

5.13 ARCHAEOLOGICAL AND HISTORIC RESOURCES

5.13.1 Introduction

This section assesses the potential effects of the South Ferry Terminal Project on archaeological and historic resources. As described in Chapter 1, the project is also required to be reviewed in accordance with Section 4(f) of the U.S. Department of Transportation Act of 1966. The Section 4(f) Evaluation appears at the end of this EA.

Section 106 of the National Historic Preservation Act of 1966 (36 CFR 800) and the New York State Historic Preservation Act of 1980 (Chapter 354 of Parks, Recreation and Historic Preservation Law, Section 14.09) require that federal and state agencies, respectively, consider the effects of their actions on any properties listed on, or determined eligible for, inclusion on the National and State Registers of Historic Places. The Advisory Council on Historic Preservation's regulations implementing Section 106 define a historic property as "any prehistoric or historic site, building, structure or object included in, or eligible for inclusion on, the National Register of Historic Places maintained by the Secretary of the Interior." Properties listed on or determined eligible for listing on the State and National Registers of Historic Places can include archaeological resources. NEPA also requires such consideration. The review and public outreach requirements under Section 106 can be conducted in coordination with and concurrent to the analyses and the public outreach process conducted for NEPA. Consistent with these regulations, the analysis of the Proposed Action's effects on archaeological and historic resources is being conducted in coordination with the New York State Office of Parks, Recreation and Historic Preservation (NYSOPRHP) which serves as the State Historic Preservation Office (SHPO), as well as with the New York City Landmarks Preservation Commission (LPC). As noted in Chapter 1, the FTA, MTA/NYCT, and NYSOPRHP will enter into a Programmatic Agreement (PA) regarding the treatment of archaeological and historic resources that may be affected by the Proposed Action. The draft PA is included in this EA as Appendix B.

This section presents the Areas of Potential Effect (APE) for both archaeological and historic resources, a profile of the affected environment with regard to these resources, and the impact analysis. Future conditions common to both the No Build Condition and the Proposed Action are discussed in terms of potential environmental impacts that could be associated with the construction and operation of the South Ferry Terminal Project.

A Phase IA Archaeological Assessment was conducted in accordance with 36 CFR 800 to evaluate the archaeological potential of the project site (see Appendix C). Work conformed to the *Cultural Resource Standards Handbook*, prepared by the New York Archaeological Council Standards Committee and the *Guidelines for Archaeological Work in New York City*, prepared by the New York City Landmarks Preservation Commission. The investigation consisted of background research on the natural environment, prehistory, and historical development of the project site, as well as a field

reconnaissance. Background research was conducted between March 19 and April 15, 2002, and included examination of historical maps and texts, secondary histories and relevant cultural resource studies. Historical resources were consulted at the following institutions: New York Public Library, New York Historical Society, Elmer Holmes Bobst Library at New York University, Special Collections at Metropolitan Transportation Authority-Bridges and Tunnels, New York City Transit Museum Archives, and the City of New York Department of Design and Construction. Archaeological site files were reviewed at the New York State Museum and the NYSOPRHP, both in Albany. The field reconnaissance was conducted on March 6, 2002.

5.13.2 Areas of Potential Effect (APE)

Cultural resources are an important part of a community's character. Cultural resources may include buildings, structures, sites, objects, and districts. They may also include archaeological resources. Archaeological resources are physical remains, usually buried, which provide an indication of past activities on a site, and may include remains from Native American people who used or occupied a site, including tools, refuse from tool-making activities, habitation sites, etc. These resources are also referred to as "precontact," since they were deposited before Native Americans' contact with European settlers. Archaeological resources can also include remains from activities that occurred during the "historic period" (the period beginning with European colonization of the New York area), and include remains such as battle sites, foundations, wells, and privies.

The APE is the geographic area in which the Proposed Action may cause effects to cultural resources directly through construction; indirectly through construction or operation; or cumulatively through other past, present or future actions undertaken in the community. The APE is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking (36 CFR 800.16).

