the study area through the addition of tall and modern towers, this would not be a significant adverse effect. The Proposed Action would be in keeping with the character of the Project Site and surrounding area, which are located in a densely developed urban setting. New office towers would be constructed on the Project Site that would reintroduce tall, modern structures to this portion of the skyline. Although these towers would block views across the WTC Site, no view corridors would be blocked. These towers would be in keeping with building

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uses and heights in the former WTC as well as existing buildings in the study area. The extension of Greenwich and Fulton Streets through the WTC Site would introduce new view corridors to the study area that are currently blocked by construction in and around the WTC Site.

4.2 CURRENT CONDITIONS SCENARIO

4.2.1 EXISTING CONDITIONS 2003

PROJECT SITE

Urban Design

Much of the WTC Site is excavated, with only portions of below-grade structures from the former WTC remaining. The excavated bathtub area and the slurry wall along Route 9A are visible. The tracks of the temporary WTC PATH station curve around the south end of the bathtub, passing into the new structure of the temporary station. The square concrete tube of the No. 1/9 IRT subway along Greenwich Street is also visible and divides the site into east and west halves. Trailers and construction equipment are found across the WTC Site. At the southwest corner of the site, the bathtub can be seen to extend into what was formerly the north half of Liberty Street. The construction ramp connects the floor of the bathtub to street level at Liberty Street (see Figure 4-2).

A wide area along Church Street, on the east side of the WTC Site, is paved with concrete. The entrance to the temporary WTC PATH station is located here opposite Fulton Street. Sidewalk viewing areas are located along Church Street south of the PATH entrance and on Liberty Street. Aside from the viewing areas and the temporary WTC PATH station, the site is fenced-off and not accessible to the public (see photograph 3 of Figure 4-3). Portions of the former Hudson & Manhattan (H&M) Terminal exist on-site; however, these portions are below-grade and are not visible from street level. Damaged portions of the tunnels that traveled under the Hudson River—known as the Hudson Tubes—are *located in the east wall. Only the south tube is visible* (see photograph 4 of Figure 4-3).

The Southern Site comprises two adjacent blocks as well as the bed of Liberty Street from Route 9A to Greenwich Street and the bed of Washington Street between Liberty and Cedar Streets. The two blocks are surrounded by fencing and are inaccessible, with limited pedestrian passageways along the streets. The block 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 other larger block, located to the east and bounded by Liberty, Greenwich, Albany, and Washington Streets, is occupied by a vacant office building at 130 Liberty Street. Its north façade (facing the WTC Site) was severely damaged in the attacks of September 11, 2001, and its two-level plaza was completely destroyed. The plaza area has been excavated, leaving a large hole in the ground surrounded mostly by a high construction wall and is only visible from the west at grade level. The building itself is covered in black netting and is a forlorn element of the post-September 11 streetscape. The large size of its lot, as well as the damaged and abandoned condition of the building, creates a strong presence on the adjoining streets (see Figure 44). It is also very noticeable in views across the WTC Site from Vesey and Barclay Streets.



View southeast of the WTC Site, showing the temporary WTC PATH station on the site 1



View southwest of the WTC Site 2

Source: PANYNJ



View northwest of the WTC Site showing the temporary WTC PATH station. 3
7 WTC is under construction in the background



View showing remaining portion of the south tube, visible in the east slurry wall 4



View southwest from Church Street of 130 Liberty Street 5



View west of Albany Street from Greenwich Street. The building at 130 Liberty Street is on the right 6

Urban Design and Visual Resources
Current Conditions Scenario
Figure 4-4

Visual Resources and View Corridors

On the WTC Site at Fulton Street, the canopy of the temporary WTC PATH station has a sculptural form, with two wings rising from a central truss supported on two vertical trusses. The fence, which stands along the public viewing area, is far more attractive than normal construction fences and allows people to see through it. The Port Authority has posted informational boards telling the history of the site and high-rise buildings in Lower Manhattan (see Figure 4-5). Nevertheless, much of the site simply resembles a construction zone.

Perhaps the main visual resource of the site is its openness and light. The openness allows visual resources located in the study area to be seen from and across the Project Site. These include both significant historic buildings and view corridors. The WTC Site in its current condition has opened view corridors to the north, south, west, and east. The Barclay-Vesey Building (Verizon Building) at 140 West Street and the Federal Office Building/U.S. Post Office at 90 Church Street are now visible in views north, from south of the site. From locations west of the site, views of St. Paul's Chapel and the East River Savings Bank are available. From east of the site, views of the modern office towers of the WFC, as well as views toward the WFC and the Winter Garden are available (see Figure 4-6). Due to the undeveloped condition of the Project Site, the streets immediately surrounding the Project Site receive additional light.

STUDY AREA

Comprising important parts of Lower Manhattan, the study area is densely developed with office buildings, a number of which have been converted to residential use in recent years. For ease of discussion, the study area was divided into four subareas: (1) North of WTC Site, (2) Broadway Corridor, (3) Greenwich South Corridor, and (4) Battery Park City (BPC). The discussion below focuses first on each subarea's urban design—its basic layout and structures—and then describes its visual resources.

North of WTC Site

North of the WTC Site is the area between Vesey and Murray Streets, from Route 9A on the west to Park Row on the east.

Natural Features, Street Patterns, and Block Shapes

The topography slopes slightly to the west, toward the Hudson River. Street patterns are slightly irregular. Route 9A and Greenwich Street generally travel in a north-south direction, while West Broadway, Church Street, and Broadway travel in a northeast-southwest direction. As a result, the blocks west of West Broadway have irregular shapes, and Greenwich Street and West Broadway meet at Vesey Street. However, this confluence is not currently visible because the area south of Barclay Street and west of Greenwich Street is closed to traffic by fencing and construction activity at Seven World Trade Center (7 WTC). Greenwich Street, as at least a view corridor, is being reopened to Vesey Street by the new configuration of 7 WTC. *The northeast portion of this subarea is occupied by City Hall Park.*

Large office buildings—including the Barclay-Vesey Building and the Federal Office Building/U.S. Post Office, 100 Church Street, 30 West Broadway, 75 Park Place, and Fiterman Hall—occupy full blocks.

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Streetscape

The study area is urban in character, with streets flanked by concrete sidewalks. Most buildings rise from the lot line. The very wide sidewalk in front of 101 Barclay Street is the exception. There are only a few trees and they are found on Murray Street. Today, much of the streetscape is dominated by construction, and Fiterman Hall (in renovation on September 11) is shrouded in black netting with construction unfinished and damage evident.

City Hall Park, located in the northeastern corner of the study area, creates an open streetscape, with its lawn, fountain, and trees offering a picturesque break from the densely developed urban neighborhood surrounding it (see photograph 11 of Figure 4-7). A street clock is located just south of City Hall, near the convergence of Broadway and Park Row (see photograph 12 of Figure 4-7). South of City Hall Park, a traffic island has been enhanced with landscaping and named Millennium Park.

Parked cars line the streets open to traffic. Various kinds of street furniture are found throughout the study area, including fire hydrants, mailboxes, newsstands, lampposts, an information kiosk, and vendor carts. Most lampposts located along Route 9A are reproductions of historic lampposts, while others are of more modern design. Historic fire alarm call boxes are unique urban artifacts.

Building Uses, Shapes, and Forms

The study area is developed with a mix of historic and modern, low- and high-rise buildings. Almost all the buildings were originally constructed as office buildings, although several have been converted to residential use. One church is located in this area—St. Peter’s Roman Catholic Church and its adjacent former school, at Barclay and Church Streets. A few low-rise (three- and five-story) residential buildings are located on Park and Murray Streets. Buildings in this subarea range in height from three to 60 stories. Several tall office buildings are located in this area and include the Barclay-Vesey Building with its dramatic setbacks, the Transportation Building, and the Woolworth Building.

Visual Resources and View Corridors

Historic office buildings are frequently among the important visual resources of Lower Manhattan (see Chapter 5, “Historic Resources”). Due to their heights, distinctive forms and decorative features, the Art Deco Barclay-Vesey Building and the neo-Gothic Woolworth Building are unique visual landmarks. Another important visual resource is City Hall Park with its fountain, sculptures, benches, trees, and lawn area.

The southbound roadways of Greenwich Street and West Broadway are blocked by construction south of Barclay Street. However, above the fences and trailers and east of 7 WTC rising along Greenwich Street there are long views across the WTC Site, notably to the shrouded form of 130 Liberty Street on the Southern Site. In the opposite direction, Greenwich Street and West Broadway provide longer views north. The views west on Barclay Street are also blocked by construction fences and equipment beyond Greenwich Street. The view corridor west on Murray Street is limited as Murray Street does not continue in a straight line but angles to the south at Greenwich Street.

Broadway Corridor

The Broadway Corridor includes Broadway and cross streets between Church Street and Nassau/Broad Street from south of City Hall Park and Vesey Street to Exchange Place.



View of WTC site and public viewing area along Church Street 7



View of the public viewing area (facing north) and information boards at the WTC Site 8



View west across the WTC Site 9



View southeast across the WTC Site 10



City Hall Park, entrance at Broadway and Park Row 11



Street clock located at Broadway and Park Row, along City Hall Park 12

Natural Features, Street Patterns, and Block Shapes

On either side of Broadway, the ground level slopes down. Street patterns in this area are somewhat irregular. In the northern section, Park Row borders City Hall Park and travels in a northeast-southwest direction and converges with Broadway near Ann and Vesey Streets. Broadway is the primary southbound roadway carrying multiple lanes of vehicular traffic. Nassau Street is a very narrow roadway and is closed to vehicular traffic in the midday during the week. Streets in the vicinity of the New York Stock Exchange are closed to most vehicular traffic at all times. Side streets are narrow and have irregular alignments. Most side streets are lightly traveled. The southern portion of this study area—specifically Wall Street, Broadway and Broad Street (south of Wall Street)—is part of the historic Street Plan of New Amsterdam and Colonial New York. These roads retain their original street plan that dates to the 17th century.

As a result of these irregular street patterns, blocks in the study area tend to have irregular shapes. Blocks between Park Row and Nassau Street tend to be triangular-shaped, while blocks south are generally angled or trapezoidal in shape. Most blocks are divided into several built lots. However, several office buildings also occupy full blocks, including One Liberty Plaza, 140 Broadway, and the Equitable Building at 120 Broadway. St. Paul's Chapel and Trinity Church with their adjoining graveyards occupy all or almost all of their blocks. Liberty Plaza occupies the full block bounded by Liberty and Cedar Streets, Trinity Place, and Broadway.

Streetscape

Parked cars generally line the streets. Streets are flanked by concrete sidewalks, and most buildings rise from their lot lines. Only two buildings, One Liberty Plaza and 140 Broadway, provide plazas and are in fact surrounded by open space. The historic graveyards of St. Paul's Chapel and Trinity Church bring areas of green grass and trees to this densely developed urban environment and are visual amenities.

