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Message from the Commissioner
As we conclude one year since Mayor Eric Adams took the helm at City Hall, I am proud to reflect on what we accomplished in 2022 at NYC DOT, reconfirming our commitment to safe streets and making significant progress against an alarming national trend in traffic fatalities. While there is still so much to be done, we ended 2022 with fewer traffic fatalities than 2021, ending a rise that began in 2019. And while the United States pedestrian fatality rate reached a four-decade high, we are thankful to see pedestrian deaths in New York City decline 8.8% in 2022, the third lowest total in the City’s recorded history.

We accomplished this through securing key state approval to support the expansion of speed cameras to operate 24/7, safety improvements at more than 1,600 intersections—exceeding our initial ambitious target of 1,000 and far surpassing the New York City Streets Plan metric of 400 intersections—and the installation of nearly 500 Accessible Pedestrian Signals to help New Yorkers who are blind or have low vision navigate the city. And we continued improving mobility and public spaces, including reaching the milestone of 1,500 miles of bike lanes citywide and expanding car-free events—including the first-ever expansion of Summer Streets and through the creation of ground-breaking events like “Trick-or-Streets” at Halloween and “Holiday Streets” for the winter holidays.

The Streets Plan, first released in December 2021, was the product of city legislation (Local Law 195 of 2019), on which I served as sponsor, and which required NYC DOT to produce a five-year plan for improving the city’s streets. This report represents the first annual progress update on the plan, and I am gratified by the great work our team at NYC DOT did last year to make substantial progress toward many of the plan’s goals.
The Streets Plan legislation of 2019 laid out ambitious annual benchmarks, such as miles of new protected bike lanes and square footage of new pedestrian space to aim for in the plan. While we are working hard toward these benchmarks, we fell short last year on several fronts. Capacity and resources are always challenges in government, but since the Streets Plan initially passed, COVID has exacerbated these issues. And much like municipal governments across the country, DOT also faces challenges in staffing, facility space, and material availability. At the same time, the pandemic resulted in the creation of Open Streets and Open Restaurants, critically important and extremely popular programs that meet the spirit of the Streets Plan, but do not explicitly count toward any of the Streets Plan’s benchmarks.

Finally, and especially important as we continue to work to increase our capacity to reach the Streets Plan benchmarks, we are seeking to complete projects that deliver the most benefit to the most people with an aim towards implementing high quality infrastructure. For example, just last month, we completed major improvements to bus service at the Pelham Bay Park subway station in the Bronx, including creating a new bus-only lane and removing a time-consuming loop at the station that slowed buses. Though the added bus lane is only one-tenth of a mile, it is saving several minutes every day for tens of thousands of people—including bus riders in Co-op City and on City Island, which are otherwise major transit deserts.

As we strive to grow our capacity to reach the Streets Plan benchmarks, safety, equity, and quality are the centerpiece of everything we do. We look forward to working with New Yorkers to continue to dramatically transform our streets in 2023—to be safe, fair, sustainable, and enjoyable.

Ydanis Rodriguez
Commissioner, NYC Department of Transportation
Executive Summary
The 2021 New York City Streets Plan (Streets Plan) presented a vision for planning and designing New York City's streets, establishing ten goals to be achieved through recommendations across 11 program areas. This first annual progress update on the Streets Plan summarizes the NYC Department of Transportation’s (NYC DOT) work in 2022 and ongoing efforts to achieve the Streets Plan goals. The report:

- Summarizes the Streets Plan and provides an overview of the current state of mobility in the city
- Highlights major new NYC DOT initiatives from 2022
- Provides progress updates on the recommendations outlined in the Streets Plan
- Spotlights key projects completed in 2022
- Previews the continued implementation of the Streets Plan with potential upcoming project locations
The 2021 New York City Streets Plan (Streets Plan) presented a vision for planning and designing New York City's streets, establishing ten goals to be achieved through recommendations across 11 program areas. This first annual progress update on the Streets Plan summarizes the NYC Department of Transportation's (NYC DOT) work in 2022 and ongoing efforts to achieve the Streets Plan goals. The report:

- Summarizes the Streets Plan and provides an overview of the current state of mobility in the city
- Highlights major new NYC DOT initiatives from 2022
- Provides progress updates on the recommendations outlined in the Streets Plan
- Spotlights key projects completed in 2022
- Previews the continued implementation of the Streets Plan with potential upcoming project locations
1 2022-2026 Plan
2022-2026 Plan

Introduction

Published in December 2021, the New York City Streets Plan (Streets Plan) is a five-year transportation plan to enhance the safety, accessibility, and quality of the city’s streets for all New Yorkers. The plan was developed in response to Local Law 195 of 2019 (LL195), which directed the New York City Department of Transportation (NYC DOT) to issue and implement a transportation master plan every five years and issue annual status updates beginning in 2023.

This report details our progress in 2022 on the recommendations outlined in the Streets Plan, nearly 80 strategies for improving the city’s streets. Many of these strategies responded to a series of benchmarks defined by LL195. The benchmarks laid out aggressive targets that would greatly enhance the design and operation of the streets of New York. As was outlined in initial discussions surrounding the passage of LL195, meeting those benchmarks—and other key parts of the Streets Plan—requires increased staffing, facility space, and other ways to build additional agency capacity.

The transportation landscape has changed dramatically in New York since the passage of LL195. A global pandemic has forced municipal governments throughout the world to reexamine how projects are or can be advanced amidst a range of new challenges and constraints. These new challenges and constraints mean NYC DOT has reevaluated project delivery that may have made sense prior to the pandemic, and as a result we fell short of achieving several of the benchmarks laid out in LL195, while also far surpassing others. However, the quantitative goals defined by the benchmarks do not capture the full scope of our achievements in 2022. While we will continue to work aggressively toward meeting the LL195 targets within the limits of the resources outlined above, we also recognize that there are many ways to measure success. We seek to complete projects that deliver the most benefit to users of the street, some of which may not align with maximizing mileage or total units installed.

New initiatives and projects that significantly enhanced the transportation network are outlined on the following pages.

NYC DOT is the New York City agency responsible for 6,300 miles of streets and highways, over 12,000 miles of sidewalk, and nearly 800 bridges and tunnels. We also operate the Staten Island Ferry. While we do not manage train and bus service, we work very closely with our partners at the Metropolitan Transportation Authority (MTA) to improve transit. We also work closely with the New York State Department of Transportation on planning and maintaining the highways and streets under their ownership or jurisdiction in New York City.
Planning Context

The Streets Plan builds on a foundation of prior planning and analysis work by NYC DOT, including:

- **OneNYC 2050** (2015 with yearly progress reports)
- **NYC DOT Strategic Plan** (2016-17)
- **Green Wave** (2019)
- **Delivering New York Freight Plan** (2021)
- **Electrifying New York** (2021)
- **Delivering Green** (2021)
- **NYC Pedestrian Mobility Plan** (2022)
Our Process

NYC DOT developed the Streets Plan through a process that included research, technical analysis, and broad public engagement. We defined overarching goals based on LL195, previously established city and NYC DOT plans, and input received from New Yorkers through online engagement and public workshops. The project team also researched what our peer cities are doing, evaluating innovative practices that are being used across the country and around the world and adapting them to the New York City context.

Vision & Goals

Consistent with NYC DOT’s mission statement, the Streets Plan established a vision for the future of New York City’s streets, public realm, and transportation landscape, and outlined ten goals to work toward that vision.

NYC DOT Mission Statement

NYC DOT’s mission is to provide for the safe, efficient, and environmentally responsible movement of people and goods in the City of New York and to maintain and enhance the transportation infrastructure crucial to the economic vitality and quality of life of our primary customers, city residents.

Streets Plan Vision

New York City will be a place where everyone has access to reliable and environmentally friendly transportation options and to safe and welcoming streets and public spaces. Cars and trucks will be substantially fewer and cleaner.
Goals

1. **Safety**: Enhance street safety for all street users
2. **Equity**: Incorporate equity into NYC DOT’s programs and projects
3. **Mode shift and transportation options**: Increase sustainable travel modes by reconfiguring streets and making more attractive choices available for New Yorkers to support the continued growth of NYC while reducing congestion and emissions
4. **Access to jobs**: Expand access to job opportunities and encourage job creation through faster and more reliable transportation options
5. **Accessibility**: Allow all New Yorkers, regardless of ability, to get around the city in multiple ways without encountering barriers to travel
6. **Public space**: Allow all New Yorkers to have access to safe, welcoming and attractive public spaces close to where they live
7. **Sustainable infrastructure**: Rebuild old and build new infrastructure in a way that is sustainable, future-proof, and resilient to the impacts of climate change
8. **Curb management**: Ensure that curb access is allocated in a rational manner to a diversity of users and uses
9. **Freight**: Encourage more efficient and sustainable goods movement and decrease the negative effects of truck traffic
10. **Public participation**: Allow for greater public awareness of and impactful participation in transportation planning by expanding proactive outreach
Advances in Equity

NYC DOT’s vision is for a transportation network that meets the needs of all New Yorkers in a safe, efficient, and sustainable manner. To enable that, we must incorporate equity into our work by prioritizing resources for communities in need of greater transportation mobility and access. In the summer of 2020, NYC DOT created a working group focused on equity and inclusion in planning, which brainstormed strategies to improve public engagement, project prioritization and development, safety, and sustainability.

Several strategies that emerged from the working group have been implemented, including a pilot Community Ambassadors Volunteer Program, which incorporates feedback from staff throughout NYC DOT into projects being planned for neighborhoods where they live or work or that they are very familiar with. We are also incorporating an Equitable Public Engagement Toolkit into the planning process to assist project managers in designing an engagement strategy that is inclusive and intentional, especially about accommodating hard to reach groups. We are currently integrating the Toolkit into our project workflow structure, which will not just standardize NYC DOT’s engagement process but also ensure that it is inclusive and thorough.
<table>
<thead>
<tr>
<th>Prioritization Tier</th>
<th>Tier 1</th>
<th>Tier 2</th>
<th>Tier 3</th>
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<tbody>
<tr>
<td>Total Population</td>
<td>3.15 mil</td>
<td>2.70 mil</td>
<td>2.56 mil</td>
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<tr>
<td>Total Jobs</td>
<td>740,000</td>
<td>825,000</td>
<td>2.5 mil</td>
</tr>
<tr>
<td>Avg % Non-White</td>
<td>90%</td>
<td>74%</td>
<td>38%</td>
</tr>
<tr>
<td>Avg % Low Income</td>
<td>27%</td>
<td>14%</td>
<td>10%</td>
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We are further improving community engagement by building relationships with community organizations that have meaningful ties and demonstrated experience in mobilizing their constituencies. Similarly, we are using our Street Ambassador and Mobility Management programs to better reach underserved populations. The Street Ambassadors visit NYC neighborhoods to speak with community members and request their feedback on projects and share updates on upcoming initiatives; they were deployed 113 times in fiscal year 2022. The Mobility Management Program works to improve transportation opportunities for people with disabilities, older adults, limited English proficient individuals, and low-income populations through inclusive planning and capacity building of NYC DOT staff.

NYC DOT is also investing millions of dollars to enable high-quality public spaces in under-resourced neighborhoods through the OneNYC Plaza Equity Program and the Public Space Equity Program. These programs provide operational, sanitation, and horticultural support for public spaces and Open Streets in high need areas.

A major initiative of the working group was the recommendation to use equity as a factor in prioritizing project locations. This led to the development of Priority Investment Areas (PIAs), which were introduced in the Streets Plan to provide an overall framework for prioritizing transportation investments across the city. The PIAs are based on three inputs: demographics, density, and previous levels of NYC DOT investment, measured at the neighborhood level using the city’s 195 Neighborhood Tabulation Areas.

The PIA demographics input captures historically underserved and vulnerable communities based on the percentage of non-white (by race and ethnicity) populations and the percentage of low-income households. The density input captures intensity of activity (population and jobs per square mile), while the previous investment levels input is measured by the level of both in-house and capital projects from the past ten years in each neighborhood.