There are two APEs for the South Ferry Terminal Project, one for archaeological resources and one for historic resources; these two areas are shown in Figure 29. In a letter dated March 3, 2004 (contained in Appendix G), the NYSOPRHP has concurred with the APEs for the South Ferry Project. The APE for archaeological resources includes areas where ground disturbance will occur that could affect archaeological resources, if such resources exist at those locations. The Proposed Action would be constructed using mostly cut and cover techniques, and as a result the locations of all proposed project components would be disturbed by the Proposed Action. Therefore, the archaeological APE corresponds to the project corridor, as shown in Figure 29.

The APE for historic resources typically includes the locations where significant resources, if they exist, could be directly or indirectly affected by the Proposed Action. The construction of the Proposed Action will be below ground and only minor facilities will be at-grade (entry/exit points, vent gratings). The ventilation structure to be located in Peter Minuit Plaza will be designed to blend with other ventilation structures in the Plaza and will be screened with landscaping, as appropriate. The Plaza itself is not a

historic resource. The vent grate to be located in Battery Place just east of its intersection with State Street will be installed in the street island in the middle of Battery Place; the grating is about 10 feet wide by 60 feet long and will be at curb height. Thus, it would not affect nearby historic resources. In addition, other historic structures are not close enough to be impacted by construction-related vibration. Therefore, the APE for historic resources is defined as the two structures that would be directly impacted by the Proposed Action. The first structure is the International Mercantile Marine Company Building at One Broadway, where portions of existing vaults below the sidewalk (but not inside the building foundation) would be removed and replaced (along with the sidewalk above the vault) to accommodate construction of the tunnel bellmouth. The second structure is the existing South Ferry Subway Station, where the existing passenger platform and entrance would be closed off from public use after construction of the new South Ferry Terminal. These two structures are designated in Figure 29 as the APE for historic resources. Both structures will have building protection plans implemented during construction.

The standard for determining effects of an action on historic properties is based on the Criteria of Adverse Effect found at 36 CFR 800.5(a) (1). An adverse effect is found when an action may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion on the National Register, in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling or association. Adverse effects may include reasonably foreseeable effects caused by the action that may occur later in time, be farther removed in distance, or be cumulative. Potential cumulative effects related to archaeological and historic resources are discussed in Chapter 6.

5.13.3 Environmental Performance Commitments

The Proposed Action will be implemented with Environmental Performance Commitments (EPCs). These are measures that will be proactively implemented to avoid or reduce potential impacts of the Proposed Action. With regard to cultural resources, they include the following:

- Establish coordination among projects to avoid or minimize interruption in access to cultural and historic sites.
- Initiate public information and involvement outreach with sensitivity to local cultural resources.
- Identify public information outlets that will receive and provide current information about access during construction.
- Consult with the New York State Office of Historic Preservation and the New York City Landmarks Preservation Commission regarding potentially impacted, culturally significant sites.
- Monitor noise and vibration during construction at such sites as appropriate.

5.13.4 Existing Conditions

The South Ferry Terminal Project is located in the Battery area of Lower Manhattan, an area with an abundance of archaeological and historic resources from the time of the earliest Dutch settlements through the mid-20th century. The project corridor was for the most part located off-shore of Manhattan Island until the mid-19th century; therefore, the southern portion of the project is now located on landfill added to the Lower Manhattan area between the mid-17th and mid-19th centuries. The northern portion of the project corridor, however, is located on original exposed landmass. The Phase IA Archaeological Assessment (Appendix C) contains a detailed historical account of the development of Lower Manhattan and the Battery area, and its relation to archaeological and historic resources that could be potentially affected by the Proposed Action.

5.13.4.1 Archaeological Resource Potential

To assess the project area's potential for archaeological resources, a Geographic Information Systems (GIS) database was created to track the development of the project area through time. Appendix C contains a detailed discussion of the cartographic evolution of the project area, including the various shoreline locations and structural improvements over the course of history in Lower Manhattan. Boring logs, for the project corridor and for the Whitehall Ferry Terminal project, were also evaluated for the presence of potential archaeological material. The majority of material identified in the boring logs was either brick, cinders, or timbers. The presence of these materials indicates that early fortifications and military barracks, as well as the Battery's 1790 bulkhead, may remain intact at some of these locations.

