

CENTRAL BUSINESS DISTRICT (CBD) TOLLING PROGRAM FINAL ENVIRONMENTAL ASSESSMENT **Executive Summary**

April 2023

Federal Lead Agency



U.S. Department
of Transportation

**Federal Highway
Administration**

Project Sponsors



**Department of
Transportation**



The translation of the Executive Summary from the official English version into any other language is for the sole purpose of facilitating participation during the public comment period by persons of Limited English Proficiency (LEP) or those who prefer to read the document in their native language.

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The Executive Summary of the Environmental Assessment (EA) for the Central Business District (CBD) Tolling Program (the Project) presents a high-level summary of the Project, which includes:

- The Purpose, Need, and Objectives of the Project
- The Alternatives
- Project Effects
- Key Findings

Additional details related to the information in this Executive Summary may be found in the relevant chapters and appendices of the EA.

[Based on feedback received during the public comment period, and during the additional Environmental Justice Technical Advisory Group discussions, as well as guidance from FHWA, the EA was revised, resulting in a Final EA for the CBD Tolling Program. Where the term “EA” is used, it refers to the Final EA as made available to the public in 2023, unless otherwise specified. Differences between the EA and Final EA are described in the “Foreword.”]

WHAT IS THE CENTRAL BUSINESS DISTRICT TOLLING PROGRAM?

The Triborough Bridge and Tunnel Authority (TBTA) – an affiliate of the Metropolitan Transportation Authority (MTA) – the New York State Department of Transportation (NYSDOT), and the New York City Department of Transportation (NYCDOT) (collectively, the Project Sponsors) are proposing the **Central Business District (CBD) Tolling Program** (the Project). The Project, a type of congestion pricing, would toll vehicles that enter or remain in the Manhattan CBD in order to reduce traffic congestion and generate revenue to fund \$15 billion to improve subway, bus, and commuter rail systems in MTA’s 2020–2024 Capital Plan or successor plans.

Where is the Project proposed?

The Manhattan CBD consists of the geographic area of Manhattan south of and inclusive of 60th Street, not including the Franklin D. Roosevelt (FDR) Drive and the West Side Highway/Route 9A, the Battery Park Underpass and any surface roadway portion of the Hugh L. Carey Tunnel that connects to West Street (the West Side Highway/Route 9A).

The Manhattan CBD is the commercial center of a large metropolitan region of 28 counties in New York, New Jersey, and Connecticut that surrounds and includes New York City (**Figure ES-1**). Together these 28 counties are home to 22.2 million residents and more than 10.7 million jobs, making it the largest and most economically significant metropolitan region in the United States.

New York City alone contains roughly 4.6 million (43 percent) of the region’s jobs and 8.4 million (38 percent) of the region’s population.¹ The Manhattan CBD hosts 1.5 million jobs, 450 million square feet of office space, and more than 617,000 residents.² It is also a regional and national destination for commerce, entertainment, and tourism. **Chapter 1, “Introduction”** provides more information about the Project’s setting.

How do people and goods get to and move around in the Manhattan CBD today?

Manhattan is connected to the rest of the region by twenty vehicular bridges and tunnels, the nation’s three largest commuter railroads, the largest subway system, and two of the five largest bus transit systems in the United States,³ as well as public and private ferry service, and tram service. Much of the public transportation operates 24 hours per day/7 days per week/365 days per year. **Chapter 4, “Transportation,” Subchapter 4B, “Transportation: Highways and Local Intersections,”** and **Subchapter 4C, “Transportation: Transit”** provide detail on the region’s highway, roadway, and transit systems.

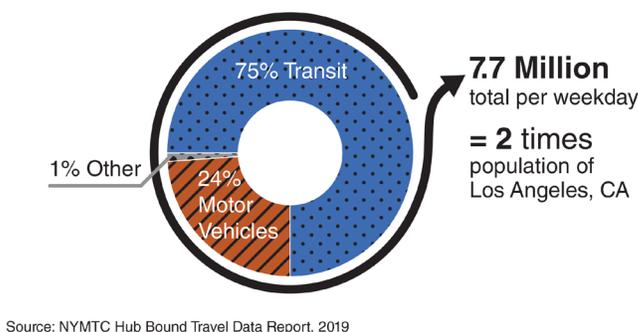
Figure ES-1. The 28-County Region Study Area



Source: ESRI, NYC Open Data, NYMTC 2020 TransCAD Highway Network

People traveling to the Manhattan CBD arrive by public transportation (rail, subway, bus, tram, ferry, and paratransit), walk or ride a bicycle, or travel by passenger car, taxi, for-hire vehicle (FHV), or truck. Public transportation is used by most people to enter the Manhattan CBD, both for work and for leisure. According to the New York Metropolitan Transportation Council (NYMTC) *Hub Bound Travel Data Report*, approximately 7,665,000 people entered and exited the Manhattan CBD on an average weekday in 2019, nearly twice the population of Los Angeles, California (**Figure ES-2**).⁴ Seventy-five percent of these trips were made by transit, but an estimated 1,856,000 (24 percent) were made by car, taxi, van, or truck.⁵

Figure ES-2. People Entering [and Exiting] Manhattan CBD (by mode)



Public transportation is used by most people to enter the Manhattan CBD, both for work and for leisure. According to the New York Metropolitan Transportation Council (NYMTC) *Hub Bound Travel Data Report*, approximately 7,665,000 people entered and exited the Manhattan CBD on an average weekday in 2019, nearly twice the population of Los Angeles, California (**Figure ES-2**).⁴ Seventy-five percent of these trips were made by transit, but an estimated 1,856,000 (24 percent) were made by car, taxi, van, or truck.⁵

[According to the 2012-2016 American Community Survey, commuters use transit to access the Manhattan CBD at even higher rates, with 85 percent using transit and 11 percent using motor vehicles.⁶]

Where will the benefits and effects of the Project occur?

The 28-county metropolitan region is the main catchment area for trips to and from the Manhattan CBD. The Project would affect travel patterns within the Manhattan CBD and in other parts of the region. Travel patterns change more intensely when approaching and within the Manhattan CBD. To assess beneficial and adverse effects of the Project, the EA uses a combination of the regional 28-county study area and several local study areas. The local study areas change according to the issue being explored for effects. For example, the local study area used to assess the visual effects associated with installation of tolling infrastructure and tolling system equipment is much smaller than the local study area to assess air quality changes. Additional discussion of these study areas is provided in **Chapter 3, “Environmental Analysis Framework,”** and in each chapter throughout the EA.

What is an Environmental Assessment (EA) and why is it needed for this Project?

Before a Federal agency makes a decision, the National Environmental Policy Act (NEPA) requires the Federal agency to understand and disclose the environmental effects of the action. An EA (40 CFR §1501.5) is performed to ensure Federal agencies consider the environmental impacts of their actions in the decision-making process (40 CFR §1500.1(a)). For a proposed action that is not likely to have significant effects, or when the significance of the effect is unknown (40 CFR §1501.5(a)), the EA aids in determining the significance of the adverse effects. If the adverse effects are not significant or can be mitigated below significant levels, the Federal agency may issue a Finding of No Significant Impact (FONSI) (40 CFR §1501.6). If there are significant effects that cannot be mitigated, the Federal agency must develop an Environmental Impact Statement (EIS) leading to a Record of Decision (ROD).

The Value Pricing Pilot Program (VPPP) and National Environmental Policy Act (NEPA)

Established by the U.S. Congress as the Congestion Pricing Pilot Program in 1991, and renamed in 1998, the VPPP aims to demonstrate whether and to what extent congestion pricing strategies can reduce congestion, while also exploring the effects of these strategies on “driver behavior, traffic volumes, transit ridership, air quality and availability of funds for transportation programs.”

Enacted in 1970, NEPA requires that Federal agencies assess the environmental effects of their proposed actions before making decisions. Providing approval to the Project under the VPPP would be an action by FHWA and is, therefore, subject to NEPA.

Sources:

FHWA. “Value Pricing Pilot Program.”

https://ops.fhwa.dot.gov/congestionpricing/value_pricing/index.htm

United States Environmental Protection Agency. “What is the National Environmental Policy Act.”

<https://www.epa.gov/nepa/what-national-environmental-policy-act>

Some roadways within the Manhattan CBD are part of the National Highway System and some have been improved with funding from the Federal government. In order to toll these roadways, the Project Sponsors need approval from U.S. Department of Transportation’s Federal Highway Administration (FHWA), in this case through their Value Pricing Pilot Program (VPPP). When FHWA reviews a project sponsor’s application to the VPPP with the intention of taking an action, it must comply with NEPA.

FHWA, as the lead Federal agency for the NEPA process, determined that an EA is the appropriate class of action for this Project as the Project’s goals result primarily in operational changes, with very little physical impacts on the existing environment. The approach to reducing congestion in the Manhattan CBD lends itself to beneficial effects on air quality and quality of life.

FHWA recognizes that the Project could have effects on environmental justice populations. As a result, FHWA requested that the NEPA process include enhanced public outreach and coordination with Federal and state resource agencies.

WHY IS THE CBD TOLLING PROGRAM BEING CONSIDERED?

Traffic congestion has been a problem in the Manhattan CBD for many years,⁷ and has been one of New York City’s most challenging policy problems for generations. As the regional population and commerce have grown, traffic has snarled with such regularity over the years that a new word was created to describe it: gridlock.⁸

NYCDOT, MTA, and other transportation agencies have implemented programs to reduce congestion, and improve transit, pedestrian, and bicycle accessibility in and to the Manhattan CBD. NYCDOT has repurposed curbside parking to establish bicycle lanes and increased pedestrian space with sidewalk and corner bump outs. It has also converted curbside lanes and general-purpose traffic lanes to dedicated bus lanes on certain Manhattan avenues and east–west, crosstown streets.

Additionally, MTA and other transit agencies offer reduced transit fares for the elderly, disabled, and school-aged children, and in early 2022, MTA implemented fare capping as part of its new fare system rollout (OMNY), which allows free, unlimited rides to customers the rest of the week once they have spent \$33 (the same as taking 12 trips). Many employers participate in a Federal program that allows employees to use pre-tax dollars to pay for transit, and many companies have adopted flexible work schedules, including options to work remotely.

Figure ES-3. Most Congested Urban Areas (2021)

| United States |
|---------------------|
| 1. New York, NY |
| 2. Chicago, IL |
| 3. Philadelphia, PA |
| 4. Boston, MA |
| 5. Miami, FL |

Source: INRIX, 2021

Despite these traffic-reduction initiatives, and despite the existence of the country’s most extensive and robust public transit network, traffic congestion persists. In 2020 and 2021, New York City’s traffic congestion ranked worst among the cities in the United States (**Figure ES-3**).⁹

State and City of New York officials and stakeholder and advocacy groups have conducted multiple studies over the past 45 years to determine the most effective way to address congestion in the Manhattan CBD. These studies overwhelmingly pointed to congestion pricing, or introduction of tolls based on traffic levels, as the most effective tool. **Chapter 2, “Project Alternatives,” and Appendix 2A, “Project Alternatives: Previous Studies and Concepts Considered,”** provide more information about other alternatives and these earlier studies.

PROJECT PURPOSE, NEED, AND OBJECTIVES

The Project purpose is to reduce traffic congestion in the Manhattan CBD in a manner that will generate revenue for future transportation improvements, pursuant to acceptance into FHWA's VPPP.

Why do we need to reduce traffic congestion?

Low travel speeds and unreliable travel times to, from, and within the Manhattan CBD increase commute and travel times for vehicles using the roadways, erode worker productivity, reduce bus and paratransit service quality, raise the cost of deliveries and the overall cost of doing business, and delay emergency vehicles. Thus, there is a need to reduce vehicle congestion in the Manhattan CBD to improve the reliability and efficiency of the transportation system.



Why do we need money for transit investment?

“The only way to end traffic jams in Manhattan and the approaches to it is by making public transportation better.”

Regional Plan Association, Regional Plan News, No. 82, February 1966

Transit is critical to New York City’s overall economy, and to the region’s residents, workers, and visitors, and continued investment in transit is necessary to ensure ongoing mobility and accessibility. ***[Indeed, MTA’s transit system, and particularly the bus network, promotes equity by serving low-income and minority communities.]***

In 2019, MTA subways served 1.7 billion passengers and MTA buses carried 677.6 million passengers, providing access to employment, healthcare, education and the full range of services and entertainment options available throughout New York City. The 10 busiest subway stations in the MTA system are in the Manhattan CBD, and two of the 10 busiest MTA bus routes are in or serve the Manhattan CBD.¹⁰ The Long Island Rail Road and Metro-North Railroad were the busiest commuter rail systems in the United States in 2019, and Penn Station New York and Grand Central Terminal, both within the Manhattan CBD, are the two busiest passenger rail stations in North America.¹¹

Congestion by the Numbers

Cost of Congestion: 102 hours of lost time; nearly \$1,595 per year per driver in the New York City region.*

Travel Speeds: Decreased **[23%]** in the Manhattan CBD, from 9.1 miles per hour (mph) to 7.1 mph between 2010 and 2019.**

FHV Registrations: Tripled in New York City, from fewer than 40,000 to more than 120,000 between 2010 and 2019. Due to the effects of the COVID-19 pandemic and the city’s continued cap on FHV registrations, the number of FHVs making trips fell to 70,000 by April 2022.†

Local Bus Speeds: Declined 28% in the Manhattan CBD since 2010. The average speed of Select Bus Service (New York City Transit’s bus rapid transit service) routes in Manhattan are 19% slower than Select Bus Service routes in other boroughs.††

Sources:

* INRIX 2021 Global Traffic Scorecard. <https://inrix.com/scorecard-city/?city=New%20York%20City%20NY&index=5>

** NYCDOT. August 2019. New York City Mobility Report. <https://www1.nyc.gov/html/dot/downloads/pdf/mobility-report-print-2019.pdf>.

† New York City Taxi and Limousine Commission and NYCDOT. June 2019. *Improving Efficiency and Managing Growth in New York’s For-Hire Vehicle Sector*; NYC TLC FHV trip data.

†† NYCDOT. August 2019. New York City Mobility Report. <https://www1.nyc.gov/html/dot/downloads/pdf/mobility-report-print-2019.pdf>. New York City Transit analysis.

MTA employs approximately 70,000 people, making it one of the largest individual employers in New York State (and larger than many small cities). Through its capital spending, MTA annually injects billions of dollars into the local economy, both through major infrastructure projects and day-to-day operations and maintenance programs, indirectly supporting thousands of additional jobs far beyond its direct employment.¹²

Beginning in 2017, MTA's operating agencies engaged in projects to address some root causes of declining service that had begun in 2010 and implemented improvements to commuter rail and subway infrastructure. As documented in MTA's 2020–2024 Capital Program, these projects resulted in substantial reductions in delay and improvements in on-time performance.¹³

Elements of MTA's commuter rail and subway system are more than 100 years old, and essential capital needs remain to ensure a state of good repair and to bring MTA's transit and rail assets into the 21st Century. The 2020–2024 Capital Program is intended to “build on these achievements, ensuring that the improvements put in place will be sustainable for years to come.”¹⁴ The program identifies \$52.0 billion of investments¹⁵ in the region's subways, buses, and commuter railroads. The following are key tenets of the 2020–2024 Capital Program.

- Investing to improve reliability
- Committing to environmental sustainability
- Building an accessible transit system for all New Yorkers
- Easing congestion and creating growth
- Improving safety and customer service through technology¹⁶

What are the Project objectives?

FHWA and the Project Sponsors have established the following objectives to further refine the Project purpose and address the needs described above.

- Reduce daily vehicle-miles traveled (VMT) within the Manhattan CBD by at least 5 percent
- Reduce the number of vehicles entering the Manhattan CBD daily by at least 10 percent
- Create a funding source for capital improvements and generate sufficient annual net revenues to fund \$15 billion for capital projects for the MTA Capital Program
- Establish a tolling program consistent with the purposes underlying the New York State legislation entitled the MTA Reform and Traffic Mobility Act¹⁷

WHAT ARE THE PROJECT ALTERNATIVES?

FHWA and the Project Sponsors screened a number of preliminary alternatives against the Project purpose, need, and three of the four objectives (**Table ES-1**). **Chapter 2, “Project Alternatives,”** provides this analysis in further detail. The CBD Tolling Alternative is the alternative that meets the purpose, need and three objectives of the Project. Thus, for the purposes of this EA, there are two alternatives:

- **No Action Alternative**, which would not implement a vehicular tolling program in the Manhattan CBD
- **CBD Tolling Alternative (Action Alternative)**, which would implement a vehicular tolling program in the Manhattan CBD

Although the No Action Alternative does not meet the Project purpose and objectives, NEPA regulations require that it be evaluated and serve as the baseline condition against which the potential effects of the CBD Tolling Alternative are evaluated.

No Action Alternative

The No Action Alternative assumes the following existing policies and programs would continue and a number of planned initiatives would be implemented, including:

- A cap on the number of FHV licenses in New York City would remain.
- The two-way, protected bicycle lanes on the Brooklyn Bridge, implemented by NYCDOT in fall 2021, would remain.¹⁸
- NYCDOT would continue the current configuration of two lanes in each direction between Atlantic Avenue and the Brooklyn Bridge on the Brooklyn-Queens Expressway; it would initiate repairs to the bridges and structures between Atlantic Avenue and Sands Street.¹⁹
- NYCDOT would convert a traffic lane to a pedestrian walkway on the Ed Koch Queensboro Bridge lower level, and the existing shared-use path on the north side of the lower level would be used only for bicycles.
- TBTA and the Port Authority of New York and New Jersey (PANYNJ) would continue tolling at their bridges and tunnels, while the East River Bridges and Harlem River Bridges would remain untolled. **Chapter 1, “Introduction,”** provides more information on **[existing]** tolls.
- MTA would continue to implement transit and rail improvement projects in its 2020–2024 Capital Program, based on the funding available. **Appendix 4A.1, Table 4A.1-3**, provides information on recent transit and rail improvement projects included in the EA analysis.
- NYCDOT and other New York City agencies would continue programs established in response to the COVID-19 pandemic, including the closure of certain sections of streets to vehicular traffic (“Open Streets”) and the use of curbside parking lanes for outdoor dining (“Open Restaurants”).
- NYCDOT would continue to develop bicycle and bus infrastructure including new bicycle and bus lanes.²⁰ **Chapter 4E, “Transportation: Pedestrians and Bicycles,”** provides further information on recently implemented and planned bicycle improvements.