While we continue to implement transportation projects throughout the city in all PIA tiers, we are committed to rebalancing investments toward higher-need neighborhoods. Planning units within NYC DOT have incorporated the PIA tiers into their work process as they develop and prioritize projects for implementation.
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2 Mobility in the City Today
Mobility in the City Today

New York City has one of the most extensive public transit systems in the world. However, its large size, differing land uses, historic investment, and range of population densities mean that access to transportation options varies citywide, with some areas having more travel options than others. This section presents several key mobility-related points and trends that provide further context to the Streets Plan and can help the plan respond to both citywide and local considerations.
City Growth Continues in a World Still Impacted By COVID-19

While the ongoing COVID-19 pandemic and its impacts on the economy, housing costs, and remote-working policies have caused some to leave New York City, population remains near record levels (US Census Bureau). Even as growing numbers of people can work from anywhere, employment continues its upward trajectory, adding 100,000 jobs between 2020 and 2021. Tourism is also roaring back, increasing an estimated 71% over 2021 with an anticipated 56.4 million travelers in 2022, 85% of 2019 visitation levels. As the City continues to be where more people want to be—workers and companies, residents, locals, and tourists alike—we must continue to properly manage our finite amount of street space.

1 Per the NYC Department of City Planning, population decreases between the 2020 and 2021 population counts are viewed as the result of temporary, pandemic-related phenomena that are likely to have reversed by the second half of 2021. During this period, components contributing to population gains (natural increases and international migration) were curtailed while components contributing to population losses (domestic migration and deaths) were exaggerated, leading to an atypical change in the population since the 2020 Census.
Public Transit Continues Its Recovery, and Active Modes Soar

New York City offers its residents numerous ways to get around but remains a transit (and walking) city for many. Except for the Northern Bronx, Outer Queens, and Staten Island, New Yorkers make more trips by walking than by any other mode—and citywide, over 68% of all trips are made by sustainable modes like walking, cycling, or transit (2019 Citywide Mobility Survey). Between 2019 and 2021, working from home has increased from 4% of the workforce to 11% (American Community Survey 2015-2019 and 2017-2021). This indicates a growing need to support neighborhood-level trips, often made via walking, cycling, or transit.

Public transit continues its slow recovery, offering a vital and reliable service for the millions who rely on it. Despite the impacts of the pandemic, approximately half of all work commutes in the city are made via public transit (American Community Survey 2017-2021). Commuter rail climbed from 38% of 2019 ridership in 2021 to just over 51% in 2022. In 2021, subway ridership was 760 million, reaching 45% of 2019 ridership numbers. Total bus ridership was 383 million, back to 56% of our 2019 ridership numbers. The past year further reflected public transit’s recovery, with subway ridership climbing to 60% and buses 63% of 2019 ridership. At the same time, bike ridership continues to boom—with more than double the amount of cycling trips made per day in 2021 than ten years prior.
...but Transportation Access Inequities Remain

Mode share discrepancies between neighborhoods can be explained in part by inconsistencies in transit choice. New York City’s transit system has historically been designed to serve and support areas with the greatest population density. As a result, some areas, such as Manhattan, are rich in transit stations, bike share, bike lanes, and more. Other, less dense areas have come to rely more on cars as the only feasible option, given a dearth of reliable or convenient alternatives. The sheer number of commuters and geographic spread have meant that New Yorkers have had longer average commute times than residents in peer cities (40 minutes for NYC versus 30 minutes in cities such as San Francisco and Seattle), with average commute times in some areas (particularly those farthest from Manhattan’s Central Business District) exceeding 45 minutes. Black New Yorkers on average have the longest commutes in NYC, at 47 minutes—23% longer than the 38-minute average commute of white New Yorkers (Making New York Work for Everyone Action Plan).

In a world impacted by COVID, long or unreliable commutes have become a hurdle to convincing people to return to the office or to use transit. At the same time, as the world adapts to greater workplace flexibility and commuters are increasingly distributed across the region or commuting to hubs away from Manhattan’s CBD, improvements need to address transportation within all five boroughs and across our regional rail systems.

Source: MTA NYCT; MTA NYCT and NYC DOT; US Census Bureau and NYC DOT

*MTA and NJT data for 2022 is preliminary at the time of this publication
New Yorkers Spend Less on Transportation

Public transit offers convenient and affordable access to jobs, medical care, goods and services, and other essentials of daily life—and New Yorkers continue to benefit from a robust transportation network. On average, New Yorkers spend less of their incomes on transportation costs than the nationwide average (8.4% versus 12.5%). In recent years, the share of income spent on transportation costs has declined (9.3% in 2019-2020 to 8.4% in 2020-2021), with a similar trend occurring in other major metropolitan areas except Los Angeles. Meanwhile, in the same period, the nationwide average has increased (12% to 12.5%). (US Bureau of Labor Statistics).

To keep costs low, and to ensure that public transportation can continue to provide services that many New Yorkers rely on (particularly minorities and low-income groups), securing stable transit funding is essential. The 2023 MTA budget included $600 million in funding from presently undetermined sources (Office of the New York State Comptroller, December 2022), and the authority is projected to need an extra $1.6 billion in new revenue by 2026 to cover its operating costs, underscoring the challenge.

<table>
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<tr>
<th>Metropolitan Area</th>
<th>Transportation Expenditures</th>
<th>Income Before Taxes</th>
<th>Transportation as a percent of Income</th>
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<tr>
<td>Miami</td>
<td>$8,664</td>
<td>$68,514</td>
<td>12.6%</td>
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<tr>
<td>Los Angeles</td>
<td>$11,219</td>
<td>$96,088</td>
<td>11.7%</td>
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<tr>
<td>Chicago</td>
<td>$9,255</td>
<td>$89,516</td>
<td>10.3%</td>
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<tr>
<td>New York</td>
<td>$9,014</td>
<td>$107,878</td>
<td>8.4%</td>
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<tr>
<td>Philadelphia</td>
<td>$9,405</td>
<td>$111,479</td>
<td>8.4%</td>
</tr>
<tr>
<td>Washington, DC</td>
<td>$9,295</td>
<td>$128,621</td>
<td>7.2%</td>
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New Yorkers Own Fewer Cars...

NYC continues to have a higher percentage of households without vehicles than any other major US city. Zero-car households are common in areas where alternative transit options are plentiful, such as in parts of Manhattan. Higher amounts of car ownership in the outer boroughs are a function of both land use and density, non-vehicle transportation options, and income.

Consistent with national trends, car ownership after the onset of the pandemic increased, with the total number of household vehicle registrations increasing between 2020 and 2021. This pandemic-driven car ownership and parking need puts increased pressure on a finite amount of street space, adding to the competing demands on our public right-of-way for other programs like Open Streets and Open Restaurants. It remains critical that transit, bicycling, carshare, and other modes of transportation continue to be expanded and improved to provide better alternatives to car ownership.

Source: NY State Department of Motor Vehicles
... but Congestion is Returning

The onset of the COVID-19 pandemic caused vehicle traffic into the Manhattan CBD (Manhattan below 60th Street) to drop, although never as low as transit modes. While the number of vehicles entering the CBD fell 20% between 2019 and 2020, the number of transit passengers fell 68%. At the same time, likely because of less congested streets, buses were able to dramatically increase average speeds. However, recent trends indicate the return of congestion to city streets. The number of vehicles entering Manhattan below 60th Street has increased, and bus speeds have declined to pre-COVID levels. The impending implementation of the Central Business District Tolling Program (also known as congestion pricing) is expected to curtail this return of traffic, helping to reduce some of the worst congestion in the city while improving bus speeds and providing a dedicated source of funding for transit.

### Vehicles Entering Manhattan South of 60th St. (Thousands/Day)

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<tr>
<td></td>
<td>776</td>
<td>764</td>
<td>751</td>
<td>747</td>
<td>731</td>
<td>731</td>
<td>717</td>
<td>705</td>
<td>707</td>
<td>728</td>
<td>582</td>
<td>596</td>
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### MTA Bus and NYCT Speed (Miles/Hour)

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<tr>
<td></td>
<td>8.09</td>
<td>8.03</td>
<td>7.93</td>
<td>7.93</td>
<td>7.95</td>
<td>8.12</td>
<td>8.17</td>
<td>8.09</td>
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Source: NYC DOT, MTA, and PANYNJ; National Transit Database, MTA, NYMTC, and NYC DOT
COVID Accelerated Changing Delivery Habits

While COVID influenced new thinking on how streets are programmed through initiatives like Open Streets and Open Restaurants, it also accelerated changes to individual behavioral habits that have changed transportation patterns. Pre-COVID, 60% of freight deliveries in the city were to commercial customers and 40% to residential customers, but in 2020 a dramatic rise in consumer demand increased residential to 80% of deliveries. A survey that year found that 80% of New Yorkers received a package at home in the last seven days and 18% received a package on four or more days. This significant rise in freight activity has contributed to traffic congestion and competition for limited space along the curb for loading and unloading.

The increase in at-home delivery is not limited to freight, as mobile app-based food deliveries have exploded in popularity. At the onset of the pandemic, orders increased by more than 50% in the metro area, and growth has continued since. App deliveries now account for 15% of all NYC restaurant sales, and there are an estimated over 60,000 deliveristas making food deliveries in the city (A Minimum Pay Rate for App-Based Restaurant Delivery Workers in NYC, NYC Department of Consumer and Worker Protection). E-bikes are the most common travel mode for deliveristas, heightening the importance of safe and convenient bicycle infrastructure and secure parking.
Access to Jobs

The ability of residents to travel between their homes and work without using a car is key to providing equitable access to economic opportunities and fostering the City’s sustainability goals. There are currently over 4 million jobs based in New York City (New York State Department of Labor). These are spread throughout the city, but the largest concentration is in Manhattan, south of 60th Street, with other pockets of job centers in places like manufacturing districts, health care facilities, and transportation facilities around the city. The number of these jobs accessible within a 30-minute commute (during a typical weekday morning peak period) by transit, compared to driving, is an important indicator of the viability of each neighborhood’s transportation systems.

In general, the dense concentration of jobs in Manhattan, combined with robust transit service, means that residents of neighborhoods within Manhattan and areas of other boroughs with rapid transit access to Manhattan can more easily commute to work using transit than by driving. The reverse trend is generally seen for neighborhoods farther from Manhattan, particularly those without subway service, where residents can reach more jobs by driving than by using transit within a 30-minute commute. Some other neighborhoods near local job centers also have more efficient access via transit.
More Jobs via Transit

- 1% - 250%
- 251% - 500%
- 501% - 750%
- 751% - 1,000%
- 1,001% - 1,250%
- > 1,250%

Fewer Jobs via Transit

- 0% - 24%
- 25% - 49%
- 50% - 74%
- > 75%

Travel time is calculated based on weekday AM peak commute time.

Sources: LEHD 2019, Google API
3 2022 in Review
This section highlights the work accomplished by NYC DOT in 2022 to further the goals outlined in the Streets Plan. Each program area includes updates on the recommendations published in the Streets Plan and revised maps showing a vision for potential upcoming project locations. As required by LL195, also reported here is our progress toward the benchmarks defined in the 2019 law.
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*Local Law 195 calls for an addition of 1,000,000 square feet of pedestrian space by December 31, 2023

<table>
<thead>
<tr>
<th>Benchmark Category</th>
<th>2022 Benchmark Target</th>
<th>2022 Completed Benchmark Targets</th>
<th>2022-26 Average Per Year Benchmark Targets</th>
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<tbody>
<tr>
<td>Protected Bus Lanes (Miles)</td>
<td>20</td>
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<tr>
<td>Protected Bike Lanes (Miles)</td>
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<td>26.3</td>
<td>50</td>
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<tr>
<td>Bus Stop Upgrades (Shelter or Benches AND Bus Time Poles)</td>
<td>500</td>
<td>14</td>
<td>500</td>
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<td>Transit Signal Priority (Intersections)</td>
<td>750</td>
<td>781</td>
<td>1,000</td>
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<td>Accessible Pedestrian Signals (Intersections)</td>
<td>500</td>
<td>494</td>
<td>500</td>
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<td>Pedestrian Space (Sq. Ft.)</td>
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<td>417,573</td>
<td>N/A*</td>
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<td>Redesign Intersections</td>
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<td>400</td>
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<td>Commercial Loading Zones and Truck Routes</td>
<td>Qualitative Benchmark</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parking Policy Revisions</td>
<td>Qualitative Benchmark</td>
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</tbody>
</table>

The LL195 benchmarks lay out targets that would drastically transform the design and operation of the streets of NYC. We aspire to meet the benchmarks and are committed to working towards them. In 2022, while we exceeded the LL195 benchmarks for transit signal priority and intersection redesigns, we did not meet several benchmarks. As outlined when LL195 was enacted, staffing, facility space, and availability constraints for project implementation material were always going to play a role in whether the agency would be able to meet the ambitious Streets Plan goals. Since enactment, COVID-19 has exacerbated these challenges and constraints. Logistical issues also played a significant role. For example, we implemented more than 4.4 miles of bus lanes, but COVID-related supply chain delays prevented the installation of cameras that would qualify them as protected. Additionally, for a bus stop to qualify as upgraded under LL195, a real-time passenger information display must be installed. We are currently in the process of procuring a next generation information display, which will be primarily solar powered. While this contract was not ready for 2022 installations, we expect it to be in place by mid-2023.

