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ON INFRASTRUCTURE INVESTMENT

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New York City is the nation's largest and densest city, with a growing population of 8.6 million, within a region of 25 million accounting for 8 percent of U.S GDP. The New York City Department of Transportation has an annual budget of $3.5 billion and nearly 5,500 employees, larger than most other U.S. transportation agencies.

We are responsible for the operation and maintenance of most of the City's surface transportation network, including 6,000 miles of urban roadways, 111 miles of bus lanes, 12,000 miles of sidewalks, 13,000 signalized intersections, and 800 bridges and tunnels, many well over 100 years old. We operate the Staten Island Ferry around the clock. We are growing our network of 1,200 miles of bike lanes and expanding the Western Hemisphere's largest bike-sharing system from 12,000 to 40,000 bikes.

New York City has done some remarkable things in recent years. While U.S. road traffic deaths are up 13 percent since 2013, we've cut these by 33 percent, the lowest since 1910. Since 2013, pedestrian deaths are up 30 percent nationwide and down 38 percent in our City. Hundreds of people are alive today and tens of thousands are uninjured by road crashes thanks to New York City's Vision Zero program, which can be adapted nearly everywhere.

Since 1980, New York City added 1.5 million residents – roughly the population of Phoenix - and 1 million jobs without highway system expansion. Instead, we grew the share of trips by sustainable travel modes – walking, cycling, and public transportation - from three out of five trips in the mid-1990s to two-thirds today. This was smart economic policy that left us with a robust growing economy, the envy of many. But it also has helped us to significantly reduce traffic fatalities, air pollution, and greenhouse gas (GHG) emissions.

Despite our size, we share many common challenges with other major cities. We have a shared interest in ensuring federal infrastructure policy enhances local control and fosters opportunities to advance urban mobility, safety, asset management, environmental sustainability, and resiliency. And we join with most cities across America in imploring Congress to take urgent actions to address the growing crises of climate change and income inequality, which sound transportation policy and investments can help address.

I want to talk today about how federal transportation and environmental policy could better support sustainable urban and metropolitan development across America and draw lessons from New York City's experience, focusing on five key areas:

- Federal transportation investments and policies that most often yield net positive long-term economic, social, and environmental benefits;
- Steps to reduce the terrible death toll on America's streets and highways;
- How federal transportation policy can ensure state and local governments provide information on greenhouse gas (GHG) emissions and mitigation options;
- What steps are needed to streamline project delivery so urgent sustainability challenges can be addressed in the most cost-effective and expeditious manner.

I hope hearing about the experience of New York City will prove useful as the Senate deliberates on how best to adjust federal policy and funding opportunities and incentives to better support sound infrastructure policy and investment decisions advancing sustainable economic and social development.

1. Ensuring Infrastructure Legislation Boosts America's Metropolitan Economies

We urge Congress to increase federal funding for transportation infrastructure. There is ample evidence of long-term U.S. underinvestment in many elements of the transportation system. But it is vitally important for Congress to also ensure that increased transportation spending is directed at supporting productive long-term investment and system management. Congress needs to ensure that adequate funding flows to the complex intermodal systems that make America's metropolitan areas successful economic engines for the nation.

Specifically, we urge Congress to increase public transportation Capital Investment Grants, and take steps to ensure that competitive grant programs like BUILD are not largely directed away from urban areas. And rather than allocating more funding solely to existing formula programs, we urge new support and flexible funding for state and local traffic safety initiatives, for the redesign of our streets to accommodate multiple travel options, and for efforts to safeguard transportation assets against extreme weather.

Congress should consider using eligibilities and match requirements to incentivize adoption of transportation plans, programs, and projects designed to reduce GHG emissions, lower pedestrian and bicyclist fatalities, and improve connectivity and access for low-income communities. Federal-aid highway and transit funding should be made more flexible when used as part of an adopted plan with measurable targets and benchmarks related to these performance elements. States that fail to meet certain benchmarks might be required to reprioritize projects.