Industrial-era intrusions to the project area include utilities such as electrical, sewer, water, gas, telephone, and a U.S. Treasury mail tube. This Treasury tube ran from the north of Battery Park to the U.S. Custom House at Bowling Green. Located in the northern portion of the project area along Battery Place are five elevated railway footings, three located west of Greenwich Street and three east of the existing 19 subway. Battery Place also contains the remnants of the streetcar tracks that used to run from Greenwich Street down to State Street. The 1941 maps of Battery Park indicate that the streetcar tracks were removed while the underground yokes, ducts, and appurtenances were abandoned in place (Singstad 1941b, 1946). Considerable underground structures associated with the streetcar tracks may remain underneath Battery Place in this portion of the project area. Despite the abundance of utilities throughout the project area, it is not anticipated that such utilities have disturbed the deeply buried archaeological resources.

Based on the historic period maps, areas of archaeological resource potential were plotted from the digitized GIS data. These areas of archaeological potential were then mapped on the project area, indicating eight areas with the potential to yield archaeological resources. Figure 30 shows these areas. From north to south, these areas include:

- 1) A single footing from the 9th Avenue El, located in the middle of Battery Place and south of Greenwich Street (footing was mapped from the 1940s plans of Battery Park drawn by the Triborough Bridge and Tunnel Authority (TBTA);
- 2) The 17th century battery and the original Manhattan Island boundary, located in the northern section of Battery Park area, covering the Eisenhower Mall area;
- 3) Portions of the area within the outermost fortification walls of Fort Orange/George, the footprints of two structures associated with Fort George, the northwest corner of Fort George, part of the original Manhattan Island, and remnants of street-level trolley track supports;
- 4) Remnants of the battery, located south of Area 2;
- 5) A portion of the 18th century British battery and several elevated footings;
- 6) A combination of several potential archaeological resources, including a 1767 military fortification and battery, the 1789 military barracks, and the footings for the Ninth Avenue El;
- 7) A small area of the 1767 military fortification; and
- 8) A combination of several potential archaeological resources, including the 1767 fortification, the edge of the Whitehall Slip in 1767, the 1790 bulkhead, the 1827 bulkhead, and the footings for the Ninth Avenue El.

Prehistoric Archaeological Resource Potential

Of the eight areas identified as possessing potential for archaeological resources, only Areas 2 and 3 hold potential for prehistoric archaeological resources. They are located within the area of the original Manhattan Island, based on the Viele (1865) map. Although there have been subsequent historic-era modifications to this area, it was known that oyster shells littered the southern shore of Manhattan Island. There is the potential to encounter similar oyster shell deposits along the shore of the island cutting through the project corridor. Although Native Americans were not known to have established habitations at the southern end of Manhattan, the abundant shell deposits attest to some form of prehistoric activity occurring in this area of Manhattan. If prehistoric archaeological resources are encountered, they would most likely be non-diagnostic stone tools used for processing shellfish (such as battered hammerstones or flakes with chipped edges resulting from sharpening tools for opening shellfish), charcoal residues deriving from small campfires or possibly shell middens like those encountered further up the Hudson River (Brennan 1974; Claassen 1995). As this area of Manhattan Island was used as a landing spot by the Native Americans, there is also the possibility, though very small, of encountering remnants of prehistoric dugout canoes.

Historic Archaeological Resource Potential

The remainder of the eight areas possesses varying potential for early colonial and late 19th/early 20th century transportation-related historic archaeological resources. Colonial resources, from pre-Revolutionary War Dutch and British occupation, derive from three periods. The first period relates to resources associated with the destruction of Fort George, as the debris from the fort was used to fill in the area of the battery along the western shore of Manhattan up to the first (1790) bulkhead of the park. Therefore, this area may contain building debris from the 17th century Fort Amsterdam through 1790, associated with the British Fort George. Building debris would include brick (possibly

yellow Dutch bricks from Holland), wood, mortar and possibly the “quarry stone” used for the base of the northwestern bastion (Goodwin 1897:6). These pre-Revolutionary resources would be dispersed across Areas 2, 3 and 4.

