

APPENDIX E.1

SOCIAL AND ECONOMIC CONDITIONS

OVERVIEW

This appendix supports Chapter 6, “Social and Economic Conditions,” of the FEIS, with additional information on the small study areas, on methods of analysis, and on overall zoning and public policy in the entire study area, as follows.

- E.1: Station and Shaft Site Study Areas
- E.2: Maps and Photographs of Station and Shaft Site Study Areas
- E.3: Zoning Background
- E.4: Zoning Maps for Neighborhood Zones
- E.5: Methodologies

E.1. STATION AND SHAFT SITE STUDY AREAS

INTRODUCTION

Section E.1 of the appendix focuses on the existing social and economic conditions in the smaller “station study areas,” which comprise those blocks surrounding a proposed construction site that could be most directly affected by construction activities (as well as the specific activities associated with new stations once the project is operational). Station study areas generally extend one avenue east and west of the subway alignment, and one block north and south of the station excavation area except where “superblocks” (combined city blocks) exist, in which case the station study areas may extend an extra block. If a shaft site or staging area is proposed within a station study area, one combined study area is used for both activities. In certain cases, a proposed station is located at the border of two neighborhood zones, with a portion of the station study area falling within each zone. In these instances, the station is analyzed within the northern of the two neighborhood zones where a portion of the station is located and this analysis is referenced in the southern neighborhood zone that also contains a portion of the station area. From north to south, these study areas and their respective six neighborhood zones are:

- *East Harlem*, east of Fifth Avenue between 96th Street and the Harlem River, in Community Board 11. This zone contains four station study areas—125th Street, 116th Street, 106th Street, and 96th Street Stations—and the 129th Street underground storage tracks study area. The proposed shaft site/spoils removal area in the 90s is described as part of the 96th Street Station area.
- *Upper East Side*, east of Fifth Avenue between 96th and 59th Streets, in Community Board 8. This zone contains two station study areas—86th Street, and 72nd Street—and a shaft site study area at 66th Street. The proposed station/shaft site/spoils removal area in the 90s is discussed in the East Harlem neighborhood zone section.

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- *East Midtown*, east of Fifth Avenue between 59th and 34th Streets, in Community Board 6. This zone contains three station study areas: 55th Street, 42nd Street, and 34th Street.
- *Gramercy Park/Union Square*, east of Fifth Avenue between 34th and 10th Streets, in Community Boards 6 and 3 (south of 14th Street). This zone contains two station study areas: 23rd Street and 14th Street.
- *East Village/Lower East Side/Chinatown*, east of Lafayette Street from 10th Street to roughly the Brooklyn Bridge, which is in Community Board 3. This zone contains the study areas for the Houston and Grand Street Stations and the Chatham Square Station on St. James Place.
- *Lower Manhattan*, south of Murray and Dover Streets, river to river in Community Board 1. This zone contains two station study areas: Seaport (near Fulton Street) and Hanover Square (near Wall Street).

A study area land use map accompanies each description below. Additional maps and photographs of each study area's economic and visual conditions can be found in Appendix E.2, following the descriptive text.

EAST HARLEM STATION AND STAGING SITES STUDY AREAS

129TH STREET STORAGE TRACKS STUDY AREA

The SDEIS analyzed four sites for potential spoils removal near 129th Street. As described in Chapter 3, these sites are no longer under consideration, as spoils removal for tunnel spoils would not occur in the 129th Street vicinity. The site at the Waterfront and 129th Street would not be available for use by the project, as it will be in use as a staging area for several NYCDOT bridge reconstruction projects. A site owned by New York City Transit (NYCT) at 128th Street, which is used for bus storage could be used for staging for underground storage tracks that could potentially be constructed on Second Avenue north of 125th Street. The study area for these potential staging areas and storage tracks is bounded by the Harlem River to the north, 126th Street to the south, First Avenue to the east, and Lexington Avenue to the west. Figure E.1-1 shows the locations of the potential storage tracks.

Land Use

The 129th Street study area is predominantly industrial, with vacant lots, transportation facilities, and entrance and exit ramps to various highways and bridges. The Willis Avenue Bridge serves northbound traffic from First Avenue, while the Third Avenue Bridge serves southbound traffic exiting at 129th Street between Third and Lexington Avenues. The Triborough Bridge has several entrance ramps in the study area, including ramps on the block immediately south of the study area, between 126th and 125th Streets at Second Avenue. Along the waterfront is an abandoned concrete plant and associated barging facility.

In the midst of these industrial uses and roadways are several churches, schools, and parks. The largest of these is Harlem River Drive Park, which is located north of 128th Street between Second and Lexington Avenues, and north of 127th Street between First and Second Avenues. The park is a conglomeration of several smaller open spaces that include ballfields and playgrounds, including the "Crack is Wack" Playground, which features a mural by artist Keith Haring on its handball court.

Several other parks are also located along Second Avenue in this area. Triborough Plaza, at 125th Street and Second Avenue, is a landscaped space with trees located adjacent to the Triborough Bridge ramps. Wagner Pool, located on the east side of Second Avenue at 124th Street, is an active recreational facility. Wagner Park at 120th Street and Second Avenue contains basketball and handball courts as well as benches and trees.

There are few residential and commercial uses in the study area; a low-rise residential building is located at the northeast corner of 126th Street and Lexington Avenue. Several institutional uses are located here, including three schools along both sides of Lexington Avenue between 127th and 128th Streets and two churches and an associated day care center on both sides of 127th Street at Third Avenue.

Economic Conditions

The potential staging area site, located along Second Avenue at 128th Street, is a NYCT bus facility that includes a two- to three-story building. At Second Avenue between 127th Street and 126th Street, two sites are currently used by NYCT for parking buses. In general, this northeastern portion of the study area contains a mix of industrial businesses, transportation facilities, and auto-related businesses. Unlike the 125th Street corridor, there are few commercial retail storefronts.

Visual Features

The visual character of the 129th Street study area is different from that of the other study areas because there are many fewer buildings. As a consequence, the area has far more open views to the sky than in other portions of the proposed Second Avenue Subway alignment. There are a few, mainly small-scale industrial buildings and a number of surface parking lots and vacant lots. Views east are of the Willis Avenue Bridge approach and the bridge itself. Views north extend across the Harlem River to the Bronx and include the electronic signboard. The Harlem River itself can only be seen from directly adjacent streets; the views from these areas are limited by the heavy vehicular traffic along the Harlem River Drive.

125TH STREET STATION/STORAGE TRACKS STUDY AREA

The L-shaped 125th Street Station study area is bounded by 126th Street to the north, 124th Street (west of Third Avenue) and 120th Street (east of Third Avenue) to the south, First Avenue to the east, and Fifth Avenue to the west (see Figure E.1-2).

Land Use

The 125th Street Station study area is largely a mix of commercial and residential uses, with some light industrial uses as well. 125th Street serves as the neighborhood's main commercial center and is also a retail destination for much of Harlem. Various commercial, office, and retail uses front on 125th Street in the study area, including some larger retail stores. Among the important neighborhood commercial uses are the Pathmark supermarket on the southeast corner of 125th Street and Lexington Avenue and the recently completed Gateway Building on the northwest corner, which contains a major chain drug store and furniture store. The approximately 90,000-square-foot Gotham Plaza retail/commercial center on the north side of 125th Street east of Lexington Avenue opened in 2002.

Along 125th Street, the three- to five-story buildings are typically residential above the storefronts. Much of the residential development along 124th and 126th Streets is multifamily

attached tenements. The largest concentration of residential uses within the study area is located south of 124th Street, where there is a mix of three- to five-story buildings with ground-floor retail and large superblock housing developments, including the Sen. Robert F. Wagner Sr. Houses, a New York City Housing Authority (NYCHA) project with 22 seven- to 16-story buildings, and Taino Towers, on the block between 122nd and 123rd Streets.

Institutional uses that support residential neighborhoods are located in the surrounding community. Among these are the 125th Street Branch of the New York Public Library (Second to Third Avenue); an ear, nose, and throat family health center sponsored by Lenox Hill and Metropolitan Hospitals; a nursing home and rehabilitation center on 125th Street just east of Park Avenue; Engine Co. No. 36 firehouse (currently closed) located adjacent to the nursing home; and the new home of the Harlem Children's Zone. Several parks also face Second Avenue, including the 2.3-acre Triborough Bridge Park (124th Street to 126th Street); Wagner Pool, east of Second Avenue; and Wagner Houses Recreation Area, on the northeast corner of 120th Street and Second Avenue.

In addition, just outside the study area at its southwest boundary is the 20-acre Marcus Garvey Park. In this area, 125th Street is an important transit hub, with the Lexington Avenue 456 subway station at 125th Street and Lexington Avenue and the 125th Street Station for MTA Metro-North Railroad's Hudson, Harlem, and New Haven Lines at Park Avenue. Bus service along 125th Street extends east and west across Manhattan and to the Bronx, Ward's Island and LaGuardia Airport in Queens. The 125th Street corridor is especially heavily traveled, as this major east-west arterial leads to the Triborough Bridge entrance ramps just east of Second Avenue, and thus traffic conditions in this area are often congested. Vehicles also use 125th Street en route to and from the nearby Willis and Third Avenue Bridges.

Economic Conditions

125th Street is a major crosstown street with large retail businesses as well as small grocery stores serving the needs of the local community. There are a total of 122 storefronts within the study area, of which 36 storefronts, or 30 percent, are businesses that specialize in neighborhood services. Approximately 21 percent of the businesses are shopping goods stores, such as furniture or home furnishings and miscellaneous shopping goods. Convenience goods, mostly food stores, as well as eating and drinking establishments make up 13 percent each. At the time of the survey, the retail vacancy rate was 18 percent with 22 unoccupied storefront businesses.

At present, entrances to the proposed subway are planned at two intersections within the study area. At the intersection of 125th Street and Park Avenue, the southwest corner contains a parking lot that extends along the entire side of Park Avenue to 124th Street. The lot serves the Manhattan Eye, Ear and Throat Hospital, which is located directly south of the parking lot. The northwest corner contains a vacant building that is being rehabilitated with no ground-floor retail space. Twin Donuts occupies the northeast corner, and the southwest corner is occupied by an unnamed deli/restaurant. In the center of the intersection is a commuter rail station operated by Metro-North Railroad. At the intersection of 125th Street and Lexington Avenue, there are several subway entrances for the 456, with a vacant storefront on the northeast corner and a pizzeria on the southeast corner. On the northwest corner, there is a recently constructed office building with a Seaman's Furniture store and Duane Reade pharmacy on the ground floor. A large Pathmark supermarket is at the intersection's southeast corner of Second Avenue. Although the supermarket occupies an entire block, the main access point is on the corner. These retailers are part of a recent trend in the 125th Street corridor towards larger, national retail chains. In general, this area of 125th Street has a significant amount of pedestrian traffic given

the presence of the Metro-North Railroad, the 456 station at Lexington Avenue and 125th Street, and the Pathmark supermarket.