Congress should ensure transportation legislation promotes better consideration by state and local governments and regional planning bodies of the triple bottom line economic, social and environmental benefits and costs of transportation plans, programs, and investments. Funding programs, incentives, and requirements should be aligned to foster not just large projects, but also to expedite consideration of investment programs that improve safety of incomplete streets and highways that do not now include needed safe and efficient accommodation of buses, pedestrians, and cyclists in built-up areas. For us, infrastructure investment should strive to move people and goods most safely and efficiently, rather than focusing narrowly on moving vehicles as quickly as possible.

It is well established that infrastructure investment, including transportation infrastructure, is a critical economic driver and usually reaps significant dividends. Moody's estimated that, as of the beginning of 2015, after a number of years of economic recovery, an additional dollar of infrastructure investment would increase GDP by $0.86.[1] Research by the International Monetary Fund in various advanced economies found an increase of 1 percentage

[1] The Center on Budget and Policy Priorities, "It's Time for States to Invest in Infrastructure," https://www.cbpp.org/research/state-budget-and-tax/its-time-for-states-to-invest-in-infrastructure

point of GDP in investment spending on quality projects raises the level of output by about 0.4 percent in the same year and by 1.5 percent four years after the increase.[2]

Yet, not all transportation investments yield similar benefits. Various studies have shown that transportation state-of-good repair and operational modernization, along with improved system management often generate more positive cost-benefit outputs compared to major capacity expansion investments. It is important to consider whether investments will unlock significant strategic opportunities for more sustainable transit-oriented regional economic and community development and shifts towards more sustainable patterns of mobility.

Will investments help reduce vehicle miles of travel per capita, lower GHG emissions, and improve safety? Will they increase equity of access to jobs, education, and other opportunities for residents of low-income communities? Or will they lock-in unsustainable mobility patterns for years to come or become stranded investments in a world where climate mitigation and adaptation are increasingly imperative? These are questions that should be considered in the transportation planning and programming process by various levels of government and federal policy should encourage this.

New York City has been a U.S. laboratory for many of these approaches. City and State officials realized 40 years ago that we could not solve congestion or support economic growth by continuing to expand New York City highways. Since then, we have focused mostly on improving the operations, maintenance, management, and safety of highways, improving maintenance and operations of subways and commuter rail, and making a few important strategic transit system expansions, such as the recently opened Second Avenue Subway and the 7 Train extension to support the Hudson Yards redevelopment. This was not only smart economic policy. It also helped New York City to significantly reduce traffic fatalities, air pollution, and greenhouse gas (GHG) emissions.

New York City, with its thriving economy, continues to attract more visitors, workers, and residents than ever before. Last year we saw 62 million tourist visits alone, and we are also experiencing a citywide construction boom. We've seen many more for-hire vehicles cruising

[2] International Monetary Fund, "Is it time for an Infrastructure Push: The Macroeconomic Effects of Public Investment," *World Economic Outlook*, Oct 2014, https://www.imf.org/en/News/Articles/2015/09/28/04/53/sores093014a

without passengers in our most congested areas. Home delivery services are adding more freight to our roadways than ever before. Our subways, streets, and sidewalks are overflowing, and NYC DOT is challenged with trying to make all these moving components operate safely and harmoniously in cooperation with the MTA, which runs our subway and bus system with over 8 million trips per day.

New York City and other metropolitan regions across America need greater federal investment to support modernization of complex multimodal transportation networks, especially for costly projects of regional significance, such as the Gateway tunnel under the Hudson River and the Port Authority Bus Terminal Reconstruction, which underpin major elements of the northeastern United States' economy.