Given these types of constraints, we have sought to complete projects that deliver the most benefit to the most people, which does not always align with maximizing mileage or total units installed. We aim to get the most value possible from our staff, contractors, and other resources, prioritizing projects with the greatest benefit that meet multiple city and NYC DOT goals.

Furthermore, needs and priorities have evolved over the past three years since LL195 was passed. Many of the efforts described in the following pages, such as Open Streets and bike lane hardening, do not make progress toward the LL195 benchmarks but are equally critical in advancing the objectives of the Streets Plan.
New Initiatives

24/7 SPEED CAMERAS

In August, NYC’s 2,000 speed cameras in 750 school speed zones began operating 24 hours a day, 7 days a week for the first time. The automated speed cameras were previously authorized by the state to operate only on weekdays, between 6:00 a.m. and 10:00 p.m.—missing the 59% of traffic fatalities that occurred when the cameras were previously required to be turned off. A state law signed in June now allows the cameras to operate 24/7. Nearly one-third of on-street traffic fatalities occur in camera zones at times when cameras were previously not permitted to operate. Speed cameras and automated traffic enforcement are proven tools that prevent dangerous behavior and crashes, reducing speeding by 72% on average.

BIKE LANE HARDENING

In early 2022, NYC DOT announced a plan to upgrade half of all delineator-protected bike lanes in the city with sturdier materials that better protect cyclists by preventing drivers from entering lanes. There are 40 existing miles of delineator-protected bike lanes, and we are working to harden 20 miles of those lanes by the end of 2023. The work is being focused on locations with high ridership, a history of vehicle non-compliance, and/or lanes on heavy vehicular volume corridors. The agency remains on track to hit this goal and installed 10.04 miles of hardened bike lanes in 2022.

BETTER BARRIERS

In June, as part of the effort to harden protected bike lanes, NYC DOT announced the Better Barriers pilot program to test new materials for protected bicycle lanes across the city. Over the course of the year, we tested new hardened rubber, plastic, and concrete barrier types along four bike lanes across the city, as well as an Open Street and a bus lane. We are evaluating the materials for durability through the winter. If effective, these barriers would greatly expand protection for cyclists with materials that are easier to install on a broader set of streets.
RAISED CROSSWALKS

As part of a commitment to make intersections safer through design improvements, NYC DOT announced we would establish a program to construct 100 Raised Crosswalks annually. Raised Crosswalks increase accessibility by providing a level crossing, slow vehicles, increase pedestrian visibility, and encourage motorists to yield to pedestrians. This work will be done primarily via a new contract with the NYC Department of Design and Construction (DDC). While details of this contract are being finalized this year, in 2022 we completed 22 locations using in-house resources and 23 locations as part of capital projects, bringing the total citywide to 74.

PARKING LOT AND GAS STATION TRAFFIC CALMING

As part of our commitment to enhance safety at intersections, NYC DOT announced an effort to enhance pedestrian safety at curb cuts at high-traffic locations like parking lots and gas stations. These locations, which are often at intersections, can create unpredictable conditions as drivers cut across sidewalks—a particular concern for vulnerable youth and senior pedestrians. NYC DOT efforts are targeting dozens of locations, largely outside Manhattan, reducing driver “short cuts” and better channeling vehicle traffic to increase visibility and predictability.

SECURE BIKE PARKING PILOT

In March, Brooklyn-based company Oonee tested their “Mini” secure bike parking product in curbside lanes in Brooklyn, Manhattan, and Queens. Through a concession agreement with NYC DOT, Oonee installed the Mini at five locations for one-month demonstrations. The Oonee Mini featured insurance coverage for bikes and scooters, staff to keep the parking maintained, and customer service. This demonstration is informing a larger effort to expand secure bike parking citywide.
OPEN STREETS EXPANSION

NYC DOT expanded the Open Streets initiative with further programming and events such as “Trick or Streets” and Holiday Open Streets. Looking ahead, we will continue to expand and improve the Open Streets program, with the goal of expanding offerings across more holidays and cultural celebrations throughout the year. We are also encouraging more schools to participate in the program and will work with the NYC Department of Education to promote the program directly to all educational institutions in NYC. Furthermore, the Open Streets program has created a venue for engagement with New Yorkers to better understand the value of their neighborhood streets and test ideas that can translate into street redesigns. We continue to evolve successful Open Street sites, redesigning them as plazas, shared streets, and adding other elements that promote traffic calming and the use of streets as public space.

BIKE THE BLOCK

Growing out of NYC DOT’s Biketober event programming to encourage safe cycling, the Bike the Block program featured a series of Open Street events focused on bicycle programming, education, rides, and resources. We organized street closures within underserved communities, offering programming that promotes fun, sustainable, and healthy activities. The events featured tips for riding, bike repair, bike law education, group bike rides, giveaways, and cultural programming. The goal of Bike the Block is to expand our outreach and engagement around Street Improvement Projects, empower communities to reimagine their streets, create a platform for local cycling advocacy, and address barriers to biking.
SERIOUS INJURY RESPONSE, TRACKING & ANALYSIS (SIRTA) PROGRAM

NYC DOT launched the Serious Injury Response, Tracking & Analysis (SIRTA) program. The program, created by Local Law 49 of 2021, investigates in coordination with NYPD, analyzes, and reports on all serious vehicular crashes, reviews street design, infrastructure, and driver behavior at each crash location, and makes recommendations for safety maximizing changes to street design or infrastructure. As part of these investigations, every location with a traffic fatality or critical injury is visited by both NYC DOT and the NYPD, with a review of site conditions to identify immediate issues and help inform further investigation. Each quarter a report is posted on the NYC DOT website regarding each SIRTA investigation completed during the preceding three-month period.

CLIMATE RESILIENCY DESIGN GUIDELINES PILOT

In late 2021, the City announced a new pilot program that will help ensure new city infrastructure and public facilities are prepared for the worsening impacts of climate change, including intense rainfall, coastal storm surge, chronic high tide flooding, and extreme heat. NYC DOT has identified four projects for inclusion in this program, which will help build internal agency capacity for better incorporating resiliency into future capital projects: Court Square Pedestrian Improvements (Long Island City, Queens), Harper Street Administration Building (Willetts Point, Queens), Reconstruction of Shore Road Bridge (Pelham Bay Park, Bronx), and Mid-Island Bluebelt (Grant City, Staten Island).
Progress on Streets Plan Recommendations

In the time since the Streets Plan was published in December 2021, NYC DOT has made progress on its recommendations—resulting in the increased safety, accessibility, and quality of the city’s streets for all New Yorkers.

Recommendations published in the Streets Plan outlined major initiatives and priorities, including sustaining and/or expanding existing programs or starting up new programs. Taken together, the recommendations work to address the Streets Plan’s goals.

Programmatic recommendations were grouped by transportation mode and other functional areas of NYC DOT’s work:

1. Safety and Vision Zero
2. Walking and Pedestrians
3. Transit
4. Cycling
5. Bike Share and Micromobility
6. Public Space and Streetscapes
7. Accessibility
8. Freight
9. Curbside Management and Parking
10. Traffic Management
11. Sustainability and Resilience

Following the same program areas, this section provides progress updates on the recommendations contained in the Streets Plan. In some cases, progress has been made on truly transformative ideas—major policy and program changes that would have a dramatic impact on the streets of New York City—that are challenging to implement. Completed and potential upcoming project locations as well as additional measurements of our progress are also shown for many program areas.
Following the same program areas, this section provides progress updates on the recommendations contained in the Streets Plan. In some cases, progress has been made on truly transformative ideas—major policy and program changes that would have a dramatic impact on the streets of New York City—that are challenging to implement. Completed and potential upcoming project locations as well as additional measurements of our progress are also shown for many program areas.
NYC DOT recognizes that deaths and severe injuries in traffic are not inevitable “accidents” but preventable crashes that can be addressed through engineering, enforcement, and education. Since launching Vision Zero in 2014, the City has used every tool at its disposal to enhance street safety—with new street designs and safety programs, expanded enforcement against speeding and failure to yield, lower speed limits, broad public outreach, education and communications, and a sweeping legislative agenda to increase penalties for dangerous drivers. Traffic fatalities stabilized in 2022 after a three-year rise, including a 6.3% drop in pedestrian deaths from 2021.

Progress on Recommendations

Expand the Use of Proven Safety Treatments

As part of the 2022 Pedestrian Safety and Older New Yorkers report, NYC DOT conducted a wide-ranging before and after analysis of safety treatments to compare injury, severe injury, and fatality changes between seniors and non-senior adults. We identified seven treatments that were particularly powerful in terms of reducing injuries for senior pedestrians. Building on that work, we also analyzed safety outcomes for those same treatments for all road users, pedestrians, and motor vehicle operators. We deployed these treatments on projects throughout the city in 2022 and will continue to make extensive use of them in future work.

<table>
<thead>
<tr>
<th>Safety Treatment</th>
<th>All Road Users Injury Change</th>
<th>Killed or Seriously Injured (KSI) Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road Diets</td>
<td>-16.6%</td>
<td>-30.0%</td>
</tr>
<tr>
<td>Conventional Bike Lanes</td>
<td>1.1%</td>
<td>-15.3%</td>
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<tr>
<td>Protected Bike Lanes</td>
<td>-14.8%</td>
<td>-18.1%</td>
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<tr>
<td>Pedestrian Islands</td>
<td>-15.1%</td>
<td>-35.5%</td>
</tr>
<tr>
<td>Curb &amp; Sidewalk Extensions</td>
<td>-10.4%</td>
<td>-34.1%</td>
</tr>
<tr>
<td>Turn Calming</td>
<td>0.3%</td>
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</tr>
<tr>
<td>Leading Pedestrian Intervals (LPIs)</td>
<td>-13.5%</td>
<td>-29.6%</td>
</tr>
</tbody>
</table>
Maps serve as a vision for potential projects and improvements to be implemented during the five year plan. All geographies are approximate; projects will be developed through detailed design and community feedback.
**TRACKING OUR PROGRESS: 2022**

**172 corridor miles and 180 intersections with safety improvements**

Vision Zero corridors and intersections are identified in Vision Zero Action Plans. Safety improvements include treatments such as curb extensions, raised crosswalks, protected bike lanes, and more.

**2,990 people (898 pedestrians) killed or seriously injured (KSI) in traffic crashes**

KSI is a measure of the most serious traffic crashes which we are most focused on reducing. In 2022, traffic fatalities stabilized after a three-year rise, including a 6.3% drop in pedestrian deaths from 2021.

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**Capital Projects**

In 2022, NYC DOT completed ten Vision Zero capital projects. Capital projects are major street reconstruction projects that make improvements using long-lasting materials and often make operational street improvements permanent. Vision Zero capital projects completed in 2022 included the Morrison Avenue Plaza in the Bronx, which increased pedestrian space and amenities at a busy intersection under the Morrison Avenue-Soundview subway station and added a raised crosswalk. In Far Rockaway, Queens, critical street safety improvements included a new 15,000-square foot pedestrian plaza, more sidewalks, new landscaping, green infrastructure, and major sewer upgrades. 2022 also saw significant construction progress on projects in the Great Streets program, which selected five major arterial streets—Queens Boulevard and Northern Boulevard in Queens, Atlantic Avenue and Fourth Avenue in Brooklyn, and the Grand Concourse in the Bronx—to receive Vision Zero capital upgrades. Ten additional Vision Zero capital projects are expected to be initiated or completed in 2023.

