

4.5 HISTORIC RESOURCES

4.5.1 Introduction

This Section assesses the potential effects of the construction and operation of proposed Shaft 33B at the preferred Shaft Site on historic resources, which include archaeological and architectural resources.

As described in Section 3.5, “Historic Resources,” in Chapter 3, “Impact Methodologies,” the area of potential effect for archaeological resources is the area that would be disturbed for the proposed project, in this case the location of proposed Shaft 33B at the preferred Shaft Site, at the base of the Queensboro Bridge on E. 59th Street and First Avenue. Since the area of potential project impacts for architectural resources could be larger to account for both physical and visual effects, the study area for known architectural resources has been defined as the area within 400 feet of the preferred Shaft Site, as recommended in the *CEQR Technical Manual*. In addition, a site visit was undertaken to determine if there were any properties located within 100 feet of the preferred Shaft 33B Site that appear to meet criteria for listing on the State and National Registers of Historic Places (S/NR) or for designation as a New York City Landmarks (NYCL).

The New York City Landmarks Preservation Commission (NYCLPC) reviewed the Draft EIS, the Phase IA Historic Resources Assessment, and the Addendum to the Phase IA. In letters dated November 23, 2005, NYCLPC concurred with the Draft EIS text and with the conclusions of the Phase IA reports.

