

**125th Street Subway Tunnel
Draft Scoping Document**

OCTOBER 2026

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125th Street Subway Tunnel

Draft Scoping Document for Environmental Impact Statement

1. INTRODUCTION

The Metropolitan Transportation Authority (MTA) proposes to construct a new east–west subway tunnel beneath West 125th Street in Harlem (the 125th Street Subway Tunnel or the Proposed Project). The 125th Street Subway Tunnel would connect to the planned terminus of Phase 2 of the Second Avenue Subway (SAS) near Lenox Avenue/Malcolm X Boulevard and extend the length of 125th Street to about 12th Avenue on the west side of Manhattan before turning north and ending around West 138th Street. The Proposed Project would include construction of the subway tunnel and associated infrastructure only, to take advantage of tunneling equipment that will already be in use for SAS Phase 2, which is currently under construction. This “tunnel only” project would include the new tunnel, access shafts for egress to and from the tunnel, and ventilation equipment. No other infrastructure or components, such as tracks, stations, power, and other elements required for train operation or passenger service, would be included as part of the 125th Street Subway Tunnel project.

As a project that involves funding and approvals from the MTA, a New York State public authority, the Proposed Project is subject to New York’s State Environmental Quality Review Act (SEQRA) and other laws and regulations, including the New York State Historic Preservation Act. The MTA is the lead agency for the Proposed Project under SEQRA and will prepare an Environmental Impact Statement (EIS) as part of this process.

Pursuant to authorization adopted as part of the Fiscal Year 2026-27 New York State Budget,¹ completion of the subway infrastructure that would use the proposed tunnel, including station and track construction for revenue service, would be undertaken in a future phase and subject to a separate environmental review.

The MTA is conducting agency and public “scoping” to identify the content and issues to be addressed in the EIS. In accordance with SEQRA, “the primary goals of scoping are to focus the EIS on potentially significant adverse impacts and to eliminate from consideration those impacts that are deemed irrelevant or not significant.” This Draft Scoping Document provides information about the Proposed Project and the studies to be included in the EIS, so that interested parties may provide insight or comments related to the analyses to be conducted or other relevant information about the Proposed Project and surrounding area.

After reviewing public and agency input provided on this Draft Scoping Document, the MTA will prepare a Final Scoping Document that reflects comments received, as appropriate, and will complete a Draft EIS (DEIS) in accordance with the Final Scoping Document.

2. PROJECT BACKGROUND

The MTA identified the potential opportunity for new subway service along 125th Street in Harlem extending from the planned terminus of SAS Phase 2 during its ongoing capital planning process. As part of that process, in 2023 the MTA prepared its 20-Year Needs Assessment, (2025-44), [*The Future Rides With Us*](#), that holistically evaluated the entire MTA network and identified the improvements needed to preserve and modernize the system, in light of changes in how riders use transit and in the face of threats from climate change. Part of that evaluation was a consideration of potential expansion projects. The report noted, “Alongside the foundations of rebuilding and improving our existing infrastructure, targeted investments in the expansion of the MTA network will further support the region’s economic growth and prosperity.”

¹ Transportation, Economic Development and Environmental Conservation Budget Act, 2026 N.Y. Laws ch.58, pt. 1, §§ 1-2.

As part of the 20-year needs assessment, the MTA conducted a rigorous, data-driven comparative evaluation for 25 potentially promising expansion projects. The *20-Year Needs* report noted, “Many potential expansion projects throughout the MTA region have been proposed over the years. When considered in isolation, virtually every potential expansion project is appealing in some aspect. Our Comparative Evaluation applies a rigorous methodology to fairly assess these projects in comparison to one another and in the context of our limited resources. This helps to ensure that we are ready to direct our limited resources toward the most cost-effective and most transformative projects.”

A potential 125th Street Subway that would extend subway service westward from SAS Phase 2’s planned 125th Street Station was one of the 25 potential expansion projects considered. This expansion project outperformed most other projects by serving riders in equity areas, significantly improving connectivity and mobility, and being cost-effective.²

The potential 125th Street Subway project emerged as an opportunity to take advantage of SAS Phase 2, which is currently under construction. SAS Phase 1, with stations at East 63rd Street/Lexington Avenue and on Second Avenue at East 72nd Street, 86th Street, and 96th Street, was completed and opened for service in 2017. SAS Phase 2 will extend from East 96th Street to 125th Street in East Harlem with stations at East 106th Street and East 116th Street along Second Avenue and on East 125th Street between Lexington and Park Avenues. The SAS Phase 2 subway tunnel will extend beneath 125th Street beyond Park Avenue to approximately Lenox Avenue/Malcolm X Boulevard to accommodate tracks for train storage. At the western end of the tunnel, a new ancillary facility, Ancillary A, will house ventilation equipment, emergency egress, and mechanical equipment on the south side of 125th Street between Lenox Avenue/Malcolm X Boulevard and Adam Clayton Powell Jr. Boulevard. The new tunnel for SAS Phase 2 beneath 125th Street will be constructed using Tunnel Boring Machines (TBMs). The MTA currently anticipates completion of the tunneling using TBMs in late 2028 and full completion of SAS Phase 2 by the end of 2032.