2. Tackling Urban Congestion: FHVs, Subways, Buses, Bikes

One of the challenges facing city, metropolitan, state, and federal transportation policy makers is the rapid transformation of surface transportation technology. As information and communication systems are increasingly integrated into transportation, new mobility modes, including bike sharing, e-scooter sharing, car-sharing, and app-based For-Hire Vehicles (FHVs, also sometimes known as Transportation Network Providers, or TNCs) are rapidly taking on a larger role in urban transport.

Growth of FHV services has been explosive. According to an analysis by Bruce Schaller, a former NYC DOT and TLC official, FHVs transported 2.6 billion passengers in 2017, a 37 percent increase from 1.90 billion in 2016. Combined U.S. FHV and taxi ridership has likely surpassed local bus ridership in the U.S. in the past several months. Surveys show 60 percent of TNC users in large, dense cities would have taken public transportation, walked, biked or not made the trip if TNCs had not been available for the trip, while 40 percent would have used a taxi or their own vehicle.

While app-based FHVs contribute valuable new mobility options and expand access for their users, unless managed, recent research shows these services may threaten sustainable urban transportation. They appear to be having a particularly adverse impact on bus travel speeds. NYC DOT and the NYC Taxi and Limousine Commission (TLC) are working together to develop

more effective long-term strategies to reduce inefficiencies in the FHV sector that spur core congestion.

Federal policy should consider how FHVs and other kinds of microtransit might best become valuable extensions of – but not replacements for – fixed route public transit. This will require greater real-time and near-real-time data sharing between the private and public sector and increased local authority to regulate FHVs, as New York City is starting to do. To help cities effectively address the challenges of new mobility innovations, Congress should explore ways to encourage expanded collaborations between cities, states, and transportation mobility providers for bi-directional exchange of mobility data with appropriate safeguards for personally identifiable information and business confidentiality. Cities, as well as many members of the National Association of City Transportation Officials (NACTO), are working to develop such cooperation that could enable improved safety, reduced congestion, and more effective transportation planning and management for optimal system performance.

A key challenge for New York City is the financing of transport system modernization and expansion, which will require continued partnership with the federal government. New York City's goal is for four out of five trips to be made by these sustainable modes by 2050.[3] To accomplish this, we need tens of billions of investment for local and regional public transportation, as well as countless improvements to sidewalks, bike paths, and pedestrian plazas, and sound policies to manage parking, curb and road space, with more priority for buses.

While new mobility modes get headline attention, subways still carry over 5.4 million passengers on the average weekday, 60 percent more than 30 years ago; buses still carry about 2.2 million passengers a day in New York City.[4] In many corridors across the City, buses account for the majority of people moved but occupy a tiny fraction of the road space and are caught up in the congestion caused by single occupant vehicles that carry a minority of travelers. In response, we have continued to ramp up dedicated street space for bus services run by our partners at the MTA.

At the beginning of this year, the Mayor announced a new Bus Action Plan, along with an ambitious goal to improve average bus speeds by 25 percent, from 7.4 miles per hour to 9.0

[3] New York City Mayor's Office, *New York City's Roadmap to 80x50*, 2016. https://www1.nyc.gov/site/sustainability/codes/80x50.page
[4] http://web.mta.info/nyct/facts/ridership/

miles per hour by the end of 2020. To achieve this increase, we will ramp up our pace of bus lane installation, introduce protected bus lanes, expand Transit Signal Priority to reduce the time our buses spend stopped at red lights, increase enforcement, and support the bus network with street redesigns. The FTA has supported some of this work previously with Capital Investment Grants, and we appreciate Congress intervening to preserve that program in the face of proposed cuts, and pressuring the current administration to execute grant agreements in a timely manner.

New Yorkers are also increasingly opting to navigate the City by bicycle. Bicycling is growing at faster rate than any other mode of transit, with annual growth of over eight percent in Midtown and nine percent on the East River Bridges. Daily cycling trips increased by 156 percent between 2006 and 2016. Bike projects are an important and low-cost safety improvement for all street users. On corridors with bicycle lanes, crashes involving pedestrians are 40 percent less deadly than other streets.

