

5.5 HISTORIC RESOURCES

5.5.1 Introduction

This Section assesses the potential effects of the construction and operation of the potential water main connections 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 construction of the water mains along the potential routes. For each of the potential water main connection routes—the reasonable worst-case First Avenue route and the additional representative Sutton Place route and E. 59th / E. 61st Street route—the area of potential effect therefore consists of all affected streetbeds to a depth of approximately 10 to 12 feet below the surface, which is the anticipated depth of the excavation trenches. For architectural resources, area of potential project impacts would not be expected to extend beyond 100 feet from the water mains, including both potential physical and visual impacts, and therefore the Study Area for architectural resources has been defined as the area within 100 feet of the potential water main locations (Figure 5.5-1).

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.

5.5.2 Existing Conditions

Archaeological Resources

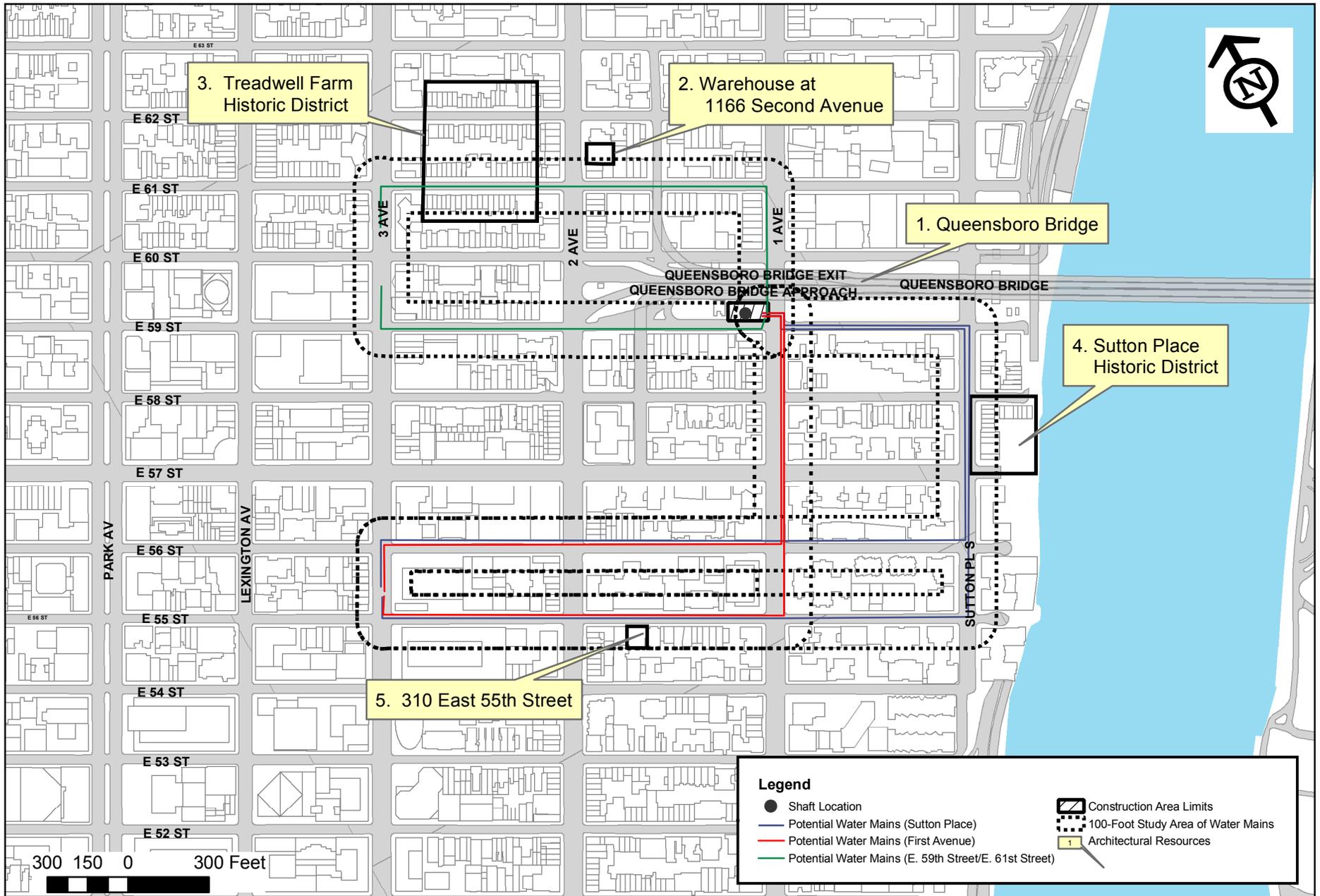
This section evaluates the potential for buried archaeological resources to be present within the area of potential effect for the potential water main routes.¹ Archaeological resources consist of the physical remains, usually buried, of past human activities. In the New York City area these can include remains associated with Native American and historic-period activities.