Visual Features

The 125th Street corridor is mainly composed of late-19th and early-20th century, commercial and institutional brick buildings. Most buildings range from one to five stories tall; one exception is the 12-story brown brick commercial building at Park Avenue, which is more than twice as tall as the average building in the study area. Large vinyl signage is attached to the sides of this and other taller buildings along the corridor. Several two- to three-story buildings of modern design are currently under construction on 125th Street. The study area is visually divided on 125th Street by the Park Avenue viaduct; this elevated train structure is embellished with abstract decorative aluminum panels, backlit with neon lights.

The buildings on the west side of Second Avenue are predominantly four- to six-story brick tenements. Four 35-story concrete and glass apartment towers occupy the full block of 123rd to 122nd Streets, Second to Third Avenues; these towers visually dominate the surrounding low-scale buildings. On the east side of Second Avenue between 124th and 120th Streets is a public housing complex with 22 seven- to 16-story red brick buildings, set on superblocks at angles to the street grid. Mature trees surround this complex. There are also a number of vacant lots in the study area, mostly on Second Avenue. In contrast to most of the Second Avenue corridor, there is no strong streetwall in this area because of the housing superblocks that are set back from the street and the gaps created by empty lots.

Because of the overall low-rise scale of this area, there is a general feeling of openness, with substantial views of the sky. Views west along 125th Street—and throughout the East Harlem area south to 97th Street—are of the Park Avenue viaduct. Views east include the viaduct (from Fifth and Madison Avenues) and the steel Harlem River Lift Bridge, part of the Triborough Bridge complex. Trees surround the bridge approach. Views north and south from 125th Street are generally without focus; unless otherwise noted, views north and south along Second Avenue throughout the East Harlem area continue indefinitely with no prominent points of interest, with occasional residential towers punctuating the sky.

Two architecturally significant buildings are located along 125th Street: the Harlem Savings Bank (now the Apple Bank for Savings) on the south side of 125th Street between Park and Lexington Avenues; and the New York Public Library on the south side of 125th Street between Second and Third Avenues. These two elaborately detailed stone buildings depart from the predominant style and materials of the street and are considered visual resources.

116TH STREET STATION STUDY AREA

The 116th Street Station study area is bounded by 120th and 115th Streets and First and Third Avenues (see Figure E.1-3).

Land Use

This study area shows a typical land use pattern of residential use with commercial, industrial, and institutional uses along the main thoroughfares (116th Street and Third, Second, and First Avenues), primarily as ground-floor uses in residential buildings. Second Avenue here is lined with low-rise residential buildings, most with ground-floor retail uses, as well as some vacant lots and small light industrial uses, such as electrical supply stores and contractor storage areas. The commercial development along this avenue as well as along First Avenue and 116th Street

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is a mix of small retail stores, coffee shops, and service stores, such as dry cleaners and laundromats. Third Avenue contains larger retail stores, fast-food restaurants, and other commercial facilities.

Attached, four- to six-story multifamily row houses predominate in this study area, which contains several six-story apartment buildings as well. Recent residential investment can be seen in newly renovated buildings on Second Avenue between 118th and 119th Streets and a new apartment building on 117th Street between Second and Third Avenues. Several large NYCHA housing developments are located to the south, just beyond the station study area's boundaries.

Several institutional and community facilities are located in the 116th Street Station study area, notably several public schools between First and Second Avenues and a large community facility on 116th Street near Second Avenue, where the LaGuardia Senior Center and a Metropolitan Hospital-sponsored health clinic operate. Also in the study area, formerly vacant lots have been converted to community gardens. From 120th to 110th Streets is a portion of the Second Avenue Subway tunnel that was completed during the 1970s.

This study area contains a number of vacant lots, with the largest concentrations on 119th Street between First and Second Avenues. Buildings in disrepair occupy some lots, while others are vacant or filled with cars.

Economic Conditions

The study area contains a mix of low-rise tenements and large-scale housing projects with ground-floor retail stores that generally cater to neighborhood residents. Of the 155 storefronts located within the study area, 49 of them (32 percent) are service-related businesses, such as hair and nail salons and dry cleaning establishments. Convenience goods stores make up another 26 percent of the total businesses in the study area. Food stores make up the majority of the convenience goods stores, with grocery stores and delis making up 26 out of 40 businesses. Eating and drinking establishments make up an additional 16 percent of the total businesses while vacant storefronts make up 15 percent. The remainder (11 percent) is predominantly shopping goods stores offering such items as luggage, home furnishings, and clothing.

Based on current planning, the 116th Street Station would have entrances in the vicinity of 118th Street and 116th Street. At the intersection of 118th Street and Second Avenue, the southwest corner is a privately owned open space used by the residential building. Across the street on the southeast corner is a vacant storefront. A two-story community facility is located on the northeast corner, and The Great American Laundromat occupies the northwest corner. At 116th Street, where the other subway entrance would be located, retail activity is high, as 116th Street is a major cross-town street. The southwest corner of 116th Street and Second Avenue contains a vacant retail space that was once a restaurant. Sandy Restaurant is located on the northwest corner of the intersection, and El Barrio Meat Market is on the northeast corner in the ground floor of a four-story residential building. A retail branch of New York National Bank occupies the southeast corner.

Visual Features

Four- to six-story brick tenement buildings with ground-floor retail, as well as a few small, unornamented brick and concrete commercial buildings, occupy most blocks in the study area. Buildings are generally built to the street line, although several gaps created by empty lots prohibit the creation of a strong streetwall. Some of the buildings have been renovated and are in good condition, such as the row of tenements on the west side of Second Avenue between 119th

and 118th Streets; others are in bad condition, open to the elements, or boarded up. On the south side of the study area is the beginning of the Jefferson Houses complex, a collection of seven- and 14-story, bow-tie-shaped, red brick buildings surrounded by mature trees. Otherwise, there are few street trees along the avenue.

The only focal points in views north are the Taino Towers at 122nd Street and, in the distance in the Bronx, a large-scale electronic signboard. On 117th Street, the copper tower of St. Paul's Church is within the view west. Views to the east are of the elevated FDR Drive, and from 115th Street, the pedimented entrance and tower of the Manhattan Center for Science and Mathematics High School are prominent.

106TH STREET STATION STUDY AREA

The 106th Street Station study area is bounded by 110th Street to the north, 103rd Street (east of Second Avenue) and 104th Street (west of Second Avenue) to the south, and First and Third Avenues to the east and west (see Figure E.1-4).

Land Use

Like the two other East Harlem station study areas, the 106th Street Station study area contains largely residential uses interspersed with institutional, commercial, and light-industrial uses, vacant lots, and open spaces. In this study area, Second Avenue is characterized by large-scale residential developments north of 106th Street (e.g., Franklin Plaza Apartments on superblocks between First and Third Avenue, 116th and 118th/119th Streets) and low-rise residential uses with ground-floor retail north of 109th Street and to the south of 106th Street. Interspersed are a few commercial, institutional, and light industrial uses.

Similar to 125th and 116th Streets, 106th Street is a major crosstown street that is lined with businesses. These include such local commercial uses as delis, bakeries, and neighborhood services. Second and Third Avenues in the study area also have ground-floor businesses; those on Third Avenue include larger chain and retail stores. A large supermarket, school, and Poor Richard's Playground are part of the Franklin Plaza complex.

Most of the area's schools are close to 106th Street, with the exception of Jefferson Park Junior High School, located on the southwest corner of 109th Street and Second Avenue. Other important community facilities include several small religious institutions, the East Harlem Tutorial Program (on Second Avenue and 105th Street), the Settlement Health Center and the New York Junior League Health Education Center, and the Legal Aid Society Community Law Center. There are also several small community gardens on formerly vacant lots. In addition, another portion of completed tunnel is located between 105th and 99th Streets.

Economic Conditions

The 106th Street Station study area's commercial retail space is generally small-scale, with store entrances located close together. Of the 98 storefront businesses in the study area, 30 (almost 31 percent) specialize in neighborhood services, such as hair and nail salons, and dry cleaners. Another 21 businesses (21 percent) offer convenience goods, the majority of which are delis and small grocers. Vacant storefronts, which make up 24 percent of all the businesses in the study area, are found mostly along Second Avenue. Eating and drinking establishments account for 12 percent of the stores, and another 12 percent offer shopping goods, auto-related services, and building materials/hardware.

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The study area contains two locations where pedestrian access to the proposed subway would be provided: on Second Avenue between 108th and 106th Streets, where Franklin Plaza Apartments are located. Figures in E.2 identify the ground-floor businesses on the corners of 106th and Second Avenue, as well as a view looking north at Franklin Plaza Apartments. Residential towers between 106th and 108th Streets are set back from the street and contain no retail or office uses, but there is a one-story retail branch of Chase Bank on the northwest corner of 106th Street and Second Avenue.

Visual Features

This study area is mainly composed of four- and five-story tenements north of 108th and south of 106th Streets and the Benjamin Franklin Houses (also known as Ben Franklin Plaza) between 108th and 106th Streets. Ben Franklin Plaza is a public housing complex constructed of dark red brick and set back slightly from both sides of Second Avenue behind a low fence. The 20-story buildings have staggered massing and circular towers at their tops, and there are open areas for playgrounds and gardens at the center of each complex. The buildings are also surrounded by many mature trees, which soften the appearance of the surrounding large buildings. On the west side of the study area, one-story buildings are located in front of the housing complex at the street line. Just east of Second Avenue on the north side of 108th Street is a decorative, five-story red brick and terra cotta building (formerly a governmental building, now residential). On the northeast and northwest corners of 106th Street and Second Avenue, the buildings are slightly set back from the street line, creating concrete plazas. The northeast and southeast corners of 105th Street and Second Avenue are occupied by fenced parking lots.

The decorative apartment building on 108th Street, described above, can be seen from immediately surrounding streets. The topography of the area has a slight rise to the north, limiting views in this direction. Views east vary. From 108th Street, views are of a series of 32-story red brick apartment towers on First Avenue. From 106th Street, views are of the Hells Gate Bridge; and from 105th Street, views are of the elevated FDR viaduct.

96TH STREET STATION AND SHAFT SITE/STAGING/SPOILS REMOVAL STUDY AREA

The 96th Street Station and shaft site/staging/spoils removal study area (see Figure E.1-5) is bounded by 99th Street to the north, 90th Street to the south, First Avenue to the east, and Third Avenue to the west. The portion of this study area south of 96th Street extends into the Upper East Side neighborhood zone. As described in Chapter 3, "Description of Construction Methods and Activities," a substantial amount of spoils need to be removed in this area as a result of both the tunnel construction and construction of the 96th Street station. While station entrances and construction activities would be located in both the East Harlem and Upper East Side neighborhoods, for purposes of analysis only, the station and shaft site/staging/spoils removal study area is described as part of the East Harlem neighborhood zone.