The MTA subsequently undertook a Feasibility Study for a 125th Street Subway extension. The MTA completed that study, *MTA 125th Street Subway Feasibility Study*, in December 2025. The Study evaluated the feasibility of new 125th Street subway service that would include up to three new stations, depending on final design:

- At Lenox Avenue/Malcolm X Boulevard, connecting to the existing 125th Street Station on the Nos. 2 and 3 trains;
- At St. Nicholas Avenue, connecting to the existing 125th Street Station serving the A,B,C, and D trains; and
- At Broadway, connecting to the elevated 125th Street Station serving the No. 1 train.

The Feasibility Study concluded that a new 125th Street Subway extending as far as Broadway would be feasible and beneficial. The report noted that implementation of full 125th Street subway service (with tracks, stations, etc.) would require additional design and environmental review, and ultimately, the timing for implementation of new service would depend on how quickly those activities could be completed. The report also noted that future design activities would require close coordination with construction of SAS Phase 2. Given that the process for completing these activities could be lengthy, they would be unlikely to align with the timeline of SAS Phase 2 construction. Consequently, the MTA identified a cost-saving opportunity to advance construction of only a tunnel for the 125th Street Subway at this time, to take advantage of SAS Phase 2 tunneling equipment that will already be in place and build some of the infrastructure required for future 125th Street subway service. As such, the Proposed Project involves construction of a new subway tunnel beneath 125th Street, with subway infrastructure (tracks, stations, etc.) to be designed, studied, and advanced at a later date.

In her 2026 State of the State address, New York Governor Kathy Hochul announced her support for a new subway tunnel extending from the Second Avenue Subway terminus west beneath 125th Street to Broadway, noting that this subway “will improve commutes for millions of New Yorkers, save significant

² https://future.mta.info/documents/20-YearNeedsAssessment_ComparativeEvaluation.pdf.

time for commuters benefiting from intersections with seven north-south subway lines across Manhattan, and connect underserved communities to jobs.”³

Building on the design information developed for the 2025 Feasibility Study, the MTA is currently conducting additional conceptual design and planning work, to be followed by Preliminary Engineering, to refine the design for the Proposed Project. Advancing design for the Proposed Project will provide more specific information about construction sequencing, staging, and methods for development of a new 125th Street Subway Tunnel.

3. PROJECT DESCRIPTION

3.1. PROJECT PURPOSE

The purpose of the Proposed Project is to facilitate improved east-west transit service across Harlem by creating the potential for future subway service that would ultimately improve crosstown mobility for residents, workers, and visitors and provide connections to existing north-south transit services. The Proposed Project would achieve this purpose by using the tunneling equipment already in use for SAS Phase 2 to construct a tunnel along 125th Street without the need to obtain new tunneling equipment. This tunnel can be made ready for subway service in the future. Constructing the tunnel shortly after the completion of SAS Phase 2 would reduce the costs of tunnel construction compared to building the same tunnel later.

3.2. NEED FOR THE PROJECT

The 125th Street corridor in Manhattan passes through portions of the neighborhoods of East Harlem, Harlem, Manhattanville–West Harlem, and Morningside Heights. The area within an approximately 15-block radius from 125th Street, extending from 110th Street on the south to 135th Street on the north between the Harlem and Hudson Rivers, is home to approximately 253,000 people based on 2020 Census data as well as businesses with approximately 82,000 jobs. This corridor is an “equity-priority area,” defined in the MTA’s 20-Year Needs Study as places where high concentrations of low-income, minority, and transit-dependent populations live.

The 125th Street corridor is served by multiple subway lines, all running north-south through Harlem—the 4, 5, and 6 trains on Lexington Avenue; the 2 and 3 trains at Lenox Avenue/Malcolm X Boulevard; the A, B, C, and D trains on St. Nicholas Avenue; and the 1 train on Broadway. However, there is limited crosstown (east-west) transit service through any part of Harlem (i.e., the portion of Manhattan north of West 110th Street, Central Park, and East 96th Street), with no east-west subway service and crosstown service only provided on bus routes, including several bus routes on 125th Street. This limits connectivity for subway passengers with origins or destinations in the project corridor, requiring transfers between modes. Similarly, subway passengers traveling through the corridor who need to connect between the east and west sides of Manhattan have few options to travel across town. Many of the residents in the project corridor rely heavily on public transit, with fewer remote workers compared to other parts of the city, reinforcing the need for improved connectivity.

The 125th Street Subway would also create a one-seat subway connection between West and Central Harlem and the Upper East Side. This would allow Central and West Harlem residents and workers better and faster transit access to the approximately 200,000 jobs located between East 59th and 110th Streets, including several major hospitals and academic medical centers.

Based on preliminary ridership forecasting conducted by the MTA for the Feasibility Study, an estimated 164,000 riders would take trips on a new 125th Street Subway on an average weekday. Approximately 5,500 of these would be new transit trips, and the rest would be drawn from existing transit services, indicating strong demand for new subway service at this location. An estimated 11,300 trips would be trips to and from origins and destinations in the 125th Street corridor. Constructing a tunnel now would allow the MTA to meet the demand for crosstown service at a future date.

³ <https://www.governor.ny.gov/sites/default/files/2026-01/2026StateoftheStateBook.pdf>.

