

**NEW YORK CITY DEPARTMENT OF TRANSPORTATION TESTIMONY
HEARING BEFORE THE CITY COUNCIL COMMITTEE ON TRANSPORTATION
REGARDING PARKING, CARSHARE, AND INTROS 267, 873, 956 AND 1234
DECEMBER 12, 2016**

Good morning Chairman Rodriguez and members of the Transportation Committee. I am Polly Trottenberg, Commissioner of the New York City Department of Transportation (DOT) and I am joined by Ryan Russo, Deputy Commissioner for Transportation Planning and Management, and Jeff Lynch, Assistant Commissioner for Intergovernmental and Community Affairs. On behalf of Mayor de Blasio, I want to thank you for having us here today to discuss management of curbside parking and carshare.

This year, DOT staff across the entire agency took a comprehensive look at making our City's transportation system safer, greener, and more efficient. As a result of all this work, and building on the Mayor's OneNYC and his 80x50 plan, we released our new DOT Strategic Plan in September.

In this plan, DOT laid out our commitment to expanding safe, affordable, and sustainable travel options through shared-use mobility, including carshare. We share the Council's interest in expanding carshare and I am pleased to announce that DOT will be launching our very own carshare pilot. The pilot—which aligns with the bills to be discussed today—will provide dedicated spaces for carshare vehicles in both City-owned public parking facilities and on-street.

Carshare Background, Intro 267, and Intro 873

Before I discuss the bills before the Committee today and DOT's upcoming carshare pilot, I want to provide some background on carsharing.

As many of you know, carshare programs have grown significantly in cities across the U.S. and Europe in recent years, offering members use of vehicles for by-the-minute or hourly rental. Two main types of carshare services are typically offered, roundtrip and one-way:

- **Round-trip carshare services**, such as Zipcar and Enterprise CarShare, provide members with vehicles that they can pick up and drop off at the same location, typically a parking garage or lot. Round-trip car sharing requires a reserved or designated spot for each vehicle.
- **One-way carshare services**, such as Car2Go and ReachNow, allow members to pick up a car parked curbside at one spot and drop it off at any non-metered parking space within a designated service area. One-way car sharing is usually "free-floating" relying on generally available public parking, though in some cities they may also make use of designated spots.

These two models of car sharing have unique strengths and weaknesses. One-way car sharing provides maximum flexibility and the model is rapidly growing in many cities, including here in New York. However, researchers note that the predictable location and availability found in the round-trip model contributes more directly to car-shedding—car owners getting rid of their personal vehicles after joining the program.

Recognizing the potential of carshare, cities across the U.S. have implemented carshare-supportive policies for both round-trip and one-way services.

Washington, D.C. provides about 90 on-street spaces to round-trip carshare companies and allows users of one-way car share vehicles to park in residential parking zones and metered spaces. San Francisco has designated about 200 spaces for on-street carshare and requires companies to provide spaces in three zones throughout the city.

These cities have seen three significant benefits from expanded carsharing that we hope it could be transformational here in New York.

First, carshare programs could save New Yorkers hundreds of dollars per month by providing a reliable alternative to car-ownership that saves on lease or purchase costs, insurance, and maintenance. Owning a personal vehicle costs on average \$9,000 a year and comes with the time consuming responsibility for maintaining the vehicle, finding on-street parking, and of course, moving your car for alternate side of the street cleaning regulations.

In contrast, carsharing costs typically include a modest one time or annual fee ranging from \$35-\$75 and an hourly rate of \$8-\$15. Carshare companies have reported that nationally members could save an average of \$500 a month compared to car owners. And of course, the relative costs associated with car ownership in New York City are typically higher than most other places in the country.

Second, based on the savings and the convenience they provide, carshare programs have been proven to support a reduction in personal car ownership.

A 2010 review of studies from cities, including Philadelphia and San Francisco, found that 23 to 32 percent of round-trip carshare members gave up their vehicle after joining a carshare service. This translates to a reduction of five to 20 personal vehicles per one carshare vehicle. According to these studies, membership in a carshare program also encourages a family to delay or forego the purchase of a vehicle.¹

Here in New York, Zipcar surveyed its members and results shared with DOT suggested that one carshare vehicle supported the reduction of up to 23 personally owned vehicles. This is an impressive number that could have profound impacts on our streets if our pilot shows similar results.

¹ Shaheen, Susan, Caroline Rodier, Gail Murray, Adam Cohen, and Elliot Martin (2010). Carsharing and Public Parking Policies: Assessing Benefits, Costs, and Best Practices in North America. Mineta Transportation Institute Report 09-09.

This means that one dedicated carshare space has the potential to significantly reduce neighborhood parking demand—a benefit to nearby households that still prefer or require the use of a private vehicle.

I know that some are skeptical of shifting on-street parking to carshare spaces—I will admit that I was too. But after seeing the numbers on reduced car ownership and lessened demand on our curb space, I believe carshare could be a good use of public space that will benefit everyone. Our pilot will test all of this out, and we will report back on whether these benefits materialize on our streets.

Finally, carshare reduces the total amount of miles driven by each member. Carshare members pay by the minute or hour, so there is a strong incentive to drive less. In contrast, car owners have big upfront, sunk costs with a low marginal cost for additional driving, so they tend to drive more.

Research in other cities shows up to a 44 percent reduction in vehicle miles travelled among round-trip carshare members. Fewer cars on the road and fewer vehicle miles travelled means less congestion, as well as lower carbon emissions and air pollution—key priorities of the City’s OneNYC and 80x50 efforts. A 2016 study of one-way carshare found that the average age of vehicles sold by carshare members is 14.4 years.² In contrast, carshare fleets tend to be newer, and therefore are cleaner, more efficient and have state of the art safety features.

Now, I would like to turn to what carshare currently looks like in New York City – we have four large-scale carshare companies operating here with nearly 5,000 vehicles.

The coverage of round-trip carshare, such as Zipcar or Enterprise CarShare, is limited to areas that have available off-street parking spaces. Most carshare vehicles are stored in private garages, where they have limited visibility to the public and take extra time to retrieve from parking attendants. In areas of the City without private parking lots, there is currently no feasible way for round-trip carshare companies to operate. As a result, 66 percent of round-trip carshare vehicles are located in Manhattan.

One-way carshare, like Car2Go, is currently only available in western Brooklyn and Queens. So far, this model has not been expanded into the dense Central Business District.

The map behind me shows the current coverage of car-sharing programs in New York City as well as DOT-owned parking facilities. When we look more closely, even within areas generally well served by carshare, there are pockets that lack a convenient carshare option due to the uneven distribution of off-street parking facilities.

For example, Park Slope, Astoria and Washington Heights have few private garages, are well served by transit, and have a high number of households that store a private vehicle on-street and tend to use it for occasional, non-commuting purposes. These households might take advantage

² Martin, Elliot and Susan A. Shaheen (2016). *Impacts of Car2Go on vehicle ownership, modal shift, vehicles miles traveled, and greenhouse gas emissions: An analysis of five North American cities*, Working Paper.

of a carshare service, freeing up more on-street parking and making life easier for the remaining residents who require a personal vehicle for their livelihoods.

Meanwhile, low and middle income neighborhoods with comparatively limited transit options, like East Flatbush, Hunts Point, and Jamaica currently lack access to carshare and could benefit from the enhanced mobility that these services provide.

For all of these reasons, we share the Council's belief that carsharing could be a great fit for New York City.

DOT Carshare Pilot

So, I am excited to announce that this spring, DOT will launch a two-year carshare pilot dedicating about 300 spots in our public parking facilities and another 300 on-street spaces.

As you can see from this map, our facilities are distributed across the City and we share Council Member Mendez and Manhattan Borough President Brewer's interest in using these locations for carshare. We hope to learn a lot about how these parking facilities and on-street carshare spots, as Council Member Levine's bill has called for, work together during the pilot.

There may also be an opportunity to explore using NYCHA parking lots for carshare and we will keep the Council updated if we pursue that option.

DOT will select carshare companies interested in participating in the pilot with the goal of providing a high level of service to the City's residents and visitors. The program will be open to all carshare companies and they will be required to share data with DOT on curb use, customer satisfaction, and mobility.

We believe this program can save money for thousands of New Yorkers who will be able to shed their cars and use a much more affordable carshare vehicle when they need it. We know many New Yorkers do not use their vehicles on a daily basis and younger City residents in particular are less attached to the idea of car ownership and are looking for more flexible mobility options.

The de Blasio Administration is excited to be launching this pilot, but we still have lots of work to do. We are eager to hear from elected officials, particularly you on the Council, community boards and other stakeholders about which neighborhoods might wish to participate. We will also be soliciting information from car share companies about where they would like to site dedicated spaces and expand their coverage. Over the coming months, we will be talking more with the Council on how this pilot will move forward.

Muni-Meter Background, Intro 956, and Intro 1234

Now, I would like to discuss our parking system, and Intros 956 and 1234.

New York City streets contain approximately 3.5 million parking spaces and DOT operates one of the largest systems of metered parking in the world. In 2013, we successfully completed the conversion of the City's metered parking from 85,000 single-spaced meters to just over 14,100 Muni-Meters, a system which has allowed for a more efficient use of the curb, more convenience for customers, and a reduction in operating costs.

In the summer of 2015, DOT completed an upgrade to a smart meter system which provides a wide array of operational and consumer benefits, including the ability to program different hours of operation and rate structures, smart collection, improved customer information on the display screen, and increased resilience to vandalism.

Each year, DOT receives requests to install meters throughout the City from BIDs, Council Members, Community Boards, and directly from businesses who want increased parking availability for shoppers and visitors. Metered parking increases turnover and limits duration, which is helpful for restaurants, shops, and other businesses on our commercial corridors.

When we consider new Muni-Meter installations, we assess requests based on land use, sufficient curb space, parking demand, existing metered areas for purpose of enforcement, and the current occupancy and turnover rates.

As an example, in Far Rockaway, we have learned from local merchants that commuters are driving in from Long Island, using curbside parking in the commercial corridor to store their cars for the day and taking the subway to Manhattan. To prevent this, DOT will be placing meters to ensure regular turnover so that potential customers can find parking, which can make a big difference for small businesses.

In recent years, while we have received lots of new meter requests, DOT has prioritized the conversion to the new smart meter technology. We have also focused on installations where we have been changing the curb configuration, such as along SBS routes. But as our City continues to grow, many commercial corridors are experiencing revitalization leading to more requests for meters.

To address this, in spring 2016, DOT planned 600 new Muni-Meter installations in about 200 areas, ranging from requests in Bay Ridge to corridor improvements along 101st Avenue in Queens. Following our long-standing practice, DOT provided 30-day advance written notice to the affected Community Boards and Council Members.

Overall, we have received a tremendously positive response to the new meters. In places like Belmont and Merrick Boulevard in Jamaica, the changes were long awaited. In just half a dozen instances, we heard concerns from Community Boards or elected officials. We took each of these concerns very seriously, and met with stakeholders to discuss. In some instances, we successfully made the case for the installations, and in some cases we removed the meters.

Given DOT's current notification practice, and our demonstrated commitment to working with communities on meter placement, we feel that the proposed legislation, Intro 1234, is unnecessary and would hinder our ability to respond nimbly to Council Member's requests.

I also want to comment briefly on Intro 954, which was added to this hearing just a few days ago. Though we have not had time for a full review, we have serious concerns about the administrative burden and complexity created for DOT in this bill. Council Members often expect DOT to move quickly to tackle issues on our streets, especially where safety is a concern, and this legislation could significantly effect our ability to do so. We are also concerned that it could have far reaching effects, slowing down many of our popular projects like street safety redesigns, bike lanes and Citi Bike expansions, and Select Bus Service installations.

Pay-By-Cell

Finally, if you have been in Midtown recently, you may have noticed new signs popping up as we prepare for the rollout of pay-by-cell. Since last week, DOT crews have been installing blue “zone” signage in the area of 14th to 59th Streets, from the East River to the Hudson.

As you know, Mayor de Blasio promised to launch the City’s first mobile payment system for parking this year, and we hope to have an announcement very soon. I would like to say a big thank you to our colleagues and partners at the NYPD, the Department of Finance, and Chairman Rodriguez for helping us deliver this major new benefit to New York City drivers. Stay tuned for more very soon.

Conclusion

Thank you for the opportunity to testify today on our efforts to promote wider availability of car sharing and to continue improving our management of parking. I am now happy to answer any questions.

NYC Carshare Coverage & DOT Parking Facilities



Bill de Blasio
Mayor



Polly Trottenberg
Commissioner

New York City Department of Transportation

Strategic Plan 2016

Safe • Green • Smart • Equitable

Bill de Blasio
Mayor

Polly Trottenberg
Commissioner





NEW YORK
LOTTERY
GAMES

MAIN ST

NO
TURNS
7AM-9PM
EXCEPT
BUSES

LIMITED

Park Hill
Never
Stops

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The guidance and policies presented in *Strategic Plan 2016* set forth aspirational goals and do not supersede any existing federal, state, or city laws, rules, and regulations.



Letter from the Mayor



Dear Friends:

The New York City Department of Transportation continues to be an international leader in executing innovative transportation ideas, and its *Strategic Plan 2016* outlines the policies that will help us face the enormous growth in our City's population, workforce and tourism.

Under the strong management of Commissioner Polly Trottenberg, DOT has led our Administration's bold effort to achieve Vision Zero, New York City's plan to eliminate traffic injuries and fatalities on our streets. Working with the New York City Police Department, Taxi and Limousine Commission and other partners in City government, Vision Zero has achieved undeniable success in its first two years. New York City streets are safer than they have ever been, with fewer traffic deaths in 2015 than in any year since 1910 – all while such rates have been increasing nationally. We are also proud that Vision Zero is being emulated by more than a dozen cities around the country.

OneNYC, our forward-looking and long-term plan for a strong and just New York City, was released last year with core principles focused on growth, sustainability, resiliency and equity. Transportation is central to *OneNYC* and DOT has already delivered on several of the plan's goals by making large and unprecedented commitments to mass transit, bicycling infrastructure and a new Citywide ferry system.

Investments in our transportation systems are vital to the viability of our economy and our neighborhoods. This strategic plan details how DOT is dedicated to innovation, equity and efficiency, and I am confident that its efforts will continue to move our City forward.

A handwritten signature in black ink that reads "Bill de Blasio". The signature is written in a cursive, flowing style.

Bill de Blasio
Mayor



Letter from the Commissioner



My fellow New Yorkers:

Since 2014, I have been honored to serve as Transportation Commissioner in an incredibly exciting and challenging time to be leading the nation's largest municipal transportation agency. Our City has never had more workers, commuters, and tourists – all sharing our sidewalks, streets, and subways. While this growth signals our City's economic strength, we also face strains on our infrastructure and our ability to ensure transportation equity.

Under the leadership of Mayor Bill de Blasio, New York City and DOT are dedicated to meeting these challenges head on. The City has made an historic \$2.5 billion investment in the MTA Capital Plan and we continue to expand Select Bus Service to bring faster, more convenient transit to communities underserved by subways. To support the surge in cycling, DOT is expanding Citi Bike, our bike share system, and further expanding our 1,000-mile network of bike routes, including an increasing share of protected bike lanes.

DOT has also renewed its commitment to our core responsibility of maintaining our streets and bridges in a state of good repair: we are making enormous investments in repaving our roadways and repairing our bridge network, including rehabilitating the Brooklyn-Queens Expressway's aging triple-cantilever structure in downtown Brooklyn.

This report outlines how we will continue to advance our vision of a safe, sustainable, equitable, and efficient transportation network: by protecting and maintaining our core assets; by improving travel choices for underserved communities and all New Yorkers; and by managing our streets and curb space more effectively with new technologies.

Finally, DOT will continue to be a world leader in advancing street safety. I am especially proud of DOT's leadership on Vision Zero, Mayor de Blasio's ambitious effort to eliminate traffic injuries and fatalities. Just over two years in, our hard work on safety education, engineering and enforcement are paying dividends. New York City's streets are both busier and safer than they have ever been.

Vision Zero's success is only the most dramatic example of the dedication of so many DOT employees, alongside whom I am so honored to serve. Together we are keeping our City moving.

Thanks,

Polly Trottenberg
NYC DOT Commissioner



Bowling Green Subway Station 4 5

Broadway

Introduction



DOT seeks to maintain and expand a safe, sustainable, equitable, and efficient transportation network that supports the needs of our communities and the economy of the City and region.



New York City is bigger and more bustling than ever. Our population has grown to a record 8.5 million, an increase of half a million people since 2000. The number of jobs in the five boroughs is at a record 4.2 million, an increase of 500,000 in just five years. Tourism is booming: Almost 60 million visitors came to New York City last year, an increase of 65 percent since 2000. The impact on our transportation system is evident to all who live and work here: Sidewalks are overflowing, subway trains are packed to capacity, key bike routes get congested during rush hour, and our streets are full of cars, trucks, and taxis at all hours.

These trends are a testament to New York's continued vibrancy and dynamism, but also lay bare the challenges faced by the City and the New York City Department of Transportation (DOT). The size of our street system is fixed and building new subways takes decades and huge financial resources. For the City to continue to grow, we must use our streets as efficiently as possible, while increasing safety and reducing environmental impacts. As New York's economy has surged, the benefits of this growth have not been equally shared and rising housing costs have pushed many workers to live farther from their jobs. To fulfill the promise of equal opportunity, the City must continue to improve access to jobs and essential services for low- and moderate-income New Yorkers and people with disabilities.

Building on a Strong Foundation



This strategic plan builds on DOT's record of success while charting a course to address new challenges facing our City. First and foremost, it builds off of *One New York*, the de Blasio administration's comprehensive plan for a strong and just City. The initiatives in this plan expand upon the proposals in *One New York* and highlight the agency's renewed focus on transportation equity. The strategic plan also complements the City's 2014 *Vision Zero Action Plan*, DOT's borough-level *Vision Zero Pedestrian Safety Action Plans*, and New York's 80x50 initiative, the City's plan to reduce greenhouse gas emissions by 80 percent by 2050. This plan continues many of the programs launched in *Sustainable Streets*, the agency's previous strategic plan.



Finally, DOT must attain these goals while meeting our most fundamental responsibility to the citizens we serve: maintaining our transportation system in a state of good repair. This is an immense challenge given the scale of DOT's infrastructure and the challenging fiscal and political environment. The agency oversees the largest and most complex urban street network in North America, with over 6,000 miles of streets and sidewalks, 789 bridges, 95 miles of bus lanes, and more than 1,000 miles of bike routes. The agency also operates the Staten Island Ferry, the second largest public ferry service in the United States. Each day this integrated system supports the movement of millions of people by foot, bus, bike, ferry, and car, and enables trucks to deliver millions of tons of freight to homes and businesses.

At this crucial moment, DOT has decided to update its strategic plan and to reiterate its commitment to street safety for all, sustainable and equitable mobility, and responsible stewardship of our streets, bridges, and other assets. Drafting this plan has also given the agency an opportunity to reflect on the torrent of technological innovations that are rapidly changing the transportation landscape and to find ways to leverage these advances to better our City. This plan builds on *One New York*, Mayor de Blasio's 2015 blueprint for a vibrant, equitable, sustainable, and resilient City (see box above). The plan also draws on input from across DOT and a review of best practices in urban transportation from across the country and the globe. Overall it articulates DOT's core mission, lays out the agency's goals for the next five years and beyond, and lists 105 specific initiatives to accomplish these goals.

Mission

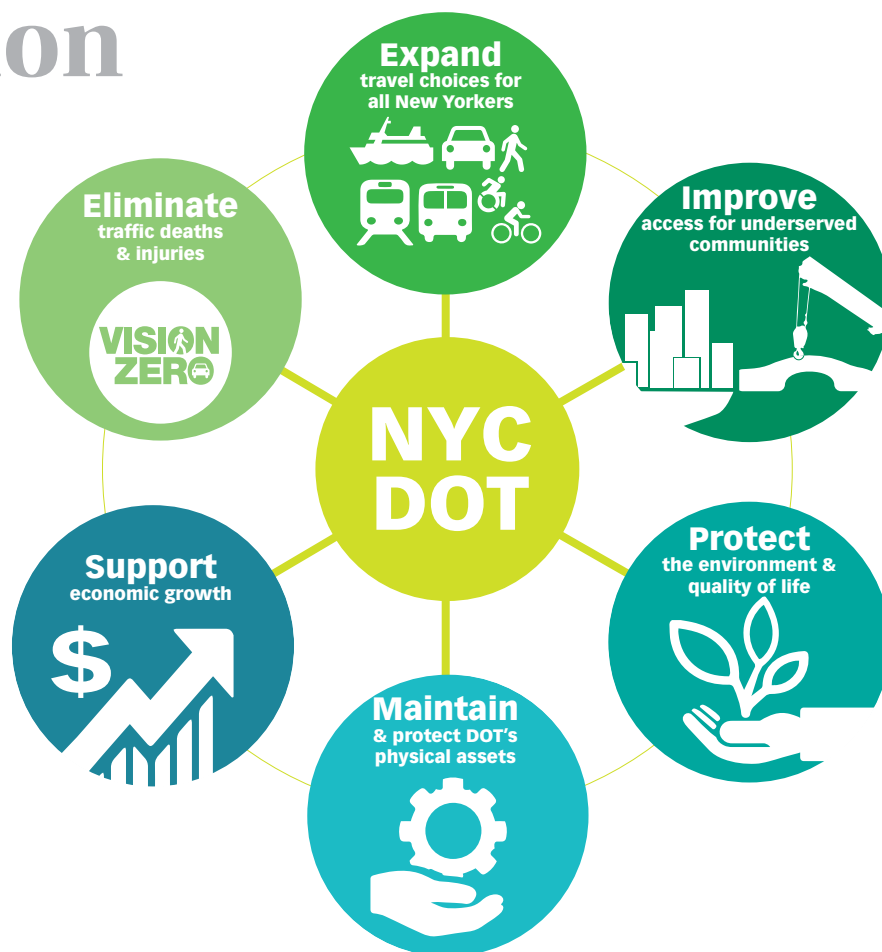
New York City's transportation system, from roads and bridges to subways and buses, is controlled by patchwork of City, state, and regional agencies. Linking together this complex landscape is DOT. Our agency manages and maintains the City's streets, sidewalks, curbside parking, bike lanes, bus lanes, and un-tolled bridges, as well as the Staten Island Ferry. Every trip that starts and ends in New York City, whether by car, truck, bike, bus, subway, or on foot is carried, at least in part, on the DOT system. Almost every subway ride involves a walking trip to the station on DOT's pedestrian network. Every item for sale at your corner store

was brought by truck across DOT streets and bridges. And every car trip is guided by DOT signs, signals, and markings.

DOT's central role in New York transportation means that the agency's operations have far reaching impact on the movement of people and goods all around the City. The agency, with partners across government and the private sector, seeks to maintain and expand a safe, sustainable, equitable, and efficient transportation network that supports the needs of our communities and the economy of the City and region.



Agency Core Mission



The agency's core mission, shown graphically above, starts with our commitment to safety. Above all, DOT strives in everything it does to achieve Vision Zero—the City's multi-agency initiative to eliminate deaths and serious injuries from traffic crashes. DOT places a particular focus on protecting pedestrians and cyclists, our most vulnerable street users.

DOT is committed to significantly boosting the share of trips made by walking, biking, and transit through a more balanced distribution of street space and the implementation of innovative street designs from around the globe. Our continuing growth as a city depends on more people using the most space-efficient modes

to get around. This approach is consistent with protecting our most vulnerable street users and meeting the City's climate change goals.

The agency seeks to improve transportation equity by improving and expanding affordable and convenient travel choices for low- and moderate-income New Yorkers. Through our Select Bus Service (SBS) partnership with the Metropolitan Transportation Authority (MTA) and our shared-use mobility efforts with the Taxi and Limousine Commission (TLC), the agency endeavors to improve access to economic and educational opportunities for communities underserved by rail transit and for people with disabilities.

Expanding travel choices and increasing the efficiency of our streets in turn supports the City’s growing economy—commuters can get to work, students to school, and residents to shopping and essential services. The agency helps to facilitate freight movement, advocates for the expanded use of rail and waterborne transportation instead of trucks, and reduces the environmental impacts of freight, especially on communities that have historically shouldered more than their fair share of these impacts.

Reducing greenhouse gas (GHG) emissions and harmful air pollution, and helping the City successfully adapt to the effects of climate change are also key DOT priorities. By expanding opportunities for walking and biking and by facilitating faster bus service—modes of transportation that require less energy—the agency is helping to reduce GHGs and to support better public health. DOT is further advancing these goals by promoting smarter freight, shared-use mobility, intelligent vehicles, real-time management of our streets, and the use of cleaner vehicle technologies.