4.5.2 Existing Conditions

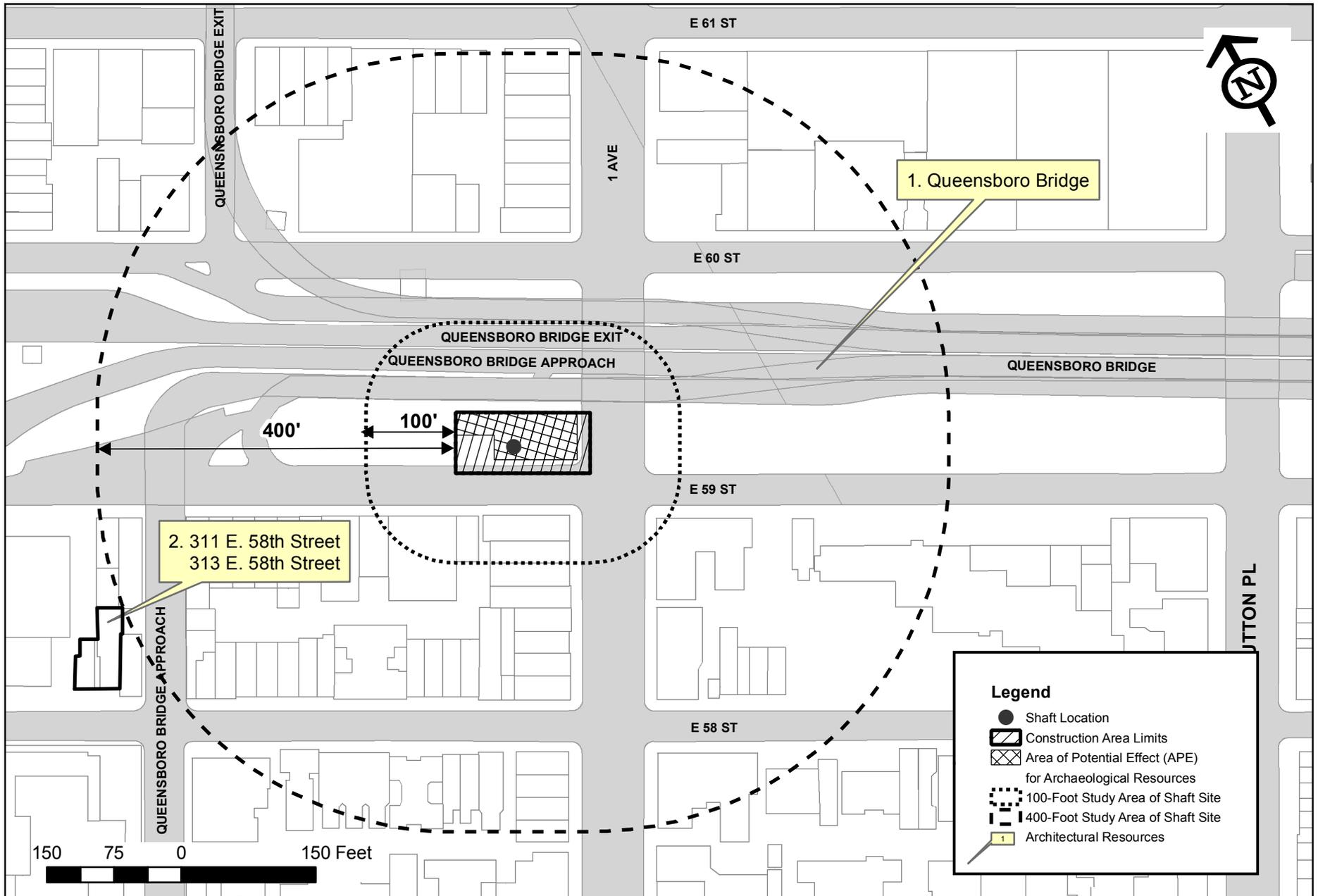
Archaeological Resources

This analysis evaluates the potential for buried archaeological resources to be present within the area of potential effect at the preferred Shaft Site (Figure 4.5-1).¹ Archaeological resources consist of the physical remains, usually buried, of past human activities. In the New York City area these can include remains associated with Native American and historic-period activities.

Potential Native American Resources

As a result of subsequent development, archaeological sites frequently have been destroyed or disturbed to the extent where they have lost their integrity and, accordingly, are no longer eligible for inclusion on the S/NR. However, archaeological sites may survive on sites where

¹ This section summarizes the archaeological resources assessment prepared for the project, contained in *Phase IA Historic Resources Assessment of the Proposed City Tunnel Number 3, Stage 2 Manhattan Leg, Shaft 33B Project Area, Borough of Manhattan, New York City, New York*, prepared by Eugene J. Boesch, October 14, 2005 (Appendix 5).



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**NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
 PROPOSED SHAFT 33B TO CITY TUNNEL NO. 3
 STAGE 2 - MANHATTAN LEG
 PREFERRED SHAFT SITE
 HISTORIC RESOURCES**

FIGURE 4.5-1

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later buildings had shallow basements or where extensive fill was deposited prior to development, effectively preserving and protecting the resource.

The environmental settings of previously identified Native American sites in the New York City area indicate that the locations preferred for occupation and use typically include areas of high ground in proximity to a fresh water pond, stream, or wetland and near tidal inlets and coves. Intensive development within the metropolitan area has resulted in the destruction of most Native American sites. Accordingly, any sites that are identified would have value and likely would be eligible for inclusion on the S/NR.

Although Native American sites have not been recorded specifically for the preferred Shaft Site, evidence of Native American activities has previously been recorded in the vicinity. The nearest known evidence of activity is recorded in the archaeological site files of the New York State Museum (NYSM) as generally located in the area extending between E. 45th and E. 70th Streets from the East River shoreline to Second Avenue, which includes the preferred Shaft 33B Site (NYSM Site No. 4061).

Although the preferred Shaft Site, located at the base of the Queensboro Bridge (Bridge) at E. 59th Street and First Avenue, is within the general area identified as containing traces of Native American occupation in the archaeological site files of NYSM Site No. 4061, a freshwater source apparently was not located in its immediate proximity. Accordingly, the area did not formerly possess environmental characteristics that would indicate that it could have been attractive for Native American use. Moreover, any Native American sites that were present would have been destroyed by the extensive disturbance associated with construction of the Bridge between 1901 and 1908 and the new Bridge approach in 1930. Accordingly, the preferred Shaft Site is not considered to be sensitive for Native American archaeological resources.

Potential Historic-Period Archaeological Resources

Archaeological sites dating to the historic period also have potential value for the information that they may provide on the behavior patterns and activities of previous inhabitants or about important historic events. Historic-period archaeological sites in the New York City area may date from the period of initial Dutch and English colonization during the 17th century through the early 20th century. They may consist of structural remains and deposits associated with activities occurring at former dwellings, schools, workplaces, shops, industries, etc, including subsurface shaft features such as wells, privies, and cisterns. They also may reflect activities associated with American Revolutionary War events. Human burials dating from the 17th to early 20th century also are considered valuable archaeological resources.