There is a great variety of street furniture found throughout the study area, including fire hydrants, mailboxes, newsstands, lampposts, and vendor carts. Three historic lampposts survive intact at 147 Nassau Street, 10 Pine Street, and 80 Broadway. Most lampposts located along Nassau Street are reproductions of historic lampposts, while other lampposts are more modern versions (see photograph 13 of Figure 4-8). Vendor carts and tables are so numerous near the WTC Site that they impede pedestrian traffic.

Streets east of Broadway tend to be narrow and dark. Dense development and high-rise buildings throughout the study area generally overshadow public spaces and block sunlight.

Building Uses, Shapes, and Forms

The Broadway Corridor is densely developed with office buildings. While some of these office buildings have been converted to residential use, their exterior appearance has not changed. Buildings range in height from two to 50 stories, and occupy various sized lots. The Park Row Building, the Potter Building, and 39 Park Row occupy prominent locations along Park Row and range in height from 11 to 32 stories. Between Ann Street and Liberty Street, east of Broadway, the area is primarily developed with low- to mid-rise office buildings (three to 11 stories). Beginning at Liberty Street and continuing south are several skyscrapers that range in height from 21 to 54 stories. These include One Liberty Plaza, the Equitable Building, the Marine Midland Building, Bankers Trust Building, American Surety Company, Irving Trust Company Building, the United States Realty Building, and the Trinity Building. Most buildings are built to

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the lot line. Exceptions include One Liberty Plaza and 140 Broadway, which are set back from their lot lines and are surrounded by open space.

Visual Resources and View Corridors

Many historic office buildings are located in the Broadway Corridor and are important visual resources (see Chapter 5, “Historic Resources”). The Beaux-Arts Equitable Building and the Art Deco former Irving Trust Building are found on Broadway and are among the more prominent visual landmarks of Lower Manhattan. Both these buildings overlook another important visual resource, Trinity Church. Set between its graveyard and a small yard area, Trinity Church is a relatively small neo-Gothic structure located at the head of Wall Street (see photograph 14 of Figure 4-8). Similarly, St. Paul’s Chapel several blocks to the north and opposite the northeast corner of the WTC Site is a visual resource along with its graveyard and large trees. The steeples of each church are visible from blocks away, and the juxtaposition of their steeples against high-rise buildings, both sleek modern ones and older more ornate, is a defining feature of Lower Manhattan.

The Greek temple façade of the New York Stock Exchange on Broad Street is a unique feature of this subarea. Despite its short height and its limited visibility along the curve of Broad Street and from Wall Street east of Broad Street, this façade—frequently covered in a giant United States flag—is symbolic of the nation as well as the city. Seen from Broadway between Liberty and Cedar Streets, the ornate Beaux-Arts former Chamber of Commerce Building is another important visual resource. It is juxtaposed with the Neo-Gothic Liberty Tower and the sleek, black glass façade of the taller modern building at 140 Broadway. The plaza of the latter has a large red cube sculpture by Isamu Noguchi in its wide plaza along Broadway. Another visual resource in this subarea is Liberty Plaza. Although damaged on September 11 and not fully restored, it is a full-block open space with benches, planters, and lighting.

View corridors in the southeastern portion of the study area, along streets located in the Street Plan of New Amsterdam and Colonial New York (Wall Street, Broadway, and Broad Street) provide unique view corridors of the city’s historic street pattern. Broadway and Church Street/Trinity Place provide long north-south view corridors. The narrow width of Nassau Street tends to limit available view corridors for greater distances.

Greenwich South Corridor

The Greenwich South Corridor is bounded by Liberty Street to the north, Joseph P. Ward Street and Exchange Place to the south, Route 9A to the west, and Church Street/Trinity Place to the east.

Natural Features, Street Patterns, and Block Shapes

The topography slopes down slightly to the south and west. Street patterns are similar to those found in the North of WTC Site subarea. Route 9A, Washington, and Greenwich Streets travel parallel to each other, while Trinity Place travels in a more northeast-southwest direction. As a result, the blocks between Greenwich Street and Trinity Place are irregularly shaped, and converge as the streets travel south. Most other blocks are rectangular in shape and are divided into two or more built lots. An exception is the modern Marriott Hotel in the block bounded by Route 9A and Albany, Carlisle, and Washington Streets.

Route 9A and Trinity Place are the most traveled roads and carry the greatest levels of vehicular traffic. This is because the other streets are small and because many segments of streets were



View north of Nassau Street from Ann Street showing historic lamppost reproductions 13



View west of Trinity Church from Wall Street 14

closed after the terrorist attacks for the recovery activities. Closed streets include Liberty, Cedar (between Route 9A and Washington Street), and the northern portions of Washington and Greenwich Streets.

Streetscape

The Greenwich South Corridor is perhaps the most densely developed of the subareas. Buildings generally occupy their entire lots and public plazas are non-existent. Parked cars line the streets, which are open. Street furniture includes fire hydrants, mailboxes, newsstands, lampposts, and vendor carts. Most lampposts located along Route 9A are reproductions of historic lampposts, while the remainder of lampposts are more modern versions. Historic fire alarm call boxes are also found throughout the study area and are unique urban artifacts. Vendor carts and tables gather near the WTC Site at the corner of Liberty and Church Streets.

Building Uses, Shapes, and Forms

This subarea has a number of older commercial structures, but it also has a concentration of 19th-century buildings on Greenwich Street, between Carlisle and Rector Streets, some parking structures and a modern high-rise hotel building. The Battery Garage is a seven-story parking facility that occupies a large lot, and its mass dominates the southern portion of this subarea. Large office buildings located along Route 9A (West Street), including 75 West Street, 90 West Street, and 90 Washington Street have been or are being converted to residential use. The 38-story Marriott Hotel stands next to 90 West Street, which was under scaffolding for renovation on September 11. Other buildings in this area are small- to medium-scale, and include the American Stock Exchange, 74 Trinity Place, 2 Rector Street, 123 Washington Street and 120 Greenwich Street.

Visual Resources and View Corridors

The American Stock Exchange, a massive Art Deco structure facing Trinity Place, is an important visual resource despite its relative short height at 14 stories. The view corridors north along Washington and Greenwich Streets are blocked by construction fencing and equipment. However, above the fences and equipment, buildings north of Vesey Street—including the Art Deco Barclay-Vesey Building, the Classical Revival and Art Deco Federal Office Building/U.S. Post Office, the unfinished form of the new 7 WTC, and the damaged and shrouded form of Fiterman Hall—are visible. The views east and west on narrow Cedar Street are blocked by the shrouded form of 130 Liberty Street, which actually stands across this street. Albany Street is also a narrow street and is blocked by existing buildings between Greenwich Street and Trinity Place.

Battery Park City

BPC is located west of Route 9A. The subarea comprises the WFC as well as residential buildings to the west of the WFC and the hotel multiplex cinema building to the north of the WFC. Additional BPC areas to the north and south are not included in the study area.

Natural Features, Street Patterns, and Block Shapes

The western boundary of BPC is the Hudson River. There are no streets through the WFC between Liberty Street on the south and Vesey Street on the north. South End Avenue is the north-south roadway south of Liberty Street as is North End Avenue north of Vesey Street. Block shapes are not regular, and most structures are not built to the lot line.

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Streetscape

While still very urban in character, BPC is visually distinct from the rest of the study area. It is physically divided from the WTC Site, the Southern Site, and the other subareas of the study area by Route 9A, the only multi-lane highway in the area (see photograph 15 of Figure 4-9). The WFC is set back from Route 9A's bikeway/walkway by a wide concrete sidewalk along the building front and a green lawn beyond that. Open space, both paved plazas and landscaped areas, is far more prevalent in BPC than elsewhere in the study area.

BPC has a great variety of attractive, well-designed street furniture, including benches, tables, and lampposts. However, in the wake of September 11, concrete "jersey" barriers painted a grayish pink resembling the granite of the WFC facades have appeared.

Building Uses, Shapes, and Forms

The BPC subarea is primarily developed with high-rise modern office and residential buildings. The WFC is a group of office towers clad in pink granite. They vary in height from 33 to 51 stories, and each structure has a different geometric form at its roofline—mastaba, dome, pyramid, and stepped pyramid. The Winter Garden is a glass and steel, barrel-vaulted public space with large palm trees in its interior. The residential buildings west and south of the WFC vary in height from four to 28 stories. The Gateway Plaza complex at the corner of Liberty Street and South End Avenue is a gray concrete structure. North of the WFC is a massive building housing a hotel and a multiplex cinema.

Visual Resources and View Corridors

The modern granite clad structures of the WFC (including the glass walls of the Winter Garden) are seen in views west across the WTC Site. While very attractive, the most important visual resources of BPC are the Hudson River and the many varied open spaces of BPC (see photograph 16 of Figure 4-9).

The view corridor across Vesey Street is open to the river from Route 9A, but the view corridor across Liberty Street is partially blocked by the pedestrian bridge of the WFC. The view corridor along Route 9A is also blocked by the pedestrian bridges above the highway at Liberty and Vesey Streets.

4.2.2 FUTURE WITHOUT THE PROPOSED ACTION 2009—CURRENT CONDITIONS SCENARIO

PROJECT SITE

In 2009 without the Proposed Action, it is assumed that the WTC Site would remain underused, with no development on the site except for the permanent WTC PATH Terminal, the No. 1/9 IRT subway lines crossing the site, and possibly a restored Cortlandt Street station. The entrance to the Terminal (with connections to the subway system) would be located along Church Street at Dey Street. *Without Freedom Tower constructed, there would not be a new design feature on the Manhattan skyline.*



View southwest of Route 9A and Battery Park City from Rector Street 15



View northwest of the Hudson River and public open spaces in Battery Park City 16

STUDY AREA

North of WTC Site

The Barclay-Vesey Building and the Federal Office Building/U.S. Post Office, directly north of the WTC Site, will be repaired, renovated, and reopened. *A new building at 7 WTC will be complete and the Greenwich Street view corridor will be open north into Tribeca. A proposed residential building at 10 Barclay Street will rise east of St. Peter's Roman Catholic Church. The proposed building would also be taller than the adjacent small-scale historic buildings. The upper floors of the Woolworth Building will be converted to residential use and a new building would likely be constructed on the site of Fiterman Hall at 30 West Broadway. In addition, Route 9A will be reconstructed between West Thames Street and Chambers Street.*

Broadway Corridor

The Fulton Street Transit Center at Broadway and Fulton Street is expected to be complete. The Corbin Building will be retained as part of the new Transit Center. Security improvements in the area of the New York Stock Exchange will improve the look of the area.

Greenwich South Corridor

The building at 90 West Street will have its facades restored and will be converted to residential use, with street-level retail space. In addition, reconstruction of Route 9A between West Thames Street and Chambers Street will be complete. The Route 9A promenade from Battery Place to West Thames Street will also be reconstructed, as well as Battery Place from Route 9A to Washington Street.

Battery Park City

In BPC, an office tower will be developed on Site 26. Site 16/17 is expected to be developed for residential use with a New York City Public Library and public open space as part of the development. In addition, reconstruction of Route 9A between West Thames Street and Chambers Street will be complete. The Route 9A promenade from Battery Place to West Thames Street will also be reconstructed, as well as Battery Place from Route 9A to Washington Street.