Table ES-1. Results of Preliminary Alternatives Screening¹

| ALTERNATIVE | PURPOSE AND NEED: Reduce traffic congestion in the Manhattan CBD in a manner that will generate revenue for future transportation improvements | OBJECTIVE 1: Reduce daily vehicle-miles traveled (VMT) within the Manhattan CBD Criterion: Reduce by 5% (relative to No Action) | OBJECTIVE 2: Reduce the number of vehicles entering the Manhattan CBD daily Criterion: Reduce by 10% (relative to No Action) | OBJECTIVE 3: Create a funding source for capital improvements and generate sufficient annual net revenues to fund \$15 billion for capital projects for MTA's Capital Program |
|---|---|--|---|--|
| NA-1: No Action | Does not meet | Does not meet | Does not meet | Does not meet |
| NTP-1: Parking pricing strategies | Does not meet | Does not meet (see note 2) | Does not meet | Does not meet (see note 2) |
| T-1: Pricing on full roadways: Raise tolls or implement variable tolls on existing toll facilities | Does not meet | Does not meet (see note 3) | Does not meet (see note 3) | Does not meet |
| T-2: Pricing on full roadways: Toll East and Harlem River bridges | Does not meet (see note 4) | Meets | Meets | Does not meet (see note 4) |
| T-3: High-occupancy toll (HOT) lanes | Does not meet (see note 5) | Does not meet | Does not meet | Does not meet (see note 5) |
| T-4: Zone-based pricing: CBD Tolling Program | Meets | Meets | Meets | Meets |
| O-1: Parking pricing: Reduce government-issued parking permits | Does not meet | <i>[Does not meet (see note 6)]</i> | <i>[Does not meet (see note 6)]</i> | Does not meet |
| O-2: Provide additional taxi stands to reduce cruising | Does not meet | Does not meet (see note [7]) | Does not meet | Does not meet |
| O-3: Create incentives for teleworking | Does not meet | Does not meet | Does not meet (see note [8]) | Does not meet |
| O-4: Ration license plates | Does not meet | Meets | Meets | Does not meet |
| O-5: Mandatory carpooling | Does not meet | Meets | Meets | Does not meet |
| O-6: Truck time-of-day delivery restrictions | Does not meet | Does not meet (see note [9]) | Does not meet (see note [9]) | Does not meet |

Notes for Table ES-1

- ¹ Screening was based on a variety of prior studies and documents, including the following: New York City Traffic Congestion Mitigation Commission, “Congestion Mitigation Strategies: Alternatives to the City’s Plan” (December 10, 2007); and “Report to the Traffic Congestion Mitigation Commission & Recommended Implementation Plan” (January 31, 2008), and its appendices, including Cambridge Systematics, Inc., “Technical Memorandum: Telecommuting Incentives,” prepared for New York City Economic Development Corporation and New York City Department of Transportation (December 10, 2007); Cambridge Systematics, Inc., “Technical Memorandum: Night Delivery Incentives,” prepared for New York City Economic Development Corporation and New York City Department of Transportation (December 10, 2007); Cambridge Systematics, Inc., “Technical Memorandum: Congestion Reduction Policies Involving Taxis,” prepared for New York City Economic Development Corporation and New York City Department of Transportation (December 10, 2007); Cambridge Systematics, Inc., “Technical Memorandum: Increase Cost of Parking in the Manhattan Central Business District (CBD),” prepared for New York City Economic Development Corporation and New York City Department of Transportation (December 10, 2007).
- ² For NTP-1: VMT reduction was estimated at substantially less than 1 percent. Further, there is no law or agreement in place between the City of New York and MTA that would direct the revenue generated from this alternative to MTA to support the Capital Program.
- ³ For T-1: This alternative would generate revenue, but the annual net revenues would not be sufficient to fund \$15 billion for capital projects for MTA’s Capital Program. The revenue as well as reduction in VMT and number of vehicles with this alternative depends on how high the toll is raised and whether tolls are increased only on Triborough Bridge and Tunnel Authority (TBTA) facilities or both TBTA and Port Authority of New York and New Jersey facilities. However, with some crossings remaining untolled, traffic would divert to untolled facilities, thereby reducing the revenue and not reducing traffic. Further, this alternative would not target congestion in the Manhattan CBD, given that a number of free entry points to the Manhattan CBD would remain available.
- ⁴ For T-2: Earlier studies showed this alternative would reduce congestion and could raise toll revenues equivalent to project objectives. However, there is no law or agreement in place between the City of New York and MTA that would direct the revenue to MTA to support the Capital Program. ***[In addition, the 2008 New York City Traffic Congestion Mitigation Commission Study identified a number of disadvantages to this alternative, including that this alternative would not address trips that start and end within Manhattan, such as trips beginning or ending on the Upper East Side and Upper West Side; and that this alternative would adversely affect local trips between the South Bronx and Harlem/Washington Heights, which could result in a local adverse economic impact in two environmental justice communities.]***
- ⁵ For T-3: HOT Lanes can be effective revenue generators, but their ability to reduce congestion and raise enough revenue to meet the target is limited due to the availability of free lanes on the same highway.
- ^[6] ***[For O-1: Earlier studies concluded that reducing parking placards issued to government employees would reduce VMT south of 86th Street by 0.1 to 0.3 percent, depending on the size of the reduction (reductions evaluated ranged from 3,000 to 10,000 placards). With this level of VMT reductions, this alternative also would not reduce the number of vehicles entering the Manhattan CBD enough to meet the Project objective.]***
- ^[7] For O-2: Provision of additional taxi stands would have no effect on the number of taxis entering the Manhattan CBD and would not necessarily reduce VMT since taxis would need to travel back to a taxi stand after discharging customers. Further, this alternative would not broadly address VMT for all vehicles, nor would it reduce the number of vehicles entering the Manhattan CBD.
- ^[8] For O-3: Earlier studies concluded that this alternative would reduce New York City commute trips by less than two percent. Recent experience with the COVID-19 pandemic has supported that conclusion. As the region returns to normal business activities, following large-scale, full-time teleworking, many office workers are continuing to telework, but traffic levels are returning to close to pre-COVID-19 pandemic levels (for more information, see **Chapter 1, “Introduction,” Section 1.4.1**). With such minimal impact, even combining this alternative with others like NTP-1 or O-2 would not yield congestion reductions and new revenue to meet the project’s purpose, need and objectives.
- ^[9] For O-6: To be successful, truck time-of-day restrictions would require receivers to be open and willing to receive the vehicles in overnight hours. Further, depending upon how the restrictions are implemented, some large trucks might instead send multiple small trucks, thereby increasing vehicle numbers and VMT.

CBD Tolling Alternative (Action Alternative)

The CBD Tolling Alternative would toll vehicles entering or remaining in the Manhattan CBD. Noncommercial passenger vehicles entering the CBD would be tolled once per day. Vehicles that remain in the Manhattan CBD are vehicles that are detected leaving, but not detected entering the same day. Given that they were detected leaving, they must have driven through the Manhattan CBD and, therefore, remained some portion of the day. Noncommercial passenger vehicles would be tolled no more than once a day. There would be exemptions for qualifying vehicles transporting a person with disabilities and qualifying authorized emergency vehicles.

Residents whose primary residence is inside the Manhattan CBD and whose New York State adjusted gross income is less than \$60,000 would be eligible for a New York State tax credit equal to the amount of Manhattan CBD tolls paid during the taxable year.

The toll amount would be variable, with higher tolls charged during peak periods when congestion is greater. Because the effects are closely related to the toll structure, the CBD Tolling Alternative evaluated a range of toll structures in defined tolling scenarios. In most of these tolling scenarios, the toll rates for different types of vehicles, like delivery trucks, are different than the toll rates for noncommercial passenger vehicles.

Beneficial and Adverse Effects: What is important to know about the tolling scenarios in the CBD Tolling Alternative?

A decision on the actual toll structure will occur after the EA is completed. A Traffic Mobility Review Board (TMRB) **[has been established consistent with the MTA Reform and Traffic Mobility Act]** to develop recommendations on toll rates, exemptions, crossing credits applied against the CBD toll for tolls paid on other toll tunnels or bridges, and/or discounts. For the EA, to explore the range of effects that could occur with the CBD Tolling Alternative, the Project Sponsors initially developed six tolling scenarios (A–F). Each scenario includes different combinations of crossing credits, potential discounts (in the form of caps), and exemptions (**Table ES-2**). After the early public outreach, and given concerns expressed regarding diversions of truck traffic, a seventh scenario (G) was added to avoid some of these traffic effects. **Chapter 2, “Project Alternatives,”** provides more detail on each scenario while **Subchapter 4A, “Transportation: Regional Transportation Effects and Modeling”** and **Subchapter 4B, “Transportation: Highways and Local Intersections,”** provides more information on traffic effects.

How and When Would I be Tolled?

Below are some examples of when and how the toll would be applied.

- A car drives into the Manhattan CBD on Monday morning and leaves Monday evening before midnight. It would be detected when it enters and when it leaves the Manhattan CBD. Because passenger vehicles would be charged only once daily, a single toll would be charged.
- A car drives into the Manhattan CBD on Monday, and parks until it leaves on Wednesday. It would be charged entering on Monday and for remaining when it drove through the Manhattan CBD on Wednesday to leave. It would not be charged when it was parked the full 24-hours on Tuesday.
- A car makes two round trips into the Manhattan CBD on the same day. It would be charged a single toll, because passenger vehicles would be charged only once daily.
- A car is parked all week within the Manhattan CBD and then leaves the Manhattan CBD for a day trip on Saturday, returning before midnight. The car would be detected leaving (remaining) and entering the Manhattan CBD on the same day. Because passenger vehicles would be charged only once daily, a single toll would be charged on Saturday.
- A car is parked all week within the Manhattan CBD and then leaves the Manhattan CBD on Friday and returns on Monday. The car would be detected leaving (remaining) on Friday and entering when it returns on Monday. It would receive a charge on Friday for remaining and on Monday for entering. It would not be charged any other days when it was parked the entire day in the Manhattan CBD, nor the days when it was away.

Table ES-2. Tolling Scenarios Evaluated for the CBD Tolling Alternative

| PARAMETER ¹ | SCENARIO A | SCENARIO B | SCENARIO C | SCENARIO D | SCENARIO E | SCENARIO F | SCENARIO G |
|---|--------------------|------------------------------------|--|--|---|---|---|
| | Base Plan | Base Plan with Caps and Exemptions | Low Crossing Credits for Vehicles Using Tunnels to Access the CBD, with Some Caps and Exemptions | High Crossing Credits for Vehicles Using Tunnels to Access the CBD | High Crossing Credits for Vehicles Using Tunnels to Access the CBD, with Some Caps and Exemptions | High Crossing Credits for Vehicles Using Manhattan Bridges and Tunnels to Access the CBD, with Some Caps and Exemptions | Base Plan with Same Tolls for All Vehicle Classes |
| Time Periods² | | | | | | | |
| Peak: Weekdays | 6 a.m. to 8 p.m. | 6 a.m. to 8 p.m. | 6 a.m. to 8 p.m. | 6 a.m. to 8 p.m. | 6 a.m. to 8 p.m. | 6 a.m. to 10 a.m.; 4 p.m. to 8 p.m. | 6 a.m. to 8 p.m. |
| Peak: Weekends | 10 a.m. to 10 p.m. | 10 a.m. to 10 p.m. | 10 a.m. to 10 p.m. | 10 a.m. to 10 p.m. | 10 a.m. to 10 p.m. | 10 a.m. to 10 p.m. | 10 a.m. to 10 p.m. |
| Off Peak: Weekdays | 8 p.m. to 10 p.m. | 8 p.m. to 10 p.m. | 8 p.m. to 10 p.m. | 8 p.m. to 10 p.m. | 8 p.m. to 10 p.m. | 10 a.m. to 4 p.m. | 8 p.m. to 10 p.m. |
| Overnight: Weekdays | 10 p.m. to 6 a.m. | 10 p.m. to 6 a.m. | 10 p.m. to 6 a.m. | 10 p.m. to 6 a.m. | 10 p.m. to 6 a.m. | 8 p.m. to 6 a.m. | 10 p.m. to 6 a.m. |
| Overnight Weekends | 10 p.m. to 10 a.m. | 10 p.m. to 10 a.m. | 10 p.m. to 10 a.m. | 10 p.m. to 10 a.m. | 10 p.m. to 10 a.m. | 10 p.m. to 10 a.m. | 10 p.m. to 10 a.m. |
| Potential Crossing Credits | | | | | | | |
| Credit Toward the CBD Toll for Tolls Paid at the Queens-Midtown, Hugh L. Carey, Lincoln, Holland Tunnels | No | No | Yes | Yes | Yes | Yes | No |
| Credit Toward the CBD Toll for Tolls Paid at the Robert F. Kennedy, Henry Hudson, George Washington Bridges | No | No | No | No | No | Yes | No |
| Potential Exemptions and Limits (Caps) on Number of Tolls per Day | | | | | | | |
| Cars, motorcycles, commercial vans | Once per day | Once per day | Once per day | Once per day | Once per day | Once per day | Once per day |
| Taxis | No cap | Once per day | Exempt | No cap | Exempt | Once per day | No cap |
| FHVs | No cap | Once per day | Three times per day | No cap | Three times per day | Once per day | No cap |
| Small and large trucks | No cap | Twice per day | No cap | No cap | No cap | Once per day | No cap |
| Buses | No cap | Exempt | No cap | No cap | Transit buses—Exempt No cap on others | Exempt | No cap |
| Approximate Toll Rate Assumed³ | | | | | | | |
| Peak | \$9 | \$10 | \$14 | \$19 | \$23 | \$23 | \$12 |
| Off Peak | \$7 | \$8 | \$11 | \$14 | \$17 | \$17 | \$9 |
| Overnight | \$5 | \$5 | \$7 | \$10 | \$12 | \$12 | \$7 |

¹ The parameters in this table were assumed for modeling purposes to evaluate the range of potential effects that would result from implementation of the CBD Tolling Alternative. Actual toll rates, potential credits, exemptions and/or discounts, and the time of day when toll rates would apply would be determined by the TBTA Board after recommendations are made by the Traffic Mobility Review Board. **Appendix 2E, “Project Alternatives: Definition of Tolling Scenarios,”** provides more detailed information on the rates, potential crossing credits, exemptions, and/or discounts assumed for each tolling scenario.

² Tolls would be higher during peak periods when traffic is greatest. These would be set forth by TBTA in the final toll schedule. All tolling scenarios include a higher toll on designated “Gridlock Alert” days, although the modeling conducted for the Project did not reflect this higher toll since it considers typical days rather than days with unusually high traffic levels.

³ Toll rates are for autos, commercial vans, and motorcycles using E-ZPass and are rounded. For all tolling scenarios, different rates would apply for vehicles not using E-ZPass; for Tolling Scenarios A through F, different vehicle classes would pay different tolls (see **Appendix 2E, “Definition of Tolling Scenarios”**). The peak E-ZPass rate (rounded) range across tolling scenarios for small trucks would be \$12-\$65; for large trucks, the range would be \$12-\$82.

There are several components to the toll structure, but the most important factor in the magnitude and distribution of effects from the Project is the toll rate. Overall, the Project would result in a congestion benefit both regionally and within the Manhattan CBD. On a local level, depending on the toll structure, near and adjacent to the Manhattan CBD there would be increases or decreases in traffic volumes as vehicles divert to other routes to avoid the toll. **Table ES-5** provides additional information regarding these effects and proposed mitigation. The following trends are important to understand:

- All the tolling scenarios would reduce traffic entering the Manhattan CBD.
- All the tolling scenarios would have an overall net benefit in congestion reduction for the region.
- Adding discounts, crossing credits, and exemptions would require that the overall toll rates increase, leading to more congestion reduction.
- Higher toll rates would reduce traffic, and increase transit ridership entering the Manhattan CBD.
- Higher toll rates would increase traffic diversions as drivers avoid the toll. This would lead to less traffic in the Manhattan CBD, and changes in traffic patterns outside of the CBD, with both increases and decreases of traffic in localized locations elsewhere.
- Crossing credits, which would credit some of the amount drivers pay for TBTA or PANYNJ tolls against the CBD toll, would bring the total costs of different routes into the CBD closer to parity and therefore change the degree to which, and balance of where, traffic reductions occur.
 - ❖ Tolling scenarios with crossing credits would have less effect on reducing traffic entering the Manhattan CBD from Queens, and much less effect on reducing traffic entering from New Jersey than tolling scenarios without crossing credits. Tolling scenarios with crossing credits would lead to greater decreases in traffic entering from north of 60th Street and Brooklyn.
 - ❖ Crossing credits would encourage some drivers to shift from the currently-free East River Bridges to TBTA's tolled tunnels. As a result, traffic would increase at the Queens-Midtown Tunnel and the Hugh L. Carey Tunnel, resulting in more traffic on the Long Island Expressway and a shift of traffic along the Gowanus Expressway from the BQE to the Hugh Carey Tunnel, as well as increases in traffic on the local streets in Manhattan that feed traffic to and from these tunnels.

In addition to the toll rate and crossing credits, several other factors play a role in generating beneficial and adverse effects.

Truck toll price. Unlike cars, trucks cannot shift to a different mode (e.g., transit). For trucks traveling through the CBD en route to their final destination, their only alternative to paying the toll is to not make the trip or divert around the Manhattan CBD. Similar to the general traffic, increased tolls decrease truck traffic entering the Manhattan CBD. Truck diversion increases with increases in the toll (similar to general traffic). In particular, trucks would divert to routes on highways in Staten Island and in the South Bronx.

Time of day. Reducing the toll in the overnight period would reduce diversions to alternative routes, lessening effects outside the Manhattan CBD and encouraging delivery vehicles to shift to the less-congested overnight

Public Outreach Response

In response to concerns raised during the early Public Outreach related to increased truck traffic on the Cross Bronx Expressway and the fact that trucks do not have an alternate mode of travel to avoid the toll, Scenario G was added. This scenario charges the same toll rate for cars and trucks and significantly reduces truck diversions in the South Bronx and Staten Island. See **Chapter 4A, "Regional Transportation Effects and Modeling."**

period. Though not as substantial with this lower overnight charge, traffic reductions would still occur.

HOW DOES THE ACTION ALTERNATIVE MEET THE PROJECT OBJECTIVES?

FHWA will consider the No Action and the CBD Tolling Alternative (Action Alternative) as a whole, while being mindful that the Action Alternative includes a range of potential tolling scenarios. **Table ES-3** summarizes how the No Action and the Action Alternative meet the Project purpose, needs, and objectives.

Table ES-3. Comparison of Evaluation Results for the No Action and CBD Tolling Alternatives

| SCREENING CRITERION | NO ACTION ALTERNATIVE | CBD TOLLING (ACTION) ALTERNATIVE |
|--|-----------------------|----------------------------------|
| Purpose and Need: Reduce traffic congestion in the Manhattan CBD in a manner that will generate revenue for future transportation improvements | DOES NOT MEET | MEETS |
| Objective 1: Reduce daily vehicle-miles traveled (VMT) within the Manhattan CBD Criterion: Reduce by 5% (relative to No Action) <i>Daily VMT reduction (2023)</i> | DOES NOT MEET | MEETS |
| | 0% | 7.1% - 9.2% |
| Objective 2: Reduce the number of vehicles entering the Manhattan CBD daily Criterion: Reduce by 10% (relative to No Action) <i>Daily vehicle reduction (2023)</i> | DOES NOT MEET | MEETS |
| | 0% | 15.4% - 19.9% |
| Objective 3: Create a funding source for capital improvements and generate sufficient annual net revenues to fund \$15 billion for capital projects for MTA’s Capital Program <i>Net revenue to support MTA’s Capital Program²</i> | DOES NOT MEET | MEETS ¹ |
| | \$0 | \$1.02 billion - \$1.48 billion |
| Objective 4: Establish a tolling program consistent with the purposes underlying the New York State legislation entitled the “MTA Reform and Traffic Mobility Act” | DOES NOT MEET | MEETS |

¹ Although Tolling Scenario B would not meet Objective 3 with the toll rates identified and assessed in this Environmental Assessment (EA), additional analysis was conducted to demonstrate that it would meet this objective with a higher toll rate; the resulting VMT reduction and revenue for that modified scenario would fall within the range of the other scenarios presented. **Chapter 16, “Summary of Effects,”** provides more information on the modified Tolling Scenario B.

² The net revenue needed to fund \$15 billion depends on a number of economic factors, including but not limited to interest rates and term. For the purposes of this EA, the modeling assumes the Project should provide at least \$1 billion annually in total net revenue, which would be invested or bonded to generate sufficient funds. The net revenue values provided in this table are rounded and based on Project modeling.

As described in the EA, the TBTA Board would adopt a final toll structure, including toll rates and any crossing credits, discounts, and/or exemptions, informed by recommendations made by the Traffic Mobility Review Board and following a public hearing in accordance with the State Administrative Procedure Act.

What are the effects of the Project?

This EA analyzes 18 resource areas. **Figure ES-4** identifies those where there would be only beneficial or no adverse effects from the Project, and those areas that have identified potential adverse effects that will be mitigated. In the case of potential adverse effects, some of these adverse effects would only occur in certain tolling scenarios. **Table ES-[5]** provides more detail on which tolling scenarios would result in beneficial or adverse effects, to what degree, and what mitigation measures will be instituted. **Table ES-6** summarizes when and how these

mitigation measures will be implemented by the Project Sponsors]. Each respective chapter provides additional description and discussion.

Figure ES-4. Resource Areas and Effects Assessed in the EA

| Areas with Only Beneficial or No Adverse Effects | Areas with Potential Adverse Effects |
|--|--|
| Transportation: Regional Transportation | Transportation: Highways and Intersections |
| Transportation: Parking | Transportation: Transit |
| Social Conditions: Population | Transportation: Pedestrians and Bicycles |
| Social Conditions: Neighborhood Character | Environmental Justice |
| Social Conditions: Public Policy | |
| Economic Conditions | |
| Energy | |
| Parks and Recreational Resources | |
| Historic and Cultural Resources | |
| Visual Resources | |
| Air Quality | |
| Energy | |
| Noise | |
| Natural Resources | |
| Hazardous Waste/Contaminated Materials | |
| Construction Effects | |

What are the effects of the Project on environmental justice populations?

Some of the Project effects occur in certain locations, so attention was given to whether these effects occurred broadly across the region or population, or whether they affect communities or populations of those who are low-income or historically underrepresented (environmental justice communities or populations). The following paragraphs provide additional explanation about related beneficial or adverse effects.

Reduced traffic would benefit all drivers traveling to and near the Manhattan CBD, including environmental justice populations, by improving travel times, reducing vehicle operating costs, and improving safety. ***[Investments in transit would also benefit environmental justice populations who use MTA’s subways and buses to access work, school, medical care, and more.]*** The Project would improve regional air quality, and most environmental justice populations who live in the Manhattan CBD would experience lower localized pollutant emissions due to reduced traffic. Additional benefits are described in **Chapter 17, “Environmental Justice.”**

Low-income drivers

The cost of the new CBD toll would not be predominantly borne by low-income drivers. However, for low-income drivers who have no ***[reasonable]*** alternative to reach the Manhattan CBD other than private vehicle, the effect of that cost would be more burdensome because the cost of the toll would consume a larger percentage of their available income. ***[As such, the EA as published in August 2022 found that a disproportionately high and adverse effect would potentially occur for low-income drivers to the Manhattan CBD who do not have a reasonable alternative transportation mode for reaching the Manhattan CBD. This is particularly relevant for low-income frequent drivers to the Manhattan CBD.²¹ In addition to the mitigation previously offered, which will reduce barriers to benefiting from lower E-ZPass toll rates (compared to Tolls by Mail) and existing toll discounts available to certain***

E-ZPass customers, as well as the new mitigation measure of a significantly reduced toll during the overnight period, TBTA also commits to a low-income discount plan for these drivers.