Finally, DOT strives to keep the City’s network of streets and bridges, the Staten Island Ferry, and all of our facilities in a state of good repair. From pavement markings to traffic signals and streetlights to the Brooklyn Bridge—taking good care of the system is a core tenet of the agency’s mission. Smart asset management improves safety and resiliency, extends the useful life of our streets and bridges, ensures more efficient use of capital resources, and saves the City’s taxpayers money.

As always, our success is dependent on cooperation with elected officials, local communities, and partner agencies, as well as on budget resources and political realities. The DOT works with our partner agencies, including the MTA, the New York State Department of Transportation, and the Port Authority of New York and New Jersey (PANYNJ), on a range of issues, from improving bus services to coordinating development with investments in transit. We advocate for regional transit investments, like the Gateway rail project, that will help the City achieve its vision of an equitable, sustainable, and efficient transportation system. DOT will continue to be a leader in citywide transportation issues, to foster cooperation among the region’s transportation agencies, and to advocate for funding for its efforts at all levels of government.

Structure of this Report

This report has eight chapters, each focused on a specific theme:

	Safety
	Mobility
	Asset Management and Project Delivery
	Freight Movement
	The Public Realm
	Sustainability
	Organizational Excellence
	Public Engagement

Each chapter includes a set of overall agency goals in the area being discussed and a set of current and proposed initiatives to achieve those goals. The appendix at the end of this report includes a detailed table of all agency initiatives, and short- and medium-term milestones to measure DOT’s progress.

Initiative Highlights

This plan announces 105 initiatives, including:

6 Plan Highlights

6. Caring for our Assets:

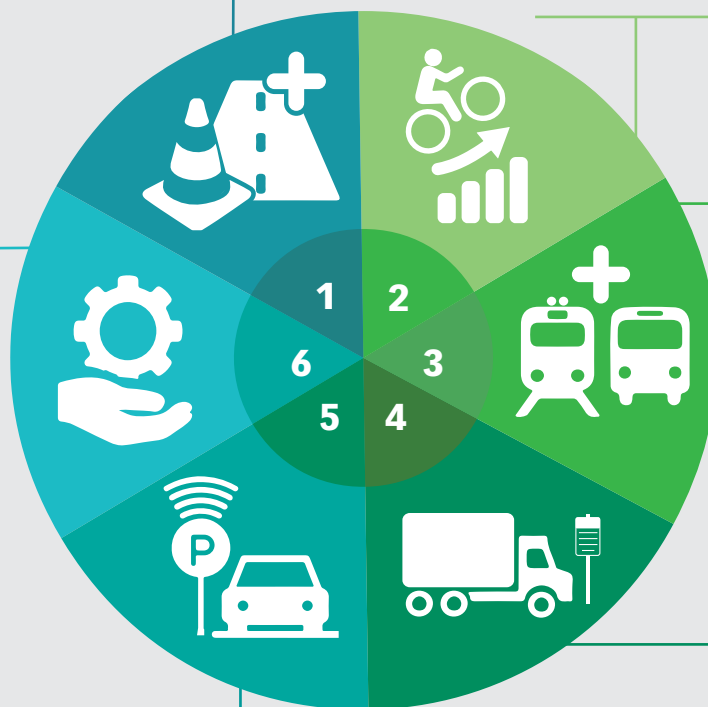
DOT will invest \$14 billion to keep our streets, bridges, and other assets in a state of good repair. The agency will complete **a comprehensive inventory of all of its assets, invest in modern asset management systems** to help guide investment decisions, **take into account social, environmental, and financial costs** when making investment choices, and continue to **seek state authorization to use design-build**, a procurement approach that would help DOT complete capital projects at lower cost and in less time.

1. Improving Street Safety:

Protecting the lives of millions of pedestrians, cyclists, and motorists who use New York's streets every day is DOT's top priority. In the next stage of Vision Zero, DOT will test new design treatments to **reduce left turn conflicts**, one of the leading causes of crashes involving pedestrians, **advocate for legislation to require back seat passengers to wear seat belts**, and **seek state authorization to expand the use of speed cameras**—which have been shown to reduce dangerous speeding by as much as 50 percent.

2. Expanding Cycling:

Adapting best practices from Europe and across the globe, DOT seeks to **double the number of active cyclists** and make New York the best biking city in the United States. DOT will **create at least 10 miles of new protected bike lanes each year**, improve bike access to bridges, and **explore an expansion of the Brooklyn Bridge pedestrian and bike path**. DOT will also begin **planning for Citi Bike Phase 3**, bringing bike share to all five boroughs, and dramatically **expand opportunities for safe and secure bike parking, especially near transit hubs**.



5. Developing a 21st Century Parking Policy:

Following the lead of cities like Seattle; Washington, D.C.; and London, DOT will revolutionize how New York City manages curbside parking and loading. DOT will enable parkers **to pay for metered parking by smartphone**, complete a **comprehensive analysis of how our metered parking is used**, better manage and **price curb space to increase parking availability** and loading access in key commercial hubs, and, with the NYPD, **test new technologies to better enforce parking rules**.

3. Enhancing Transit:

Bus speeds are dropping and many riders are giving up on the system. New Yorkers deserve better. Working with the MTA, DOT will boost bus speeds and reliability by **creating at least 20 Select Bus Service (SBS) routes**, implementing bus signal priority and **new bus lanes on more local routes**, and **advocating for all-door boarding** across the bus system. DOT will conduct **a citywide study of transit needs** to identify the next generation of SBS routes, potential streetcar lines, and strategies to **improve transit access to neighborhoods underserved by the subway system**.

4. Better Managing Freight:

The explosion in online retail together with the City's population and economic growth means more and more trucks are carrying more and more freight into the City. To better facilitate goods movement and mitigate the impacts of trucking, DOT will significantly **expand its freight mobility team**, complete a **comprehensive five-borough freight plan**, and, with the New York City Police Department (NYPD), **test new technologies to better enforce truck routes and rules**.

Key Themes



Transportation Equity

This plan articulates more clearly DOT's commitment to improving transportation equity in New York City. Not all neighborhoods have the same level of access to jobs and services. Example: East Flatbush in Brooklyn, which lies beyond the reach of the subway system. Most residents there, the majority of whom do not own a car, rely on buses and walking to get around. In response, DOT worked with the MTA to implement Select Bus Service on Utica Avenue, which is making bus service faster and more reliable and boost access to education, health care, employment, and recreation for the area's residents. DOT is replicating this approach across the City in places like the South Bronx and eastern Queens.

Disparities in transportation access not only occur in specific neighborhoods. New Yorkers with disabilities may encounter difficulty navigating parts of the City. This plan affirms DOT's commitment to work to make our streets, crosswalks, plazas, and pedestrian ramps accessible to all people, regardless of their abilities. For example, the agency will invest about \$245 million over the next four years for contractor pedestrian ramp upgrades and new ramp installations. DOT will also continue to expand wayfinding systems for persons with disabilities, helping them understand where they are and how to get to their desired destination.

The Benefits of Walking, Biking, and Transit

Every day, New Yorkers and visitors to the City make millions of trips for work, school, shopping, and recreation. Sixty-seven percent of these trips are made by walking, biking, or transit, a striking difference from most major American cities where auto travel dominates. If most New Yorkers decided to ditch their MetroCards and walking shoes in favor of their car keys, the City would grind to a halt. There is simply not enough space on our streets and highways to accommodate the traffic that would result. Simply put, our pedestrian, bike, and transit networks enable New York to function.

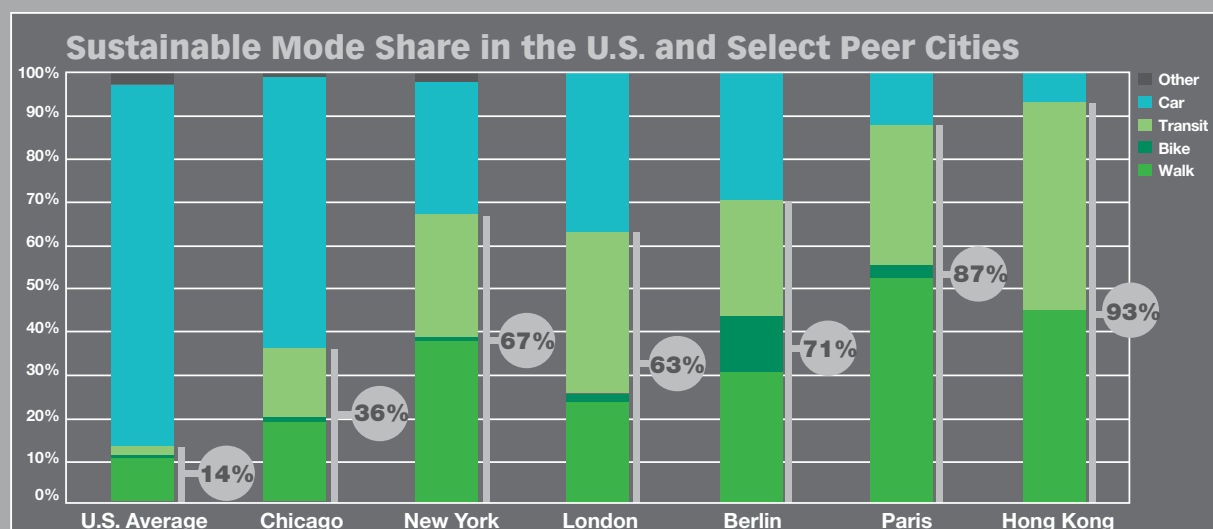
To ensure the City's quality of life and economic health, supporting and encouraging walking, biking, and transit is a central part of DOT's mission. This plan outlines the ways DOT will further encourage the use of these modes to create a safe, environmentally sustainable, and equitable transportation system. Expanding sustainable transportation creates a virtuous cycle for the City. When DOT invests in making streets safer for pedestrians and cyclists, that in turn promotes physical activity (and improved public health) and expands travel options for all New Yorkers. As more people use sustainable transportation instead of driving, greenhouse gas emissions and air pollution are reduced, making our neighborhoods more livable.

7 Key Benefits of Walking, Biking & Transit

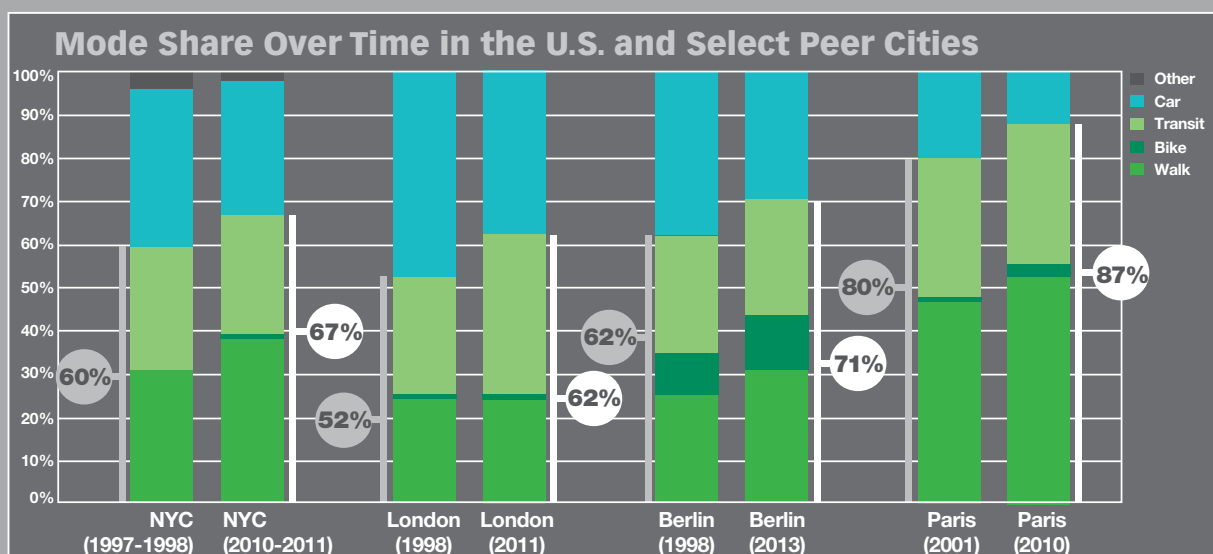


Sustainable Transportation: How is New York City Doing Compared to its Global Peers?

DOT seeks to measure its success not only against our past performance, but also in comparison to peer cities around the world. The graph below shows how New York City compares to several peer cities in terms of the proportion of all trips made by sustainable modes: walking, biking, and transit. In the United States, New York City is the national leader in sustainable transportation: 67 percent of all trips within the five boroughs are made by walking, biking, or transit, far more than in any other major American city. Even Chicago, a transit-rich and pedestrian-friendly city, has a significantly lower sustainable mode share.



Internationally, New York fares well compared to London, a city of comparable population, as well as Berlin. Like New York, London and Berlin have large transit systems, walkable streets, and dense downtowns. Paris and Hong Kong set the standard for sustainable mode share. In Paris only 12 percent of all trips are made by car, half of the proportion in New York. In Hong Kong, this measure is an astounding seven percent. In terms of change over time, New York's sustainable mode share has grown, though we lag slightly behind the progress made by Berlin and London.



***Sources:** **NYC:** New York Metropolitan Transportation Council. *2010/2011 Regional Household Travel Survey* and *1997/1998 Regional Travel Household Interview Survey*. **US:** U.S. Department of Transportation, Federal Highway Administration (2011). *Summary of Travel Trends: 2009 National Household Travel Survey*. **Chicago:** Singapore Land Transport Authority (2014). "Passenger Transport Mode Shares in World Cities." *JOURNEYS*. **London:** Transport for London (2014). *Travel in London: Report 7*. **Paris:** L'Observatoire de la mobilité en Île-de-France, *L'Enquête Globale Transport 2010*. **Berlin:** Rode, Philipp, Christian Hoffmann, Jens Kandt, Duncan Smith, and Andreas Graff (2015). *Toward New Urban Mobility: The case of London and Berlin*. Peter Griffiths (ed). LSE Cities/InnoZ. London School of Economics and Political Science: London. **Hong Kong:** Smith, Duncan Alexander (2013). *Urban Form, Accessibility and Transport Sustainability in World Cities*. LSE Cities.



Sensor Technology and Data Analytics

To make our streets work better, DOT needs to know how they are being used. Take for example a congested commercial street. For years if DOT wanted to know how many trucks were making deliveries on that street and how often trucks were double parked, the agency would dispatch a group of field workers with clipboards and hand counters to observe activity over the course of a day. This method, which DOT still often uses, is time consuming, expensive, and does not provide a nuanced picture of what is happening on the street.

Technology, however, is changing that. New tools, including stationary and mobile traffic cameras and video processing software, will soon enable DOT to analyze many more streets and intersections in greater detail and at lower cost. Sensor technology, including traffic counters and GPS devices in buses and taxi cabs, are providing vast amounts of new data. And new computing power and tools for data analytics enable DOT to use this data to better understand and manage the street network.

Throughout this document, DOT will discuss ways it intends to use sensor technology and data analytics to enhance the agency's planning, system management, and enforcement capabilities. These technologies, for example, may help the agency diagnose potential safety problems before a serious crash occurs. They also provide the opportunity for new coordination with the New York City Police Department (NYPD), the agency's enforcement partner. DOT sensors and cameras may be able to help the NYPD better enforce truck weight limits and routes and to better zero in on double-parking hot spots and identify offenders. Ultimately, we hope these advances will help DOT cut congestion and pollution, increase safety and mobility, and support equitable economic growth.





Safety



Working under the Vision Zero philosophy that serious crashes are preventable, DOT is collaborating with other City agencies to eliminate traffic fatalities and crash-related serious injuries.



Safety has always been a critical priority for DOT. In February 2014, Mayor Bill de Blasio reinforced the City's commitment to safety by introducing the Vision Zero Action Plan. Vision Zero is a cooperative effort among City agencies, led by the Mayor's Office, to eliminate traffic fatalities and crash-related serious injuries. It reflects the philosophy that serious crashes are preventable. The Action Plan includes safer street designs and engineering, effective enforcement and deterrence of traffic safety violations, and education and outreach efforts to encourage safer choices by drivers, cyclists, and pedestrians. DOT has a leading and critical role in the City's Vision Zero efforts.

Vision Zero and our Global Peer Cities

The Vision Zero approach started in Sweden and has now been adopted by cities across Europe and the United States. The chart below shows how New York City compares in terms of street safety to its U.S. and global peers. Domestically, New York is leading the pack, with a significantly lower rate of fatalities from traffic crashes than American peer cities and the U.S. overall. The international comparisons with Hong Kong, London, and Stockholm, however, show how far cities have advanced toward eliminating traffic fatalities. Stockholm, a city of one million residents, has achieved a rate of .4 traffic-related fatalities per 100,000 of population, an amazing accomplishment. DOT will continue to look to our peer cities around the country and the globe for strategies to achieve Vision Zero.



Traffic fatalities in the City have fallen significantly over the past two decades—from 701 in 1990 to 271 in 2010. With the City's renewed efforts, traffic related fatalities fell further from 249 in 2011 to an all-time low of 232 in 2015—and New York is now internationally recognized as a leading innovator in safe street design. Indeed, New York City has one of the lowest traffic fatality rates in the nation. However, the fatality rate in New York City still exceeds the rates in many of our peer cities around the world, including London and Hong Kong.

To advance towards the City's Vision Zero goal, DOT has:

- Increased the pace with which we deliver street redesigns, simplifying complicated intersections and providing safe space for pedestrians and bicyclists at priority locations throughout the City
- Expanded the rollout of Leading Pedestrian Intervals (which give crossing pedestrians a head start in advance of turning vehicles), installed brighter streetlights, and retimed traffic signals on high-crash streets
- Led the effort to lower the City's speed limit
- Expanded the City's speed camera program
- Led the City's efforts to inform New Yorkers of the consequences of their actions through outreach and anti-reckless driving advertisements

A full description of the multi-agency Vision Zero effort can be found here:

nyc.gov/html/visionzero/pages/home/home.shtml

These initiatives, and others, have contributed to the safest year in New York City since 1910. However, the agency recognizes that any fatalities mean we have more work to do.



Speed Camera Program

Speeding is a leading factor in fatal crashes: Nearly one in three traffic deaths in New York City involves a speeding driver. Pedestrians struck by vehicles traveling at 25 MPH are half as likely to die as those struck at 30 MPH. Deterring speeding on New York City streets is a major component of Vision Zero, and in 2015 the City secured authorization from New York State to install speed cameras in 140 school speed zones.

The results have been dramatic: At locations where speed cameras were installed, speeding violations have plummeted by an average of 50 percent. The program is effective at deterring dangerous speeding, but is limited in scope. State law only allows for the use of speed cameras during school hours and within school speed zones. As a result, cameras cannot be used in nearly 85 percent of the locations and times where people are killed or seriously injured. DOT and the City will continue to advocate for changes to New York State law to expand the use of this life-saving technology.

CITY
SPEED
LIMIT
25





Goals

- 1 **Integrate Vision Zero** across all agency operations and initiatives.
- 2 **Use improved data and analytics** to more quickly reach the goal of Vision Zero.



Existing Initiatives

Vision Zero Street Engineering



- **Use Vision Zero Borough Pedestrian Safety Action Plans to guide engineering projects, safety education, and camera enforcement efforts**

Drawing on crash data analysis and community feedback, DOT and the NYPD identified priority Vision Zero intersections and corridors across the City. DOT and its agency partners then developed a Safety Action Plan for each borough. Each year DOT strives to implement at least 50 safety projects at priority locations.

- **Transform high-crash arterial roads into Vision Zero Great Streets**

The Great Streets program redesigns major corridors to prevent crashes, enhance mobility, increase accessibility, and bolster neighborhood vitality. The following projects are underway: Atlantic Ave. and Fourth Ave. in Brooklyn; the Grand Concourse in the Bronx; and Queens Blvd. in Queens. In addition, DOT is implementing Vision Zero capital redesigns on other major streets, including Delancey St. in Manhattan and Tillary St. in Brooklyn.

- **Continue Safe Routes to Schools, Safe Streets for Seniors, and other Vision Zero capital programs**

The agency will continue to design and implement pedestrian safety improvements, such as curb extensions, median refuges, and signal timing changes near schools and in neighborhoods with large numbers of aging New Yorkers. This effort is coupled with education and encouragement targeted at schools and senior centers.

Vision Zero Education and Awareness



- **Continue Vision Zero safety education**

The agency will continue its Vision Zero safety education programs for children, parents, and senior citizens, as well as its free bike helmet and car seat distribution programs. DOT is also working with the Department of Education on a Vision Zero curriculum for schools and is partnering with other City agencies to bring safety programs to community centers and afterschool programs.

- **Continue Vision Zero public awareness campaign**

Your Choices Matter is DOT's street safety awareness campaign that emphasizes the serious consequences of dangerous driving choices. In 2017, we will launch a variation of the campaign that addresses the most common causes of serious crashes. In the longer term, DOT will produce new content in order to remain visible in the City's rapidly-changing media climate.

- **Advocate for safe cycling around visually impaired pedestrians**

Cycleeyes is DOT's safe cycling awareness campaign that reminds cyclists to be on the lookout for visually impaired pedestrians.

Vision Zero Safety Enforcement / Analysis



- **Continue speed camera enforcement**

DOT will continue to refine its use of automated speed cameras to enforce the City's 25 mile per hour speed limit within the 140 school speed zones authorized by state law.



Vision Zero Street Engineering

NEW



Evaluate left turn safety treatments

Left turns are a key factor in nearly 30 percent of pedestrian crashes involving a fatality or serious injury. DOT is evaluating an array of design treatments at 100 locations to determine if they encourage motorists to better yield to pedestrians and slow vehicle turns. If successful, these designs will be expanded to additional intersections across the City.

Implement recommendations of Bicycle Safety Study and Action Plan

DOT, the Department of Health and Mental Hygiene, and NYPD are developing recommendations based on a review of crashes in which a bicyclist was fatally or severely injured.

Vision Zero Safety Enforcement /Analysis

NEW



Expand speed camera enforcement

DOT will seek to pass state legislation to expand the City's authority to use speed cameras at high-crash locations and during the most dangerous times near schools.

Mandate rear-seatbelt use

Unbelted back seat passengers involved in severe crashes are four times more likely to be killed as belted back seat passengers. DOT will advocate for a requirement that adult passengers riding in the back seat of private cars use seatbelts.

Advocate for drugged driving reform for New York State

A motorist can only be charged with driving while impaired by a drug if that drug is listed in New York State's Public Health Law. Some drugs, like synthetic marijuana, have not been added to that list, limiting prosecutions. DOT will advocate to make it illegal in New York State to drive after intentionally consuming any substance that causes impairment.

Expand partnerships with NYPD to improve crash data and analytics

Data on serious injuries from crashes is produced through a cumbersome process involving DOT, NYPD, and the State so that injury data is often not available until 12 months after a crash occurs. NYPD is transitioning to electronic crash reporting, which will enable DOT to analyze data earlier and more quickly respond to trends.

Pilot new technology to obtain data that can prevent crashes

DOT will expand the use of cameras and sensors, video analysis software, and vehicle monitoring data to expand our understanding of why crashes occur and where they are likely to occur in the future. For example, DOT may be able to highlight locations where vehicles have frequent hard braking events or use video analytics to determine where drivers are less likely to yield to pedestrians.



Mobility



To sustain the city's growth and expand mobility, DOT will allocate more street space to walking, biking, and buses, modes that move the greatest number of people while using the least amount of street capacity.



To sustain the City's growth and expand mobility, New York City, the MTA, and other agencies must work together to increase the capacity and efficiency of our transportation system. For DOT, that means allocating more street space to the most efficient modes of travel on our streets: walking, biking, and buses. These affordable travel options move the greatest number of people while using the least amount of space, as well as generate the least amount of air pollution and greenhouse gas emissions. DOT must also take advantage of new technologies to better manage our streets and prepare for disruptive innovations, like autonomous vehicles and the shift towards shared-use mobility.

DOT will continue its efforts to expand and enhance our 1,000-mile bike network, to increase bike parking opportunities, and to bring bike share to all five boroughs. The agency will also continue to improve the pedestrian environment through Vision Zero (as detailed in *Chapter 2: Safety*) and by making our streets more inviting (as detailed in *Chapter 6: The Public Realm*). In terms of transit, DOT will continue its SBS partnership with the MTA to improve bus travel times and reliability. We will also integrate bus priority treatments for local routes into our street redesign projects and continue to rollout transit signal priority. Together these efforts will also help ensure that all New Yorkers, regardless of income, have access to affordable and convenient transportation choices.

Looking to the future, DOT will explore new technologies and approaches that may help us better accomplish our mission. The agency will explore new sensor and camera technology, curb regulations, and pricing strategies to better manage our streets and curb space, so trucks can make deliveries and customers can reach their destinations.