3.3. PROJECT GOALS

The overarching goals for the 125th Street Subway Tunnel are as follows:

- Take advantage of the TBMs already in use for SAS Phase 2 by:
 - Beginning new tunnel construction as close to the terminus of SAS Phase 2 as possible; and
 - Repurposing the TBMs as soon as practicable after they become available.
- Conduct construction for the Proposed Project in a manner that avoids or minimizes to the greatest extent practicable impacts to SAS Phase 2, including:
 - Avoiding or minimizing the need for modifications to SAS Phase 2; and
 - Avoiding or minimizing any potential for delays to planned completion of SAS Phase 2.
- Minimize environmental and community impacts associated with the Proposed Project to the extent practicable.

3.4. DESCRIPTION OF THE PROPOSED PROJECT

3.4.1. PROJECT OVERVIEW

The Proposed Project is a new subway tunnel under 125th Street between approximately Lenox Avenue/Malcolm X Boulevard and 12th Avenue in Harlem. On the east end, this new tunnel would connect to the planned terminus of SAS Phase 2, which is currently in construction (see **Figure 1**). On the west end, the new tunnel would turn north at approximately 12th Avenue and terminate at a location or locations between approximately 131st Street and 138th Street close to the Henry Hudson Parkway (NYS Route 9A). The design for the western terminus is still being developed.

The 125th Street Subway Tunnel project would include construction only of a tunnel and related infrastructure (ventilation shafts, etc.). No other infrastructure or components, such as tracks, stations, power, and other elements required for train operation or passenger service, are included in the Proposed Project.

The new 125th Street Subway Tunnel would consist of two separate, parallel tubes beneath 125th Street, one for each future track. Connections and areas for future crossovers between the tubes would be included. In addition to the tubes, the Proposed Project would also include the following permanent elements, which are required to maintain the tunnel prior to completion of a full subway project in the future:

- Ventilation shafts with permanent, above-ground ancillary structures for minimum ventilation/air tempering and access at both the eastern and western ends of the tunnel. The specific location and dimensions of these shafts and the structures above grade are currently being developed.
- Smaller shafts with permanent, kiosk-type above-ground structures for ventilation, emergency egress, and access at two intermediate points along the tunnel alignment. The specific location and dimensions of these shafts and above-grade structures are also currently being developed.



Project Location
Figure 1

3.4.2. *ANTICIPATED CONSTRUCTION ACTIVITIES*

The Proposed Project would take advantage of the tunneling equipment that will already be in use for SAS Phase 2. SAS Phase 2 involves construction of two new tunnels (tubes) deep beneath 125th Street using two TBMs that will tunnel from Second Avenue at East 120th Street to the planned SAS Phase 2 tunnel terminus beneath West 125th Street between Lenox Avenue/Malcolm X Boulevard and Adam Clayton Powell Jr. Boulevard. SAS Phase 2 will have a construction staging site at the site of that project's Ancillary A, an ancillary building for ventilation and egress functions that will be on the south side of 125th Street between Lenox Avenue/Malcolm X Boulevard and Adam Clayton Powell Jr. Boulevard. Based on the current schedule for SAS Phase 2, tunneling via TBM will be complete in late 2028, at which time the TBMs would be available for use for the Proposed Project.

Construction of the Proposed Project would include the following general activities. This information will be developed further and refined during ongoing engineering and described in more detail in the DEIS:

- **Establishing staging sites at the east and west ends of the tunnel alignment.** At the east end of the tunnel alignment, the staging site would be used for worker access, removal of excavated rock and soil, and delivery and storage of materials, including the large precast concrete rings used as part of tunnel construction. A slurry treatment plant would be established at the staging site to process excavated materials. Slurry treatment plants process the wet excavated material (soil and rock) removed during tunneling and recirculate some of the water for reuse in the tunneling operation. At the west end of the tunnel alignment, one or two staging sites would be used for removal of the TBMs. Specific locations for the staging sites at the east and west ends of the alignment are still being developed.
- **Construction of vertical shafts at the two staging sites allowing access to the tunnel at the east and west ends of the tunnel alignment.** These shafts would be used during construction and would remain in place when construction is complete to provide permanent ventilation/air tempering functions and egress points to and from the tunnel.
- **Conducting ground improvement at certain locations to prepare soil for tunneling.** Depending on the methodology used, this may involve injecting columns of high-pressure grout into the soil from the surface or inserting a network of pipes for artificially freezing the soil in advance of excavation. Some ground improvement methods can be performed underground, while others require surface activities. Ground improvement would be required at the eastern end of the tunnel alignment between Lenox Avenue/Malcolm X Boulevard and Adam Clayton Powell Jr. Boulevard. Ground improvement would also be required at the sites of the intermediate and western shafts and may be required at other locations along the tunnel alignment as well.
- **Underground excavation through the use of a mining technique called Sequential Excavation Method (SEM) to create underground caverns.** SEM excavation would be used to connect from the shafts to the tunnel alignment and at intermediate points along the alignment to create connections (cross passages) between the two tubes.
- **Construction of two new tunnel tubes beneath West 125th Street using TBMs,** beginning on the east end of the alignment where SAS Phase 2 will terminate and ending on the west end close to the Henry Hudson Parkway (NYS Route 9A) between approximately West 131st Street and West 138th Streets.
- **Construction of two vertical shafts at intermediate points along the tunnel alignment for permanent access to the tunnel.** They would each have a small, kiosk-sized structure at street level to provide egress for the shaft. Specific locations for these shafts and dimensions of the above-grade structures are still being developed.