Potential Native American Resources

First Avenue Route

Only one Native American archaeological site has been previously identified within the area of potential effect for the water main connection’s reasonable worst-case route, the First Avenue route. This is New York State Museum (NSYM) site no. 4061, which consists of traces of Native

¹ This section summarizes the archaeological resources assessment prepared for the project, contained in *Addendum to the 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.



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

FIGURE 5.5-1

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American occupation in a general area bounded by E. 45th to E. 70th Streets and the East River shoreline to Second Avenue. All of the area of potential effect for the First Avenue route is within the boundaries of this site. No other previously documented sites have been located in this potential water main connection route. In addition, the portions of the First Avenue route consisting of Third Avenue and E. 55th Street between Second and Third Avenues are within an area identified as potentially sensitive for prehistoric sites by a 1980 NYCLPC predictive sensitivity model.

Though the area of the First Avenue route east of Second Avenue is within the general area of NYSM site no. 4061, cartographic research indicates that the pre-development topography of this portion of the water main route did not possess characteristics, such as high ground or proximity to a fresh water source such as a stream, that were preferred by Native Americans for occupation and use. Therefore, the portions of the First Avenue route east of Second Avenue are not considered to be sensitive for Native American resources.

Historic maps show a hill in the area between Second and Third Avenues and E. 54th and E. 57th Streets. In addition, a freshwater stream emptied into the East River at Turtle Bay, just southwest of the hill. Therefore, the portions of the First Avenue water main route on E. 55th and E. 56th Streets between Second and Third Avenues were once located on elevated ground near a freshwater source, and could have been utilized by Native Americans. However, historic disturbance has extensively disturbed these areas. This includes construction of Third Avenue shortly after 1815, which resulted in the removal of all or most of the hill by grading or cutting, and consequently, resulted in the disturbance or destruction of any archaeological resources that might have been present in the location of the hill. In addition, the construction of utilities such as steam, electric, gas, water, and sewer pipes has further extensively disturbed the Third Avenue and E. 55th and 56th Street roadbeds. Therefore, although the portions of the First Avenue route west of Second Avenue at one time possessed high Native American sensitivity, they have been thoroughly disturbed through 19th century construction and these areas are also not considered sensitive for Native American resources.

Consequently, since the First Avenue route lacks Native American sensitivity, no further consideration of Native American resources is warranted.

Sutton Place Route

The Sutton Place route includes some areas that are also included in the First Avenue route. Specifically, these consist of E. 55th and E. 56th Streets between First and Third Avenues. As described above, these areas were determined not sensitive for Native American resources.

However, the portion of the Sutton Place route located east of First Avenue, including E. 59th Street, Sutton Place, and E. 55th and E. 56th Streets between First Avenue and Sutton Place, has not been evaluated for its archaeological potential. The prospect of finding Native American remains in disturbed urban streetbeds is remote unless they have been protected by a substantial layer of fill. However, until Native American predictive models, pre-development topography, and disturbance episodes have been reviewed, it remains somewhat possible that these portions of the Sutton Place route could contain Native American resources. As described below in

Section 5.5.4, if the Sutton Place route is selected, additional archaeological assessment would be undertaken to determine the potential sensitivity of this route.

E. 59th Street / E. 61st Street Route

The E. 59th Street/E. 61st Street route has not been evaluated for its potential to contain Native American resources. Similar to the Sutton Place route, it is somewhat possible that the E. 59th/E. 61st Street route could contain Native American archaeological resources. As described below in Section 5.5.4, if the E. 59th Street/E. 61st Street route is selected, additional archaeological assessment would be undertaken to determine the potential sensitivity of this route.