Finally, DOT will adapt proactively to shared-use mobility services and autonomous vehicles. The world of shared-use mobility services, which includes ride-hailing, ridesharing, carsharing,

and bike share are changing the ways that New Yorkers get around. Autonomous vehicles, once considered the stuff of science fiction, are closer to becoming a reality. These services and technologies present both opportunities and challenges. DOT, with the TLC and others, will explore how these services could help the City improve street safety, mobility, quality of life, and the environment. For example, DOT will explore how rideshare services might improve “last mile” connections to transit in neighborhoods underserved by the subway system.

Secure Bike Parking Stations



Photo: © Harrie van Veen

Across the world, cities are encouraging bike use by providing secure bike parking to cyclists at transit hubs and major destinations. In Chicago's Millennium Park, the McDonald's Cycle Center offers 300 bike parking spaces with showers, lockers, and towel service. Visitors to Chicago can also purchase bike rentals and tours at the center. In California, six BART rail stations feature adjacent bike stations to facilitate bike-to-rail commutes. The stations offer 24-hour controlled access parking and free daily valet service.

European cities have taken bike stations to the next level. Malmö, Sweden, for example, has an underground facility with 1,500 secure bike parking spaces located below its rail station. Utrecht in the Netherlands recently completed a 4,200-bike facility. These bike parking stations fill a gap in bike infrastructure by providing amenities that make it convenient to bike to work or transit, or to use a bike to get from a transit station to a nearby school or activity center. Cyclists do not need to worry about finding an open secure rack near their destination or having their bikes stolen or vandalized.

The Benefits of Shared-Use Mobility



In the past decade, shared-use mobility services, like bike share and carsharing, have emerged as mobility options in a number of cities. Carshare programs, in particular, have multiplied in New York City and across the country. Researchers have begun to analyze the impact of these services: a 2010 review of several studies found that 23 to 32 percent of carshare members had given up a vehicle since joining a carshare service. Similar results have been found in studies of Philadelphia, San Francisco, and Seattle.

Recognizing these benefits, cities are adopting policies to encourage carsharing. Seattle offers one-way carshare organizations permits that allow members to park vehicles in metered spaces and within residential parking permit areas. San Francisco has created an on-street permit program for round-trip carshare organizations. For a fee, carshare organizations can purchase an annual permit for an on-street space. In return, San Francisco requires the company to maintain the parking space and to station vehicles in all neighborhoods to ensure equal access.

Shaheen, Susan, Caroline Rodier, Gail Murray, Adam Cohen, and Elliot Martin (2010). *Carsharing and Public Parking Policies: Assessing Benefits, Costs, and Best Practices in North America*. Mineta Transportation Institute Report 09-09.





1 Increase travel by walking, biking, and bus transit to support the continued growth of New York City, including doubling the number of regular cyclists in the five boroughs by 2020 (based on the 2013 level).

2 Increase bus travel speeds by the year 2020, especially on bus corridors with high ridership and on streets where bus speeds fall below 5 miles per hour.

3 Work with the MTA to reduce commute times in low and moderate-income communities underserved by transit.

4 Make steady progress in creating a roadway and sidewalk network that is accessible to all New Yorkers regardless of disability status.

Working with partner agencies, **expand the availability of shared-use mobility services, including bike share, carshare, and rideshare**, that support safe, affordable, and sustainable travel choices.

6 Increase the efficient use of curb space in busy commercial areas with smarter curb regulations and innovative pricing strategies.

Working with the NYPD, **use sensor technology and data analytics to better enforce traffic and parking rules** to reduce double parking, congestion, and air pollution.



Existing Initiatives

Pedestrian Network



► Make walking safer and more convenient

As laid out in *Chapter 2: Safety*, DOT will continue to implement at least 50 Vision Zero safety projects a year and invest in our Great Streets program. As laid out in *Chapter 6: Public Realm*, the agency will continue to implement streetscape improvements including benches, wayfinding signs, and leaning bars.

Bike Network



► Expand the City's bike lane network

DOT will create or enhance at least 50 miles of bike routes a year and expand the network of protected bike lanes by at least 10 miles, double our previous target. The agency will focus on expanding the bike network in neighborhoods with limited bike infrastructure, including Jamaica, Soundview, and East Flatbush. As part of our Great Streets projects, DOT will integrate protected bike lanes into sections of the Grand Concourse in the Bronx and Queens Boulevard in Queens. As resources permit,

DOT will accelerate the rate of bike lane expansion, especially of protected lanes.

► Improve bike access to and on bridges

DOT will continue to develop bike access plans to its bridges and will implement four bridge access projects in the next two years. The agency will continue implementation of its Harlem River Bridges Access Plan and develop a plan for a protected bicycle lane on Delancey Street to better connect cyclists to the Williamsburg Bridge, the busiest East River bike crossing.

Accessibility



► Strive to make all sidewalks, pedestrian ramps and spaces, and bus stops accessible

DOT will continue to install at least 75 accessible pedestrian signals each year. The agency will expand its in-house pedestrian ramp program, and invest about \$245 million over the next four years for contractor pedestrian ramp upgrades and new installations. DOT will update its Street Design Manual and capital project standards to reflect the principle of universal access.

Transit System



► Expand Select Bus Service (SBS) and improve local bus service

With the MTA, DOT will expand the SBS network to 20 routes citywide, with a focus on neighborhoods underserved by the subway and corridors with high bus ridership. The agency will continue to advance the quality of SBS and local bus service through improved bus lane and design treatments, bus countdown clocks, fare collection methods, and transit signal priority.

► Implement the Brooklyn Queens Connector (BQX)

Working with NYC Economic Development Corporation (EDC), other City agencies, and the community, DOT will plan and implement the BQX, a streetcar linking Brooklyn to Queens along the waterfront.

New Initiatives



Street System Management



► Complete the Connected Vehicle (CV) Pilot Project

With USDOT, DOT will continue to test a range of CV safety applications in up to 10,000 vehicles. CV technology enables vehicles to communicate with each other, pedestrians and cyclists with mobile devices, and the Intelligent Transportation Systems (ITS) network.

Shared-Use Mobility



► Expand bike share

DOT, with its private-sector partner Motivate, will continue to expand Citi Bike over the next 18 months. By the end of 2017, Citi Bike will have 12,000 bikes at 750 stations. With Motivate, DOT will encourage participation in the discount membership program for NYC Housing Authority (NYCHA) residents. In partnership with Motivate, DOT will explore the feasibility of a Phase 3 expansion of the program that would reach all five boroughs.

Bike Network

NEW



► Improve the pedestrian and bike promenade on the Brooklyn Bridge

Demand for the shared cyclist and pedestrian path on the Brooklyn Bridge often exceeds capacity. DOT will assess the feasibility of expanding and reconfiguring this popular path to better serve both groups.

► Advance the East and Harlem River waterfront greenway in Manhattan

In the near term, DOT will advance on-street bike lane projects to fill gaps in the East River and Harlem River greenways. In the medium term, DOT will work with the Department of Parks and Recreation (DPR) and EDC to develop a funding strategy for the full build out of the greenway.

► Launch secure bike parking near transit

Building on best practices from other cities, DOT will plan and develop secure, affordable, and attractive bike parking at major transit hubs and activity centers across the five boroughs, including ferry terminals, key subway and commuter rail stations, and local commercial districts.

► Improve and expand bike access in commercial and residential buildings

Expanding on the success of the City's Bikes in Buildings law, DOT will work to pass City Council legislation to further broaden bike access in commercial buildings, extend bike access provisions to residential buildings, and allow folding bikes in all passenger elevators.

► Improve maintenance and availability of public bike parking

To free up space for operable bikes, DOT has worked with the New York City Department of Sanitation (DSNY) to finalize revised DSNY rules to streamline removal of derelict bikes from DOT bike racks. DOT will begin inspecting all racks twice a year and work with DSNY and community and merchant groups to proactively remove derelict bikes.

► Appropriately regulate low-speed electric bikes

DOT will work with its agency partners to develop a sensible legal framework to regulate growing e-bike use and improve safety.

► Develop new citywide measure of cycling to measure progress

DOT will adopt new measures of citywide cycling, which will be used to track the growth of bicycling over time. These



indicators will capture the number of New Yorkers who bike regularly and the average volume of daily biking trips across the five boroughs. DOT will continue to conduct bike counts at strategic locations.

Transit System

NEW



► Complete a citywide transit study

Working with our partners at the MTA, DOT will conduct a study of unmet transit needs in communities across the five boroughs and develop a set of recommendations to meet these needs. Possible recommendations include SBS, rail system, and streetcar expansion.

► Develop and Implement an L Train Mitigation Plan with the MTA

With the MTA, DOT will develop a plan to mitigate the impact of the closure of the L train tunnels under the East River, which carry the same number of passengers to Manhattan each day as the Long Island Rail Road. DOT will consider transformative traffic management and bus priority treatments on 14th Street and the East River Bridges, as well as expanded bike routes and bike parking facilities.

Street System Management

NEW



► Pilot multi-purpose sensor and camera technology

DOT will pilot the installation of

sensor and camera technology that can be used for multiple purposes, including better understanding how streets are used and better managing traffic flow. DOT will also explore enforcement strategies with the NYPD and the Department of Finance, including targeted deployment of traffic enforcement agents, use of cameras and sensors for parking and loading regulation enforcement, and the replacement of the City's paper parking placards with an electronic system.

► **Develop an Intelligent Transportation Systems (ITS) Strategic Plan**

Building off goals in this plan, DOT will develop an ITS Strategic Plan that describes our ITS vision and goals within the following six areas: enhancing operational capabilities, advancing operational planning, emerging technology readiness, lifecycle management, professional capacity building, and outreach and communication.

Shared-Use Mobility



► **Explore the potential for shared-use mobility services to expand travel options, increase mobility, and improve the efficiency of the transportation system**

DOT will develop a shared-use mobility plan to identify the opportunities and challenges posed by new transportation services and models.

DOT, with the TLC, will explore the potential of ridesharing services to meet travel needs in areas underserved by the subway and to reduce traffic volumes.

DOT will explore the potential for carshare to reduce car ownership and improve parking availability, and develop a set of pilot projects to expand carsharing outside of Manhattan. This will include consideration of opportunities for electric vehicles and charging stations.

DOT, with the TLC, will examine the potential safety, congestion, social, environmental, and economic impacts of autonomous vehicles and develop a set of policies for federal and state advocacy and to guide future pilot projects.

DOT and the TLC will conduct a comprehensive study of commuter vans to better understand the state of the industry and explore possible safety, service, and regulatory improvements.

Accessibility



► **Pilot new wayfinding technology for visually impaired pedestrians**

DOT will conduct a pilot test of electronic beacons, which can assist visually impaired

New Initiatives



pedestrians in navigating the City, at indoor and outdoor transportation facilities. DOT will also test tactile guide-ways for visually impaired pedestrians on sidewalks and at outdoor public spaces.

Curb Management



► **Develop a 21st century parking management strategy for New York City**

DOT will complete a comprehensive analysis of the availability, regulation, and use of metered parking spaces and develop a pricing strategy to increase curb availability for deliveries and customer parking, focusing especially on congested commercial districts.

► **Modernize the regulation of sight-seeing buses**

DOT will work to pass City Council legislation to tighten the approval requirements for sight-seeing buses to better manage their stops.



Asset Management + Project Delivery



To keep New York moving safely and efficiently, DOT is committed to maintaining its assets—from bridges to pedestrian ramps and streetlights to the Staten Island Ferry—in a state of good repair.



DOT maintains a dizzying array of assets. On a typical street, the agency is responsible for traffic signals and street lights, street signs and poles, lane and crosswalk markings, pedestrian ramps, medians and pedestrian islands, the asphalt road surface, and the concrete foundation underneath. DOT also maintains a staggering 789 bridges citywide, from iconic spans like the Brooklyn Bridge to modest crossings like the Carroll Street Bridge in Gowanus. Other significant assets include the Staten Island Ferry operation, the agency's two asphalt production plants, the Joint Traffic Management Center, dozens of support facilities and yards, and a fleet of 3,000 vehicles and heavy equipment.

To keep New York moving safely and efficiently, DOT is committed to maintaining these assets in a state of good repair. We cannot accomplish our goals of expanded mobility, reduced greenhouse gas emissions, and improved street safety unless we meet this obligation first. This is no small task given the advanced age of much of the City's transportation infrastructure—all four East River bridges, for example, are more than 100 years old. Over the next 10 years, the City will invest \$14.4 billion in maintaining and rehabilitating our streets, bridges, and the Staten Island Ferry, and making other major investments. As we implement this ambitious program, we will continue to seek additional funding at all levels of government and explore innovations in project delivery.

A Life-Cycle Approach to Maintaining our Bridges

In the 1980's, the City learned the hard way the high costs of deferring maintenance on its bridge structures. Because of the City's financial problems starting in the 1960's, investment in maintaining and repairing the Williamsburg Bridge was put off for years. In 1988, the bill came due: DOT inspectors found widespread corrosion and cracking in the beams supporting the bridge's road deck. Faced with the risk of structural failure, the City closed the bridge for two months in order to make emergency repairs.

Deferring maintenance saved the City money in the short run, but accelerated the rate of decay of the bridge, which ultimately needed \$1.3 billion in major repairs. By contrast, DOT now conducts regular maintenance of its bridges to prevent decay. Regular maintenance and strategic repairs can extend the useful life of our structures, increase the interval between major rehabilitation projects, and save money over the long term. This life cycle approach to maintaining our assets also increases safety and protects against unplanned bridge closures that can disrupt the street network.



Williamsburg Bridge reconstruction in the 1990s

We are also modernizing our approach by adopting best practices in asset management and expanding the use of technology. The agency is replacing legacy computer systems with modern platforms that better track the condition of our infrastructure, help predict future

conditions, and analyze the relative costs of repair, rehabilitation, or replacement strategies. These tools can help DOT staff better understand the total cost of different approaches over the life of a given asset and to choose the most cost-effective strategy.



A State of the Art Asset Management System for Our Streets

DOT is responsible for maintaining the asphalt surface of the streets of New York City. The agency is in the midst of a comprehensive effort to improve our road surfaces. The agency is dramatically increasing its road resurfacing program: in fiscal year 2016 DOT will repave more than 1,200 lane-miles of City streets, up from just over 800 a few years ago. Resurfacing totals will reach 1,300 lane-miles in both fiscal years 2017 and 2018, the highest level since the early 1990's.

But DOT is not just paving more, we are also developing systems to better track the condition of our streets and help extend the useful life of our roadways. The concept, in its early stages, is to build a tool that can help the agency predict how fast a given street will deteriorate. If feasible, this software tool will help us prioritize streets for resurfacing and to target the agency's resources accordingly. It may also mean fewer potholes and a smoother ride for drivers and cyclists across the five boroughs.

Asset management is not just about keeping our roads smooth and our bridges in sound structural condition, it is also about protecting our transportation network from the hazards of global climate change. As Super Storm Sandy so painfully demonstrated, much of the City, and by extension our streets, are susceptible to rising

sea levels and more frequent coastal flooding. As we reinvest in our streets, bridges, and tunnels, the agency is integrating resiliency features to make sure our infrastructure can better withstand the impact of flooding, extreme heat, and increased precipitation.

Fixing the Brooklyn-Queens Expressway (BQE) Triple Cantilever

Over the next ten 10 years, the City will undertake dozens of major capital projects to restore our network of roads and bridges, including significant rehabilitation of major roads essential to the City's economic vitality. In Brooklyn, the City will rehabilitate and reconstruct the 21 interconnected bridge structures that carry the BQE from Atlantic Avenue to Sands Street, including the "triple cantilever" stacked section of highway completed in 1948, which is topped by the iconic Brooklyn Heights Promenade. With no reconstruction work in recent history, the triple cantilever is in need of major repair since many of its components are significantly deteriorated. To reduce the project's cost by as much as \$100 million and its duration by nearly two years, DOT hopes to use the design-build procurement approach.



Finally, DOT is exploring ways to reduce the cost and duration of our major capital projects. The agency manages its own bridge capital projects and works with the New York City Department of Design and Construction (DDC) on capital street reconstruction projects. Currently DOT is required to use the traditional design-bid-build process, which can be particularly time consuming and costly on large infrastructure projects.

To help speed up our capital process, DOT is continuing to pursue authorization from New York State to use design-build contracting, a method of project delivery in which design and construction services are procured under one contract. By overlapping the design and construction phases, design-build increases the accountability of contractors and shortens the delivery schedule,

thereby reducing schedule and budget risk for the asset owner. This approach typically achieves a time savings of one to two years when compared to the traditional procurement process. DOT estimates that use of design-build could achieve savings of nearly \$250 million across nine bridge projects.

Design-build is widely used by 41 states and the federal government but remains unavailable to New York City. Certain state agencies and authorities, including the MTA, are authorized to use design-build, which has now been employed in more than 30 projects statewide, including the Tappan Zee Bridge and Kosciuszko Bridge replacement projects. DOT is also exploring other innovative project delivery approaches that can help reduce costs and project duration, while supporting well-paying design and construction jobs.

Increasing Resources to Keep Pavement Markings Fresh



Pavement markings, such as crosswalks, lane lines, and bike lane icons, are a key design element in DOT's Vision Zero, Select Bus Service, and bike lane projects. Over the past 15 years, the agency has dramatically increased its use of pavement markings to make our streets work better, and the total inventory of pavement markings has increased from 69 million linear feet (mlf) to about 225 mlf today – a jump of 226 percent. Keeping markings clear and visible is essential to the safe and efficient operation of our streets.

DOT is embarking on an ambitious program to maintain our pavement markings in a state of good repair. Until recently, the agency was installing about 30 mlf of pavement markings annually. In 2015, with the support of Vision Zero funding, the

agency expanded pavement marking installation to 50 mlf, and is working to further increase output to 75 mlf a year. This increase will enable the agency to continue installing new markings, while freshening up existing ones more frequently. Finally, DOT is also working to increase the durability of our street markings through improved surface preparation methods and the use of new materials.





Asset Management

- 1 **Maintain DOT's infrastructure**, including streets, bridges, agency facilities, and the Staten Island ferry system, in a state of good repair.
- 2 Building on current efforts, **inventory and assess the condition of all of DOT's physical assets** by 2018.
- 3 Building on current efforts, **set performance and state-of-good-repair targets for each of the agency's asset classes** by 2018.
- 4 Building on current efforts, **adopt best practices in asset management across the agency to more efficiently target capital and expense funding resources**.

Resiliency

- 5 **Protect DOT's infrastructure**, especially in coastal areas, **from the impacts of global climate change** and other threats.
- 6 Building on past efforts, **assess the vulnerability of all agency infrastructure to major climate shocks** by 2018.
- 7 Building on current efforts, **determine where further measures are needed to protect high-risk infrastructure against climate shocks** by 2020.
- 8 Building on current efforts, **better prepare the agency to operate the street network in the aftermath of major climate shocks** by 2018.

Project Delivery

- 9 Working with our government partners, **deliver capital projects, including bridge repair and street reconstruction projects, in a timely and cost-effective manner**.
- 10 To expedite capital project delivery, **streamline internal and interagency standard operating procedures** for capital projects.
- 11 To expedite project delivery and reduce costs, **secure state authorization for DOT to use design-build procurements for major capital projects**.



Existing Initiatives

Asset Management



► Implement agency \$14 billion 10-year capital plan

As laid out in the Mayor's Ten Year Capital Plan for DOT, the agency will plan for and invest in a range of projects, from bridge rehabilitation to full street reconstruction. As we implement this ambitious program, we shall continue to identify new resources and pursue cost-cutting solutions to address funding needs.

► Continue to adopt best practices in asset management

DOT will continue to update legacy computer systems to better support asset management. The agency will roll out its Sign Information Management System (SIMS) for street signs, complete development of its new bridge asset management system, and develop an asset management system for roadways, sidewalks, and pedestrian ramps.

Resiliency



► Continue post-Sandy reconstruction efforts

DOT will continue to complete a broad range of resiliency projects first laid out in the Special Initiative for Rebuilding and Resiliency (SIRR). These projects include retrofits to bridges, streets, traffic signals, yards, and facilities. Progress on these efforts is laid out in detail in the *One NYC* progress report: <http://www1.nyc.gov/html/onenyc/downloads/pdf/publications/OneNYC-2016-Progress-Report.pdf>

► Continue to participate in major multi-agency coastal protection projects

DOT will continue to participate in multi-agency planning and design efforts for coastal protection systems along the East River and the Battery in Manhattan, Staten Island's South Shore, Red Hook in Brooklyn, and others areas identified in *OneNYC*.

Project Delivery



► Continue to work with agency partners to improve project delivery

DOT will seek to continue internal and City agency-wide discussions on streamlining the design and review of DOT capital projects. Such coordination among DOT planning teams and our City partners, including the Department of Environmental Protection (DEP), DPR, and DDC, will align agency goals before projects are initiated, leading to efficient delivery of projects and lower agency operational costs.

► Continue to expand contracting opportunities for minority- and women-owned business enterprises (M/WBEs)

DOT is committed to increasing contracting opportunities for M/WBE firms and to providing support to help them become successful agency contractors. DOT's designated M/WBE Officer will continue to oversee these efforts.



Asset Management

NEW



- ▶ **Create asset management task force to coordinate efforts between divisions**

DOT will create an asset management task force to institutionalize best practices. Where practical, DOT will seek to create asset management systems that group asset classes, such as street pavement and pedestrian ramps.

- ▶ **Develop decision-making tools to help guide the allocation of maintenance and capital resources across divisions**

DOT will create tools and a process to help agency leadership cost-effectively allocate limited capital resources across a diverse range of asset classes.

- ▶ **Integrate social, environmental, and economic costs into these decision-making tools**

When making these decisions, the agency will seek to take into account not only cost savings over the long term, but also seek to mitigate or avoid adverse social and environmental costs, such as impacts on low-income communities, air quality, and greenhouse gas emissions.

Resiliency

NEW



- ▶ **Analyze the risk from climate change in non-Sandy-impacted areas**

In conjunction with the City's Climate Change Adaptation Task Force, DOT will assess the vulnerability of its infrastructure to climate shocks, especially in areas that were not affected by Super Storm Sandy, and evaluate the costs and benefits of potential mitigation actions. This plan will inform DOT's capital plan going forward.

- ▶ **Develop resilient street design standards for incorporation into the Street Design Manual**

DOT will update its Street Design Manual to include a greater focus on resilient and sustainable street design features, including permeable pavement, green infrastructure and natural features, and other climate-adaptation elements.

- ▶ **Develop detailed transportation contingency plans**

With the MTA, PA, NYPD, Emergency Management, and others, DOT will create detailed contingency plans to address transportation needs in the aftermath of disruptive climate events or in anticipation of major roadway or transit closures.

Project Delivery

NEW



- ▶ **Secure State authorization to use the design-build procurements for major capital projects**

Working with the State Legislature, DOT will seek passage of state legislation authorizing DOT to use design-build procurements, in which design and construction services are procured under a single contract.

- ▶ **Require the use of one agency-wide project management system for all DOT capital projects**

By using one system, DOT will be able to better manage our capital projects, resulting in shorter project timelines. Over the medium term, DOT will seek to develop a centralized project management system with DDC and DEP.

- ▶ **Create standard approval processes for routine capital work**

DOT will create standard project and contract documents for typical capital projects, such as sidewalk extensions and bus bulbs. These boilerplate forms will streamline internal and intra-agency approvals for routine capital projects, thereby freeing agency staff to process complex major projects.



Freight Movement



5

Today, of the 400 million tons of cargo that enter, leave, or pass through New York City each year, more than 90 percent is carried by truck.



For much of its history, freight was brought to New York City by ship and by rail. The City's street grid was laid out when goods were loaded onto horse carts at the water's edge, not onto semi-trailers at warehouses far outside the City. As shipping and rail freight faded from the New York City in the mid- 20th Century, goods movement shifted to trucks. Today, of the 400 million tons of cargo that enter, leave, or pass through the City each year, more than 90 percent is carried by truck. Accommodating this level of truck traffic on streets that were laid out in the 19th Century is a huge challenge, one that is further compounded by the fact that New York City blocks lack back alleys. This oversight by the City founders forces all deliveries and garbage collection to happen in our streets, which are often already crowded with pedestrians, vehicles, and cyclists.

And the challenge is only growing. The increase in e-commerce and home package delivery has further increased truck volumes: Between 2010 and 2015, one major freight industry company saw a 29 percent increase in deliveries to residential areas in New York City. As the City's population and job base continue grow, so will the demand for goods and services. The New York City economy depends on the efficient movement of freight, but at the same time truck traffic contributes to air pollution, noise, and congestion, and creates safety challenges for pedestrians and cyclists. A number of communities, like the South Bronx, have historically experienced a disproportionate share of the negative impacts of truck traffic.