Specifically, TBTA will ensure that for the first five years of the Project, the final tolling structure includes a discounted toll rate for low-income frequent drivers who have either a Federal adjusted gross income reported on their income tax return for the prior calendar year in the amount of no more than \$50,000 or proof of enrollment in a qualifying government-provided income-based program (such as the Supplemental Nutrition Assistance Program (SNAP) or the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)).²² As examples, a frequent driver could be someone commuting to work or someone who regularly visits a facility for medical care.

Through the use of their E-ZPass tag and an associated Low-Income Discount Plan on their E-ZPass account, qualifying drivers will benefit from a 25 percent discount on the full CBD E-ZPass toll rate for the applicable time of day after the first 10 trips in each calendar month. (This discount will not include the overnight period, which will already be deeply discounted.)

This new mitigation, combined with the other mitigation measures described in the EA, several of which eliminate barriers to becoming an E-ZPass customer,²³ will ensure that the Project does not result in a disproportionately high and adverse effect on low-income drivers to the Manhattan CBD.

The box below describes all the mitigation measures associated with low-income drivers. Additional information on each of these may be found in Tables ES-5 and ES-6 at the end of the Executive Summary.]

To [ensure that the Project does not result in a potential] disproportionately high and adverse effect on low-income drivers who [have no other reasonable alternative to driving], the Project Sponsors will institute the following mitigation and enhancement [measures].

MITIGATION

The Project will include a tax credit for CBD tolls paid by residents of the Manhattan CBD whose New York adjusted gross income for the taxable year is less than \$60,000. TBTA will coordinate with the New York State Department of Taxation and Finance (NYS DTF) to ensure availability of documentation needed for drivers eligible for the NYS tax credit.*

TBTA will post information related to the tax credit on the Project website, with a link to the appropriate location on the NYS DTF website to guide eligible drivers to information on claiming the credit.

TBTA will eliminate the \$10 E-ZPass tag deposit fee for customers without credit card backup.

TBTA will provide enhanced promotion of existing E-ZPass payment and plan options, including the ability for drivers to pay per trip (rather than a pre-load balance), refill their accounts with cash at participating retail locations, and discount plans already in place, about which they may not be aware.

TBTA will provide outreach and education on eligibility for existing discounted transit fare products and programs, including those for individuals 65 years of age and older, those with disabilities, and those with low incomes, about which many may not be aware.

The Project Sponsors commit to establishing an Environmental Justice Community Group that will meet on a [quarterly] basis, [with the first meeting prior to project implementation], to share updated data and analysis and listen to potential concerns.

[TBTA will ensure the overnight toll rate is reduced to at or below 50 percent of the peak toll from at least 12:00 a.m. to 4:00 a.m. in the final CBD tolling structure, which will benefit low-income drivers traveling during this time.]

[TBTA commits that for the first five years of the Project, the final tolling structure will include a discounted toll rate for low-income frequent drivers who have either a Federal adjusted gross income reported on their income tax return for the prior calendar year in the amount of no more than \$50,000 or proof of enrollment in a qualifying government-provided income-based program. Through the use of their E-ZPass tag and an associated Low-Income Discount Plan on their E-ZPass account, qualifying drivers will benefit from a 25 percent discount on the full CBD E-ZPass toll rate for the applicable time of day after the first 10 trips in each calendar month (not including the overnight period, which will already be deeply discounted).]

ENHANCEMENT

NYC's buses serve a greater share of low-income and minority households compared to other modes of transportation, including subways. **[MTA NYCT, when redesigning its bus networks, took into consideration areas with higher rates of low-income and minority households.]** The recently implemented Bus Network Redesigns in Staten Island and the Bronx have been well-received.

Network redesigns in Queens and Brooklyn are progressing. TBTA commits to working with MTA NYCT to address areas identified in the EA where bus service could be improved as the Brooklyn and Manhattan Bus Network Redesigns move forward.

*[*Although some people might not earn enough annually to have to file a tax return, they may still opt to submit a tax return to claim the credit. Free tax filing programs are available for qualifying individuals through the NYS Department of Taxation and Finance and the NYC Department of Consumer and Worker Protection (DCWP).]*

Taxis and FHV

Tolling scenarios **[B, C, E, and F]** include exemptions or discounts (in the form of caps) on the number of trips that can be charged for taxis and/or FHVs. Exemptions and caps decrease the toll burden on taxi/FHV drivers, while increasing the toll rate for other drivers to meet the Project's congestion and revenue objectives. If taxis and FHVs are charged for each trip **[as in Tolling Scenarios A, D, and G]**, the demand for their service would decline, particularly in New York City, reducing trips and better meeting the Project objectives, but creating new direct costs and/or potential job insecurity. **Table ES-[5]** provides information on the magnitude of these effects. Because many New York City taxi and FHV drivers identify as part of an environmental justice population, this would result in **[potential]** disproportionately high and adverse effects **[without mitigation]**.

[The EA released in August 2022 proposed several mitigation measures to address potential job insecurity. However, as a result of input during the public comment period, in this Final EA, new mitigation is proposed in place of those measures. Specifically, TBTA will ensure that these vehicles are not tolled more than once per day. With the addition of this new mitigation commitment, the Project will not result in a disproportionately high and adverse effect on taxi and FHV drivers in New York City.^{24]}

[To ensure that the Project does not result in a potential disproportionately high and adverse effect on New York City taxi and FHV drivers, TBTA will institute the following mitigation.

MITIGATION

TBTA will ensure that New York City taxis and FHVs are not tolled more than once per day in the adopted CBD toll structure.*]

[* Subchapter 4A describes the potential adverse effects and also provides additional narrative regarding what would occur in Tolling Scenarios A, D, and G if these vehicles were to be capped at once per day or exempted from the CBD toll. In each case, the potential effects fall within the range of effects explored through the tolling scenarios in the EA. Further, on page ES-24 of this Executive Summary, there is additional discussion regarding the range of effects, with specific attention to how the mitigation measures could change the effects of the Project. As explained, additional analysis conducted demonstrates that the results from these mitigation measures will still be within the range of effects explored in the EA. Finally, for discussion related to how this mitigation affects the analyses for each chapter, see Chapter 3, "Environmental Assessment Framework," Section 3.3.3.]

Traffic changes in environmental justice communities

As a result of traffic diversions as drivers seek to avoid the new toll, some environmental justice communities would experience lower traffic volumes; others would see increases in traffic. Following publication of the EA in August 2022, and based on public comments and input from the Environmental Justice Technical Advisory Group, the Project Sponsors conducted additional analysis related to these potential diversions. For the entire analysis, refer to Appendix 17D, "Technical Memorandum;" the following paragraphs provide a high-level summary of findings and conclusions.

Air pollutants associated with traffic and truck traffic. Appendix 17D, "Technical Memorandum" describes how and why traffic, and particularly truck traffic, contributes to pollutant burdens and the association between these burdens and health outcomes. Specifically, vehicles contribute to air pollutants like carbon monoxide, mobile source air toxics, nitrogen oxides, and particulate matter through brake and tire particulates, dispersal of roadway dust, and through the burning of fossil fuels in combustion engines.²⁵

Although all motor vehicles produce air pollutants, emissions from trucks are of particular concern to near-road air quality, in part because of the pollutants they emit, but also because they disproportionately contribute more emissions than other types of vehicles.²⁶

Thus much of the analysis focuses on truck traffic; however, to ensure that the full range of effects is explored, Appendix 17D, “Technical Memorandum” also explores effects of the Project on non-truck traffic.

Past land-use and transportation practices, trends and burdens. The analysis in Appendix 17D, “Technical Memorandum” also provides a broader context by describing pre-existing pollutant and chronic disease burdens, as well as past land use policies and related trends in pollutant emissions and associated health outcomes. The region’s highway network was developed in the mid-20th Century and, in many cases, highway construction cut through apartment blocks, displacing residents and businesses. In other cases, the highways formed physical boundaries between neighborhoods, isolating residents from commercial centers and from former neighborhoods (e.g., the Cross Bronx Expressway). Over time, many neighborhoods adjacent to highways experienced an exodus of residents who were replaced by new ethnic or economic groups, leading to marked neighborhood change in some places, as new residents established new ethnic enclaves, many of which were minority and/or low-income.²⁷ Beyond land use and transportation practices, other policies and practices have contributed to or amplified these effects. For example, in some areas, discriminatory real estate practices such as redlining severely restricted where minority populations could locate, concentrating minority communities in certain areas.²⁸

Regional air quality has been improving for many years, but the people of the 10-county study region – whether they live in communities designated as environmental justice communities or in other communities – are burdened with high levels of air pollutants and associated chronic disease, when compared to the rest of the United States (see Appendix 17D, “Technical Memorandum” for details on specific locations).

Summary of effects on truck traffic. All of the 434 census tracts within 300 meters of a highway²⁹ – both those that are environmental justice communities and those that are not – have at least one pollutant burden at or above the 80th national percentile or at least one chronic-disease burden above the 66.66th percentile, including 284 census tracts that could experience decreases or increases in truck traffic proximity (a measure of exposure to truck traffic) as a result of the Project.³⁰ The proportion of environmental justice census tracts existing within 300 meters of a highway (71.7 percent) mirrors the overall proportion of environmental justice census tracts in the 10-county environmental justice study area as a whole (70.6 percent).

Increases in truck traffic in currently overburdened communities, relative to national percentiles, would constitute an adverse effect. The analysis found that a larger number of census tracts identified as environmental justice tracts (56) would experience reduced truck traffic proximity when compared to non-environmental justice tracts (23); in essence, more environmental justice tracts than non-environmental census tracts would benefit from Project-related reductions in truck traffic. Further, roughly the same proportion of environmental justice and non-environmental justice communities would see decreases in traffic truck proximity related to the Project. However, while 41 percent of non-environmental justice census tracts would experience increases in truck traffic proximity, 50 percent of environmental justice census tracts would experience increases that would not be completely alleviated by the overall beneficial effects of the Project.

Summary of effects on non-truck traffic. Similar modeling was performed for non-truck traffic proximity changes resulting from the Project. In this case, 35 environmental justice communities with at least one census tract demonstrating a pre-existing air pollutant burden or chronic disease burden would potentially experience a decrease in highway non-truck traffic proximity. However, 33 communities with these same pre-existing air pollutant or chronic disease burdens could experience an increase in non-truck traffic

proximity. All but 11 of these communities were also identified during the analysis of truck traffic. The results from this analysis and concerns raised by environmental justice communities drew particular attention to a projected increase in traffic on the FDR Drive, adjacent to communities in Lower Manhattan and the Lower East Side.

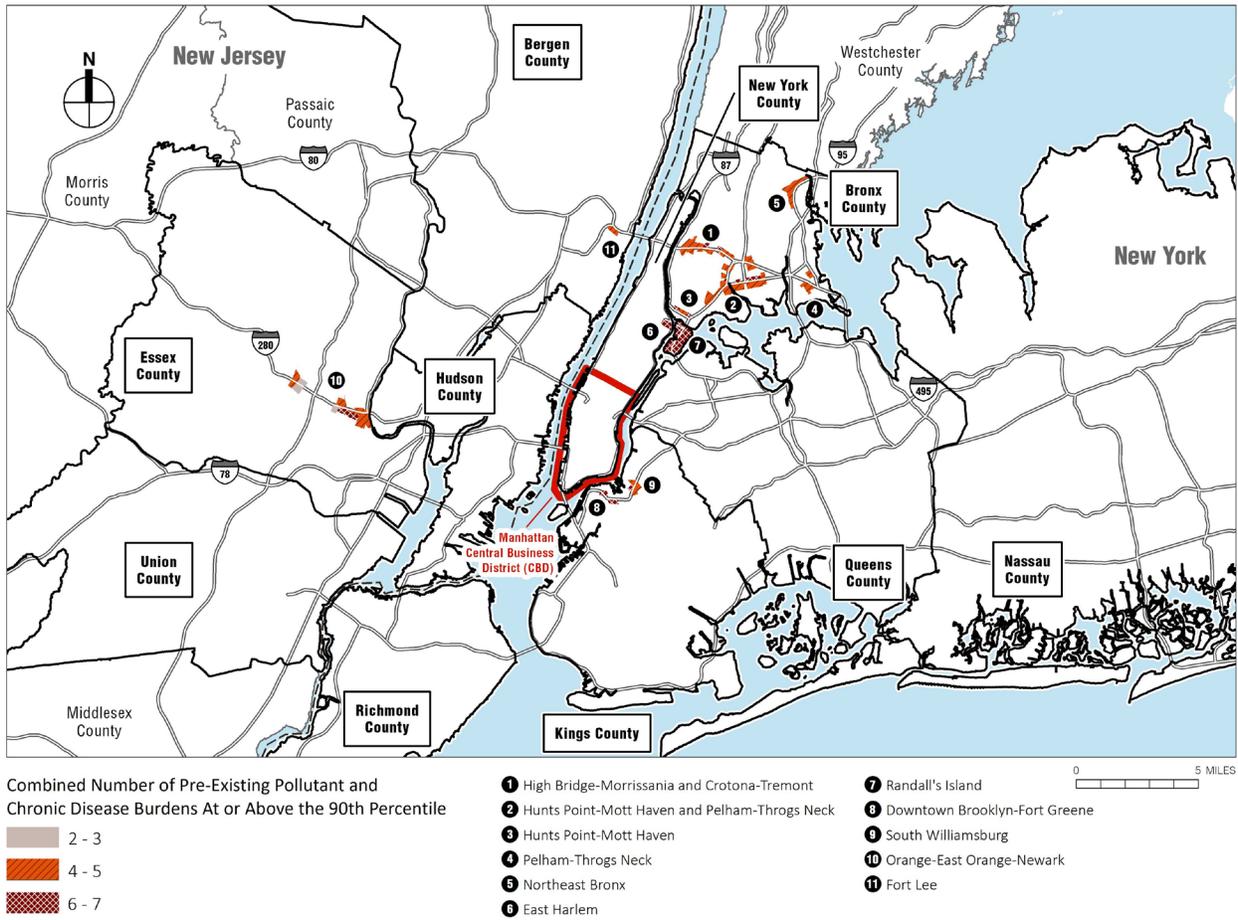
Mitigation for traffic diversions. To address potential Project-related traffic diversions, related air pollutants, and associated health effects, the Project Sponsors commit to a package of regional and place-based mitigation for communities which may experience Project-related increases in traffic.³¹ The specific census tracts that would experience changes in traffic vary slightly by tolling scenario, but the communities largely remain the same across tolling scenarios.³²

With respect to potential increases in truck traffic, those communities that already experience either pre-existing pollutant or chronic disease burdens at or above the 90th percentile, compared to the nation, would benefit from regional mitigation measures. Communities that already experience both pre-existing pollutant and chronic disease burdens above the 90th percentile, compared to the nation, would benefit from the regional measures as well as place-based mitigation (Figure ES-5).

For non-truck traffic, mitigation was identified for the FDR Drive adjacent to the Lower East Side and Lower Manhattan. Modeling indicated that the increase in this area could be mitigated by ensuring that vehicles traveling to Manhattan on the Brooklyn Bridge that drive north on the FDR Drive and use the exit at East Houston Street to immediately turn left and head back south on the FDR Drive, would be tolled, thus discouraging diversions of non-truck traffic. This mitigation will be implemented as part of the package of place-based mitigation measures.

The regional and place-based mitigation measures are summarized in Table ES-4. To fund these mitigation measures the Project Sponsors have committed \$155 million over 5 years. The Project Sponsors commit to these measures, regardless of the tolling structure eventually adopted. An adaptive management approach will be used which will include monitoring the efficacy of mitigation, stakeholder consultation, and adjustments as warranted. Importantly, with these mitigation commitments incorporated, the Project would not result in a disproportionately high and adverse effect on environmental justice communities.

[Figure ES-5. Environmental Justice Census Tracts with High Pre-Existing Pollutant and Chronic Disease Burdens Where Truck Traffic Proximity Could Potentially Increase (Tolling Scenario E)]



Source: USEPA NATA and Agency Air Quality System via EJScreen 2021 data; CDC PLACES Estimates 2020 via EJI 2022 data; BPM, WSP 2021.

Note: Percentiles are national. Census Tract 3009, Nassau County not shown. Potential truck volume increases and decreases on roadways within the tract would ultimately cancel each other out and result in no change of truck traffic proximity for the residential populations within the tract.

[Table ES-4. Regional and Place-Based Mitigation Measures]¹

| MITIGATION MEASURES | BENEFIT AND RESULT OF MITIGATION | 5-YEAR FUNDING | RELEVANT LOCATION(S) | FUNDING SOURCE | IMPLEMENTATION LEAD |
|--|---|---------------------------|--|---|---|
| Regional Mitigation | | | | | |
| Further reduced overnight toll | Minimize/avoid truck diversions | \$30 million | 10-county environmental justice study area | CBD Tolling Program | TBTA |
| Expand NYC Clean Trucks Program | NOx and PM _{2.5} reductions from ~500 new clean trucks | \$20 million | | CBD Tolling Program | NYCDOT |
| Expand NYCDOT Off-Hours Delivery Program | Safety and emissions reduction benefits resulting from reduced truck traffic during the day | \$5 million | | CBD Tolling Program | NYCDOT |
| Place-Based Mitigation | | | | | |
| Toll vehicles traveling northbound on the FDR Drive that exit at East Houston Street and then travel southbound on FDR Drive | 25 to 35 percent of the non-truck traffic increases on the FDR Drive could be mitigated | N/A | FDR Drive between the Brooklyn Bridge and East Houston Street | N/A | TBTA |
| Replacement of Transport Refrigeration Units (TRUs) at Hunts Point Produce Market | Major NOx and PM _{2.5} reductions from the replacement of up to 1,000 TRUs | \$15 million ² | Hunts Point | MTA CMAQ Program | NYCDOT |
| Implement Electric Truck Charging Infrastructure | NOx and PM _{2.5} reductions from electric vehicles using 35 new chargers (at seven stations) | \$20 million | After toll rates are set, a process that includes both additional analyses and community input will take place to determine specific locations | \$10 million Federal CRP + \$10 million CBD Tolling Program | NYSDOT |
| Install Roadside Vegetation to Improve Near-Road Air Quality | Improves near-road air quality by pollutant capture from ~4,000 trees and ~40,000 shrubs | \$10 million | | CBD Tolling Program | TBTA with Relevant State and Local Agencies |
| Renovate Parks and Greenspace in Environmental Justice Communities | Increases overall community well-being. 2-5 park/greenspace renovations depending on size and complexity. | \$25 million | | CBD Tolling Program | TBTA with Relevant State and Local Agencies |
| Install Air Filtration Units in Schools Near Highways | Removes air pollutants from classrooms. 25-40 schools depending on school size and complexity of existing HVAC system. | \$10 million | | CBD Tolling Program | TBTA with Relevant State and Local Agencies |
| Establish Asthma Case Management Program and Bronx Center | Reduces hospitalizations and doctor visits, decreases days and nights with symptoms and missed school days – program expansion up to 25 schools | \$20 million | | CBD Tolling Program | NYC DOHMH |

¹ An additional \$5 million has been allocated for mitigation and enhancement measures related to monitoring across other topics, along with \$47.5 million for the low-income toll discount discussed above. Enhancement measures include air quality monitoring that will expand NYC’s existing monitoring network. Locations will be selected in consideration of the traffic and air quality analyses in the EA and in coordination with environmental justice stakeholders and relevant state and local agencies. This will complement the regional and place-based mitigation measures related to traffic diversions outlined in Table ES-5 (see **Chapter 10, “Air Quality,”** for details).

² After three years, any remaining funds designated for TRU replacements may also be used for clean truck replacement vouchers through the NYC Clean Trucks Program.

Process for final siting of mitigation measures. *Of the seven place-based mitigation measures identified, five are flexible in where they can be implemented, while the tolling of movements into the Manhattan CBD at East Houston Street and the replacement of transport refrigeration units (TRUs) at Hunts Point Produce Market are specific to those particular locations.*

After the actual toll rates are adopted, a process that includes both additional analyses and community input will take place to determine the sites of the other five place-based mitigation measures (e.g., in which schools to install air filtration units, or on what roadways to plant vegetation). This will require coordination between the Project Sponsors, the Environmental Justice Community Group (representing the 10-county environmental justice study area, and as described further in Table ES-6), the relevant communities receiving the place-based mitigation, and local implementing agencies, and will include needs assessments and feasibility screening to determine the range of possibilities.

The Project Sponsors will work with the appropriate implementing agencies through existing public engagement and participation processes to then prioritize and select the specific locations. The specific place-based mitigation sites will be made available to the public through the Project website, as well as direct emails to members of the public who have signed up to receive information about the Project.