**Expand Automated Enforcement**

Following State legislative approval in August 2022, time and day restrictions were lifted from New York City’s speed camera program. The cameras now operate 24 hours a day, 7 days a week. We will pursue State legislation that lifts restrictions on the placement of cameras so that all locations with dangerous speeding can receive camera coverage.

**Dangerous Vehicle Abatement Program**

Starting in November 2021, NYC DOT has conducted at least ten Dangerous Vehicle Abatement Program classes per month, reaching hundreds of drivers who have received high numbers of violations from NYC’s automated enforcement cameras. We will issue a report evaluating the pilot program in summer 2023.
In 2022, NYC DOT implemented a comprehensive school safety project at the northernmost end of Amsterdam Avenue/Fort George Avenue in the Washington Heights and Inwood neighborhoods. Despite being close to seven schools, this portion of Amsterdam Avenue was frequently used as a speedway, where vehicles raced and performed donuts. The corridor had experienced several recent fatalities, and it was not an inviting space for students to access their schools or the adjacent High Bridge Park.

To calm traffic and provide safe space for pedestrians and cyclists, NYC DOT installed parking protected bicycle lanes, concrete pedestrian and bus boarding islands, speed cushions, and painted curb extensions on the avenue. Narrowing the space available to moving vehicles has allowed us to reduce the incidence of erratic and unsafe driving. Meanwhile, the installation of the parking protected bicycle lanes has provided dedicated space for cyclists of all ages. Asphalt art murals in the curb extensions serve to beautify and further delineate the new pedestrian spaces. Lastly, we were able to install angled parking on W. 190th Street between St. Nicholas Avenue and Amsterdam Avenue to narrow this overly wide one-way street.

NYC DOT worked closely with local high school students affiliated with the “I Challenge Myself” after-school program at the George Washington Campus throughout project planning and implementation. Students participated in field work and design charrettes to determine a good design, and they helped present the project to the Community Board.
Federal Policy

In Spring 2022, NYC DOT submitted recommendations to the United States Department of Transportation (USDOT) for changes to the national New Car Assessment Program (NCAP). We emphasized the importance of safety ratings that accurately reflect hazards to road users outside the vehicle, including pedestrians and cyclists, and the need for a rating system for medium- and heavy-duty vehicles.

Transformative Ideas

Dramatically Expand Automated Enforcement

NYC DOT will continue to pursue New York State legislation to expand automated enforcement where technology makes it possible. The agency is currently undertaking a demonstration program testing automated bicycle lane enforcement technology, in which cameras mounted on vehicles capture images of vehicles obstructing the lanes. NYC DOT will evaluate this technology and issue recommendations for next steps.

Enforce Safe Vehicles and Driving

NYC DOT is pursuing a package of bills at the state level which will address the dangerous driver behaviors seen in an increasing proportion of serious crashes. This includes new laws targeting driving on a suspended or revoked license, repeat red light camera violations, reckless driving and failure to use due care, and driving while intoxicated. In recognition of a high proportion of fatalities of motorcyclists who are not appropriately licensed and registered, we will promote a law change that will require a motorcycle license before purchase of a motorcycle. We also support Sammy’s Law, which would allow NYC the ability to set speed limits below 25 mph. Additionally, we are participating in the Department of Citywide Administrative Services’ intelligent speed assistance pilot program, which is implementing city fleet vehicles with technology to prevent speeding.
In October 2022, NYC DOT completed a transformative redesign of Schermerhorn Street in downtown Brooklyn, bringing major safety improvements to a crucial bicycle route that connects cyclists to and from the Brooklyn and Manhattan bridges.

More than 1,000 cyclists ride along Schermerhorn Street on a typical weekday. NYC DOT’s redesign better accommodates riders by implementing a one-way conversion for vehicle traffic on Schermerhorn Street between Smith Street and Flatbush Avenue to create room for a 10-foot, two-way protected bike lane on the south side of the street. The project also delivered new pedestrian space at intersections to slow down turning drivers and shorten the time pedestrians spend crossing traffic. The redesign provides a safer, more comfortable bike link connecting downtown Brooklyn to adjacent neighborhoods and the East River bridges, and it connects to the existing nearby protected bicycle lane network—including the popular new Brooklyn Bridge bike lane. The new design also compliments a budding network of Shared Streets in downtown Brooklyn and helps create a people-focused business district that prioritizes pedestrians and cyclists.
New York City is a walking city, with more trips made by walking than any other mode. We begin and end almost all our trips as pedestrians—walking to and from the subway, buses, bike share, and cars. High quality pedestrian environments increase neighborhood vibrancy and have been shown to vitalize retail through increased foot traffic and retail patronage. To accommodate these trips, streets must be designed with pedestrian safety, mobility, and accessibility as a priority.

Progress on Recommendations

Pedestrian Plan

NYC DOT launched a Pedestrian Mobility Plan website detailing five street typologies created to determine pedestrian needs on the city’s streets and sidewalks. The Pedestrian Mobility Plan allows NYC DOT to address needs beyond basic safety and accessibility, improving pedestrian comfort and convenience while encouraging more walking citywide. The plan includes design guidelines for the five street typologies to help guide project planning.

Sidewalk and Intersection Improvements

With the Pedestrian Mobility Plan as a guide, NYC DOT continued to implement projects throughout the city to make walking safer and more comfortable in 2022, including expanded space for walking and improved intersection conditions. These projects included two “Super Sidewalk” initiatives in Manhattan that reduced pedestrian congestion in crowded areas by expanding sidewalk space. Additionally, as part of a commitment to enhance pedestrian safety at 1,000 intersections, we upgraded over 1,600 intersections, greatly exceeding the original goal and far surpassing the Streets Plan requirement of 400 intersections, while contributing to one of the lowest annual pedestrian death totals in the city’s recorded history.
Maps serve as a vision for potential projects and improvements to be implemented during the five year plan. All geographies are approximate; projects will be developed through detailed design and community feedback.

### Completed Projects
- Fort Independence St. and Heath Ave.
- Unionport Rd.
- White Plains Rd. at Bronxdale Ave.
- Broadway/Flushing/Graham
- Livonia Ave.
- Lexington Ave.
- E. 117th St.
- Park Row and Beekman St.
- 9th Ave.
- E. 28th St. and Park Ave.
- Vermont Pl. and Highland Blvd.
- Astoria Blvd. and 21st St.
- Queens Midtown Expwy. and 58th Rd.
- Homelawn St. and Grand Central Pkwy.
- Shore Front Pkwy at Beach 96
- Shore Front Pkwy at Beach 102

### Potential Upcoming Projects

#### Bronx
- Mosholu Pkwy.
- E. 170th St. and Teller Ave.
- Westchester Ave.
- E. Tremont Ave. at Whittemore

#### Brooklyn
- Lorimer St. at McCarren Park
- Fleet Pl. and Willoughby St.
- Hamilton Ave.
- Eastern Pkwy.
- Parade Pl. and Crooke Ave.
- New Lots Ave. and Van Siclen Ave.
- New Utrecht Ave. and 10th Ave.
- Marine Ave. and 3rd Ave.
- Flatbush Ave., Utica Ave., Ave. S

### Manhattan
- Inwood Pedestrian Project
- Riverside Dr. and Henry Hudson Pkwy.
- Edgecombe Ave.
- W. 120th St.
- Momingside Dr.
- 9th Ave.
- 8th Ave.
- 2nd Ave.
- Canal St.
- Columbia St. at Stanton St.

### Queens
- Queensboro Bridge South Outer Rd.
- Union Turnpike and Metropolitan Ave.
- Stanhope St. and Fairview Ave.
- Coundull Ave. and 79th St.
- Shore Front Pkwy. at Beach 77
- Shore Front Pkwy. at Beach 81
### Waste Containerization

As of November 2022, 38 Clean Curbs waste containers from 15 different partners in all five boroughs were either installed or approved. To facilitate this pilot, the Department of Small Business Services (SBS), in coordination with the NYC Department of Sanitation (DSNY) and NYC DOT, distributed more than $250,000 in funding to business improvement districts and other organizations for the purchase and installation of waste containers through the Neighborhood Grant Challenge. In addition, the Residential Clean Curbs pilot began in December 2022, servicing the block of 45th Street between Ninth and Tenth Avenues in Manhattan with shared bins for waste and recycling, thus clearing an entire block’s trash bags out of pedestrians’ way. The pilot will last for 12 months. Furthermore, working closely with NYC DOT, DSNY is now conducting a citywide waste containerization study, to keep waste off the sidewalks using sealed, rodent-proof bins.

### Pedestrian Crossings

NYC DOT improved pedestrian crossings through a variety of projects in 2022. Among those projects was the kickoff of an initiative to install crosswalks raised to curb level, which increase accessibility for the disabled community and slow drivers at intersections. Raised crosswalks were installed at 45 locations in 2022 and we will expand this initiative in 2023.

### CityBenches

NYC DOT’s current target is to install seating at 500 bus stops annually. We will also install seating at other locations where seniors and people with disabilities need space to rest. We are currently procuring a new contract to expand new seating installations.
In September 2022, NYC DOT completed an intersection redesign at Broadway, Flushing Avenue and Graham Avenue in Brooklyn. The project provides major safety improvements and increases pedestrian space at a location within a Tier 1 Priority Investment Area that had been the site of numerous pedestrian and cyclist fatalities and injuries.

The project separated Graham Avenue from the Broadway and Flushing Avenue intersection with a large sidewalk extension, resulting in shorter and safer pedestrian crossings, and forcing drivers to make slower turns while yielding to pedestrians. The area is a multi-modal transit hub connecting the surrounding neighborhoods of East Williamsburg, Bedford-Stuyvesant, and Bushwick. Many pedestrians accessing the adjacent Woodhull Hospital cross at this location. The increased pedestrian area better accommodates commuters and vendors and provides space for additional street furniture.
In October 2022, NYC DOT completed a transformative redesign of Eighth Avenue in Midtown Manhattan, with a focus on widened sidewalk space. The main goal of the project was to decrease pedestrian congestion on this critical corridor that serves pedestrians from around the region and the world.

More than 8,000 people walk along Eighth Avenue in the peak hour. The volume is so high that pedestrians resorted to walking in the bike lane to avoid the heavily congested sidewalks. NYC DOT’s redesign repurposed vehicular lanes into a sidewalk expansion to increase the pedestrian roadway share from 30% to 50%. The project also maintained the protected bike lane and enhanced intersection safety by installing bike crossings that are more visible to drivers as well as separate signals for vehicle left turns to avoid conflicts with cyclists. The redesign provides a comfortable walking experience connecting the Midtown CBD to the key transit hubs of Penn Station, Port Authority Bus Terminal, and the Times Square subway station. The new design complements ongoing efforts on major avenues to prioritize walking as the primary means of transportation, working towards the city’s goal of promoting emissions-free means of travel.
CORRIDOR DEMAND TYPOLOGY

GLOBAL
Streets that have large crowds of people moving in many directions, with destinations or large-scale attractions drawing pedestrians from around the world

REGIONAL
Streets that have crowds of people passing each other, with destinations or large-scale attractions drawing pedestrians from around the region

NEIGHBORHOOD
Streets that have small groups of people passing each other, with consistent pedestrian destinations such as neighborhood business districts or parks

COMMUNITY
Streets that have individuals passing one another or small groups, such as residential streets that connect to nearby destinations

Sources: NYC DOT
Public transit is critical to the functioning of New York City, enabling the city’s density and economic activity. Despite impacts on ridership caused by the COVID-19 pandemic, a daily weekday average of nearly 5 million people take a trip on a city bus, subway, commuter rail, or paratransit vehicle, in addition to users of private buses and commuter vans. While the MTA is the primary operator of transit services, the streets and sidewalks controlled by NYC DOT provide a conduit for pedestrians traveling to and from subway stations and bus stops, and for the movement of buses and paratransit vehicles.