To alleviate these impacts, DOT is committed to making trucking greener and more efficient through smarter technology, better enforcement, and partnerships with freight haulers, receivers, and other industry stakeholders. These efforts will support the City's OneNYC freight goals, which also envision shifting more freight from trucks to rail and barge. We are in the process of developing a citywide freight plan to improve our understanding of how trucks operate in the City and to scale up our data-driven freight

management program. The agency is also seeking to use sensor and camera technology to promote a culture of compliance with truck routes, loading regulations, and overweight and over-dimensional rules.

Improving our freight network is vital to New York City's continued economic and population growth. Our goal is to support the economy while also minimizing adverse impacts on local communities.

Freight Management Best Practices in London



Photo: © Transport for London

London is a global leader in urban freight management and its experience offers valuable lessons for New York City. London requires the use of electric delivery vans in certain parts of the city, and freight bicycles are often used for last-mile deliveries. Additionally, companies that win city contracts must use clean trucks that are equipped with technology to reduce drivers' blind spots. These changes, as well as a requirement that all trucks have sideguards, make it safer for pedestrians and cyclists on London's streets and improve the air quality along congested freight corridors.

Technology also plays an integral role in London's freight management, with enforcement agents using closed circuit television (CCTV) cameras to monitor compliance with delivery rules. Agents monitor the cameras and issue summonses to drivers for double parking, parking too long in loading zones, and blocking the box. By leveraging technology to better manage its transportation network, London is able to ensure that freight and people reach their destinations in a safe and timely manner, while improving neighborhood quality of life.

Improving Truck Compliance on New York City Streets

In New York City, overweight and over-sized trucks threaten public safety and our transportation infrastructure. The trucks' longer breaking distances and reduced stability, combined with their greater mass, can lead to severe crashes. Studies have also found that the useful life of pavement can be reduced by up to 25 percent if just one to three percent of trucks are overweight. Given these risks, DOT has deployed Weigh-in-Motion (WIM) scales that can weigh trucks as they drive over highways and alert authorities to overweight trucks in real time.

In coordination with regional partners, DOT installed a WIM system on the Alexander Hamilton Bridge in 2014. The resulting data showed that almost seven percent of the thousands of trucks that use the bridge each day were overweight. This dramatic level of non-compliance with weight restrictions has serious implications for the condition of our highways and bridges. DOT plans to expand the number of WIM systems across the City to discourage trucking companies from violating the law.







Goals

- 1** In partnership with the freight industry, **improve the safety, environmental performance, and economic efficiency of truck deliveries** across the five boroughs.
- 2** **Foster a culture of regulatory compliance** in the trucking industry.
- 3** **Expand partnerships with the freight and trucking industry** to encourage sharing of data to better manage truck movements throughout the City.



Existing **Initiatives**

Reducing Air Pollution and Congestion



- ▶ **Continue initiatives to improve air quality in neighborhoods with heavy truck traffic**

DOT will continue to encourage the use of trucks with cleaner engine emission standards through programs such as the Hunts Point Clean Trucks Program (see *Chapter 7: Sustainability* for more information on this program).

Reducing Freight and Land-Use Conflicts



- ▶ **Improve truck access to industrial areas, marine terminals, and airports**

DOT will continue to update the City's truck route network to reflect current land uses and truck access needs and make the freight industry aware of these updates.

Enforcement



- ▶ **Improve truck rule compliance through technology and stakeholder engagement**

DOT will continue to expand the use of Weigh-in-Motion scales (see the box on p. 49). Overweight trucks damage our roadways and put companies that follow the rules at an economic disadvantage.



Reducing Air Pollution and Congestion

NEW



► Expand off-hour deliveries in conjunction with noise monitoring

DOT will encourage off-hour deliveries, with a focus on large buildings in areas with high pedestrian and bicycle activity. Shifting deliveries to overnight hours decreases congestion and truck emissions. DOT will also work with the trucking industry to pilot low-noise truck technologies, as well as deploy a network of noise monitors and cameras to monitor off-hour delivery activity.

► Pilot test micro freight and waste collection centers

DOT will explore opportunities for micro freight distribution centers in highly congested commercial areas. These centers might be sited in curb space now dedicated to commercial loading, encouraging off-hour delivery and more efficient collection of recycled materials and waste.

Freight Strategy

NEW



► Develop a comprehensive five-borough freight strategy

DOT will develop truck route profiles for each borough to better understand truck route use and compliance. This analysis will enable the agency to better understand the movement of goods, the needs of shippers and receivers, and community concerns. The agency will then recommend a series of actions to reduce the environmental and social impacts of trucking, while enabling our economy to grow.

► Expand DOT's Office of Freight Mobility

DOT will significantly increase the staff of the Office of Freight Mobility in support of the citywide freight plan and the agency's efforts to increase the use of sensor and camera technology to monitor compliance with truck regulations and traffic laws.

Enforcement

NEW



► Issue Notices of Observation to off-route and overweight trucks

DOT will explore issuing notices of observation to off-route trucks and overweight trucks that repeatedly violate rules, with opportunities for adjudication. DOT will explore linking these to denial of permits and City contracts, or other sanctions.



The Public Realm



6

DOT sees our streets not just as conduits for people and goods, but as public spaces essential to the life and vibrancy of the City.



Our streets are the City's biggest open space asset, making up 27 percent of New York City's land area. For many New Yorkers, their local street is also their backyard: a place for neighbors to gather, children to play, and folks to take a rest or a stroll. DOT sees our streets not just as conduits for people and goods, but as public spaces essential to the life and vibrancy of the City. DOT is continuing its efforts to make our streets more inviting places for pedestrians, transforming them into attractive public spaces for people of all ages. This strategy works hand in hand with Vision Zero. The more attractive our streets and sidewalks are, the more pedestrians will choose to use them. As pedestrians fill our streets, sidewalks, and crosswalks, drivers become more aware of the need to drive slowly and attentively.

Beyond improving our sidewalks and streets, DOT is supporting Mayor de Blasio's efforts to create signature open spaces across the five boroughs, especially in neighborhoods with few open space resources. DOT continues to partner with local communities to convert under-used streets into public plazas. A well designed plaza provides residents with a place to gather, promotes local businesses, reconnect neighborhoods, and creates a venue for recreational and cultural

events. DOT is now providing financial assistance to plaza partners in low- and moderate-income neighborhoods so that all communities can benefit from the program (see the box below). The agency is also exploring ways to activate and beautify areas under elevated highways and train lines (see the box on facing page). These programs are an important part of the City's effort to ensure that all New Yorkers live within a 10-minute walk of a quality open space.



The Plaza Equity Program

The NYC Plaza Program works with local communities to create new public open spaces by reclaiming underutilized streets. The City plans and creates the pedestrian plaza with input from the neighborhood, while a community partner, such as a civic organization or business improvement district, maintains and programs the space. To date, DOT had developed or is planning 73 plazas across the five boroughs. Unfortunately, not every community has a partner organization that can afford the required upkeep a public plaza demands. This is particularly true in low-income communities, many of which are in need of more public open space.

That is why Mayor de Blasio created the Plaza Equity Program to provide \$1.4 million in technical assistance for designated medium- and high-need plazas citywide. The program provides funding to under-resourced communities to support their plazas, providing needed funds for maintenance services, including daily cleaning, trash removal, furniture management, and horticultural care. Partner organizations also receive technical assistance with navigating City permitting processes, maintenance, and event planning. Of the 73 plazas throughout New York City in some phase of design, development or implementation, 30 have been identified to receive support, enabling these diverse communities to have a high quality public space.

The El-Space Program

New York City has over 300 miles of bridges, elevated highways, and rail lines. Beneath this elevated transportation infrastructure lie millions of square feet of space—“el-space”—that is a largely unused and often uninviting. These elevated structures can also divide neighborhoods. In response, DOT is establishing the El-Space Program to enhance, activate, and reclaim el-spaces, reconnecting neighborhoods and providing more open space to communities.

Currently, DOT is completing the first phase of a comprehensive asset inventory of el-space sites across the five boroughs. DOT is developing a toolkit of elements to enliven these spaces, including a multi-media seating installation, el-space lighting, green infrastructure, a concession booth, and more attractive fence designs. Simultaneously, the agency is pursuing two pilot projects in partnership with the Design Trust For Public Space, one in Sunset Park beneath the Gowanus Expressway and a second in the Rockaways beneath the elevated A train. Three additional agency-initiated pilots focused on el-space lighting enhancements are underway.







Goals

- 1 Make DOT's streets and sidewalks attractive safe public spaces** for walking, resting, and gathering.
- 2 Expand public open space** by creating pedestrian plazas across the five boroughs, especially in underserved neighborhoods.
- 3 Reconnect communities and create new open spaces** by enhancing and activating underutilized areas under bridges, elevated roadways, and train lines.



Existing Initiatives

Expanding Public Open Space



▶ Continue and enhance the NYC Plaza Program

DOT works with local partners to create neighborhood plazas throughout the City, transforming underused streets into vibrant public spaces. The Plaza Program includes one-day plaza projects, interim plazas created with temporary materials, and permanent plazas. Our plaza partners are responsible for on-going maintenance. DOT provides financial and technical support through the Plaza Equity Program when neighborhoods need assistance.

Programs to Improve the Street Environment



▶ Continue DOT street furniture programs to improve our streets

DOT has a range of programs to make our streets more attractive, easier to navigate, and more comfortable for pedestrians. These programs include:

Coordinated Street Furniture:

provision and maintenance of bus shelters, newsstands, and automatic public toilets by DOT's street furniture franchisee;

CityBench: the installation of benches at bus stops and plazas and on sidewalks to increase public seating on City streets;

WalkNYC: the installation of map-based way-finding information in neighborhoods and at SBS stations across the City; and

Street Seats: a citywide program by which local partners apply to transform underused streets space, such as parking spaces, into seasonal public spaces.

▶ Continue DOT Art program to enliven the streetscape

DOT Art partners with community-based organizations and artists to present temporary public art in neighborhoods across the City. Artists help transform the City's streets from ordinary to extraordinary through colorful murals, dynamic light projections, and thought-provoking sculptures.

Programs to Temporarily Open Streets for Recreation



▶ Continue DOT programs that open up City streets for public recreation

Each year, the city opens up streets across the five boroughs to pedestrians and cyclists. These programs include:

Summer Streets: an annual celebration during which nearly seven miles of Manhattan streets from the Brooklyn Bridge to Central Park are opened on three consecutive summer Saturdays for people to play, run, walk, and bike;

Weekend Walks: a series of multi-block neighborhood events across the five boroughs during which, at the request of the community, commercial streets are temporarily closed to vehicles and opened to walking and other activities; and,

Car-Free NYC: an annual Earth Day celebration that opens City streets for recreation, allowing residents and visitors to enjoy New York City's most valuable public space—our streets.



Expanding Public Open Space

NEW



► **Transform areas under elevated transportation infrastructure into attractive public spaces through the El-Space program**

DOT will conduct an inventory of el-spaces, develop an El-Space toolkit of design treatments, and initiate five El-Space pilot projects, some in partnership with the Design Trust for Public Space. The project will include a consideration of opportunities for secure bike parking.

Programs to Improve the Street Environment

NEW



► **Update news rack regulations to keep sidewalks clean and orderly**

To accommodate pedestrian flow on busy sidewalks and to keep sidewalks clean, DOT is working with the City Council to pass legislation to streamline the news rack registration process, encourage the use of modular racks, and hold owners more accountable for their dirty or disorderly racks.

Programs to Temporarily Open Streets for Recreation

NEW



► **Build upon the Lower Manhattan Shared Streets pilot project**

Shared streets give priority to pedestrians with accommodation for vehicles needing local access. Having pedestrians, cyclists, cars, and trucks all traveling slowly through a common street space discourages traffic and has been shown to improve traffic safety. In conjunction with this year's Summer Streets, DOT held a Shared Streets event covering 60 blocks of historic Lower Manhattan. Based on this successful test, DOT will explore expanding Shared Streets and holding additional pilot events in 2017.

► **Conduct a seasonal pedestrian street pilot project**

In collaboration with a supportive community, DOT will create a seasonal pedestrian- and cyclist-only street in the summer of 2017. Car and truck access will be accommodated through special regulations, potentially during off-hours. The pilot project will last several months and will be evaluated by DOT.



Sustainability



New York City's transportation sector accounts for 22 percent of the City's total greenhouse gas emissions, with fossil fuels burned in passenger cars contributing 14 percent of the citywide total and trucks an additional four percent.



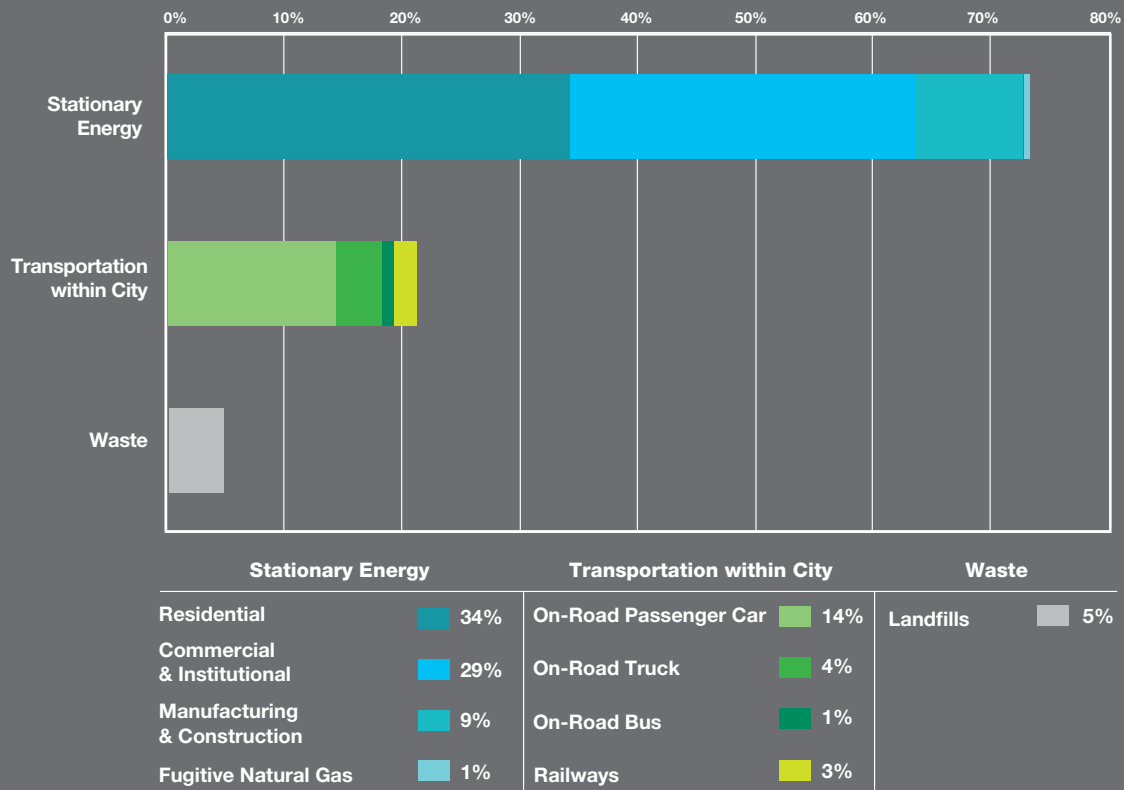
Mayor Bill de Blasio pledged in *OneNYC* to make New York City the most sustainable big city in the world and a global leader in the fight against climate change. The City is committed to reducing its greenhouse gas (GHG) emissions 80 percent by 2050 (80 x 50) and ensuring New York has the cleanest air of any large U.S. city. The City has been a strong voice for collective global action on climate change, supporting the adoption of the Paris Agreement at the United Nations Climate Change Conference (COP21). In June 2015, the Mayor joined Pope Francis and other global city leaders at the Vatican and committed to reducing New York City's GHG emissions 40 percent by 2030—an interim target on the path to 80 x 50.

New York City's 80 x 50 Plan

New York City, built primarily on islands and with 520 miles of shoreline, is particularly vulnerable to the effects of climate change, including rising sea levels, extreme storms, and heat waves. New York City's transportation sector accounts for 22 percent of the City's total greenhouse gas emissions, with fossil fuels burned in passenger cars contributing 14 percent of the citywide total and trucks an additional four percent. Most motor vehicles also emit particulates and other air pollutants that also contribute to global warming, as well as to asthma and premature mortality.

To combat these threats, the City is committed to reducing GHG emissions from the transportation sector through several approaches: encouraging travel by low carbon modes; minimizing congestion and total miles driven through technology, market signals, and new mobility service models; transitioning to more efficient cars and trucks running on cleaner energy sources; and enhancing the efficiency of freight and traffic. In the fall of 2016, the City will release a more detailed 80 x 50 action plan focusing on sectors with the highest impact, including transportation.

NYC Greenhouse Gas Emissions by Sector 2014



City of New York Inventory of New York City's Greenhouse Gas Emissions, April 2016, by Cventure LLC, Cathy Pasion, Mikael Amar, and Yun Zhou, Mayor's Office of Sustainability, New York, 2016. City of New York Inventory of New York City's Greenhouse Gas Emissions, April 2016, by Cventure LLC, Cathy Pasion, Mikael Amar, and Yun Zhou, Mayor's Office of Sustainability, New York, 2016.



DOT's Hunts Point Clean Trucks Program

Tailpipe emissions from trucks are a significant issue in New York City, especially in communities—some of them low-income—that experience a disproportionate level of trucking activity. In 2012, DOT launched the Hunts Point Clean Trucks Program (CTP) to convert older dirtier trucks serving the Hunts Point produce market in the South Bronx to newer cleaner models. Through the \$20 million program, trucking fleets were eligible for incentives to retrofit their vehicles or for a discount on the purchase of a new cleaner truck. To date, the project has taken 450 older trucks off the road and led to six engine retrofits and the scrapping of 24 old trucks.

The results are striking. The newer trucks release 97 percent less particulate matter (PM) and 90 percent fewer nitrogen oxides—both pollutants harmful to human health. And because the trucks are more fuel efficient and burn less fuel, greenhouse gas emissions have been reduced by 4,600 tons per year. Moving forward, DOT hopes to secure funding to replace an additional 100 trucks at Hunts Point, as well as to expand the program to additional neighborhoods that shoulder a disproportionate share of trucking activity.





DOT is helping the City reach its sustainability goals by working to provide safe, functional, and convenient low-carbon transportation choices and by reducing the agency's own energy footprint.

- 1 **Increase travel by walking, biking, and bus transit** to reduce air pollution, greenhouse gas emissions, and the risk of climate change.

- 2 **Reduce emissions contributing to climate change** that are generated by agency operations.

- 3 Building on current efforts, **expand the agency's role in planning and implementing green infrastructure** across the City to protect water quality.



Existing Initiatives

Low Carbon Modes



► Encourage walking, biking, and transit

To achieve a shift from auto travel to low-carbon modes, the City must provide safe, convenient, and connected bike and pedestrian networks as well as work with the MTA to improve bus service and pedestrian and bicycle access to transit. (See *Chapter 3: Mobility* for more information about DOT's initiatives in this arena).

► Expand the Go Smart NYC program

Go Smart NYC is DOT's neighborhood-based travel choice resource program. Go Smart provides New Yorkers with information on their travel options and gives them incentives to use low-carbon modes like walking, biking, and transit. After launching in Queens Community District 5 in 2015, DOT plans to expand the program to select Brooklyn neighborhoods in 2016 and 2017.

Green Infrastructure



► Continue DOT's partnership with the NYC Department of Environmental Protection (DEP) to install green infrastructure (GI) on streets citywide

DOT will continue to partner with DEP in the siting of right-of-way bioswales, stormwater greenstreets, and other green infrastructure designs in City streets, sidewalks, plazas, and greenways. GI diverts storm water runoff from the sewer system and helps prevent the discharge of sewage into our rivers and streams. We will also begin working with DEP on strategies to clean storm water runoff.

Greening Agency Operations



► Install energy efficient street lights and signals

Well-lit streets are vital to pedestrian and vehicle safety. DOT is replacing its high-pressure sodium street lights with modern LEDs that use 80 percent less energy. The agency has converted over 100,000 of its streetlights

thus far and plans to convert our remaining 150,000 lights by 2018. All of the signals in DOT's 12,000 signalized intersections have already been converted to LED. All of the signals in DOT's 12,000 signalized intersections have already been converted to LED.

► Green DOT's street resurfacing operations

The agency is a national leader in the use of recycled asphalt pavement (RAP)—our asphalt now contains 40 percent RAP. By using RAP, the City saves on new material and reduces the environmental costs associated with transport and disposal of milled asphalt. DOT has also begun testing warm mix asphalt, which requires less energy to make than traditional asphalt.

► Green DOT's Staten Island Ferry (SIF) operations

In late 2016, DOT will begin converting all light fixtures in its ferry terminals to LEDs. In addition, the agency is planning to install shore power at its maintenance facility, so our ferries do not need to run their engines while being serviced. Finally, the agency is procuring three new ferry boats with cleaner EPA Tier 4 engines. These vessels will go into service in 2020 and 2021.



Emissions from Private Truck Fleets

NEW



Reduce emissions from private truck fleets in priority communities

The City and DOT are working to secure federal funding to replace another 100 trucks as part of the Hunts Point Clean Truck initiative (see the box on p. 65.) DOT is also seeking to expand the program to other priority communities with high levels of truck activity.

Green Infrastructure

NEW



Test permeable pavement and concrete

In accordance with legislation passed by the City Council as part of Local Law 80 of 2013, DOT will test the effectiveness of permeable asphalt pavement and permeable concrete sidewalks. These surfaces allow the ground below the pavement or sidewalk to absorb a portion of storm water, reducing runoff into the sewer system. DOT will monitor the impact of these surfaces, determine maintenance needs, and consider a broader application of these materials.

Develop intra-agency green infrastructure projects

DOT will develop green infrastructure elements within agency projects that will reduce the quantity of storm water runoff and help the City meet state and federal requirements for Municipal Separate Storm Sewer System (MS4) areas, which have separate storm sewer and sanitary sewers.

Greening Agency Operations

NEW



Reduce emissions from the DOT vehicle fleet

As part of its NYC Clean Fleet initiative, the City is creating the largest municipal electrical vehicle fleet in the United States. DOT current operates 639 sedans, of which 53 are plug-in hybrids or fully electric vehicles. The agency plans to replace 50 percent of the sedans retired each year with plug-in hybrids or fully electric vehicles. The City is also exploring strategies to green the agency's light and heavy-duty truck fleets.

Shrink the environmental footprint and maximize energy efficiency of DOT's 68 facilities

As part of its comprehensive facilities assessment (see *Chapter 8: Organizational Excellence*), DOT will conduct an energy audit, which will identify energy conservation measures for its facilities. This effort is part of the City's 80 x 50 initiative. Conservation measures may include LED lighting, HVAC system upgrades, and solar panels, and will be implemented as energy efficiencies are identified.



Organizational Excellence



DOT is committed to achieving excellence in all aspects of its operations, including staff development and retention, employee diversity and equal opportunity, workforce safety, customer service, and the management of our vehicles and facilities.



To remain effective in a dynamic and fast changing city, DOT must be nimble, efficient with its resources, and forward thinking. We must continue to attract and invest in a talented and dedicated work force. The agency must also continue to embrace the diversity that is the heart and soul of New York and make sure that all of our employees, regardless of background, feel included and valued. DOT is committed to achieving excellence in all aspects of its operations, including staff development and retention, employee diversity and equal opportunity, workforce safety, customer service, and the management of our vehicles and facilities.

At the core of these efforts are DOT's nearly 5,000 employees. Without their hard work, the agency would be unable to undertake the vitally important safety, mobility, and sustainability initiatives laid out in this plan. To be most effective, our employees need to be equipped with the tools and resources to get their jobs done. That is why DOT is investing in its employees through comprehensive employee training. The agency is also cultivating the next generation of leaders, ensuring that the agency can continue to be effective as veteran DOT staff retire. And we are recruiting new team members from across all parts of the City, so that our staff reflect and understand the diversity of New York.

DOT's commitment to Vision Zero also extends to our staff: workforce safety is a top priority. Approximately 50 percent of our staff work in the field and on a typical work day DOT employees set up more than 20 work zones to resurface roadways, fill potholes, repair damaged

traffic signs and signals, and conduct bridge maintenance. The agency is continuing to build on its safety culture through employee training, safety awareness campaigns, and operational changes.

Leadership Development and Rotational Programs

Many large public agencies have work exchange programs that help break down barriers within the organization and expose employees to new ideas. In 1977 the Federal Government created the Presidential Management Fellows (PMF) Program, through which participants complete a rotational assignment and receive training in leadership, management, and policy. Similarly, the Port Authority of New York and New Jersey offers a Leadership Fellows Program. Participants complete a rotation through the agency's key divisions, gaining experience in public sector finance, transportation operations, and project management. Rotational programs are mutually beneficial to agencies and individuals: they enrich the work experience of employees while also helping to break down barriers within agencies. DOT plans a pilot rotational program for existing employees in 2017.