Historic-period archaeological sites may be determined to be significant and, therefore, eligible for listing on the New York State and National Registers of Historic Places, if they retain integrity and have the potential to contribute to knowledge about the past. Typically sites pre-dating the late 19th century, the period when municipal water and sewer services began to be installed in New York City, have the greatest potential to be deemed significant. Although the preferred Shaft 33B Site is not located within a recorded historic-period burial ground,

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unrecorded or forgotten burial grounds, individual interments, or disarticulated human remains could exist. Intact human interments likely would be eligible for inclusion on the S/NR.

During the 17th and 18th centuries, what is now Midtown Manhattan, including the preferred Shaft 33B Site, consisted primarily of an undulating landscape covered by woodlands, freshwater streams, and wetlands. A few farms, the country estates of wealthy individuals, were widely scattered within the area beginning in the late 17th century. The establishment of the Boston Post Road through the area was the first major development allowing relative ease of access between the farmsteads and the settlement at lower Manhattan. This section of the road was constructed between 1669 and 1671 and was referred to as the Eastern Post Road. The road roughly followed the current route of Third Avenue until about what is now E. 50th Street, where it made a bend to the northeast before rejoining its Third Avenue route around E. 66th Street. The road formerly passed to the east of the preferred Shaft 33B Site (E. 59th Street and First Avenue). Most of the farm buildings in the Study Area vicinity during the late 17th to early 19th century were located along this roadway or closer to the East River shoreline.

Following the Revolutionary War, the New York City Common Council voted to survey the Midtown area and divide it into lots for sale. People began to move northward into the area, establishing farmsteads there. Growth resulted in the establishment of a small hamlet, known as Yorkville, north of E. 60th Street to E. 96th Street and east of Third Avenue.

By the early 19th century, Midtown Manhattan was emerging as a diverse but still primarily rural landscape with some estates located east of Second Avenue and extending to the East River shoreline, limited commercial and residential dwellings scattered along or near the Eastern Post Road, and the hamlet of Yorkville to the north. By the second third of the 19th century, Midtown was quickly transforming from a rural to a suburban community, which soon changed again into an urban area. Rapid growth resulted in the establishment of commercial and industrial ventures and class segregated neighborhoods in some locations while large estates remained in other areas.

The advent of the Civil War slowed growth in the Midtown region as well as in New York City generally. By the post Civil War period, the Midtown area had become fully urban, consisting of a mix of residential, commercial, and industrial buildings. Among the businesses located in the area were slaughter houses, gas and coal yards, breweries, glass manufacturers, an ink factory, a rope walk, and piano manufacturers to list a few. By 1880, the elevated train (the “El”) had been constructed along Second Avenue, as well as along Third, Sixth, and Ninth Avenues, contributing to the growth of Midtown Manhattan. The mix of commercial, industrial, and residential buildings within Midtown continued through the late 19th and 20th century period.

Soon after the end of the Civil War, a movement arose to construct a number of bridges across the East River to better connect Manhattan with the City of Brooklyn and the farms of Queens and Long Island. The Brooklyn Bridge was the first of these spans built, opening in 1883. Six years earlier (1877), plans had been proposed to construct another bridge at Blackwell’s (now Roosevelt) Island, spanning the East River between New York and Queens. Twenty-four years later, in 1901, construction on a bridge at that location finally commenced. Construction of the bridge, referred to as the Queensboro Bridge and also known as the 59th Street Bridge, ended

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seven years later in 1908 with the span opened to train traffic. One year later, it was opened to pedestrian and vehicle traffic the next year. A new approach to the Bridge on the Manhattan side east of Second Avenue was constructed in 1930.

In the location of the preferred Shaft Site, what apparently was a residence was built sometime between 1836 and 1851. Municipal water was not installed below local streets as of 1851 suggesting that cisterns and wells, and privies would likely have been associated with the dwelling, most probably located within its former back yard. By 1892, tenements and what likely was a factory had replaced the residence on the preferred Shaft Site.

Archaeological deposits and structural remains associated with the occupation of the residential structure on the preferred Shaft 33B site are not likely to remain. Construction of late 19th century tenement and factory buildings, and the subsequent construction of the Queensboro Bridge between 1901 and 1908, and the new Bridge approach in 1930, extensively impacted this site, destroying or extensively disturbing any archaeological resources, if they existed, on the site. Figure 4.5-2 illustrates construction work on the Queensboro Bridge in the vicinity of the preferred Shaft Site. Accordingly, the preferred Shaft 33B Site is not considered to be sensitive for historic-period archaeological resources.