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

PROJECT SITE

Natural Features, Street Patterns, and Block Shapes

The Proposed Action would divide the WTC Site at grade level into four separate blocks by extending Fulton Street from Church Street to Route 9A and Greenwich Street from Vesey Street to Liberty Street (see Chapter 1, “Project Description,” Figure 1-2). While the new blocks would still be larger than the surrounding blocks, they would be smaller than the former 16-acre superblock of the WTC. On the Southern Site, Washington Street would be closed, and an open space instead of a parking lot and multilevel plaza would exist between Route 9A and

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Greenwich Street. In addition, St. Nicholas Greek Orthodox Church would be reconstructed on the Southern Site.

Streetscape

Along the streets, both old and new, there would be a variety of new open spaces from Wedge of Light Plaza and the PATH Plaza to Liberty Park, on the south side of Liberty Street (see Chapter 1, “Project Description,” Figures 1-3 through 1-5). September 11 Place would draw visitors to the center of the WTC Site, where they would enter the Memorial.

With the bases of all the office buildings completed on the WTC Site, there would be additional retail frontage on the sidewalks. Construction activities would be ongoing as the office buildings would be built in phases. The Project Site is expected to be developed with streetscape elements—such as paving, landscaping, lighting, and site furnishings—that would create a distinctive appearance across the WTC Site. Where appropriate, trees would be introduced to create green corridors. Security needs would also be a part of the streetscape design, but would not impede the movement of pedestrians or the visual continuity of trees, lighting, and furnishings.

Building Uses, Shapes, and Forms

By 2009, Freedom Tower and the bases of three other buildings would be located around the site from the northwest corner to the southeast corner. At the southwest corner of the WTC Site, the Memorial would be constructed. Proposed designs for redevelopment of the WTC Site are consistent with the character of modern high-rise office and residential buildings located within the study area. The proposed new buildings would be an improvement over current conditions in that the commercial office and retail uses would bring increased pedestrian traffic, as well as retail stores, to this part of Lower Manhattan.

By comparison to the future without the Proposed Action, the density of development would increase on the WTC Site, which currently would have no above-grade development except the entrance for the permanent WTC PATH Terminal. The estimated above-grade floor area on the WTC Site (office, retail, museum, and permanent WTC PATH Terminal entry) would be approximately 3,270,100 square feet, while the site area including the streets created in the former superblock would be approximately 873,195 square feet. The ratio of above-grade built floor area to site area on the WTC Site would then be approximately 3.74. On the Southern Site the open space would be created, but Tower 5 would not be constructed, and it is not yet known whether the replacement for the church destroyed on September 11 would be developed by this time. Overall development on the Project Site would only be somewhat more dense than it would be without the Proposed Action when it is assumed that there would be an approximately 1.5 million square foot office building at 130 Liberty Street.

Visual Resources and View Corridors

Development of the Proposed Action would produce one major tower by 2009. There would be a variety of new open spaces designed and built for a variety of uses. These would be easily accessible from the sidewalks and attractively designed. Public open spaces would be designed to create vibrant streetscapes and open spaces with a range of settings. The open spaces would establish a site-wide identity for the Proposed Action, while at the same time relating to surrounding streets and neighborhoods. The retail bases of the towers on the east side of the

WTC Site would be designed to create lively, pedestrian-oriented streets with open spaces. The bases of the towers are intended to establish a street edge, create a relationship with adjacent buildings, and provide an appropriately scaled pedestrian zone.

By 2009 there would also be a Memorial, *Memorial Center*, and a performing arts facility. The Memorial would respect the WTC as a place of remembrance. It would also be a focal point of the Proposed Action as a whole and a significant new visual resource for Lower Manhattan.

By extending Greenwich Street through the WTC Site, the Proposed Action would re-create the Greenwich Street view corridor. By extending Fulton Street through the site, there would be a view from Church Street through to the WFC. With the open spaces along Fulton Street, Wedge of Light Plaza, September 11 Place, and *the PATH Plaza*, the view corridor would be wider, improving the visual connection across the WTC Site.

STUDYAREA

North of WTC Site

Natural Features, Street Patterns, and Block Shapes

The Proposed Action would not have a significant adverse impact on the natural features, street patterns, or block shapes in this subarea. There would be no changes to topography or block shapes in this subarea as a result of the Proposed Action. The extension of Greenwich and Fulton Streets would allow for increased pedestrian circulation and increased air and light to surrounding streets. The extension of Greenwich Street through the WTC Site would continue the existing pattern of the street and would restore its historic alignment. This would be an improvement over current conditions. Thus, the Proposed Action is not expected to have an adverse impact on these urban design features.

Streetscape

The Proposed Action would not have a significant adverse impact on the streetscape of this subarea. The extension of Greenwich Street through the WTC Site would enhance the existing streetscape of this road by continuing this street to the south. The Project Site is expected to be developed with streetscape elements—such as paving, landscaping, lighting, and site furnishings—that would create a unique identity for the Project Site, yet be in keeping with those found throughout this subarea. Existing streetscape elements would not be altered by the proposed development. Overall, the proposed development with its public plaza, walkways, and open space would be an improvement to the streetscape of the study area, compared with the underused land and damaged buildings that currently occupy the Project Site. Overall, it is not anticipated that the Proposed Action would have an adverse impact on these urban design features.

Building Uses, Shapes, and Forms

By 2009, Freedom Tower and a performing arts center would be located along the northern portion of the WTC Site. The office use of Freedom Tower would be consistent with building uses in the North of WTC Site subarea. The performing arts center would introduce a new building use to the neighborhood that would bring increased pedestrian traffic and a new cultural institution that would be beneficial to area residents and workers. The division between Freedom Tower and the performing arts center would relate to the alignment of the Barclay-Vesey Building to the north. As building heights in this subarea range from three to 60 stories, the

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height of the proposed buildings would be similar to the various sizes of buildings in the study area, as well as those of the former WTC.

The design of the proposed buildings would also be in keeping with the appearance of other modern buildings in the study area. A modern palette including metal and glass would be employed in the buildings' design to harmonize with the modern buildings found in the study area and also to continue the tradition of modern evolution of building styles in the study area.

Since the building uses, materials, and architectural treatment would consider the existing urban design of the area, the Proposed Action is not expected to have an adverse impact on these urban design features.

Visual Resources and View Corridors

Lower Manhattan has historically been developed with towering skyscrapers, many of which were the tallest buildings in the world at the time of their completion. When the WTC was constructed, the urban design and visual context of the study area was altered by the introduction of a new superblock complex, including the two tallest buildings in the world. Thus, the urban design and visual context of Lower Manhattan has been continuously changing and evolving as new skyscrapers have been erected, each one representing new innovations and design aesthetics in skyscraper technology. The Proposed Action continues this building tradition not only in the immediate study area, but also in the larger context of Lower Manhattan. The asymmetrical form of Freedom Tower would evoke the dynamic form of the Statue of Liberty (see Chapter 1, "Project Description," Figure 1-4). The tower's soaring offset spire would further evoke the Statue of Liberty's profile and would mark the symbolic height of 1,776 feet above ground. Broadcast antennas would be located high above the office spaces and would serve the tri-state region. In order to take advantage of the strong prevailing winds off the Hudson and East Rivers, wind turbines would be integrated into the space between the occupied floors and the antenna platform. A lacy system of steel cables would extend upward along the building to the top truss with ephemeral cables like those of the Brooklyn Bridge, affording opportunities to highlight the design with inspirational lighting. The design of Freedom Tower and its relationship to the Statue of Liberty would thus create an association between what would be the two most prominent structures along the Hudson River.

Construction of Freedom Tower would block view corridors across the WTC Site that are available under the Current Conditions Scenario. Views to the Barclay-Vesey Building and the Federal Office Building/U.S. Post Office would be blocked, as well as views from the North of WTC subarea to the south across the Project Site. Although certain views would be blocked, other views of these resources from other locations would still be available. No unique view corridors would be blocked, and views of important visual resources, such as the Woolworth Building and City Hall Park, would still be available from many locations within the study area.

The extension of Greenwich Street south through the WTC Site would provide increased view corridors in this portion of the study area. The restoration of this street's historic plan would be an improvement over current conditions. Overall, it is not anticipated that the Proposed Action would have an adverse impact on visual resources and view corridors in this subarea.

Broadway Corridor

Natural Features, Street Patterns, and Block Shapes

The Proposed Action would not have a significant adverse impact on the natural features, street patterns or block shapes in this subarea. There would be no changes to topography or block shapes in this subarea as a result of the Proposed Action. The extension of Greenwich and Fulton Streets would allow for increased pedestrian circulation and increased air and light to surrounding streets. The extension of Fulton Street through the WTC Site would relate better to the street patterns and block shapes of the Broadway Corridor and serve to integrate development on the WTC Site into the surrounding area, especially the area along Fulton Street. This would be an improvement over current conditions. Thus, it is not anticipated that the Proposed Action would have an adverse impact on these urban design features.

Streetscape

The Proposed Action would not have a significant adverse impact on the streetscape of this subarea. The extension of Fulton Street through the WTC Site would enhance the existing streetscape of this road by continuing this street to the west. It is anticipated that the Project Site would be developed with streetscape elements—such as paving, landscaping, lighting, and site furnishings—that would create a unique identity for the Project Site, yet be in keeping with those found throughout this subarea. Existing streetscape elements would not be altered by the proposed development. Overall, the proposed development with its public plaza, walkways and open space would be an improvement to the streetscape of the study area compared to the underused land and damaged buildings that currently occupy the Project Site. Overall, it is not anticipated that the Proposed Action would have an adverse impact on these urban design features.

Building Uses, Shapes, and Forms

By 2009, Wedge of Light Plaza and the retail bases for the three office towers would be complete on the eastern portion of the WTC Site. Wedge of Light Plaza would introduce a new public space into this portion of the study area. The retail bases of the office towers would be consistent with the retail bases and heights of many office buildings found throughout this subarea, especially along Broadway and Nassau and Broad Streets.

The design of the proposed buildings is in keeping with the appearance of other modern buildings in the study area. A modern palette including metal and glass would be employed in the buildings' design to harmonize with the modern buildings found in the study area and also to continue the tradition of modern evolution of building styles in the study area.

Since the building uses, materials and architectural treatment would consider the existing urban design of the area, it is not anticipated that the Proposed Action would have an adverse impact on these urban design features.

Visual Resources and View Corridors

As described above under “North of WTC Site,” the study area has historically been developed with tall skyscrapers, many of which were the tallest buildings in the world when completed. The Proposed Action would continue this trend of skyscraper design, ultimately creating a new visual experience for the immediate neighborhood. Development on the WTC Site would block view corridors across the WTC Site that are available under the Current Conditions Scenario. Views to St. Paul’s Chapel and the East River Savings Bank would be blocked from the west

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and views west toward the WFC would be blocked. However, these views are not unique views, as views of these visual resources are available from many other locations within the study area. Views of other important visual resources, such as Trinity Church, the Equitable Building, the Irving Trust Building, and the New York Stock Exchange would not be blocked.