Progress on Recommendations

**Busways**

NYC DOT made four busways permanent in 2022 after launching as pilots throughout 2021. The busway pilot on Main Street in Downtown Flushing was declared permanent in July 2022 after bus speeds improved by 12% to 29%. The 181st Street busway in Washington Heights was declared permanent in November 2022 due to bus speed improvements up to 32%. The Jamaica Avenue and Archer Avenue pair of busways were also declared permanent in November 2022 as bus speeds improved by 34%. All four busways represent some of the most critical bus corridors in the city, speeding commutes for over 400,000 daily riders across 35 bus routes.

**Transit-Priority Corridors**

NYC DOT completed 7.7 miles of new and improved bus lanes across seven projects in 2022 and added physical or camera protection to 4.4 miles of protected bus lanes. This included new offset bus lanes on 21st Street in Queens, curbside bus lanes on Avenue A and Avenue D in Manhattan, and phase one of a complete street redesign of University Avenue in the Bronx including offset bus lanes, bus boarding islands, and protected bike lanes. Completed in December 2022, we installed a contraflow bus lane on Westchester Avenue near the Pelham Bay Park subway station allowing for more direct routing of the Bx12 Select Bus Service (SBS)—the busiest bus route in the city. Additionally, work has started for phase two of University Avenue and new offset bus lanes on Northern Boulevard in Queens. Both projects (among others) will be completed in the 2023 implementation season.
Maps serve as a vision for potential projects and improvements to be implemented during the five year plan. All geographies are approximate; projects will be developed through detailed design and community feedback.

Completed Projects
- University Ave., Washington Bridge to Tremont Ave.
- Pelham Bay Park Station
- 1st Ave.
- M14A/D Route
- 21st St.
- Main St.

Potential Upcoming Projects

**Bronx**
- E Gun Hill Rd.
- Fordham Rd./Pelham Pkwy./207th St.
- University Ave.
- Tremont Ave.
- South Bronx East-West Crosstown SBS

**Brooklyn**
- Livingston St.
- Flattbus Ave.
- Southern Brooklyn Crosstown B82 SBS

**Manhattan**
- Upper Broadway
- Washington Bridge
- 79th St. Crosstown
- 3rd Ave.
- 2nd Ave.
- 34th St.
- Allen St./Pike St./Madison St.

**Queens**
- Northern Blvd.
- Queens Blvd.
- Hillside Ave.
- Woodhaven Blvd.
- Rockaway Beach Blvd.

Sources: NYC DOT
In September 2022, NYC DOT finished Phase 1 of the University Avenue complete street project from Washington Bridge to Tremont Avenue. What was previously a four-lane road with buffered bike lanes now includes protected bike lanes, six bus boarding islands, and 24/7 offset red bus lanes. This complements NYC DOT’s recent bike share expansion in the Bronx, with new docks located along the corridor, as well as a pedestrian plaza that was created in 2020 at University Avenue and Macombs Road.

Alongside the Bronx Bus Network Redesign implemented by the MTA in June 2022, which consolidated bus stops and improved routing, the dedicated bus lanes further facilitate faster, more reliable service, and bus boarding islands create dedicated space for the 35,000 daily bus passengers of the Bx3, Bx36, and Bx18 to wait and board buses. The protected bicycle lanes connect cyclists to the Washington Bridge and protected bicycle lanes on EL Grant Highway, installed in 2020.

We will build on the success of this project in 2023 by installing Phase 2 of University Avenue. This phase will include dedicated bus lanes and a two-way bicycle facility connecting cyclists from University Avenue to the Aqueduct Walk.
**Transit Capital Investment**

NYC DOT continued to progress bus priority capital projects throughout 2022. This included advancing design on Woodhaven Boulevard Q52/53 SBS, South Bronx SBS (Bx6), and Southern Brooklyn SBS (B82), and reconstruction of Pelham Parkway, which will benefit the Bx12 bus route.

**Supporting the MTA’s Bus Network Redesign Implementation**

The MTA’s Bronx Bus Network Redesign plan was successfully implemented in June 2022. Working with the MTA, we relocated or removed close to 300 underutilized bus stops in the Bronx and Manhattan, which helped to speed up travel for bus riders. Many of these are being repurposed for other uses such as bike corrals and Neighborhood Loading Zones. At the same time, other borough redesign plans advanced. In March, the Queens Bus Network Redesign New Draft Plan was shared with the public and the initial Brooklyn Bus Network Redesign Draft Plan was released in December. For Brooklyn, we collaborated with the MTA to refine our future bus priority investment corridors, considering service changes proposed under the redesign.

**Enforcing Bus Lanes and Busways**

The MTA initiated the next phase of its Automated Bus Lane Enforcement (ABLE) program in the second half of 2022, adding on-board cameras on nine bus corridors covering 25 miles of bus lanes. The on-board cameras added further enforcement to existing protected bus lanes and created over four miles of newly protected bus lane on Hillside Avenue in Queens. These cameras will be especially helpful in enforcing vehicles parking or standing in bus lanes. NYC DOT continued to operate our stationary camera program, issuing nearly 500,000 notices of liability. Although no new stationary cameras were implemented in 2022, both stationary and on-board cameras are planned for 2023 installation.

**TRACKING OUR PROGRESS: 2022**

- **4.4 miles of protected bus lanes installed**
  Protected bus lanes are those protected by physical barriers or monitored by stationary or mobile cameras.

- **781 new intersections with transit signal priority**
  Transit signal priority allows buses to extend green lights or shorten red lights to improve bus travel times.

- **11.9 bus lane miles installed, upgraded, or protected**

- **8.09 mph average bus travel speeds**

- **Up to 24,351 minutes (406 hours) saved on an average weekday by bus passengers affected by bus priority projects**
  This is calculated by applying the time saved through faster bus trips to the average weekday number of affected passengers.

- **424 million annual citywide bus ridership (preliminary)**
  NYC DOT improvements can help increase bus ridership by improving bus speeds and reliability, improving bus stop access, and enhancing the bus stop experience.
Transit Signal Priority

In 2022, NYC DOT continued to implement transit signal priority (TSP) on corridors across the city that encompass more than 750 intersections. In addition, we updated the timing on eight preexisting TSP corridors to ensure they are working optimally.

Bus Stop Accessibility

NYC DOT’s Bus Stop Accessibility program, which aims to make bus stops ADA accessible to all users citywide, met its goal of building out at least 25 accessible bus stops in 2022. We were also awarded a Federal Transit Administration (FTA) grant under the Section 5310 program, which will enable continued work on bus stop accessibility in 2023. Additionally, we continue to compile a comprehensive citywide list of bus stops which do not yet meet ADA standards of accessibility.

Bus Stop Amenities

NYC DOT continued to pursue a next generation Bus Time countdown clock pole and is developing a contract for installation and maintenance. We have funding to install 1,500 units citywide over the next three years. We are prioritizing locations for new Bus Time poles based on several criteria including Priority Investment Areas and bus stop ridership, while co-locating poles with benches.

OMNY Program

MTA continued to roll out its OMNY contactless fare payment system in 2022 and began allowing reduced fare customers to pay for transit trips via a smart device or contactless card. With the installation of OMNY, we continue to encourage MTA to expand all-door boarding beyond SBS routes, the only service where it is currently permitted. All-door boarding allows passengers to enter the bus and pay the fare through any door, significantly speeding up service and improving reliability.
In September 2022, NYC DOT, working closely with the MTA, implemented offset bus lanes and pedestrian safety measures on 21st Street in Astoria, Queens. This followed a yearlong community planning process, where we heard from stakeholders that speeding and aggressive driving on 21st Street imperiled pedestrian safety and that bus service along the corridor was slow and unreliable.

The 3.4-mile (in both directions) corridor between Queens Plaza North and Hoyt Avenue South primarily serves three lines: the Q66, Q69, and Q100. Combined ridership is nearly 30,000 and many people living in western Astoria—a high-density corridor lacking a subway—rely on the 21st Street corridor to reach their destinations. Prior to the introduction of bus lanes, buses were often slowed down by congestion and double parking.

Other enhancements made along 21st Street include Neighborhood Loading Zones to reduce double parking, sidewalk tree plantings, and six additional left turn lanes. To improve bus stop conditions and enhance bus operations, NYC DOT also installed modular “bus boarders” to bus stops and worked with MTA and community stakeholders to optimize bus stop spacing. Importantly, the project also includes six pedestrian islands at major crossings to address safety concerns.
Cycling is a healthy, affordable, clean way to get around the city, and ridership has grown dramatically as the city has built out a network of bike lanes and expanded bike share. On a given day, an estimated 550,000 bicycle trips are taken in New York City—more than double the amount taken a decade ago. The COVID-19 pandemic has merely accelerated these growth trends. See the Bike Share and Micromobility section for recommendations related to bike share and other micromobility.

Progress on Recommendations

Protected Bike Lane Network

In 2022, NYC reached the milestone of 1,500 miles of bicycle lanes—by far the largest urban bicycle network in the United States. NYC DOT continues to expand the protected bike lane network throughout the five boroughs. In 2022, we closed crucial gaps in the network including Bronxdale Avenue in the Eastern Bronx, a Streets Plan tier-one Priority Investment Area that is located entirely within the shared e-scooter pilot area. We also completed a protected bike lane on White Plains Road, for the first time installing an in-house protected bike lane under an elevated subway structure as part of our efforts to continue to pilot new designs. There are now nearly 650 miles of protected bike lanes in the city.

Neighborhood Cycling Networks

We installed 5.4 miles of standard and shared bike lanes as part of the Fordham Area Bike Network Phase I. Initially presented to support the expansion of Citi Bike, we will continue to roll out additional lanes in 2023 as part of the Phase II implementation plan. Additional neighborhood network implementation is planned for the Soundview area. In both Fordham and Soundview, we plan to install over 30 miles of conventional bike lanes over the next few years. Further planning for neighborhood cycling networks is underway with a focus on Bicycle Priority Districts.
Maps serve as a vision for potential projects and improvements to be implemented during the five year plan. All geographies are approximate; projects will be developed through detailed design and community feedback.
Bike Boulevard Program

Over the last two years, NYC DOT has planned and implemented several successful Bike Boulevards, including Jackson Avenue in the Bronx, 39th Avenue in Queens, and 21st Street in Brooklyn. Using in-house resources, we will leverage existing Open Streets such as 34th Avenue in Queens to advance innovative Bike Boulevards designs that prioritize the movement and safety of pedestrians and cyclists.

Blocked Bike Lane Enforcement

In August 2022, we conducted a month-long demonstration of bike lane enforcement technology. The demo was a success and proved that the technology works to capture illegally parked vehicles in bike lanes, as long as the view is unobstructed. The current technology cannot identify license plates on vehicles in protected bike lanes. The city, in conjunction with our state partners, will need to pursue state legislation authorizing monetary fines for bike lane violations. NYC DOT will draft and issue an RFP for the overall program based on what we learned from the demo once legislation is approved.

Better Bike Lane Protection

In 2022, we announced the Better Barriers pilot program to test new materials for protected bike lanes across the city. NYC DOT is currently testing new hardened rubber, plastic, and concrete barrier types along key corridors. The pilot is part of our commitment to harden the city’s protected bike lane network, and if effective, these barriers will expand protection for cyclists with materials that can be more easily installed throughout the five boroughs. In 2023, we plan to identify the best materials and select the next round of protected bike lanes for hardening.
BICYCLE NETWORK ACCESS

Population per Neighborhood Tabulation Area

- < 30,000
- 30,000 - 39,999
- 40,000 - 54,999
- 55,000 - 69,999
- 70,000 - 84,999
- > 85,000

99% of residents live within 1 mile of the bicycle network

However, only 40% of residents live within 0.25 mile of a protected bike lane

Sources: NYC DOT, 2017-2021 American Community Survey
**Bicycle Wayfinding**

NYC DOT has completed design on new bicycle wayfinding signage and will submit to the NYC Public Design Commission for their review. We expect to install the first bicycle wayfinding signs on the Jamaica Bay Greenway in 2024.