The staging sites at the east and west ends of the tunnel alignment would be in use for heavy construction activities, as well as for arrival and departure of workers and construction trucks removing excavated materials and bringing deliveries. These sites would be in use for the duration of construction, approximately two years. The MTA would require its contractors to implement Maintenance and Protection of Traffic (MPT) Plans developed in coordination with the New York City Department of Transportation (NYCDOT) to minimize adverse impacts on traffic flows and pedestrian activities.

Based on current conceptual design, the MTA anticipates that construction of the Proposed Project would begin with mobilization and site preparation in late 2027 or early 2028, which would last approximately 12 months. Once mobilization and site preparation is completed, tunnel excavation would begin and would last approximately 12 additional months. The overall construction duration would be approximately two years, with the 125th Street Subway Tunnel complete in late 2029 or early 2030.

3.5. REQUIRED PERMITS AND APPROVALS

The anticipated permits and approvals for the Proposed Project are listed in **Table 1** below. The agencies responsible for each permit or approval, referred to as involved agencies, are also identified in **Table 1**. In addition, other government agencies will serve as interested agencies in the SEQRA review, although they would not have discretionary actions that are independently subject to SEQRA. These are also indicated in **Table 1**.

Table 1
Anticipated Permits and Approvals

Agency	Role	Permit/Approval/Interest
Metropolitan Transportation Authority (MTA)	Lead Agency	Compliance with SEQRA
New York City Department of Transportation (NYCDOT)	Involved Agency	Potential roadway easements; Maintenance and Protection of Traffic (MPT) Plans coordination
New York City Department of Parks and Recreation (NYC Parks)	Involved Agency	Potential temporary occupancy of city parkland during construction; potential permanent tunnel easements beneath parkland
New York City Department of Environmental Protection (NYCDEP)	Interested Agency	Potential utility relocations and connections; review of plans where the alignment would cross critical infrastructure
New York City Department of City Planning	Involved Agency	Determination of consistency with the New York City Waterfront Revitalization Program
NYS Office of Parks, Recreation, and Historic Preservation (OPRHP)	Involved Agency	Review pursuant to Section 14.09 of the State Parks, Recreation and Historic Preservation Law
New York State Department of Environmental Conservation (NYSDEC)	Involved Agency	Potential State Pollutant Discharge Elimination System (SPDES) permit related to stormwater discharges during construction; Natural Heritage Program coordination
New York City Landmarks Preservation Commission (LPC)	Interested Agency	Review of potential effects of the project on historic and archaeological resources
New York City Mayor's Office of Environmental Coordination (OEC)	Interested Agency	Review on behalf of other New York City agencies
Federal Transit Administration (FTA)	Interested Agency	Coordination with the federally-funded SAS Phase 2

4. SEQRA PROCESS

The MTA will prepare the EIS for the Proposed Project in accordance with SEQRA, codified in Article 8 of the Environmental Conservation Law (ECL §§ 8-0101 et seq.), and its implementing regulations, promulgated in Part 617 of Title 6 of New York Codes, Rules and Regulations (6 NYCRR Part 617), and pursuant to the legislation adopted as part of the Fiscal Year 2026-27 New York State Budget, which authorizes a separate environmental review for the tunnel project in advance of the environmental review for the subway infrastructure that would use the proposed tunnel, including station and track construction for revenue service. The environmental review process in accordance with SEQRA requires decision-

makers to consider the environmental effects of a proposed project, evaluate reasonable alternatives, and identify measures to mitigate significant adverse environmental effects.

The SEQRA process begins with selection of a lead agency for the review. The lead agency is generally the governmental agency that is most responsible for the decisions to be made on a proposed action and that is also capable of conducting the environmental review. The MTA will serve as the SEQRA lead agency for the Proposed Project.

For the Proposed Project, the MTA circulated a notice on Tuesday, June 30, 2026, to the other potential involved and interested agencies shown in **Table 1**, indicating its intent to serve as the lead agency for the SEQRA environmental review. The MTA has determined that the Proposed Project has the potential to result in significant adverse environmental impacts and, therefore, has determined that it will prepare a DEIS.

A public scoping of the content and technical analyses to be included in the DEIS is an early step in its preparation. This Draft Scoping Document outlines the purpose, need, and goals of the Proposed Project, the proposed scope of the analyses to be included in the DEIS, and the alternatives to be evaluated. The Draft Scoping Document has been issued for public review to solicit feedback and comments. Following the public comment period on the Draft Scoping Document, the MTA will prepare a Final Scoping Document that will reflect public and agency input, as appropriate.

When the scoping process is complete, the MTA will prepare the DEIS in accordance with the Final Scoping Document. The DEIS will be made available for public review and comment. After public review of the DEIS, the MTA will prepare a Final EIS (FEIS) reflecting comments received and appropriate revisions. Following completion of the FEIS, the MTA will issue its SEQRA Findings, which will identify the potential impacts of the Proposed Project and the mitigation measures that will be implemented to address Project impacts. At that point, the MTA will decide whether to move forward with the Proposed Project.