Potential Historic-Period Archaeological Resources

First Avenue Route

An 1851 map shows the location of several structures located within the area of potential effect for the First Avenue route. These consist of a structure at the northeast corner of First Avenue and E. 57th Street and structure in the middle of First Avenue, midway between E. 55th and E. 56th Streets. It is not known if these were residential or commercial structures. However, since municipal water was not available in First Avenue until after 1851, these structures would likely have been constructed with rear-yard shaft features such as privies, wells, or cisterns. Historic maps also indicate that there was a hill located on First Avenue between E. 58th and E. 55th Streets, on which these structures were likely located. By 1866, First Avenue had been constructed, and it is likely that the construction of this avenue, which eliminated this hill, disturbed or destroyed archaeological resources associated with these structures, had they been present. In addition, the subsequent installation of utilities on First Avenue may have also disturbed any potential archaeological resources. However, it is possible that truncated portions of shaft features associated with the structures could remain below the levels of disturbance caused by the construction of First Avenue and subsequent installations of utilities in those roadbeds.

By 1880, the Third Avenue and Second Avenue elevated railroads (the “Els”) had been constructed on these avenues. Though these structures were removed in the mid 20th century, it is possible that that structural remains associated with the Els’ subsurface supports may still be present within these roadbeds.

Sutton Place Route

As described above, the E. 55th and E. 56th Street roadbeds located between First and Third Avenues were determined to be not sensitive for historic-period archaeological resources. However, it is possible that Second Avenue and Third Avenue could contain the remains of the supports for the former Second Avenue and Third Avenue Els.

The portion of the Sutton Place route located east of First Avenue has not been evaluated for its archaeological potential. Therefore, it is possible that these portions of the Sutton Place route could contain historic-period archaeological resources that have not yet been identified. As described below in Section 5.5.4, if the Sutton Place route is selected, additional archaeological assessment would be undertaken to determine the potential sensitivity of this route.

E. 59th Street/E. 61st Street Route

Since the E. 59th Street/E. 61st Street route has not been evaluated for its potential to contain archaeological resources, it is possible that the route could contain historic-period archaeological resources that have not yet been identified. As described below in Section 5.5.4, if the Sutton Place route is selected, additional archaeological assessment would be undertaken to determine the potential sensitivity of this route.

Architectural Resources

The architectural resources identified in the Study Areas for the reasonable-worst case water main connection route (First Avenue route) and the two additional representative routes (Sutton Place route and E. 59th / E. 61st Street route) are listed in Table 5.5-1 and mapped in Figure 5.5-1. Each Study Area is described below.

Table 5.5-1
Architectural Resources Within the Water Main
Connection Study Areas

Map No.*	Historic Property	S/NR Listed	S/NR Eligible	NYCLPC Designated
1	Queensboro Bridge	Yes	—	Yes
2	Day & Meyer Murray & Young Warehouse at 1166 Second Avenue	—	Yes	—
3	Treadwell Farm Historic District	Yes	—	Yes
4	Sutton Place Historic District	Yes	—	—
5	Apartment Building at 310 E. 55 th Street	—	<u>Yes</u>	—
Note: * Corresponds to Figure 5.5-1.				

First Avenue Route

There are no architectural resources within the First Avenue route itself, which consists of portions of the roadbeds of First Avenue, Third Avenue, and E. 55th and E. 56th Streets. The Study Area for the First Avenue route contains two known architectural resources. One of these is the Queensboro Bridge, immediately adjacent to the preferred Shaft Site and within 100 feet of the First Avenue route. The Queensboro Bridge is described in Section 4.5, “Historic Resources,” of Chapter 4, “Preferred Shaft Site.”

The second known architectural resource in the Study Area is the residential building at 310 E. 55th Street, on the south side of E. 55th Street between First and Second Avenues. This building was identified as a potential architectural resource in the Draft EIS, based on a site visit undertaken within 100 feet of the First Avenue route by a professional architectural historian to determine if there are any architectural resources that may appear to meet criteria for listing on the State and National Registers of Historic Places and/or New York City Landmark designation. In a letter dated December 13, 2005, the New York State Office of Parks, Recreation and Historic Preservation determined that this building is eligible for the State and National Registers of Historic Places. This resource is located within 20 feet of the potential water main

construction activities in the E. 55th Street roadbed. The building, built in 1932 and designed by George Miller, has a distinctive and unaltered Art Deco design. It was designed to contain two- to three-room suites and a penthouse. This 12-story building is clad in orange brick and designed in the Art Deco style (Figure 5.5-2). Its primary E. 55th Street façade is designed with a central tower element, which is articulated by brick piers separating the window bays. The façade contains abstract and foliated stone Art Deco ornament at the parapet, at the small balconies at the third and tenth floors, and ornamenting the ground floor.