Goals

- 1 Building on current efforts, **enhance workplace safety** and further establish a safety culture within the agency.

- 2 Building on current efforts, **attract and retain a talented and diverse workforce** so the agency has the staff resources it needs now and in the future to achieve its goals.

- 3 **Maintain and enhance the agency's culture of inclusion**, so that all employees feel valued and respected, and have equal opportunity for advancement.

- 4 Develop and **maintain high-quality facilities** that meet the needs of the agency's workforce and promote workplace efficiency.

- 5 Building on current efforts, **create effective and efficient agency processes** based on best practices to better deliver projects and programs.

- 6 Improve agency performance by **promoting sharing of best practices within the agency**, especially through expanded use of technology.



Existing **Initiatives**

Safety



► **Partner with our employees to identify key safety issues**

DOT has conducted an employee safety survey to get input from our employees about workplace safety issues and implemented safety slogans to remind staff of the importance of workplace safety.

► **Use data to better understand risks to our employees**

DOT will continue to track employee injuries and analyze the data for trends. The agency will use the results to target the types of injuries that occur most often and create new safety training materials. In addition, DOT has hired a consultant to provide feedback on work zone design.

Staff Development, Retention, and Diversity



► **Provide comprehensive training programs for all staff**

DOT will continue to provide training programs to help employees close gaps in their knowledge, whether it is software training or supervisor competencies. DOT also has a staff development library and access to online courses for employees who wish to do self-guided development.

► **Maintain and enhance an employee culture of honesty, integrity, and inclusion**

DOT will continue its commitment to public service and adherence by its employees to the agency's Code of Conduct, Executive Orders regarding integrity, and the City's Conflict of Interest Laws. Through training and

awareness programs, we will continue to encourage employees to conduct themselves in an honest and ethical manner and to be respectful of the diverse perspectives and backgrounds that each DOT employee brings to the workplace.



Safety

NEW



Enhance safety communication and training

DOT will publish a quarterly safety newsletter that shares best practices in safety among all units in DOT. We will also develop training profiles for specific roles to ensure that field staff members receive appropriate safety training throughout their careers.

Facilities

NEW



Conduct a comprehensive facilities assessment

DOT will conduct a comprehensive assessment of the conditions of its facilities. The assessment will be used to guide the agency's preventive maintenance efforts and facility capital investments. The assessment will also include an energy audit, which will evaluate potential energy efficiency improvements.

Staff Development, Retention, and Diversity

NEW



Pilot a rotational program for DOT staff

DOT will develop and pilot a rotational management development program in which selected DOT employees can do work exchanges with other DOT units and divisions, gaining experience in planning, outreach, design, data analysis, and other fields.

Expand outreach to attract diverse employees

DOT will expand its outreach efforts regarding agency job openings and the civil service exam process to groups under-represented at the agency. A closer relationship between Human Resources and the agency's EEO/Diversity Office will allow us to identify appropriate publications and affinity groups to target.

Create an ambassador program for outreach and recruitment to schools, colleges, and universities

DOT's Recruitment Coordinator will work closely with the operating divisions to identify

current employees who are recent graduates to expand the pool of individuals who can represent the agency at career fairs and other on-campus recruitment opportunities.

Learn from our peer cities across the globe

DOT will seek to learn from global best practices in peer cities worldwide as it advances its sustainable transportation agenda.

Process Reform

NEW



Streamline the procurement process

DOT is participating in a citywide effort to review and reform the current procurement processes. DOT will participate in ongoing pilots to compress the procurement timeline and add more predictability to the process, so that, among other improvements, the vendor pool is expanded and smaller vendors are better able to compete.



Public Engagement



DOT organizes or participates in hundreds of public meetings a year, from workshops on proposed Select Bus Service routes to community board presentations on Vision Zero projects.



New Yorkers view their streets and sidewalks as an essential part of their neighborhoods. Community residents, elected officials, business owners, and civic and advocacy groups bring valuable perspectives on local transportation conditions, from where speeding is a problem to where a bike share station should go. Recognizing the unique role that streets play in the life of the City and the value of local knowledge, DOT views public engagement and customer service as a core components of its approach to managing and improving our streets. Every major DOT project is developed in partnership with the local community.

The amount and variety of outreach we do as an agency attests to our level of commitment to substantive engagement. The agency organizes or participates in hundreds of public meetings a year, from workshops on proposed Select Bus Service routes to community board presentations on Vision Zero projects. We meet individually with numerous stakeholders, such as elected officials, businesses, and civic organizations. DOT receives

comments and requests through letters, online forms, social media and the City's 311 system, and last year we responded to over 30,000 inquiries from elected officials, community boards, and the general public. DOT is also expanding the use of online tools to enable community residents to comment on safety issues and proposed fixes.



Vision Zero Outreach

New York City's Vision Zero initiative exemplifies the agency's commitment to public engagement. Community consultation is included in every step of the program. In 2014, DOT partnered with the NYPD, TLC, and elected officials from across the City to hold over 25 Vision Zero town halls and workshops where members of the public were invited to identify safety priorities in their communities. New Yorkers also submitted over 10,000 comments on key safety issues through an interactive Vision Zero map on our website. This feedback informed DOT's borough Pedestrian Safety Action Plans, which identified priority intersections and streets for safety improvements.

As the agency develops specific safety projects to address these locations, these plans are in turn shared with local stakeholders, including community boards, civic and advocacy groups, and elected officials. In 2015, DOT completed 60 Vision Zero Projects, all of them developed in partnership with the community. While community engagement cannot ensure consensus, it can help generate more effective projects and programs that reflect local knowledge and perspectives.

DOT is a recognized leader among transportation agencies in the United States in community outreach. Each borough has a dedicated Borough Commissioner (BC), whose role it is to work closely with residents, community groups, and elected officials on issues large and small. The BCs and their staffs work closely with planning teams across the agency, as well as DOT's Intergovernmental Affairs Office and Press Office, to communicate DOT's projects and priorities and to solicit

feedback. Moving forward, DOT is focusing on increasing the participation of traditionally under-represented groups in our public outreach, such as bus riders, non-English speakers, and low-income residents. Our Street Ambassador Program, described in the box below, is a key part of that strategy. The agency is also using social media and digital tools to communicate its message and engage with the public.

The DOT Street Ambassador Program

In the past, City residents needed to make time to attend public meetings in order to participate in the planning process for our streets. DOT is changing that by bringing our outreach directly to New Yorkers. In 2015, the agency launched its Street Ambassador program, a multi-lingual team whose main office is the streets of New York City. The Ambassadors set up mobile information stations in locations where DOT projects are being considered or have been implemented to collect ideas and input from the public.

As part of the planning for the Queens Boulevard Phase II safety project, the Ambassadors interacted with over 3,300 residents and shoppers on Queens Boulevard, distributing information, conducting mobile workshops, and gathering feedback. The Ambassadors also visited over 90 business in the project corridor to discuss truck delivery needs. This approach ensured the agency received input from actual street users and expanded the number of residents engaged in transforming our streets.







Principles

Our public engagement and customer service philosophy is defined by four principles:

- 1 We strive to provide clear and timely information to the public** on the agency's priorities, projects, and operations through a variety of channels.
- 2 We consult with communities when developing street improvement and capital projects** and are dedicated to being responsive to local concerns.
- 3 We strive to respond to transportation concerns or problems raised by the public** in a timely and transparent manner.
- 4 We seek to provide excellent customer service to all who interact with the agency,** including Staten Island Ferry riders, permit applicants, contractors, and members of the general public.



Existing Initiatives

Public Awareness



▶ Continue to use a variety of channels to communicate agency goals and initiatives

DOT will continue to use social media to promote agency projects and initiatives and monitor public feedback. The agency will continue to develop videos on our projects and priorities, and conduct market research to measure the effectiveness of our public awareness efforts.

Project-Based Outreach



▶ Continue project-based outreach

DOT will continue to consult with local communities on all of its projects. For major initiatives, such as Select Bus Service routes and Great Streets projects, DOT will continue to use tools like interactive workshops and open houses to provide a forum for community input.

▶ Continue Street Ambassador Program

DOT will continue to deploy its Street Ambassadors to expand the reach of its public engagement efforts, particularly to groups

traditionally under-represented at public meetings, including bus riders, non-English speakers, and low-income New Yorkers.

▶ Expand and Improve Project Feedback Portals

DOT will continue to use online project portals (<http://nycdotfeedbackportals.nyc/>) to solicit input on street improvement projects, share project updates, and post designs. DOT will expand the use of portals to include a broader range of projects.

Customer Service



▶ Continue to respond courteously and promptly to public and stakeholder inquiries

To further improve customer service, DOT is upgrading the agency's centralized correspondence tracking system to better respond to the 30,000 letters, emails, and other communications the agency receives each year from elected officials, community boards, and the general public.

▶ Provide courteous service to the agency's permit and ferry customers

DOT has updated its permit application system to make it easier for applicants. We have also increased service frequency on the Staten Island Ferry.

Public Awareness

NEW



▶ Re-launch the DOT website

The agency is in the process of conducting a comprehensive redesign of its website to make it more user friendly and to meet universal accessibility standards. The new site will include a web content management system that will allow for more timely updates to online content.

▶ Engage with the public in new venues

DOT will seek to engage the public outside of the project-specific review process to raise awareness of what we do and build relationships. These venues could include community events and non-transportation focused forums.

▶ Employ surveys and other tools to measure user satisfaction and attitudes

DOT will explore opportunities to use surveys and other tools to measure changes in satisfaction of travelers over time and to better understand the needs and attitudes of the public towards potential changes or real world experience with the transportation system.



Project-Based Outreach

NEW



► Develop public engagement resource guide for agency staff

Leveraging the agency's deep institutional knowledge, DOT will develop an outreach resource guide documenting best practices from across the agency. The agency will also create a searchable in-house digital warehouse of public outreach materials, including presentations, talking points, and letters.

► Better communicate project benefits and outcomes

Using new data sources and analytics tools, the agency will develop ways to better quantify the economic, health, and safety benefits of our projects and to communicate these benefits to the public.

Customer Service

NEW



► Create an online map of agency projects

DOT is developing a public facing online map of agency projects and pending work already in our queue to let the public more easily review upcoming projects that might affect their lives. These maps will also link to new online forms for the public to submit inquiries directly to the agency.

► Improve customer service for the disability parking permit program

Beginning this summer, parking permit holders with permanent disabilities will be issued two-year rather than one-year permits. In addition, the hours for DOT's parking permit customer service center have been extended, and the agency is working to simplify its application process.

► Streamline the contract payment process

As part of efforts to improve the agency's procurement process, DOT has established a working group composed of the agency's fiscal affairs, engineering audit, legal, IT, and operational units. To speed up contract payments by at least 20 percent, DOT will require concurrent reviews by different units, allow invoice adjustments to follow initial payments to contractors, transition more of the payment process to computer-based systems, and develop a new contract payment management system.

► Streamline the change order approval process

Change orders can sometimes take a year to be approved, far longer than in the private sector. Moving forward, DOT will hold itself and its contractors accountable for meeting aggressive timelines in the change order process. The agency will improve change order tracking, better integrate our change order process with the new citywide procurement system, and continue efforts to expedite approvals from oversight agencies.



Concluding Statement

DOT is committed to moving the 39 goals and 105 initiatives in this plan forward. The attached initiative matrix lists the milestones for each initiative for the end of 2017 and the end of 2021. As an agency committed to transparency and public engagement, DOT will report back to the public on our progress over next several years. We are excited to take on the challenge of keeping New Yorkers moving and helping to create a safer, more sustainable, and more equitable transportation future for the City.

Acknowledgements

This plan was developed with extensive input from across DOT. In early 2016, 100 DOT staff members participated in a series of 12 workshops to generate ideas and initiatives for the plan. A steering committee comprised of DOT's senior leadership then further refined the goals and initiatives developed in the workshops.

Steering Committee

- Polly Trottenberg, Commissioner
- Lori Ardito, First Deputy Commissioner
- Chris Browne, Chief Communications Officer
- Phil Damashek, General Counsel
- Margaret Forgione, Acting Chief Operations Officer
- Emily Gallo, Chief of Staff to the Commissioner
- Joe Jarrin, Acting Chief Administrative Officer
- Jeff Lynch, Assistant Commissioner for Intergovernmental Affairs
- Michael Replogle, Deputy Commissioner of Policy
- Ryan Russo, Deputy Commissioner for Transportation Planning and Management

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Appendix:

Initiatives and

Milestones Table

ABBREVIATIONS

DOT Divisions and Units

BCs	Borough Commissioners
Bridges	Division of Bridges
C&F	Cityscape & Franchises Unit
CCU	Commissioner's Correspondence Unit
EAB	Engineering Audit Bureau
FCPM	Division of Finance, Contracts, & Program Management
Fleet Services	Fleet Services Unit
HRFM	Division of Human Resources & Facilities Management
Intergov	Intergovernmental and Community Affairs
ITT	Division of Information Technology & Telecom
Legal	Legal Department
Policy	Policy Unit
RRM	Division of Roadway Repair Maintenance
SIF	Staten Island Ferry
SIM	Division of Sidewalks and Inspection Management
SC	Strategic Communications Unit
TO	Division of Traffic Operations
TP&M	Division of Transportation Planning & Management

Agencies

BIC	City of New York Business Integrity Commission
Law	New York City Law Department
DAs	District Attorneys
DCAS	New York City Department of Citywide Administrative Services
DDC	New York City Department of Design and Construction
DEP	New York City Department of Environmental Protection
DOE	New York City Department of Education
DOHMH	New York City Department of Health and Mental Hygiene
DSNY	New York City Department of Sanitation
DYCD	New York City Department of Youth and Community Development
EDC	New York City Economic Development Corporation
EM	New York City Emergency Management
Mayor's Office	New York City Mayor's Office
MOCS	Mayor's Office of Contract Services
MOPD	Mayor's Office for People with Disabilities
MTA	Metropolitan Transportation Authority
NYMTC	New York Metropolitan Transportation Council
NYPD	New York City Police Department
NYSDOT	New York State Department of Transportation
PANYNJ	Port Authority of New York and New Jersey
TLC	New York City Taxi and Limousine Commission

Initiative	Initiative Description	Related OneNYC Initiative
2. Safety		
Existing Initiatives		
Vision Zero Street Engineering		
2.1.1. Use Vision Zero Borough Pedestrian Safety Action Plans to guide engineering projects, safety education, and camera enforcement efforts	Drawing on crash data analysis and community feedback, DOT and the NYPD identified priority Vision Zero intersections and corridors across the City. DOT and its agency partners then developed a Safety Action Plan for each borough. Each year DOT strives to implement at least 50 safety projects at priority locations.	2.6.2
2.1.2. Transform high-crash arterial roads into Vision Zero Great Streets	The Great Streets program redesigns major corridors to prevent crashes, enhance mobility, increase accessibility, and bolster neighborhood vitality. The following projects are underway: Atlantic Ave. and Fourth Ave. in Brooklyn; the Grand Concourse in the Bronx; and Queens Blvd. in Queens. In addition, DOT is implementing Vision Zero capital redesigns on other major streets, including Delancey St. in Manhattan and Tillary St. in Brooklyn.	2.6.3
2.1.3. Continue Safe Routes to Schools, Safe Streets for Seniors, and other Vision Zero capital programs	The agency will continue to design and implement pedestrian safety improvements, such as curb extensions, median refuges, and signal timing changes near schools and in neighborhoods with large numbers of aging New Yorkers. This effort is coupled with education and encouragement targeted at schools and senior centers.	2.6.1
Vision Zero Education and Awareness		
2.1.4. Continue Vision Zero safety education programs	The agency will continue its Vision Zero safety education programs for children, parents, and senior citizens, as well as its free bike helmet and car seat distribution programs. DOT is also working with the Department of Education on a Vision Zero curriculum for schools and is partnering with other City agencies to bring safety programs to community centers and afterschool programs.	2.6.1
2.1.5. Continue Vision Zero public awareness campaign	Your Choices Matter is DOT's street safety awareness campaign that emphasizes the serious consequences of dangerous driving choices. In 2017, we will launch a variation of the campaign that addresses the most common causes of serious crashes. In the longer term, DOT will produce new content in order to remain visible in the City's rapidly-changing media climate.	2.6.1
2.1.6. Advocate for safe cycling around visually impaired pedestrians	Cycleeyes is DOT's safe cycling awareness campaign that reminds cyclists to be on the lookout for visually impaired pedestrians.	1.6.5
Vision Zero Safety Enforcement and Analysis		
2.1.7. Continue speed camera enforcement	DOT will continue to refine its use of automated speed cameras to enforce the City's 25 mile per hour speed limit within the 140 school speed zones authorized by state law.	2.6.1

Short-Term Milestones (by end of 2017)	Medium-Term Milestones (by end of 2021)	Lead Division	Partners
DOT will implement 50 safety projects at priority locations citywide.	DOT will complete an additional 200 safety projects at priority locations by 2021.	TP&M	RRM, SIM FCPM, BCs, TO
DOT will complete in-house improvements on Queens Boulevard and continue the design process for all four corridors.	<ul style="list-style-type: none"> DOT will complete construction of preliminary phases on all four corridors. DOT will initiate construction on subsequent phases, subject to funding availability. 	TP&M	RRM, SIM, TO, FCPM, BCs, DDC, DEP
<ul style="list-style-type: none"> DOT will continue to work with DDC to design and construct Safe Routes to School and Safe Streets for Seniors projects. Refer to Initiatives 2.1.1 and 2.1.2 for in-house safety project milestones. Refer to Initiative 2.1.4 for education and encouragement program milestones. 		TP&M	TO, DDC, DEP
<ul style="list-style-type: none"> DOT will conduct safety workshops in over 600 schools and 100 senior centers annually, and it will host more than 75 safety demonstration events, including the distribution of over 20,000 helmets. With the DOE, DOT will debut a Vision Zero lesson designed for 4th through 6th grade students and disseminate vital information to parents and caregivers to curb dangerous driving behavior. 	<ul style="list-style-type: none"> DOT will continue to conduct safety workshops in over 600 schools and 100 senior centers annually, and it will host more than 75 safety demonstration events, including the distribution of over 20,000 helmets. DOT will continue to develop curriculum for the DOE to distribute, and work closely with NYPD, DYCD, and DOHMH to get Vision Zero programming and communications in as many community centers, schools, and afterschool programs as possible. 	Policy	NYPD, DOE, DYCD, DOHMH
<ul style="list-style-type: none"> DOT will maintain gains in awareness of traffic laws and indicators of positive behavior change on the part of motorists. DOT will pursue funding for maintenance & expansion of media campaigns, including pursuit of foundation grants. DOT will expand the array of venues for Vision Zero public engagement with New Yorkers, including engagement with non-English speaking communities. DOT will continue to target media content and placement in response to crash data trends. 	<p>Subject to funding availability:</p> <ul style="list-style-type: none"> DOT will maintain gains in awareness of traffic laws and indicators of positive behavior change on the part of motorists. DOT will pursue funding for maintenance & expansion of media campaigns, including pursuit of foundation grants. DOT will expand the array of venues for Vision Zero public engagement with New Yorkers, including engagement with non-English speaking communities. DOT will continue to target media content and placement in response to crash data trends. 	SC	Policy
DOT will work with advocates, community organizations, and other stakeholders to deploy this campaign citywide.		Policy, SC	TP&M
DOT will complete installation of additional speed cameras.		TO, Policy	NYPD

Initiative	Initiative Description	Related OneNYC Initiative
2. Safety		
New Initiatives		
Vision Zero Street Engineering		
2.2.1. Evaluate left turn safety treatments	Left turns are a key factor in nearly 30 percent of pedestrian crashes involving a fatality or serious injury. DOT is evaluating an array of design treatments at 100 locations to determine if they encourage motorists to better yield to pedestrians and to slow vehicle turns. If successful, these designs will be expanded to additional intersections across the City.	2.6.1
2.2.2. Implement recommendations of Bicycle Safety Study and Action Plan	DOT, the Department of Health and Mental Hygiene, and NYPD are developing recommendations based on a review of crashes in which a bicyclist was fatally or severely injured.	1.6.4, 2.6.1
Vision Zero Safety Enforcement and Analysis		
2.2.3. Expand speed camera enforcement	DOT will seek to pass state legislation to expand the City's authority to use speed cameras at high-crash locations and during the most dangerous times near schools.	2.6.1
2.2.4. Mandate rear seat seatbelt use	Unbelted back seat passengers involved in severe crashes are four times more likely to be killed as belted back seat passengers. DOT will advocate for a requirement that adult passengers riding in the back seat of private cars use seatbelts.	
2.2.5. Advocate for drugged driving reform for New York State	A motorist can only be charged with driving while impaired by a drug if that drug is listed in New York State's Public Health Law. Some drugs, like synthetic marijuana, have not been added to that list, limiting prosecutions. DOT will advocate to make it illegal in New York State to drive after intentionally consuming any substance that causes impairment.	
2.2.6. Expand partnerships with NYPD to improve crash data and analytics	Data on serious injuries from crashes is produced through a cumbersome process involving DOT, NYPD, and the State so that injury data is often not available until 12 months after a crash occurs. NYPD is transitioning to electronic crash reporting, which will enable DOT to analyze data earlier and more quickly respond to trends.	
2.2.7. Pilot new technology to obtain data which can prevent crashes	DOT will expand the use of cameras and sensors, video analysis software, and vehicle monitoring data to expand our understanding of why crashes occur and where they are likely to occur in the future. For example, DOT may be able to highlight locations where vehicles have frequent hard braking events or use video analytics to determine where drivers are less likely to yield to pedestrians.	2.6.1

Short-Term Milestones (by end of 2017)	Medium-Term Milestones (by end of 2021)	Lead Division	Partners
<ul style="list-style-type: none"> DOT will implement and evaluate treatments at 100 locations. If successful, DOT will expand the project further to priority intersections. 		TP&M	Policy, TO
DOT will complete the Bicycle Safety Study and Action Plan.	DOT will begin implementing the recommendations of the plan.	TP&M	TO, Policy, NYPD, DOHMH
DOT will partner with the State Legislature to achieve this goal.		Intergov	TO, Policy, Legal
DOT will pursue legislation to achieve this goal.		Intergov	Policy, Legal
DOT will partner with the State Legislature to achieve this goal.		Intergov	Policy, DAS, NYPD
DOT will manage the conversion to electronic crash reporting to maintain accuracy and precision of crash records.	DOT will develop tools which can take advantage of newfound capabilities offered by electronic crash reporting.	TP&M, Policy	NYPD, DMV, MOPD, ITT
DOT will develop video analytics and other systems which can systematically highlight locations where vehicles have frequent aggressive driving events and/or near misses to target street redesign and/or enforcement.	DOT will use camera and sensor systems which contribute to our understanding of street safety beyond crash data.	TP&M, Policy	TO, ITT

Initiative	Initiative Description	Related OneNYC Initiative
3. Mobility		
Existing Initiatives		
Pedestrian Network		
3.1.1. Make walking safer and more convenient	As laid out in Chapter 2: Safety , DOT will continue to implement at least 50 Vision Zero safety projects a year and invest in our Great Streets program. As laid out in <i>Chapter 6: Public Realm</i> , the agency will continue to implement streetscape improvements including benches, wayfinding signs, and leaning bars.	2.6.1, 2.6.2, 2.6.3, 3.6.5
Bike Network		
3.1.2. Expand the City's bike network	DOT will create or enhance at least 50 miles of bike routes a year and expand the network of protected bike lanes by at least 10 miles, double our previous target. The agency will focus on expanding the bike network in neighborhoods with limited bike infrastructure, including Jamaica, Soundview, and East Flatbush. As part of our Great Streets projects, DOT will integrate protected bike lanes into sections of the Grand Concourse in the Bronx and Queens Boulevard in Queens. As resources permit, DOT will accelerate the rate of bike lane expansion, especially of protected lanes.	1.6.4
3.1.3. Improve bike access to and on bridges	DOT will continue to develop bike access plans to its bridges and will implement four bridge access projects in the next two years. The agency will continue implementation of its Harlem River Bridges Access Plan and develop a plan for a protected bicycle lane on Delancey Street to better connect cyclists to the Williamsburg Bridge, the busiest East River bike crossing.	1.6.4
Accessibility		
3.1.4. Strive to make all sidewalks, pedestrian ramps and spaces, and bus stops accessible	DOT will continue to install at least 75 accessible pedestrian signals each year. The agency will expand its in-house pedestrian ramp program, and invest about \$245 million over the next four years for contractor pedestrian ramp upgrades and new installations. DOT will update its Street Design Manual and capital project standards to reflect the principle of universal access.	1.6.5
Transit System		
3.1.5. Expand Select Bus Service (SBS) and improve local bus service	With the MTA, DOT will expand the SBS network to 20 routes citywide, with a focus on neighborhoods underserved by the subway and corridors with high bus ridership. The agency will continue to advance the quality of SBS and local bus service through improved bus lane and design treatments, bus countdown clocks, fare collection methods, and transit signal priority.	1.6.2
3.1.6. Implement the Brooklyn Queens Connector (BQX)	Working with NYC Economic Development Corporation (EDC), other City agencies , and the community, DOT will plan and implement the BQX, a streetcar linking Brooklyn to Queens along the waterfront.	1.6.2, 1.6.3
Street System Management		
3.1.7. Complete the Connected Vehicle (CV) Pilot Project	In partnership with USDOT, DOT will continue to test a range of CV safety applications in up to 10,000 vehicles. CV technology enables vehicles to communicate with each other, pedestrians and cyclists with mobile devices, and the Intelligent Transportation Systems (ITS) network.	
Shared-Use Mobility		
3.1.8. Expand bike share	DOT, with its private-sector partner Motivate, will continue to expand Citi Bike over the next 18 months. By the end of 2017, Citi Bike will have 12,000 bikes at 750 stations. With Motivate, DOT will encourage participation in the discount membership program for NYC Housing Authority (NYCHA) residents. In partnership with Motivate, DOT will explore the feasibility of a Phase 3 expansion of the program that would reach all five boroughs..	1.6.4