5. PROPOSED SCOPE FOR THE DEIS

SEQRA requires the lead agency to take a hard look at the environmental impacts of a proposed action, consider alternatives, and, to the maximum extent practicable, avoid or mitigate potentially significant adverse impacts on the environment, in light of social, economic, and other essential considerations. Consistent with the requirements of SEQRA, the DEIS will contain the following:

- A description of the Proposed Project and the environmental setting;
- A description of the methodologies used for each technical area;
- A discussion of the analysis and the results;
- A statement of the potential significant adverse environmental impacts of the Proposed Project;
- Identification of short-term, long-term, and cumulative impacts of the Proposed Project and identification of any potential significant adverse impacts that cannot be avoided if the Proposed Project is implemented;
- A discussion of reasonable alternatives to the Proposed Project;
- An identification of irreversible and irretrievable commitments of resources that would be involved if the Proposed Project is built;
- A discussion of any growth-inducing aspects of the Proposed Project; and
- A description of measures proposed to avoid, minimize, or mitigate any potential significant adverse environmental impacts.

Each impact analysis will include a description of existing conditions, a discussion of future conditions anticipated if the Proposed Project is not implemented (the future without the Proposed Project or No Action condition), and an analysis of the Proposed Project's likely effects on its environmental setting (the future with the Proposed Project or With Action condition) in the expected year of completion. Each technical analysis will include consideration of impacts that could occur from construction of the Proposed Project and once the construction is complete. Where relevant, the potential cumulative effects of construction of the Proposed Project together with the construction activities associated with other planned projects in the

area, including SAS Phase 2, will also be discussed. The proposed scope of work for each of the technical areas to be analyzed in the DEIS is described below.

As described in this Draft Scoping Document, where appropriate, methodologies for evaluating impacts will be consistent with the guidelines set forth in New York City's 2025 *City Environmental Quality Review* (CEQR) *Technical Manual*. While the MTA's potential approval of the Proposed Project is subject to SEQRA and is not subject to any City requirements, including CEQR, the methodologies of the *CEQR Technical Manual* are widely accepted for environmental evaluations of projects proposed in New York City.

5.1. TOPICS NOT REQUIRING DETAILED ANALYSES

Based on preliminary screening assessments following *CEQR Technical Manual* methodology, the Proposed Project is not expected to have the potential for significant adverse impacts for certain topics and therefore does not require detailed analysis for those topics. Specifically, because the Proposed Project would consist of an underground tunnel with limited above-ground structures and no new permanent workers or other permanent activities, detailed analyses of urban design and visual resources, water and sewer infrastructure, and solid waste and sanitation services are not required. Therefore, analyses of these topics will not be provided in the DEIS.

5.2. TOPICS TO BE ANALYZED

5.2.1. EXECUTIVE SUMMARY

The DEIS will include an Executive Summary that presents a clear and concise synopsis of the information provided in the DEIS. The Executive Summary will highlight relevant material from the DEIS to provide a summary of the Proposed Project, potential environmental impacts associated with the Proposed Project both during construction and once complete, any mitigation measures to be implemented to avoid significant adverse impacts, and the alternatives evaluated in the DEIS.

5.2.2. PROJECT DESCRIPTION

The DEIS will include a description of the Proposed Project, based on the conceptual engineering available when the DEIS is prepared. This will include an overview of the Proposed Project and a description of the temporary construction activities anticipated, the potential staging sites to be used, and the construction sequencing and schedule. The chapter will also describe approvals required for the Proposed Project and the regulatory framework and procedures to be followed.

5.2.3. LAND USE, ZONING, AND PUBLIC POLICY

The land use analysis will characterize the land uses and development trends in the immediate area of the Project alignment. Land uses are the activities that occur on the land, such as residential, commercial, community facility, transportation, manufacturing, and parks. The analysis will consider the Proposed Project's compatibility with nearby land uses and potential to affect uses or development trends. This analysis will also provide a baseline for other analyses in the EIS.

Although the MTA is not subject to New York City zoning, the chapter will also discuss the area's zoning and other relevant public policies and evaluate whether the Proposed Project is compatible with those conditions and policies or whether it may affect them. Following *CEQR Technical Manual* guidelines, the analysis of land use, zoning, and public policy will evaluate a study area extending approximately 400 feet from the Proposed Project alignment, including any construction sites.

At the western end, a portion of the Proposed Project alignment near the Hudson River falls within New York City's designated Coastal Zone; therefore, an assessment of the Proposed Project's consistency with New York City's Waterfront Revitalization Program (WRP) will be prepared.

5.2.4. SOCIOECONOMIC CONDITIONS

This chapter will assess the Proposed Project's potential effects on the socioeconomic character of the surrounding area. The socioeconomic character of an area includes its population, housing, and economic

activity. Socioeconomic impacts may occur when a project directly or indirectly changes any of these elements. Although socioeconomic changes may not result in impacts, they are disclosed if they would affect land use patterns, low-income populations, the availability of goods and services, or economic investment in a way that changes the socioeconomic character of the area. The DEIS will include an evaluation of the Proposed Project's potential impacts on socioeconomic conditions following the guidance of the *CEQR Technical Manual*, which identifies six principal issues of concern in determining potential significant impacts: (1) direct residential displacement; (2) direct business displacement; (3) indirect residential displacement; (4) indirect business displacement due to increased rents; (5) indirect business displacement due to retail market saturation; and (6) adverse effects on a specific industry. The DEIS will include a preliminary screening assessment of the Proposed Project's potential to affect any of these issues of concern during construction and upon completion. Based on the preliminary screening assessment, if the Proposed Project would exceed any of the thresholds warranting further analysis, a preliminary assessment for that topic will be prepared. If a preliminary assessment cannot rule out the potential for significant adverse impacts, a detailed analysis will be prepared following *CEQR Technical Manual* guidance. This chapter of the DEIS will also consider potential property acquisitions needed for above-ground Project elements (e.g., shaft sites).