The specific feasibility factors and forms of engagement vary by mitigation and include:

- ***Electric Truck Charging Infrastructure:*** *This mitigation will be implemented through the Federal Carbon Reduction Program (CRP) using funds received by NYSDOT and will therefore be limited to locations in New York. Siting considerations will include potential visual impacts, proximity to highways (to minimize travel on local roads), and the study of potential traffic and noise impacts. The NYMTC Clean Freight Corridors Study – a study developed by the metropolitan planning organization in consultation with motor carriers, utility companies, fuel infrastructure manufacturers/suppliers, truck stop operators, industrial real estate companies, and community and advocacy organizations – will be used to help identify priority locations. Such groups will be re-engaged, as warranted, along with state and local officials, to provide feedback in the course of identifying appropriate locations.*
- ***Roadside Vegetation to Improve Near-Road Air Quality:*** *The Project Sponsors will work with relevant local and state agencies to assess the availability of roadside space and the presence of existing plantings, as well as access and maintenance considerations, to identify appropriate sites near sensitive receptors (e.g., schools, day care, senior or community centers, or outdoor recreational facilities) as locations for new plantings. To align with community priorities, the Project Sponsors will engage with community stakeholders, elected officials, and the Environmental Justice Community Group.*
- ***Parks and Greenspace in Environmental Justice Communities:*** *The Project Sponsors will work with relevant state and local agencies to assess potential locations for park and greenspace investments in the affected communities, including in existing parkland where the expansion of green space, tree planting, or other upgrades is feasible. The agencies will solicit input on prioritization of locations and treatments from the Environmental Justice Community Group, local officials, and other community stakeholders.*
- ***Air Filtration Units in Schools Near Highways:*** *The Project Sponsors will work with relevant school authorities to assess needs and analyze feasibility of upgrading existing filtration systems in schools in census tracts within 300 meters of highways where truck traffic is projected to increase. Factors will include the design and*

performance of existing HVAC systems, the facility’s proximity to highways, and the area asthma rates, as well as scheduled capital projects. The Project Sponsors will work with relevant state and local agencies and solicit input from community stakeholders to determine locations where air filtration upgrades will be most impactful.

- **Asthma Case Management Program and Center: This mitigation will expand on the success of existing city programs operating within the five New York City counties.**
 - ❖ **Asthma Case Management Program – NYC Department of Health and Mental Hygiene (DOHMH) will conduct a needs assessment to identify schools in affected census tracts with existing high rates of asthma. Additionally, NYC DOHMH will engage with school leadership on expansion of the Asthma Care Management Program and will solicit input from the Environmental Justice Community Group, parents, and other community stakeholders on priority locations that should be prioritized and how to best reach families of children with asthma.**
 - ❖ **Asthma Center – Selection of a location in the Bronx will include consideration of asthma rates, population concentration, proximity to sensitive receptors, the location of existing facilities and services, accessibility via public transportation, and availability of suitable space. NYC DOHMH will work with community stakeholders to solicit input on programming and outreach strategies to ensure that the center maximizes its benefit to people with asthma.**

Will the mitigation measures change the results of the EA?

The short answer is no, the mitigation measures neither require a change in the tolling scenarios used for the analyses in the EA, nor change the fundamental conclusions of the EA. In the Final EA, the Project Sponsors commit to a number of mitigation measures that affect the tolling structure and/or the cost of the CBD Tolling Program. These include: 1) a further reduced overnight toll for trucks and other vehicles; 2) tolls of no more than once per day for taxis and FHV; 3) mitigation measures to address potential increased traffic volumes in certain environmental justice communities as a result of Project-related traffic diversions; and 4) a discounted toll rate for frequent low-income drivers for the first five years of the Project.

While some of the tolling scenarios analyzed in the EA reflect this treatment of taxis and FHV (Tolling Scenarios B, F, and modified scenarios A, D, and G), none include the further reduced overnight toll or the low-income discounted toll rate. Thus, additional analysis was conducted to ensure that with these mitigation measures included, the potential Project effects would still fall within the range of effects modeled for the EA.

To analyze the other mitigation measures’ effects, a tolling scenario was developed using modified Scenario B1 as the basis (a version of Scenario B that meets the revenue target, as described in Appendix 2E, page 2E-2; and Appendix 4A, page 4A.2-1). This tolling scenario includes a cap on tolls for taxis and FHV of once per day and an entirely free period from 12:00 a.m. to 6:00 a.m. for all vehicles, including trucks. For this analysis, the time range and toll rate reduction for the further reduced overnight mitigation were expanded beyond the commitments in the Final EA (tolls that are at or below 50 percent of the peak toll rate from at least 12:00 a.m. to 4:00 a.m.) to capture any differences in effects from the tolling scenarios used in the EA. This modified scenario – referred to as B2 in the following text – demonstrates that the mitigation measures described in the Final EA could be incorporated into the CBD Tolling Program, with the potential effects still falling within the range of effects explored through the current tolling scenarios. Specifically:

1. **VMT and volume reduction objectives of the Project. Tolling Scenario B2 results in a VMT reduction of 8.4 percent and a 17 percent reduction in vehicles entering the**

Manhattan CBD. These are within the range of effects already modeled in the EA (described in Tables 4A-7 and 4A-5).

- 2. Toll rate. Tolling Scenario B2 requires a peak E-ZPass toll rate of \$13.20, which remains within the range of tolling scenarios in the EA (see Table 2-3).**
- 3. Revenue target. B2 meets the revenue target, generating \$1.07 billion, which is sufficient to cover the cost of the new mitigation measures the Project Sponsors have committed to in the Final EA (including the discounted toll rate for low-income frequent drivers) and, again, does not exceed the range of tolling scenarios in the EA.**

Importantly, since it would result in effects within the range of effects identified above, Tolling Scenario B2 would not have effects on traffic diversions (highways and intersections), or on related air quality, or on environmental justice populations, beyond those already described in the EA.

- 4. Traffic diversions in environmental justice communities. Of the tolling scenarios evaluated in the EA for traffic diversions near environmental justice populations, Tolling Scenario B had the highest increase in trucks on the Cross Bronx Expressway at Macombs Road (see Chapter 10, “Air Quality,” Section 10. 3.2.3). Tolling Scenario B2 would have fewer trucks on this segment compared to Scenario B and would have truck volume increases within the range identified at the other two locations where highway link analysis was performed in the EA (I-95 west of the George Washington Bridge, and at the Robert F. Kennedy Bridge Queens approach).**

The Project Sponsors further concluded that traffic effects from the discounted toll rate for low-income drivers would fall within the range of effects explored through the tolling scenarios in the EA, given the small number of low-income frequent drivers who have no reasonable alternative, relative to the total number of drivers.

As noted, Tolling Scenario B2 included an entirely free period from 12:00 a.m. to 6:00 a.m., which is a lower toll rate and a longer overnight period than required by the legislation or committed to in the Final EA. Additionally, Tolling Scenario B2 included two other elements that are not required by the legislation and are not part of mitigation commitments in the Final EA – a cap on tolls for trucks at twice per day and an exemption for all buses. This further demonstrates that the mitigation commitments in the Final EA would not result in effects beyond those already described. Most importantly, the additional analysis demonstrates that these changes to the tolling scenarios do not change the fundamental conclusions of the EA.]

How has the public been involved?

The Project Sponsors implemented a robust public and agency outreach plan to solicit input from residents, businesses, Federal/regional/state/local agencies, across the 28-county study area. Information about the Project and the process was conveyed via the Project website, a Project Fact Sheet, social media, direct email, and multiple print media outlets. During the early outreach period, 10 virtual public outreach and 9 environmental justice webinar sessions were held, for a total of 19 sessions. Real-time answers were provided to those who submitted written factual, technical and logistical questions related to the Project and process. The webinars, which remain available for viewing, were streamed live on YouTube, and recordings were subsequently posted on YouTube for on-demand viewing. As of February 2022, there were over 14,000 views of these recordings, combined. Meeting attendees were asked to fill out an optional survey; of the 309 responses received, roughly one-third identified themselves as minority.

[The EA was released to the public on August 10, 2022, initiating a 30-day formal public comment period, which was subsequently extended by 14 days to September 23, 2022, in response to requests. During the 44-day comment window, more than 14,000 individual submissions and more than 55,000 form letters were received. Many submissions had multiple comments, resulting in over 22,000 individual comments collected by the Project Sponsors and FHWA through a combination of email, traditional mail, voicemail, fax, and an online form, as well as through oral testimony provided at six virtual hearings on the EA. During the virtual hearings, 552 speakers offered oral testimony and many more participated during the livestream or watched later via the Project website or YouTube (over 11,200 views as of December 2022).]

To encourage meaningful engagement with environmental justice populations, FHWA and the Project Sponsors provided smaller meetings in the form of a technical advisory group and a stakeholder working group.

Environmental Justice Technical Advisory Group.

FHWA and the Project Sponsors invited community leaders and advocacy group representatives with knowledge of and experience with environmental justice populations to participate. Thirty-seven groups were invited, of which 16 groups accepted, and 14 groups have participated in one or more of the meetings to date. The Environmental Justice Technical Advisory Group met three times prior to the publication of this EA and ***[, subsequently, four times through January 2023].***

Environmental Justice Stakeholder Working Group.

During the early outreach, individuals from populations throughout the study area were able to request participation or suggest others as participants in this group by using a form on the Project website or by contacting the Project Sponsors. All twenty-seven people who were nominated or expressed interest in participating were invited to join the Working Group, and 22 individuals attended one or both meetings. This group met twice prior to the publication of this EA and again during the EA comment period.

In both groups, the agendas were largely driven by the participants while the Project Sponsors listened and provided answers to questions. The discussions during these sessions, along with the comments heard during the public outreach and environmental justice webinars, led the Project Sponsors to undertake additional analyses and develop additional mitigation measures ***[as described earlier].***

Environmental Justice Outreach Response

As an independent action, MTA is currently transitioning its fleet to zero-emission buses. MTA is committed to prioritizing traditionally underserved communities and those impacted by poor air quality and climate change and has developed a new Environmental Justice Scoring framework to actively incorporate these priorities in the deployment phasing process of the transition.

*Based on feedback received during the outreach conducted for the CBD Tolling Program and concerns raised by members of environmental justice communities, MTA is committed to prioritizing the Kingsbridge Depot and Gun Hill Depot, both located in and serving primarily environmental justice communities in Upper Manhattan and the Bronx, when electric buses are received in MTA's next major procurement of battery electric buses, which **[began]** in **[late]** 2022. This independent effort by MTA is anticipated to provide air quality benefits to the environmental justice communities in the Bronx.*

Table ES-[5]. Summary of Benefits and Effects for the CBD Tolling Alternative with Comparison of Tolling Scenarios

| EA CHAPTER / ENVIRONMENTAL CATEGORY | TOPIC | SUMMARY OF EFFECTS | LOCATION | DATA SHOWN IN TABLE | TOLLING SCENARIO | | | | | | | POTENTIAL ADVERSE EFFECT | MITIGATION AND ENHANCEMENTS |
|---|-----------------------------------|--|-------------------------------------|--|------------------|------------------------|---------------|---------------|---------------|---------------|------------------------|--|---|
| | | | | | A | B | C | D | E | F | G | | |
| 4A – Transportation: Regional Transportation Effects and Modeling | Vehicle Volumes | Decreases in daily vehicle trips to Manhattan CBD overall. Some diversions to different crossings to Manhattan CBD or around the Manhattan CBD altogether, depending on tolling scenario. As traffic, including truck trips, increase on some circumferential highways, simultaneously there is a reduction in traffic on other highway segments to the CBD. Diversions would increase or decrease traffic volumes at local intersections near the Manhattan CBD crossings. Overall decrease in vehicle-miles traveled (VMT) in the Manhattan CBD and region overall in all tolling scenarios and some shift from vehicle to transit mode. | Crossing locations to Manhattan CBD | % Increase or decrease in daily vehicles entering the Manhattan CBD relative to No Action Alternative | -15% | -16% | -17% | -19% | -20% | -18% | -17% | No | No mitigation needed. Beneficial effects |
| | Auto Journeys to Manhattan CBD | | Manhattan CBD | % Increase or decrease in worker auto journeys to Manhattan CBD relative to No Action Alternative | -5% | -5% | -7% | -9% | -11% | -10% | -6% | No | No mitigation needed. Beneficial effects |
| | Truck Trips Through Manhattan CBD | | Manhattan CBD | Absolute increase or decrease in daily worker auto trips to Manhattan CBD relative to No Action Alternative | -12,571 | -12,883 | -17,408 | -24,017 | -27,471 | -24,433 | -14,578 | No | No mitigation needed. Beneficial effects |
| | Truck Trips Through Manhattan CBD | | Manhattan CBD | Increase or decrease in daily truck trips through Manhattan CBD (without origin or destination in the CBD) relative to No Action Alternative | -4,645 (-55%) | [-4,967] (-59%) | -5,253 (-63%) | -5,687 (-68%) | -6,604 (-79%) | -6,784 (-81%) | [-1,734] (-21%) | No | No mitigation needed. Beneficial effects |
| | Transit Journeys | | Manhattan CBD | % Increase or decrease in daily Manhattan CBD-related transit journeys relative to No Action Alternative | +1 to +3% | | | | | | | No | No mitigation needed. No adverse effects |
| | Traffic Results | | Manhattan CBD | -9% to -7% | | | | | | | No | No mitigation needed. Beneficial effects in Manhattan CBD, New York City (non-CBD), north of New York City, and Connecticut; although there would be VMT increases in Long Island and New Jersey, the effects would not be adverse. | |
| | | | NYC (non-Manhattan CBD) | -1 to 0% | | | | | | | | | |
| | | | New York north of NYC | -1% to 0% | | | | | | | | | |
| | | | Long Island | Less than (+) 0.2% change | | | | | | | | | |
| | | | New Jersey | Less than (+) 0.2% change | | | | | | | | | |
| Connecticut | Less than (+) 0.2% change | | | | | | | | | | | | |

| EA CHAPTER / ENVIRONMENTAL CATEGORY | TOPIC | SUMMARY OF EFFECTS | LOCATION | DATA SHOWN IN TABLE | TOLLING SCENARIO | | | | | | | POTENTIAL ADVERSE EFFECT | MITIGATION AND ENHANCEMENTS |
|---|---|---|--------------------------------|--|---|-----------|-----------|-----------|-----------|-----------|-----------|--------------------------|--|
| | | | | | A | B | C | D | E | F | G | | |
| 4B – Transportation: Highways and Local Intersections | Traffic – Highway Segments | <p>The introduction of the CBD Tolling Program may produce increased congestion on highway segments approaching on circumferential roadways used to avoid Manhattan CBD tolls, resulting in increased delays and queues in midday and PM peak hours on certain segments in some tolling scenarios:</p> <ul style="list-style-type: none"> Westbound Long Island Expressway (I-495) near the Queens-Midtown Tunnel (midday) Approaches to westbound George Washington Bridge on I-95 (midday) Southbound and northbound FDR Drive between East 10th Street and Brooklyn Bridge (PM) Other locations will see an associated decrease in congestion particularly on routes approaching the Manhattan CBD | 10 highway segments (AM) | Highway segments with increased delays and queues in peak hours that would result in adverse effects | 0 out of 10 highway corridors in the analyzed tolling scenario (Tolling Scenario D) | | | | | | | Yes | <p>Mitigation needed. The Project Sponsors will implement a monitoring plan prior to implementation with post-implementation data collected approximately three months after the start of [tolling] operations and including thresholds for effects; if the thresholds are reached or crossed, the Project Sponsors will implement Transportation Demand Management (TDM) measures, such as ramp metering, motorist information, signage at all identified highway locations with adverse effects upon implementation of the Project. [NYSDOT owns and maintains the relevant segments of the Long Island Expressway and I-95. The relevant segment of the FDR Drive is owned by NYSDOT south of Montgomery Street and NYCDOT north of Montgomery Street. Implementation of TDM measures will be coordinated between the highway owners and the owners of any assets relevant to implementing the TDM.]</p> <p>Post-implementation [of TDM measures], the Project Sponsors will monitor effects and, if needed, TBTA will modify the toll rates, crossing credits, exemptions, and/or discounts [within the parameters of the adopted toll schedule] to reduce adverse effects.</p> |
| | 10 highway segments (midday) | 2 out of 10 highway corridors in the analyzed tolling scenario (Tolling Scenario D), as well as Tolling Scenarios E and F | | | | | | | | | | | |
| 10 highway segments (PM) | 1 out of 10 highway corridors in the analyzed tolling scenario (Tolling Scenario D), as well as Tolling Scenarios E and F | | | | | | | | | | | | |
| Intersections | Shifts in traffic patterns, with increases in traffic at some locations and decreases at other locations, would change conditions at some local intersections within and near the Manhattan CBD. Of the 102 intersections analyzed, most intersections would see reductions in delay. | Potential adverse effects on four local intersections in Manhattan: Trinity Place and Edgar Street (midday); East 36th Street and Second Avenue (midday); East 37th Street and Third Avenue (midday); East 125th Street and Second Avenue (AM, PM) | 363 locations (All day) | Number of instances of intersections with an increase in volumes of 50 or more vehicles in the peak hours. | 9 | 10 | 24 | 50 | 48 | 50 | 10 | Yes | <p>Mitigation needed. [NYCDOT] will monitor those intersections where [potential] adverse effects were identified and implement appropriate signal timing adjustments to mitigate the effect, per NYCDOT’s normal practice.</p> <p>Enhancement Refer to the overall enhancement on monitoring at the end of this table.</p> |
| | | | 102 locations (AM) | | 2 | 2 | 3 | 3 | 3 | 3 | 2 | | |
| | | | 102 locations (midday) | | 1 | 2 | 4 | 16 | 16 | 17 | 0 | | |
| | | | 102 locations (PM) | | 1 | 1 | 1 | 10 | 9 | 9 | 1 | | |
| | | | 57 locations (overnight) | | 5 | 5 | 16 | 21 | 20 | 21 | 5 | | |
| | | | 4 locations | | 0 | 0 | 0 | 4 | 4 | 4 | 0 | | |

| EA CHAPTER / ENVIRONMENTAL CATEGORY | TOPIC | SUMMARY OF EFFECTS | LOCATION | DATA SHOWN IN TABLE | TOLLING SCENARIO | | | | | | | POTENTIAL ADVERSE EFFECT | MITIGATION AND ENHANCEMENTS |
|-------------------------------------|--------------------|---|--|--|---------------------------|---|---|---|---|---|---|--------------------------|--|
| | | | | | A | B | C | D | E | F | G | | |
| 4C – Transportation: Transit | Transit Systems | The Project would generate a dedicated revenue source for investment in the transit system. Transit ridership would increase by 1 to 2 percent systemwide for travel to and from the Manhattan CBD, because some people would shift to transit rather than driving. Increases in transit ridership would not result in adverse effects on line-haul capacity on any transit routes. | New York City Transit | % Increase or decrease in total daily transit ridership systemwide | 1.5% to 2.1% | | | | | | | No | No mitigation needed. No adverse effects |
| | | | PATH | | 0.8% to 2.0% | | | | | | | | |
| | | | Long Island Rail Road | | 0.6% to 2.0% | | | | | | | | |
| | | | Metro-North Railroad | | 0.6% to 1.9% | | | | | | | | |
| | | | NJ TRANSIT commuter rail | | 0.3% to 2.3% | | | | | | | | |
| | | | MTA/NYCT Buses | | 1.3% to 1.6% | | | | | | | | |
| | | | NJ TRANSIT Bus | | 0.5% to 1.1% | | | | | | | | |
| | | | Other buses (suburban and private operators) | | 0.0% to 0.9% | | | | | | | | |
| | | | Ferries (Staten Island Ferry, NYC Ferry, NY Waterway, Seastreak) | | 2.5% to 3.5% | | | | | | | | |
| | | | Roosevelt Island Tram | | 1.7% to 4.1% | | | | | | | | |
| | Bus System Effects | Decreases in traffic volumes within the Manhattan CBD and near the 60th Street boundary of the Manhattan CBD would reduce the roadway congestion that adversely affects bus operations, facilitating more reliable, faster bus trips. | Manhattan local buses | % Increase or decrease at maximum passenger load point | Increases of 0.5% to 1.2% | | | | | | | No | No mitigation needed. No adverse effects |
| | | | Bronx express buses | | -1.6% to 2.2% | | | | | | | | |
| | | | Queens local and express buses (via Ed Koch Queensboro Bridge) | | 2.0% to 2.8% | | | | | | | | |
| | | | Queens express buses (via Queens-Midtown Tunnel) | | -1.3% to 4.1% | | | | | | | | |
| | | | Brooklyn local and express buses | | 1.3% to 2.6% | | | | | | | | |
| | | | Staten Island express routes (via Brooklyn) | | 3.7% to 4.5% | | | | | | | | |
| | | | Staten Island express routes (via NJ) | | 1.0% to 2.8% | | | | | | | | |
| | | | NJ/West of Hudson buses (via Holland Tunnel) | | -1.4% to 1.4% | | | | | | | | |
| | | | NJ/West of Hudson buses (via Lincoln Tunnel) | | 0.4% to 1.5% | | | | | | | | |