The extension of Fulton Street west through the WTC Site would provide increased view corridors in this portion of the study area. The restoration of this street's historic plan would be an improvement over current conditions. Wedge of Light Plaza would complement the open space of St. Paul's Chapel graveyard and the plaza at the Millennium *Hilton* Hotel. Overall, it is not anticipated that the Proposed Action would have an adverse impact on visual resources and view corridors in this subarea.

Greenwich South Corridor

Natural Features, Street Patterns, and Block Shapes

With Greenwich Street extended through the WTC Site, the Proposed Action would reconnect the Greenwich South Corridor to the North of WTC area and Tribeca. The new section of Greenwich Street would serve to reintegrate the urban fabric south of the Project Site. The Greenwich South Corridor would no longer be isolated. Although creating the new open space on the Southern Site would require closing a block of Washington Street, a block of Cedar Street would be reopened between Washington and Greenwich Streets. The smaller sizes of the blocks on the WTC Site and the expanded block on the Southern Site being used to create an open space would help integrate the Project Site with the built fabric in the Greenwich South Corridor.

The Proposed Action would not have a significant adverse impact on the natural features, street patterns or block shapes in this subarea. There would be no changes to topography or block shapes in this subarea as a result of the Proposed Action. Thus, it is not anticipated that the Proposed Action would have an adverse impact on these urban design features.

Streetscape

The Proposed Action would not have a significant adverse impact on the streetscape of this subarea. The extension of Greenwich Street through the WTC Site would enhance the existing streetscape of this road by continuing this street to the north. It is anticipated that the Project Site would be developed with streetscape elements—such as paving, landscaping, lighting, and site furnishings—that would create a unique identity for the Project Site, yet be in keeping with those found throughout this subarea. Existing streetscape elements would not be altered by the proposed development. Overall, the proposed development with its public plaza, walkways and open space would be an improvement to the streetscape of the study area compared to the underused land and damaged buildings that currently occupy the Project Site. Overall, it is not anticipated that the Proposed Action would have an adverse impact on these urban design features.

Building Uses, Shapes, and Forms

By 2009, the Memorial, *Memorial Center*, and other cultural structures, as well as *Liberty Park*, a large public open space south of Liberty Street, would be complete on the southern portion of the WTC Site. The Memorial and the large public open space would introduce new public open spaces to this subarea. In addition, the *Memorial Center* and other cultural structures would introduce new public uses to the neighborhood that would be beneficial for residents and

workers. These developments would be an improvement over current conditions by offering new open spaces, building uses and facilities.

Since the building uses, materials and architectural treatment would consider the existing urban design of the area, it is not anticipated that the Proposed Action would have an adverse impact on these urban design features.

Visual Resources and View Corridors

Creating Liberty *Park* would be a major visual resource for the Greenwich South Corridor. The view corridor up Greenwich Street would be opened by the Proposed Action and the Washington Street view corridor would remain open to Liberty Street. Beyond Liberty Street, this view corridor would encompass the cultural buildings around the Memorial as well as Freedom Tower beyond the Memorial area.

Development on the WTC Site would block view corridors across the WTC Site that are available under the Current Conditions Scenario. Views to historic resources along Liberty Street from the north and views north across the WTC Site would be blocked. However, these views are not unique views, as views of these visual resources are available from many other locations within the study area. Views of other important visual resources, such as the American Stock Exchange, 75 West Street and 90 West Street, would not be blocked.

Overall, it is not anticipated that the Proposed Action would have an adverse impact on visual resources and view corridors in this subarea.

Battery Park City

Natural Features, Street Patterns, and Block Shapes

The Proposed Action would have no impact on the natural features, topography and block shapes of BPC. The WTC Site and BPC would remain connected primarily via Liberty and Vesey Streets at ground level and via a pedestrian bridge at Liberty Street.

The extension of Greenwich and Fulton Streets would allow for increased pedestrian circulation and increased air and light to surrounding streets. The extension of Fulton Street through the WTC Site would continue the existing pattern of the street and would restore its historic alignment. This would be an improvement over current conditions. Thus, it is not anticipated that the Proposed Action would have an adverse impact on these urban design features.

Streetscape

By 2009 with the Proposed Action BPC would face a completed streetscape along the west side of the WTC Site and the Southern Site that would be dramatically different from the current underused condition of the Project Site. Freedom Tower would rise at the north end of the WTC Site. South of Fulton Street the Memorial would be an open space, and the *Memorial Center* and cultural facilities around the Memorial are expected to be low-rise buildings.

The Proposed Action would not have a significant adverse impact on the streetscape of this subarea. The extension of Fulton Street through the WTC Site would enhance the existing streetscape of this road by continuing this street to the west. It is anticipated that the Project Site would be developed with streetscape elements—such as paving, landscaping, lighting, and site furnishings—that would create a unique identity for the Project Site, yet be in keeping with those found throughout this subarea. Existing streetscape elements would not be altered by the proposed development. Overall, the proposed development with its public plaza, walkways and

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open space would be an improvement to the streetscape of the study area compared to the underused land and damaged buildings that currently occupy the Project Site. Overall, it is not anticipated that the Proposed Action would have an adverse impact on these urban design features.

Building Uses, Shapes, and Forms

The use and height of the proposed buildings are consistent with other buildings in BPC. The Proposed Action would provide commercial, institutional and retail uses, which are consistent with uses in the BPC subarea. The design of the proposed buildings also is in keeping with the appearance of other modern buildings in the area. It is anticipated that a modern palette including metal and glass would be employed in the buildings' design to harmonize with the modern buildings found in the study area and also to continue the tradition of modern evolution of building styles in the study area. Thus, the proposed development would not be different from the variety of styles and heights found in the BPC subarea.

Freedom Tower would be in keeping with the size and design of the towers located within the WFC and would also help unify them with the remainder of the study area. These modern structures were designed to soften the height of the Twin Towers, and now stand isolated across from the underused WTC Site.

Since the materials and architectural treatment would consider the existing urban design of the area, and its height would be consistent with other high-rise buildings in the study area, the Proposed Action is not expected to result in any adverse impact to the urban design of the neighborhood.

Visual Resources and View Corridors

BPC has many visual resources on its interior and along the Hudson River that would not be affected by the Proposed Action. The Proposed Action with Freedom Tower, the Memorial, the cultural facilities, and Liberty *Park* would provide visual resources along the east side of BPC. The view corridor along Fulton Street would also connect BPC with Church Street and Broadway.

The Proposed Action would continue the trend of modern skyscraper design that has existed in BPC as well as this portion of Lower Manhattan. Construction of modern skyscrapers on the Project Site would visually enable the modern buildings in BPC, including the office towers of the WFC, to harmonize with the larger study area. Overall, it is not anticipated that the Proposed Action would have an adverse impact on visual resources and view corridors in this subarea.

4.2.4 FUTURE WITHOUT THE PROPOSED ACTION 2015—CURRENT CONDITIONS SCENARIO

PROJECT SITE

In 2015 without the Proposed Action, it is assumed that the WTC Site will continue to remain largely underused, with only the permanent WTC PATH Terminal on site, the No. 1/9 IRT subway lines crossing the site, and possibly a restored Cortlandt Street station. The entrance to the Terminal (with connections to the subway system) would be located along Church Street at Dey Street.

On the Southern Site, it is assumed that two office towers would be developed at 130 and 140 Liberty Street.

STUDY AREA

No specific potential projects have been identified for the North of WTC Site and Broadway Corridor subareas in the 2009-2015 time frame that could potentially impact the urban design and visual resources of the study area. In the Greenwich South Corridor subarea, 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 existing structures.

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

PROJECT SITE

By 2015, the Proposed Action would completely redevelop the WTC Site, and the Southern Site. All construction would be complete on the Project Site. In addition to the Memorial, *the Memorial Center*, cultural facilities, Freedom Tower, the retail bases of the three towers east of Greenwich Street, and the open spaces, all the office towers and the hotel and conference facility would be complete. A 65-story office building (Tower 2) and a 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.

Natural Features, Street Patterns, and Block Shapes

Similar to the impacts anticipated in 2009, the Proposed Action would divide the WTC Site at grade level into four separate blocks by extending Fulton and Greenwich Streets. The new blocks would be closer in size to the surrounding blocks and would better integrate development on the WTC Site into the urban design fabric of the neighborhood. With Fulton Street extended to Route 9A the change in grade across the site would be more apparent.

On the Southern Site, Washington Street would be closed and an open space, instead of a parking lot and multilevel plaza, would exist between Route 9A and Greenwich Street.

Streetscape

Along the streets there would be new open spaces as described for the Proposed Action in 2009. September 11 Place would draw visitors to the center of the WTC Site where they would enter the Memorial. In addition to Freedom Tower, tall office buildings would be completed along Church Street.

Building Uses, Shapes, and Forms

The bulk of the development would circle the site on the north, east, and south in order to create the Memorial in the southwest corner. Five office towers would be located on the site, and Freedom Tower would be taller than the former Twin Towers and taller than buildings in the surrounding area. Building uses would be consistent with uses, shapes, and forms found throughout the study area.

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With completion of the Proposed Action, the density of development on the WTC Site would increase. The estimated above-grade floor area (office, retail, cultural facilities, and permanent WTC PATH Terminal entry) on the WTC Site would be approximately 10,140,120 square feet, while the site area including the streets created in the former superblock would be approximately 873,195 square feet. (Prior to September 11, the 16-acre WTC Site was not counted as including the portions of Liberty and Vesey Streets and Route 9A, which were actually above the bathtub. As the WTC Site has been expanded with the demolition of the streets and roadway, the site area is considered larger than it was before.) The ratio of above-grade built floor area to site area on the WTC Site would then be approximately 11.5.

On the Southern Site the open space would be created, Tower 5 would be completed, and it assumed that the replacement for the church destroyed on September 11 would be developed. The estimated above-grade floor area (office, retail, and institutional) on the Southern Site would be approximately 1,641,200 square feet, while the site area (within the curb lines and not including the recreated bed of Cedar Street) would be approximately 100,845 square feet. The ratio of above-grade floor area (office, retail, and institutional) to site area on the Southern Site would then be approximately 16.27. This would bring the ratio of above-grade floor area to site area for the overall Project Site to 12.07.

Visual Resources and View Corridors

The Proposed Action would produce five major towers by 2015. Freedom Tower is designed to replace the Twin Towers in the skyline and would be the culminating point of the spiraling composition of towers on the Project Site. As contemplated, the height and crown of each tower would be related to one another, and would form an overall composition of proportioned buildings in the skyline. The form of the towers would reduce massing and density between them and would maximize daylight to adjacent buildings and streets. As described for the Proposed Action in 2009, there would be a variety of new open spaces that would be visual amenities. The Memorial would be an important public space and it is anticipated that it would also become an important visual resource.

By extending Greenwich Street through the WTC Site, the Proposed Action would recreate the Greenwich Street view corridor. By extending Fulton Street through the site, there would be a view from Church Street through to the WTC. With the open spaces along Fulton Street, Wedge of Light Plaza and *the PATH Plaza*, the view corridor would be wider, improving the visual connection across the WTC Site.