Land Use

This combined study area is primarily residential, but also includes retail and institutional uses typical of a residential area, with some industrial uses in the eastern portion of the study area. The stretch of Second Avenue within the study area has large residential, institutional, and open space uses north of 96th Street, and a mix of high-rise apartments and walk-up residences to the south, both with ground-floor retail uses that provide neighborhood services. Major residential complexes are Washington Houses, a NYCHA complex occupying the superblock bounded by 104th and 97th Streets and Second and Third Avenues; the Normandie Court complex, between

96th and 95th Streets between Second and Third Avenues; and the Ruppert Towers complex of several high-rise buildings, between 93rd and 90th Streets on the west side of Second Avenue. While many buildings on the west side of Second Avenue are tall, those on the east side are predominantly smaller, with a concentration of small walk-up residential buildings with ground-floor retail uses and occasional commercial uses. First Avenue and 91st Street has the largest concentration of commercial uses in the area, although some of its larger retail stores are concentrated on 96th Street. The other side streets, however, are more consistently residential.

Several institutional uses are located in the combined study area, with the largest concentration near 96th Street. The Islamic Cultural Center of New York, located between 97th and 96th Streets on Third Avenue, comprises a mosque, meeting place, and school. Another important use is Metropolitan Hospital, located on the superblock between 99th and 97th Streets east of Second Avenue. To the south of the hospital is the School of Cooperative Technical Education on 96th Street between First and Second Avenues. Adjacent to the school is a City park, Playground 96, managed by the city's Department of Parks and Recreation. The eastern portion of the park contains newly renovated ballfields that are actively used as the athletic facilities for the high school. The western portion of the park is a play area for younger children that consists primarily of an open concrete-paved space, with play equipment, some trees, swings, and a park house. As described in detail in Chapter 3, this part of the playground is under consideration for use as a staging area during Second Avenue Subway construction to minimize impacts to the surrounding neighborhood.

Across 96th Street from the high school is another public high school, the Young Adult Learning Academy, which occupies a throughblock site between 96th and 95th Streets near First Avenue. Two other schools are located on the northwest corner of 91st Street and First Avenue. At the south end of the Ruppert Towers complex, Ruppert Park is located between 90th and 91st Streets. Alongside the park, 91st Street is closed to traffic, creating a pedestrian extension to the park.

Economic Conditions

The 96th Street Station and shaft site study area is predominantly made up of large and medium-scale residential buildings, with a wide variety of ground-floor retail stores ranging from small neighborhood groceries to larger national retail chains. Much of the local retail activity is concentrated on Second Avenue and along 96th Street, a major cross-town thoroughfare. Out of a total of 129 storefronts, 51 (40 percent) are businesses that specialize in neighborhood services, such as dry cleaners, home improvement services, and medical offices. Approximately 19 percent (24 businesses) are convenience goods stores, while another 18 percent (23 businesses) are eating and drinking establishments. Vacant storefronts make up 9 percent of the total storefronts in the study area, as do stores offering shopping goods. The remaining 5 percent includes businesses offering auto-related services and building materials/hardware. Metropolitan Hospital, a major employer, is located between 99th and 97th Streets east of Second Avenue. A lumberyard is also located in the study area on the southwest corner of 97th Street and Second Avenue. Most other employment centers are located south of 97th Street.

Based on current planning, the 96th Street Station would have subway entrances near 96th Street and at 94th Street. At 96th Street on the southwest corner is a large high-rise residential complex (Normandie Court) set back from the sidewalk with a Rite-Aid Pharmacy on the ground floor. The northwest corner of the intersection is occupied by Designs of the Century (a furniture store) and Optimo Deli is located on the southeast corner of this intersection. Because this station may

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be located between 96th and 95th Streets, specific businesses to be affected are discussed in Chapter 8, “Displacement and Relocation.”

At 94th Street, where the second subway entrance would be located, the southwest corner is occupied by a large multi-story residential building with Y.C.S. (a hardware store) on the ground floor. A similar high-rise residential building is located on the northeast corner, also containing a dry cleaning and tailoring business (Personal Touch Valet). The northwest and southeast corners are both occupied by four-story residential buildings with restaurants located on the ground floor (Ziggie’s Café and Nick’s Restaurant, respectively).

Between 93rd and 92nd Streets, Second Avenue is lined by many small businesses that serve the neighborhood’s large residential population, with the exception of a large Key Food supermarket on the northwest corner of 92nd Street and Second Avenue. The smaller businesses include nail salons, delicatessens, small grocers, and a fitness club.

Visual Features

Because of their proximity to each other, the study areas for the 96th Street Station and the 96th Street and 92nd Street shaft sites/spoils removal areas are combined, and extend partly into the midblocks on both sides of Second Avenue between just north of 99th Street to 91st Street. As described above, the northern portion of this area is considered East Harlem. This area is filled with 32- to 48-story modern, large-scale apartment complexes, some of which occupy entire blockfronts, interspersed with five-story brick tenement buildings. The apartment buildings’ materials are a combination of brick, glass, metal, and concrete. The unornamented seven- to 15-story white-brick buildings of Metropolitan Hospital occupy the east side of 99th to 97th Streets; the west side is occupied by the southern end of the George Washington Houses, a red brick public housing complex set at an angle to the street. The east side of Second Avenue from 97th to 96th Streets is occupied by Playground 96, a fenced area with a hard play surface, trees, a small brick building with rest rooms facing Second Avenue, and a grassy playing field in the midblock toward First Avenue. There are a large number of street trees in and around the George Washington Houses.

Two large-scale apartment complexes occupy the full blockfronts between 96th and 95th Streets and 94th to 93rd Streets on the west side of Second Avenue. The first is set back from the street, surrounded by trees and planters; the second (Astor Terrace) is built to the street line at the ground-floor level, surrounding a central green space. On the east side of Second Avenue between 96th and 95th Streets is an apartment tower, currently under construction, that is set back from the street line behind a concrete plaza. Well-preserved rows of tenements are located just west of Second Avenue on the north side of 96th Street, on the west side of Second Avenue between 95th and 94th Streets, and on the east side of Second Avenue between 92nd and 91st Streets. These buildings can only be seen from directly adjacent streets. On the west side of Second Avenue between 92nd and 90th Streets is Ruppert Towers, a large complex of dark red brick apartment towers.

Views east are of the FDR, both at-grade and on a viaduct; from 96th Street, the Shore Towers in Astoria, Queens, can be seen in the distance.

UPPER EAST SIDE STATION AND SHAFT SITE STUDY AREAS

86TH STREET STATION STUDY AREA

This study area is bounded by 88th Street to the north, 81st Street to the south, First Avenue to the east, and Third Avenue to the west (see Figure E.1-6).

Land Use

Second Avenue in this station study area is lined with walk-up five- and six-story residential buildings, although the study area also includes some larger residential buildings, particularly on both sides of the avenue north of 86th Street. Ground-floor retail uses are located along the avenues and some side streets. Retail space in the older tenement buildings provides primarily neighborhood services, such as dry cleaning or small cafes. Along Second Avenue, many of the storefronts are occupied by restaurants. East 86th Street between Second and Third Avenues has long been part of a major neighborhood “Main Street.” Its larger chain retail stores attract customers from outside the immediate area. Between First and Second Avenues on 86th Street, retail stores cater more to local residents. Institutional uses in the study area include P. S. 290 on 82nd Street and the Lutheran Home for Women on 82nd Street. A post office is located on 85th Street. There are several religious institutions in the study area as well.

Economic Conditions

Eighty-sixth Street is a busy crosstown street that includes large national retailers to the west of Second Avenue and neighborhood-oriented stores to the east that serve the area’s dense residential population. Among the national retail chains are Barnes & Noble, Circuit City, P.C. Richard’s, Gateway computer, and Banana Republic. Restaurants, cafes, and other food establishments dominate Second Avenue in this area. Accordingly, almost 34 percent of the businesses found within the study area are eating and drinking establishments, followed by convenience goods stores (22 percent), ranging from delis/grocery stores to cigar stores and stands. Neighborhood services, such as cleaners/tailors and hair shops, make up 21 percent of the businesses within the study area. Shopping goods stores, including the national chains noted above, represent another 18 percent of the area’s storefronts. Less than 4 percent of the storefronts in the study area are vacant and the remaining 1 percent includes auto-related services and building material/hardware stores.

Station entrances would be located in the vicinity of 86th and 83rd Streets. At 86th Street, a retail branch of Chase Bank is located on the ground floor of a high-rise residential building at the northwest corner. Across from the bank on the northeast corner is a high-rise residential building with a Food Emporium supermarket on the ground floor, while on the south side of the intersection, the corners contain smaller residential buildings (three to five stories tall) with two small restaurants on the ground floors (Piazza Pizzeria to the west and The Coffee Shop to the east).

At 83rd Street, the largest building, located on the northeast corner, houses Tony’s Di Napoli, a large family-style restaurant. The remaining corners contain three- to five-story apartment buildings with retail on the ground floor, as follows: Penang Restaurant on the southeast corner; Megan Scott hair salon on the southwest corner; and Gothic Cabinet Craft (a furniture store) on the northwest corner. See Chapter 8, “Displacement and Relocation,” for more information regarding the specific location of this proposed entrance.

Visual Features

The visual character of the 86th Street Station study area is substantially similar to that of the 96th Street Station study area. Both sides of Second Avenue between 87th and 86th Streets are filled with full-blockfront, brick apartment buildings; one is built to the street line; the other sets back above the first story. Well-preserved rows of tenements occupy the west side of Second Avenue between 84th and 83rd Streets and both sides of Second Avenue between 83rd and 82nd Streets. A two-story mid-19th century row house on the south side of 82nd Street, just east of Second Avenue, is unassuming but unique among the buildings types in the area. There is a slight downward slope toward First Avenue within the study area. Views east are generally of extensive tree canopies on the side streets, although an apartment tower on York Avenue can be seen in the view east from 84th Street. A portion of the Metropolitan Museum of Art can be seen above the slope of the street in the distance in views west from 83rd Street.

72ND STREET STATION STUDY AREA

The 72nd Street Station study area is bounded by 74th and 67th Streets, First and Third Avenues (see Figure E.1-7).

Land Use

In this area, First and Second Avenues contain a mix of tenements and larger apartment buildings. Third Avenue has a larger concentration of high-rise apartment complexes compared with Second and First Avenues. Large buildings occupy the blocks along 68th and 69th Streets between Second and Third Avenues. Along 72nd Street, a major crosstown street, there is a mix of mid- and high-rise apartment buildings. On the midblocks of the narrower streets, four- and five-story residential tenements are interspersed with larger luxury apartment complexes.