| EA CHAPTER / ENVIRONMENTAL CATEGORY | TOPIC | SUMMARY OF EFFECTS | LOCATION | DATA SHOWN IN TABLE | TOLLING SCENARIO | | | | | | | POTENTIAL ADVERSE EFFECT | MITIGATION AND ENHANCEMENTS |
|---------------------------------------|------------------|---|---|--|------------------|-----|------|------|------|------|-----|--------------------------|--|
| | | | | | A | B | C | D | E | F | G | | |
| 4C – Transportation: Transit (Cont'd) | Transit Elements | <p>Increased ridership would affect passenger flows with the potential for adverse effects at certain vertical circulation elements (i.e., stairs and escalators) in five transit stations:</p> <ul style="list-style-type: none"> Hoboken Terminal, Hoboken, NJ PATH station Times Sq-42 St/42 St-Port Authority Bus Terminal subway station in the Manhattan CBD (N, Q, R, W, and S; Nos. 1, 2, 3, and 7; and A, C, E lines) Flushing-Main St subway station, Queens (No. 7 line) 14th Street-Union Square subway station in the Manhattan CBD (Nos. 4, 5, and 6; and L, N, Q, R, W lines) Court Square subway station, Queens (No. 7 and E, G, M lines) | Hoboken Terminal–PATH station (NJ) Stair 01/02 | Net passenger increases or at stair in the peak hour | 45 | 72 | 122 | 164 | 240 | 205 | 139 | Yes | Mitigation needed for Tolling Scenarios E and F. TBTA will coordinate with NJ TRANSIT and PANYNJ to monitor pedestrian volumes on Stair 01/02 one month prior to commencing tolling operations to establish a baseline, and two months after Project operations begin. If a comparison of Stair 01/02 passenger volumes before and after implementation shows an incremental change that is greater than or equal to 205, then TBTA will coordinate with NJ TRANSIT and PANYNJ to implement improved signage and wayfinding to divert some people from Stair 01/02, and supplemental personnel if needed. |
| | | | 42 St-Times Square–subway station (Manhattan) Stair ML6/ML8 connecting mezzanine to uptown 1/2/3 lines subway platform | Relative increase or decrease in passenger volumes at station OVERALL as compared to Tolling Scenario E (not only at the affected stair or location) in the peak hour, peak period | 63% | 59% | 68% | 82% | 100% | 82% | 56% | Yes | Mitigation needed. TBTA will coordinate with MTA NYCT to implement a monitoring plan for this location. The plan will identify a baseline, specific timing, and a threshold for additional action. If that threshold is reached, TBTA will coordinate with MTA NYCT to remove the center handrail and standardize the riser, so that the stair meets code without the hand rail. The threshold will be set to allow for sufficient time to implement the mitigation so that the adverse effect does not occur. |
| | | | Flushing-Main St subway station (Queens)–Escalator E456 connecting street to mezzanine level | Relative increase or decrease in passenger volumes at station OVERALL as compared to Tolling Scenario E (not only at the affected stair or location) in the peak hour, peak period | 116% | 91% | 108% | 116% | 100% | 133% | 72% | Yes | Mitigation needed. TBTA will coordinate with MTA NYCT to implement a monitoring plan for this location. The plan will identify a baseline, specific timing, and a threshold for additional action. If that threshold is reached, MTA NYCT will increase the speed from 100 feet per minute (fpm) to 120 fpm. |
| | | | Union Sq subway station (Manhattan)–Escalator E219 connecting the L subway line platform to the Nos. 4/5/6 line mezzanine | Relative increase or decrease in passenger volumes at station OVERALL as compared to Tolling Scenario E (not only at the affected stair or location) in the peak hour, peak period | 63% | 82% | 87% | 102% | 100% | 95% | 61% | Yes | Mitigation needed. TBTA will coordinate with MTA NYCT to implement a monitoring plan for this location. The plan will identify a baseline, specific timing, and a threshold for additional action. If that threshold is reached, MTA NYCT will increase the escalator speed from 100 fpm to 120 fpm. |

| EA CHAPTER / ENVIRONMENTAL CATEGORY | TOPIC | SUMMARY OF EFFECTS | LOCATION | DATA SHOWN IN TABLE | TOLLING SCENARIO | | | | | | | POTENTIAL ADVERSE EFFECT | MITIGATION AND ENHANCEMENTS |
|---|---------------------------|--|--|--|--|-----|------|------|------|------|-----|--------------------------|--|
| | | | | | A | B | C | D | E | F | G | | |
| 4C – Transportation: Transit (Cont'd) | Transit Elements (Cont'd) | Increased ridership would affect passenger flows with the potential for adverse effects at certain vertical circulation elements (i.e., stairs and escalators) in five transit stations (cont'd) | Court Sq subway station (Queens)–Stair P2/P4 to Manhattan-bound No. 7 line | Relative increase or decrease in passenger volumes at station OVERALL as compared to Tolling Scenario E (not only at the affected stair or location) in the peak hour, peak period | 98% | 90% | 102% | 104% | 100% | 117% | 97% | Yes | Mitigation needed. TBTA will coordinate with MTA NYCT to implement a monitoring plan for this location. The plan will identify a baseline, specific timing, and a threshold for additional action. If that threshold is reached, TBTA will coordinate with MTA NYCT to construct a new stair from the northern end of the No. 7 platform to the street. The threshold will be set to allow for sufficient time to implement the mitigation so that the adverse effect does not occur. |
| 4D – Transportation: Parking | Parking Conditions | All tolling scenarios would result in a reduction in parking demand within the Manhattan CBD of a similar magnitude to the reduction in auto trips into the Manhattan CBD. With a shift from driving to transit, there would be increased parking demand at subway and commuter rail stations and park-and-ride facilities outside the Manhattan CBD. | Manhattan CBD | Narrative | Reduction in parking demand due to reduction in auto trips to CBD | | | | | | | No | No mitigation needed. Beneficial effects |
| | | | Transit facilities | Narrative | Small changes in parking demand at transit facilities, corresponding to increased commuter rail and subway ridership | | | | | | | No | No mitigation needed. No adverse effects |
| 4E – Transportation: Pedestrians and Bicycles | Pedestrian Circulation | Increased pedestrian activity on sidewalks outside transit hubs because of increased transit use. At all but one location in the Manhattan CBD (Herald Square/Penn Station), the increase in transit riders would not generate enough new pedestrians to adversely affect pedestrian circulation in the station area. Outside the Manhattan CBD, transit usage at individual stations would not increase enough to adversely affect pedestrian conditions on nearby sidewalks, crosswalks, or corners. | Herald Square/Penn Station NY | Sidewalks, corners, and crosswalks with pedestrian volumes above threshold in AM / PM peak periods | Adverse effects on pedestrian circulation at one sidewalk segment and two crosswalks | | | | | | | Yes | Mitigation needed. [NYCDOT] will implement a monitoring plan at this location. The plan will include a baseline, specific timing, and a threshold for additional action. If that threshold is reached, [NYCDOT] will increase pedestrian space on sidewalks and crosswalks via physical widening and/or removing or relocating obstructions. |
| | Bicycles | Small increases in bicycle trips near transit hubs and as a travel mode | Manhattan CBD | Narrative | Small increases in bicycle trips near transit hubs with highest increases in pedestrian trip share | | | | | | | No | No mitigation needed. No adverse effects |
| | | | Outside Manhattan CBD | Narrative | Some shifts from automobile to bicycles | | | | | | | No | No mitigation needed. No adverse effects |
| | Safety | No adverse effects | Overall | Narrative | No substantial increases in pedestrian volumes or increased safety concerns, including at existing identified high-crash locations. Overall, with fewer vehicular trips entering and exiting the Manhattan CBD, the CBD Tolling Alternative could result in reduced traffic volumes at these locations. This would help to reduce vehicle-vehicle and vehicle-pedestrian conflicts, leading to an overall benefit to safety. | | | | | | | No | No mitigation needed. No adverse effects |
| 5A – Social Conditions: Population | Benefits | Benefits in and near the Manhattan CBD | 28-county study area | Narrative | Benefits in and near the Manhattan CBD related to travel-time savings, improved travel-time reliability, reduced vehicle operating costs, improved safety, reduced air pollutant emissions, and predictable funding source for transit improvements. This would positively affect community connections and access to employment, education, healthcare, and recreation for residents. | | | | | | | No | No mitigation needed. Beneficial effects |
| | Community Cohesion | Changes to travel patterns, including increased use of transit, resulting from new toll | 28-county study area | Narrative | Changes to travel patterns, including increased use of transit, as a result of the Project would not adversely affect community cohesion or make it more difficult for people to connect with others in their community, given the extensive transit network connecting to the Manhattan CBD and the small change in trips predicted. | | | | | | | No | No mitigation needed. No adverse effects (see “Environmental Justice” below for mitigation related to increased costs for low-income drivers). |

| EA CHAPTER / ENVIRONMENTAL CATEGORY | TOPIC | SUMMARY OF EFFECTS | LOCATION | DATA SHOWN IN TABLE | TOLLING SCENARIO | | | | | | | POTENTIAL ADVERSE EFFECT | MITIGATION AND ENHANCEMENTS |
|--|---|---|--|---------------------|---|---|---|---|---|---|---|--------------------------|---|
| | | | | | A | B | C | D | E | F | G | | |
| 5A – Social Conditions: Population (Cont'd) | Indirect Displacement | No notable changes in socioeconomic conditions or cost of living so as to induce potential involuntary displacement of residents | Manhattan CBD | Narrative | The Project would not result in the potential for indirect (involuntary) residential displacement. It would not result in substantial changes to market conditions so as to lead to changes in housing prices, given that real estate values in the Manhattan CBD are already high and the many factors that affect each household's decisions about where to live. In addition, low-income residents of the CBD would not experience a notable increase in the cost of living as a result of the Project because of the lack of change in housing costs, the many housing units protected through New York's rent-control, rent-stabilization, and other similar programs, the tax credit available to CBD residents with incomes of up to \$60,000, and the conclusion that the cost of goods would not increase as a result of the Project (see "Economic Conditions" below). | | | | | | | No | No mitigation needed. No adverse effects |
| | Community Facilities and Services | Increased cost for community facilities and service providers in the Manhattan CBD, their employees who drive, and clientele who drive from outside the CBD | Manhattan CBD | Narrative | The Project would increase costs for community service providers that operate vehicles into and out of the Manhattan CBD and for people who travel by vehicle to community facilities and services in the Manhattan CBD, as well as residents of the CBD and employees of community facilities who use vehicles to travel to community facilities outside the CBD. Given the wide range of travel options other than driving, the cost for users to drive to community facilities and services would not constitute an adverse effect on community facilities and services. | | | | | | | No | No mitigation needed. No adverse effects |
| | Effects on Vulnerable Social Groups | Benefits to vulnerable social groups from new funding for MTA Capital Program | 28-county study area | Narrative | <p>The Project would benefit certain vulnerable social groups, including elderly populations, persons with disabilities, transit-dependent populations, and non-driver populations by creating a funding source for the MTA 2020–2024 Capital Program (and subsequent capital programs and by reducing congestion in the Manhattan CBD).</p> <p>Elderly individuals would benefit from the travel-time and reliability improvements to bus service with the CBD Tolling Alternative, as bus passengers tend to be older than riders on other forms of transit, such as the subway and, as described above, bus passengers in the Manhattan CBD would benefit from travel-time savings due to the decrease in congestion.</p> <p>People over the age of 65 with a qualifying disability receive a reduced fare on MTA subways and buses, and elderly individuals with a qualifying disability can also receive MTA's paratransit service, including taxis and FHV's operating on behalf of MTA to transport paratransit users. Elderly people with disabilities and low-income individuals who drive to the Manhattan CBD would be entitled to the same mitigation and enhancements proposed for low-income and disabled populations, in general. Other elderly individuals who drive to the Manhattan CBD would pay the toll.</p> | | | | | | | No | No mitigation needed. No adverse effects |
| | Access to Employment | Increased cost for small number of people who drive to work | 28-county study area | Narrative | Decrease in work trips by driving modes to and within the Manhattan CBD, with an offsetting increase in transit ridership. Those who drive despite the CBD toll would do so based on the need or convenience of driving and would benefit from the reduced congestion in the Manhattan CBD. Negligible effect (less than 0.1%) on travel to employment within the Manhattan CBD and reverse-commuting from the CBD due to the wide range of transit options available and the small number of commuters who drive today. | | | | | | | No | No mitigation needed. No adverse effects |
| 5B – Social Conditions: Neighborhood Character | No notable change in neighborhood character | | Manhattan CBD | Narrative | The changes in traffic patterns on local streets are unlikely to change the defining elements of the neighborhood character of the Manhattan CBD. | | | | | | | No | No mitigation needed. No adverse effects |
| | | | Area near 60th Street Manhattan CBD boundary | Narrative | Changes in parking demand near the 60th Street CBD boundary (including increases just north of 60th Street and decreases just to the south) would not create a climate of disinvestment that could lead to adverse effects on neighborhood character nor alter the defining elements of the neighborhood character of this area. | | | | | | | No | No mitigation needed. No adverse effects |
| 5C – Social Conditions: Public Policy | No effect | | 28-county study area | Narrative | The Project would be consistent with regional transportation plans and other public policies in place for the regional study area and the Manhattan CBD. | | | | | | | No | No mitigation needed. No adverse effects |

| EA CHAPTER / ENVIRONMENTAL CATEGORY | TOPIC | SUMMARY OF EFFECTS | LOCATION | DATA SHOWN IN TABLE | TOLLING SCENARIO | | | | | | | POTENTIAL ADVERSE EFFECT | MITIGATION AND ENHANCEMENTS |
|--------------------------------------|--------------------------------|---|---|---|--|-----------------|-----------------|------------------|------------------|----------------|------------------|--------------------------|--|
| | | | | | A | B | C | D | E | F | G | | |
| 6 – Economic Conditions | Benefits | Regional economic benefits | 28-county study area | Narrative | Economic benefit through congestion relief in terms of travel-time savings and travel-time reliability improvements, which would increase productivity and utility, as well as safety improvements and reduced vehicle operating costs associated with reductions in congestion. | | | | | | | No | No mitigation needed. Beneficial effects |
| | Economic Effects of Toll Costs | Cost of new toll for workers and businesses in the CBD that rely on vehicles | Manhattan CBD | Narrative | No adverse effects to any particular industry or occupational category in the Manhattan CBD. Given the high level of transit access in the CBD and high percentage of transit share, the toll would affect only a small percentage of the overall workforce. This would not adversely affect operations of businesses in the Manhattan CBD or the viability of any business types, including the taxi/FHV industry. | | | | | | | No | No mitigation needed. No adverse effects <i>[New in Final EA - Enhancements The Project Sponsors commit to establishing a Small Business Working Group (SBWG) that will meet 6 months prior and 6 months after Project implementation, and annually thereafter, to solicit ongoing input on whether and how businesses are being affected. As part of mitigation for other topics, TBTA will ensure the overnight toll for trucks and other vehicles is reduced to at or below 50 percent of the peak toll from at least 12:00 a.m. to 4:00 a.m. in the final CBD toll structure; this will also benefit some workers and businesses.]</i> |
| | Price of Goods | Cost of new toll would not result in changes in the cost of most consumer goods | Manhattan CBD | Narrative | Unlikely to result in meaningful change in cost for most consumer goods. Any cost increase associated with the new toll in the CBD Tolling Alternative that would be passed along to receiving businesses would be distributed among several customers per toll charge (since trucks make multiple deliveries) especially for businesses, including small businesses and micro-businesses, receiving smaller deliveries. This would minimize the cost to any individual business. Some commodity sectors (construction materials, electronics, beverages) are more prone to increases due to less competition within delivery market. | | | | | | | No | No mitigation needed. No adverse effects |
| | Taxi and FHV Industry | Depending on the tolling scenario, the toll could reduce taxi and FHV revenues due to a reduction in taxi/FHV VMT with passengers within the CBD. While this could adversely affect individual drivers (see “Environmental Justice” below), the industry would remain viable overall. | 28-county study area | Net change in daily taxi/FHV VMT regionwide | -126,993 (-2.9%) | -14,028 (-0.3%) | -73,413 (-1.7%) | -217,477 (-5.0%) | -116,065 (-2.7%) | -4,888 (-1.0%) | -137,815 (-3.2%) | No | No mitigation needed. No adverse effects (see “Environmental Justice” below for mitigation related to effects on taxi and FHV drivers). |
| | | | | Net change in daily taxi/FHV VMT in the CBD | -21,498 (-6.6%) | +15,020 (+4.6%) | -11,371 (-3.5%) | -54,476 (-16.8%) | -25,621 (-7.9%) | +4,962 (+1.5%) | -27,757 (-8.6%) | | |
| | Local Economic Effects | Changes in parking demand near the 60th Street CBD boundary | Area near 60th Street Manhattan CBD boundary | Narrative | Changes in parking demand near the 60th Street Manhattan CBD boundary (including increases just north of 60th Street and decreases just to the south) could jeopardize the viability of one or more parking facilities in the area south of 60th Street but would not create a climate of disinvestment that could lead to adverse effects on neighborhood character. | | | | | | | No | No mitigation needed. No adverse effects |
| 7 – Parks and Recreational Resources | | New tolling infrastructure, tolling system equipment, and signage in the southern portion of Central Park | Manhattan CBD | Narrative | The Project would replace four existing streetlight poles at three detection locations in Central Park near 59th Street and on two adjacent sidewalks outside the park’s wall. These poles would be in the same locations as existing poles and would not reduce the amount of park space or affect the features and activities of the park. The Project would also place tolling infrastructure beneath the structure of the High Line, outside the park area atop the High Line structure. FHWA through the public involvement process is soliciting public input related to the Project’s effects on these parks (see Chapter 19, “Section 4(f) Evaluation).” | | | | | | | No | No mitigation needed. Refer to Chapter 7, “Parks and Recreational Resources,” for a listing of measures to avoid adverse effects to parks. |
| 8 – Historic and Cultural Resources | | New tolling infrastructure and tolling system equipment on or near historic properties | 45 historic properties within the Project’s Area of Potential Effects (APE) | Narrative | Based on a review of the Project in accordance with Section 106 of the National Historic Preservation Act, FHWA has determined that the Project would have No Adverse Effect on historic properties and the State Historic Preservation Office has concurred. | | | | | | | No | No mitigation needed. Refer to Chapter 8, “Historic and Cultural Resources,” for a listing of measures to avoid adverse effects to historic properties. |

| EA CHAPTER / ENVIRONMENTAL CATEGORY | TOPIC | SUMMARY OF EFFECTS | LOCATION | DATA SHOWN IN TABLE | TOLLING SCENARIO | | | | | | | POTENTIAL ADVERSE EFFECT | MITIGATION AND ENHANCEMENTS |
|-------------------------------------|-------|--|---|---|--|--------|--------|--------|--------|--------|--------|--------------------------|--|
| | | | | | A | B | C | D | E | F | G | | |
| 9 – Visual Resources | | Changes in visual environment resulting from new tolling infrastructure and tolling system equipment | Area of visual effect | Narrative | Infrastructure and equipment would be similar in form to streetlight poles, sign poles, or similar structures already in use throughout New York City. Cameras included in the array of tolling system equipment would use infrared illumination at night to allow images of license plates to be collected without any need for visible light. The Project would have a neutral effect on viewer groups and no adverse effect on visual resources | | | | | | | No | No mitigation needed. No adverse effects |
| | | | | | | | | | | | | | |
| 10 – Air Quality | | Increases or decreases in emissions related to truck traffic diversions ...Continued below... | Cross Bronx Expressway at Macombs Road, Bronx, NY | Increase or decrease in Annual Average Daily [Traffic] (AADT) | 3,901 | 3,996 | 2,056 | 1,766 | 3,757 | 2,188 | 3,255 | No | <p>No mitigation needed. No adverse effects</p> <p>Enhancements</p> <p>1. Refer to the overall enhancement on monitoring at the end of this table.</p> <p>2. [TBTA will work with NYC DOHMH] to expand the existing network of sensors to monitor priority locations and supplement a smaller number of real-time PM_{2.5} monitors to provide insight into time-of-day patterns to determine whether the changes in air pollution can be attributed to changes in traffic occurring after implementation of the Project. [The Project Sponsors will select the additional monitoring locations in consideration of air quality analysis in the EA and input from environmental justice stakeholders. NYS Department of Environmental Conservation (NYSDEC) and other agencies conducting monitoring will also be consulted prior to finalizing the monitoring approach.] The Project Sponsors will monitor air quality prior to implementation (setting a baseline), and two years following implementation. Following the initial two-year post-implementation analysis period, [and separate from ongoing air quality monitoring and reporting,] the Project Sponsors will assess the magnitude and variability of changes in air quality to determine whether more monitoring [sites are] necessary. [Data collected throughout the monitoring program will be made available publicly as data becomes available and analysis is completed. Data from the real-time monitors will be available online continuously from the start of pre-implementation monitoring.]</p> <p>3. MTA is currently transitioning its fleet to zero-emission buses, which will reduce air pollutants and improve air quality near bus depots and along bus routes. MTA is committed to prioritizing traditionally underserved communities and those impacted by poor air quality and climate change and has developed an approach that actively incorporates these priorities in the deployment phasing process of the transition. ...Continued below...</p> |
| | | | | Increase or decrease in daily number of trucks | 509 | 704 | 170 | 510 | 378 | 536 | 50 | | |
| | | | | Potential adverse air quality effects from truck diversions | No | No | No | No | No | No | No | | |
| | | | I-95, Bergen County, NJ | Increase or decrease in AADT | 9,843 | 11,459 | 7,980 | 5,003 | 7,078 | 5,842 | 12,506 | No | |
| | | | | Increase or decrease in daily number of trucks | 801 | 955 | 729 | 631 | 696 | 637 | -236 | | |
| | | | | Potential adverse air quality effects from truck diversions | No | No | No | No | No | No | No | | |
| | | | RFK Bridge, NY | Increase or decrease in AADT | 18,742 | 19,440 | 19,860 | 19,932 | 20,465 | 20,391 | 21,006 | No | |
| | | | | Increase or decrease in daily number of trucks | 2,257 | 2,423 | 2,820 | 3,479 | 4,116 | 3,045 | 432 | | |