Short-Term Milestones (by end of 2017)	Medium-Term Milestones (by end of 2021)	Lead Division	Partners
<ul style="list-style-type: none"> Refer to Initiatives 2.1.1 and 2.1.2. Refer to Initiative 6.1.2. 		TP&M	RRM, SIM, TO, C&F, BCs, FCPM
<ul style="list-style-type: none"> DOT will add 50 miles of bike lanes each year, including at least 10 miles of protected bike lanes in 2016 and 2017. DOT will launch neighborhood planning workshops in Jamaica, Soundview, and East Flatbush. 	DOT will add another 200 miles of bike lanes, including an ever-increasing share of protected bike lanes, by 2021.	TP&M	RRM, SIM, TO, BCs, Intergov
<ul style="list-style-type: none"> DOT will continue to develop bike access plans for DOT bridges. DOT will implement four bridge access improvement projects at Jay Street, Chrystie Street, Randall's Island, and the Broadway Bridge. DOT will develop a plan for a protected bike lane on Delancey Street. 	<ul style="list-style-type: none"> DOT will explore, develop, and implement new bike-bridge connections, where feasible. DOT will implement a protected bike lane on Delancey Street. 	TP&M	Bridges, BCs, RRM, SIM, TO, Intergov
<ul style="list-style-type: none"> DOT will install a minimum of 75 accessible pedestrian signals each year, expand its in-house pedestrian ramp program, and invest additional funds over the next four years for pedestrian ramp upgrades by contractors. DOT will upgrade the Street Design Manual and capital project standards to reflect the principle of universal access. DOT will continue to review all future streetscape capital work to ensure optimal access for all pedestrians. 	<ul style="list-style-type: none"> DOT will install a minimum of 75 accessible pedestrian signals each year. DOT will continue its pedestrian ramp program. 	SIM, TO	Policy, ITT, Legal, BCs
<p>In partnership with the MTA, DOT will launch SBS on five additional routes:</p> <ul style="list-style-type: none"> B46 (Utica Avenue) <i>launched July 2016</i> Bx6 (161st Street) M23 (23rd Street) Q52/53 (Woodhaven Boulevard) Q70(LaGuardia via BQE) 	In partnership with the MTA, DOT will complete six additional SBS routes and develop expansion plan for the next generation of SBS and BRT routes.	TP&M	MTA, BCs, TO, Intergov
Working with EDC, other City agency partners, and the community, DOT will develop an appropriately vetted streetcar plan including route and financing options to serve Brooklyn to Queens along the waterfront.	Assuming an appropriate plan is deemed feasible, DOT will begin construction of the streetcar with a goal of revenue service in 2024.	TP&M	EDC, Mayor's Office, BCs, TO, Intergov
<ul style="list-style-type: none"> DOT will complete project planning for the CV pilot DOT will begin phase two of the CV pilot, which includes detailed design, software development, field equipment development and procurement, and integration and installation of devices. 	<ul style="list-style-type: none"> DOT will complete phase two of the CV pilot. DOT will start phase three of the pilot, an operating period during which DOT will collect data to evaluate the CV pilot and document lessons learned, which will be completed by 2019. 	TO	ITT
<ul style="list-style-type: none"> DOT, with private-sector partner Motivate, will continue to expand Citi Bike through 2017. By the end of "Phase 2" expansion in 2017, Citi Bike will have 12,000 bikes at approximately 750 stations. DOT will increase membership with NYCHA residents through targeted public engagement strategies. 	<p>Following completion of Citi Bike Phase 2, DOT will seek to initiate Phase 3 expansion to:</p> <ul style="list-style-type: none"> Provide the transportation utility, safety, and multi-modal connectivity benefits of bike share in more communities. Increase the number of bikes and stations in the program. Bring Citi Bike to all five boroughs. 	C&F	Motivate, BCs, Intergov

Initiative	Initiative Description	Related OneNYC Initiative
3. Mobility		
New Initiatives		
Bike Network		
3.2.1. Improve the pedestrian and bike promenade on the Brooklyn Bridge	Demand for the shared cyclist and pedestrian path on the Brooklyn Bridge often exceeds capacity. DOT will assess the feasibility of expanding and reconfiguring this popular path to better serve both groups.	1.6.4
3.2.2. Advance the East and Harlem River waterfront greenway in Manhattan	In the near term, DOT will advance on-street bike lane projects to fill gaps in the East River and Harlem River greenways. In the medium term, DOT will work with the Department of Parks and Recreation (DPR) and EDC to develop a funding strategy for the full build out of the greenway.	1.6.4
3.2.3. Launch secure bike parking pilot program near transit	Building on best practices from other cities, DOT will plan and develop secure, affordable, and attractive bike parking at major transit hubs and activity centers across the five boroughs, including ferry terminals, key subway and commuter rail stations, and local commercial districts.	1.6.4
3.2.4. Improve and expand bike access in commercial and residential buildings	Expanding on the success of the City's Bikes in Buildings law, DOT will work to pass City Council legislation to further broaden bike access in commercial buildings, extend bike access provisions to residential buildings, and allow folding bikes in all passenger elevators.	1.6.4
3.2.5. Improve maintenance and availability of public bike parking	To free up space for operable bikes, DOT has worked with the New York City Department of Sanitation (DSNY) to finalize revised DSNY rules to streamline removal of derelict bikes from DOT bike racks. DOT will begin inspecting all racks twice a year and work with DSNY and community and merchant groups to proactively remove derelict bikes.	1.6.4
3.2.6. Appropriately regulate low-speed electric bikes	DOT will work with its agency partners to develop a sensible legal framework to regulate growing e-bike use and improve safety.	1.6.4
3.2.7. Develop new citywide measure of cycling to measure progress	DOT will adopt new measures of citywide cycling, which will be used to track the growth of bicycling over time. These indicators will capture the number of New Yorkers who bike regularly and the average volume of daily biking trips across the five boroughs. DOT will continue to conduct bike counts at strategic locations.	1.6.4
Transit System		
3.2.8. Complete a citywide transit study	Working with our partners at the MTA, DOT will conduct a study of unmet transit needs in communities across the five boroughs and develop a set of recommendations to meet these needs. Possible recommendations include SBS, rail system, and streetcar expansion.	1.6.3
Street System Management		
3.2.9. Develop and Implement an L Train Mitigation Plan with the MTA	In collaboration with the MTA, DOT will develop a plan to mitigate the impact of the closure of the L train tunnels under the East River, which carry the same number of passengers into Manhattan each day as the Long Island Rail Road. DOT will consider transformative traffic management and bus priority treatments on 14th Street and the East River Bridges, as well as expanded bike routes and bike parking facilities.	
3.2.10. Pilot multi-purpose sensor and camera technology	DOT will pilot the installation of sensor and camera technology that can be used for multiple purposes, including better understanding how streets are used and better managing traffic flow. DOT will also explore enforcement strategies with the NYPD and the Department of Finance, including targeted deployment of traffic enforcement agents, use of cameras and sensors for parking and loading regulation enforcement, and the replacement of the City's paper parking placards with an electronic system.	
3.2.11. Develop an Intelligent Transportation Systems (ITS) Strategic Plan	Building off goals in this plan, DOT will develop an ITS Strategic Plan that describes our ITS vision and goals within the following six areas: enhancing operational capabilities, advancing operational planning, emerging technology readiness, lifecycle management, professional capacity building, and outreach and communication.	

**Short-Term Milestones
(by end of 2017)**

Medium-Term Milestones (by end of 2021)

**Lead
Division Partners**

DOT will initiate a feasibility analysis of expanding the bike and pedestrian path on the Brooklyn Bridge.	DOT will complete the feasibility analysis. Based on the results, DOT will decide on a path forward.	TP&M	Bridges, BCs
<ul style="list-style-type: none"> DOT will implement on-street bike lane and greenway projects in Inwood and Murray Hill, develop a plan for the gap north of 145th Street, and enhance bike network connectivity along the east side of Manhattan. DOT, with DPR and EDC, will advance a funding plan and strategy for the interim and full build out of the greenway. 	<ul style="list-style-type: none"> DOT, with DPR, will implement an on-street project to fill the gap north of 145th Street. DOT, DPR, and EDC will move forward with the full buildout of the greenway, subject to funding availability 	TP&M	FCPM, BCs, DPR, EDC
DOT will pilot seasonal secure bike parking at major transit hubs and activity centers in the summer of 2017.	<ul style="list-style-type: none"> Based on the pilots, DOT will seek to develop permanent, high-capacity bike stations across the five boroughs. DOT will advocate for bike stations in the renovated Penn Station and the replacement to the Port Authority Bus Terminal. 	Policy	TP&M, BCs, C&F
DOT will work with the City Council to pass bills on bike access to residential and commercial buildings and folding bicycle access to elevators.		Intergov	Legal, Policy
<ul style="list-style-type: none"> DOT will begin inspecting all bike racks twice a year. DOT will develop a pilot program with community and merchant groups to remove derelict bikes from problem locations. 	<ul style="list-style-type: none"> DOT will inspect all bike racks twice a year. If successful, DOT will expand the pilot program. 	Intergov, TP&M	BCs, DSNY
DOT will work with its agency partners to develop a sensible legal framework.		Intergov	Legal, Policy, NYPD
DOT will develop indicators to measure cycling growth by the end of 2016.	DOT will provide annual updates based on these indicators in the Cycling in the City Report.	TP&M	
DOT will initiate the study.	DOT will complete the study and begin implementing recommendations, subject to funding availability.	TP&M	Policy, MTA, BCs
DOT, in partnership with the MTA, will finalize its L train mitigation strategy.	DOT, in partnership with the MTA, will implement mitigations during the L train closure.	TP&M	Policy, MTA, NYPD
DOT will pilot the installation of sensor and camera technology that can be used to better understand how streets are used, manage traffic flow, and improve enforcement of parking and traffic regulations..	Based on the results of the pilots and funding availability, DOT will expand camera and sensor capabilities.	TO, TP&M	ITT, Policy
DOT will complete the ITS Strategic Plan.	DOT will implement strategies to achieve the vision laid out in the ITS Strategic Plan.	TO	ITT, Policy, TP&M

Initiative	Initiative Description	Related OneNYC Initiative
3. Mobility		
New Initiatives		
Shared Use Mobility		
3.2.12. Explore the potential for shared-use mobility services to expand travel options, increase mobility, and improve the efficiency of the transportation system	<ul style="list-style-type: none"> DOT will develop a shared-use mobility plan to identify the opportunities and challenges posed by new transportation services and models. DOT, with the TLC, will explore the potential of ridesharing services to meet travel needs in areas underserved by the subway and to reduce traffic volumes. DOT will explore the potential for carshare to reduce car ownership and improve parking availability, and develop a set of pilot projects to expand carsharing outside of Manhattan. This will include consideration of opportunities for electric vehicles and charging stations. DOT, with the TLC, will examine the potential safety, congestion, social, environmental, and economic impacts of autonomous vehicles and develop a set of policies for federal and state advocacy and to guide future pilot projects. input from the TLC, will conduct a comprehensive study of the commuter van industry to better understand the role of commuter vans in the City's transportation system and to explore potential policy changes to improve safety and travel choices. 	1.6.4, 1.6.5
Accessibility		
3.2.13. Pilot new wayfinding technology for visually impaired pedestrians	DOT will conduct a pilot test of electronic beacons, which can assist visually impaired pedestrians in navigating the City, at indoor and outdoor transportation facilities. DOT will also test tactile guide-ways for visually impaired pedestrians on sidewalks and at outdoor public spaces.	1.6.5
Curb Management		
3.2.14. Develop a 21st century parking management strategy for New York City	DOT will complete a comprehensive analysis of the availability, regulation, and use of metered parking spaces and develop a pricing strategy to increase curb availability for deliveries and customer parking, focusing especially on congested commercial districts.	1.6.9
3.2.15. Modernize the regulation of sight-seeing buses	DOT will work to pass City Council legislation to tighten the approval requirements for sight-seeing buses to better manage their stops.	
4. Asset Management		
Existing Initiatives		
Asset Management		
4.1.1. Implement agency \$14 billion 10-year capital plan	As laid out in the Mayor's Ten Year Capital Plan for DOT, the agency will plan for and invest in a range of projects, from bridge rehabilitation to full street reconstruction. As we implement this ambitious program, we shall continue to identify new funding resources and pursue cost-cutting solutions to address funding gaps.	1.6.9, 1.7.3
4.1.2. Continue to adopt best practices in asset management	DOT will continue to update legacy computer systems to better support asset management. The agency will roll out its Sign Information Management System (SIMS) for street signs, complete development of its new bridge asset management system, and develop an asset management system for roadways, sidewalks, and pedestrian ramps.	1.7.3

Short-Term Milestones (by end of 2017)	Medium-Term Milestones (by end of 2021)	Lead Division	Partners
<p>DOT will develop a citywide shared-use mobility plan that will:</p> <ul style="list-style-type: none"> Propose policy and planning interventions that will leverage all modes of shared-used mobility to reduce dependence on single occupancy vehicle travel. Explore the potential of ride sharing and microtransit service partnerships. Explore potential partnerships to expand carshare to underserved neighborhoods. Examine the impacts of autonomous vehicles on the City's transportation system and develop a set of policies to advocate on the federal and state level. DOT will initiate a commuter van study. 	<ul style="list-style-type: none"> Based on the results of research and discussions with industry and other stakeholders, DOT will launch and evaluate a set of shared-use mobility pilots. DOT will complete the commuter van study and consider its recommendations. 	Policy, TP&M	TLC, BCS, ITT
<ul style="list-style-type: none"> DOT, working with the Mayor's Office for People with Disabilities and other community stakeholders, will pilot the installation and use of beacon technology at transit hubs and dense corridors. DOT, working with the Department of Education and other community stakeholders, will pilot the installation and use of tactile guideways at transportation hubs and open spaces. 	Based on the results of these pilots and subject to funding availability, DOT will expand beacon technology and tactile guideways for wayfinding navigation.	Policy, TP&M, SIM	ITT, C&F, MOPD, DOE
DOT will complete a comprehensive parking analysis and strategy.	DOT will implement the parking management strategy, subject to funding availability.	TO	TP&M, Legal, Policy
DOT will partner with the City Council to achieve this goal.		TP&M, Legal, Intergov	Policy
DOT will increase capital budget funding levels to continue to maintain the street network in a state of good repair, enhance mobility, and keep agency operations running smoothly.	<ul style="list-style-type: none"> DOT will develop a more consistent method of capital planning across the agency's programs, including a survey to help make the tough decisions about prioritization based on the agency's strategic goals, informed by studies and world-wide best practices. DOT will continue implementation of the 10-year capital strategy. 	FCPM, Bridges, SIF	DDC, TP&M
<p>DOT will continue to update legacy computer systems to better support our asset management efforts:</p> <ul style="list-style-type: none"> Roll out its new Sign Information Management System (SIMS) for street signs. Complete development of its new bridge asset management system. Continue development of a new asset management system for asphalt street surfaces, sidewalks, and pedestrian ramps. Create a map of all street furniture and other amenities on City sidewalks. 	<ul style="list-style-type: none"> DOT will complete development of a new asset management system for asphalt street surfaces, sidewalks, and pedestrian ramps. DOT will advance development of additional systems, as needed. 	FCPM	ITT, RRM, SIM, TP&M, TO, SIF, C&F

Initiative

Initiative Description

4. Asset Management

Existing Initiatives

Resiliency

4.1.3. Continue post-Sandy reconstruction efforts	DOT will continue to complete a broad range of resiliency projects first laid out in the Special Initiative for Rebuilding and Resiliency (SIRR). These projects include retrofits to bridges, streets, traffic signals, yards and facilities. Progress on these efforts is laid out in detail in the OneNYC progress report: http://www1.nyc.gov/html/onenyc/downloads/pdf/publications/OneNYC-2016-Progress-Report.pdf	4.3.1
4.1.4. Continue to participate in major multi-agency coastal protection projects	DOT will continue to participate in multi-agency planning and design efforts for coastal protection systems along the East River and the Battery in Manhattan, Staten Island's South Shore, Red Hook in Brooklyn and others areas identified in <i>OneNYC</i> .	4.3.1

Project Delivery

4.1.5. Continue to work with agency partners to improve project delivery	DOT will seek to continue internal and Citywide discussions on streamlining the design and review of DOT capital projects. Such coordination among DOT planning teams and our City partners, including the Department of Environmental Protection (DEP), DPR, and DDC, will align agency goals before projects are initiated, leading to efficient delivery of projects and lower agency operational costs.	1.7.3
4.1.6. Continue to expand contracting opportunities for minority- and women-owned business enterprises (M/WBES)	DOT is committed to increasing contracting opportunities for M/WBE firms and to providing support to help them become successful agency contractors. DOT's designated M/WBE Officer will continue to oversee these efforts.	5.2.1, 5.2.2

4. Asset Management

New Initiatives

Asset Management

4.2.1. Create asset management task force to coordinate efforts between divisions	DOT will create an asset management task force to institutionalize best practices. Where practical, DOT will seek to create asset management systems that group asset classes, such as street pavement and pedestrian ramps.	1.7.3
4.2.2. Develop decision making tools to help guide allocation of maintenance and capital resources across divisions	DDOT will create tools and a process to help agency leadership cost-effectively allocate limited capital resources across a diverse range of asset classes.	1.7.3
4.2.3. Integrate social, environmental, and economic costs into these decision making tools	Integrate social, environmental, and economic costs into these decision making tools	1.1.2

Short-Term Milestones (by end of 2017)	Medium-Term Milestones (by end of 2021)	Lead Division	Partners
Refer to <i>OneNYC</i> Progress Reports for detailed milestones on all SIRR actions		FCPM, SIF, Bridges, TO, HRFM	Policy
DOT will continue to participate in multi-agency planning and design efforts for coastal protection systems.	DOT will continue to participate in multi-agency planning and design efforts for coastal protection systems.	FCPM	Policy, Bridges, BCs
DOT will complete internal and Citywide discussions on streamlining the design and review of DOT capital projects.	DOT and its partner agencies will implement process reforms to streamline project delivery.	FCPM	TP&M, DDC, DEP, BCs, ITT
<ul style="list-style-type: none"> DOT will host six Networking Opportunities for the M/WBE community. DOT will participate in six outreach events, such as Professional Women in Contracting, General Contractor's Association, and Citywide Procurement Fairs, to foster networking between Prime Contractors and the M/WBE community. DOT will require divisions to submit memos outlining their M/WBE outreach for all small purchases. 	<ul style="list-style-type: none"> DOT will continue its outreach to M/WBE firms. DOT will continue to identify opportunities for M/WBE participation. DOT will continue to increase the share of contracts and sub-contracts awarded to M/WBE firms. 	FCPM	Bridges
DOT will create an asset management task force, with representatives across the agency, to institutionalize best practices.	DOT will adopt best practices recommended by the task force across the agency.	FCPM	ITT, RRM, SIM, TP&M, TO, SIF
<ul style="list-style-type: none"> DOT will create a process and tools to help agency leadership effectively allocate limited capital resources across a diverse range of asset classes. DOT will create a working group to manage DOT's data. This group will help create an asset inventory across divisions, as well as a data warehouse that allows all users to locate data on said assets. DOT will create a database of all data tables to allow users to analyze historical asset data to ensure resources are distributed appropriately amongst priority projects in the greatest need. 	<ul style="list-style-type: none"> DOT will improve existing project tracking/planning systems to make them more efficient. DOT will create tools to accurately predict life cycle and forecast the conditions likely to result from a range of funding scenarios. 	FCPM	Bridges
DOT will develop a methodology for triple bottom line analysis of major DOT capital projects.	DOT will subject all DOT capital projects or programs over \$20 million to this analysis and use the results to more efficiently allocate capital resources.	FCPM	Policy

Initiative	Initiative Description	Related OneNYC Initiative
4. Asset Management		
New Initiatives		
Resiliency		
4.2.4. Analyze the risk from climate change in non-Sandy-impacted areas	In conjunction with the City's Climate Change Adaptation Task Force, DOT will assess the vulnerability of its infrastructure to climate shocks, especially in areas that were not affected by Super Storm Sandy, and evaluate the costs and benefits of potential mitigation actions. This plan will inform DOT's capital plan going forward.	4.3.1
4.2.5. Develop resilient street design standards for incorporation into the Street Design Manual	DOT will update its Street Design Manual to include a greater focus on resilient and sustainable street design features, including permeable pavement, green infrastructure and natural features, and other climate-adaptation elements.	4.3.1
4.2.6. Develop detailed transportation contingency plans	With the MTA, PA, NYPD, Emergency Management, and others, DOT will create detailed contingency plans to address transportation needs in the aftermath of disruptive climate events or in anticipation of major roadway or transit closures.	4.1.2
Project Delivery		
4.2.7. Secure State authorization to use design-build procurements for major capital projects	Working with the State Legislature, DOT will seek passage of state legislation authorizing DOT to use design-build procurements, in which design and construction services are procured under a single contract.	1.7.3
4.2.8. Require the use of one agency-wide project management system for all DOT capital projects	By using one system, DOT will be able to better manage our capital projects, resulting in shorter project timelines. Over the medium term, DOT will seek to develop a centralized project management system with DDC and DEP.	1.7.3
4.2.9. Create standard approval processes for routine capital work	DOT will create standard project and contract documents for typical capital projects, such as sidewalk extensions and bus bulbs. These boilerplate forms will streamline internal and intra-agency approvals for routine capital projects, thereby freeing agency staff to process complex major projects.	1.7.3
5. Freight Movement		
Existing Initiatives		
Reducing Air Pollution and Congestion		
5.1.1. Continue initiatives to improve air quality in neighborhoods with heavy truck traffic	DOT will continue to encourage the use of trucks with cleaner engine emission standards through programs such as the Hunts Point Clean Trucks Program (see <i>Chapter 7: Sustainability</i> for more information on this program).	1.6.6, 3.3.4
Reducing Freight and Land Use Conflicts		
5.1.2. Improve truck access to industrial areas, marine terminals, and airports	DOT will continue to update the City's truck route network to reflect current land uses and truck access needs and make the freight industry aware of these updates.	1.6.6
Enforcement		
5.1.3. Improve truck rule compliance through technology and stakeholder engagement	DOT will continue to expand the use of Weigh-in-Motion scales. Overweight trucks damage our roadways and put companies that follow the rules at an economic disadvantage.	1.6.6

Short-Term Milestones (by end of 2017)	Medium-Term Milestones (by end of 2021)	Lead Division	Partners
By the end of 2017, DOT will assess the vulnerability of its infrastructure to climate shocks in areas that were not impacted by Superstorm Sandy and evaluate the costs and benefits of potential mitigation actions.	DOT will align DOT's capital program with the finding of the risk analysis.	FCPM	Policy, Bridges, TO, SIF, BCs
By the end of 2017, DOT will update its Street Design Manual to include a greater focus on resilient street and sustainable street design features.		C&F	FCPM
Working with the MTA, PA, NYPD, EM, and others, DOT will create contingency plans.	DOT will regularly update contingency plans.	TP&M, SIM	Policy, FCPM, TO, BCs, EM, ITT, NYPD, MTA, PANYNJ
DOT will seek authorization of Design Build in the next State legislative session.	If authorization is secured, DOT will begin to incorporate design-build into major capital projects.	Intergov	FCPM, Legal, Bridges, DDC, DEP
DOT will develop a centralized project management system for use agency-wide.	DOT will seek to develop a centralized project management system with DDC and DEP, so that all relevant agencies can refer to the same system to receive updated project information.	FCPM	ITT, DDC, DEP
DOT will create standard project and contract documents for typical capital projects, such as milling and prior notice sidewalks.		FCPM	Legal, Bridges, DDC
Refer to Initiative 7.2.1.		TP&M	BIC, EDC
<ul style="list-style-type: none"> DOT will regularly update the City's truck route network. DOT will inform the freight industry when changes are made to the truck route network. 	<ul style="list-style-type: none"> DOT will regularly update the City's truck route network. DOT will inform the freight industry when changes are made to the truck route network. 	TP&M	
<ul style="list-style-type: none"> DOT will install two new WIM sites in Queens. DOT will complete a Video Analytics pilot. DOT will finalize design plans for a permanent truck inspection site for Maspeth Queens. DOT will pilot an off-route truck detection program with the NYPD in Maspeth Queens, leveraging infra red sensors and cameras. DOT will build out the Trucks Eye View Truck Blind 	Based on the success of these pilot efforts, DOT will expand these approaches to additional locations.	TP&M	NYPD, NYSDOT, PANYNJ