Sutton Place Route

The Sutton Place route, consisting of portions of the E. 59th Street, Sutton Place, and E. 55th and E. 56th Street roadbeds, does not contain any architectural resources. The Study Area contains two known architectural resources, the Queensboro Bridge and the Sutton Place Historic District. The Queensboro Bridge is located approximately 80 feet from the potential water main route on E. 59th Street. The Sutton Place Historic District is located within 20 feet of the potential water main route on Sutton Place. In addition, the potential architectural resource at 310 E. 55th Street, described above, is also within the Study Area. These resources are listed in Table 5.5-1 and mapped on Figure 5.5-1. Based on a field survey conducted by a professional historian, no other potential architectural resources are located in the Study Area for the Sutton Place route.

The Sutton Place Historic District encompasses the full block bounded by Sutton Place to the west, Sutton Square to the north, E. 57th Street to the south, and the East River to the east. The district contains four- to five-story single-family rowhouses. The earliest house in the district dates to 1920, and all are designed with brick or stucco facades. The houses are either designed in the early American Colonial Revival style, including brick cladding and stone ornament, or in the style of Italian Renaissance villas, with stucco facades and refined detailing. The Sutton Place Historic District is architecturally significant as a cohesive and intact residential enclave. It represents an early 20th century architectural movement that sought to beautify late 19th century residential neighborhoods in New York through the rebuilding and redesigning of existing buildings.

E. 59th Street/E. 61st Street Route

The E. 59th Street/E. 61st Street route, which consists of portions of the First Avenue, E. 59th Street, and E. 61st Street roadbeds, does not contain any architectural resources. The Study Area contains three known architectural resources: the Queensboro Bridge, a historic warehouse, and a historic district.

The Queensboro Bridge crosses First Avenue between E. 59th and 60th Streets, and its piers are located approximately 15 feet east and west of First Avenue. The Bridge is described in Section 4.5. These resources are listed in Table 5.5-1 and mapped on Figure 5.5-1.

The Day & Meyer Murray & Young Warehouse is located on the east side of Second Avenue between E. 61st and E. 62nd Streets, approximately 65 feet north of E. 61st Street. The warehouse was constructed in 1927 in an Art Deco/Neo-Gothic style and is considered to be an architecturally distinguished example of storage warehouse design. This structure was a state-of-the-art facility at the time of its construction, employing an advanced storage technology known



Residential Building at 310 E. 55th Street 1



Front Entrance Detail, 310 E. 55th Street 2



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FIGURE 5.5-2

as a “protovault” service, which consisted of steel storage vaults that were moveable within the warehouse on a system of tracks

Using this potential water main route, the water main on E. 61st Street between Second and Third Avenues would pass through the Treadwell Farm Historic District, which straddles both sides of E. 61st Street. The Treadwell Farm Historic District includes buildings on the north and east sides of E. 61st and E. 62nd Streets between Second and Third Avenues. The District is distinguished for its collection of uniform townhouses, many of which were designed by prominent local architects, its early protective covenants designed to prescribe future development, and the social status of its early residents. The majority of the district contains three- and four-story brownstone rowhouses. In addition, there is one six-story apartment building and two churches. At 242-250 E. 61st Street is the First Swedish Baptist Church designed by Martin Hedmark and built in 1930. This three-story brick church reflects Scandinavian architecture of the time with a symmetrical facade, a tall, stepped, central bay flanked on either side by towers with tall cupolas. Graduated brickwork rising from dark to light decorates the front façade. Also along E. 61st Street are a number of rowhouses designed by prominent local architects including Breen & Nason, Frederick S. Barus, and John Sexton.