A significant amount of cycling occurs via the City's popular bike share program, Citi Bike. Since its launch in 2013, members have taken over 73 million trips. Currently, the system comprises 12,000 bikes at 750 stations and has over 150,000 active annual members. New York City plans to expand this system to 40,000 bikes by 2022. We are also pilot testing dockless shared bikes in several outer borough communities.

Congress can help support this essential form of mass transportation by making bike share memberships eligible for the same pretax benefits currently afforded to other modes of public transportation. Congress might also consider making bike share programs eligible for TIFIA financing.

3. Advancing Vision Zero: Ending Road Traffic Fatalities

A key element of New York's success at expanding use of sustainable transportation has been efforts to make it more attractive to walk, bike, and take public transportation. Since 2013, New York City has experienced a 33 percent decline in traffic fatalities, led by a 38 percent decline in pedestrian fatalities. In the same time period, traffic fatalities have risen 13 percent

across the United States as a whole, to over 37,000 per year.[5] U.S. pedestrian fatalities in 2018 rose to 6,227, the highest since 1990.[6] While total highway fatalities have fallen slightly in the past decade, pedestrian deaths have risen 35 percent.[7] Excess vehicle speeds, the more widespread use of very large SUVs, distracted driving, and an increase in pedestrian travel all play a role in the adverse national traffic safety trends.

New York's traffic safety success is the product of strong mayoral leadership, inter-agency cooperation, data-driven policy, targeted investment, and efforts to bring about cultural change. This experience is one that can be adapted to other communities across the U.S. and world.

New York City has unique status among large United States cities, as fewer than half of households here own a motor vehicle. High pedestrian volumes lead to high exposure to motor vehicles, and the doubling of cycling in the last decade has presented new challenges and opportunities for street engineering. New York City was then a natural fit for an initiative that emphasized the safety of vulnerable road users and confronted assumptions about the primacy of drivers on city streets.

To ensure the plans for Vision Zero were comprehensive as well as equitable, Mayor de Blasio and Transportation Commissioner Polly Trottenberg insisted on a data-driven community engagement plan to create Pedestrian Safety Action Plans designating priority areas, corridors, and intersections based on pedestrians killed or seriously injured. Local communities were engaged through workshops and online portals through which residents could provide input on places in their neighborhoods that felt unsafe.

The first wave of street engineering interventions under Vision Zero focused on these priority areas. They became the proving grounds for signal re-timings aligned with a newly-

[5] Traffic Safety Facts: Early Estimate of Motor Vehicle Traffic Fatalities for the First Half (Jan-June) of 2018, USDOT National Highway Traffic Safety Administration, https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812629

[6] Pedestrian Traffic Fatalities by State: 2018 Preliminary Data, Governor's Highway Safety Association, https://www.ghsa.org/resources/Pedestrians19

[7] Governor's Highway Safety Association, *Pedestrian Traffic Fatalities by State: 2018 Preliminary Data*, ghsa.org/resources/Pedestrians19

enacted 25 mph (40 kph) city-wide speed limit, the installation of leading pedestrian intervals (LPIs) that give people walking across the street a head-start before turning vehicles, and the creation of street geometry changes like curb extensions. Thanks to these interventions, pedestrian deaths and serious injuries declined over 30 percent at priority locations. In addition, four major arterial roads in the outer boroughs were designated "Vision Zero Great Streets" and were intensively redesigned. One of the four, Queens Boulevard, for years was known as "the Boulevard of Death," with 18 pedestrians killed there in 1997 alone. After the start of reconstruction, three years passed without a pedestrian fatality, and this once-forbidding artery now hosts a well-used bicycle lane.