The second period for pre-Revolutionary archaeology relates to Dongan’s Half-Moon Battery constructed along the western shore of Manhattan. Dating to the 1680s and further modified in the late 17th century, this battery contained several cannons and was located within Area 2. Improvements to the Half-Moon Battery in the 18th century created a large military fortification, which is also located in Area 2 and possibly at Area 4. Historic archaeological resources associated with the Half-Moon Battery would include remnants of the military fortification, the natural stone platform upon which the cannons rested and various military-related items, including cannonballs, wood palisades and remnants of the cannons from the battery. Area 3 also holds the potential for late 17th and early 18th century archaeological resources associated with the fort. The western portion of Area 3 is located at the position of two structures within the confines of the fort, while the eastern portion of Area 3 may be located over the northwestern corner of the fort.

The third period of pre-Revolutionary archaeology centers on the expansion of Manhattan in the central and southern portions of the project corridor. In the years leading up to the Revolutionary War, the British expanded the military defenses around Fort George as land was added to the island south of State Street. By 1767, the military fortification surrounding Fort George had expanded southward and contained defensive walls, an interior defensive structure, and military barracks. Areas 2 through 8 are expected to contain remains of the military fortifications surrounding Fort George; the military barracks are potentially located within Area 6.

If historic archaeological resources from the Dutch or British occupation of Fort Amsterdam/George were documented, they would provide substantial information regarding the construction and design of one of the earliest European structures constructed in America. Additionally, evidence of the Half-Moon Battery would likewise provide substantial information on early military and defensive fortifications from Lower Manhattan, resources that provided the name for Battery Park. Additionally, recovering evidence of the 1790 bulkhead from Battery Park would provide substantial information on early bulkhead construction in Lower Manhattan. Most research on the Manhattan waterfront has focused on pier and wharf construction on the East River, which could be compared to the evidence from the 1790 bulkhead. Lastly, the presence of the military barracks on the south side of Fort George has been known from historic maps and documents but has never been identified by previous archaeological surveys.

Revolutionary War-era historic archaeological resources could be located in Areas 2 through 8, where the Ratzen 1776 and McComb 1789 maps indicate military fortifications and military barracks ran across the project area. Potential archaeological resources would include wood, brick, mortar, cannonballs, and various personal effects potentially lost by British soldiers in the 18th century. Recovery of the military fortification in these seven areas would provide substantial information on the design and

construction of British defensive structures in Lower Manhattan during the Revolutionary War.

Potential historic archaeological resources are also associated with the 9th Avenue Elevated structure that ran through the northern, central and southern portions of the project corridor, located in Areas 1, 5, 6 and 8. This structure was constructed in the 1870s and was in use up until 1941. One of the elevated structures footings is located in Area 1 and there are potential footings located in Area 6. These footings would be represented by a large (7'x'7') structure, composed of 9'-6" of brick at the top, followed by 6" of blue slate stone at the base, creating a 10-foot tall structure (these measurements derive from plans housed at MTA/NYCT's offices at 370 Jay Street in Brooklyn). Although the design of the elevated footings are well documented from the drawings, it is unknown if these footings remain intact within the project corridor. Documenting and exposing an elevated footing would provide useful information regarding the engineering and construction of late 19th century transportation structures from New York City. Additionally, Area 3 has the potential to encounter the remnants of street-level trolley track supports. Owing to the extensive documentation regarding the routes, technology, and construction of Manhattan's trolleys, these former trolley line features do not in themselves constitute potentially significant archaeological resources. However, if encountered during testing or project construction, they may warrant some degree of documentation.

5.13.4.2 Historic Architectural Resources

Figure 31 shows the location of designated historic architectural resources in the vicinity of the Proposed Action. Table 5-48 corresponds to the resources identified in Figure 31, and lists the name, location, and register listing status of the resources. Of the two historic architectural resources that would be affected by the Proposed Action, only the International Mercantile Marine Company Building at One Broadway is a designated historic structure under the State and National Registers as well as a New York City Landmark. The existing South Ferry Subway Station has been determined to be eligible for listing on both the State and National Registers of Historic Places. These two resources are described below.

International Mercantile Marine Company Building

The following description of this building is based on the National Register of Historic Places Registration Form dated December 12, 1998, and the New York City Landmarks Preservation Commission Designation Form dated September 19, 1995.

The International Mercantile Marine Company Building occupies a prominent and historic location at the south end of Broadway, facing both Bowling Green and Battery Park, on a lot that extends the entire blockfront of Battery Place to Greenwich Street. The austere neo-classical style building is the result of a remodeling of the renowned red brick, Queen Anne style Washington Building (designed by Edward Hale Kendall and built in 1882-87) by Walter B. Chambers in 1919-21. The building served as the New York headquarters of the International Mercantile Marine Company, organized by J.P.