In addition, a site visit was undertaken within 100 feet of the E. 59th Street/E. 61st Street route by a professional architectural historian to determine if there are any architectural resources that may appear to meet criteria for listing on the State and National Registers of Historic Places and/or New York City Landmark designation. No potential architectural resources were identified in the Study Area.

5.5.3 Future Conditions Without the Project

Archaeological Resources

In the Future Without the Project, no subsurface disturbance is expected to occur on the potential water main routes. Therefore, the potential historic-period archaeological resources identified on the First Avenue route would be anticipated to remain undisturbed. Any unidentified archaeological resources that could be located within the Sutton Place route east of First Avenue and any unidentified resources located within the E. 59th Street/E. 61st Street route would also remain undisturbed.

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 and 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 Areas for water main connection alternatives.

5.5.4 Future Conditions With the Project

Construction

The new water main connections would be designed and constructed by the New York City Department of Design and Construction (NYCDDC), the agency that acts as the City's coordinator of in-street construction projects. NYCDEP will coordinate with NYCDDC prior to construction to ensure that appropriate measures to protect historic resources are undertaken.

Archaeological Resources

First Avenue Route

As described above under "Existing Conditions," the First Avenue route has been determined not sensitive for precontact (Native American) archaeological resources. Therefore, construction of water mains following the First Avenue route would have no potential significant adverse effect on Native American archaeological resources.

However, portions of the First Avenue route could contain potential historic-period archaeological resources. These consist of shaft features associated with two former structures located in the area of First Avenue between E. 55th and E. 57th Streets, as well as remains of the structural supports of the Second and Third Avenue Els. To avoid any potential significant adverse impacts on these potential archaeological resources should the First Avenue route be selected, NYCLPC's established procedures with respect to archaeological resources would be followed. As set forth in NYCLPC's publication, *Landmarks Preservation Commission Guidelines for Archaeological Work in New York City*, dated April 12, 2002, these procedures involve initial review by NYCLPC to determine if archaeological work is necessary, archaeological documentary study if warranted, archaeological field testing if warranted by the results of the study, and, for any archaeological resources identified using this process, measures to avoid significant adverse impacts such as monitoring during construction, data recordation, and/or excavation. For the potential water main route, archaeological monitoring by a professional archaeologist will be undertaken for the portion of the route that extends on First Avenue between E. 55th and E. 57th Streets, where the shaft features may be located. A protocol for archaeological monitoring will be prepared and implemented in coordination with NYCLPC prior to any subsurface excavation in the sensitive area if this route is selected. The objective of the monitoring is to properly identify and investigate any archaeological resources should they be encountered during project construction. Any resources encountered will be documented and properly recorded in consultation with NYCLPC. In addition, where the First Avenue and Sutton Place water main routes cross Second and Third Avenues, the streets may contain the remains of the pillars which supported the Second Avenue and Third Avenue Els. Should these be encountered during construction, they would also be properly recorded in coordination with NYCLPC. With these measures in place, no potential significant adverse impact would occur to

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archaeological resources. As noted earlier, NYCLPC has reviewed and approved this approach for archaeological resources.

Sutton Place Route and E. 59th Street/E. 61st Street Route

The portion of the Sutton Place route east of First Avenue and the entire E. 59th Street/E. 61st Street route (with the exception of one block) have not been evaluated for their archaeological potential. Therefore, should either of these routes be selected, NYCDEP will consult with NYCLPC to determine if an archaeological study would be warranted. If NYCLPC determines that a study is warranted, a Phase 1A archaeological resources assessment will be prepared for NYCLPC review to determine if the selected route has the potential to contain Native American or historic-period archaeological resources. Should any potential resources be identified, a monitoring plan would be developed in consultation with the NYCLPC prior to any project construction. Any resources encountered would be properly documented in consultation with NYCLPC. With these measures in place, no potential significant adverse impact to archaeological resources would occur.

Other Potential Water Main Routes

In the event that another water main route is selected other than those analyzed in this EIS, NYCDEP would ensure that this route is reviewed according to NYCLPC's guidelines for archaeological resources in coordination with NYCLPC in the same manner as described for the Sutton Place route and E. 59th Street/E. 61st Street route. Specifically, a Phase 1A archaeological assessment will be prepared for NYCLPC review to determine if the selected route has the potential to contain Native American or historic-period archaeological resources. Should any potential resources be identified, a monitoring plan would be developed in consultation with the NYCLPC prior to any project construction. Any resources encountered would be properly documented in consultation with NYCLPC. With these measures in place, no potential significant adverse impact to archaeological resources would occur.