Architectural Resources

There are no architectural resources on the vacant preferred Shaft Site. The Study Area contains one architectural resource, the Queensboro Bridge, immediately adjacent to the preferred Shaft Site. To the west of the Study Area are two historic structures, 311 and 313 E. 58th Street. These are listed in Table 4.5-1 and mapped on Figure 4.5-1. Each resource is described below.

Table 4.5-1
Architectural Resources
Within the Preferred Shaft Site Study Area

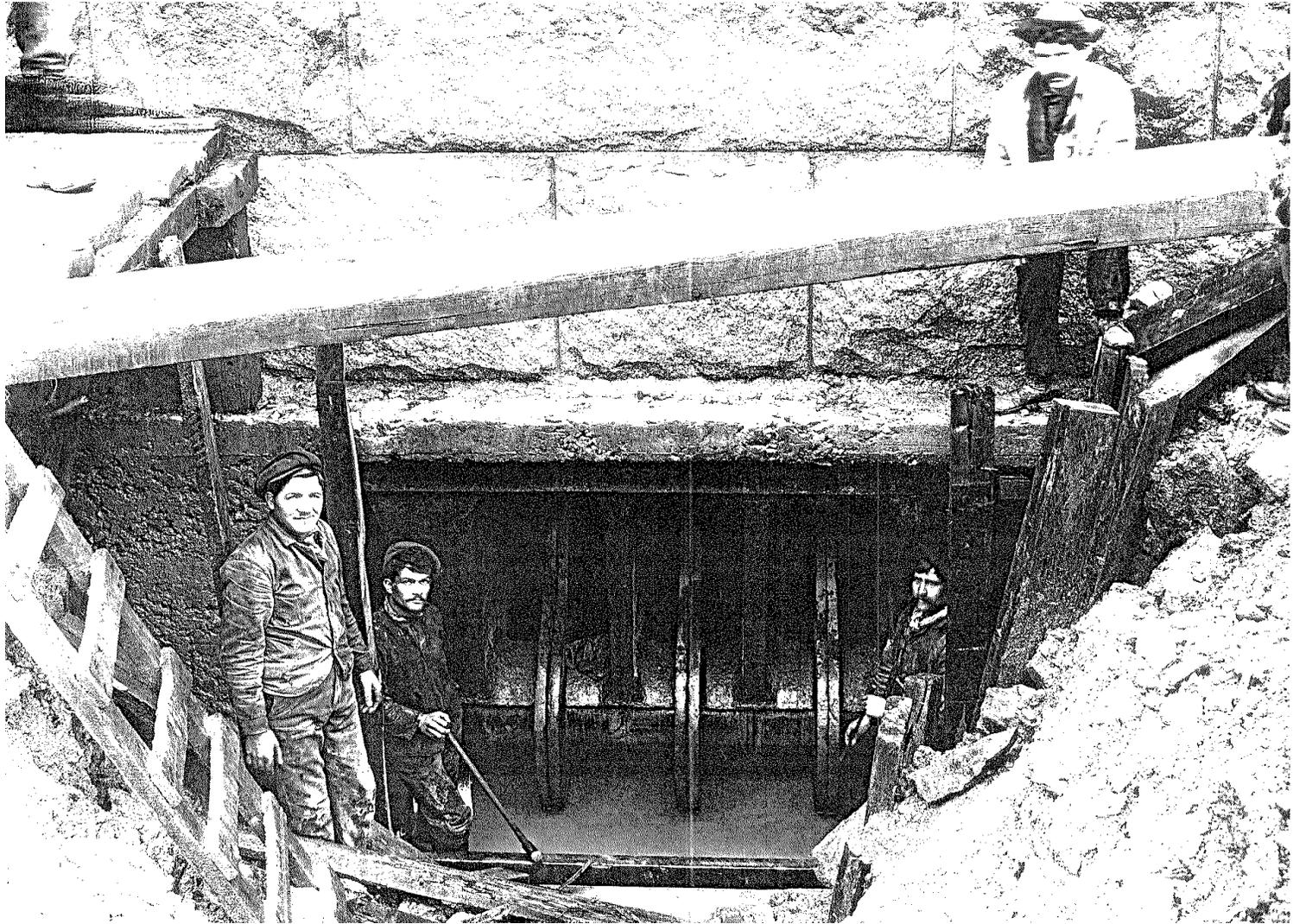
Map Number*	Historic Property	S/NR Listed	S/NR Eligible	NYCLPC Designated
1	Queensboro Bridge	Yes	—	Yes
2	311 and 313 E. 58 th St. dwellings	Yes	—	Yes

Note: * Corresponds to Figure 4.5-1.