STUDY AREA

As described for conditions in 2009, the Proposed Action is not expected to have an adverse impact on the urban design and visual resources in this scenario, as the proposed development would be in keeping with development in the study area and overall would be an improvement over existing conditions.

North of WTC Site

Natural Features, Street Patterns, and Block Shapes

With Greenwich Street extended through the WTC Site, the Proposed Action would relate better to the street patterns and block shapes in the North of WTC Site subarea and serve to reintegrate development on the WTC Site into the surrounding area. The Proposed Action is not expected to

have any impact on the natural features, street patterns or block shapes in the North of WTC Site subarea under this scenario.

Streetscape

Active uses at ground level on the WTC Site would also face north toward this part of the study area. In particular, the base of Freedom Tower would draw additional pedestrian traffic, as well as the retail bases of the office towers along Church Street. Vesey Street is an important east-west corridor, and trees would play an important role in creating a pedestrian scale adjacent to the proposed towers. Trees would also develop a green connection between City Hall Park, St. Paul's Chapel, and BPC. The Proposed Action is not expected to have any impact on streetscape features in the North of WTC Site subarea under this scenario.

Building Uses, Shapes, and Forms

By 2015, a 65-story office building (Tower 2) and a 25-story hotel would be complete in the northeast portion of the Project Site. The office, retail and hotel uses of these buildings would be consistent with building uses in this subarea. The height of the proposed buildings would also be in keeping with the height of office buildings in the immediate area. A modern palette including metal and glass would be employed in the buildings' design to harmonize with the modern buildings found in the study area and also to continue the tradition of modern evolution of building styles in the study area.

Since the building uses, materials and architectural treatment would consider the existing urban design of the area, it is not anticipated that the Proposed Action would have an adverse impact on these urban design features.

Visual Resources and View Corridors

The Proposed Action would further limit views across the Project Site. However, these views are not unique views, and no unique views of any visual resources within this subarea would be blocked. Reopening the Greenwich Street view corridor, which would connect both Greenwich Street and West Broadway in the North of WTC Site subarea through the WTC Site, would be an important benefit of the Proposed Action. Overall, it is not anticipated that the Proposed Action would have an adverse impact on visual resources and view corridors in this subarea.

Broadway Corridor

Natural Features, Street Patterns, and Block Shapes

The Proposed Action is not expected to have any impact on the natural features, street patterns or block shapes in the Broadway Corridor subarea under this scenario. With Fulton Street extended through the WTC Site, the Proposed Action would relate better to the street patterns and block shapes of the Broadway Corridor and serve to reintegrate development on the WTC Site into the surrounding area, particularly the area along Fulton Street. The two individual office and retail structures proposed along Church Street would relate well to the individual structures on the east side of Church Street.

Streetscape

The Proposed Action is not expected to have any impact on streetscape features in the Broadway Corridor subarea under this scenario. The buildings along Church Street would provide active retail uses facing the existing retail development across the street.

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Building Uses, Shapes, and Forms

By 2015, the three office towers would be complete in the eastern portion of the Project Site. These towers would range in height from 58 to 65 stories. The office and retail uses of these buildings would be consistent with building uses in this subarea. The height of the proposed buildings would also be in keeping with the height of office buildings in the immediate area. In addition, the retail bases of the office towers would be closer in height to the former four-story East River Savings Bank building. A modern palette including metal and glass would be employed in the buildings' design to harmonize with the modern buildings found in the study area and also to continue the tradition of modern evolution of building styles in the study area.

Since the building uses, materials and architectural treatment would consider the existing urban design of the area, it is not anticipated that the Proposed Action would have an adverse impact on these urban design features.

Visual Resources and View Corridors

The Proposed Action would further limit views across the Project Site. The completion of the three towers along Church Street would create a series of tall skyscrapers that would have an impact on the visual character of the Church Street view corridor. However, no unique view corridors, and no unique views of any visual resources within this subarea would be blocked. The proposed hotel would be a mid-rise tower. Towers Three and Four would be located along Church Street and would be designed with heights spiraling down to form an overall composition. The tower component of the massing for each building would have a smaller footprint than the building base and the towers would be oriented along different streets, thus maximizing daylight and views. Overall, it is not anticipated that the Proposed Action would have an adverse impact on visual resources and view corridors in this subarea.

Greenwich South Corridor

Natural Features, Street Patterns, and Block Shapes

The Proposed Action is not expected to have any impact on the natural features, street patterns or block shapes in the Greenwich South Corridor subarea under this scenario. With Greenwich Street extended through the WTC Site, the Proposed Action would reconnect the Greenwich South Corridor to the North of WTC area and Tribeca. The new section of Greenwich Street would serve to reintegrate the urban fabric south of the Project Site. The smaller sizes of the blocks on the WTC Site and the expanded block on the Southern Site would be used to create an open space that would help integrate the Project Site with the built fabric in the Greenwich South Corridor.

Streetscape

The portions of the Proposed Action immediately adjacent to the Greenwich South Corridor would be the office tower at the corner of Liberty and Church Streets, the office tower on the Southern Site and *Liberty Park*. The retail bases of the office towers would create lively, pedestrian-oriented streets. *The creation of Liberty Park* would provide an opportunity to extend the green infrastructure of BPC, while also serving workers and residents in the surrounding area. The Proposed Action is not expected to have any impact on streetscape features in the Greenwich South Corridor subarea under this scenario.

Building Uses, Shapes, and Forms

By 2015, the fifth office tower would climb 57 stories in the southern portion of the Project Site. Although this building would be taller than other buildings in the Greenwich South Corridor, the office use of this building would be consistent with building uses in this subarea. The height of the proposed building would also be in keeping with the height of office buildings in the immediate area. A modern palette including metal and glass would be employed in the building's design to harmonize with the modern buildings found in the study area and also to continue the tradition of modern evolution of building styles in the study area.

Since the building uses, materials and architectural treatment would consider the existing urban design of the area, it is not anticipated that the Proposed Action would have an adverse impact on these urban design features.

Visual Resources and View Corridors

The Proposed Action would further limit views across the Project Site. However, these views are not unique views, and no unique views of any visual resources within this subarea would be blocked. Liberty Park would be a major visual resource for the Greenwich South Corridor. The view corridor up Greenwich Street would be opened by the Proposed Action and the Washington Street view corridor would remain open to Liberty Street. Beyond Liberty Street, this view corridor would encompass the cultural buildings around the Memorial as well as Freedom Tower beyond the Memorial area. Overall, it is not anticipated that the Proposed Action would have an adverse impact on visual resources and view corridors in this subarea.

Battery Park City

Natural Features, Street Patterns, and Block Shapes

Similar to the Proposed Action in 2009, in 2015 the Proposed Action would have no impact on the natural features and block shapes of BPC. BPC would remain connected to the WTC Site primarily via Liberty and Vesey Streets and the pedestrian bridge at Liberty Street. Extending Fulton Street across the WTC Site would provide an additional visual connection to the area east of Church Street.

Streetscape

As in 2009 with the Proposed Action, BPC would face a completed streetscape along the west side of the WTC Site and the Southern Site that would be dramatically different from the underused current condition of the Project Site. Freedom Tower would be located at the north end of the WTC Site. Beyond the Memorial, three tall towers east of Greenwich Street as well as the tall tower on the Southern Site would be visible. The Proposed Action is not expected to have any impact on streetscape features in the BPC subarea under this scenario.

Building Uses, Shapes, and Forms

By 2015, the full program for the Project Site would be developed. The office, retail and institutional uses of these buildings would be consistent with building uses in the BPC subarea. The height of the proposed buildings would also be in keeping with the height of office buildings in the immediate area. A modern palette including metal and glass would be employed in the buildings' design to harmonize with the modern buildings found in BPC and the WFC and also to continue the tradition of modern evolution of building styles in the study area.

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Since the building uses, materials and architectural treatment would consider the existing urban design of the area, it is not anticipated that the Proposed Action would have an adverse impact on these urban design features.

Visual Resources and View Corridors

The many visual resources on the interior and Hudson River waterfront would not be affected by the Proposed Action. The Proposed Action with Freedom Tower, the Memorial, cultural facilities, and Liberty *Park*, would provide visual resources along the east side of BPC. The view corridor along Fulton Street would also connect BPC with Church Street and Broadway. Although the Proposed Action would limit views across the Project Site, no unique views of any visual resources would be blocked. Overall, it is not anticipated that the Proposed Action would have an adverse impact on visual resources and view corridors in this subarea.