Institutional uses include Lenox Hill Neighborhood House on 70th Street, and a new Memorial Sloan-Kettering Cancer Center Genitourinary Facility on 68th Street between First and Second Avenues, and a number of religious institutions and schools. Commercial uses in the 72nd Street Station study area are located predominantly in the ground floors of residential buildings. Ground-floor uses are more highly concentrated along Third and Second Avenues than along First Avenue. While uses on Second Avenue include a cluster of restaurants, a supermarket, and a large drug store, the retail shops and movie theaters on Third Avenue attract a clientele from a wider area. Except for 72nd Street, the retail space in some of the older tenement buildings on the side streets is for neighborhood services, such as dry cleaners and nail and hair salons. Retail uses along 72nd Street range from neighborhood services to antique furniture stores. On 67th Street, a strip of commercial buildings contains Fox Television and other uses.

Economic Conditions

The 72nd Street economic conditions study area extends along Second Avenue from 73rd Street to 68th Street, as well as 72nd and 69th Streets between Third and First Avenues. Residential buildings (both high-rise towers and tenements) and small retail establishments primarily characterize the area, with much of the retail uses serving the needs of the immediate neighborhood. Out of 94 storefronts, 32 (or approximately 34 percent) of the businesses are neighborhood service establishments, such as cleaners/tailors and hair and nail salons. There are 22 eating and drinking establishments within the study area, making up 23 percent of all the businesses. An additional 21 storefronts, representing 22 percent of all businesses, are convenience goods stores, such as delis and drug stores. Shopping goods stores, such as miscellaneous shopping goods, furniture, and apparel, make up 17 percent of the study area's

businesses, while the remainder (3 percent) includes stores offering building materials and hardware. No vacant storefronts were observed in the 72nd Street study area.

Subway entrances are contemplated in the vicinity of 72nd Street and 69th Street. At 72nd Street, the northwest corner is occupied by Falk Surgical, a medical supply store that fronts on 72nd Street. Liberty Travel agency and Philip Roman optician occupy the southwest and southeast corners, respectively, and their entrances face Second Avenue. A CVS pharmacy, extending halfway down the block, is located on the northeast corner.

At 69th Street, the four businesses include; Hold Everything, a national home furnishings retailer, on the southwest corner; Fine Wine & Spirits on the northwest corner; Patsy's Pizzeria on the northeast corner; and Apple Tree Market on the southeast corner.

Visual Features

The 72nd Street Station study area is similarly filled with rows of tenement buildings interspersed with older, mid-, and large-scale apartment complexes, some of which occupy entire blockfronts. Most of the buildings in the area are constructed of brick and are built to the street line. Full-blockfront apartment buildings line the east side of Second Avenue between 71st Street and 70th Streets and the west side of Second Avenue between 69th and 68th Streets. The latter is set back from the street line above the ground-floor level, which is designed as a two-story glass-front pavilion; it also has a 32-story tower behind the 19-story section that faces Second Avenue. Well-preserved lines of row houses on the north side of 71st Street west of Second Avenue can be seen from directly adjacent streets and on the south side of 69th Street east of Second Avenue. Views east from 70th Street and 69th Street are to the New York Hospital-Cornell Medical Center complex.

66TH STREET SHAFT SITE STUDY AREA

As described in Chapter 4, a shaft site for excavating the tunnel connections to the 63rd Street Line and removing spoils from this section of tunnel could be located at 66th Street at Second Avenue. The study area for this site, referred to in this analysis as the "66th Street shaft site," is bounded by 67th Street to the north, 62nd Street to the south, and First and Third Avenues (see Figure E.1-8).

Land Use

Although also largely residential, this study area has more non-residential uses than many of the other study areas on the Upper East Side. Mid- and high-rise buildings are situated among walk-up tenements and row houses on the avenues and side streets, with retail uses in the ground floors of many of these residential buildings. The retail uses are typically neighborhood-oriented shops, except the Decorators Center, an office building with design-related businesses on 62nd Street east of Second Avenue, and the Beekman Theater, on Second Avenue between 65th and 66th Streets. Farther east are several car rental companies and parking garages, as well as a Con Edison substation on 64th Street between First and Second Avenues. Many of the commercial, industrial, and institutional uses are located near the Queensboro Bridge ramp.

The several large institutional uses in the study area include the New York Blood Center (on 67th Street), a branch of the New York Public Library, and the Manhattan Eye, Ear and Throat Hospital. Memorial Sloan-Kettering Cancer Center is also partially within the study area, at 65th Street and Second Avenue.

Economic Conditions

Aside from many ground-floor retail businesses similar to other Upper East Side study areas, this area contains a notable concentration of movie theaters. Most commercial uses are located along Second Avenue and cater to the local residents.

Of the 106 total storefronts surveyed in this study area, 33 percent are neighborhood services, such as cleaners and tailors, and hair and nail care salons. Shopping goods, such as home furnishings and clothing, and building materials/hardware are sold at 26 percent of the stores in this study area, followed by convenience goods at 20 percent. Less than 7 percent of the storefronts in the study area are vacant. Eating and drinking establishments make up 13 percent of the area's businesses. Large retail stores in the area include The Gap, Patio.com, and Gristedes supermarket. Memorial Sloan-Kettering Cancer Center, a major employer, is also located within this study area on Second Avenue between 66th and 65th Streets.

The study area contains a proposed spoils removal site located on the west side of Second Avenue at 66th Street. High-rise residential buildings are located on both sides of the street at this location. Sixty-sixth Street is a double-width street with a pharmacy located in the residential building on the north side of the street.

Visual Features

Second Avenue from 67th to 65th Streets is occupied by several large apartment complexes, including a full-blockfront 16-story white brick apartment building; a 46-story glass tower; and Manhattan House, a 20-story, gray brick complex occupying the full block bounded by 66th and 65th Streets and Second and Third Avenues. Sixty-sixth Street between Third and Second Avenues is wider than usual to accommodate a central landscaped median in front of Manhattan House. There are a few tenements in the midblock of 66th Street east of Second Avenue. The Beekman Theatre complex, a series of blocky, modernist, small-scale commercial and entertainment buildings, is located on the east side of Second Avenue between 66th and 65th Streets.

EAST MIDTOWN STATION AND SHAFT SITE STUDY AREAS

55TH STREET STATION STUDY AREA

The 55th Street Station study area is bounded by 59th and 51st Streets, First and Third Avenues (see Figure E.1-9). It is located in an area with a wider mix of residential, commercial, and institutional land uses.

Land Use

Here, 57th Street is a major two-way crosstown street with mid- and high-rise apartment buildings. The Queensboro Bridge, immediately to the north of the study area at 59th Street, affects traffic patterns throughout this study area. A ramp from the bridge cuts through the blocks between First and Second Avenues from 61st to 57th Street. High-rise residential buildings abut this ramp.

The eastern portion of the study area is predominantly residential, with four- to six-story walk-up buildings lining the side streets and a mix of high-, mid-, and low-rise residential buildings along First and Second Avenues. A new residential building is currently being constructed on a site along Second Avenue between 53rd and 52nd Streets. Ground-floor retail uses, with stores providing neighborhood services, line the avenues. This study area also contains a portion of the

decorator district anchored by the mid-rise Manhattan Art and Antiques Center between 56th and 55th Streets. Many of the retail stores on the side streets and along Second Avenue in this area are related to the interior decorating business (e.g., antiques stores, lighting stores, furniture stores).

The largest, High School of Arts and Design, is located here, at the southwest corner of 57th Street and Second Avenue along with P.S. 59 Beekman Hill School. The 54th Street Recreation Center, a facility operated by the City's Department of Parks and Recreation, is on the south side of 54th Street between First and Second Avenues. The only public open space in the study area is Greenacre Park, on 51st Street west of Second Avenue.

Economic Conditions

The study area includes a variety of low-, mid-, and high-rise residential and office buildings. Most retail businesses are geared toward local residents, with approximately 37 percent consisting of eating and drinking establishments, and 30 percent of neighborhood services, including hair and nail salons and dry cleaners. Shopping goods stores, offering mostly home furnishings, account for another 18 percent of the area's businesses, followed by convenience goods stores (11 percent). Vacant storefronts totaled less than 4 percent of the businesses in the study area.

Station entrances are proposed in the vicinity of 55th and 53rd Streets. At 55th Street, Manhattan Art and Antiquities Center is located on the northeast corner, Good Nature Market on the northwest corner, Angelo's Pizza on the southwest corner, and vacant property currently under construction on the southeast corner. The Conservative Synagogue is located on 55th Street, east of the vacant parcel. The northeast and northwest corners of the intersection at 53rd Street and Second Avenue have restaurants on the ground floor of two- to five-story residential buildings, including Local Café and Master Wok restaurant, respectively. The southwest corner is occupied by a vacant four-story building and the southeast corner is a vacant lot.

Visual Features

The 55th Street Station study area is filled with rows of four- to six-story tenement buildings interspersed with modern, large-scale apartment complexes of 18 to 33 stories. The midblocks on either side of Second Avenue are also filled with tenement buildings and a few low-scale apartment buildings. Some of these blocks contain uninterrupted rows of tenements. While some of the apartment buildings are built to the street, others are set back, and have plazas or raised planters in front. Most of the buildings in the study area are constructed of brick; the tall apartment building on the southwest corner of 54th Street faced in metal and glass is an exception. The largest non-residential building in the study area is the modern High School of Art and Design; this seven-story, metal- and brick-clad school occupies the eastern half of the block bounded by 57th and 56th Streets and Second and Third Avenues. There is one large vacant lot in the study area, at the southeast corner of 53rd Street, and the tenements at the southwest corner of 53rd Street are empty and boarded up.

Views along the study area's cross streets are without focus, with a few exceptions. Views west from 54th and 53rd Streets include the towers of the Citicorp Center and 885 Third Avenue (popularly known as the "Lipstick building"). On the south side of 52nd Street west of Second Avenue are the Rockefeller Guest House, a two-story brick, steel, and glass house, and the red brick and limestone Turtle Bay Music School; these buildings can be seen from the immediately

adjacent streets. The richly decorated tenement on the northwest corner of 52nd Street is also visible from the immediately adjacent streets, particularly from the south on Second Avenue.

42ND STREET STATION STUDY AREA

The 42nd Street study area is bounded by 46th and 40th Streets, First and Third Avenues (see Figure E.1-10).

Land Use

This area contains a mix of uses, dominated by commercial and residential uses with some light industrial and institutional uses, open spaces, and hotels. Within the study area Second Avenue is characterized largely by high-rise office and residential buildings, which have ground-floor retail uses, as well as a few low-rise residential buildings.