Both citywide policies and targeted interventions where they are needed most have made Vision Zero relevant to all New Yorkers. These included, lowering the default speed limit, dramatically increased enforcement of traffic laws, and additional authorization from the State government to use automated speed enforcement cameras in 140 school zones during limited times tied to school opening and closing hours. Tellingly, approximately 85 percent of serious crashes happen at times and places where State law now prohibits cameras' use. Where cameras do operate, speeding summonses have fallen over 60 percent.

New York City has committed US $1.6 billion through 2021 to Vision Zero initiatives including a $25 million TIGER grant. In 2018, the City DOT installed more than 20 miles of protected bicycle lanes, implemented left turn traffic calming interventions at 113 intersections, activated 873 leading pedestrian intervals (LPIs), and completed 139 distinct safety improvement projects.

Congress should consider a number of steps to improve traffic safety in future legislation. It should expand eligibility of highway funding to be flexed to traffic safety initiatives and adjust matching requirements, for example, if these are part of a transportation plan designed to meet Vision Zero benchmarks. Congress should consider allocating funds directly to local governments and metropolitan planning organizations for traffic safety activities. Congress should do more to advance road safety with funding and policy changes. For example, the current prohibition on the use of federal aid highway funds for speed cameras, one of the most effective safety tools used by New York City, should be removed. Design standards and

practices should be revised to facilitate lowering of speed limits in built up areas, rather than setting speed limits based on the 85th percentile speed of traffic on roads.

The development of highly automated vehicles (HAVs) presents both a challenge and an opportunity to advance Vision Zero. National legislation should require HAVs to be designed and programmed to comply with traffic laws, except where necessary for safe and effective operation, and could require that HAVs demonstrate capacity to reliably recognize and safely interact with cyclists and pedestrians. The European Union is mandating that all motor vehicles sold starting with model year 2022 must have new mandatory safety technologies, including Intelligent Speed Assistance (ISA), automated braking, and pedestrian and cyclist recognition systems.[8] European research and pilot programs suggest that overridable ISA alone could cut road traffic deaths by 20 percent while also reducing greenhouse gas emissions.[9]

Congress should require NHTSA to develop similar rules for the U.S. motor vehicle marketplace. Congress should mandate that Federal Motor Vehicle Safety Standards are developed for HAVs before full scale deployment on American roads and streets. Congress should also require FMVSS to account for the safety of persons both inside and outside of a vehicle, especially in light of the alarming continuing rise of pedestrian and cyclist fatalities on America's streets and highways.

4. **Climate Change**

The transportation sector's carbon footprint is substantial and growing. Transportation directly accounts for about 28 percent of total U.S. greenhouse gas emissions (predominantly CO2) and this does not include significant additional indirect emissions related to the extraction and refining of fuel, the manufacture of vehicles, and the maintenance of supporting infrastructure, which if counted together would make the total emissions related to transportation

[8] Reid Carlton, "All New Cars To Have Speed Limiters Fitted, Rules European Parliament," *Forbes*, February 27, 2019, https://www.forbes.com/sites/carltonreid/2019/02/27/all-new-cars-to-have-speed-limiters-fitted-rules-european-parliament/#1ab6f351d145.

[9] European Transport Safety Council, *In-vehicle technology vital to tackling speeding in Europe*, February 18, 2019, https://etsc.eu/in-vehicle-technology-vital-to-tackling-speeding-in-europe/

about 40 percent. About 83 percent of direct transportation emissions are from on-road vehicles.[10]

Total transportation sector emissions rose 29 percent from 1990 to 2005, driven largely by increased vehicle miles of travel in road transport. With continued improvements in vehicle efficiency, sector emissions fell 9.7 percent from their 2005 peak by 2015. In recent years, sector emissions have been increasing, due largely to increased passenger-vehicle VMT.[11]

Decarbonization of the transportation sector cannot be accomplished by technology changes alone. There is broad expert agreement that electrification of surface transportation must be part of a comprehensive strategy to address the climate change challenge. Automation of cars, trucks, and buses will have uncertain impacts on greenhouse emissions, but many believe that such technologies are likely to boost emissions unless there is strong and effective road user pricing and traffic management that encourages shared mobility, walking, cycling, and transit.