Initiative	Initiative Description	Related OneNYC Initiative
5. Freight Movement		
New Initiatives		
Reducing Air Pollution and Congestion		
5.2.1. Expand off-hour deliveries in conjunction with noise monitoring	DOT will encourage off-hour deliveries, with a focus on large buildings in areas with high pedestrian and bicycle activity. Shifting deliveries to overnight hours decreases congestion and truck emissions. DOT will also work with the trucking industry to pilot low-noise truck technologies, as well as deploy a network of noise monitors and cameras to monitor off-hour delivery activity.	1.6.6
5.2.2. Pilot test micro freight and waste collection centers	DOT will explore opportunities for micro freight distribution centers in highly congested commercial areas. These centers might be sited in curb space now dedicated to commercial loading, encouraging off-hour delivery and more efficient collection of recycled materials and waste	1.6.6
Freight Strategy		
5.2.3. Develop a comprehensive five borough freight strategy	DOT will develop truck route profiles for each borough to better understand truck route use and compliance. This analysis will enable the agency to better understand the movement of goods, the needs of shippers and receivers, and community concerns. The agency will then recommend a series of actions to reduce the environmental and social impacts of trucking, while enabling our economy to grow.	1.6.6
5.2.4. Expand DOT's Office of Freight Mobility	DOT will significantly increase the staff of the Office of Freight Mobility in support of the citywide freight plan and the agency's efforts to increase the use of sensor and camera technology to monitor compliance with truck regulations and traffic laws.	1.6.6
Enforcement		
5.2.5. Issue Notices of Observation to off-route and overweight trucks	DOT will explore issuing notices of observation to off-route trucks and overweight trucks that repeatedly violate rules, with opportunities for adjudication. DOT will explore linking these to denial of permits and City contracts, or other sanctions.	1.6.6

Short-Term Milestones (by end of 2017)	Medium-Term Milestones (by end of 2021)	Lead Division	Partners
<ul style="list-style-type: none"> DOT will target off-hour delivery education to businesses in Manhattan, Downtown Brooklyn, and Jamaica and encourage these businesses to adopt delivery service plans. DOT will issue a RFP for a Manhattan Off-Hour Deliveries noise monitoring program. 	<ul style="list-style-type: none"> DOT will continue to expand the off-hour deliveries program citywide. DOT will work with partners to demonstrate low-noise technology in off-hour delivery programs. DOT will manage the off-hour delivery noise monitoring program and coordinate with DEP on enforcement. 	TP&M	DEP, BCS
DOT, with cooperation from public and private sector partners, will launch a pilot test of micro freight and waste collection centers in a high density commercial neighborhood.	Pending the outcome of the initial effort, DOT will expand this pilot to other centers.	TP&M	Policy, DSNY
<ul style="list-style-type: none"> DOT will conduct truck data collection and analyses to support development of the freight plan. DOT will release its freight plan by December 30, 2017. 	<ul style="list-style-type: none"> DOT will implement the plan, subject to funding availability. DOT will collect freight data on truck routes every 2 years and analyze trends. 	TP&M	Policy, NYSDOT, PANYNJ, NYPD, EDC
<ul style="list-style-type: none"> DOT will add additional staff for a five borough-wide effort to improve signage, off-hour delivery expansion, freight plan development, and freight policy development. DOT will finalize Freight Measures of Effectiveness Phase 2 and launch Phase 3. 	<ul style="list-style-type: none"> DOT will continue to expand staff to match the need to manage freight demands associated with the growing population. DOT will continue to improve the Freight Measures of Effectiveness tool. 	TP&M	Policy, NYPD, NYMTC, NYSDOT, EDC, PANYNJ
Enforcement			
DOT will explore issuing notices of observation to off-route and overweight trucks.		TP&M	Policy, NYPD, ITT

Initiative

Initiative Description

6. Public Realm

Existing Initiatives

Expanding Public Open Space

6.1.1. Continue and enhance the NYC Plaza Program	DOT works with local partners to create neighborhood plazas throughout the City, transforming underused streets into vibrant public spaces. The Plaza Program includes one-day plaza projects, interim plazas created with temporary materials, and permanent plazas. Our plaza partners are responsible for on-going maintenance. DOT provides financial and technical support through the Plaza Equity program when neighborhoods need assistance.	3.6.5
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Programs to Improve the Street Environment

6.1.2. Continue DOT street furniture programs to improve our streets	DOT has a range of programs to make our streets more attractive, easier to navigate, and more comfortable for pedestrians. These programs include: <ul style="list-style-type: none"> Coordinated Street Furniture: provision and maintenance of bus shelters, newsstands, and automatic public toilets by DOT's street furniture franchisee; CityBench: the installation of benches at bus stops and plazas and on sidewalks to increase public seating on City streets; WalkNYC: the installation of map-based way-finding information in neighborhoods and at SBS stations across the City; and, Street Seats: a citywide program by which local partners apply to transform underused streets space, such as parking spaces, into seasonal public spaces. 	3.6.5
6.1.3. Continue DOT Art program to enliven the streetscape	DOT Art partners with community-based organizations and artists to present temporary public art in neighborhoods across the City. Artists help transform the City's streets from ordinary to extraordinary through colorful murals, dynamic light projections and thought-provoking sculptures.	3.6.5

Programs to Temporarily Open Streets for Recreation

6.1.4. Continue DOT programs that open up City streets for public recreation	Each year, the City opens up streets across the five boroughs to pedestrians and cyclists. These programs include: <ul style="list-style-type: none"> Summer Streets: an annual celebration during which nearly seven miles of Manhattan streets from the Brooklyn Bridge to Central Park are opened on three consecutive summer Saturdays for people to play, run, walk, and bike; Weekend Walks: a series of multi-block neighborhood events across the five boroughs during which, at the request of the community, commercial streets are temporarily closed to vehicles and opened to walking and other activities; and, Car-Free NYC: an annual Earth Day celebration that opens City streets for recreation, allowing residents and visitors to enjoy New York City's most valuable public space—our streets. 	3.6.5
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6. Public Realm

New Initiatives

Expanding Public Open Space

6.2.1. Transform areas under elevated transportation infrastructure into attractive public spaces and streetscapes through the El-Space program	DOT will conduct an inventory of el-spaces, develop an El-Space toolkit of design treatments, and initiate six El-Space pilot projects, some in partnership with the Design Trust for Public Space. The project will include a consideration of opportunities for secure bike parking.	3.6.5
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Programs to Improve the Street Environment

6.2.2. Update news rack regulations to keep sidewalks clean and orderly	To accommodate pedestrian flow on busy sidewalks and to keep sidewalks clean, DOT is working with the City Council to pass legislation to streamline the news rack registration process, encourage the use of modular racks, and hold owners more accountable for their dirty or disorderly racks.	3.6.5
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Programs to Temporarily Open Streets for Recreation

6.2.3. Build upon the Lower Manhattan Shared Streets pilot	Shared streets give priority to pedestrians with accommodation for vehicles needing local access. Having pedestrians, cyclists, cars, and trucks all traveling slowly through a common street space discourages traffic and has been shown to improve traffic safety. In conjunction with this year's Summer Streets, DOT held a Shared Streets event covering 60 blocks of historic Lower Manhattan. Based on this successful test, DOT will explore expanding Shared Streets and holding additional pilot events in 2017.	3.6.5
6.2.4. Pilot a Seasonal Pedestrian Street	In collaboration with a supportive community, DOT will create a seasonal pedestrian- and cyclist-only street in the summer of 2017. Car and truck access will be accommodated through special regulations, potentially during off-hours. The pilot project will last several months and will be evaluated by DOT.	3.6.5

**Short-Term Milestones
(by end of 2017)**

Medium-Term Milestones (by end of 2021)

**Lead
Division**

Partners

In partnership with local communities, DOT will create 2 new plazas.	In partnership with local communities, DOT will create 10 new plazas.	TP&M	BCs
DOT will install 511 City Benches, 15 Street Seats, 200 to 250 WalkNYC wayfinding signs, and 50 leaning bars.	DOT will continue its street furniture programs as funding becomes available.	TP&M, C&F	BCs
DOT will continue implementing temporary art projects in all five boroughs in four program tracks: Community Commissions, Arterventions, Barrier Beautification, and Art Display Case.	DOT will launch a more robust exhibitions program utilizing Art Display Cases.	C&F	BCs
DOT will continue Summer Streets, Weekend Walks, Car-Free NYC, and One-Day Plazas.	DOT will continue Summer Streets, Weekend Walks, Car-Free NYC, and One-Day Plazas.	TP&M, C&F	NYPD, BCs
<ul style="list-style-type: none"> DOT will implement six pilot and demonstration projects at Sunset Park/Gowanus Exwy, Far Rockaway, Jerome Ave, Livonia Ave, Jamaica Ave, and Long Island City. DOT will develop an EI-Space toolkit. 	<ul style="list-style-type: none"> DOT will expand the EI-Space Program to additional sites as funding becomes available. DOT will complete an EI-Space asset inventory. 	C&F	Bridges, MTA, Legal, BCs
DOT will partner with the City Council to achieve this goal.		C&F, Intergov, SIM	
DOT will expand the program in 2017 to additional neighborhoods and over longer periods of time.	If successful, DOT will expand the program to additional neighborhoods and over longer periods of time.	TP&M	C&F, BCs, Policy
DOT will launch and evaluate a seasonal pedestrian and cyclist-only street in the summer of 2017.	If successful, DOT will expand the program to additional sites.	TP&M	BCs

Initiative	Initiative Description	Related OneNYC Initiative
7. Sustainability		
Existing Initiatives		
Low Carbon Modes		
7.1.1. Encourage walking, biking, and transit	To achieve a shift from auto travel to low-carbon modes, the City must provide safe, convenient, and connected bike and pedestrian networks as well as work with the MTA to improve bus service and pedestrian and bicycle access to transit. (See Chapter 3: Mobility for more information about DOT's initiatives in this arena).	
7.1.2. Expand the Go Smart NYC program	Go Smart NYC is DOT's neighborhood-based travel choice resource program. Go Smart provides New Yorkers with information on their travel options and gives them incentives to use low-carbon modes like walking, biking, and transit. After launching in Queens Community District 5 in 2015, DOT plans to expand the program to select Brooklyn neighborhoods in 2016 and 2017.	3.1.2
Green Infrastructure		
7.1.3. Continue DOT's partnership with the NYC Department of Environmental Protection (DEP) to install green infrastructure (GI) on streets citywide	DOT will continue to partner with DEP in the siting of right-of-way bioswales, stormwater green-streets, and other green infrastructure designs in City streets, sidewalks, plazas, and greenways. GI diverts storm water runoff from the sewer system and helps prevent the discharge of sewage into our rivers and streams. We will also begin working with DEP on strategies to clean storm water runoff.	3.5.3
Greening Agency Operations		
7.1.4. Install energy efficient street lights and signals	Well-lit streets are vital to pedestrian and vehicle safety. DOT is replacing its high-pressure sodium street lights with modern LEDs that use 80 percent less energy. The agency has converted over 100,000 of its streetlights thus far and plans to convert our remaining 150,000 lights by 2018. All of the signals in DOT's 12,000 signalized intersections have already been converted to LED.	3.5.3
7.1.5. Green DOT's street resurfacing operations	The agency is a national leader in the use of recycled asphalt pavement (RAP)—our asphalt now contains 40 percent RAP. By using RAP, the City saves on new material and reduces the environmental costs associated with transport and disposal of milled asphalt. DOT has also begun testing warm mix asphalt, which requires less energy to make than traditional asphalt.	3.5.3
7.1.6 Green DOT's Staten Island Ferry (SIF) operations	In late 2016, DOT will begin converting all light fixtures in its ferry terminals to LEDs. In addition, the agency is planning to install shore power at its maintenance facility, so our ferries do not need to run their engines while being serviced. Finally, the agency is procuring three new ferry boats with cleaner EPA Tier 4 engines. These vessels will go into service in 2020 and 2021.	3.5.3, 3.3.4

Short-Term Milestones (by end of 2017)	Medium-Term Milestones (by end of 2021)	Lead Division	Partners
Refer to <i>Chapter 3: Mobility</i> .			
<ul style="list-style-type: none"> DOT will expand the program to select Brooklyn neighborhoods in summer 2016 and to additional communities in 2017. DOT will strengthen its partnership with 511NY Rideshare to leverage and coordinate Transportation Demand Management messaging citywide. 	DOT will expand to additional neighborhoods as funding becomes available.	TP&M	SC
DOT will continue to support DEP green infrastructure efforts in City streets and sidewalks.	DOT will continue to support DEP green infrastructure efforts in City streets and sidewalks.	FCPM	DEP
DOT will evaluate the benefits of 3000 Kelvin LEDs as we convert 150,000 additional street lights by the end of 2017.		TO	
DOT will rebuild the Harper Street Asphalt Plant in Queens to incorporate use of warm mix asphalt and allow for up to 50 percent recycled asphalt pavement.	DOT will explore expanded use of 100 percent recycled material in resurfacing operations.	RRM	
DOT will complete conversion of all light fixtures in our ferry terminals to energy efficient LEDs.	<ul style="list-style-type: none"> DOT will procure three new ferry boats with cleaner EPA Tier 4 compliant engines. DOT will install shore power at the Staten Island Ferry maintenance facility. 	SIF	

Initiative	Initiative Description	Related OneNYC Initiative
New Initiatives		
Emissions from Private Truck Fleets		
7.2.1. Reduce emissions from private truck fleets in priority communities	The City and DOT are working to secure federal funding to replace another 100 trucks as part of the Hunts Point Clean Truck initiative. DOT is also seeking to expand the program to other priority communities with high levels of truck activity.	3.3.4
Green Infrastructure		
7.2.2. Test permeable pavement and concrete	In accordance with legislation passed by the City Council as part of Local Law 80 of 2013, DOT will test the effectiveness of permeable asphalt pavement and permeable concrete sidewalks. These surfaces allow the ground below the pavement or sidewalk to absorb a portion of storm water, reducing runoff into the sewer system. DOT will monitor the impact of these surfaces, determine maintenance needs, and consider a broader application of these materials.	3.5.3
7.2.3. Develop intra-agency green infrastructure projects	DOT will develop green infrastructure elements within agency projects that will reduce the quantity of storm water runoff and help the City meet state and federal requirements for Municipal Separate Storm Sewer System (MS4) areas, which have separate storm sewer and sanitary sewers.	3.5.4
Greening Agency Operations		
7.2.4. Reduce emissions from the DOT vehicle fleet	As part of its NYC Clean Fleet initiative, the City is creating the largest municipal electrical vehicle fleet in the United States. DOT current operates 639 sedans, of which 53 are plug-in hybrids or fully electric vehicles. The agency plans to replace 50 percent of the sedans retired each year with plug-in hybrids or fully electric vehicles. The City is also exploring strategies to green the agency's light and heavy-duty truck fleets.	3.1.2, 3.3.4
7.2.5. Shrink the environmental footprint and maximize energy efficiency of DOT's 68 facilities	As part of its comprehensive facilities assessment (see Chapter 8: Organizational Excellence), DOT will conduct an energy audit, which will identify energy conservation measures for its facilities. This effort is part of the City's 80 x 50 initiative. Conservation measures may include LED lighting, HVAC system upgrades, and solar panels, and will be implemented as energy efficiencies are identified.	3.1.4
8. Organizational Excellence		
Existing Initiatives		
Safety		
8.1.1. Partner with our employees to identify key safety issues	DOT has conducted an employee safety survey to get input from our employees about workplace safety issues and implemented safety slogans to remind staff of the importance of workplace safety.	
8.1.2. Use data to better understand risks to our employees	DOT will continue to track employee injuries and analyze the data for trends. The agency will use the results to target the types of injuries that occur most often and create new safety training materials. In addition, DOT has hired a consultant to provide feedback on work zone design.	

Short-Term Milestones (by end of 2017)	Medium-Term Milestones (by end of 2021)	Lead Division	Partners
DOT will seek to secure additional federal funding.	DOT will expand to additional neighborhoods as funding becomes available.	TP&M	BIC, EDC
DOT will install permeable asphalt and permeable concrete at six test locations and monitor for effectiveness.	DOT will report on the findings of the testing and if successful, expand the use of permeable asphalt and concrete.	FCPM	RRM, SIM, DEP
DOT will include green infrastructure elements in project designs.	DOT will include green infrastructure elements in project designs.	FCPM	DEP
50 percent of DOT's replacement sedans purchased in 2017 will be plug-in hybrids or fully electric vehicles.	<ul style="list-style-type: none"> 50 percent of DOT's replacement sedans purchased each year will be plug-in hybrids or fully electric vehicles. DOT will implement strategies to green the agency's light and heavy duty truck fleets as those are identified by DCAS and DOT. 	Fleet Services	RRM, TP&M, DCAS
DOT will initiate an energy audit to identify energy conservation measures for each of the agency's facilities.	<ul style="list-style-type: none"> DOT will complete the energy audit. DOT will implement energy efficiency improvements to its facilities. 	HRFM	DCAS
<ul style="list-style-type: none"> DOT will complete analysis of the employee safety survey responses. DOT will develop an action plan to address critical safety concerns identified in the survey. 	DOT will implement recommendations from the Action Plan, subject to funding availability.	HRFM	RRM, TP&M, TO, SIF, SIM
DOT will continue to track employee injuries, analyze the data for trends, and develop and implement actions to address the most common injury types.	DOT will continue to track employee injuries, analyze the data for trends, and develop and implement actions to address the most common injury types.	HRFM	RRM, TP&M, TO, SIF, SIM, ITT

Initiative	Initiative Description	Related OneNYC Initiative
Staff Development, Retention, and Diversity		
8.1.3. Provide comprehensive training programs for all staff	DOT will continue to provide training programs to help employees close gaps in their knowledge, whether it is software training or supervisor competencies. DOT also has a staff development library and access to online courses for employees who wish to do self-guided development.	5.1.2, 5.1.3
8.1.4. Maintain and enhance an employee culture of honesty, integrity, and inclusion	DOT will continue its commitment to public service and adherence by its employees to the agency's Code of Conduct, Executive Orders regarding integrity, and the City's Conflict of Interest Laws. Through training and awareness programs, we will continue to encourage employees to conduct themselves in an honest and ethical manner and to be respectful of the diverse perspectives and backgrounds that each DOT employee brings to the workplace.	
New Initiatives		
Safety		
8.2.1. Enhance safety communication and training	DOT will publish a quarterly safety newsletter that shares best practices in safety among all units in DOT. We will also develop training profiles for specific roles to ensure that field staff members receive appropriate safety training throughout their careers.	
Facilities		
8.2.2. Conduct a comprehensive facilities assessment	DOT will conduct a comprehensive assessment of the conditions of its facilities. The assessment will be used to guide the agency's preventive maintenance efforts and facility capital investments. The assessment will also include an energy audit, which will evaluate potential energy efficiency improvements.	
Staff Development, Retention, and Diversity		
8.2.3. Pilot a rotational program for DOT staff	DOT will develop and pilot a rotational management development program in which selected DOT employees can do work exchanges with other DOT units and divisions, gaining experience in planning, outreach, design, data analysis, and other fields.	5.1.2, 5.1.3
8.2.4. Expand outreach to attract diverse employees	DOT will expand its outreach efforts regarding agency job openings and the civil service exam process to groups under-represented at the agency. A closer relationship between Human Resources and the agency's EEO/Diversity Office will allow us to identify appropriate publications and affinity groups to target.	5.1.1
8.2.5. Create an ambassador program for outreach and recruitment to colleges and universities	DOT's Recruitment Coordinator will work closely with the operating divisions to identify current employees who are recent graduates to expand the pool of individuals who can represent the agency at career fairs and other on-campus recruitment opportunities.	5.1.1
8.2.6. Learn from our peer cities across the globe	DOT will seek to learn from global best practices in peer cities worldwide as it advances its sustainable transportation agenda.	
Process Reform		
8.2.7. Streamline the procurement process	DOT is participating in a citywide effort to review and reform the current procurement processes. DOT will participate in ongoing pilots to compress the procurement timeline and add more predictability to the process, so that, among other improvements, the vendor pool is expanded and smaller vendors are better able to compete.	1.7.3

Short-Term Milestones (by end of 2017)	Medium-Term Milestones (by end of 2021)	Lead Division	Partners
DOT will continue to provide training programs to help employees close gaps in their knowledge.	DOT will continue to provide training programs to help employees close gaps in their knowledge.	HRFM	
DOT will continue to provide training and awareness programs to encourage a culture of honesty, integrity, and inclusion.	DOT will continue to provide training and awareness programs to encourage a culture of honesty, integrity, and inclusion.	HRFM	
<ul style="list-style-type: none"> DOT will publish a quarterly safety newsletter. DOT will develop training profiles for specific roles to ensure that field staff receive the appropriate safety training throughout their careers. 	DOT will continue to improve safety communication and training as new best practices are developed across the industry.	HRFM	RRM, TP&M, TO, SIF, SIM
DOT will embark on a facilities planning effort.	DOT will make substantial progress towards the completion of the long-range facilities plan.	HRFM	ITT
DOT will pilot a rotational management development program.	If successful, DOT will continue and expand the rotational management program.	HRFM	TP&M
DOT will continue to identify additional publications and groups for recruitment outreach.	DOT will continue to identify additional publications and groups for recruitment outreach	HRFM	
DOT will continue to identify employees to expand the pool of representatives.	DOT will continue to identify employees to expand the pool of representatives.	HRFM	
<ul style="list-style-type: none"> DOT will produce a report benchmarking NYC's performance against peer cities on a variety of transportation best practices and outcomes. DOT will continue to host visitors, participate in and help to organize conferences, and explore opportunities for personnel exchanges with peer agencies. 	DOT will host an international meeting focused on promoting best practices for equitable and sustainable transportation.	Policy	
DOT will continue to participate in a citywide effort to review and reform the current procurement processes.		FCPM	MOCS, Law

Initiative

Initiative Description

9. Public Engagement

Existing Initiatives

Public Awareness

9.1.1. Continue to use a variety of channels to communicate agency goals and initiatives to the public	DOT will continue to use social media to promote agency projects and initiatives and monitor public feedback. The agency will also continue to develop video content explaining our projects and priorities, as well as conduct market research to measure the effectiveness of our public awareness efforts.	
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Project-Based Outreach

9.1.2. Continue project-based outreach	DOT will continue to consult with local communities on all of its projects. For major initiatives, such as Select Bus Service routes and Great Streets projects, DOT will continue to use tools like interactive workshops and open houses to provide a forum for community input.	
9.1.3. Continue Street Ambassador Program	DOT will continue to deploy its Street Ambassadors to expand the reach of its public engagement efforts, particularly to groups traditionally under-represented at public meetings, including bus riders, non-English speakers, and low-income New Yorkers.	
9.1.4. Expand and improve project feedback portals	DOT will continue to use online project portals (http://nycdotfeedbackportals.nyc/) to solicit input on street improvement projects, share project updates, and post designs. DOT will expand the use of portals to include a broader range of projects.	

Customer Service

9.1.5. Continue to respond courteously and promptly to public and stakeholder inquiries	To further improve customer service, DOT is upgrading the agency's centralized correspondence tracking system to better respond to the 30,000 letters, emails, and other communications the agency receives each year from elected officials, community boards and the general public.	
9.1.6. Provide courteous service to the agency's permit and ferry customers	DOT has updated its permit application system to make it easier for applicants. We have also increased service frequency on the Staten Island Ferry.	

New Initiatives

Public Awareness

9.2.1. Re-launch the DOT website	The agency is in the process of conducting a comprehensive redesign of its website to make it more user friendly and to meet universal accessibility standards. The new site will include a web content management system that will allow for more timely updates	
9.2.2. Engage with the public in new venues	DOT will seek to engage the public outside of the project-specific review process to raise awareness of what we do and build relationships. These venues may include community events and non-transportation focused forums.	
9.2.3. Employ surveys and other tools to measure user satisfaction and attitudes	DOT will explore opportunities to use surveys and other tools to measure changes in satisfaction of travelers over time and to better understand the needs and attitudes of the public towards potential changes or real world experience with the transportation system.	