West of Second Avenue, commercial land uses predominate, while to the east, residences are mixed with commercial uses. Just east of Second Avenue is Tudor City, with approximately 3,000 housing units and 600 hotel rooms. Beyond Tudor City to the east and north is the United Nations and its many missions and other supporting buildings. 42nd Street is lined with several prominent high-rise commercial office buildings, including the Pfizer Building, WPIX 11 (the former Daily News building), the New York Helmsley Hotel, and the Ford Foundation. West of Second Avenue, the land uses are primarily bulky mid- and high-rise office buildings.

Several parking garages and car rental businesses are on the north side of 43rd Street between Second and Third Avenues. Just outside the southeast corner of the study area is the Con Edison Waterside Plant, an active power generating facility, and related Con Edison uses; this area is under consideration as a major development site. This is discussed in more detail under “Future Conditions Common to All Alternatives,” below. Also just outside the study area is a New York City Department of Environmental Protection (DEP) water maintenance facility located directly south of the Waterside Plant.

Economic Conditions

Forty-second Street is the major crosstown thoroughfare in this area, with heavy pedestrian and vehicular traffic. The study area consists of a variety of low-, mid-, and high-rise residential and office buildings.

A concentration of large office towers is located at the intersection of 42nd Street and Second Avenue, including the 33-story Pfizer building (northwest corner), the 37-story WB11-WPIX building (southwest corner), and a 17-story office building on the southeast corner that extends south to 41st Street. Immediately north of the Pfizer building is a 22-story office building (801 Second Avenue) that is occupied by the New York State Commission of Judicial Conduct, and several foreign embassies and government tourist boards, among other organizations. Farther north across 43rd Street is an 11-story office building that houses the headquarters of The Episcopal Church, USA. Lastly, on the east side of Second Avenue at 44th Street is 828 Second Avenue, a 21-story office/residential building that contains the offices of the Nigerian Consulate.

Retail businesses are a mix of larger shopping goods stores in addition to neighborhood services and restaurants. The majority of businesses in the study area are eating and drinking establishments (31 percent) and neighborhood services (26 percent), such as hair and nail salons and parking garages. Shopping goods and convenience goods stores each account for about 18 percent of the area’s businesses. Many large businesses are located in the study area and are geared toward office workers. Fewer than 5 of the storefronts (6 percent) in the area were vacant.

Subway entrances are under consideration at three intersections along Second Avenue at 44th, 42nd, and 41st Streets. At the intersection of 44th Street and Second Avenue, Nigerian Airways is the only retail use located on the ground floor of the office building located on the northeast corner. This office building is recessed from the corner at both Second Avenue and 44th Streets. The southeast corner also contains an office building with a ground-floor furniture store (Adirondack Office Furniture). Restaurants (Baker's Dozen and John's Café) occupy the northwest and southwest corners, respectively.

Another contemplated entrance location is at the intersection of Second Avenue and 42nd Street. Large office buildings are located at each of the four corners, three of which have ground-floor retail, including McFadden's Restaurant at the northeast corner, Innovation Luggage at the southeast corner, and a vacant store space at the southwest corner.

At the intersection of 41st Street and Second Avenue, Cibo Restaurant and vacant retail space are located at the northwest and northeast corners, respectively, occupying the ground floor of tall office buildings. A one-story building is located on the southeast corner and contains Sussex Liquors and a pizzeria. A food market is located on the ground floor of a four-story building at the southwest corner.

Visual Features

This area contains a combination of new and old construction, with many mid- and large-scale office and apartment buildings. These structures range in height from 17 to 50 stories, with most buildings at around 20 stories. There are also a few low-scale tenement buildings within the study area, and no vacant lots. The office buildings are typically built of glass, metal, and concrete, while the apartment buildings are primarily constructed of brick, such as the Churchill on the east side of Second Avenue between 40th and 39th Streets. Within the study area, there are also unornamented one-story commercial buildings on several corners and on sites just east and west of the avenue. There are a few bishop's crook lampposts on 41st Street east of Second Avenue and granite curbs at intersections around 42nd Street.

A number of visually prominent and distinctive buildings are visible in views from certain east-west cross streets. Views west from 45th Street are of the copper-topped Helmsley Tower. Views west from 44th through 41st Streets are of the Grand Central Terminal viaduct, the MetLife building above the terminal, and the spire of the Chrysler building.

Views east on 45th and 44th Streets are of the United Nations General Assembly building. From 43rd Street, views east include the United Nations' Secretariat building and the Ford Foundation Building. Views east from 42nd Street include the Ford Foundation building; the Tudor City Place viaduct and, at night, the Tudor City sign; the tiny, Tudor-style Church of the Covenant on the south side of the street; and one of the Queens West apartment towers across the East River in Long Island City, Queens. Views east from 40th Street are of the Con Ed power plant and its two exhaust towers.

Other visually interesting buildings that are visible from immediately adjacent areas include the Beaux Arts Apartments and the Beaux Arts Institute of Design, on the south side of 44th Street east of Second Avenue; an 11-story office building with vertical concrete ribs and a marble base with stained glass inserts at the northwest corner of Second Avenue and 43rd Street; the Art Deco ornamented Daily News building, on the south side of 42nd Street between Second and Third Avenues; and richly patterned red brick apartment building on the north side of 41st Street east of Second Avenue.

34TH STREET STATION AND SHAFT SITE/STAGING/SPOILS REMOVAL STUDY AREA

The 34th Street study area is bounded by 37th Street on the north and 30th Street on the south, between First and Third Avenues (see Figure E.1-11).

Land Use

Located in the Murray Hill and Kips Bay sections, the 34th Street study area is primarily residential, with some institutional, commercial, and open space uses. The southern portion of the study area extends into the Gramercy/Union Square neighborhood zone. While the entrances and construction activities related to the TBM and spoils removal activities that would occur near 34th Street would be located in both neighborhoods, for purposes of this discussion, the station study area is described as part of East Midtown. Second Avenue in the study area has low-rise residential buildings with ground-floor retail uses on the west side and high-rise residential towers, institutional, and open space uses on the east side.

The area between First and Second Avenues is largely residential, containing a mix of large residential towers and smaller-scale apartments. Among the largest residential buildings are Kips Bay Plaza, with its two 21-story residential buildings occupying a superblock between 30th and 33rd Streets and First and Second Avenues; a New York University (NYU) School of Medicine dormitory located opposite Kips Bay Plaza; and East Midtown Landing at 33rd Street and First Avenue. Smaller-scale apartment buildings and row houses of three to six stories line the remainder of the blocks.

Commercial uses in the study area are concentrated in the ground floors of buildings along the avenues and in the Kips Bay Plaza commercial center, on the east side of Second Avenue from 32nd to 30th Street. This complex, with a large bookstore, multiplex movie theater, pet supply store, drug store, and office supply store, is the only such concentration in the study area. The west side of the avenue contains primarily low-rise residential buildings, with a variety of ground-floor retail uses, from neighborhood services to restaurants.

The largest open space in the area is St. Vartan Park, which occupies the entire block between 36th and 35th Streets and First and Second Avenues. The park is divided by Tunnel Approach Street, an approach road for the Queens-Midtown Tunnel that runs north-south between First and Second Avenues from 40th to 34th Street. The western portion of the park, which is currently occupied by handball and basketball courts as well as mature trees, is under consideration as a shaft site facility or a staging area during Second Avenue Subway construction. The eastern part of the park, which the Second Avenue Subway would not affect directly, contains an active open play space, benches, new play equipment, a sunken seating area, picnic tables, swings, and many trees.

A north-south street called Tunnel Exit Street divides the blocks between Second and Third Avenues from 41st to 34th Street. Religious institutions are located throughout the study area; the largest is the St. Vartan Cathedral of the Armenian Orthodox Church, at Second Avenue between 35th and 34th Streets. Just outside the study area on First Avenue is the northern end of a medical complex that extends from the New York University School of Medicine campus at 34th Street south to the Veterans Administration Hospital at 23rd Street. New York University Hospital's Center/NYU School of Medicine occupies the superblock between 34th and 30th Streets.

Economic Conditions

Neighborhood services, such as dry cleaners, tailors, hair and nail salons, and medical offices, make up the largest segment of businesses in this study area at around 37 percent. The medical offices appear to spill over from First Avenue, where there is a concentration of large medical facilities, such as NYU's medical school at 34th Street. Approximately one-quarter (26 percent) of the ground-floor businesses in the study area are eating and drinking establishments, followed by convenience stores (15 percent), shopping goods stores (12 percent), and stores offering building materials and hardware (2 percent). Less than 9 percent of the storefronts in the area are vacant.

Entrances to the subway are proposed along Second Avenue near 34th Street, and between 34th and 33rd Streets. At 34th Street, retail activity is generally confined to the western side of Second Avenue, where there is a delicatessen, a liquor store, and a retail branch of Greenpoint Bank. Spoils removal activities and staging areas are also proposed for this area. Two locations are being considered: St. Vartan Park, where no businesses are located, on the east side of Second Avenue between 35th and 36th Streets; and the service road east of Second Avenue and south of 33rd Street, adjacent to Kips Bay Center, a large retail complex with a Loews multiplex movie theater, Borders Bookstore, Petco (pet supply store), Rite-Aid Pharmacy, and Office Depot.

At 33rd Street, Kips Bay Hardware is located on the ground floor at the southwest corner, while Benjamin's Restaurant is on the northwest corner. Retail is also located on both floors of a two-story structure on the northeast corner of the intersection: the ground floor is occupied by Christina's Restaurant, Dove Open MRI, Kips Bay Optical, and East Bay Animal Clinic and the second floor contains a New York Sports Club fitness center. On the southeast corner of 33rd Street is a high-rise residential building that is set back from Second Avenue and separated by a service road running from 33rd Street to 31st Street. Immediately south of the residential building is Kips Bay Center, described above. Finally, at 32nd Street, Riverview Apartments with Starbucks on the ground floor is located on the northwest corner, on the southwest corner is La Bella of New York restaurant, and on the east side of the Avenue is Kips Bay Center.

Visual Features

This study area is notable for its transition from the residential and institutional, mostly small-scale Kips Bay area to the traffic infrastructure surrounding the Queens-Midtown Tunnel. As elsewhere on Second Avenue, the study area is composed mainly of four- and five-story brick tenement buildings and a few mid-size apartment buildings. Stone and concrete walls are located on each side of Second Avenue between 37th and 36th Streets above the below-grade exit from the tunnel. There are a few vacant lots in the area, including on the west side of Second Avenue between 36th and 35th Streets, near the entrance to the Queens-Midtown Tunnel. On the east side of Second Avenue between 36th and 35th Streets and extending to First Avenue is St. Vartan Park, a fenced area with racquetball, handball, and basketball courts facing Second Avenue. Another notable component of the study area is St. Vartan's Cathedral, a spare limestone structure with a cylindrical bell tower topped by a gilded roof, set back on its site at the northeast corner of 34th Street and Second Avenue behind a raised plaza with a large sculpture at its center. On the south end of the study area is Kips Bay Plaza, two large 21-story concrete apartment buildings set far back on a superblock site, surrounded by a concrete wall, raised plantings and parking areas, and a one-and-a-half-story shopping complex facing Second Avenue. On the west side of the avenue, mainly south of 36th Street, is a mix of low-, mid-, and high-rise apartments with ground floor retail.