| EA CHAPTER / ENVIRONMENTAL CATEGORY | TOPIC | SUMMARY OF EFFECTS | LOCATION | DATA SHOWN IN TABLE | TOLLING SCENARIO | | | | | | | POTENTIAL ADVERSE EFFECT | MITIGATION AND ENHANCEMENTS |
|-------------------------------------|-------|--|--|---|---|----|----|----|----|----|----|--------------------------|--|
| | | | | | A | B | C | D | E | F | G | | |
| 10 – Air Quality (Cont'd) | | Increases or decreases in emissions related to truck traffic diversions (Cont'd) | RFK Bridge, NY (Cont'd) | Potential adverse air quality effects from truck diversions | No | No | No | No | No | No | No | No | Based on feedback received during the outreach conducted for the Project and concerns raised by members of environmental justice communities, TBTA coordinated with MTA NYCT, which is committed to prioritizing the Kingsbridge Depot and Gun Hill Depot, both located in and serving primarily environmental justice communities in Upper Manhattan and the Bronx, when electric buses are received in MTA's next major procurement of battery electric buses, which [began] in [late] 2022. This independent effort by MTA NYCT is anticipated to provide air quality benefits to the environmental justice communities in the Bronx. |
| 11 – Energy | | Reductions in regional energy consumption | 28-county study area | Narrative | Reductions in regional VMT would reduce energy consumption | | | | | | | No | No mitigation needed. Beneficial effects |
| 12 – Noise | | Imperceptible increases or decreases in noise levels resulting from changes in traffic volumes | Bridge and tunnel crossings | Narrative | The maximum noise level increases (2.9 dB(A)), which were predicted adjacent to the Queens-Midtown Tunnel in Tolling Scenario D, would not be perceptible. | | | | | | | No | No mitigation needed. No adverse effects |
| | | | Local streets | Narrative | Tolling Scenario C was used to assess noise level changes in Downtown Brooklyn, Tolling Scenario D was used at all other locations assessed. The maximum predicted noise level increases (2.5 dB(A)), which were at Trinity Place and Edgar Street, would not be perceptible. There was no predicted increase in noise levels in the Downtown Brooklyn locations. | | | | | | | No | Enhancement Refer to the overall enhancement on monitoring at the end of this table. |
| 13 – Natural Resources | | Construction activities to install tolling infrastructure near natural resources | Sites of tolling infrastructure and tolling system equipment | Narrative | No effects on surface waters, wetlands, or floodplains. Potential effects on stormwater and ecological resources will be managed through construction commitments. The Project is consistent with coastal zone policies. | | | | | | | No | Refer to Chapter 13, “Natural Resources,” for a listing of construction commitments to avoid, minimize, or mitigate potential negative effects. |
| 14 – Hazardous Waste | | Potential for disturbance of existing contaminated or hazardous materials during construction | Sites of tolling infrastructure and tolling system equipment | Narrative | Soil disturbance during construction and the potential alteration, removal, or disturbance of existing roadway infrastructure and utilities that could contain asbestos-containing materials, lead-based paint, or other hazardous substances. Potential effects will be managed through construction commitments. | | | | | | | No | Refer to Chapter 14, “Asbestos-Containing Materials, Lead-Based Paint, Hazardous Wastes, and Contaminated Materials,” for a listing of construction commitments to avoid, minimize, or mitigate potential negative effects. |
| 15 – Construction Effects | | Potential disruption related to construction for installation of tolling infrastructure | Sites of tolling infrastructure and tolling system equipment | Narrative | Temporary disruptions to traffic and pedestrian patterns, and noise from construction activities, with a duration of less than one year overall, and approximately two weeks at any given location. These effects will be managed through construction commitments. | | | | | | | No | Refer to Chapter 15, “Construction Effects,” for a listing of construction commitments to avoid, minimize, or mitigate potential negative effects. |

| EA CHAPTER / ENVIRONMENTAL CATEGORY | TOPIC | SUMMARY OF EFFECTS | LOCATION | DATA SHOWN IN TABLE | TOLLING SCENARIO | | | | | | | POTENTIAL ADVERSE EFFECT | MITIGATION AND ENHANCEMENTS |
|-------------------------------------|--------------------|---|----------------------|---------------------|---|---|---|---|---|---|---|--------------------------|---|
| | | | | | A | B | C | D | E | F | G | | |
| 17 – Environmental Justice | Low-income drivers | <p>[The EA as published in August 2022 found] the increased cost to drivers with the new CBD toll would disproportionately affect low-income drivers to the Manhattan CBD who do not have [a reasonable] alternative for reaching the Manhattan CBD. [With further analysis of the population affected and the addition of new mitigation, the Final EA concludes there would not be a disproportionately high and adverse effect on low-income drivers. ... Continued below...]</p> | 28-county study area | Narrative | The increased cost to drivers would [occur under] all tolling scenarios. | | | | | | | Yes | <p>Mitigation needed. The Project will include a tax credit for CBD tolls paid by residents of the Manhattan CBD whose New York adjusted gross income for the taxable year is less than \$60,000. TBTA will coordinate with the New York State Department of Taxation and Finance (NYS DTF) to ensure availability of documentation needed for drivers eligible for the NYS tax credit.</p> <p>TBTA will post information related to the tax credit on the Project website, with a link to the appropriate location on the NYS DTF website to guide eligible drivers to information on claiming the credit.</p> <p>TBTA will eliminate the \$10 refundable deposit currently required for E-ZPass customers who do not have a credit card linked to their account, and which is sometimes a barrier to access.</p> <p>TBTA will provide enhanced promotion of existing E-ZPass payment and plan options, including the ability for drivers to pay per trip (rather than a pre-load[ed] balance), refill their accounts with cash at participating retail locations, and discount plans already in place, about which they may not be aware.</p> <p>TBTA will coordinate with MTA to provide outreach and education on eligibility for existing discounted transit fare products and programs, including those for individuals 65 years of age and older, those with disabilities, and those with low incomes, about which many may not be aware.</p> <p>The Project Sponsors commit to establishing an Environmental Justice Community Group that [will] meet on a [quarterly] basis, with the first meeting [taking place prior to] Project implementation, to share updated data and analysis and hear about potential concerns. [As it relates to environmental justice, the Project Sponsors will continue providing meaningful opportunities for participation and engagement by sharing updated data and analysis, listening to concerns, and seeking feedback on the toll setting process.] ... Continued below...</p> |

| EA CHAPTER / ENVIRONMENTAL CATEGORY | TOPIC | SUMMARY OF EFFECTS | LOCATION | DATA SHOWN IN TABLE | TOLLING SCENARIO | | | | | | | POTENTIAL ADVERSE EFFECT | MITIGATION AND ENHANCEMENTS | | | | | | | |
|-------------------------------------|-----------------------------|--|---|--|---|-------------------------------|-----------------|-----------------|------------------|-----------------|----------------|--------------------------|---|---|---|---|---|---|-------------------------------|-----|
| | | | | | A | B | C | D | E | F | G | | | | | | | | | |
| 17 – Environmental Justice (Cont'd) | Low-income drivers (Cont'd) | <i>[The EA as published in August 2022 found]</i> the increased cost to drivers with the new CBD toll would disproportionately affect low-income drivers to the Manhattan CBD who do not have <i>[a reasonable]</i> alternative for reaching the Manhattan CBD. <i>[With further analysis of the population affected and the addition of new mitigation, the Final EA concludes there would not be a disproportionately high and adverse effect on low-income drivers. (Cont'd).]</i> | 28-county study area | Narrative | The increased cost to drivers with the new CBD toll would <i>[occur under]</i> all tolling scenarios (Cont'd). | | | | | | | Yes | <p><i>[New in Final EA – TBTA will ensure the overnight toll for trucks and other vehicles is reduced to at or below 50 percent of the peak toll from at least 12:00 a.m. to 4:00 a.m. in the final CBD toll structure; this will benefit low-income drivers who travel during that time.</i></p> <p><i>New in the Final EA – For five years, TBTA commits to a Low-Income Discount Plan for low-income frequent drivers who will benefit from a 25 percent discount on the full CBD E-ZPass toll rate for the applicable time of day after the first 10 trips in each calendar month (not including the overnight period, which will already be deeply discounted).</i></p> <p>Enhancement <i>TBTA will coordinate with MTA NYCT to improve bus service in areas identified in the EA as the Brooklyn and Manhattan Bus Network Redesigns move forward.]</i></p> | | | | | | | |
| | Taxi and FHV drivers | <i>[The EA as published in August 2022 found a]</i> potential disproportionately high and adverse effect would occur to taxi and FHV drivers in New York City, who largely identify as minority populations, in tolling scenarios that toll their vehicles more than once a day. This would occur in unmodified Tolling Scenarios A, D, and G; for FHV drivers, it would also occur in Tolling Scenarios C and E. The adverse effect would be related to the cost of the new CBD toll and the reduction of VMT for taxis and FHVs, which would result in a decrease in revenues that could lead to losses in employment. <i>[With the addition of new mitigation, the Final EA concludes there would not be a disproportionately high and adverse effect on taxi and FHV drivers.]</i> | New York City | <p>Narrative</p> <p>Change in daily taxi/FHV VMT with passengers in the CBD relative to No Action Alternative: Scenarios included in EA</p> <p>Net change in daily taxi/FHV trips to CBD relative to scenarios included in EA: Additional analysis to assess effects of caps or exemptions</p> | <p>Potential adverse effect would occur in Tolling Scenarios A, D, and G, which would not have caps or exemptions for taxis and FHV drivers.</p> <table border="1"> <tr> <td>-21,498 (-6.6%)</td> <td>+15,020 (+4.6%)</td> <td>-11,371 (-3.5%)</td> <td>-54,476 (-16.8%)</td> <td>-25,621 (-7.9%)</td> <td>+4,962 (+1.5%)</td> <td>-27,757 (-8.6%)</td> </tr> </table> <table border="1"> <tr> <td>Tolls capped at 1x / Day: +2%</td> <td>—</td> <td>—</td> <td>Tolls capped at 1x / Day: +3% Exempt: +50%</td> <td>—</td> <td>—</td> <td>Tolls capped at 1x / Day: +2%</td> </tr> </table> | -21,498 (-6.6%) | +15,020 (+4.6%) | -11,371 (-3.5%) | -54,476 (-16.8%) | -25,621 (-7.9%) | +4,962 (+1.5%) | -27,757 (-8.6%) | Tolls capped at 1x / Day: +2% | — | — | Tolls capped at 1x / Day: +3% Exempt: +50% | — | — | Tolls capped at 1x / Day: +2% | Yes |
| -21,498 (-6.6%) | +15,020 (+4.6%) | -11,371 (-3.5%) | -54,476 (-16.8%) | -25,621 (-7.9%) | +4,962 (+1.5%) | -27,757 (-8.6%) | | | | | | | | | | | | | | |
| Tolls capped at 1x / Day: +2% | — | — | Tolls capped at 1x / Day: +3% Exempt: +50% | — | — | Tolls capped at 1x / Day: +2% | | | | | | | | | | | | | | |

| EA CHAPTER / ENVIRONMENTAL CATEGORY | TOPIC | SUMMARY OF EFFECTS | LOCATION | DATA SHOWN IN TABLE | TOLLING SCENARIO | | | | | | | POTENTIAL ADVERSE EFFECT | MITIGATION AND ENHANCEMENTS |
|---------------------------------------|--|---|--|---------------------|------------------|---|---|---|---|---|---|--------------------------|--|
| | | | | | A | B | C | D | E | F | G | | |
| [17 – Environmental Justice (Cont'd)] | Increases or decreases in traffic, as a result of traffic diversions, in communities already overburdened by pre-existing air pollution and chronic diseases | Certain environmental justice communities would benefit from decreased traffic; some communities that are already overburdened by pre-existing air pollution and chronic diseases could see an adverse effect as a result of increased traffic. | The specific census tracts that would experience increased or decreased traffic change slightly depending on the tolling scenario. The following communities could have census tracts that merit place-based mitigation: High Bridge, Morrisania and Crotona, Tremont, Hunts Point, Mott Haven, Pelham, Throgs Neck, Northeast Bronx, East Harlem, Randall's Island, Lower East Side/Lower Manhattan, Downtown Brooklyn, Fort Greene, South Williamsburg, Orange, East Orange, Newark, and Fort Lee. (See Note 1.) | Narrative | | | | | | | | Yes | <p><i>New in Final EA – Mitigation needed.</i></p> <p>Regional Mitigation TBTA will ensure the overnight toll for trucks and other vehicles is reduced to at or below 50 percent of the peak toll from at least 12:00 a.m. to 4:00 a.m. in the final toll structure; this will reduce truck diversions.</p> <p>NYCDOT will expand the NYC Clean Trucks Program to accelerate the replacement of eligible diesel trucks, which travel on highways in certain environmental justice communities where the Project is projected to increase truck traffic, to lower-emission electric, hybrid, compressed natural gas, and clean diesel vehicles.</p> <p>NYCDOT will expand its off-hours delivery program in locations where the Project is projected to increase truck diversions to reduce daytime truck traffic and increase roadway safety in certain environmental justice communities.</p> <p>Place-based Mitigation TBTA will toll vehicles traveling northbound on the FDR Drive that exit at East Houston Street and then turn to immediately travel south on FDR Drive; this will mitigate modeled non-truck traffic increases on the FDR Drive between the Brooklyn Bridge and East Houston Street.</p> <p>NYCDOT will coordinate to replace diesel-burning TRUs at Hunts Point with cleaner vehicles.</p> <p>NYS DOT will coordinate to expand electric truck charging infrastructure.</p> <p>The Project Sponsors will coordinate to install roadside vegetation to improve near-road air quality.</p> <p>The Project Sponsors will renovate parks and greenspaces.</p> <p>The Project Sponsors will install or upgrade air filtration units in schools.</p> <p>The Project Sponsors will coordinate to expand existing asthma case management programs and create new community-based asthma programming through a neighborhood asthma center in the Bronx.]</p> |

OVERALL PROJECT ENHANCEMENT. The Project Sponsors commit to ongoing monitoring and reporting of potential effects of the Project, including for example, traffic entering the CBD, vehicle-miles traveled in the CBD; transit ridership from providers across the region; bus speeds within the CBD; air quality and emissions trends; parking; and Project revenue. Data will be collected in advance and after implementation of the Project. A formal report on the effects of the Project will be issued one year after implementation and then every two years. In addition, a reporting website will make data, analysis, and visualizations available in open data format to the greatest extent [practicable]. Updates will be provided on at least a bi-annual basis as data becomes available and analysis is completed. [This data will also be used to support an adaptive management approach to monitoring the efficacy of mitigation, and adjustments as warranted.]

[Note:
 1 The Project Sponsors have committed to a toll policy that will reduce the overnight toll rate from at least 12:00 a.m. to 4:00 a.m. Based on the modeling undertaken for the tolling scenarios analyzed in the EA, it is expected that this policy will avoid a substantial portion of projected truck diversions, as many of these diverted trucks were projected to occur during the overnight hours. Following the adoption of the CBD tolling structure by the TBTA Board, which will include this overnight exemption/discount, modeling of the adopted tolling structure will be undertaken to determine where truck diversions are expected to occur. After the communities and census tracts are confirmed through the analysis of the adopted toll schedule, specific siting of place-based mitigation measures will require further coordination between the Project Sponsors, the Environmental Justice Community Group (representing the 10-county environmental justice study area), the relevant communities receiving the place-based mitigation, and relevant local and state implementing agencies.]

[Table ES-6. Summary of the CBD Tolling Alternative Implementation Approach for Mitigation and Enhancement Measures]

| EA CHAPTER – TOPIC | RELEVANT LOCATION(S) | DESCRIPTION OF MITIGATION OR ENHANCEMENT | TIMELINE FOR PRE- AND POST-PROJECT IMPLEMENTATION DATA COLLECTION FOR SPECIFIC MEASURES | THRESHOLD FOR DETERMINING WHEN NEXT STEP(S) WILL BE IMPLEMENTED | TIMING FOR SPECIFIC MEASURES | LEAD AGENCY |
|--|---|--|---|---|---|--|
| <p>4B – Transportation: Highways and Local Intersections – Traffic–Highway Segments</p> | <p>Three highway segments:</p> <ul style="list-style-type: none"> ▪ Westbound Long Island Expressway (I-495) near the Queens-Midtown Tunnel (midday) ▪ Approaches to westbound George Washington Bridge on I-95 (midday) ▪ Southbound and northbound FDR Drive between East 10th Street and Brooklyn Bridge (PM) | <p>The Project Sponsors will implement a monitoring plan prior to implementation with post-implementation data collected approximately three months after the start of tolling operations and including thresholds for effects; if the thresholds are reached or crossed, the Project Sponsors will implement Transportation Demand Management (TDM) measures, such as ramp metering, motorist information, signage at all identified highway locations with adverse effects upon implementation of the Project. NYSDOT owns and maintains the relevant segments of the Long Island Expressway and I-95. The relevant segment of the FDR is owned by NYSDOT south of Montgomery Street and NYCDOT north of Montgomery Street. Implementation of TDM measures will be coordinated between the highway owners and the owners of any assets relevant to implementing the TDM.</p> <p>Post-implementation of TDM measures, the Project Sponsors will monitor effects and, if needed, TBTA will modify the toll rates, crossing credits, exemptions, and/or discounts within the parameters of the adopted toll schedule to reduce adverse effects.</p> | <p>Exact timing for data collection will be based on seasonality and other factors such as construction activity in accordance with NYCDOT’s traffic count best practices. Modeling to quantify delay will be completed within 60 days of data collection.</p> <p>Baseline data will be collected within the six months prior to Project implementation. Post-implementation data will be collected approximately three months after the start of tolling operations.</p> <p>If TDM measures are implemented, additional data will be collected within six months after their implementation to determine whether they have addressed the adverse effect.</p> | <p>An increase in average weekday peak period delay of 2.5 minutes or more.</p> <p>The methods of data collection and evaluation will follow standard practices pursuant to guidelines of NYSDOT Highway Design Manual 5.2 and NYSDOT Data Services procedures.</p> | <p>The monitoring plan will be agreed to by the relevant lead and partnering agencies prior to a decision document being issued.</p> <p>TDM measures will be implemented over a period of two to eighteen months after confirming delays in excess of the threshold for next steps. More readily implementable measures (e.g., variable message signs) will be completed first. NYSDOT currently has two TDM projects progressing on the relevant segments of the LIE and the Cross Bronx (I-95) and TDM measures could be coordinated with these projects, as needed.</p> <p>Modifications to toll rates, crossing credits, exemptions, and/or discounts will be made after confirming delays in excess of the threshold for next steps persist following implementation of TDM measures, to allow for analysis of what the modifications should be and public outreach about any changes.</p> | <p>NYSDOT will lead in partnership with TBTA and NYCDOT.</p> |
| <p>4B – Transportation: Highways and Local Intersections – Intersections</p> | <p>Four local intersections in Manhattan:</p> <ul style="list-style-type: none"> ▪ Trinity Place and Edgar Street (midday) ▪ East 36th Street and Second Avenue (midday) ▪ East 37th Street and Third Avenue (midday) ▪ East 125th Street and Second Avenue (AM, PM) | <p>NYCDOT will monitor those intersections where potential adverse effects were identified and implement appropriate signal timing adjustments to mitigate the effect, per NYCDOT’s normal practice.</p> | <p>Exact timing for data collection will be based on seasonality and other factors such as construction activity in accordance with NYCDOT’s traffic count best practices. Modeling to quantify delay will be completed within 60 days of data collection.</p> <p>Baseline data will be collected within the six months prior to Project implementation.</p> <p>Post-implementation data will be collected within the six months after Project implementation.</p> | <p>For intersections at LOS E or F pre-implementation, an increase in average intersection delay of greater than five seconds.</p> <p>For intersections at LOS D or better pre-implementation, an increase of intersection delay of greater than five seconds at LOS to E or F.</p> | <p>Signal timing adjustments will be made within 90 days of confirming delays in excess of the threshold for next steps.</p> | <p>NYCDOT will lead in partnership with TBTA.</p> |