Morgan in 1902 as a mammoth and ambitious combination of six of the leading American and British transatlantic steamship companies that operated the largest American-owned merchant fleet in the world.

The building was one of the first of the major modern steamship buildings that gave this section of lower Broadway the name “Steamship Row” in the 1920s, and assisted in transforming the street into the “canyon” of neo-classical masonry office towers familiar today. The Battery Place entrances to the building, marked “First Class” and “Cabin Class” led into an elegant ticketing hall which is now a banking facility. Restrained neo-classical details on the building include nautical and marine motifs, such as shields representing the company’s major ports of call. In 1943, the International Mercantile Marine Company merged with its then-principal subsidiary and became the United States Lines Company, which retained ownership of One Broadway until 1979. The building retains its integrity today to a very high degree. With the exception of the window alterations, the exterior retains all of its original form.

The building has twelve stories clad in Indiana limestone above a granite base. There are also several underground vaults associated with the One Broadway building. The vaults located at the northeast corner of Battery Place and Greenwich Street, at the southwest corner of the building, would be temporarily affected by construction of the bellmouth for the new approach tunnels to the South Ferry Terminal. The vaults are currently vacant except for some utilities and storage. None of the underground vault structures are identified or described in either the National Register registration form or the New York City Landmarks Preservation Commission designation form. Based on documentation provided by MTA/NYCT regarding the vaults, the NYSOPRHP has made a determination of no adverse effect on these vaults if the work is completed as proposed (see Appendix G).

South Ferry Subway Station

The following description of the South Ferry Station is based on the MTA/NYCT Historical Properties Survey Form dated July 14, 1994. The South Ferry Subway Station opened in 1905, and was originally the southern terminus of the Interborough Rapid Transit (IRT) Lexington Avenue line which ran south from City Hall. The configuration of South Ferry is unique, as it was initially designed as an underground station with a double-track loop. Of the 14 stations on the subway segment linking Times Square with South Ferry, this is the only loop. Because of its loop design and constricted layout, South Ferry was one of only two IRT stations where platforms were never extended to accommodate the longer subway trains. The other station is the 145th Street/Lenox Avenue Station.

**Table 5-48
Historic Architectural Resources in Project Vicinity**

Map ID	Name of Resource	Address	National Historic Landmark	National Register	State Register	New York City Landmark
A	U.S. Custom House	Bowling Green	X	X		X
B	New York Stock Exchange	8-18 Broad Street	X	X		X
C	First National City Bank	55 Wall Street	X	X		X
D	Trinity Church and Graveyard	Broadway at Wall Street	X	X		X
E	American Stock Exchange/New York Curb Exchange	78-86 Trinity Place	X	X		
F	Equitable Building	120 Broadway	X	X		X
G	Chamber of Commerce of the State of New York	65 Liberty Street	X	X		X
1	Castle Clinton	Battery Park	National Monument	X		X
2	Pier A	Hudson River at West Street		X		X
3	International Mercantile Marine Company Building	1 Broadway		X		X
4	Bowling Green Building	11 Broadway		X		X
5	Cunard Building	25 Broadway		X		X
6	Standard Oil Building	26 Broadway		X		X
7	American Express Building	65 Broadway		X		X
8	Empire Building	71 Broadway		X		X
9	American Surety Building	100 Broadway		X		X
10	Trinity Building	111 Broadway			X	X
11	U.S. Realty Building	115 Broadway		X		X
12	Federal Hall National Memorial	28 Wall Street		X		X
13	J.P. Morgan & Company	23 Wall Street		X		X
14	Manhattan Company Building	40 Wall Street		X		X
15	Bank of New York and Trust Company	48 Wall Street		X		X
16	Liberty Tower	55 Liberty Street		X		X
17	Broad Exchange Building	25 Broad Street		X		X
18	City Bank - Farmers Trust Building	20 Exchange Place		X		X
19	Delmonico's	56 Beaver Street		X		X
20	J.&W. Seligman and Company	1 William Street		X		X
21	American Bank Note Company	70 Broad Street		X		X
22	James Watson House	7 State Street		X		X
23	Battery Maritime Building	11 South Street		X		X
24a	Bowling Green Fence	Bowling Green		X		X
24b	Bowling Green Park	Bowling Green		X		
25	IRT Control House/ Battery Park Subway Station	State Street and Battery Place		X		X
26	Street Plan of New Amsterdam and Colonial New York	Beaver, Bridge, Broad, Hanover, Marketfield, Wall and other streets in vicinity				X
27	Hanover Bank	1 Hanover Square				X
28	Bankers Trust Building	14 Wall Street				X
29	1 Wall Street	1 Wall Street				X
30	Whitehall Building	17 Battery Place				X
31	Downtown Athletic Club	19 West Street				X
32	21 West Street Building	21 West Street				X
	67 Greenwich Street			Eligible	Eligible	Eligible
	94-96 Greenwich Street			Eligible	Eligible	Eligible
	South Ferry Subway Station	Peter Minuit Plaza		Eligible	Eligible	