Because there are very few structures on the east side of Second Avenue between 37th and 35th Streets, views to the north and east open up, and the very large apartment buildings to the east can be seen. The most prominent and visually interesting of these is the Corinthian, an imposing, brown brick tower with long columns of round bay windows. St. Vartan's Cathedral is prominent in northward and eastward views along 34th and 33rd Streets, due to its dramatic design and location at this busy intersection. Views east from 32nd and 31st Streets are blocked by Kips Bay Plaza. Views east from other cross streets in the study area have no prominent points of interest, and the East River cannot be easily seen from these locations. Views west through the study area have varying views of the spire of the Empire State Building. The Estonian House building (originally the Civic Club), a Beaux Arts town house with a copper mansard roof located on the north side of 34th Street just west of Second Avenue, is also visible from directly adjacent streets.

GRAMERCY PARK/UNION SQUARE STATION AND SHAFT STUDY AREAS

23RD STREET STATION STUDY AREA

The study area for the 23rd Street Station is bounded by 27th Street (west of Second Avenue) and 29th Street (east of Second Avenue) to the north, 20th Street to the south, and First and Third Avenues (see Figure E.1-12).¹

Land Use

Like the 34th Street Station study area, this area is largely residential, with a mix of large residential towers, smaller-scale apartment buildings, and row houses typically of three to five stories. North of 23rd Street, Second Avenue is characterized by mid- and high-rise residential towers with ground-floor retail uses. To the south, low-rise residences are added to the mix.

East Midtown Plaza is the study area's major residential complex, occupying six residential buildings on 25th through 23rd Streets between First and Second Avenues. A second large residential development, slightly north on Second Avenue, is Henry Phipps Plaza. It borders Bellevue Park South, a City park with active and passive recreational facilities.

The study area's institutional uses closest to the subway station include the school for the deaf at 23rd/Second Avenue, Epiphany Church and School on 22nd Street/Second Avenue, and Peter's Field/JHS 104 on Second Avenue/21st to 20th Street.

Economic Conditions

The study area is predominately made up of residential buildings with ground-floor retail and some office space. Convenience stores, shopping goods stores, eating and drinking establishments, and neighborhood services all evenly make up the retail in the area. Stores are small to medium size. Large retailers in the area include Duane Reade pharmacy, Baskin-Robbins, Carvel Ice Cream, and a retail branch of Banco Popular.

The study area contains a total of 98 storefronts. There are 26 neighborhood service stores (27 percent), 24 shopping goods stores (25 percent), and 21 convenience goods stores (21 percent).

¹ While the Midline storage tracks could be located outside of the extent of the study areas for the 23rd and 14th Street Stations, there would be no surface construction associated with their construction and therefore no impacts on social and economic conditions.

In addition, there are 23 eating and drinking establishments (24 percent). Only four percent of the storefronts in the area are vacant.

Station entrances could be located along Second Avenue near 26th through 23rd Streets. At 26th Street, Old San Juan Too Restaurant and Mexico Lindo Restaurant are located at the northeast and southwest corners, respectively, and Duane Reade pharmacy is located on the northwest corner. At the intersection of 23rd Street and Second Avenue, Cosmos Diner is located at the southwest corner, and Morton Williams Cafe is located at the northeast corner.

Visual Features

The study area includes a combination of four- to six-story tenements, mid-size apartment buildings, and two large multi-block brick apartment complexes, ranging in height from six to 28 stories. One of the complexes crosses the midblock of 24th Street, terminating the road's progress to the east. The few non-residential buildings in the area include a three-story warehouse-type building on the southwest corner of 25th Street and JHS 47, the School for the Deaf, a six-story red brick and limestone building with many windows on the north side of 23rd Street west of Second Avenue. Most of the buildings along Second Avenue have ground-floor retail establishments.

Views to the west from the study area include the gold tower of the New York Life building (seen from 26th Street) and the tower of the Metropolitan Life building (seen from 24th and 23rd Streets). Views east are to Waterside Plaza, a series of tall brown brick apartment buildings on the East River (from 25th Street) and of the FDR on a viaduct (from 23rd Street). Gramercy House, a 16-story brick apartment building with terra cotta detail on the northwest corner of 22nd Street and the School for the Deaf are visually interesting buildings with prominent locations that can be seen from immediately surrounding streets.

14TH STREET STATION STUDY AREA

The 14th Street Station study area is bounded by 17th and 10th Streets, First and Third Avenues (see Figure E.1-13).

Land Use

Like the 23rd Street Station study area, this area is largely residential with some institutional land uses. Most of the residential land uses are low-rise buildings of four to six stories. Several mid-rise apartment buildings are located along Third Avenue. The avenues are lined with ground-floor retail uses, including delis, hardware stores, restaurants, cleaners, grocery stores, and salons, mainly catering to neighborhood residents. Second Avenue within the study area has a mix of medical-related and educational institutional uses, low-rise residences with ground-floor retail uses, and Stuyvesant Square flanking both sides of the avenue between 17th and 15th Streets. Located in the Stuyvesant Square Historic District, the historic park has fountains, trees, benches, and an original 19th-century cast iron fence. Abe Lebewhol Park is also located on Second Avenue at 10th Street.

This study area is notable for its concentration of institutional uses. These include The Hospital for Joint Diseases on Second Avenue between 17th and 18th Streets, Beth Israel Medical Center on First Avenue between 17th and 15th Streets, and the New York Eye and Ear Infirmary on Second Avenue between 14th and 13th Streets. Numerous religious institutions and schools are located here as well.

St. Mark's Historic District, a residential historic district with a distinctive street pattern, is in the study area. Laid out in 1787, it includes St. Mark's in the Bowery Church at 10th Street and Second Avenue, the second-oldest church building in Manhattan.

Economic Conditions

The 14th Street economic conditions study area extends south along Second Avenue from 16th to 11th Streets. In addition, the area also extends east to west from First Avenue to Third Avenue on 14th and 12th Streets. The study area is predominantly made up of low-rise residential buildings with ground-floor retail. Shopping goods, eating and drinking establishments, and neighborhood services make up the majority of the 119 street-level businesses in the area. Of these storefronts, almost 30 percent are eating and drinking establishments, followed by neighborhood services (25 percent), and shopping goods stores (21 percent). In addition, there are 20 convenience goods stores (17 percent) and 2 stores that offer building materials or hardware (2 percent). Almost 6 percent of the storefronts are vacant.

There are a number of retail stores located along Second Avenue at 14th and 12th Streets. The New York Ear & Eye Infirmary (northeast corner), Kentucky Fried Chicken (southwest corner), a restaurant/diner (northwest corner), and Opti-Tech optical goods store (southeast corner) occupy the intersection of 14th Street and Second Avenue. Located at 12th Street and Second Avenue are Shima, a Japanese restaurant (southeast corner), Village East Cinema (southwest corner), and Dick's Restaurant and Bar (northeast corner). The northeast corner of this intersection contains a vacant retail store.

Visual Features

The northern portion of the 14th Street Station study area is occupied by Stuyvesant Square, an open space and historic and visual resource that is bisected by Second Avenue. Stuyvesant Square is an attractively landscaped park with fountains, seating areas, trees, and flowerbeds, surrounded by its original cast-iron fence. On the southwest corner of 15th Street and Second Avenue is St. Mary's Catholic Church of the Byzantine Rite, a modern, concrete and stained glass building with an abstract metal steeple.

The residential buildings in the area include tenement buildings and small-scale apartment buildings, some with extensive ornamentation and some which have had their details shorn off. The institutional buildings are mainly on the east side of the street, and include several architecturally interesting historic buildings, such as the original New York Eye and Ear Infirmary and the red brick and limestone Manhattan Comprehensive Night and Day High School, located at the southeast corner of 15th Street. On the southwest corner of 12th Street is the former Yiddish Art Theater (currently a movie theater) with a grand three-story arched entryway. There are a few bishop's crook lampposts on Second Avenue around Stuyvesant Square.

A number of visually interesting buildings are visible in views from the study area. These include the brick row houses surrounding Stuyvesant Square; the former Lying-in Hospital, a red brick and limestone "neo-Renaissance block with a Palladian crown;" the Evarts and the Senate, two red brick and limestone apartment buildings designed to look like one composition, located on the northwest corner of 14th Street; the former Yiddish Art Theater; the historic buildings of the New York Eye and Ear Infirmary on the northeast corners of 14th and 13th Streets; and the Manhattan Comprehensive Night and Day High School. Another visual resource, located just outside the study area but visible from within it, is St. Mark's in the Bowery, at the southwest

corner of 11th Street. The church is sited at an angle to the street and is surrounded by an open space paved with Belgian block, a number of mature trees, and a tall fence

EAST VILLAGE/LOWER EAST SIDE/CHINATOWN STATION AND SHAFT STUDY AREAS

Because of their proximity to each other, the study areas for the Houston Street Station and shaft site, and Grand Street Station are analyzed together. This joint study area is bounded by 5th Street to the north, Canal Street to the south, First Avenue to the east (becoming Allen Street south of Houston Street), and the Bowery to the west (see Figure E.1-14).

HOUSTON STREET STATION AND SHAFT SITE, AND GRAND STREET STATION STUDY AREA

Land Use

Overall, in this study area Second Avenue, the west side of Chrystie Street, and the east side of Forsyth Street are lined with a mix of low-rise residential, commercial, institutional, and light industrial uses. Sara D. Roosevelt Park lines the east and west sides of Chrystie and Forsyth Streets, respectively.

The portion of the study area north of Houston Street is in the East Village, a largely residential area with many ground-floor retail establishments, especially on the avenues. Most of the residential buildings in the area are five- to six-story walk-ups, but there are also a few taller, newer residential structures. Vacant and underutilized lots are concentrated on the two blocks north of Houston Street. These sites are under the jurisdiction of HPD and are expected to be developed shortly for residential and retail uses. The Liz Christy Garden (the City's first community garden), which is currently under HPD's jurisdiction, is located on Houston Street, between the Bowery and Second Avenue, and a City park, First Park, is located between Second and First Avenues. This landscaped active recreational space contains handball courts, play equipment, tables and benches. Separating the East Village from the Bowery and the Lower East Side is Houston Street.