5.2.5. COMMUNITY FACILITIES AND SERVICES

According to *CEQR Technical Manual* guidelines, a project can affect community facilities and services when it physically displaces or alters a community facility (direct effects) or causes a change in population that may affect the services delivered by a community facility (indirect effects). The DEIS will include an assessment of the Proposed Project's potential for direct effects on community facilities and services, including public schools and libraries, publicly funded early childhood programs, police and fire protection services, and health care facilities. No potential indirect effects are anticipated as a result of the Proposed Project because the Proposed Project is not anticipated to result in population changes.

5.2.6. OPEN SPACE

Open spaces are publicly accessible parks, plazas, and recreational facilities. The *CEQR Technical Manual* recommends performing an open space assessment if a project would have a direct effect on an open space, such as a modification of change in access, or an indirect effect due to increased demand. The DEIS will include an assessment of the Proposed Project's potential for direct effects on open space. No potential indirect effects are anticipated, since the Proposed Project would not introduce any new residents or large worker populations (more than 500 employees) to the neighborhood.

5.2.7. SHADOWS

The DEIS will also include a preliminary screening evaluation of the potential for shadows from the Proposed Project's permanent ancillary structures to affect open spaces. If the screening evaluation indicates the potential for effects, a more detailed analysis of Project-generated shadows will be prepared.

5.2.8. HISTORIC AND CULTURAL RESOURCES

As defined in the New York State Historic Preservation Act, historic and cultural resources are districts, buildings, structures, sites, and objects of historical, aesthetic, cultural, and archaeological importance. This includes properties listed on the State and/or National Registers of Historic Places (S/NR) or within a district listed on or formally determined eligible for S/NR listing; properties recommended by the New York State Board for Historic Preservation for listing on the S/NR; National Historic Landmarks; designated New York City Landmarks (NYCLs); properties calendared for consideration as NYCLs by the New York City Landmarks Preservation Commission (LPC); and properties not identified by one of the programs listed above, but that meet their eligibility requirements. Historic and cultural resources include both archaeological resources and historic architectural resources. Section 14.09 of the New York State Historic Preservation Act requires that state agencies consider the effects of their actions on any properties listed on or determined eligible for listing on the S/NR. This includes consulting with the New York State Office of Parks, Recreation and Historic Preservation (OPRHP) for actions that may affect a property that is listed on or determined eligible for listing on the S/NR. It also requires state agencies to avoid or mitigate adverse

impacts to such properties to the fullest extent practicable, and to fully explore all feasible and prudent alternatives that would avoid or mitigate adverse impacts to such properties.

The DEIS will include an analysis of potential effects on archaeological and historic (architectural) resources for the Proposed Project, which will include the following tasks.

5.2.8.1. Archaeological Resources

The archaeological resources study area will consist of all areas where the Proposed Project would result in subsurface disturbance. As the first step in the archaeology analysis, the MTA will consult with OPRHP and LPC to request a preliminary determination of the potential archaeological sensitivity of the archaeological study area. As necessary, supporting information including historical maps and information from previous archaeological investigations and previously issued archaeological determination letters will be submitted to OPRHP and LPC as part of the initial consultation. If archaeological sensitivity is identified at the staging/shaft sites, a Phase 1A Archaeological Documentary Study (Phase 1A Study) for the site(s) would be prepared and submitted to OPRHP and LPC for review. For areas of archaeological sensitivity along the Proposed Project's tunnel alignment, where the depth of the proposed tunnel may avoid potential effects to archaeological resources, the need for any further study will be determined in coordination with OPRHP and LPC. The archaeological studies will determine if any additional investigations or measures to address archaeological resources are needed. The DEIS will include a summary of these studies and their conclusions.

5.2.8.2. Architectural Resources

The analysis of potential effects on architectural resources will consider whether the Proposed Project has the potential to affect any historic architectural resources either directly through construction activities or indirectly through alteration of the context or visual environment of these resources. The architectural resources study area for evaluation of direct effects will be the area within approximately 90 feet of the limits of the Proposed Project's construction activities. The study area for evaluation of potential indirect effects will encompass the area within approximately 200 feet of sites where above-ground structures are proposed.

The analysis will include an inventory of known architectural resources within the study areas. Consistent with the requirements of Section 14.09 and the guidance of the *CEQR Technical Manual*, known architectural resources include properties listed on the S/NR or within a district listed on or formally determined eligible for S/NR listing; properties recommended by the New York State Board for Historic Preservation for listing on the S/NR; National Historic Landmarks; designated NYCLs; properties calendared for consideration as NYCLs by LPC; and properties not identified by one of the programs listed above, but that meet their eligibility requirements (these are potential architectural resources). The inventory will be based on available information, supplemented by a field survey to identify any potential architectural resources. The MTA will seek determinations of eligibility from OPRHP and LPC for any potential architectural resources identified.

The analysis will assess the potential impacts of the Proposed Project on architectural resources, including direct physical impacts and visual and contextual changes. If potential significant adverse impacts on architectural resources are identified, measures to avoid, minimize, or mitigate those impacts would be developed in consultation with OPRHP and LPC and presented in the DEIS.