**Secure Bike Parking**

We continue to explore options for secure on-demand bike parking at transit hubs, major destinations, and residential areas to improve first/last mile connections to transit, meet the needs of delivery cyclists, and enable bike ownership for New Yorkers lacking access to secure bike storage. The demonstration of the Oonee protected curbside bike parking corral in five locations was a key step toward the larger effort to expand secure bike parking citywide.
Schools

NYC DOT continues to prioritize installing bicycle lanes, in particular protected bicycle lanes, to benefit all road users. We installed over 25 miles of protected bike lanes in 2022, including projects that connected directly to school sites. In addition, we worked with school communities to plan new lanes. Examples included 167th Street in the Bronx connecting to PS 150 and Metropolitan High School; 149th Street in Queens near JHS 185 and PS 21; and Amsterdam Avenue in Washington Heights, helping students access five schools in the GW Educational Campus, as well as PS 138 and PS 189.

Under the El

In 2021, NYC DOT started work on the first in-house protected bike lane under an elevated train on White Plains Road in the Bronx, a Vision Zero Priority Corridor. In addition to providing important bike connections in the East Bronx bike network, the project also provided safety and mobility improvements for all users with the inclusion of new bus boarding islands, signalized crossings, and additional painted pedestrian space. Using this project as a template, planning efforts are ongoing to bring similar treatments to other elevated train corridors throughout the city.

Project Spotlight

E 233rd Street, Webster Avenue, Bronx Boulevard, Bronx River Greenway Connector, Bronx

NYC DOT completed the redesign of E 233rd Street, Webster Avenue, and Bronx Boulevard in the northern Bronx, bringing major safety improvements and closing a critical gap in the Bronx River Greenway between Muskrat Cove and Shoelace Park. The project enhances safety and access to those traveling on foot to and from the Metro-North Woodlawn Station.

This complete street redesign includes a two-way protected path on Webster Avenue and E 233rd Street that connects cyclists to the off-street shared use path on Bronx Boulevard. Pedestrian safety improvements include eliminating double left turns on Bronx Boulevard to add a new crosswalk, leading pedestrian intervals, and painted pedestrian spaces. New bus boarding islands improve bus operations and allow for faster pick-up and drop-off. Left turn lanes reduce delay for through vehicles, and standard width travel lanes reduce the occurrence of speeding along the corridor.
Transformative Ideas

Greenways and High-Capacity Protected Bike Lanes

NYC was awarded a $7.25 million USDOT RAISE grant to plan for a major expansion of the greenway network across the five boroughs, with a focus on historically underserved, lower-income communities that lack access to affordable transportation and job opportunities. The funding will be used to develop a comprehensive vision plan to fill critical gaps in the greenway network, enhance cyclist and pedestrian safety with improved infrastructure, and enhance quality of life with green transportation options and greater waterfront access.

Additionally, given dramatic growth in the number of cyclists and micromobility users, we have begun planning for the next generation of high-capacity bike lanes. As part of the USDOT grant, we will collect bike counts and deploy surveys to build a model to predict the impact of new greenways and on-street bike and micromobility facilities. The model will help us forecast the impact of infrastructure improvements and prioritization of greenways and high-capacity bike lanes.

New Cycling Connections

We continue to plan and implement projects to fill important gaps in the bike network to provide safe, continuous routes. For example, protected bike lanes are planned for the Washington Bridge over the Harlem River and on the Addabbo Bridge across Jamaica Bay. Protected bike lanes are also planned on 11th Street in Queens and McGuinness Boulevard in Brooklyn to provide connections to the Pulaski Bridge bike path, and improved routes are planned to the Bayonne Bridge and Goethals Bridge on Staten Island. We also remain committed to separating the bike and pedestrian paths on the Queensborough Bridge and will do so when the current major reconstruction work is complete.
In November 2022, NYC DOT completed a 1.4 mile (2.8 lane miles) two-way protected bike path on Emmons Avenue between Shore Boulevard and Brigham Street in Sheepshead Bay, Brooklyn. The project is in a Priority Bicycle District—neighborhoods that have high numbers of cyclists killed or severely injured, high ridership, and a low density of network coverage. Emmons Avenue was a high crash corridor with speeding, long pedestrian crossings, and no bicycle facilities. The new design improves safety for all road users while providing comfortable space for cyclists of all ages and abilities.

This street improvement project added a parking protected two-way bicycle lane along the south sidewalk, standard width travel lanes, parallel parking converted from angled parking, bus stop improvements, and various pedestrian safety improvements. The new two-way bicycle path creates a critical connection to the Jamaica Bay Greenway—an 11-mile recreational path that connects cyclists and joggers to 10,000 acres of public parkland and beaches, and used by 100,000 people each year.
In just a decade, bike share has gone from a niche mode to a mainstream transportation choice in most major American cities. New York City’s bike share program, Citi Bike, is operated as a public-private partnership between NYC DOT and Lyft. Since its launch in 2013, Citi Bike has grown to become one of the world’s largest bike share systems with 1,693 active stations and 26,100 bikes at the end of December 2022. In addition, the e-scooter pilot in areas of the Bronx not served by Citi Bike has proven to be a success, and it was extended into the summer of 2023 with the goal of expanding shared micromobility options for more New York City residents and communities.

Progress on Recommendations

Citi Bike System Expansion

There have been more than 165 million Citi Bike trips to date, and Citi Bike and NYC DOT have completed more than half of the ongoing Phase 3 Expansion, which when finished will expand the system to cover nearly 70 square miles. More than half of the city’s population will live within the Citi Bike service area.

Optimizing Space

NYC DOT and Citi Bike piloted new consolidated bike share station equipment that can increase station capacity by up to 50% without extending the station footprint. This equipment helps meet increased rider demand as competition grows for curb space in the city’s densest areas. In 2022, NYC DOT and Citi Bike installed over 100 densified stations, allowing up to 6,500 bikes in spaces that previously accommodated 4,400 bikes.
6,500 bikes in spaces that previously accommodated 4,400 curb space in the city's densest areas. In 2022, NYC DOT and Citi Bike piloted new consolidated bike share station equipment that can increase station capacity by up to 50% without extending the station footprint. This equipment expands the Citi Bike service area to cover nearly 70 square miles. More than half of the city's population will live within the Citi Bike service area.

There have been more than 165 million Citi Bike trips to date, with a daily ridership of 100,000 users.

### Citi Bike System Expansion

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<thead>
<tr>
<th>Plan</th>
<th>Priority Investment Area Tier 1</th>
<th>Priority Investment Area Tier 2</th>
<th>Priority Investment Area Tier 3</th>
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<tr>
<td>SHARED MICROMOBILITY COVERAGE</td>
<td>Bronx Shared E-scooter Pilot Zone</td>
<td>Citi Bike Expansion</td>
<td>Citi Bike Service Area</td>
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**Sources:** NYC DOT

**NYC Streets Plan**
**E-mobility**

In 2022, we continued the two-year e-scooter pilot in the East Bronx. In November 2022, we released a one-year evaluation report and announced a new procurement for continued micromobility share services in the East Bronx. The pilot saw over 1 million rides in the first year, taken by over 86,000 rider accounts, with few serious injuries and no reported fatalities.
In August 2021, NYC DOT launched the successful East Bronx Shared E-Scooter Pilot in several neighborhoods in the East Bronx with participation from three companies. The second phase, added in June 2022, expanded coverage in communities from Wakefield and Pelham Parkway to Soundview. During the pilot, Bird, Lime, and Veo provided 6,000 shared e-scooters. The current pilot program will continue at least through the summer of 2023.

In November 2022, we released an evaluation of the first year of the pilot and a new RFP demonstrating the intent to continue offering shared micromobility for more New York City residents and communities. The one-year evaluation of the pilot demonstrated that the program provided functional and accessible mobility options to historically underserved communities, easing dependence on motor vehicles by offering an environmentally friendly mobility option. The pilot, initiated by Local Law 74 of 2020, was designed to test viability of e-scooters specifically in neighborhoods not served by Citi Bike.
NYC DOT maintains and manages a large portion of New York City’s public space, as streets make up 27% of the city’s total land area. We are committed to making our streets inviting places for people of all ages and abilities in support of safety, economic, equity, cultural, and other goals by improving the public realm experience. As demand for pedestrian space increases, NYC DOT is responding by expanding car-free or “car-light” streets that prioritize pedestrians at the block, corridor, or district-wide scale. Our efforts include enhancing the quality of the streetscape for all New Yorkers, with features like public seating, landscaping and green infrastructure, public art, and high-quality paving and lighting.

Additionally, the “New” New York Panel was launched in May 2022 by Governor Hochul and Mayor Adams to examine the future of New York City and the region’s economy. Over six months, the Panel created a set of 40 proposals, including ways to reimagine the city’s business districts as vibrant, 24/7 destinations anchored by spectacular public spaces where more people want to be—workers and companies, residents, locals, and tourists alike. NYC DOT helped to develop the slate of public space proposals in the December 2022 Making New York Work for Everyone Action Plan. In the Mayor’s 2023 State of the City, he announced a $375 million investment to create extraordinary new public spaces in business districts throughout the city and permanent Open Streets in all five boroughs.

Progress on Recommendations

Open Streets

In 2022 there were more than 200 Open Streets across all five boroughs. NYC DOT worked with numerous partners to implement Open Streets, including community-based organizations (formal and informal), schools, business improvement districts, and other types of civic and merchant groups. As a result of our more than $7 million investment in Open Streets, we have also been able to significantly expand our work in the Public Space Equity Program, which provides operational, sanitation, and horticultural support to the program’s highest need partners in Priority Investment Areas and Public Space Priority areas. The Public Space Equity Program has greatly improved the equity of Open Streets by enabling underserved areas to have better access to the program. Additionally, we expanded Open Streets with further programming and events such as “Trick or Streets,” Holiday Open Streets, and the extension of the popular Summer Streets event with two new miles connecting to East Harlem.
Open Restaurants

In partnership with the NYC City Council, NYC DOT continued in 2022 to work with the city to develop the permanent Open Restaurants program. This program will allow restaurants to use the sidewalk and curbside roadway space in front of their businesses for outdoor dining. The vision for the permanent program includes flexible, moveable outdoor dining setups.

Plaza Program

NYC DOT continued expanding the NYC Plaza Program in 2022. Highlights included new plazas on Gates Avenue in Brooklyn and 46th Avenue in Queens, and the completion of an $8.8 million capital project to expand and enhance the Morrison Avenue Plaza in the Bronx. To enable high-quality public spaces in under-resourced neighborhoods, the OneNYC Plaza Equity Program provided horticultural care, maintenance services, financial subsidies, and technical assistance tools to plaza partner organizations.

Pedestrianization

NYC DOT continued the development of the new Pedestrian Priority Districts initiative to enhance safety, mobility, and livability in commercial, civic, and residential districts. Pedestrian Priority Districts will improve the street-level pedestrian experience while supporting the bicycle and transit network and enhancing critical access for emergency response, freight, and waste operations. Further planning efforts will continue in 2023.
Public Art

NYC DOT Art permitted installation of 36 temporary site-specific public art installations citywide. Examples of DOT-funded artwork commissions include painted jersey barrier murals implemented by New York-based artists on three new protected bike lanes and installation of four new large-scale asphalt art murals on pedestrianized streets outside of schools in Queens and the Bronx. In addition to a diverse range of artists, the program partnered with 11 business improvement districts, four schools, and seven unique arts/community-based organizations to exhibit sculptures, projections, murals, and other art interventions on NYC DOT property. In 2023, we will continue to release funded opportunities for community-based organizations and artists to commission new artwork and will offer support to artists in the permitting process.

Project Spotlight
34th Ave Open Street

NYC DOT worked closely with community stakeholders this year to implement a 1.3-mile transformation of 34th Avenue in Queens into a pedestrian and cyclist priority corridor that enhances safety and accessibility and creates new vibrant public spaces centered at schools along the avenue. This followed a successful community-led Open Street effort over the course of the pandemic and a robust community engagement process.