4.3 PRE-SEPTEMBER 11 SCENARIO

4.3.1 BASELINE CONDITIONS

WTC SITE

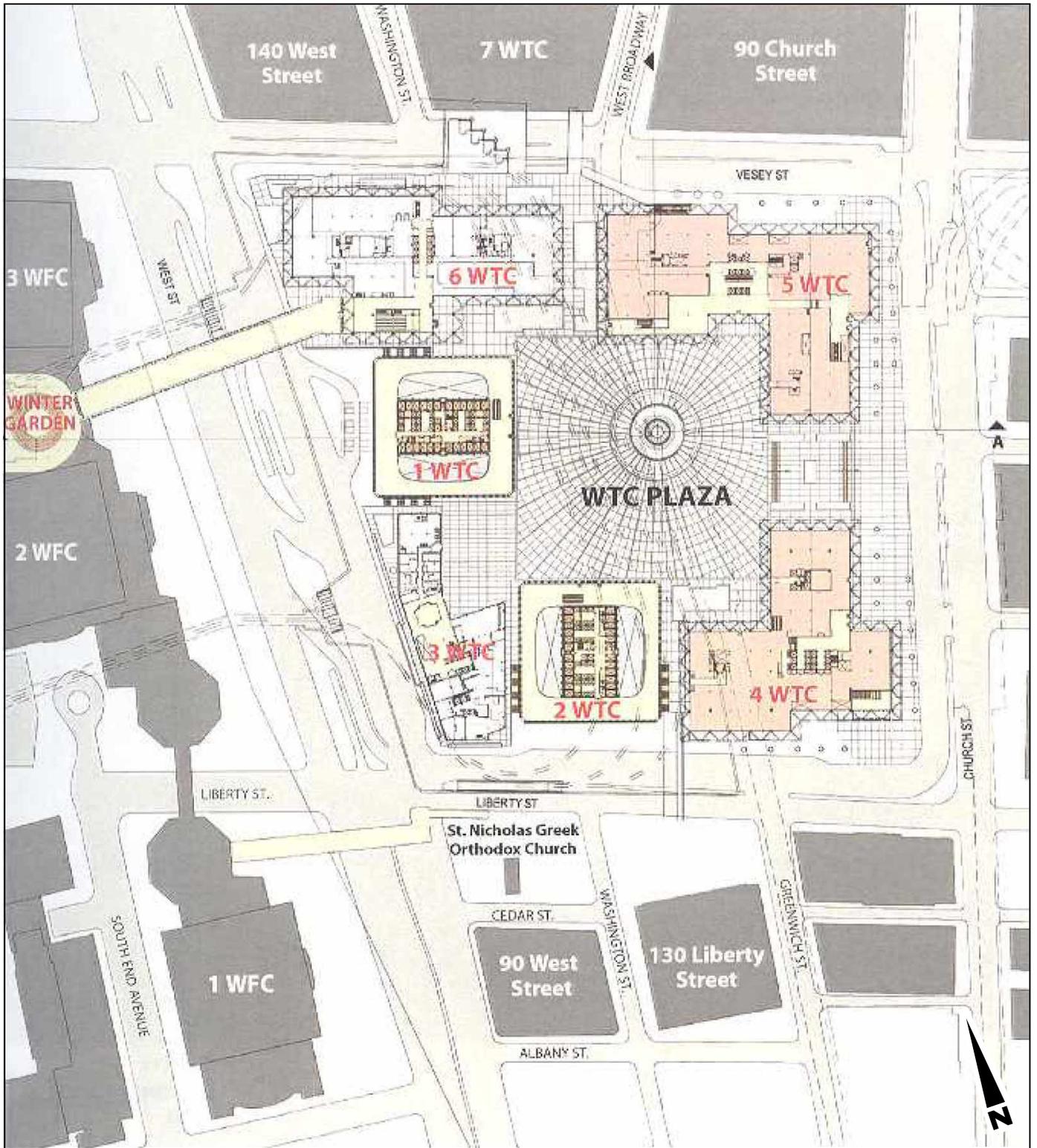
Urban Design

The WTC superblock banished the street grid when it was created (see Figure 4-10). Six buildings were located on the WTC superblock, most notably the 110-story Twin Towers (One and Two World Trade Center). These 1,350-foot tall aluminum-clad skyscrapers were the tallest buildings in New York and had a dominating presence on the New York City skyline (see Figure 4-11). The Twin Towers were prominent visual resources due to their height and modern design. Other buildings on the site were more modest in scale and were not particularly prominent visual resources. These included a 22-story hotel (Three World Trade Center), two nine-story buildings (Four and Five World Trade Center), and the eight-story U.S. Customs House (Six World Trade Center). These buildings were situated around the Austin J. Tobin Plaza, which was decorated with several sculptures (see Figure 4-12). An enclosed pedestrian bridge over Route 9A connected the WTC with the Winter Garden in the WFC. It resembled, and was wider than, the bridge that still crosses Route 9A at Liberty Street. Another shorter pedestrian bridge crossed over Vesey Street from the WTC plaza to 7 WTC.

The Southern Site comprised a parking lot, church and office building. 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. This small church stood at 155 Cedar Street, south of the WTC and was only 35 feet tall with a rooftop bell cote. 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 had a plaza with a fountain. Above this was an upper plaza level originally intended to connect to the plaza level at the WTC. Neither of these structures was considered to be an important visual resource.

Visual Resources and View Corridors

In the Pre-September 11 Scenario, the Twin Towers would still be standing and would be considered important visual resources for the study area. Tourists from around the world came to see and photograph the Twin Towers, to visit the observation deck, and to dine at Windows on the World. In addition, the Austin J. Tobin Plaza, its fountain (with the Fritz Koenig *Sphere*



Urban Design and Visual Resources
 Pre-September 11 Scenario
 Figure 4-10

Source: PANYNJ



Pre-September 11, 2001 photo showing the Twin Towers in the New York City skyline

Source: PANYNJ



Pre-September 11, 2001 photo showing the Austin J. Tobin Plaza

at its center), and other sculptures on the plaza, drew visitors. Finally, the plaza area along Church Street that had been expanded into the bed of Church Street with benches and planters served as a visual as well as an urban design amenity.

Despite its amenities, the WTC blocked view corridors. It cut off views north on Greenwich and Washington Streets, views south on West Broadway, and views west on Fulton, Dey, and Cortlandt Streets. On the Southern Site, 130 Liberty Street blocked views east and west on Cedar Street as it continues to do today.

STUDY AREA

North of WTC

By comparison to current conditions, the former 7 WTC was a 47-story building that occupied the full block between Barclay, Church, and Vesey Streets and West Broadway. North of 7 WTC, Fiterman Hall was being renovated to become a facility with classrooms, office space, a gallery, and a theater for the Borough of Manhattan Community College (BMCC).

Natural Features, Street Patterns, and Block Shapes

Greenwich Street terminated at Barclay Street because 7 WTC occupied the entire area between Washington Street on the west and West Broadway on the east. West Broadway was open to Vesey Street. Then, as now, large office buildings occupied full blocks.

Streetscape

With the exception of the area in the construction zone including the 7 WTC Site and the Barclay-Vesey Building, the streetscape was *very similar to current conditions*. However, the streetscape on the north side of 7 WTC was different because of the large truck ramp off Barclay Street that provided service access to the underground levels of the WTC. To reach this ramp trucks were lined up on the west side of West Broadway for several blocks.

Then, as now, City Hall Park, was the only green open space interrupting the street grid and the dense development.

Building Uses, Shapes, and Forms

Buildings were similar to those found today—except that there was one more tall, bulky building in the area, 7 WTC; and Fiterman Hall was not damaged. 7 WTC had a pink granite façade with band windows. Fiterman Hall had a white brick façade and band windows, and the building was actively used by BMCC even as renovations were going on. A new theater marquee had recently been installed at the corner of Greenwich Street and Park Place where the entrance to the new theater would have been.

Visual Resources and View Corridors

The Art Deco Barclay-Vesey Building was not visible from the east as views of it were blocked by 7 WTC. Views from the south of the Barclay-Vesey Building were limited by 6 WTC and 1 WTC. Elsewhere in the study area visual resources included the Woolworth Building and City Hall Park, with its fountain, sculptures, benches, trees, and lawn area.

Views south on Greenwich Street were terminated by 7 WTC and views south on West Broadway were terminated by 5 WTC. A shorter structure and set back from the street, 5 WTC allowed more light up West Broadway than 7 WTC allowed up Greenwich Street.

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Broadway Corridor

Natural Features, Street Patterns, and Block Shapes

The Broadway Corridor was very similar to current conditions in most urban design and visual respects. Thames Street was open and fewer blocks were closed to traffic in the vicinity of the New York Stock Exchange.

Streetscape

Among the pieces of street furniture, there were many fewer police barriers. Liberty Plaza had a small kiosk, modern benches, and trees.

Building Uses, Shapes, and Forms

Building uses, shapes and forms were the same pre-September 11 as they are today.

Visual Resources and View Corridors

Liberty Plaza had trees. In spite of being paved, it was a full block of green in the warm months and lights twinkled in the tree limbs during the winter holidays. There were eight metal benches; a life-sized sculpture of a man with a briefcase and umbrella sitting on one. Visitors were frequently grouped around the sculpture for photographs. Then, as now, chess games took place in the plaza. Across the plaza there were views of the WTC but not the WFC. On Cortlandt, Dey and Fulton Streets, the structures of the WTC blocked views west. Looking west on Cortlandt Street, 4 WTC was in front of Tower Two. At Dey Street the tourists were often lined up to photograph Tower One across the expanse of the plaza. Across Fulton Street the view was to 5 WTC.

Greenwich South Corridor

Natural Features, Street Patterns, and Block Shapes

With the exception of the streets closed off for reconstruction, the area was much the same prior to September 11. All of the streets, although some are quite narrow, were open to vehicular traffic.

Streetscape

Similar to the area east of Broadway, the interior streets were dark and narrow. Prior to September 11, there were two more historic lampposts than there are today.

Building Uses, Shapes, and Forms

Prior to September 11, 90 West Street—now vacant and awaiting conversion to residential use—was an active office building, and further south, 90 Washington had not been converted to residential use.

Visual Resources and View Corridors

The view corridors north along Washington and Greenwich Streets were blocked by the WTC structures Tower Two and 4 WTC, respectively. In addition, the view east and west on Cedar Street was blocked by 130 Liberty Street—a building with dark glass windows which towered over the narrow streets to the east, south, and west of it.

Battery Park City

Natural Features, Street Patterns, and Block Shapes

BPC's street natural features, street patterns and block shapes were the same prior to September 11 as they are today.

Streetscape

Prior to September 11 the main difference in BPC's streetscape was the large pedestrian bridge that connected the Winter Garden to the WTC. The WTC as well as the wide and busy Route 9A roadway separated the WFC from the streets of Lower Manhattan. Liberty and Vesey Streets were both open providing vehicular access. Liberty Street was also frequently used as a pedestrian route to the streets of Lower Manhattan.

Building Uses, Shapes, and Forms

Building, uses, shapes, and forms in BPC are the same today as they were prior to September 11.

Visual Resources and View Corridors

The buildings of the WFC were designed to harmonize with the size and design of the Twin Towers. In views of Manhattan from the Hudson River or New Jersey, the WFC buildings stepped up the height of the built environment toward the WTC towers. On the other hand, with the WTC in existence the whole facade of the WFC along Route 9A could only be seen at an oblique angle. It was also not possible to see St. Paul's Chapel and the East River Savings Bank from the WFC when the WTC existed.

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

PROJECT SITE

In the Pre-September 11 Scenario, it is assumed that the WTC Site—including the Twin Towers and related buildings—would still be standing. The Twin Towers were the most prominent buildings in the WTC and were important visual resources, not only to the study area but also for all of Lower Manhattan. Their sleek aluminum-clad facades were visible from many locations in Lower Manhattan and were the defining element of the WTC.

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 expected to be demolished, would have remained a fully occupied office building.

STUDY AREA

North of WTC Site

The Barclay-Vesey Building would remain undamaged and fully occupied. The Federal Office Building/U.S. Post Office would be open to the public and in active office and postal use. Work would have been completed on Fiterman Hall and its theater—with the marquee and entrance at the corner of Greenwich Street and Park Row—would be open. The upper floors of the Woolworth Building would have been converted to residential use. However, since all

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alterations to the building must be approved by the New York City Landmarks Preservation Commission, it is assumed that any changes on the exterior would be harmonious.

Broadway Corridor

Prior to September 11, the Fulton Street Transit Center was not a funded project. Therefore in 2009, the block on Broadway between John and Fulton Streets would still be occupied by five separate small-scale buildings ranging in height from one to 12 stories.

Greenwich South Corridor

It is expected that 90 West Street would have remained a fully occupied office building. Route 9A would not be changed from its relationship to historic structures east of the highway.

Battery Park City

No new construction was anticipated in the BPC subarea in this timeframe.

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

This analysis compares the Proposed Action to conditions that might have existed in 2009 had the events of September 11 not occurred.

PROJECT SITE

Natural Features, Street Patterns, and Block Shapes

The Proposed Action would divide the WTC Site at grade level into four separate blocks by extending Fulton Street from Church Street to Route 9A and Greenwich Street from Vesey Street to Liberty Street. While the new blocks would still be larger than the surrounding blocks they would be smaller than the 16-acre superblock. This would integrate development on the WTC Site into the urban design fabric of the neighborhood better than the former WTC Site was integrated into the neighborhood. With Fulton Street extended to Route 9A the change in grade across the site would be more apparent than it was.

On the Southern Site, Washington Street would be closed and an open space instead of a parking lot and multilevel plaza would exist between Route 9A and Greenwich Street. In addition, St. Nicholas Greek Orthodox Church would be reconstructed on the Southern Site.