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| 4C – Transportation: Transit - Transit Elements | Hoboken Terminal–PATH station (NJ) Stair 01/02 | TBTA will coordinate with NJ TRANSIT and PANYNJ to monitor pedestrian volumes on Stair 01/02 one month prior to commencing tolling operations to establish a baseline, and two months after Project operations begin. If a comparison of Stair 01/02 passenger volumes before and after Project implementation shows an incremental change that is greater than or equal to 205, then TBTA will coordinate with NJ TRANSIT and PANYNJ to implement improved signage and wayfinding to divert some people from Stair 01/02, and supplemental personnel if needed. | For stair passenger volumes, baseline data will be collected one month prior to commencing tolling operations to establish a baseline, and two months after Project operations begin. Station ridership data is collected and evaluated in an ongoing manner by NJ TRANSIT and PANYNJ. | For signage, if a comparison of Stair 01/02 peak-hour passenger volumes before and after Project implementation shows an incremental change that is greater than or equal to 205. For supplemental personnel, if the threshold for signage has been reached but signage has not yet been installed, and overall ridership at Hoboken Terminal is 90 percent of 2019 levels 30 days prior to commencing tolling operations. | The monitoring plan will be agreed to by TBTA, PANYNJ, and NJ TRANSIT prior to a decision document being issued and MOU will be drafted thereafter. The MOU will be executed within 120 days after toll rates are set. Signage design will commence after the MOU is executed. Signage fabrication and installation will begin immediately after observing passenger volumes in excess of the threshold for next steps. Supplemental personnel, if needed, will be stationed within 45 days after observing passenger volumes in excess of the threshold for next steps. Supplemental personnel will be used until signage is fabricated and installed. | TBTA will lead and coordinate with NJ TRANSIT and PANYNJ. |
| | 42 St-Times Square subway station (Manhattan) Stair ML6/ML8 connecting mezzanine to uptown 1/2/3 lines subway platform | TBTA will coordinate with MTA NYCT to implement a monitoring plan for this location. The plan will identify a baseline, specific timing, and a threshold for additional action. If that threshold is reached, TBTA will coordinate with MTA NYCT to remove the center handrail and standardize the riser, so that the stair meets code without the hand rail. The threshold will be set to allow for sufficient time to implement the mitigation so that the adverse effect does not occur. | Exact timing will be based on seasonality and other factors such as service changes and construction activity in the station. For stair passenger volumes, baseline data will be collected within the six months prior to Project implementation. Post-implementation data will be collected within the first year after Project implementation. Station ridership data is collected and evaluated in an ongoing manner by MTA NYCT based on turnstile entry and exit data throughout the system. | If a comparison of Stair ML6/ML8 peak hour weekday passenger volumes before and after Project implementation shows an incremental change that is greater than or equal to 92 passengers in the weekday peak hour, and overall ridership at 42 St-Times Square subway station is 90 percent of 2019 levels. The methods of data collection and evaluation will follow standard practices pursuant to guidelines of the <i>CEQR Technical Manual</i> and will be coordinated with NYCT. | Design and resource allocation will begin immediately after the passenger volume threshold is exceeded, and the hand rail will be removed prior to overall ridership at the station exceeding 90 percent of 2019 levels. | TBTA will lead in partnership MTA NYCT. |
| | Flushing-Main St subway station (Queens)–Escalator E456 connecting street to mezzanine level | TBTA will coordinate with MTA NYCT to implement a monitoring plan for this location. The plan will identify a baseline, specific timing, and a threshold for additional action. If that threshold is reached, MTA NYCT will increase the speed from 100 feet per minute (fpm) to 120 fpm. | Exact timing will be based on seasonality and other factors such as service changes and construction activity in the station. For escalator passenger volumes, baseline data will be collected within the six months prior to Project implementation. Post-implementation data will be collected within the first year after Project implementation. | If a comparison of Escalator E456 peak hour weekday passenger volumes before and after Project implementation shows an incremental change that is greater than or equal to 26 passengers in the weekday peak hour, and overall ridership at Flushing-Main St subway station is 90 percent of 2019 levels. The methods of data collection and evaluation will follow standard practices pursuant to guidelines of the <i>CEQR Technical Manual</i> and will be coordinated with NYCT. | Prior to overall ridership at the station exceeding 90 percent of 2019 levels. | TBTA will lead in partnership MTA NYCT. |

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| <p>4C – Transportation: Transit - Transit Elements (Cont'd)</p> | <p>Union Sq subway station (Manhattan)–Escalator E219 connecting the L subway line platform to the Nos. 4/5/6 line mezzanine</p> | <p>TBTA will coordinate with MTA NYCT to implement a monitoring plan for this location. The plan will identify a baseline, specific timing, and a threshold for additional action. If that threshold is reached, MTA NYCT will increase the escalator speed from 100 fpm to 120 fpm.</p> | <p>Exact timing will be based on seasonality and other factors such as service changes and construction activity in the station.</p> <p>For escalator passenger volumes, baseline data will be collected within the six months prior to Project implementation. Post-implementation data will be collected within the first year after Project implementation.</p> <p>Station ridership data is collected and evaluated in an ongoing manner by MTA NYCT based on turnstile entry and exit data throughout the system.</p> | <p>If a comparison of Escalator E219 peak hour weekday passenger volumes before and after Project implementation shows an incremental change that is greater than or equal to 21 passengers in the weekday peak hour, and overall ridership at Union Sq subway station is 90 percent of 2019 levels.</p> <p>The methods of data collection and evaluation will follow standard practices pursuant to guidelines of the <i>CEQR Technical Manual</i> and will be coordinated with NYCT.</p> | <p>Prior to overall ridership at the station exceeding 90 percent of 2019 levels.</p> | <p>TBTA will lead in partnership MTA NYCT.</p> |
| | <p>Court Sq subway station (Queens)–Stair P2/P4 to Manhattan-bound No. 7 line</p> | <p>TBTA will coordinate with MTA NYCT to implement a monitoring plan for this location. The plan will identify a baseline, specific timing, and a threshold for additional action. If that threshold is reached, TBTA will coordinate with MTA NYCT to construct a new stair from the northern end of the No. 7 platform to the street. The threshold will be set to allow for sufficient time to implement the mitigation so that the adverse effect does not occur.</p> | <p>Exact timing will be based on seasonality and other factors such as service changes and construction activity in the station.</p> <p>For stair passenger volumes, baseline data will be collected within the six months prior to Project implementation. Post-implementation data will be collected within the first year after Project implementation.</p> <p>Station ridership data is collected and evaluated in an ongoing manner by MTA NYCT based on turnstile entry and exit data throughout the system.</p> | <p>If a comparison of Stair P2/P4 peak hour weekday passenger volumes before and after Project implementation shows an incremental change that is greater than or equal to 101 passengers in the weekday peak hour, and overall ridership at Court Sq subway station is 90 percent of 2019 levels, and if construction by an outside developer is not likely in the foreseeable future.</p> <p>The methods of data collection and evaluation will follow standard practices pursuant to guidelines of the <i>CEQR Technical Manual</i> and will be coordinated with NYCT.</p> | <p>Design and resource allocation will begin immediately after the passenger volume threshold is exceeded and will be implemented prior to overall ridership at the station exceeding 90 percent of 2019 levels (if construction by an outside developer is not likely in the foreseeable future).</p> | <p>TBTA will lead in partnership MTA NYCT.</p> |
| <p>4E – Transportation: Pedestrians and Bicycles - Pedestrian Circulation</p> | <p>Herald Square/Penn Station NY</p> | <p>NYCDOT will implement a monitoring plan at this location. The plan will include a baseline, specific timing, and a threshold for additional action. If that threshold is reached, NYCDOT will increase pedestrian space on sidewalks and crosswalks via physical widening and/or removing or relocating obstructions.</p> | <p>Exact timing will be based on seasonality and other factors such as construction activity.</p> <p>Baseline data will be collected within the six months prior to Project implementation.</p> <p>Post-implementation data will be collected within the first year after Project implementation.</p> | <p>An additional 221 pedestrians per hour (pph) during the weekday AM peak hour or 204 pph during the PM peak hour along the west sidewalk of Eighth Avenue between West 34th and West 35th Streets, 265 pph during the AM peak hour or 259 pph during the PM peak hour on the north crosswalk at Sixth Avenue and West 34th Street, and/or 221 pph during the AM peak hour on the north crosswalk at Seventh Avenue and West 32nd Street.</p> <p>The methods of data collection and evaluation will follow standard practices pursuant to guidelines of the <i>CEQR Technical Manual</i> and will be coordinated with NYCDOT.</p> | <p>Within 90 days of observing pedestrian counts in excess of the threshold for next steps.</p> | <p>NYCDOT will lead.</p> |

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| 6 – Economic Conditions - Economic Effects of Toll Costs | Manhattan CBD | New in Final EA: The Project Sponsors commit to establishing a Small Business Working Group (SBWG) that will meet six months prior and six months after Project implementation, and annually thereafter, to solicit ongoing input on whether and how businesses are being affected. | N/A – No early monitoring required; implemented under any adopted tolling structure. | N/A – No threshold required; implemented under any adopted tolling structure. | Membership will be confirmed six months prior to Project implementation, with the first meeting taking place prior to implementation, the second meeting within the six months after implementation, and meetings annually thereafter. | TBTA will lead, in partnership with NYSDOT and NYCDOT. |
| | Multiple throughout the study area | New in Final EA: TBTA will ensure the overnight toll for trucks and other vehicles is reduced to at or below 50 percent of the peak toll from at least 12:00 a.m. to 4:00 a.m. in the final structure; this will also benefit some workers and businesses. | N/A – No early monitoring required; implemented under any adopted tolling structure. | N/A – No threshold required; implemented under any adopted tolling structure. | Concurrent with Project Implementation. | TBTA will lead. |
| 7 – Parks and Recreational Resources | Manhattan CBD | Refer to Chapter 7, “Parks and Recreational Resources,” for a listing of measures to avoid adverse effects to parks. | N/A – No early monitoring required; implemented under any adopted tolling structure. | N/A – No threshold required; implemented under any adopted tolling structure. | Will occur during design, development, testing and/or construction as per contract. | TBTA will ensure contractors comply with contract requirements. |
| 8 – Historic and Cultural Resources | 45 historic properties within the Project’s Area of Potential Effects (APE) | Refer to Chapter 8, “Historic and Cultural Resources,” for a listing of measures to avoid adverse effects to historic properties. | N/A – No early monitoring required; implemented under any adopted tolling structure. | N/A – No threshold required; implemented under any adopted tolling structure. | Will occur during design, development, testing and/or construction as per contract. | TBTA will ensure contractors comply with contract requirements. |
| 10 – Air Quality | New York City | TBTA will coordinate with NYC DOHMH to expand the City’s existing network of sensors to monitor priority locations, and supplement a smaller number of real-time PM _{2.5} monitors to provide insight into time-of-day patterns to determine whether the changes in air pollution can be attributed to changes in traffic occurring after implementation of the Project. The Project Sponsors will select the additional monitoring locations in consideration of air quality analysis in the EA and input from environmental justice stakeholders. NYSDEC and other agencies conducting monitoring will also be consulted prior to finalizing the monitoring approach. The Project Sponsors will monitor air quality prior to implementation (setting a baseline), and two years following implementation. Following the initial two-year post-implementation analysis period, and separate from ongoing air quality monitoring and reporting, the Project Sponsors will assess the magnitude and variability of changes in air quality to determine whether more monitoring sites are necessary. Data collected throughout the monitoring program will be made available publicly as data becomes available and analysis is completed. Data from the real-time monitors will be available online continuously from the start of pre-implementation monitoring. | In the year prior to Project implementation (setting a baseline), and two years following Project implementation. Locations and durations will be determined in consideration of land uses and non-Project sources of emissions and with input from environmental justice stakeholders. | N/A – No threshold required; implemented under any adopted tolling structure. | Allocation of resources and approval of work plan is underway. Baseline data will be collected in the year prior to Project implementation, but the exact start and duration will be dependent on timing for Project implementation. The monitoring locations will be confirmed at least four months prior to data collection. No less than six months of data will be collected prior to Project implementation. | TBTA will lead in partnership with NYC DOHMH and NYSDEC. |

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| 10 – Air Quality (Cont'd) | Upper Manhattan and the Bronx | MTA is currently transitioning its fleet to zero-emission buses, which will reduce air pollutants and improve air quality near bus depots and along bus routes. MTA is committed to prioritizing traditionally underserved communities and those impacted by poor air quality and climate change and has developed an approach that actively incorporates these priorities in the deployment phasing process of the transition. Based on feedback received during the outreach conducted for the Project and concerns raised by members of environmental justice communities, TBTA coordinated with MTA NYCT, which is committed to prioritizing the Kingsbridge Depot and Gun Hill Depot, both located in and serving primarily environmental justice communities in Upper Manhattan and the Bronx, when electric buses are received in MTA's next major procurement of battery electric buses, which began in late 2022. This independent effort by MTA NYCT is anticipated to provide air quality benefits to the environmental justice communities in the Bronx. | Data on the number and location of MTA's battery electric buses is collected in an ongoing manner. | N/A – No threshold required; implemented under any adopted tolling structure. | Prioritization is complete. Timeline for receipt of buses is the first quarter of 2025. | TBTA will lead in partnership MTA NYCT. |
| 13 – Natural Resources | Sites of tolling infrastructure and tolling system equipment | Refer to Chapter 13, “Natural Resources,” for a listing of construction commitments to avoid, minimize, or mitigate potential negative effects. | N/A – No early monitoring required; implemented under any adopted tolling structure. | N/A – No threshold required; implemented under any adopted tolling structure. | Will occur during design, development, testing and/or construction as per contract. | TBTA will ensure contractors comply with contract requirements. |
| 14 – Hazardous Waste | Sites of tolling infrastructure and tolling system equipment | Refer to Chapter 14, “Asbestos-Containing Materials, Lead-Based Paint, Hazardous Wastes, and Contaminated Materials,” for a listing of construction commitments to avoid, minimize, or mitigate potential negative effects. | N/A – No early monitoring required; implemented under any adopted tolling structure. | N/A – No threshold required; implemented under any adopted tolling structure. | Will occur during design, development, testing and/or construction as per contract. | TBTA will ensure contractors comply with contract requirements. |
| 15 – Construction Effects | Sites of tolling infrastructure and tolling system equipment | Refer to Chapter 15, “Construction Effects,” for a listing of construction commitments to avoid, minimize, or mitigate potential negative effects. | N/A – No early monitoring required; implemented under any adopted tolling structure. | N/A – No threshold required; implemented under any adopted tolling structure. | Will occur during design, development, testing and/or construction as per contract. | TBTA will ensure contractors comply with contract requirements. |
| 17 – Environmental Justice - Low-income drivers | 28-county study area | The Project will include a tax credit for CBD tolls paid by residents of the Manhattan CBD whose New York adjusted gross income for the taxable year is less than \$60,000. TBTA will coordinate with the New York State Department of Taxation and Finance (NYS DTF) to ensure availability of documentation needed for drivers eligible for the NYS tax credit. | N/A – No early monitoring required; implemented under any adopted tolling structure. Data on the utilization of tax credits for CBD tolls paid will be collected by NYS DTF. | N/A – No threshold required; implemented under any adopted tolling structure. | Coordination with NYS DTF will begin immediately after Project approval, if approved. | TBTA will lead and coordinate with the NYS DTF. |
| | | TBTA will post information related to the tax credit on the Project website, with a link to the appropriate location on the NYS DTF website to guide eligible drivers to information on claiming the credit. | N/A – No early monitoring required; implemented under any adopted tolling structure. | N/A – No threshold required; implemented under any adopted tolling structure. | Information will be made available to the public about the tax credit during the public information campaigns at least 60 days prior to Project implementation. Information will be provided through a combination of methods which may include print publications, radio, billboards, websites, social media, and existing MTA assets such as digital subway station signs and bus advertising. Information will be provided in multiple languages and targeted geographically. | TBTA will lead and coordinate with the NYS DTF. |

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| 17 – Environmental Justice - Low-income drivers (Cont'd) | 28-county study area (Cont'd) | TBTA will eliminate the \$10 refundable deposit currently required for E-ZPass customers who do not have a credit card linked to their account, and which is sometimes a barrier to access. | N/A – No early monitoring required; implemented under any adopted tolling structure. | N/A – No threshold required; implemented under any adopted tolling structure. | 60 days prior to Project implementation. | TBTA will lead. |
| | | TBTA will provide enhanced promotion of existing E-ZPass payment and plan options, including the ability for drivers to pay per trip (rather than a pre-loaded balance), refill their accounts with cash at participating retail locations, and discount plans already in place, about which they may not be aware. | N/A – No early monitoring required; implemented under any adopted tolling structure. Information on the scope and reach of promotion efforts will be documented, and data on E-ZPass account type and volume is collected in an ongoing manner. | N/A – No threshold required; implemented under any adopted tolling structure. | Promotion will be part of the public information campaigns at least 60 days prior to Project implementation. | TBTA will lead. |
| | | TBTA will coordinate with MTA to provide outreach and education on eligibility for existing discounted transit fare products and programs, including those for individuals 65 years of age and older, those with disabilities, and those with low incomes, about which many may not be aware. | N/A – No early monitoring required; implemented under any adopted tolling structure. Information on the scope and reach of outreach efforts will be documented. | N/A – No threshold required; implemented under any adopted tolling structure. | Outreach will be part of the public information campaigns at least 60 days prior to Project implementation. | TBTA will lead in partnership with MTA. |
| | | The Project Sponsors commit to establishing an Environmental Justice Community Group that will meet on a quarterly basis, with the first meeting taking place prior to Project implementation. As it relates to environmental justice, the Project Sponsors will continue providing meaningful opportunities for participation and engagement by sharing updated data and analysis, listening to concerns and seeking feedback on the toll setting process. | N/A – No early monitoring required; implemented under any adopted tolling structure. | N/A – No threshold required; implemented under any adopted tolling structure. | Membership will be confirmed six months prior to Project implementation, with the first meeting taking place prior to implementation, the second meeting within the six months after implementation, and meetings quarterly thereafter. | TBTA will lead, in partnership with NYSDOT and NYCDOT. |
| | | New in Final EA: TBTA will ensure the overnight toll for trucks and other vehicles is reduced to at or below 50 percent of the peak toll from at least 12:00 a.m. to 4:00 a.m. in the final CBD toll structure; this will benefit low-income drivers who travel during that time. | N/A – No early monitoring required; implemented under any adopted tolling structure. | N/A – No threshold required; implemented under any adopted tolling structure. | Concurrent with Project implementation. | TBTA will lead. |
| | | New in Final EA: For five years, TBTA commits to a Low-Income Discount Plan for frequent low-income drivers who will benefit from a 25 percent discount on the full CBD E-ZPass toll rate for the applicable time of day after the first 10 trips in each calendar month (not including the overnight period, which will already be deeply discounted). | N/A – No early monitoring required; implemented under any adopted tolling structure; application process will begin several months in advance of the commencement of tolling operations. | N/A – No threshold required; implemented under any adopted tolling structure. | Concurrent with Project implementation. | TBTA will lead. |
| | New York City | TBTA will coordinate with MTA NYCT to improve bus service in areas identified in the EA as the Brooklyn and Manhattan Bus Network Redesigns move forward. | N/A – No early monitoring required; implemented under any adopted tolling structure. | N/A – No threshold required; implemented under any adopted tolling structure. | Coordination between TBTA and NYCT is ongoing and will increase after toll rates are set. The Brooklyn Bus Network Redesign Draft Plan was published in December 2022 and will be refined in 2023. The next step in the Manhattan Bus Network Redesign is an Existing Conditions Report. | TBTA will coordinate with NYCT. |
| 17 – Environmental Justice - Taxi and FHV drivers | New York City | New in Final EA: TBTA will ensure that a toll structure with tolls of no more than once per day for taxis or FHVs is included in the final CBD toll structure. | N/A – No threshold required; implemented under any adopted tolling structure. | N/A – No threshold required; implemented under any adopted tolling structure. | Concurrent with Project implementation. | TBTA will lead. |