In 1918 a platform was added on the track's inside loop. Until then, the additional track had been used for midday storage of trains. Shuttle service to the Bowling Green Station was placed on the inside track and the original outside loop then served the Broadway/Seventh Avenue line (19), as it still does today. The Bowling Green shuttle service was discontinued around 1970. Although the inside platform cannot be seen from the original platform because it is behind a solid wall, the platform and much of the original decorative features remain intact. This platform was identified by a mosaic frieze with the initials "SF" set in a hexagonal design, similar to other stations on that line. The area is now used for storage and as the station manager's office. The concession windows have been closed and metal gates and doors installed, but the area's white tile walls and mosaic frieze remain intact.

The design importance of the South Ferry Station derives from its typical IRT Beaux-Arts architectural decoration, incorporating tiles, mosaics and representational faience plaques, as well as from its unique configuration. The station was engineered by W. B. Parsons, with Heins & LaFarge as architects. Twenty-two original cast iron columns line the edge of the concrete platform, which cannot be accessed by passengers from the rear cars of the train because the platform was not extended. Fifteen movable platform extenders, equally spaced along the platform floor and separated by simple metal rails, fill the gap between the car doors and the curved platform.

The platform walls retain the elaborate 1905 classical decorative finish, featuring 15 terra cotta bas relief plaques of a sloop sailing across green waters against a background of clouds and blue sky decorated by a festoon of garlands with a monogram below. Photographs of the interior tilework are provided in Figure 32. The plaques are in excellent condition, and are incorporated into a complex entablature comprised of a multi-colored mosaic frieze, surmounted by a cornice which includes two rows of deep-brown glazed terra cotta. The top row has a classical flower and foliage design in bas relief. The walls are covered with white ceramic tile on a wide marble base. The same marble joins each plaque, so it appears the platform walls are divided into 13 separate panels, with six panels on the west side of the platform entrance and seven on the east side. In the center of the three end panels is a large mosaic plaque announcing "SOUTH FERRY" in white letters surrounded by a maroon field and a multi-color border. The decorative plaster ceiling features classical detail, including raised bead and reel moldings.

Interior alterations of the station undertaken in the early 1990s have been "contextual," using mosaics, plaques, and tile bands to continue the original maritime theme. The station is considered architecturally important because the original 1905 platform and wall decorations, are substantially intact. In addition, the 1918 platform and decorative features are also intact.

5.13.5 Potential Environmental Impacts

5.13.5.1 Analysis Year 2005/2006 (Construction)

No Build Condition

Under the No Build Condition, the South Ferry Terminal would not be constructed. The existing South Ferry Station would remain, and continue to function in its current capacity. Minor maintenance and rehabilitation activities could occur, including typical station and transit infrastructure maintenance and repair. These activities would not be expected to have any impacts on historic or archaeological resources. The historic features of the existing station would not be altered, and project construction would not disturb archaeological or other historic resources.

Proposed Action

Impacts to Historic Archaeological Resources

The project corridor possesses a high potential for historic archaeological resources, spanning from the 1620s through the early 20th century. Specifically, potential historic archaeological resources are associated with the Dutch and British military occupation of Fort Amsterdam/George, the post-Revolutionary War construction of Battery Park, covering from 1790 to 1865, and the construction of the 9th Avenue Elevated railway in 1870, which functioned up until 1940. The preceding sections have outlined the prehistoric and historic context of the project area and provide the background to the potential archaeological resources for each era.