Short-Term Milestones (by end of 2017)	Medium-Term Milestones (by end of 2021)	Lead Division	Partners
DOT will continue to use social media and videos to promote agency projects and initiatives.	DOT will continue to use social media and videos to promote agency projects and initiatives.	SC	
<ul style="list-style-type: none"> DOT will continue to consult with local communities on all street improvement projects. DOT will continue to host interactive workshops and open houses for major initiatives. DOT will request on-site translators for workshops and other outreach events via the Language Access unit. 	<ul style="list-style-type: none"> DOT will continue to consult with local communities on all street improvement projects. DOT will continue to host interactive workshops and open houses for major initiatives. DOT will continue to request on-site translators for workshops and other outreach events via the Language Access unit. 	BCs, TP&M, Bridges	Intergov
DOT will continue to deploy Street Ambassadors to expand the reach of public engagement efforts.	DOT will continue to deploy Street Ambassadors to expand the reach of public engagement efforts.	TP&M	BCs
<ul style="list-style-type: none"> DOT will continue to use online project portals to solicit input from the public and share project updates. DOT will expand the use of project portals to include a broader range of projects. 	DOT will continue to use online project portals to solicit input from the public and share project updates.	TP&M	ITT, BCs
<ul style="list-style-type: none"> DOT will complete DOT ARTS public customer relationship management system upgrade. DOT will train over 550 agency users on the upgraded DOT ARTS system. DOT will improve public-facing website customer input forms and add interactive maps to display DOT actions throughout NYC. DOT will expand DOT ARTS technology to operations divisions to streamline workflow, enhance accountability, and improve data availability. DOT will continue to participate in the City's 311 system upgrade to better manage citizen requests and complaints. 		CCU, BCs	ITT
DOT will continue to use technology to improve customer service.		SIF, SIM	
DOT will launch its new agency website.	DOT will update its website design as new standards are developed.	ITT	SC
DOT will engage the public outside of the project-specific review process.		BCs, TP&M	Intergov
<ul style="list-style-type: none"> DOT will train staff on survey administration and analysis. DOT will begin to survey travelers and transportation system stakeholders. 		Policy	TP&M

Initiative	Initiative Description	Related OneNYC Initiative
9. Public Engagement		
New Initiatives		
Project-Based Outreach		
9.2.4. Develop public engagement resource guide for agency staff	Leveraging the agency's deep institutional knowledge, DOT will develop an outreach resource guide documenting best practices from across the agency. The agency will also create a searchable in-house digital warehouse of public outreach materials, including presentations, talking points, and letters.	
9.2.5. Better communicate project benefits and outcomes	Using new data sources and analytics tools, the agency will develop ways to better quantify the economic, health, and safety benefits of our projects and to communicate these benefits to the public.	
Customer Service		
9.2.6. Create an online map of agency projects	DOT is developing a public facing online map of agency projects and pending work already in our queue to let the public more easily review upcoming projects that might affect their lives. These maps will also link to new online forms for the public to submit inquiries directly to the agency.	
9.2.7. Improve customer service for the disability parking permit program	Beginning this summer, parking permit holders with permanent disabilities will be issued two-year rather than one-year permits. In addition, the hours for DOT's parking permit customer service center have been extended, and the agency is working to simplify its application process.	
9.2.8. Streamline the contract payment process	As part of efforts to improve the agency's procurement process, DOT has established a working group composed of the agency's fiscal affairs, engineering audit, legal, IT, and operational units. To speed up contract payments by at least 20 percent, DOT will require concurrent reviews by different units, allow invoice adjustments to follow initial payments to contractors, transition more of the payment process to computer-based systems, and develop a new contract payment management system.	1.7.3
9.2.9 Streamline the change order approval process	Change orders can sometimes take a year to be approved, far longer than in the private sector. Moving forward, DOT will hold itself and its contractors accountable for meeting aggressive timelines in the change order process. The agency will improve change order tracking, better integrate our change order process with the new citywide procurement system, and continue efforts to expedite approvals from oversight agencies.	1.7.3

Short-Term Milestones (by end of 2017)	Medium-Term Milestones (by end of 2021)	Lead Division	Partners
<ul style="list-style-type: none"> DOT will develop an outreach resource guide documenting best practices across the agency. DOT will create a searchable, in-house digital warehouse of public outreach materials. 	DOT will continue to update resource guide as new outreach strategies are implemented.	Intergov, BCs, TP&M	ITT
DOT will hire a senior economist who will help quantify the benefits and costs of current and proposed initiatives and, where possible and appropriate, identify how these are distributed among those who are affected.	Building on good cost-benefit and distributional impact analysis, DOT will incorporate triple bottom line (social-economic-environmental) accounting into appraisals of agency projects and initiatives as appropriate, using global best practices, and communicate these findings to the public in an easy to comprehend manner.	Policy	BCs
DOT will initiate development of online map of agency projects.	DOT will publish online map of agency projects for public review.	ITT	TP&M, FCPM, Bridges, CCU
<ul style="list-style-type: none"> DOT will work to simplify the application process. DOT will continue to deliver excellent customer service to permit holders. 		TO	MOPD, ITT
DOT will reduce processing time for contract payments.	DOT will launch a new Contract Management System for procurements, change orders, and contract payments.	FCPM, EAB	ITT, Bridges, TP&M, SIF
DOT will reduce processing time for change orders.	DOT will launch a new Contract Management System for procurements, change orders, and contract payments.	FCPM, EAB	ITT







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Gale A. Brewer, Borough President

Testimony of Manhattan Borough President Gale A. Brewer New York City Council Committee on Transportation Proposed Int. No. 267 December 12, 2016

My name is Gale Brewer and I am the Manhattan Borough President. Thank you Chair Rodriguez and members of the Transportation Committee for holding this hearing on my bill, Intro No 267, which I have co-sponsored with Council Member Rosie Mendez, and which relates to reserving parking spaces in public parking facilities for car sharing programs.

Car sharing services such as Zipcar and Car2Go make it possible for many commuters to consider forgoing private car ownership. According to Zipcar, in fact, every one of its car-sharing vehicles helps take 15 to 20 cars off the streets. The benefits associated with encouraging commuters to forgo car ownership in a large, dense area such as New York City are plentiful. It encourages commuters to consider alternative modes of transportation, such as public transit, walking or biking. Fewer cars on the road, in turn, translate to less congestion and pollution, and safer streets. There are plenty of benefits to the consumer as well, of course, in the form of reduced transportation costs.

As a city, then, we should do be doing all we can to help encourage more of our commuters to enlist in a car sharing service in lieu of owning a private car. Unsurprisingly, one of the biggest hurdles to encouraging additional subscribers in New York City is the competition for parking spots on New York City streets. Intro 267 would help alleviate some of this competition by providing for dedicated parking spots in public parking garages throughout the city.

Intro 267 is straightforward. It would require that ten or ten percent of total parking spaces—whichever is fewer—in public parking facilities be reserved for car sharing programs. Car sharing companies would then compensate the city for the use of these spaces.

This bill rightly takes into consideration the possibility that a parking facility might not experience a high demand for car share services. If the demand for car sharing space within a facility is less than ten or ten percent, the excess spaces are exempt from being reserved exclusively by car sharing companies, until demand increases and those companies are ready to use them.

Thank you again for the opportunity to testify today in support of Intro 267. I urge the committee to support the bill, and look forward to working together to continue to find innovative ways to support car share programs in New York City.



New York City Council Committee on Transportation

Testimony by Julia Kite, Policy and Research Manager, Transportation Alternatives

Monday, December 12, 2016

SUPPORT

Thank you for convening this hearing. I am Julia Kite, Policy and Research Manager of Transportation Alternatives. We are a 43-year-old membership-based advocacy organization with more than 150,000 New Yorkers in our network, dedicated to biking, walking, and public transportation as city-friendly alternatives to private automobile use in New York City. We advocate on behalf of all of New York City's pedestrians, cyclists, and transit users for safer and more livable streets.

The topic of today's hearing is very timely, because the parking systems currently in place in New York City are unsustainable, inequitable, and an impractical use of public space. For too long, parking policies have privileged the free or low-cost storage of private property, in the form of cars, on huge swathes of city streets, while pedestrians and public transit users are forced to compete for whatever space they can get. New York City can proudly claim to be the only large city in the United States where more than half of residents commute by public transit. More than half of households do not even own a car. Why, then, does parking privilege owners of private cars at the expense of everybody else - while causing congestion, more fatal crashes and poor health outcomes?

Intros. 267 & 873 - SUPPORT

Intros 267 and 873 are a step forward in encouraging car share over private car ownership, which will reduce demand for parking as well as congestion on our streets.

- Having reserved parking spaces for car-share across the city will make car-share more convenient, and help more New Yorkers access this practical alternative to car ownership.
- These bills address both parking garages and street spaces, which will ensure fairness and widespread availability
- We see these bills as an effective way to incentivize a mode of car usage that is far less destructive to the environment and less conducive to congestion than private car ownership.

OVERSIGHT - How Can New York City More Efficiently Manage its Parking to Meet Diverse Community Needs?

At the heart of our city's problems with parking is a fundamental unfairness: All taxpayers fund city streets, but only those with cars get to use it to store their private property for free or at below-market meter rates. **This is an inefficient use of public resources, and a waste of valuable space that could be better apportioned to the public good.**

- Professor Donald Shoup, former director of the Institute of Transportation Studies, has found that **free parking greatly encourages driving**, which worsens congestion and air pollution.
- A study by Schaller Consulting and Transportation Alternatives found that **in 2007, on-street parking in New York was one-fourteenth the cost of parking in lots. Since then, the difference has become even greater**, as lot prices increase faster than meter rates.

- Furthermore, near-100% occupation of metered parking spaces means drivers have to spend time cruising for spaces, which negatively impacts local businesses.

To reduce the congestion plaguing much of our city and reduce the waste inherent in public subsidy of private car storage, we suggest the following actions:

- **Curbside parking rates should be raised in order to meet a goal of 15% vacancy**, following the recommendations of Dr. Shoup.
- The DOT's **PARK Smart** program, which raises meter rates at peak hours in select neighborhoods, should be expanded citywide.

In addition, we cannot divorce the issue of parking from that of **street design**. For too long, our arterial roads have prioritized the parking of private vehicles in spaces that would be better used for improvements that would benefit all New Yorkers, such as creating dedicated **bus lanes** and **commercial loading zones**, adding **protected bike lanes** that have an overall traffic calming effect that benefits pedestrians as well, and the installation of **parklets** that beautify the public realm and encourage a more active street life.

- We urge the DOT to never delay or weaken a safe street redesign project due to complaints about loss of street parking. **Space for cars should never be allowed to take priority over street design elements that save lives.** That would be anathema to Vision Zero.

The issue of parking placard abuse must also be addressed. Transportation Alternatives has long chronicled their misuse: Our 2011 report, "Totally Bogus," found that **57% of permits in five New York City neighborhoods were either completely fraudulent or were being used to park illegally**. The City has yet to adequately address this issue.

- We urge the City Council to pass Council Member Garodnick's Intro 326, introduced in 2014, which would require bar codes on placards to ensure they are legitimate.
- Furthermore, **we urge the city to reduce the overall number of parking permits it issues, with the aim of phasing out the placard system altogether.**
- Other than emergency first responders and disabled people with mobility limitations, there is no reason for anybody to receive special privileges for parking based on where they work. Individual convenience should never outweigh public safety.
- The extent of **fraud** is so massive, and has been going on for so long, that it is clear city agencies cannot contain it.
- By eliminating placards, the city can **encourage usage of public transit**, which will ease congestion.
- Agencies are free to reimburse employees for parking as they see fit, and they can do this without the permit system.
- We also call upon the NYPD to **increase enforcement** against illegal and fraudulent placards.
- We urge the NYPD and DOT to **report annually on the number of permits issued and the number of violations issued**, so that the public can be made aware of the problem and agencies can track progress on eliminating this fraud.

As we take stock of 2016, a year in which the number of cyclist and pedestrian fatalities has increased over 2015's totals, the City must rededicate itself to Vision Zero and the fundamental belief that **loss of parking should never be considered more troublesome than the loss of life**. This must be proven through action, not words. We urge the Department of Transportation to take bold action and stand firm in its dedication to safer streets that are meant first and foremost for people, not for cars.



ReachNow, LLC • 2118 3rd Avenue • Seattle, WA 98121

Committee on Transportation, New York City Council
Jonathan Masserano, Senior Legislative Policy Analyst
City Hall, 250 Broadway
New York, New York 10007

12 December 2016
Car Sharing Parking Program

Dear Transportation Committee of the New York City Council,

I am Nick Hill, General Manager of ReachNow in New York City. ReachNow is a mobility services company that provides free-floating car sharing to over 35,000 members in Seattle, Portland, and Brooklyn and offers a residential station-based car sharing fleet in Manhattan.

ReachNow is designed to provide members with an experience that is as convenient as owning a car. Our free-floating car sharing service allows members to pick-up and drop-off cars in different places, including neighborhoods, within a Home Area. In Brooklyn, the Home Area is about 25 mi². Members can take cars for as long or as little as they'd like.

We enable city dwellers to shed a car with mobility confidence. Independent research shows us that for every shared-car that we've added in cities, three private cars are sold and seven aren't purchased.

ReachNow partners with cities to close transit gaps. The Shared-use Mobility Center released the result that shared modes, like free-floating car sharing, complement public transit and enhance urban mobility.

One of our visions is cities with less congestion and less harmful emissions – to do that we promote transportation electrification. Our EV fleet has already avoided using 3,500 gallons of gas and prevented 35 tons of CO₂ from being emitted. ReachNow is the only U.S. car sharing company which deploys electric vehicles in every market that we serve.

We'd like to take this opportunity to thank the Transportation Committee of the New York City Council for proposing to amend the administrative code of the City of New York to accommodate parking for car sharing. We strongly believe that access to the curb and meters is critical to the ongoing success and adoption of car sharing programs.

ReachNow currently pays for time spent at meters in Seattle and Portland at published rates. We have built software that enables us to self-report time spent in metered areas at block-level



Contact Committee on Transportation, New York City Council
Date 12 December 2016
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granularity. We do this in order to appropriately reimburse the city for meter fees on a quarterly basis. ReachNow has expressed its openness to working with NYC on a demonstration of pay-by-phone technology. Let's partner and innovate together.

We encourage the City Council to consider creating an inclusive Car Sharing Parking program that creates the regulatory framework conditions needed to ensure the success of all car sharing models. Car sharing is good for New York City, and ReachNow looks forward to continuing to be a partner by providing more transportation options for residents.

Thank you for allowing us to provide this testimony.

Yours sincerely,

A handwritten signature in black ink, appearing to be 'Nick Hill', with a long horizontal stroke extending to the right.

Nick Hill
General Manager, ReachNow NYC



New York City Council Committee on Transportation Hearing
December 12, 2016
Testimony of Eric McClure, Executive Director, StreetsPAC

On behalf of StreetsPAC, thank you for holding this oversight hearing today on New York City parking policies.

In regard to Intro 267, which would reserve a percentage of parking spaces in public parking facilities for shared vehicles, and Intro 873, which would dedicate some number of on-street parking spaces to shared vehicles, we believe that the promotion of shared-vehicle services in New York City is generally a good thing. Providing New Yorkers with alternatives to private car ownership makes sense.

However, we need to be cognizant of how shared vehicles are used. If they provide options for people who might otherwise choose to own or lease a vehicle, that's good. But if the use of a shared vehicle replaces a trip that might otherwise have been made by public transit or bike or on foot, that's perhaps not so good. If the presence of shared vehicles induces car trips, that's not good at all. So it's important that the dedication of space to shared vehicles comes with comprehensive study of how share vehicles are used. Reducing trips made by cars is just as important as reducing the total number of cars.

Additionally, while Intro 873 mentions the possibility of collecting fees for use by car-share operators of metered parking spaces, it makes no such mention of charging for "free" on-street parking spaces. The bill needs to be explicit in mandating payment for dedicated parking. Private companies should compensate the city for use of public space, and it begs the larger question of how we use and allocate our curbsides.

We strongly urge this committee, the Council, and the Department of Transportation to initiate a wide-ranging examination of the allocation of curb space in New York City. The dedication of vast portions of our public streets to free private-vehicle storage is a 1950s-era concept that is ripe for change. While we have wisely moved on from many other ideas that seemed sensible in the Fifties, our misguided parking policies have gotten a free pass.

As vehicle ownership patterns evolve, we should concurrently be reinventing our streets. As more and more goods arrive via FedEx and UPS, and Fresh Direct, and as New Yorkers increasingly avail themselves of ride-sharing services like Uber and Lyft, we should be dedicating space on most city blocks – *including residential blocks* – for deliveries and pickups and drop-offs.

Homeowners and renters should be able to reserve curbside space for plumbers and electricians and moving vans and other service providers. Shared vehicles – cars *and bikes* – should be given priority over private ones.

Furthermore, the city should reactivate, and greatly expand, its PARK Smart program, and experiment widely with dynamic pricing of curbside parking spaces. Multiple studies have shown that a large percentage of city driving involves cruising for parking, and the underlying cause is underpriced curb space. Or curb space that isn't priced at all.

We fully understand that this is politically challenging territory to stake out. Car owners have become deeply attached to free parking. Altering that dynamic will require political courage. But it's also going to be critical to reducing private vehicle ownership, freeing up the gridlock that chokes too many of our streets, and transforming New York City into a global leader on smart and innovative transportation policies. We've taken some baby steps with changes to parking minimums in the Zoning for Quality and Affordability text amendment, but we need wholesale change.

There is, indeed, a high cost to free parking.

Lastly, as to Intros 954 and 1234, which pertain to notification of residents, Community Boards and elected officials when parking regulations are changed or meters are installed, while we believe they're well intentioned, they would create an unnecessary degree of bureaucracy and mandate notification for notification's sake. It's high time that we stop treating parking as a sacred cow.

TESTIMONY OF ERICA BACON, REGIONAL GENERAL MANAGER, TRI-STATE, ZIPCAR

New York City Council // December 12, 2016

Good morning and thank you for the opportunity to testify before you today.

My name is Erica Bacon and I am the regional general manager for Zipcar in the Tri-State area and I oversee Zipcar's operations in the City of New York.

Zipcar is the world's leading car sharing network, driven by a mission to enable simple and responsible urban living. Zipcar has operated in New York City since 2002 and with a fleet of over 2,500 vehicles in more than 600 locations across all five boroughs.

I am testifying before you today in support of items number 873 and number 267 which strengthen the city's support for car sharing.

Zipcar enables our members to live without the need for a personally owned vehicle by simply accessing one when they need one. When members join, they have access to reserve and drive over 50 makes and models of vehicles by the hour or day from hundreds of locations typically no more than a five minute walk from home. They tap their membership card on the windshield or unlock the car with their smartphone and the keys are inside. Gas and insurance are included.

Today, hundreds of thousands of New Yorkers are Zipcar members or "Zipsters" and our recent New York member surveys illustrate that they live car-free or car-light lifestyles that have a significant positive impact on transportation and the environment in New York:

- More than 80 percent do not own a car
- More than 30 percent shed or sold a vehicle prior to joining Zipcar
- Over 40 percent are less likely to acquire a car in the next few years
- And as a result, for every vehicle we put on the road, Zipcar takes away the need for up to 13 personally owned vehicles in New York. This totals tens of thousands of vehicles displaced from city streets as a result of Zipcar's service.

While rates of auto ownership are already low in New York relative to other major cities, our data illustrates that Zipcar further reduces vehicle ownership, directly contributing to the goals of this committee and Chairman Rodriguez's plans for "Car Free New York."

Additionally, since our members drive less overall after joining, it means that each member reduces their personal carbon emissions by nearly one ton.

With these substantial proven benefits, it is logical that the city would chose to support car sharing by offering access to parking.

Zipcar has grown successfully over the past 14 years without the need for direct city support. Today we realize that with the city's aggressive climate action goals and growing population, it's more important now than ever that we work together to more rapidly expand sustainable transportation options.



Public parking partnerships, where Zipcars are located in highly visible curbside or municipal parking spaces, can accelerate our growth and consequently our positive impact on the city.

Public parking locations come with several benefits:

- City parking locations bring car sharing options closer to members, making it more convenient and accessible for the hundreds of thousands of existing car-sharing members in New York.
- Making car sharing more visible helps to educate more residents on car sharing as an alternative to car ownership.
- Car sharing represents an efficient use of public space, with roughly 50 members accessing each vehicle while each personally owned vehicle sits idle 96% of the time.
- And public parking partnerships can enable accelerated expansion in areas historically less connected to transportation options.

Today, Zipcar has more than a thousand dedicated parking locations in partnership with city governments and transit agencies across the country, including major cities like Los Angeles, San Francisco, Washington DC and Boston. These cities see car sharing as an important part of their transportation, sustainability and congestion-reduction plans and our partnerships have been long-lasting and successful.

Based on our experience partnering with other cities, we recommend that the city begin with a small pilot program in key neighborhoods before scaling to citywide implementation.

We welcome the opportunity to work with the City Council and support this legislation as a means to strengthen and expand Zipcar as a vital, sustainable transportation option throughout the city.

Thank you.



CAR2GO NEW YORK STATEMENT

December 12, 2016 - DOT hearing

car2go N.A., LLC, a wholly-owned subsidiary of Daimler North America Corporation, offers an innovative mobility solution in rapidly growing urban areas via a carsharing network of eco-friendly smart fortwo vehicles around the world. A flexible and "on demand" mode of transportation, car2go complements existing public transportation by bridging the gaps between the "first and last mile" of a member's commute. Today, car2go's global operation is the largest, fastest-growing carsharing program in the world with more than 2,000,000 registered members and a fleet of over 14,100 vehicles in 29 locations across the globe.

The innovation and environmental sustainability of car2go have earned international acclaim, including TripAdvisor's 2015 "Travelers' Choice" award, "Best Carshare" from the Vancouver Courier, "2015 Best CarSharing Service" from Best of D.C., "2014 Best CarSharing App" from Best of D.C., recognition from the Austin Chamber of Commerce with the "Greater Austin Business Award" for its positive impact on the city's traffic, and the prestigious "2010 EPA Clean Air Excellence Award" from the U.S. Environmental Protection Agency. Further information on car2go is available at car2go.com and car2go.com/NA/en/press/.

car2go New York launched in October 2014 with a fleet of smart cars to serve New York area residents. Today, car2go New York has over 51,000 members – with a 15 percent increase in membership just in the last five months. Due to positive adoption rates and demand, in August of 2015 car2go expanded access to the service outside of the Brooklyn area and launched in Queens. Most recently, on December 1, 2016 car2go New York rolled out new, more advanced car2go vehicles for an improved experience and service for its members. The new car2go smart cars are still compact and easy to drive and park in almost impossibly small spaces, but pack a lot of advanced features including: heated seats, Bluetooth, increased speed of starting and ending a trip, a more powerful turbo-charged motor, all in a car that is 35 percent smaller than any other carsharing option. car2go's New York fleet of 550 vehicles will continue to upgrade with the new car2gos through early next year.

**THE COUNCIL
THE CITY OF NEW YORK**

Appearance Card

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☐ in favor ☐ in opposition

Date: _____

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Name: Polly Trottenberg

Address: Commissioner NYC DOT

I represent: _____

Address: _____

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Name: Jeff Lynch

Address: Ass. Comm. Intergov + Comm. Aff.

I represent: NYC DOT

Address: _____

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Name: Ryan Russo

Address: Dep. Comm. Trans. Planning + Mngmt

I represent: NYC DOT

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Date: 12/12/16

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Name: ERIC McCLURE

Address: 423 4th ST. BROOKLYN, NY 11215

I represent: STREETSPAC

Address: 17 BATTERY PL. SUITE 204, NY NY 10004

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Name: Justin Holmes

Address: _____

I represent: Zipcar

Address: _____

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Name: David Dodge

Address: 1 Centre Street 15th Fl

I represent: Manhattan Borough President

Address: 1 Centre Street, 15th Fl

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Name:

Julia Kite

Address:

I represent:

Transportation Alternative 5

Address:

111 John Street, Suite 260, NY, NY 10038

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(PLEASE PRINT)

Name:

Nichols Hill

Address:

333 4th Street Brooklyn, NY

I represent:

Reach Now

Address:

81 Prospect St Brooklyn, NY

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THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. _____ Res. No. _____

☒ in favor ☐ in opposition

Date: 12-12-16

(PLEASE PRINT)

Name:

Erica Bacon - ZipCar

Address:

I represent:

ZipCar

Address:

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