The study area south of East Houston Street is centered on Sara D. Roosevelt Park, a 7.9-acre City park containing a mixture of active and passive recreational facilities, with multiple basketball courts, handball courts, an artificial turf soccer field, several playgrounds, and swings. Lined by rows of mature trees, this park affords many opportunities for shaded seating and includes a community garden.

Land uses immediately south of Houston Street are similar to the uses on the three blocks north of Houston Street, featuring residential uses with ground-floor retail interspersed with institutional uses. A large surface parking at the southwest corner of Houston and Chrystie Streets, across from the park, is proposed for redevelopment with a residential building (see the discussion under "Future Conditions Common to All Alternatives," below). Local community facilities along the route include the Nativity Mission Center, IS 31 Dr. Sun Yat Sen School, and the Rivington House. Farther south, land uses along the Bowery consist largely of commercial and office uses. Between Chrystie Street and the Bowery, heading south towards Canal Street, many of the buildings serve as warehouses to store food and other perishable goods.

Like the northern portions of the study area, the area between Delancey and Canal Streets is characterized largely by residential buildings with ground-floor retail and wholesale uses. The ground-floor spaces along Chrystie Street are occupied by a mix of Asian restaurants, food

shops, wholesale food dealers, building materials suppliers, and kitchen equipment providers. The residential buildings in this densely populated area are typically older and smaller than buildings north of Houston Street. Most of the buildings west of Sara D. Roosevelt Park are tenement walk-ups, though there are some mid-rise buildings of about 15 stories. The Windsor Hotel is located at the corner of Forsyth and Broome Streets. Another hotel is located at Houston Street and Forsyth Street.

Economic Conditions

Houston Street. The Houston Street economic conditions study area extends along Second Avenue from 7th Street to Stanton Street. From east to west, the study area also extends from First Avenue to the Bowery on Houston Street and at 3rd Street. Houston Street itself, a major two-way cross street, is considered to be the boundary between the East Village and the Lower East Side neighborhoods.

The study area is made up predominantly of low-rise residential buildings with ground-floor retail space. Most of the area's retail consists of eating and drinking establishments and neighborhood services. In addition, a significant number of stores provide shopping and convenience goods. Stores are small- to medium-size. Prominent in the area is the Exxon gas station (possible location of a staging area for a shaft site), Manhattan Mini-Storage, and Fleet Bank.

The study area contains a total of 139 storefronts. Of these storefronts, 39 are eating and drinking establishments (28 percent) and 25 are neighborhood services (18 percent). In addition, 45 stores provide shopping and convenience goods (32 percent), and 8 businesses (6 percent) provide auto-related services and building materials/hardware. There is a considerable amount of vacancy in this study area, with 22 vacant storefronts (nearly 16 percent).

Station entrances could be located along Second Avenue in the vicinity of Houston Street and 3rd Street. At 3rd Street, two delis (Grocery-Deli-Candy and Pak Punjab Deli & Grocery) occupy the northwest and southeast corners, and there is a vacant storefront on the northeast corner. The southwest corner is occupied by a residential building with no retail space. At Houston and Second Avenue, where a proposed subway entrance would be located, retail in the area includes Pancho's Restaurant (northwest corner) and Irreplaceable Artifacts, an architectural salvage business and First Park (northeast corner). A shaft site could be constructed within the Houston Street Station envelope. A parking lot is located on the southwest corner and the entrance to Sara D. Roosevelt Park is located on the southeast corner. The parking lot is under the jurisdiction of the New York City Department of Housing Preservation and Development (HPD) and a developer has been selected for residential construction on the site.

The Grand Street study area extends south along Chrystie Street and Forsyth Street, from Stanton Street to Canal Street. The area also includes Grand Street, from Elizabeth Street to Allen Street. Sara D. Roosevelt Park extends north/south through the center of the study area between Chrystie Street and Forsyth Street.

Grand Street. The Grand Street study area includes part of Chinatown as well as the Bowery, a commercial center for restaurant equipment and lighting fixtures. East and west of Chrystie and Forsyth Streets are numerous specialty shops that cater to the Chinatown community. These stores are small with entrances close together. They predominantly provide convenience goods and neighborhood services. Larger retail uses include the Windsor Hotel at the Forsyth Street/Broome Street intersection. Just east of the Grand Street study area, there are many apparel wholesalers located on Orchard Street.

The study area near the proposed Grand Street Station contains a total of 151 storefronts. Of this amount, 40 stores sell convenience goods (27 percent) and 39 sell neighborhood services (26 percent). The remainder includes shopping goods stores (18 percent), eating and drinking establishments (10 percent), and stores specializing in buildings materials and hardware (3 percent). Considerable vacancy was observed during the survey, including 25 storefronts (17 percent).

Along Chrystie Street, where construction would take place, and Forsyth Streets, most of the street-level space is occupied by wholesale establishments providing construction equipment and supplies, food and beverages, restaurant equipment, and other miscellaneous goods. These types of non-retail businesses were recorded separately from the retail survey discussed above. A total of 31 wholesalers were observed, most of which are located on Chrystie Street. In general, Forsyth Street contains more residential entrances than storefronts. Overall, Chrystie Street contains more retail activity.

With the Deep Chrystie Option, entrances would likely be located on Chrystie Street at Grand Street. Retail activity at the Grand Street/Chrystie Street intersection consists of a combined meat and fish market and a newsstand (both on the northwest corner), and the Tan Mymy market at the southwest corner. At the Grand Street/Forsyth Street intersection, retail uses include a vegetable market (northeast corner) and the Pot Luck meat market (southeast corner).

Visual Features

The study area around the proposed Houston and Grand Street Stations extends partly into the midblocks on both sides of Second Avenue between 7th and Canal Streets. At 1st Street it is enlarged to be 150 feet around the possible shaft site. South of Houston Street, the western boundary is the midblock between Chrystie Street and Bowery at the northern end, and the Bowery at the southern end. On the east side the boundary is Forsyth Street to the midblock between Rivington and Delancey Streets, Eldridge Street from that location to Hester Street, and then returning to the line of Forsyth Street to encompass the area within 150 feet of the south end of Chrystie Street.

In the East Village, Second Avenue is a wide corridor lined with small-scale buildings, mostly four to six stories tall, with an occasional building reaching seven to nine stories. The buildings are older masonry structures with punched windows, many interesting details, and some intact cornices. There are a number of awnings over the sidewalk, and some sidewalk restaurants and cafes add to the activity along the street. Between 3rd and 1st Streets there is more variation, with a low modern structure on the east side of Second Avenue between 3rd and 2nd Streets, and a gasoline station at the northeast corner of Second Avenue and 1st Street. A number of the taller buildings have signs painted or attached on their side walls. On the east side of Second Avenue the trees of Sara Delano Roosevelt Park come into view at 1st Street. These are very open views with low, small-scale structures and open sky above.

A major visual as well as open space resource, Sara D. Roosevelt Park runs along the east side of Chrystie Street for the seven blocks from Houston Street to Canal Street. On the west side of Chrystie Street, large trees surrounding a parking lot echo those of the park. In the next block south of Stanton Street, however, and continuing south to Canal Street, there is small-scale development along the west side of Chrystie Street, similar to that farther north. There are often metal fire escapes on the front facades. The windows of some buildings are bricked up. Similar to Second Avenue, Chrystie Street is a wide thoroughfare with two lanes of moving traffic in

each direction and a parking lane on both sides of the street. It is crossed by Delancey Street, also a wide street, which has a median and leads east to the Williamsburg Bridge.

On the east side of Sara D. Roosevelt Park, Forsyth Street has similar small-scale buildings along its east side. In full foliage, the trees of the park block the view of these buildings from Chrystie Street and the views of the buildings on Chrystie Street from Forsyth Street. However, between Hester and Canal Streets, the modern structure of Dr. Sun Yat Sen JHS sits in what was the roadbed of Forsyth Street facing directly onto the park. It is visible from Chrystie Street through the trees. Chrystie Street ends on the south at Canal Street, where viewers find the wide plaza of the Manhattan Bridge approach with its massive triumphal arch and colonnade. Views north from this area include the spire of the Chrysler Building.

CHATHAM SQUARE STATION STUDY AREA

This irregularly shaped study area is generally bounded by Canal Street to the north, Cherry Street to the south, Eldridge Street to the east, and Pearl Street to the west (see Figure E.1-15).

Land Use

Within this study area, St. James Place along the subway route has a mix of large-scale and low-rise residences, both with ground-floor retail uses, as well as some commercial and light industrial uses. This area is characterized by an irregular street grid, where small streets remaining from earlier neighborhoods' grids intersect at angles. Large blocks occupied by tenement-type residential buildings and some small, dense mixed-use areas dominate the study area. Many small storefronts include restaurants, food shops, and other stores.

The entrance to the Manhattan Bridge is in the northern portion of the study area. A grand archway marks the entrance on the Bowery between Canal and Division Streets. Several large residential buildings are located in this study area; the largest of these is Confucius Plaza, a 44-story curving residential tower on a triangular superblock just south of the bridge with schools, shops, community space, and a day-care center. An existing tunnel segment, constructed for the Second Avenue Subway in the 1970s, lies beneath the Plaza. Along the east side of St. James Place, the triangular area between Madison and Catherine Streets contains a mix of residential, commercial, and institutional uses with public open space. The city's first Jewish Cemetery is located along St. James Place. Nearby is a large residential complex known as Seward Park Houses. Other large buildings in the area are Chatham Towers, Chatham Greene, and the Al Smith Houses, a group of 12 16- to 17-story buildings. A portion of the Second Avenue Subway tunnel constructed during the 1970s exists below Chatham Square.

Several open spaces are located in the study area. Kimlau Square at Chatham Square is a landscaped space with benches and contains a commemorative arch for Americans of Chinese ancestry. A park at St. James Place and Oliver Street contains benches and trees as well as a mural. A third park is James Madison Plaza, which, though officially parkland, is used as a parking lot by the New York City Police Department (NYPD).

Economic Conditions

The Chatham Square study area is densely populated, and walk-up tenement buildings with ground-floor retail stores occupy many of the area's irregularly shaped blocks. Heavy traffic volumes spill over from Canal Street, Chinatown's main east-west thoroughfare.

As part of Chinatown, the study area contains many Asian specialty stores, particularly neighborhood services. In addition, there are many stores that offer shopping goods as well as

eating and drinking establishments. With the exception of retail banks such as HSBC located at East Broadway and Chatham Square and Citibank on Chatham Square north of Mott Street, the storefronts are generally small, with numerous entrances lining the streets.

This study area contains a total of 77 storefronts. Of this amount, 32 provide neighborhood services (42 percent), 14 sell shopping goods (18 percent), 15 are eating and drinking establishments (20 percent), and 12 sell convenience goods and services (16 percent). A building materials/hardware store and three vacant stores make up the remainder of the storefronts.

Subway station entrances are proposed in the vicinity of the intersection of St. James Place and Mott Street, as well as St. James Place and East Broadway.