In addition, a site visit was undertaken within 100 feet of the preferred Shaft Site by a professional architectural historian to determine if there are any architectural resources that may appear to meet criteria for listing on the S/NR and NYCL designation. No potential architectural resources were identified in the Study Area.

Queensboro Bridge

The Queensboro Bridge spans the East River between E. 59th and E. 60th Streets and Second Avenue in Manhattan and 11th Street and Bridge Plaza North and Bridge Plaza South in the



CONSTRUCTION EXCAVATION NEAR MANHATTAN APPROACH
SOURCE: NEW YORK CITY MUNICIPAL ARCHIVES n.d.



NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
PROPOSED SHAFT 33B TO CITY WATER TUNNEL NO. 3
STAGE 2 – MANHATTAN LEG
PREFERRED SHAFT SITE
1901-1908 CONSTRUCTION OF THE QUEENSBORO BRIDGE

FIGURE 4.5-2

Borough of Queens. The Bridge is a 4,168-foot-long double-span, through-cantilever truss bridge of steel frame on masonry piers with Beaux-Arts stone approaches that was constructed between 1901 and 1908. A new approach to the Bridge on the Manhattan side was constructed east of Second Avenue in 1930. The Bridge was designed by the engineer Gustav Lindenthal and the architect Henry Hornbostel. The large vaulted space beneath the Manhattan approaches to the Bridge, which was originally used for a public market, was designed by Raphael Guastavino, a famed engineer and contractor. The arches beneath the Bridge are faced with Guastavino tiles, a system of self-supporting arches using interlocking terracotta tiles that was invented by Guastavino. When the Bridge first opened, four railroad tracks for the Second Avenue elevated train extended across the upper level, and four trolley tracks and a roadway ran on the lower level. The NYCLPC designation report states that the Bridge possesses “a special character, special historic and aesthetic interest and value as part of the development, heritage and cultural characteristics of New York City.” It further states that the Bridge is a “notable engineering achievement, that it was an essential factor in the development of the Borough of Queens, that it is a Landmark known to countless New Yorkers and that it is a magnificent element in the skyline of the City.”²

Houses at 311 and 313 E. 58th Street

Just west of the 400-foot Study Area boundary, these two structures are modest vernacular brick residences with Italianate details. The structures, built by Hiram G. Disbrow in 1856-1857, are excellent examples of the modest semi-suburban houses that formerly lined uptown side streets during the mid-19th century. Number 311 is three bays wide and has double-hung windows with muntined sash and plain lintels. A molded cornice supported by four scroll brackets crowns the building. Number 313 is similar in appearance to its neighbor at Number 311, but slightly more elaborate, featuring a full-length wooden porch with dentilled cornice. The NYCLPC designation reports for the buildings state that they possess a “special character, special historical and aesthetic interest and value as part of the development, heritage and cultural characteristics of New York City.”³ The reports further state that the “dwellings are carefully preserved, dignified examples, and charming reminders of the residential architecture of a bygone day, having withstood the changes occurring in the surrounding neighborhood.”

4.5.3 Future Conditions Without the Project

Archaeological Resources

In the Future Without the Project, no subsurface disturbance is expected to occur on the preferred Shaft 33B Site. In any case, the site has been determined not sensitive for archaeological resources.

² Source: New York City Landmarks Preservation Commission designation report, 1973.

³ Source: New York City Landmarks Preservation Commission designation reports for 311 and 313 E. 58th Street, 1969, 1970.