5.2.9. NATURAL RESOURCES

Following the methodologies of the *CEQR Technical Manual*, an assessment of natural resources is conducted when a natural resource is present on or near a project site and the project may involve the direct or indirect disturbance of that resource. For the Proposed Project, an assessment of temporary and permanent effects on natural resources will be conducted. Based on desktop research and a field visit, existing wetlands, floodplains, water resources, general ecology, and wildlife resources will be characterized; the potential presence of threatened and endangered species in the area will be identified; and the potential effects on the Proposed Project on those natural resources will be assessed. As noted in the discussion of Land Use, Zoning, and Public Policy, a New York City WRP consistency assessment for Project activities in the coastal zone will be prepared.

5.2.10. TRANSPORTATION

Following the methodologies of the *CEQR Technical Manual*, transportation studies encompass five separate analysis subtopics—traffic, transit (subway/rail, bus, and ferry), pedestrians, street user safety, and parking. The *CEQR Technical Manual* states that quantified transportation analyses may be warranted if a proposed action could result in 50 or more vehicle trips; 50 or more Citywide Ferry Service trips; 200 or more rail, subway, or bus trips; and/or 200 or more pedestrian trips during a given peak hour (a “Level 1” screening). If these thresholds are exceeded, a “Level 2” screening, involving detailed assignment (routing) of projected trips, is undertaken to determine if detailed analyses are warranted and, if so, identify the study areas for quantified analyses of potential impacts.

The analysis for the Proposed Project will evaluate the potential effects of proposed construction activities for the five transportation-related analysis subtopics using the tiered approach described in the *CEQR Technical Manual*. This assessment will consider the vehicle trips associated with construction workers and deliveries, as well as any changes in travel lanes, on-street parking lanes, sidewalks, and off-street parking, and effects on other transportation services (such as local bus service and Select Bus Service (SBS) on 125th Street).

The assessment will include Level 1 (Trip Generation) and Level 2 (Trip Assignment) analyses to determine if the *CEQR Technical Manual* quantified transportation analyses thresholds (50 or more vehicle trips and/or 200 or more transit/pedestrian trips during a given peak hour) are exceeded. Based on these steps, a separate detailed analysis will be undertaken if appropriate. If detailed transportation analyses are conducted and significant impacts are identified, transportation improvement measures to mitigate the significant impacts will be investigated. The DEIS will also evaluate any potential permanent changes to the area’s traffic, transit, pedestrian, safety, and parking conditions once the Proposed Project is complete.

5.2.11. NOISE AND VIBRATION

The DEIS will include an analysis of noise and vibration associated with construction of the Proposed Project, following the methodologies presented in the Federal Transit Administration’s (FTA) *Transit Noise and Vibration Impact Assessment Manual*, which were specifically developed to consider the impacts associated with construction and operation of transit projects.⁴

The analysis of noise will include an estimate of daytime and nighttime noise levels at nearby sensitive areas (receptors) resulting from worst-case construction conditions. Predicted noise levels will then be assessed based on the impact criteria presented in the FTA Manual. The MTA’s construction noise specifications and general noise control measure requirements for construction contractors will also be described. If necessary, based on the results of the construction noise analysis, the feasibility, practicability, and effectiveness of implementing measures to mitigate any significant construction noise impacts will be examined.

The DEIS will also assess the potential for vibration impacts during construction, using typical vibration levels for transit construction projects provided in the FTA Manual. The analysis will estimate the level of vibration at adjacent receptors associated with shaft construction and qualitatively discuss the potential vibration resulting from operation of the TBMs. The chapter will identify measures to be implemented to protect nearby structures from vibration-related damage.

5.2.12. AIR QUALITY

The *CEQR Technical Manual* methodology for evaluating air quality calls for a detailed analysis if the number of project-generated vehicle trips exceeds specific thresholds or if the project has the potential for impacts related to stationary sources of air pollutants. In addition, for projects with construction activities that have the potential to result in significant adverse impacts, detailed analysis of the emissions associated with construction activities may be required. The Proposed Project, once completed, would not result in a new vehicle trips and would not have any potential for impacts related to stationary sources of air pollutants.

⁴ <https://www.transit.dot.gov/research-innovation/transit-noise-and-vibration-impact-assessment-manual-report-0123>.

The DEIS will qualitatively describe the potential temporary effects on air quality resulting from construction of the Proposed Project. It will also describe the measures that the MTA will require its contractor to implement to reduce construction-related emissions to the extent practicable.

5.2.13. GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

Following the methodologies of the *CEQR Technical Manual*, a greenhouse gas (GHG) emissions analysis discloses the GHG emissions that could result from a large-scale project and assesses the consistency of the project with the City's and State's goals to reduce GHG emissions as established within New York City's long-term climate plan, *PlaNYC*, and New York State's Climate Leadership and Community Protection Act. The DEIS will include an qualitative assessment of the Proposed Project's potential GHG emissions during construction and any features of the Proposed Project that demonstrate consistency with the City and State's GHG reduction goals will also be described. The potential impacts of climate change on the Proposed Project will be evaluated.

5.2.14. ENERGY

An analysis of energy considers a project's potential consumption of energy and, where relevant, potential effects on the transmission of energy that may result. According to *CEQR Technical Manual* guidance, a detailed assessment of energy impacts is needed only for projects that have the potential to significantly affect the transmission or generation of energy or that result in substantial indirect consumption of energy (such as a new roadway). The DEIS will include a preliminary screening assessment of the Proposed Project's potential energy effects, including estimates of the Proposed Project's energy consumption and potential effects of that demand on available energy supply.