As the project is currently designed, the proposed South Ferry Terminal Project has the potential to impact archaeological resources relevant to the history and prehistory of Lower Manhattan. To address these potential impacts, the FTA, MTA/NYCT and NYSOPRHP are developing an Archaeological Resource Management Plan (ARMP) regarding the treatment of such resources during the construction phase. The ARMP is referenced in the draft PA (see Appendix B) and covers the identification, study, mitigation, data recovery, and curation of archaeological resources, including those discovered during initial investigations and unanticipated discoveries during construction. The ARMP describes the approach for each phase of field work. The ARMP would be implemented by MTA/NYCT in coordination with the construction contractor.

Impacts to Historic Architectural Resources

The Proposed Action would affect underground vaults associated with the International Mercantile Marine Building at One Broadway. Portions of the vaults would be demolished during construction of the bellmouth in Greenwich Street/Battery Place, and would be rebuilt after the bellmouth is completed. As indicated previously, NYSOPRHP has made a determination of no adverse effect for the work on the vaults, if the work is completed as proposed. As described in Section 5.11 Noise and Vibration, construction activities associated with the bellmouth and fan plant are also not expected to cause substantial vibration impacts to the One Broadway Building. As part of the Construction Environmental Protection Plan (CEPP), MTA/NYCT will perform initial, interim, and

post-construction surveys of this structure with ongoing vibration monitoring. A building protection plan will be implemented during construction to minimize vibration impacts.

The existing South Ferry Station would remain in use until the new terminal is operational. Therefore, there would be no impacts to the existing South Ferry Station during the construction year of 2005/2006.

5.13.5.2 Analysis Year 2008 (Initial Operation)

No Build Condition

The South Ferry Terminal Project would not be constructed or operational in 2008 and the character of historic and archaeological resources in the APE would remain unchanged. The existing South Ferry Station would remain and continue to function in its current capacity. Minor maintenance and rehabilitation activities could occur, including typical station and transit infrastructure maintenance and repair. These activities would not be expected to have adverse impacts on historic or archaeological resources.

Proposed Action

Under the Proposed Action, the existing South Ferry Station would be closed to the public immediately after the new South Ferry Terminal is opened for operations. Because the existing loop track and station would continue to function for train storage and lay-up, the existing station would be linked to the new terminal for passage of MTA/NYCT personnel only. This linkage would occur via a new door that would be installed at the northern end of the platform underneath the existing entry/exit stairwell. There is no historic tilework in this location, and the door would remain closed during normal operations of the existing station and new terminal.

As indicated previously, an adverse effect is found when an action may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion on the National Register, in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling or association. To avoid this potential for adverse effect, MTA/NYCT would maintain and protect the historic elements of the station from damage. No modifications to historic elements are anticipated. Employees would enter the station as necessary to maintain the active loop tracks and to access storage areas. In addition, MTA/NYCT would continue to allow special public tours of the closed station.

The treatment of the existing station will be covered by the Programmatic Agreement among the MTA/NYCT, FTA and NYSOPRHP (Appendix B). MTA/NYCT would consult with and seek MYSOPRHP approval on the doorway location when that part of the project is designed.

5.13.5.3 Analysis Year 2025 (Long-Term Operation)

No Build Condition

The South Ferry Terminal Project would not be constructed or operational in 2025 and the character of historical and archaeological resources in the APE would remain unchanged. The existing South Ferry Station would remain, and continue to function in its current capacity. Minor maintenance and rehabilitation activities could occur, including typical station and transit infrastructure maintenance and repair. These activities would not be expected to have adverse impacts on historic or archaeological resources.

Proposed Action

In 2025, the new South Ferry Terminal would be operational, and the existing South Ferry Station would continue to be closed to public access. As indicated for the 2008 initial operational year, MTA/NYCT would continue to maintain and protect the historic elements of the station from damage. No modifications to historic elements would be anticipated. Employees would continue to enter the station as necessary to maintain the active loop tracks and to access storage areas. In addition, MTA/NYCT would continue to offer periodic public access tours of the historic station in through an anticipated Transit Museum program.