The 34th Avenue Open Street runs through the dense residential neighborhood of Jackson Heights between 69th Street and Junction Boulevard, where there are seven schools within a block of the corridor. Within the first year of the Open Street, crashes with injuries decreased by about 10% and crashes involving pedestrians decreased by just over 41%. The project features eight pedestrian plaza blocks and seven shared street blocks located at the schools to create space for programming, pick-up and drop-off, and encourage slow vehicular speeds. The additional public spaces also support the local Greenmarket and connect to Travers Park. The rest of the corridor features diverters that establish limited local access for vehicles, shorten pedestrian crossings, enhance visibility, and calm traffic at each intersection. In addition, the corridor includes Neighborhood Loading Zones to support ample space for local deliveries.
In partnership with the non-profit organization StreetLab, NYC DOT was able to pilot new Open Streets locations in Priority Investment Areas and Public Space Priority Areas in 2022. Using the Streets Plan as a guiding document, StreetLab identified community partners and locations across the city that could foster an Open Street. These locations received operational support, technical assistance, and programming from StreetLab, with the goal that these community partners would acquire the necessary skills to successfully operate an Open Street and ultimately apply to manage their own locations in the future. In 2022, StreetLab was able to pilot 12 sites in the Bronx, Brooklyn, and Queens:

- Beaumont Avenue, Bronx
- E 141 Street, Bronx
- E 148 Street, Bronx
- E 196 Street, Bronx
- Beverley Road, Brooklyn
- Blake Avenue, Brooklyn
- Bristol Street, Brooklyn
- Howard Avenue, Brooklyn
- Livonia Avenue, Brooklyn
- Osborn Street, Brooklyn
- Tapscott Street, Brooklyn
- Barton Avenue, Queens
PUBLIC SPACE ACCESS

Population per NTA

- Less than 30,000
- 30,000 - 39,999
- 40,000 - 49,999
- 50,000 - 59,999
- 60,000 - 69,999
- 70,000 - 84,999
- 85,000 or more

82% of residents live within 0.25 mile of a park, DOT plaza, or Open Street.

Sources: NYC DOT, NYC Parks, NYS, National Park Service
NYC DOT implements programs to help make New York City’s streets more accessible, including for people with low vision, hearing or cognitive disabilities, or limited mobility. This includes the installation of pedestrian ramps and Accessible Pedestrian Signals, and coordination with MTA on the siting of new subway station elevators and escalators. Accessibility is both a legal imperative and a reflection of NYC DOT’s commitment to equity, dovetailing with the concept of “universal design,” in which the environment is designed to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design.

Progress on Recommendations

Pedestrian Ramps

NYC DOT continued to perform pedestrian ramp work in various ways in 2022: during the resurfacing of city streets; when a complaint was received through 311 or other correspondence; when implementing Street Improvement Projects and capital projects; and when addressing sidewalk defects. Pedestrian ramps have been installed at over 2,300 corners and upgraded at almost 33,000 corners since July 2017.

Accessible Pedestrian Signals

We installed Accessible Pedestrian Signals (APS) at 494 intersections citywide in 2022. In 2023, we will be increasing the number of contracts to install APS units citywide to meet our goal of installing APS at 500 intersections in 2023, with increased goals for future years. Overall, we expect that over the five years of the Streets Plan, we will exceed the average annual target of 500 intersections per year.
Progress on Recommendations

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Mobility Management Program
The Mobility Management Program (MMP) coordinates and improves transportation opportunities for people with disabilities, older adults, individuals with limited English proficiency, and low-income populations. In 2022, the MMP team attended community events and met with community-based organizations to promote the Mobility Management Resource Guide. They also connected with organizations that serve mobility management-related populations. The team held trainings on creating accessible documents and conducting inclusive engagement across planning divisions at NYC DOT. Part of these trainings included new resources on engaging limited English proficient populations and making outreach more equitable and comprehensive.

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<td>494 Accessible Pedestrian Signals (APS) installed</td>
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<tr>
<td>Accessible Pedestrian Signals help New Yorkers who are blind or have low vision navigate the city.</td>
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<tr>
<td>27 bus stops made physically accessible</td>
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<td>5,983 pedestrian ramp corners installed or upgraded</td>
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The movement of goods—the products and materials that sustain our lives, businesses, and homes—is essential to the city’s economy and our quality of life. NYC DOT recognizes the importance of freight, particularly with the outsized role of truck movement on the city’s streets due to limited use of rail and waterborne capacity. The City is committed to bold action to make our freight system more sustainable and efficient.

Progress on Recommendations

Truck Safety

NYC DOT has made improvements on over 70% of the Truck Safety Priority Corridors identified in Delivering New York: A Smart Truck Management Plan. In 2022, we targeted street improvements and conflict-reducing designs along 12 corridors, surpassing our commitment to install safety treatments on 10 corridors annually.

To complement these street improvements, we are promoting truck safety education more broadly. This year, we launched a recurring Truck Smart campaign to promote the safe operation of trucks within the city, leveraging social media channels, billboards, PSA videos, and radio communications, reaching over 1.5 million impressions. NYC DOT also launched the Truck Smart Guide, a new booklet of safety tips and resources for truck drivers. To date, 13,500 booklets have been shared with city fleets and the public, including translated books requested by limited English proficient communities.

Neighborhood Loading Zones

We are continuing to expand the NLZ program to accommodate the growing market share of residential e-commerce deliveries. As of December 2022, we have installed 240 zones, 42% (101) of which were installed in 2022. In coordination with the Loading Zone Expansion Bill (Local Law 168 of 2021), we will continue expanding NLZs in priority areas to help reduce double parking, particularly on narrow streets with bike lanes and bus routes.
Completed Projects
- Prospect Park West and 19th St.
- 20th St.

Potential Upcoming Projects

**Bronx**
- Hunts Point Ave.
- Webster Ave.

**Brooklyn**
- Hamilton Ave. and 2nd Ave.
- Rochester Ave.
- Avenue X

**Queens**
- Maspeth Ave.
- Hempstead Ave., Jamaica Ave. to 225th St.
- Hillside Ave.

Maps serve as a vision for proposed projects and improvements to be implemented during the five year plan. All geographies are approximate; projects will be developed through detailed design and community feedback.

Sources: NYC DOT

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29 diesel trucks replaced under the Clean Trucks program
Diesel trucks are replaced with electric vehicles or those using cleaner fuels such as battery electric and compressed natural gas trucks.

42 fatal traffic crashes involving trucks

1,114 locations in the Off-Hour Deliveries program
Truck deliveries are shifted from peak period to off hours (7 p.m. to 6 a.m.).

Off-Hour Deliveries
NYC DOT is continuing to expand the Off-Hour Deliveries (OHD) program into the most congested parts of the city. To help further this expansion, we secured $6 million in Congestion Mitigation and Air Quality Improvement Program (CMAQ) funding to support the implementation of an OHD Incentive Program, expected to launch in summer 2023. We released a competitive solicitation and are in the process of onboarding the third-party consultant team. Incentives are anticipated to aid with noise-mitigation technology, staffing, and other security technologies to help facilitate the adoption of OHD.

Prioritize Freight and Transit
We expect to gain insight into how transit networks can align with freight movement as part of our ongoing freight decarbonization research efforts.

Expand Commercial Access
Per the requirements of Local Law 168 of 2021, NYC DOT identified locations to install new loading zones to expand commercial access while enhancing safety and reducing traffic congestion. NYC DOT is required to install at least five loading zones annually in each priority Neighborhood Tabulation Area, provided that no fewer than 500 new loading zones are installed citywide annually in 2022, 2023, and 2024. The expansion of commercial access via loading zones includes NLZs, Truck Loading Only Zones, and Commercial Metered Parking. We installed roughly 1,800 loading zones in 2022.
**Commercial Cargo Bike Program**

We are continuing to grow and expand the commercial cargo bike pilot program in the densest parts of the city. In 2022, we installed four new commercial cargo bike corrals and are incorporating cargo bike expansion support in other new programs such as the coming Micro-Distribution Center pilot.

**Green Loading Zones Pilot Program**

We are incorporating themes from the Green Loading Zone pilot program into both the Micro-Distribution Center request for expressions of interest (RFEI) and the *Smart Truck Electrification and Freight Decarbonization Feasibility Study*, which are described below.

**NYC Clean Trucks**

The NYC Clean Trucks Program (NYCCTP) opened enrollment in June 2020 and began accepting truck replacement rebate applications from eligible businesses located in, or providing service to, industrial business zones citywide. The COVID-19 pandemic notwithstanding, since launching, the NYCCTP has received 66 applications for a total of 136 trucks. As of December 2022, 64 truck replacements have been funded and are currently on-road and in-use, with another 21 vehicles in the pipeline. Most notably, the NYCCTP is on track to spend approximately $2 million on fully electric trucks by the end of fiscal year 2023.

**Truck Electrification**

NYC DOT, in partnership with the NYC Economic Development Corporation (NYCEDC), embarked on a joint *Smart Truck Electrification and Freight Decarbonization Feasibility Study* in 2022 to explore barriers to truck electrification and develop a citywide strategy to address these challenges. We are undertaking an analysis to identify and install fast truck charging stations along key truck routes and facilities. As part of this extensive research program, we began engagement with several key industry and partner agency stakeholders and will complete this effort in early 2023.

**Shift Freight to Rail and Water**

NYCEDC, Port Authority of New York and New Jersey, and NYC DOT are transforming how freight enters the city by investing in maritime and rail solutions. NYCEDC was recently awarded over $5 million in federal funding to improve water freight service and bolster our marine highway. This builds off NYCEDC and NYC DOT’s joint effort to develop Blue Highways, a multimodal freight network that will operationalize our waterways for last mile delivery. As a next step, the city will release a RFEI to better understand industry challenges and opportunities, including ways to activate city-owned marine facilities identified through our *Freight Decarbonization Feasibility Study*. 
The growth of e-commerce deliveries on residential streets (further accelerated due to COVID-19) and for-hire vehicle trips throughout the city have changed the way New Yorker’s use our curbs. As residents continue to have an increasing need for deliveries, loading zones can help mitigate the increased congestion and safety conflicts caused by delivery vehicles in residential neighborhoods.

Launched in 2019, NYC DOT’s Neighborhood Loading Zone (NLZ) program enhances safety and reduces double parking on narrow residential streets by providing space at the curb for package deliveries, taxi and car service pick-up and drop-off, and active loading and unloading of personal vehicles.

NLZs are designated by a No Parking regulation, typically from 7 a.m. to 7 p.m. Monday through Friday, in addition to signage at pedestrian height that describes the purpose of the space in more detail.

A time-lapse study conducted in 2019 showed up to a 70% reduction in double parking after installation of NLZs, helping to reduce conflicts in the roadway and improve safety for all road users. In 2022, 160 NLZs were installed citywide.
**Freight Micro-Consolidation/Distribution Hubs**

NYC DOT released a Micro-Distribution Center RFEI in July 2022 (per Local Law 166 of 2021) to understand the challenges and opportunities associated with facilitating and operating spaces to unload, sort, and distribute goods for last mile delivery via sustainable modes. We are interested in both on-street and off-street opportunities. Feedback from the RFEI is informing recommendations for a pilot program to support micro-distribution activity, set to launch in summer 2023.

**Truck Route Network Redesign**

NYC DOT continues to work on improving our truck route network. The existing truck route network, established in the 1970s, has seen only minor revisions in the years since and is in the process of being redesigned to enhance safety, improve compliance, and reduce traffic congestion. We released the 2022 Truck Route Map, with updated routing, safety, and regulatory information. Both PDF and paper copies of the 2022 map are accessible through our website. To date, we have distributed over 12,800 paper copies of the 2022 Truck Route Map. We continue to study potential larger updates to the truck route network.

**Enforcement Technology**

On December 22, 2021, New York State passed legislation authorizing the City to establish a demonstration program for enforcing vehicle weight restriction violations on the Brooklyn Queens Expressway between Atlantic Avenue and Sands Street in Brooklyn. The Department has since installed sensors that measure vehicle weight in one direction and will be installing sensors in the other direction shortly.