Transportation greenhouse gases from on-road sources can be reduced by improving vehicle efficiency (such as motor vehicle fuel economy standards and incentives for purchase and use of more efficient vehicles); switching to lower carbon fuels (such as electricity produced from low carbon sources); reducing the distance traveled by motor vehicles (through better urban planning, by substituting telecommunications for travel, by smarter logistics and supply chains, and switching travel to higher occupancy modes of travel); improving vehicle and transportation system operations (such as eco-driving, traffic calming, advanced traffic management); and improved construction and maintenance and agency operations.

State and local governments have considerable capacity to influence each of these elements and to reduce transportation greenhouse gas pollution, with substantial emission reduction potential as detailed by several recent studies. The 2007 Urban Land Institute Study, *Growing Cooler*,[12] for which I was an adviser, estimated that adopting efficient land use

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[10] Federal Highway Administration, *A Performance-Based Approach to Addressing Greenhouse Gas Emissions through Transportation Planning*, 2013, https://www.fhwa.dot.gov/environment/sustainability/energy/publications/ghg_planning/ghg_planning.pdf (page v).

[11] Ashley Lawson and Fatima Maria Ahmad, *Decarbonizing U.S. Transportation,* Center for Climate and Energy Solutions, July 2018. https://www.c2es.org/document/decarbonizing-u-s-transportation/

[12] Ewing, et al., *Growing Cooler*, Urban Land Institute, 2007.

strategies for a portion of new development could slow Vehicle Miles of Travel (VMT) growth by 12-18 percent in metropolitan areas, or 10-14 percent across the U.S. by 2050. The study concluded that this level of reduction is achievable with land use changes alone, excluding complementary measures such as transportation pricing or major expansions of transit. The study calculated potential transportation CO_2 savings of up to 38 percent under a comprehensive set of policies. Because a large share of the housing and buildings accommodating employment in 2050 will be constructed in the next 30 years, there are considerable opportunities to shape the long-term carbon footprint of development and resulting travel patterns through better coordination of planning, smarter incentives, and consideration of impacts prior to investment or development approval. Federal transportation legislation and investment could help support such activities.

The 2009 study, *Moving Cooler*,[13] for which I was also an adviser and which was sponsored by the U.S. Department of Transportation, U.S. Environmental Protection Agency, Shell Oil, the American Public Transportation Association, the Urban Land Institute, Natural Resources Defense Council, Environmental Defense Fund, Intelligent Transportation Society of America, and other groups, looked at four dozen transportation investment and management strategies for their potential to reduce CO_2 emissions between now and 2050, considering costs of implementation, vehicle operating cost savings, and equity impacts. The study analyzed these strategies in half a dozen different "bundles" assuming in each a different focus and different levels and paces of implementation.

Moving Cooler concluded that various combinations of transportation investments, management strategies, pricing, and smart growth policies could produce significant GHG emission reductions in the United States. With the addition of sound transportation pricing policies, reductions of a third or more in annual GHG emissions could be achieved by 2050. The findings from this 2009 study remain valid, though the urgency of efforts to achieve these goals has increased, commending more concerted national action than before. In most of the scenarios examined, vehicle operating cost savings alone soon exceeded implementation costs, suggesting the potential for large positive consumer benefits. Pay-as-you-drive automobile insurance and road user charging or carbon taxes were found to multiply the CO_2 reduction potential of other

[13] *Moving Cooler*, *supra* note 3.

effective strategies, such as improved public transport, walking, cycling, smart growth, and smart traffic management. Investments in highway capacity expansion and bottleneck alleviation were found to be the least effective elements to be included in long-term CO_2 reduction strategies due to induced traffic effects, although they could be bundled with other strategies that collectively reduce GHGs.