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| 17 – Environmental Justice – Traffic diversion to certain communities already overburdened by pre-existing air pollution and chronic diseases (See Note 1) | Multiple throughout the environmental justice study area | New in Final EA: TBTA will ensure the overnight toll for trucks and other vehicles is reduced to at or below 50 percent of the peak toll from at least 12:00 a.m. to 4:00 a.m. in the final structure; this will reduce truck diversions. | N/A – No early monitoring required; implemented under any adopted tolling structure. | N/A – No threshold required; implemented under any adopted tolling structure. | Concurrent with Project implementation. | TBTA will lead. |
| | | New in Final EA: NYCDOT will expand NYC Clean Trucks Program to accelerate the replacement of eligible old diesel trucks, which travel on highways in certain environmental justice communities where the Project is projected to increase truck traffic, to lower-emission electric, hybrid, compressed natural gas, and clean diesel vehicles. | N/A – No early monitoring required; implemented under any adopted tolling structure. | N/A – No threshold required; implemented under any adopted tolling structure. | Engagement with truck-owning companies will start after toll rates are set; implementation will begin within six months of start of tolling operations. | NYCDOT will lead. |
| | | New in Final EA: NYCDOT will expand its off-hours deliveries program in locations where the Project is projected to increase truck traffic to reduce daytime truck traffic and increase roadway safety in certain environmental justice communities. | N/A – No early monitoring required; implemented under any adopted tolling structure. | N/A – No threshold required; implemented under any adopted tolling structure. | Engagement with shippers and receivers will start after the toll rates are set; implementation will begin within six months of start of tolling operations. | NYCDOT will lead. |
| | FDR Drive between the Brooklyn Bridge and East Houston Street | New in Final EA: TBTA will toll vehicles traveling northbound on the FDR Drive that exit at East Houston Street and then turn to immediately travel south on FDR Drive; this will mitigate modeled non-truck traffic increases on the FDR Drive between the Brooklyn Bridge and East Houston Street. | N/A – No early monitoring required; implemented under any adopted tolling structure. | N/A – No threshold required; implemented under any adopted tolling structure. | Concurrent with Project implementation. | TBTA will lead. |
| | Hunts Point Produce Market | New in Final EA: The Project Sponsors will coordinate to replace diesel-burning TRUs with cleaner vehicles at the Hunts Point Produce Market. | N/A – No early monitoring required; implemented under any adopted tolling structure. | N/A – No threshold required; implemented under any adopted tolling structure. | Engagement with TRU owners and lessees for TRU replacement will start immediately after receiving Project approval. | NYCDOT will lead. |
| | The specific census tracts that would experience increased or decreased truck traffic change slightly depending on the tolling scenario. The following communities could have census tracts that merit place-based mitigation: High Bridge, Morrisania and Crotona, Tremont, Hunts Point, Mott Haven, Pelham, Throgs Neck, Northeast Bronx, East Harlem, Randall's Island, Downtown Brooklyn, Fort Greene, South Williamsburg, Orange, East Orange, Newark, and Fort Lee. (See Note 2). | New in Final EA: NYSDOT will coordinate to expand electric truck charging infrastructure. | After toll rates are set, analyses of the adopted toll structure will be undertaken as outlined in Appendix 17D to determine where truck diversions are expected to occur. With this analysis and through continued engagement with the Environmental Justice Community Group and other stakeholders, specific locations for place-based mitigation will be determined. Data on the scope and impact of mitigation measures implemented will be collected in an ongoing manner. | N/A – No threshold required; implemented under any adopted tolling structure. | Specific locations will be determined after toll rates are set; implementation will begin within six months of start of tolling operations. | NYSDOT will lead. |
| | | New in Final EA: The Project Sponsors will coordinate to install roadside vegetation to improve near-road air quality. | | | Specific locations will be determined with the affected communities after toll rates are set; implementation will begin within six months of start of tolling operations. | The Project Sponsors will coordinate with relevant state and local agencies. |
| | | New in Final EA: The Project Sponsors will renovate parks and greenspaces. | | | Specific locations will be determined with the affected communities after toll rates are set; implementation timing will be determined after locations are confirmed. | The Project Sponsors will coordinate with relevant local agencies. |
| | | New in Final EA: The Project Sponsors will install or upgrade air filtration units in schools. | | | After the toll rates are set, a site/needs assessment will take place prior to start of tolling operations; implementation timing will be determined after locations are confirmed. | The Project Sponsors will coordinate with relevant local agencies. |
| | | New in Final EA: The Project Sponsors will work with NYC DOHMH to expand their asthma case management program and create new community-based asthma programming through a neighborhood asthma center in the Bronx. | | | After the toll rates are set, a site/needs assessment will take place prior to start of tolling operations; implementation timing will be determined after locations are confirmed. | The Project Sponsors will coordinate with NYC DOHMH. |

| EA CHAPTER – TOPIC | RELEVANT LOCATION(S) | DESCRIPTION OF MITIGATION OR ENHANCEMENT | TIMELINE FOR PRE- AND POST-PROJECT IMPLEMENTATION DATA COLLECTION FOR SPECIFIC MEASURES | THRESHOLD FOR DETERMINING WHEN NEXT STEP(S) WILL BE IMPLEMENTED | TIMING FOR SPECIFIC MEASURES | LEAD AGENCY |
|-----------------------------|--|--|---|---|--|--|
| Overall Project Enhancement | Manhattan CBD and locations of potential Project effects | The Project Sponsors commit to ongoing monitoring and reporting of potential effects of the Project, including for example, traffic entering the CBD, vehicle-miles traveled in the CBD; transit ridership from providers across the region; bus speeds within the CBD; air quality and emissions trends; parking; and Project revenue. Data will be collected in advance and after implementation of the Project. A formal report on the effects of the Project will be issued one year after implementation and then every two years. In addition, a reporting website will make data, analysis, and visualizations available in open data format to the greatest extent practicable. Updates will be provided on at least a bi-annual basis as data becomes available and analysis is completed. This data will also be used to support an adaptive management approach to monitoring the efficacy of mitigation, and adjustments as warranted. | Baseline data gathering began in 2019 and will continue through Project implementation as data from external sources becomes available (with some data sets published only annually or quarterly) and data analysis is completed. After Project implementation, these data sets will continue to be collected as they become available and new data sets, such as Project revenue, will start being collected. | N/A – No threshold required; implemented under any adopted tolling structure. | The reporting website will begin reporting baseline data and post-implementation data from the tolling system as soon as practicable. after Project implementation. A formal report on the effects of the Project will be issued one year after implementation and then every two years. In addition, the reporting website will make data, analysis, and visualizations available in open data format to the greatest extent practicable. Updates will be provided on at least a bi-annual basis as data becomes available and analysis is completed. This data will also be used to support an adaptive management approach to monitoring the efficacy of mitigation, and adjustments as warranted. | TBTA will lead in partnership with NYCDOT, NYSDOT, with coordination with other agencies and entities for data as appropriate. |

Notes:

- 1 To fund the mitigation measures for this topic the Project Sponsors have committed \$155 million over five years. The Project Sponsors commit to these measures, regardless of the tolling structure eventually adopted. The allocation of funding is described in greater detail in **Chapter 17, “Environmental Justice.”** An additional \$5 million has been allocated for mitigation and enhancement measures related to monitoring across other topics, along with \$47.5 million for the low-income toll discount.
- 2 The Project Sponsors have committed to a toll policy that will reduce the overnight toll rate from at least 12:00 a.m. to 4:00 a.m. Based on the modeling undertaken for the tolling scenarios analyzed in the EA, it is expected that this policy will avoid a substantial portion of projected truck diversions, as many of these diverted trucks were projected to occur during the overnight hours. Following the adoption of the CBD tolling structure by the TBTA Board, which will include this overnight exemption/discount, modeling of the adopted tolling structure will be undertaken to determine where truck diversions are expected to occur. Following this analysis, specific siting of place-based mitigation measures will require further coordination between the Project Sponsors, the Environmental Justice Community Group (representing the 10-county environmental justice study area), the relevant communities receiving the place-based mitigation, and relevant local and state implementing agencies.

WHAT ARE THE PROJECT'S EFFECTS TO SECTION 4(f) PROPERTIES?

Section 4(f) of the U.S. Department of Transportation Act of 1966 (now 49 USC Section 303 and 23 USC Section 138) prohibits USDOT agencies, including FHWA, from approving any program or project that requires the “use” of any publicly owned parkland, recreation area, or wildlife and waterfowl refuge; or any land from a publicly or privately owned historic site of national, state, or local significance (collectively, Section 4(f) resources), unless: (1) there is no feasible and prudent avoidance alternative to the use of the land, and the action includes all possible planning to minimize harm to the Section 4(f) resource; or (2) the agency determines that the use of the property will have a *de minimis* impact.

A project uses a Section 4(f) property if it:

- Permanently incorporates land from the Section 4(f) property into a transportation facility;
- Temporarily occupies land that is part of a Section 4(f) property, such as during construction; or
- Results in a “constructive” use of the Section 4(f) property, where there is no permanent incorporation or temporary occupancy of land, but the proximity impacts (e.g., visual and noise) of a project are so severe that the protected activities, features, or attributes that qualify a resource for protection under Section 4(f) are substantially impaired.

A *de minimis* impact involves the use of Section 4(f) property that is generally minor in nature and results in no adverse effect to a historic site and no adverse effect to the activities, features, or attributes qualifying a park, recreation area, or refuge for protection under Section 4(f).

FHWA evaluated the Project’s potential effects on Section 4(f) properties and determined that the CBD Tolling Alternative would not result in any use of Section 4(f) properties other than Central Park and the High Line for the following reasons:

- Central Park: Tolling system equipment is proposed on four poles at three detection locations on park roadways just inside the park near 59th Street. The equipment would be mounted on poles, replacing existing poles in the same locations and would prevent authorized vehicles from using the park to enter the Manhattan CBD without paying the toll. Because the Project Sponsors must have continued access to the poles for maintenance, FHWA intends to make a finding that the CBD Tolling Alternative would result in a *de minimis* impact on Central Park.
- High Line: The CBD Tolling Alternative would attach tolling system equipment to the High Line, a former railroad viaduct that now has a linear park on the former trackbed.³³ The tolling system equipment would be mounted beneath the trackbed structure on a metal pipe, bolted to the existing girders of the viaduct. No tolling infrastructure or tolling system equipment would be within or visible from the publicly accessible parkland that is atop the High Line. Because the Project Sponsors require permanent access to the tolling equipment attached to the underside of the High Line, FHWA intends to make a finding that the CBD Tolling Alternative would result in a *de minimis* impact on the High Line.

[The EA as published in August 2022 described FHWA’s proposed] finding that the CBD Tolling Alternative would result in a *de minimis* impact on Central Park and the High Line, and the officials with jurisdiction over these resources concurred with this finding and the New York State Historic Preservation Office has concurred with FHWA’s determination that there would be no adverse effect on Central Park as a historic property. [The EA as published in August 2022 also described FHWA’s proposed finding that the temporary occupancy of Central Park for construction of the CBD Tolling Alternative would not impair the protected activities, features, or attributes that qualify Central Park for protection under Section 4(f), and

therefore, the temporary occupancy of Central Park is not a use of this Section 4(f) property.

[Following consideration of public input received during the public comment period, FHWA has concluded the CBD Tolling Alternative would not affect the activities, features, and attributes that qualify the High Line for protection under Section 4(f), and the CBD Tolling Alternative would have a de minimis impact on Central Park.]

Chapter 19, “Section 4(f) Evaluation,” provides further detail and support of this finding.

ENDNOTES

- 1 U.S. Census Bureau. American Community Survey, 2015-2019; U.S. Census Bureau, 2012–2016 Census Transportation Planning Package.
- 2 U.S. Census Bureau, 2012–2016 Census Transportation Planning Package; New York State Comptroller. 2017. New York City’s Office Market report; U.S. Census Bureau. American Community Survey, 2015 to 2019.
- 3 American Public Transportation Association. 2021 *Public Transportation Fact Book*, Table 10. <https://www.apta.com/wp-content/uploads/APTA-2021-Fact-Book.pdf>
- 4 As of July 1, 2021, the estimated population of Los Angeles was 3,849,297. U.S. Census Bureau. Quickfacts. <https://www.census.gov/quickfacts/fact/table/losangelescalitycalifornia,losangelescountycalifornia,CA/PST045221>.
- 5 New York Metropolitan Transportation Council. January 2021. *Hub Bound Travel Data Report 2019*. Transit includes subway, commuter rail, bus, ferry, and tram. NYMTC relies on passenger, vehicle, and bicycle counts to prepare the hub bound data, and these counts include work and non-work trips. Therefore, percentages of travel by mode vary from census data. https://www.nymtc.org/Portals/0/Pdf/Hub%20Bound/2019%20Hub%20Bound/DM_TDS_Hub_Bound_Travel_2019.pdf?ver=GS5smEoyHSsHsyX_t_Zriw%3d%3d.
- 6 **[U.S. Census Bureau, 2012–2016 Census Transportation Planning Package.]**
- 7 As defined by the MTA Reform and Traffic Mobility Act, the Manhattan CBD consists of the geographic area of Manhattan south of and inclusive of 60th Street to the extent practicable but does not include the Franklin D. Roosevelt (FDR) Drive and the West Side Highway/Route 9A, including the Battery Park Underpass and any surface roadway portion of the Hugh L. Carey Tunnel that connects to West Street (the West Side Highway/Route 9A).
- 8 Merriam-Webster, “How did ‘gridlock’ move so quickly?” <https://www.merriam-webster.com/words-at-play/the-history-of-gridlock>.
- 9 INRIX 2021 Global Traffic Scorecard. <https://inrix.com/scorecard-city/?city=New%20York%20City%20NY&index=5>.
- 10 MTA Subway and Bus Ridership for 2019. <https://new.mta.info/coronavirus/ridership>. Bus ridership reflects the total annual reported numbers for New York City Transit and MTA Bus Company.
- 11 American Public Transportation Association. 2021 *Public Transportation Fact Book*, Table 10. <https://www.apta.com/wp-content/uploads/APTA-2021-Fact-Book.pdf>; American Public Transit Association. “Public Transportation Ridership Report: Fourth Quarter 2021.” <https://www.apta.com/wp-content/uploads/2021-Q4-Ridership-APTA.pdf>.
- 12 Ernst & Young, LLP, *Economic impacts of the Metropolitan Transportation Authority’s 2020-2024 Capital Investment Strategy*. Prepared for The Partnership of New York City. March 2019. <https://pnyc.org/wp-content/uploads/2020/01/MTA-Capital-Plan-2020-24-Econ-Impacts.pdf>.
- 13 MTA. October 1, 2019. *2020–2024 Capital Program: Executive Summary*. <https://new.mta.info/sites/default/files/2019-09/MTA%202020-2024%20Capital%20Program%20-%20Executive%20Summary.pdf>.
- 14 Ibid.
- 15 This reflects the portion of the capital program for transit improvements; it includes an additional \$254 million for other transit projects not identified here, as well as a December 2021 amendment that increased the transit- and rail-related portion of the program by \$535 million. The full capital program, including non-transit improvements, includes \$55.3 billion in projects.
- 16 MTA. October 1, 2019. *2020–2024 Capital Program: Executive Summary*. <https://new.mta.info/sites/default/files/2019-09/MTA%202020-2024%20Capital%20Program%20-%20Executive%20Summary.pdf>.
- 17 In April 2019, the legislature passed the MTA Reform and Traffic Mobility Act that authorized TBTA to design, develop, build and operate the Project. Among the provisions, the Act requires that a Traffic Mobility Review Board (TMRB) be established to make recommendations on the toll rates as well as to develop recommendations on crossing credits, exemptions, or discounts. Refer to **Appendix 2B, “Project Alternatives: MTA Reform and Traffic Mobility Act.”**

- 18 The travel demand modeling conducted for this EA and described in **Subchapter 4A, “Transportation: Regional Transportation Effects and Modeling,”** included the bicycle lanes as part of the No Action Alternative but not the existing condition.
- 19 Ibid.
- 20 New bicycle lanes and bus lanes were incorporated in the transportation modeling conducted for this EA and described in **Subchapter 4A, “Transportation: Regional Transportation Effects and Modeling,”** as appropriate.
- 21 *[As examples, a “frequent” driver could be someone regularly commuting to work or someone who regularly visits a facility for medical care.]*
- 22 *[The Project Sponsors commit to a five-year period for the discounted toll rate to allow time for frequent low-income drivers to try alternatives and/or adjust their travel habits as capital projects increase reliability and access.]*
- 23 *[Importantly, in many cases, once these customers have E-ZPass, they will also benefit from lower toll rates (compared to Tolls by Mail) on other facilities, including but not limited to the Port Authority of NY & NJ tunnels and bridges, TBTA’s bridges and tunnels, the New York State Bridge Authority bridges, and the New York State Thruway, thus reducing their overall toll expenditure.]*
- 24 *[This commitment would not preclude New York City taxi and FHV drivers from benefiting from the low-income driver mitigation measures, including the Low-Income Discount Plan for their vehicles that are not licensed as taxis or FHVs, provided that they can demonstrate eligibility.]*
- 25 *[USEPA. 2014. “Near Roadway Air Pollution and Health: Frequently Asked Questions.” [US]EPA-420-F-14-044. August. <https://nepis.epa.gov/Exe/ZyPDF.cgi/P100NFFD.PDF?Dockey=P100NFFD.PDF>, p. 1.; As defined by USEPA, air toxics, often referred to as hazardous air pollutants (HAPs), are pollutants that are known or suspected to cause cancer or other serious health effects, such as reproductive effects or birth defects, or adverse environmental effects. [US]EPA regulates 187 chemicals under its HAP program (USEPA, 2009d). Most air toxics originate from transportation and industry, including motor vehicles, industrial facilities, and power plants. USEPA. EJSCREEN Environmental Justice Mapping and Screening Tool: EJSCREEN Technical Documentation. September 2019. https://www.epa.gov/sites/default/files/2021-04/documents/ejscreen_technical_document.pdf.]*
- 26 *[USEPA. 2021. “Diesel Particulate Matter (PM) Air Toxics.” EnviroAtlas National Data Fact Sheet. January. <https://enviroatlas.epa.gov/enviroatlas/DataFactSheets/pdf/Supplemental/DieselPMairtoxics.pdf>; USEPA. 2014. “Near Roadway Air Pollution and Health: Frequently Asked Questions.” [US]EPA-420-F-14-044. August. <https://nepis.epa.gov/Exe/ZyPDF.cgi/P100NFFD.PDF?Dockey=P100NFFD.PDF>, p. 3; Lattanzio, Richard. 2022. Heavy Duty Vehicles, Air Pollution, and Climate Change. Report IF12043. Washington, DC: Congressional Research Service. <https://crsreports.congress.gov/product/pdf/IF/IF12043>.]*
- 27 *[Grace Brennan, Park on the Highway: Building a Cap Park as a Solution to Decades of Devastation Caused by the Construction of the Cross-Bronx Expressway, 49 Fordham Urb. L.J. 825 (2022). <https://ir.lawnet.fordham.edu/ulj/vol49/iss4/4>; Sooyoung Kim, Zafar Zafari, Martine Bellanger, and Peter Alexander Muennig, 2018. “Cost-Effectiveness of Capping Freeways for Use as Parks: The New York Cross Bronx Expressway Case Study.” American Journal of Public Health 108. P. 379-384. <https://doi.org/10.2105/AJPH.2017.304243>.]*
- 28 *[Negret, Marcel, and Carlos Mandeville. 2020. “Housing Segregation Is a Choice.” Regional Plan Association. August 21, 2020. <https://rpa.org/latest/lab/housing-segregation-is-a-choice>.]*
- 29 *[Though EJScreen uses a 500-meter distance (approximately 1,600 feet) for calculating traffic proximity, the truck traffic proximity calculation presented here uses 300 meters (approximately 1,000 feet). This decision was based on the EJScreen technical documentation and a review of other studies that considered roadway proximity and pollution, including a recent report from the Urban Institute which states that after a literature review, the report authors’ “determined...that pollution is most likely to persist within closer boundaries.” USEPA. 2019. EJSCREEN Technical Documentation. https://www.epa.gov/sites/default/files/2021-04/documents/ejscreen_technical_document.pdf, p. 50; Samuels, Gabe and Yonah Freemark. 2022. The Polluted Life Near the Highway: A review of national scholarship and a Louisville case study. The Urban Institute. <https://www.urban.org/sites/default/files/2022-11/The%20Polluted%20Life%20Near%20the%20Highway.pdf>, p 5; American Lung Association. 2022. Living Near Highways and Air Pollution. <https://www.lung.org/clean-air/outdoors/who-is-at-risk/highways>. November; Kim, Deajin, et. al. 2022. Dynamic grid-receptor method for regional-level near-road air quality analysis. Environment. 105. April. <https://doi.org/10.1016/j.trd.2022.103232>; Carter, Sarah A., et al. In utero exposure to near-roadway air pollution and autism spectrum disorder in children. Environment International. 158. January. <https://doi.org/10.1016/j.envint.2021.106898>.]*
- 30 *[Truck traffic proximity was used for the analysis as it is a better gauge of exposure to traffic. Tolling Scenario E was used for truck traffic changes as it was the tolling scenario with the maximum truck traffic diversions. Both Tolling Scenarios E and G were used to explore non-truck traffic diversions – Tolling Scenario E was used to determine whether truck traffic and non-truck traffic behaved similarly*

and then Tolling Scenario G was used as it had the largest potential increases in non-truck traffic.

Additional explanation on methodology is provided in Appendix 17D, “Technical Memorandum.”]

³¹ **[Appendix 17D, “Technical Memorandum” describes and assesses the effects of the Project using the 80th percentile for air pollutants and the 66.66th percentile for chronic disease burdens. The use of the 90th percentile for determining locations for mitigation is consistent with the Environmental Quality’s Climate and Economic Justice Screening Tool’s methodology for addressing locations for investment.]**

³² **[The following communities could have census tracts that merit place-based mitigation: High Bridge, Morrisania and Crotona, Tremont, Hunts Point, Mott Haven, Pelham, Throgs Neck, Northeast Bronx in the Bronx, NY; East Harlem, Randall’s Island, and the Lower East Side/Lower Manhattan in Manhattan, NY; Downtown Brooklyn, Fort Greene, and South Williamsburg in Brooklyn, NY; Orange, East Orange, and Newark in Essex County, NJ, and Fort Lee in Bergen County, NJ (except under Tolling Scenario G).]**

³³ The High Line is also a historic property (i.e., eligible for listing on the National Register), but is exempt from consideration as a Section 4(f) resource as a historic property as a former railroad property (23 CFR 774.13).