**Bridge Strike Mitigation**

NYC DOT is addressing the impacts of bridge strikes to our city’s low clearance infrastructure by seeking the best engineering and outreach measures to reduce the number of strikes each year. We piloted an over-height detection system along the Belt Parkway near the 17th Avenue pedestrian overpass and are currently collecting data to evaluate the system’s success.
Urban Freight Data Collection Program

NYC DOT is gathering data on truck origin-destination patterns and the types of trucks traveling to, from, and within NYC. Trips to and from industrial business zones (IBZs) are of particular interest as many IBZs are within or adjacent to environmental justice communities and are undergoing major land use transitions beyond traditional manufacturing and industrial uses. As a result, there are a growing number of conflicts points between heavy vehicles and pedestrians and cyclists. Detailed classification data will help guide freight-related planning decisions (i.e., potential changes in truck route designations, future street improvement projects, targeted enforcement, and deployment of technologies). In 2023, we will build upon these efforts to establish a continuous freight data collection plan. This effort will help us gain better insight into local freight activity and develop a comprehensive freight database.
The curbside is where many of New York City’s daily activities take place: space for parking, loading, bike lanes, bus lanes, outdoor dining, bike parking, bike share docks, food trucks, electric vehicle charging, carshare, and more. Curbside space is valuable and is increasingly recognized as a complex space with many competing demands (and opportunities) that must be planned and managed in a holistic way. More dynamic and data-driven approaches are becoming available to flexibly manage curbside space in real-time, and NYC DOT is approaching curbside management in a more comprehensive manner—working to best utilize this valuable space to accommodate the wide variety of needs of residents, businesses, and visitors. This includes prioritizing sidewalk space adjacent to curbs, which must balance a variety of needs including wayfinding, public seating, electric vehicle charging, and more. NYC DOT plans to release a more comprehensive curb management strategy later in 2023.
Progress on Recommendations

Modernize Parking Regulations

NYC DOT continued working to match parking regulations to demand in 2022. For example, in May, we completed an expansion of commercial parking in Manhattan on Third Avenue between 61st and 95th Streets. Third Avenue is a dense corridor with extensive commercial access needs that had few commercial regulations, resulting in double parking, blocked traffic, and worsened congestion. NYC DOT added commercial metered parking to 30 block faces in areas previously regulated for 2-hour unpaid parking. The project also included the addition of 13 truck loading zones. We are currently conducting data reviews to evaluate the success of the project.

Expand Curb Management Strategies

We have been working to create more dedicated space for short-term parking and loading, prioritization of electric vehicles and carshare, and space for bicycle parking and Citi Bike. Major comprehensive efforts in 2022 included projects in Gowanus, Brooklyn and First Avenue, Manhattan. In Gowanus, on Third Avenue between 32nd and 43rd Streets, we responded to a high demand for short-term parking by adding 60 2-hour metered spaces, which also helped free up space in an off-street parking lot for longer duration parking. On First Avenue, a project to relocate the existing bus lane from the curb to an interior travel lane provided an opportunity to add new curb parking. A combination of commercial metered parking and passenger vehicle parking was added, and data is currently being analyzed to understand the impact on crashes, double parking, and congestion. We also established a new “Loading Only” regulation that will allow the expansion of 15-minute loading zones for deliveries, for-hire vehicle pick-ups and drop offs, and other short-term vehicular curb uses.
Expand Paid On-Street Parking

In June 2022, NYC DOT completed an expansion of metered parking on Crescent Street in Queens Plaza South. Significant residential development in the area and a new exit from the Queensboro Bridge contributed to congestion and double-parking concerns. In response, five previously unregulated block faces were converted to metered parking to discourage occupying the curb for longer than necessary and help reduce double parking. Additionally, to make it easier to pay for metered parking, in 2022 we launched a new mobile payment app that provides enhanced ease of use and new payment options.

Align On- and Off-Street Parking Rates

We are continuing to explore opportunities for metered parking rate changes to better align on- and off-street parking rates.

Transformative Ideas

Prioritize Parking Efficiency

In 2022, NYC DOT completed Phase 1 of the Hudson Yards Commercial Expansion near West 30th to 33rd Streets and 10th to 11th Avenues in Manhattan. The area surrounding the Vessel and the Shops & Restaurants at Hudson Yards has experienced significant increases in daily visitors, new commercial land uses, and evening activity. Thirty-five metered commercial parking spaces were added to help better manage this demand, and future phases of the project will address additional areas in Hudson Yards.
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Traffic congestion has a variety of undesirable outcomes including wasted time for drivers of motor vehicles (including buses) and their passengers and increased vehicle emissions. It also leads to additional driving as drivers seek alternate routes to avoid congestion, unsafe behavior by frustrated drivers seeking to escape congested roadways, and noise from honking. NYC DOT works to alleviate congestion by disincentivizing single-occupancy vehicle trips, making other travel choices more attractive and competitive, and helping traffic move more efficiently and reducing the impact of traffic incidents.

Progress on Recommendations

Central Business District Tolling Program (CBTP)

In August 2022, the MTA, New York State Department of Transportation, NYC DOT, and the Federal Highway Administration released a Draft Environmental Assessment (EA) of the proposed CBDTP (also known as congestion pricing), which evaluates the effects of the program. The release was followed by a public comment period and public hearings. NYC DOT continues to support the MTA’s implementation of the CBDTP, including adjustments to our streets to take advantage of a reduction in motor vehicle traffic and support mode shift.

Enhanced TDM Efforts

Go Smart NYC, NYC DOT’s federally funded program to provide information and support to residents interested in walking, cycling, carpooling, and taking transit, will support the expansion of NYC DOT’s Bike the Block program. Bike the Block is a series of open street events focused on bicycle programming and education in priority investment areas featuring tips for safe riding, bike law education, group rides, free bike repairs, and cultural programming. Go Smart NYC is supporting the program efforts to encourage sustainable mobility across the five boroughs.
**Access Management**

NYC DOT introduced access management guidance in a new section to the Transportation chapter of the December 2021 City Environmental Quality Review (CEQR) Technical Manual. This new section offers NYC agencies, consultants, and other affected stakeholders design guidance early in the site development process to help shape site planning outcomes that preserve and enhance safety and operations for all street users. We have also been collaborating with a range of NYC agencies—including the Department of Buildings (DOB), Department of City Planning, Board of Standards and Appeals, School Construction Authority, and Department of Parks and Recreation—as well as with property owners/developers and their architecture/engineering consultant partners on a project-by-project basis to achieve site design outcomes consistent with access management principles. Furthermore, as part of Mayor Adams’ commitment to intersection safety under Vision Zero, we have been collaborating with DOB to formulate and implement access-related design solutions for targeted properties near schools that generate high traffic volumes and raise pedestrian safety concerns for children and other vulnerable street users.

**Enhanced Transportation System Management (TSM) Efforts**

NYC DOT continued to incorporate elements of Transportation System Management in projects, adjusting signal timing, parking regulations, and travel lane configurations to improve bottleneck locations and improve the safety and efficiency of roadways.
The City is working to sustainably reduce emissions and achieve carbon neutrality by 2050 and make sure that our neighborhoods, economy, and public services are more resilient and adaptable to the impacts of climate change. In the transportation sector, this requires both significant mode shift away from single-occupancy vehicle trips (in a city that already has the highest trip share for sustainable transportation modes in the country) and greener automobiles, primarily through electrification. The City must simultaneously protect communities and infrastructure from the effects of climate change. Improving the environmental health of the city and region is vitally important, and NYC DOT continues to work to achieve cleaner water and cleaner air, reduce the urban heat island effect, and increase our use of recycled materials.

Progress on Recommendations:

**Electrifying New York Vision Plan**

In 2022, NYC DOT advanced two major electric vehicle (EV) charging initiatives in support of the Electrifying New York Vision Plan. First, we entered into a contract for the installation of EV fast charging stations at two of our publicly accessible municipal parking lots in the Bronx and Brooklyn. Additionally, we kicked off an effort to install Level 2 chargers at 20% of spaces in our municipal facilities —the first 150+ chargers will be installed across 12 municipal parking lots in the Bronx, Brooklyn, Queens, and Staten Island. Building on this momentum, in 2023 the agency will begin a planning study to expand curbside charging beyond the city’s existing 100 chargers and continue installing additional fast charging stations and Level 2 chargers at our municipal facilities.

**Recycled Pavement**

We are on track to meet our goal of increasing recycled content in asphalt to 50% by 2025. Additionally, we continue to explore low-carbon concrete mixes and use of our recycled concrete aggregate. We are working very closely with the Mayor’s Office of Climate and Environmental Justice on Clean Construction Executive Order 23, which requires the city’s capital project agencies to commit to actions that will lower carbon emissions from construction projects.
**Connected Street Light Program**

After testing commercially available connected street lighting products in 2019, we began testing technology developed in-house this year. If testing is successful, we hope to secure funding to implement remote monitoring in the future to streamline maintenance and respond to problems faster.

**Cool Corridors/Heat Resiliency**

NYC DOT has been awarded a $430,500 grant from the Federal Emergency Management Agency (FEMA) under the Building Resilient Infrastructure and Communities (BRIC) program for a study entitled Cool Corridors. This was a nationwide competition, and Cool Corridors is one of the first projects related to heat mitigation ever selected by FEMA. The goal of the project is to develop a toolkit of interventions and best practices that are suited to mitigate the effects of heat on urban streets and sidewalks; apply this toolkit conceptually to a number of typical neighborhood situations; and explore analytical tools and performance metrics to properly assess potential interventions, including benefit-cost methodology, putting NYC DOT in a position to pursue additional BRIC and other funding for follow-up capital projects. A consultant has been selected and work is expected to commence in 2023.

**Resilient Capital Planning and Design**

NYC DOT has begun screening most new street reconstruction projects for the risk types identified in the city’s Climate Resiliency Design Guidelines. Additionally, we are actively participating in the Local Law 41 (2021) pilot program that will apply the Climate Resiliency Design Guidelines to real-world capital projects. NYC DOT has selected four projects for inclusion in this program: Court Square Pedestrian Improvements (Long Island City, Queens), Harper Street Administration Building (Willetts Point, Queens), Reconstruction of Shore Road Bridge (Pelham Bay Park, Bronx), and Mid-Island Bluebelt (Grant City, Staten Island).
Flash Flooding

In 2022, we added stormwater management practices to several capital projects that are now in the design and construction phases. The practices will retain water during major storm events, which will prevent flash flooding and improve water quality. In 2021, a Cloudburst Program interagency task force was formed to address heavy rain and flash flooding. NYC DOT worked with the NYC Department of Environmental Protection (NYC DEP) and the Mayor’s Office of Climate and Environmental Justice throughout 2022 to determine where and how to implement large scale interagency projects in the areas most physically and socially vulnerable to flooding. Four pilot locations were announced at the end of 2022 and will utilize $110 million in allocated funding from the Stormwater Resiliency Plan. The City is also making progress on major drainage system improvements in southeast Queens. NYC DEP and NYC DOT recently completed upgrades on Foch Boulevard in Queens, which included roadway safety improvements along with storm and sanitary sewer upgrades to prevent storm flooding in the area.

Transformative Ideas

Mitigating Urban Highways

BQE Corridor Vision

In September, NYC DOT launched a community engagement process to inform how the city will address long-standing issues with the Brooklyn-Queens Expressway (BQE) in Brooklyn. Two parallel engagement processes are underway: an expedited process to repair BQE Central, the city-owned section between Atlantic Avenue and Sands Streets; and a longer-term planning process to identify upgrades for the communities to the north and south in Brooklyn. NYC DOT will also implement safety and public space projects along BQE North and South beginning in 2023.

Reimagining the Cross Bronx Expressway

In December, NYC DOT launched a USDOT RAISE-funded multi-year study, Reimagining the Cross Bronx Expressway to begin a community-focused process to develop mitigation solutions for the notorious Bronx thoroughfare. Widespread outreach will begin in 2023 with government partners (New York State DOT, NYC Department of City Planning, and NYC Department of Health and Mental Hygiene) working closely with neighboring communities to develop solutions.
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Looking Ahead
In 2023, NYC DOT will continue to progress toward the ten goals outlined in the Streets Plan, with a heavy focus on safety and equity. As we work toward these goals, we will aim to continue growing our capacity to meet the benchmarks defined by LL195, both by improving our internal processes and ability to implement projects and by identifying the additional staff, funding, materials, and facility space needed to meet the ambitious targets. We also remain committed to public engagement as a key part of all of our projects.

We will always seek out the most beneficial and safe enhancements to NYC's streets, with an aim of making the city a safer, fairer, easier, more welcoming, and more environmentally friendly place to access and travel within.

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*Local Law 195 calls for an addition of 1,000,000 square feet of pedestrian space by December 31, 2023*
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