Visual Features

The study area for the proposed Chatham Square Station extends partly into the midblocks on either side of St. James Place between Bayard Street and Dover Street, to include the subway station as well as portions of the alignment that could be built using cut-and-cover construction.

Across Canal Street, a wide, open plaza of traffic, the small-scale traditional buildings of Chinatown are seen, with modern high-rise apartment buildings, as well as the high-rise office buildings of the Civic Center, in the background. The Bowery leads south into Chatham Square, a complex intersection of at least seven streets. In the heart of Chinatown, not only are many signs in Chinese, but there is also a building with a pagoda-like roof facing the square.

Leaving Chatham Square on St. James Place, the view is framed by high-rise modern structures to the west and older, smaller brick buildings on the east. Built on a triangular site, the small building at Oliver Street turns an acute angle to St. James Place. On the west side of the street there is a tall, windowless telephone company building. High above eye level it has a red and black Verizon sign. Next to it is a massive apartment building with a unique curving façade. On the east side of St. James Place the scale increases south of Madison Street, with large apartment buildings set back in yards with large trees. The 16-story buildings are clad in dark-colored brick. In the distance, the arch of the Brooklyn Bridge approach (where Water Street begins) is visible.

LOWER MANHATTAN STATION, SHAFT SITE, AND TAIL TRACKS STUDY AREAS

SEAPORT STATION, HANOVER SQUARE STATION, SHAFT SITES, AND POTENTIAL HANOVER SQUARE TAIL TRACKS STUDY AREA

Because of their proximity to each other and the similarity of their study areas, the Seaport and Hanover Square Stations, shaft sites, and tail tracks are analyzed together as one study area bounded by the Brooklyn Bridge (Dover Street) to the north, the waterfront to the south, South Street to the east, and Pearl Street to the west (see Figure E.1-16).

Land Use

Within the study area, Water Street is lined with high-rise office towers south of Fulton Street and a mix of residential and institutional uses, a parking lot, and small plazas associated with commercial buildings, as well as the larger Vietnam Veterans and Peter Minuit Plazas. Large office towers dominate this area, though some small-scale residential uses and parking lots are present within the rows of tall buildings. Many of the large office buildings occupy entire blocks

and are set back from the street behind plazas. The largest plaza in the study area is the 0.7-acre Vietnam Veterans Plaza, located south of 55 Water Street, which is the city's sole monument to veterans of that conflict. This plaza, which is part City-owned and part private property, was recently renovated and contains sitting areas, trees, a fountain, and the monument itself. Another nearby park is Fishbridge Garden, a small landscaped space with a dog run and benches. The study area also includes the southeastern edge of Battery Park, an approximately 30-acre park along Manhattan's south shore.

The residential uses in the study area are concentrated in small walk-up buildings with ground-floor retail uses, largely on the west side of Water Street and on Front Street. One of the largest residential buildings and an exception to this pattern is Southbridge Towers, located west of Water Street just south of the Brooklyn Bridge, and another is an NYU dormitory at Fulton and Water Streets.

Retail uses are located on the ground floors of buildings along Water, Fulton, Beekman, and Front Streets. These include both large and small retail shops. In addition, Fulton Street, between the East River and Water Street, is a pedestrian-only street lined with restaurants and specialty shops. Farther east, the Fulton Fish Market and the South Street Seaport are destination points for wholesale and retail shoppers, including tourists. The South Street Seaport Museum shares the Seaport area with the retail component.

Other institutional and cultural uses along the corridor are the Peck Slip Post Office, the Seamen's Church Institute, the Shrine of Elizabeth Anne Seton, Fraunces Tavern, and the Coast Guard Station. Just west of the study area is Hanover Square, a small public park. The land around Hanover Square has been used continuously since 1637, when it was a part of a public street that fronted on the East River. Once the center of New York printing trade and retail business, the area was rebuilt as a commercial and financial center after the Great Fire of 1835.

Economic Conditions

Seaport Station. The southern part of the Seaport Station study area marks the beginning of the Financial District, with large 24-story office towers located on the west side of Water Street; one of these towers is occupied by the City's Human Resources Administration. This study area is characterized by two distinct types of retail activity. South of Fulton Street, the study area contains relatively small, neighborhood-oriented retail stores on the ground level of office buildings, similar to the Hanover Square Station study area to the south. North of Fulton Street in the vicinity of South Street Seaport, the retail space is substantially larger with more national retailers. The Fulton Street corridor east of Pearl Street is lined with cobblestones and is limited to pedestrian traffic. Serving as a gateway to South Street Seaport, a popular shopping and tourist destination, this area contains many national clothing retailers and restaurants. Among the prominent stores in the Seaport Station study area are The Gap, Guess, Abercrombie & Fitch, and J. Crew.

The study area contains a total of 71 storefronts. Of this amount, 24 (34 percent) are stores that sell shopping goods and 22 (31 percent) are eating and drinking establishments. Neighborhood services, including 14 stores, account for about 20 percent of the area's retail storefronts, and convenience goods stores account for another 9 percent. Five vacant storefronts (7 percent) were also observed.

Subway station entrances are planned at the intersection of Water Street and Fulton Street. The Water Street/Fulton Street intersection contains two traffic islands on which a playground and park are located. The eastern side of this intersection marks the entrance to South Street Seaport.

The southwest and southeast corners are occupied by Staples and Abercrombie & Fitch, respectively. Immediately east of the park is the South Street Seaport Museum and Guess, a designer fashion store.

Hanover Square Station. As part of the Financial District, the Hanover Square Station study area contains many tall office buildings with retail space located on the ground level, either as storefronts oriented toward the street or toward an internal plaza. Most of the stores cater to the needs of the large office worker population in the area, and include eating and drinking establishments and stores offering neighborhood services. Although many of the stores are small, there are a few prominent retailers, such as Bolton's and Verizon Wireless. Many of the larger stores provide more than one entrance.

The study area contains a total of 90 stores. Of this amount, there are 32 (36 percent) eating and drinking establishments and 25 stores (28 percent) offering neighborhood services. Shopping and convenience goods are sold at 29 stores (32 percent). The study area also contains four (4 percent) vacant storefronts.

Subway station entrances are being considered at Wall Street, at Hanover Square/Old Slip and at Coenties Slip. The intersection of Wall Street and Water Street contains Bolton's, a clothing and accessories store (southeast corner); a Verizon Wireless store (northeast corner); a branch of Barclay's Bank (southwest corner), and Liberty Travel agency (northwest corner). At Hanover Square, a retail branch of JP Morgan Chase Bank (southeast corner) is the only storefront located on the corners of this intersection.

Lower Manhattan Spoils Removal and Shaft Sites. Within the Hanover Square study area, there are three proposed spoils removal sites and one proposed shaft site. Spoils would be removed from a shaft site located on Water Street near Coenties Slip. Both sides of Water Street contain mainly tall office buildings, some with ground level retail. Once removed, spoils could travel east to either Pier 6 or the highway network along either Old Slip (the block on which the Police Museum currently exists) or Gouverneur Lane (where large office buildings exist on both sides of the street).

Hanover Square Tail Tracks. As described in Chapter 2, tail tracks south of the Hanover Square Station could be pursued for train storage. A vent facility associated with these tracks could be located at a traffic triangle at Water and Whitehall Streets.

Visual Features

The study area for the proposed Seaport and Hanover Square Stations, the potential cut-and-cover construction along Water Street, the equipment access and spoil removal sites, and the potential vent facility is the area within 150 feet of Water Street from the Brooklyn Bridge to the waterfront, with expansions to include the areas around the equipment access and spoil removal sites near the south end of the alignment.

Water Street is a wide, relatively straight street in a neighborhood of narrow winding lanes characteristic of the Financial District. At its northern end, Water Street emerges from beneath the Brooklyn Bridge, a major visual resource. At close range, however, the access ramps and a recent secondary steel support system clutter views of the bridge's graceful stone arches.

To the south, Water Street passes a superblock occupied by relatively tall towers and low-rise buildings grouped around internal open spaces on the west between Frankfort Street and Fulton Street. The apartment buildings are red brick with expressed concrete floor slabs and numerous balconies. Trees and landscaping add green, visual relief to the streetscape and make the internal

open spaces more attractive. On the east side of Water Street there is a series of small-scale, brick buildings, while the block south of Peck Slip contains a large parking lot. The parking lot offers drivers and pedestrians on Water Street a view of the small-scale buildings of the South Street Seaport above the roofs of parked cars.

At Beekman Street, the view south includes a children's playground and its trees, as well as the sleek skyscrapers of the Financial District. The playground has bright new equipment. Fulton Street east of Water Street is the pedestrian main street of the South Street Seaport. A number of restored, small-scale buildings dating from the 19th century face onto this Belgian block-paved street. At the east end of Fulton Street, the view to the East River is partially blocked by the elevated structure of the FDR Drive, a factor in all views east from Water Street.

South of Fulton Street, densely packed high-rise buildings substantially increase the scale of development. Even though it is relatively wide, Water Street becomes a canyon; and, since it curves to the west, the end of the view corridor is blocked by office buildings on the curve. There are street trees and widened sidewalks, but the visual experience in this area largely consists of views of tall, bulky buildings. The facades and shapes reflect the range of modern architectural styles of the 20th century. Their largely rectangular forms are clad in a variety of materials, from slick metal and glass panels, to granite and brick.

However, there are a few small vestiges of an earlier New York, including the narrow, crooked streets characteristic of the area. Further, a number of the office developments have provided urban plazas, such as 75 Wall Street Plaza, Old Slip Plaza, and 100 Wall Street Plaza. At noontime, these amenities are well used by the area's numerous office workers. Continuing south of Wall Street, the towers still reach well above the normal view of the pedestrians headed to and from their workplaces.

Finally, at nearly the south end of Water Street, there is a cluster of smaller, older buildings at Coenties Slip on the west side of Water Street; and there is a very large public open space with views to the East River on the east side, Vietnam Veterans Plaza and the adjacent south plaza at 55 Water Street. This is a major open space and visual amenity in a densely developed area. The sky is again visible and there is a view that continues to Peter Minuit Plaza, the Coast Guard Station, and Battery Park, with its trees in the background.

East of Water Street, the FDR Drive is elevated, cutting across views to the waterfront from most of Water Street. Vietnam Veterans Plaza offers the first views above the FDR Drive (as it comes down to enter the tunnel under Battery Park). Along the waterfront the East River Esplanade offers views of New York Harbor, river traffic, and the Brooklyn waterfront. There is a heliport on the pier opposite Vietnam Veterans Plaza and a ferry landing pier at Wall Street. Both are attractive modern facilities. The esplanade is improved with decorative pavement, benches, etc., as far south as Old Slip where it becomes a much narrower, more difficult connection. *