Streetscape

Along the streets, both old and new, there would be a variety of new open spaces from Wedge of Light Plaza and the PATH Plaza to Liberty Park, on the south side of Liberty Street. September 11 Place would draw visitors to the center of the WTC Site where they would enter the Memorial.

With the bases of all the office buildings completed on the WTC Site, there would be much more retail frontage on the sidewalks than there was prior to September 11. Construction activities would be ongoing as the office buildings would be built in phases. The Project Site is expected to be developed with streetscape elements—such as paving, landscaping, lighting, and site furnishings—that would create a distinctive appearance across the WTC Site. Where

appropriate, trees would be introduced to create green corridors. Security needs would also be a part of the streetscape design, but would not impede the movement of pedestrians or the visual continuity of trees, lighting, and furnishings.

Building Uses, Shapes, and Forms

Overall development under the Proposed Action would be much less dense on the Project Site than it was prior to September 11—with only a single office tower of 2.6 million square feet as compared to 11.5 million square feet of office space on the WTC Site and Southern Site combined before September 11. There would be a single tower and the bases of three other buildings east of Greenwich Street. The bulk of the development would be shifted from the Southern Site and the southwest corner of the WTC Site to the northwest corner of the WTC Site. In the place of the densest development prior to September 11, there would be a Memorial

The estimated above-grade floor area on the WTC Site (office, retail, museum, and permanent WTC PATH Terminal entry) would be approximately 3,270,000 square feet, while the site area including the streets created in the former superblock would be approximately 873,195 square feet. The ratio of above-grade building floor area to site area on the WTC Site would then be approximately 3.74. On the Southern Site the open space would be created, but Tower 5 would not be constructed, and it is not yet known whether the replacement for the church destroyed on September 11 would be developed by this time. Overall development on the Project Site would be far less dense than it was prior to September 11.

Visual Resources and View Corridors

The Proposed Action would produce one major tower by 2009. Freedom Tower is designed to replace the Twin Towers in the New York City skyline. The rest of the WTC Site would also be dramatically different from the way it was prior to September 11. There would be a variety of new open spaces designed and built for a variety of uses. These would be easily accessible from the sidewalks and attractively designed. The open spaces would establish a site-wide identity for the Proposed Action, while at the same time relating to surrounding streets and neighborhoods. The retail bases of the Towers on the east side of the WTC Site would be designed to create lively, pedestrian-oriented streets with open spaces. The bases of the towers are intended to establish a street edge, create a relationship with adjacent buildings, and provide an appropriately scaled pedestrian zone.

By 2009 there would also be a Memorial, *the Memorial Center*, and a performing arts facility. The Memorial would respect the WTC as a place of remembrance. It would also be a focal point of the Proposed Action as a whole and a significant new visual resource for Lower Manhattan.

By extending Greenwich Street through the WTC Site, the Proposed Action would recreate the Greenwich Street view corridor. By extending Fulton Street through the site, there would be a view from Church Street through to the WTC. With the open spaces along Fulton Street, Wedge of Light Plaza, September 11 Place, and *the PATH Plaza*, the view corridor would be wider, improving the visual connection across the WTC Site.

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STUDY AREA

North of WTC Site

Natural Features, Street Patterns, and Block Shapes

With Greenwich Street extended through the WTC Site, the Proposed Action would relate better to the street patterns and block shapes of the North of WTC Site subarea and serve to reintegrate development on the WTC Site into the surrounding area. As described in the Current Conditions Scenario, no other impacts to natural features, street patterns and block shapes would be anticipated.

Streetscape

Active uses at ground level on the WTC Site would also face north toward this part of the study area. In particular, the base of Freedom Tower (where visitors would come to go to the observation decks) would replace what was a massive black granite wall fronting Vesey Street and Route 9A at the base of 6 WTC. As described in the Current Conditions Scenario, no other impacts to streetscape features would be anticipated.

Building Uses, Shapes, and Forms

The proposed uses in Freedom Tower, commercial office space along with observation decks, and even the television and radio broadcast facilities, would be in keeping with the uses at the former WTC Site and with the uses in the North of WTC Site subarea. Similarly, the height and form of Freedom Tower would be in keeping with the tradition of modern design development exemplified in the Barclay-Vesey Building. As described in the Current Conditions Scenario, no other impacts to building uses, shapes and forms would be anticipated.

Visual Resources and View Corridors

Reopening the Greenwich Street view corridor, which would connect both Greenwich Street and West Broadway in the North of WTC Site subarea through the WTC Site, would be an important benefit of the Proposed Action. Freedom Tower would be a prominent new feature in the New York City skyline.

Broadway Corridor

Natural Features, Street Patterns, and Block Shapes

With Fulton Street extended through the WTC Site, the Proposed Action would relate better to the street patterns and block shapes of the Broadway Corridor and serve to reintegrate development on the WTC Site into the surrounding area, particularly the area along Fulton Street. The two individual office and retail structures proposed along Church Street would relate well to the individual structures on the east side of Church Street. As described in the Current Conditions Scenario, no other impacts to natural features, street patterns and block shapes would be anticipated.

Streetscape

The buildings along the east side of Church Street between Dey and Liberty Street would face into other buildings rather than into a large open space along Church Street and the WTC plaza beyond that as they did prior to September 11. At Fulton Street, the Proposed Action would

provide Wedge of Light Plaza opposite the Millenium *Hilton* Hotel and graveyard of St Paul's Chapel.

The buildings proposed along Church Street would provide active uses facing the existing development. In particular, retail uses would face existing retail and hotel uses. Pedestrian lighting and street furnishings would be used to create a human scale, as Church Street would be heavily used by commuters and shoppers. As described in the Current Conditions Scenario, no other impacts to streetscape features would be anticipated.

Building Uses, Shapes, and Forms

The proposed retail uses would be in keeping with existing retail uses in the Broadway Corridor. While the forms of the buildings would not be as rectangular as the existing buildings, in being individual structures rather than a single connected structure, they would be more similar to the neighboring blocks than the former WTC. With only their bases complete, these buildings would be in keeping with the height of the shorter buildings in the area such as the *former* East River Savings Bank rather than the taller buildings such as the Millenium *Hilton* Hotel and One Liberty Plaza. As described in the Current Conditions Scenario, no other impacts to building uses, shapes and forms would be anticipated.

Visual Resources and View Corridors

Creating Wedge of Light Plaza would complement the open space of St. Paul's Chapel graveyard and the plaza at the Millenium *Hilton* Hotel. Reopening the Fulton Street view corridor, which would connect the Broadway Corridor to the WFC, would be an important benefit of the Proposed Action.

Greenwich South Corridor

Natural Features, Street Patterns, and Block Shapes

With Greenwich Street extended through the WTC Site, the Proposed Action would reconnect the Greenwich South Corridor to the North of WTC area and Tribeca. The new section of Greenwich Street would serve to reintegrate the urban fabric south of the Project Site. The Greenwich South Corridor would no longer be isolated. Although creating the new open space on the Southern Site would require closing a block of Washington Street, a block of Cedar Street would be reopened between Washington and Greenwich Streets. The smaller sizes of the blocks on the WTC Site and the expanded block on the Southern Site being used to create an open space would help integrate the Project Site with the built fabric in the Greenwich South Corridor. As described in the Current Conditions Scenario, no other impacts to natural features, street patterns and block shapes would be anticipated.

Streetscape

By comparison to pre-September 11 conditions, the north block of the Greenwich South Corridor between Church Street and Greenwich Street would no longer face a largely open corner but would face a block developed with the retail base of a future tower. On the northwest corner of this subarea, 90 West Street would no longer overlook a parking lot, but instead would overlook an open space. As described in the Current Conditions Scenario, no other impacts to streetscape features would be anticipated.

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Building Uses, Shapes, and Forms

The proposed retail use at the southeast corner of the WTC Site would face small food shops on the south side of Liberty Street. With only its base complete, this building would be in keeping with the height of the shorter buildings across Liberty Street. As described in the Current Conditions Scenario, no other impacts to building uses, shapes and forms would be anticipated.

Visual Resources and View Corridors

Creating Liberty *Park* would be a major visual resource for the Greenwich South Corridor. The view corridor up Greenwich Street would be opened by the Proposed Action and the Washington Street view corridor would remain open to Liberty Street. Beyond Liberty Street, this view corridor would encompass the cultural buildings around the Memorial as well as Freedom Tower beyond the Memorial area.

Battery Park City

Natural Features, Street Patterns, and Block Shapes

The Proposed Action would have no impact on the natural features and block shapes of BPC. The WTC Site and BPC would remain connected primarily via Liberty and Vesey Streets at ground level and via a pedestrian bridge at Liberty Street. However, extending Fulton Street across the WTC Site would provide an additional visual connection between BPC, specifically the WFC, and the area east of Church Street which did not exist prior to September 11.

Streetscape

By 2009 with the Proposed Action, BPC would face a completed streetscape along the west side of the WTC Site and the Southern Site that would be dramatically different from the pre-September 11 streetscape. There would be a single taller tower at the north end of the WTC Site. South of Fulton Street, the Memorial would be an open space where the Twin Towers once stood, and the cultural facilities around the Memorial would be lower buildings as compared to those of the WTC.

Building Uses, Shapes, and Forms

The cultural and performing arts uses that would be complete in 2009 would complement the office and residential uses in BPC. Freedom Tower with office and retail uses would be similar to uses in the WFC. It would be in keeping with the size and design of towers located within the WFC and would also help unify them with the remainder of the study area. The modern structures of the WFC served to soften the height of the Twin Towers, and now stand isolated across from the underused WTC Site. Freedom Tower would restore the skyline seen behind the WFC buildings, while the cultural facilities would be located around the Memorial.

Visual Resources and View Corridors

BPC has many visual resources on its interior and along the Hudson River that would not be affected by the Proposed Action. The Proposed Action with Freedom Tower, the Memorial, the cultural facilities, and Liberty *Park*, would provide visual resources along the east side of BPC. The view corridor along Fulton Street would also connect BPC with Church Street and Broadway.

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

PROJECT SITE

In the Pre-September 11 Scenario, it is assumed that the WTC Site—including the Twin Towers and related buildings and the PATH terminal inside—would still be standing. 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 would have remained a fully occupied office building.

STUDY AREA

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.

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

This analysis compares the Proposed Action to conditions that might have existed in 2015 had the events of September 11 not occurred.

PROJECT SITE

By 2015 the Proposed Action would completely redevelop the WTC Site and the Southern Site. All construction would be complete on the Project Site. In addition to the Memorial, *the Memorial Center*, cultural facilities, Freedom Tower, the retail bases of the three towers east of Greenwich Street, and the open spaces, all the office towers and the hotel and conference facility would be complete.

Natural Features, Street Patterns, and Block Shapes

Similar to the impacts anticipated in 2009, the Proposed Action would divide the WTC Site at grade level into four separate blocks by extending Fulton and Greenwich Streets. The new blocks would be closer in size to the surrounding blocks and much smaller than the 16-acre superblock. This would better integrate development on the WTC Site into the urban design fabric of the neighborhood. With Fulton Street extended to Route 9A the change in grade across the site would be more apparent.