Architectural Resources

The ongoing Queensboro Bridge Rehabilitation Program will directly affect the historic Bridge. This project, being undertaken by the New York City Department of Transportation (NYCDOT), involves reconstruction and rehabilitation of the Bridge, including repairing the underside of the E. 59th Street overpass to the south upper roadway, cleaning and painting the Bridge, reconfiguration of the Bridge's bikeway, and rebuilding of the Bridge's anchor piers. As described in Section 4.2, "Land Use, Community Facilities, Zoning, and Public Policy," NYCDOT will continue to use the area under the Bridge as well as the fenced portion of the preferred Shaft Site for Bridge maintenance activities. No other changes have been identified that would directly affect architectural resources in the Study Area.

4.5.4 Future Conditions With the Project

Construction

Archaeological Resources

As described above under "Existing Conditions," the preferred Shaft 33B Site is unlikely to contain buried archaeological resources. Therefore, excavation and disturbance of soil at the preferred Shaft Site during construction of Shaft 33B under either the base site configuration or the alternate site configuration would have no adverse impact on archaeological resources.

Architectural Resources

The historic structures at 311 and 313 E. 58th Street are located more than 400 feet from the proposed construction site, and therefore are too far away to be adversely affected by project construction. The Queensboro Bridge, however, would be immediately adjacent to the construction area. Potential effects to the Bridge during construction are described below. Potential effects would be the same with the base configuration and the alternate site configuration for the preferred Shaft Site.

Potential Physical Effects During Construction

Construction of Shaft 33B at the preferred Shaft Site would occur in close proximity to the Queensboro Bridge approach structure. As detailed in Chapter 2, "Purpose and Need and Project Overview," and in Section 4.1, construction of the shaft would occur over a period of 52 months, with four main stages of activity. During several different stages, excavation activities would occur to remove soil at the top of the construction site. A combination of controlled drilling and blasting and boring would be used to remove rock on the site to create the vertical shaft. In addition, during Stage 3, new Bridge pier extensions may be constructed in the vicinity of the shaft to protect the shaft from any potential future Bridge expansion activities. As described in Section 4.1, "Project Description," a total of 10 piers may be constructed. These new piers would match the existing piers in shape, size, and alignment, but would have increased strength because of their heavy steel reinforcement.

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To ensure that no potential significant adverse impacts occur to the Queensboro Bridge as a result of any of the proposed construction activities, a construction protection plan for that property will be developed and implemented prior to construction in consultation with NYCLPC. Protection of the Queensboro Bridge would occur during all phases of construction. This will ensure that no damage would occur to the historic structure that would affect its integrity as a National Register and New York City Landmark property. The construction protection plan for the Bridge would identify the scope and method of excavation and blasting to occur at the preferred Shaft Site and would clearly identify all measures to be implemented to protect the Bridge during construction work. The construction protection plan would be developed in view of the current condition of the Queensboro Bridge and supplemented with appropriate drawings and specifications. As discussed in Section 4.1, “Project Description,” a permit would be required from NYCLPC for proposed work on the Queensboro Bridge piers and an advisory letter from NYCLPC would be sought regarding construction activities adjacent to the Queensboro Bridge.

As described in Section 4.13, “Vibration,” as part of the construction protection plan for the Bridge, protective measures would be taken during blasting to ensure that no potential significant adverse vibration impacts would occur to the Queensboro Bridge due to blasting. The Bridge, due to its close proximity to the project site, critical transportation importance, and historic status, would be evaluated prior to construction to determine an appropriate protective level. NYCDEP would work closely with NYCDOT as well as NYCLPC to ensure that the Bridge would not experience vibration levels exceeding a limit acceptable to NYCDOT. The steps to be taken would include the following:

- Inspect and report on current foundation and structural conditions;
- Establish a maximum permissible vibration level, to ensure that no architectural or structural damage would occur;
- Set up a vibration monitoring program to measure vertical and lateral movement and vibration within the previously identified zone of impact. Details as to the frequency and duration of the vibration monitoring program would be determined in consultation with NYCDOT and/or NYCLPC;
- Establish and monitor construction methods to limit vibrations to levels that would not cause structural damage to the Bridge, as determined by the condition survey; and
- Issue “stop work” orders to the construction contractor, as required, to prevent damage to the structure, based on any vibration levels that exceed the design criteria in lateral or vertical direction. Work would not begin again until the steps proposed to stabilize and/or prevent further damage to the structure were approved.

With the protective measures set forth in the project’s construction protection plan for the Bridge in place, no potential significant adverse impacts are anticipated to the Queensboro Bridge during construction of Shaft 33B at the preferred Shaft Site.