Architectural Resources

As described above, the E. 59th Street/E. 61st Street route would pass through the Treadwell Farm Historic District. Therefore, NYCLPC will be consulted regarding the potential construction in the Historic District to avoid any potential significant adverse impacts on this historic resource.

There are also a number of architectural resources located within 100 feet of the potential water main routes. It is not anticipated that excavation and installation of the water mains would adversely affect architectural resources. As assessed in Section 5.13, "Vibration," the vibration levels from the water main construction activity are expected to be below 0.50 peak particle velocity (ppv), which would be protective of fragile structures and architectural ornament. In addition, no blasting would be required for construction of the water mains. Machinery to be used would include compactors, jackhammers, and heavy trucks, which are typically used for this type of construction occurring throughout the City. In addition, construction methods would be geared to minimizing vibration. At locations where pavement breaking (with the use of jackhammers) is required, deep saw cuts would be made first. These saw cuts would minimize the transmission of vibrations from pavement-breaking operations to the foundations of nearby

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structures. Construction would be expected to short term in any given location (12 weeks for most blocks and 10 weeks per intersection), and, therefore, no potential significant adverse vibration impacts would be anticipated to occur to architectural resources from the water main construction.

Conclusions

The new water main connections would be designed and constructed by the NYCDDC. NYCDEP will coordinate with NYCDDC prior to construction of future water main connections to ensure that appropriate measures to protect historic resources are undertaken. Construction of new water mains from the preferred Shaft Site along any of the routes evaluated has the potential to adversely affect archaeological resources that may be buried beneath the roadways. While such resources could have been destroyed by road construction and previous utility installation, there is a possibility that buried archaeological resources remain in certain segments of the First Avenue route. Therefore, for any of the water main routes, NYCDEP would follow NYCLPC's procedures for archaeological resources to ensure that no potential significant adverse impact would occur. If the First Avenue route is selected, a protocol for archaeological monitoring will be prepared and implemented in consultation with NYCLPC prior to any subsurface excavation in the sensitive area. Following this protocol, any archaeological resources encountered during construction will be documented and properly recorded in consultation with NYCLPC. It is also possible that archaeological resources remain in place along the Sutton Place and E. 59th Street/E. 61st Street routes or any additional water main route that might be selected. For any selected water main route that was not evaluated in a Phase 1A Assessment, NYCLPC will be consulted to determine if an archaeological study would be warranted. If NYCLPC determines that a study is warranted, a Phase 1A Assessment will be prepared for NYCLPC review to determine if the selected route has the potential to contain Native American or historic-period archaeological resources. Should any potential resources be identified, a monitoring plan would be developed in consultation with the NYCLPC prior to any project construction. Any resources encountered would be properly documented in consultation with NYCLPC. Thus, no potential significant adverse impacts to archaeological resources would occur as a result of this construction.

Construction of the water mains would not be anticipated to result in potential adverse impacts to architectural resources within the Study Areas, given the short duration of the work and the limited vibration. However, for the E. 59th Street/E. 61st Street route, it would be appropriate to consult with NYCLPC regarding any construction in the Treadwell Farm Historic District to avoid any potential significant adverse impacts on this historic resource.

As discussed in Section 4.5, construction of Shaft 33B at the preferred Shaft Site would not result in significant adverse impacts to archaeological or architectural resources. The combined effect of construction at the preferred Shaft Site and construction of water main connections from the site would also therefore not result in any significant adverse effects to archaeological or architectural resources.

In conclusion, construction of Shaft 33B and its water main connections from the preferred Shaft Site are not anticipated to result in significant adverse impacts to archaeological or architectural resources.

Operation

Archaeological Resources

Once the water mains are in operation, no additional subsurface construction would be required to facilitate their operation. Therefore, there would be no potential for significant adverse impacts to archaeological resources as a result of the operation of the water mains.

Architectural Resources

Operation of the water main connections is not anticipated to have any potential for adverse effect on architectural resources. The operation of the water mains 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 would be expected as a result of operation of the water mains.