On the Southern Site, Washington Street would be closed and an open space, instead of a parking lot and multilevel plaza, would exist between Route 9A and Greenwich Street.

Streetscape

Along the streets there would be new open spaces as described for the Proposed Action in 2009. September 11 Place would draw visitors to the center of the WTC Site where they would enter the Memorial. In addition to Freedom Tower and the retail bases of three office buildings, the

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office towers themselves would be completed. Much taller buildings would line Church Street than existed prior to September 11. The predominance of retail uses at the bases of the buildings would promote a continuous line of activity at the streets, consistent with street activity in the study area. The form of the towers would maximize daylight along the street.

Building Uses, Shapes, and Forms

Development would be less dense on the Project Site than it was prior to September 11—with only 10 million square feet of office space as compared to approximately 11.7 million square feet of office space on the WTC Site and Southern Site combined in 2015. There would be five office towers as compared to three. One of the new office towers, Freedom Tower, would reach a pinnacle far taller than the Twin Towers. The bulk of the development would be shifted from the southwest corner of the WTC Site to circle the site from northwest to the south in order to create the Memorial.

With completion of the Proposed Action, the estimated above-grade floor area (office, retail, museum, cultural facilities, and permanent WTC PATH Terminal entry) on the WTC Site would be approximately 10,140,120 square feet. (By comparison, there were approximately 10 million square feet of office space alone plus a hotel and some above-grade retail on the WTC Site prior to September 11.) The ratio of above-grade built floor area to site area on the WTC Site (approximately 873,195 square feet) would then be approximately 11.5.

On the Southern Site the open space would be created, Tower 5 would be completed, and it assumed that the replacement for the church destroyed on September 11 would be developed. The estimated above-grade floor area (office, retail, and institutional use) on the Southern Site would be approximately 1,641,200 square feet, while the site area (inside the curb line and not including the recreated bed of Cedar Street) would be approximately 100,845 square feet. The ratio of above-grade floor area (office, retail, and institutional) to site area on the Southern Site would then be approximately 16.27. This would bring the ratio of above-grade floor area of the overall Project Site to 12.07.

Visual Resources and View Corridors

The Proposed Action would produce five major towers by 2015. Freedom Tower is designed to replace the Twin Towers in the skyline and would be the culminating point of the spiraling composition of towers on the Project Site. As contemplated, the height and crown of each tower would be related to one another, and would form an overall composition of proportioned buildings in the skyline. The form of the towers would reduce massing and density between them and would maximize daylight to adjacent buildings and streets. As described in the Current Conditions Scenario for the Proposed Action in 2009, there would be a variety of new open spaces that would be visual amenities. The Memorial would be an important public space and it is anticipated that it would also become an important visual resource.

By extending Greenwich Street through the WTC Site, the Proposed Action would recreate the Greenwich Street view corridor. By extending Fulton Street through the site, there would be a view from Church Street through to the WTC. With the open spaces along Fulton Street, Wedge of Light Plaza and *the PATH Plaza*, the view corridor would be wider, improving the visual connection across the WTC Site.

STUDY AREA

North of WTC Site

Natural Features, Street Patterns, and Block Shapes

With Greenwich Street extended through the WTC Site, the Proposed Action would relate better to the street patterns and block shapes in the North of WTC Site subarea and serve to reintegrate development on the WTC Site into the surrounding area. Thus, no impacts to natural features, street patterns and block shapes would be anticipated.

Streetscape

Active uses at ground level on the WTC Site would also face north toward this part of the study area. In particular, the base of Freedom Tower where visitors would come to go to the observation decks and garden would replace what was the blank wall at the base of 6 WTC. The new hotel at the corner of Vesey and Greenwich Streets would replace what had been an open street corner with a 25-story building. Vesey Street is an important east-west corridor, and trees would play an important role in creating a pedestrian scale adjacent to the proposed towers. Trees would also develop a green connection between City Hall Park, St. Paul's Chapel, and BPC. Thus, no impacts to streetscape features would be anticipated.

Building Uses, Shapes, and Forms

The proposed uses, including commercial office and retail space along with a hotel and conference facilities, would be in keeping with the uses at the former WTC Site and with the uses in the North of WTC Site area. The new performing arts center would support both commercial and residential uses in the area. Similarly the height and form of Freedom Tower and the tower and hotel on the northeast quadrant would be in keeping with the tradition of modern design development exemplified in the Barclay-Vesey Building. Thus, no impacts to building uses, shapes and forms would be anticipated.

Visual Resources and View Corridors

Reopening the Greenwich Street view corridor, which would connect both Greenwich Street and West Broadway in the North of WTC Site subarea through the WTC Site, would be an important benefit of the Proposed Action.

Broadway Corridor

Natural Features, Street Patterns, and Block Shapes

With Fulton Street extended through the WTC Site, the Proposed Action would relate better to the street patterns and block shapes of the Broadway Corridor and serve to reintegrate development on the WTC Site into the surrounding area, particularly the area along Fulton Street. The two individual office and retail structures proposed along Church Street would relate well to the individual structures on the east side of Church Street. The proposed hotel would overlook St. Paul's graveyard. The graveyard had previously faced a wide plaza on the WTC Site. Thus, no impacts to natural features, street patterns and block shapes would be anticipated.

Streetscape

The buildings along the east side of Church Street between Dey and Liberty Street would face into two tall buildings rather than into a large open space along Church Street and the WTC

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plaza beyond that—as they did prior to September 11. At Fulton Street, the Proposed Action would provide Wedge of Light Plaza opposite the Millennium *Hilton* Hotel and graveyard of St Paul’s Chapel.

The buildings proposed along Church Street would provide active uses facing the existing development. In particular, retail and office uses would face existing retail and hotel uses. Pedestrian lighting and street furnishings would be used to create a human scale, as Church Street would be heavily used by commuters and shoppers. Thus, no impacts to streetscape features would be anticipated.

Building Uses, Shapes, and Forms

The proposed retail and office uses would be in keeping with existing retail and office uses in the Broadway Corridor. While the forms of the buildings would not be as rectangular as the existing buildings, in being individual structures rather than a single connected structure, they would be more similar to the neighboring blocks than the former WTC. With their tower complete, these buildings would be taller than surrounding office towers and much taller than the former East River Savings Bank. However, the retail bases of the office towers would be closer in height to the four-story bank building. Thus, no impacts to building uses, shapes and forms would be anticipated.

Visual Resources and View Corridors

The new hotel and office towers would be unique architectural forms. The hotel would be a mid-rise tower. Towers Three and Four would be located along Church Street and would be designed with heights spiraling down to form an overall composition. The tower component of the massing for each building would have a smaller footprint than the building base and the towers would be oriented along different streets, thus maximizing daylight and views.

Creating Wedge of Light Plaza would complement the open space of St. Paul’s Chapel graveyard and the plaza at the Millennium *Hilton* Hotel. Reopening the Fulton Street view corridor, which would connect the Broadway Corridor to the WFC, would be an important benefit of the Proposed Action.

Greenwich South Corridor

Natural Features, Street Patterns, and Block Shapes

With Greenwich Street extended through the WTC Site, the Proposed Action would reconnect the Greenwich South Corridor to the North of WTC area and Tribeca. The new section of Greenwich Street would serve to reintegrate the urban fabric south of the Project Site. The smaller sizes of the blocks on the WTC Site and the expanded block on the Southern Site would be used to create an open space, which would help integrate the Project Site with the built fabric in the Greenwich South Corridor. Thus, no impacts to natural features, street patterns and block shapes would be anticipated.

Streetscape

The portions of the Proposed Action immediately adjacent to the Greenwich South Corridor would be the office tower at the corner of Liberty and Church Streets, the office tower on the Southern Site and *Liberty Park*. The retail bases of the office towers would create lively, pedestrian-oriented streets. *The creation of Liberty Park* would provide an opportunity to connect to the open spaces of BPC, while also serving workers and residents in the surrounding area.

By comparison to pre-September 11 conditions, the north block of the Greenwich South Corridor between Church and Greenwich Streets would no longer face a largely open corner but would face a block developed with a very tall office tower. On the northwest corner of this subarea, 90 West Street would no longer overlook a parking lot, but instead would overlook an open space. Thus, no impacts to streetscape features would be anticipated.

Building Uses, Shapes, and Forms

A tall office building at the southeast corner of the WTC Site would face small scale buildings on the south side of Liberty Street. With its tower complete, this building would be far taller than the buildings across Liberty Street in the Greenwich South Corridor. By comparison to pre-September 11 conditions this office tower would replace the open space at the corner of the WTC Site where the Green Market was located twice a week.

The office tower on the Southern Site would also be much taller than its surroundings. However, 140 Liberty Street, the building that it would replace, is also much taller than its surroundings. So by comparison to pre-September 11 conditions, this does not create a major change. Thus, no impacts to building uses, shapes and forms would be anticipated.

Visual Resources and View Corridors

Liberty *Park* would be a major visual resource for the Greenwich South Corridor. The view corridor up Greenwich Street would be opened by the Proposed Action and the Washington Street view corridor would remain open to Liberty Street. Beyond Liberty Street, this view corridor would encompass the cultural buildings around the Memorial as well as Freedom Tower beyond the Memorial area.

Battery Park City

Natural Features, Street Patterns, and Block Shapes

Similar to the Proposed Action in 2009, in 2015 the Proposed Action would have no impact on the natural features and block shapes of BPC. BPC would remain connected to the WTC Site primarily via Liberty and Vesey Streets and the pedestrian bridge at Liberty Street. Extending Fulton Street across the WTC Site would provide an additional visual connection to the area east of Church Street. This latter connection did not exist with the former WTC in place.

Streetscape

As in 2009 with the Proposed Action, BPC would face a completed streetscape along the west side of the WTC Site and the Southern Site that would be dramatically different from the pre-September 11 streetscape. There would be a single taller tower at the north end of the WTC Site. Beyond the Memorial, three tall towers east of Greenwich Street as well as the tall tower on the Southern Site would be visible.

Building Uses, Shapes, and Forms

The office and retail uses would be similar to uses in the WFC. The cultural and performing arts uses would complement the office and residential uses in BPC. Freedom Tower was designed to restore the skyline seen behind the WFC buildings. The four additional towers to be complete by 2015 are also intended to be distinctive elements in the skyline. The height of the proposed buildings would also be in keeping with the height of office buildings in the immediate area. A modern palette including metal and glass would be employed in the buildings' design to

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harmonize with the modern buildings found in BPC and the WFC and also to continue the tradition of modern evolution of building styles in the study area.

Since the building uses, materials and architectural treatment would consider the existing urban design of the area, it is not anticipated that the Proposed Action would have an adverse impact on these urban design features.

Visual Resources and View Corridors

The many visual resources on the interior and Hudson River waterfront would not be affected by the Proposed Action. The Proposed Action with Freedom Tower, the Memorial, *the Memorial Center* and cultural facilities, and *Liberty Park*, would provide visual resources along the east side of BPC. The view corridor along Fulton Street would also connect BPC with Church Street and Broadway. *