Potential Contextual Effects During Construction

During construction of Shaft 33B at the preferred Shaft Site, a 20-foot-high construction barrier would be placed at the site's boundaries to buffer the surrounding neighborhood from the construction. This wall, as well as any tall equipment (e.g., crane) visible above the wall, would partially obstruct the view of the Queensboro Bridge and approach along E. 59th Street and First Avenue. The obstruction from view of the lower portions of the Bridge approaches from these areas would take place during the entirety of the 52-month construction period. However, this would not be expected to result in significant adverse visual impacts for a number of reasons: the change would be limited to the duration of the 52-month construction period, only a portion of the lower portion of the Bridge piers would be obstructed, and the majority of the Bridge, including its span, would remain visible. Additional discussion of changes to views of the Bridge is provided in Section 4.6, "Visual Resources." As a major transportation structure, the Bridge exists in the context of traffic and associated traffic noise; therefore, changes to traffic patterns or noise and air quality in the vicinity would not have potential adverse effects on the context of the Bridge. Overall, therefore, construction activities at the preferred Shaft Site would not be anticipated to result in potential significant adverse impacts to the context of the historic Queensboro Bridge.

Conclusions

The preferred Shaft Site is unlikely to contain buried archaeological resources, and therefore construction of Shaft 33B there would not result in potential significant adverse impacts to archaeological resources. A construction protection plan will be developed and implemented for the historic Queensboro Bridge to ensure that no potential significant adverse impacts occur to the Queensboro Bridge as a result of any of the proposed construction activities. Construction activities at the preferred Shaft Site would not be anticipated to result in potential significant adverse impacts to the context of the historic Queensboro Bridge, since construction activities would have only limited visual effects to the Bridge. The only other historic structures near the preferred Shaft Site, two houses on E. 58th Street, are too far from the Shaft Site to experience potential significant adverse impacts during construction. A combined impact assessment for archaeological and architectural resources analyzing the effects of construction of Shaft 33B at the preferred Shaft Site and its water main connections is presented in Section 5.5, "Historic Resources," in Chapter 5, "Water Main Connections."

Operation

Archaeological Resources

Once Shaft 33B is in operation, no additional subsurface construction would be required to facilitate the operation of the Shaft. Therefore, there would also be no potential for impacts to archaeological resources as a result of the operation of Shaft 33B at the preferred Shaft Site.

Architectural Resources

The operation of Shaft 33B is not anticipated to cause potential permanent visual or contextual impacts to architectural resources within the Study Area. The shaft would be located entirely below ground, except for small above-ground shaft elements that would be visible.

Since operation of Shaft 33B would take place entirely underground, it would not adversely affect views of the Queensboro Bridge. Three permanent above-ground structures would be added to the sidewalk or site area at the preferred Shaft 33B Site. These include a 10-foot high by 14-inch diameter air vent and two smaller hydrants to be located on the site or adjacent sidewalk. These structures would add to the street furniture but would not result in any potential adverse impacts related to historic resources. The operation and maintenance activities conducted on the site are anticipated to several times a week but would not include the use of significant pieces of equipment that would obstruct the views or character of the Bridge. Therefore, no potential permanent significant adverse impacts related to the Queensboro Bridge would occur as a result of the operation of Shaft 33B at the preferred Shaft Site.

Given the limited change in the appearance of the preferred Shaft Site and the distance from the site to the historic houses at 311 and 313 E. 58th Street, the presence of shaft-related equipment on the preferred Shaft Site would not result in any potential changes to the context or setting of the historic houses. In addition, no potential significant adverse noise, traffic, or other impacts would be expected to occur as a result of operation of the shaft. Therefore, no potential significant adverse contextual impacts related to the operation of Shaft 33B would be expected to occur to architectural resources in the Study Area.

Conclusions

No subsurface disturbance will occur during operation of Shaft 33B and therefore no potential effect to archaeological resources will occur. The activation and operation of Shaft 33B at the preferred Shaft Site would not result in notable visible changes to the surrounding area that might adversely affect views to or the context of nearby historic properties; it also would not cause any physical changes (such as vibration) to any nearby historic properties. Therefore, no potential significant adverse impacts are anticipated from operation of Shaft 33B at the preferred Shaft Site.