5.2.15. CONTAMINATED MATERIALS

The DEIS will assess the potential for hazardous or contaminated materials to be present at the construction sites or along the tunnel alignment and identify future measures to be taken to protect workers and the public from exposure to any contaminants identified. A Hazardous Materials Corridor Screening Assessment will be conducted for the Project alignment, including any potential construction sites.

The Corridor Screening Assessment will include a physical site reconnaissance of the corridor from public rights-of-way; review of an Environmental Database Report to identify properties with documented use, storage, and releases of hazardous materials; and review of historic maps to assess prior land uses with potential to have impacted the area with contaminated or hazardous materials. A Corridor Screening Assessment Report will be prepared summarizing the results of this study, and the results will also be summarized in the DEIS. The DEIS will describe future studies to be conducted, such as subsurface testing of soil or groundwater, and other necessary remedial or related measures to be implemented to protect the safety of workers and the public.

5.2.16. PUBLIC HEALTH

According to the guidelines of the *CEQR Technical Manual*, a public health assessment may be warranted if an unmitigated significant adverse impact is identified in other analysis areas, such as air quality, water quality, hazardous materials, or noise. If unmitigated significant adverse impacts are identified in any one of these technical areas and the MTA determines that a public health assessment is warranted, the DEIS will include an analysis for that specific technical area.

5.2.17. DISADVANTAGED COMMUNITIES

The New York State Environmental Justice Siting Law, sometimes referred to as the Cumulative Impacts Law, requires SEQRA lead agencies that are preparing EISs to consider whether projects may cause or increase a disproportionate pollution burden on a disadvantaged community (DAC). On April 24, 2026, the New York State Department of Environmental Conservation (NYSDEC) adopted amendments to the SEQRA regulations that become effective June 12, 2026 that require enhanced consideration of environmental justice in SEQRA as required by the Environmental Justice Siting Law.

In accordance with the amended SEQRA regulations, the Environmental Justice Siting Law, and the New York State Climate Leadership and Community Protection Act, the DEIS will include an analysis of potential effects on DACs. DACs are defined in the Climate Leadership and Community Protection Act (Article 75 of the Environmental Conservation Law) as “communities that bear burdens of negative public health effects, environmental pollution, impacts of climate change, and possess certain socioeconomic criteria, or comprise high-concentrations of low- and moderate- income households, as identified pursuant to Section 75-0111 of this article.” NYSDEC’s Disadvantaged Communities Assessment Tool (DACAT) identifies DACs throughout New York State, including information related to each community’s pollutant and health burdens, relative to the burdens of other communities in the region and statewide.

Most of the area within a half-mile of the alignment for the Proposed Project falls within areas designated as DACs in NYSDEC mapping. The existing environmental burden(s) of the DACs in this half-mile environmental justice study area will be described and the potential for the Proposed Project to cause or increase a disproportionate pollution burden on the DACs will be evaluated. The assessment of impacts on DACs will be informed by the results of other technical analyses in the DEIS. Measures to avoid or minimize potential significant adverse impacts on DACs will also be described.

5.2.18. SMART GROWTH

The New York State Smart Growth Public Infrastructure Policy Act (the Smart Growth Act), enacted in 2010, is an amendment to New York State’s Environmental Conservation Law intended to minimize the unnecessary cost of sprawl development. The law requires state infrastructure agencies, such as the MTA, to evaluate the consistency of proposed new or expanded public infrastructure projects with the 11 Smart Growth criteria specified in the Smart Growth Act. The agency must attest in a written smart growth impact statement that the project, to the extent practicable, meets the relevant criteria. For any criteria that are not met or for which compliance is considered to be impracticable, a detailed statement of justification must be provided. The DEIS will evaluate consistency of the Proposed Project with each of the smart growth public infrastructure criteria established in the Smart Growth Act.

5.2.19. MITIGATION

For any significant adverse impacts identified for the Proposed Project, the DEIS will identify measures to mitigate those impacts. The mitigation chapter will address the anticipated impacts requiring mitigation, likely mitigation measures, and the timing of the mitigation measures. Where impacts cannot be practicably mitigated, they will be disclosed as unavoidable adverse impacts.

5.2.20. ALTERNATIVES

As required by SEQRA, the purpose of an alternatives analysis is to examine reasonable and feasible alternatives that avoid or reduce project-related significant adverse impacts while still achieving the purpose and need for a project. The alternatives must include a No Action Alternative. The DEIS for the Proposed Project will include evaluation of the No Action Alternative, in which no 125th Street Subway Tunnel is constructed. It will also include consideration of alternative methodologies for construction of the new tunnel.

5.2.21. DEIS SUMMARY CHAPTERS

The DEIS will include the following summary chapters, where appropriate based on other analyses in the DEIS:

- **Unavoidable Adverse Impacts:** A summary of any significant adverse impacts that are unavoidable if the Proposed Project is implemented;
- **Growth-Inducing Aspects of the Proposed Project:** The “secondary” impacts of the Proposed Project that could induce development; and
- **Irreversible and Irretrievable Commitments of Resources:** The Proposed Project’s impacts in terms of the loss of environmental resources (e.g., use of fossil fuels and materials for construction, etc.), both in the immediate future and in the long term.