Similar evaluations of the greenhouse gas reduction potential for various transportation strategies have been performed for various states, metropolitan areas, and regions. For example, the opportunities to reduce greenhouse gas emissions from transportation in the Northeast and Mid-Atlantic region were well documented in a 2015 report by the Georgetown Climate Center commissioned by the Transportation and Climate Initiative (TCI), which is made up of 11 northeast and mid-Atlantic states and the District of Columbia.[14] This study found that existing federal and state policies (including fuel economy standards that the Trump Administration is seeking to rollback) are likely to cut greenhouse gas emissions by 29 percent by 2030 in the region from 2011 levels. The study considered additional strategies that are readily available to state and local governments and found these could lead to reductions of greenhouse gas emissions from transportation of 31 to 40 percent below 2011 emissions levels by 2030 while yielding large public health improvements.

Adopting some of these greenhouse gas emission reduction strategies can require clearing administrative and political hurdles. Developing effective and tailored strategies and the analytical rationale for them requires an assessment of current emission levels as well as targets for reducing them. In that context, the FHWA's greenhouse gas analysis and reporting requirements, which the Trump Administration has sought to rescind, would enable informed decision-making by state and local officials in the northeast and mid-Atlantic and across the United States.

New York City recognizes that global climate change poses an existential threat to its economic and social viability and is taking action. We witnessed some of the early impacts of climate change on the New York City region during Hurricane Sandy in 2012, suffering billions

[14] Pacyniak, Gabe, Kathryn Zyla, Vicki Arroyo, Matthew Goetz, Christopher Porter, David Jackson, *Reducing Greenhouse Gas Emissions from Transportation: Opportunities in the Northeast and Mid-Atlantic*, November 2015, Georgetown Climate Center, Washington, DC.

of dollars in damage from a combination of storm surge and rising sea level. Even prior to Hurricane Sandy, New York City was committed to achieving an 80 percent reduction by 2050 and a 40 percent reduction by 2030 in CO_2 emissions relative to a 2005 baseline, including proportional reductions from the transportation sector.

New York City, with the lowest transportation CO_2 per capita of any major U.S. city, has continued to reduce its transportation sector CO_2 in recent years, even while growing to a record 8.5 million residents, 4.2 million jobs, and nearly 60 million annual tourist visits. Between 2010 and 2015, the City added more than 370,000 new residents, 500,000 new jobs, and 10 million more annual tourist visits, accommodating these through added use of public transportation, walking, and cycling, with lower car use.

By giving greater priority to walking, cycling, and public transportation and cutting our city-wide speed limit to 25 MPH, the City has helped to improve traffic safety and sharply reduce greenhouse gas emissions and air pollution that harm public health. For example, New York City has heavily invested in the public transportation network. From 1982 to 2011, the Metropolitan Transportation Authority funded $129 billion (in 2017-adjusted dollars) for state of good repair, system upgrades, and expansion initiatives, with a majority of these funds coming from New York City and city residents.[15]

The City is also encouraging low- and zero-emission vehicles through municipal fleet policies and development of expanded opportunities for electric vehicle charging. The Mayor has committed the City to expanding access to electric vehicles at a rapid clip. As part of the Administration's target for 20 percent of the motor vehicle registrations in New York City to be electric by 2025, the City is investing $10 million to develop fast charging hubs with up to 20 chargers per site.

In addition, the City is cleaning up its fleet of vehicles across all city agencies. The City has nearly 500 electric vehicle chargers serving a rapidly growing fleet of 1,300 electric municipal vehicles. We also have a 900,000-gallon pilot of renewable diesel launching this year.

[15] The Road Back: A Historic Review of the MTA Capital Program. The Permanent Citizens Advisory Committee to the MTA. May 2012. http://www.pcac.org/wp-content/uploads/2014/09/The-Road-Back.pdf (page i; pdf page 3).

Renewable diesel is the product of fats and vegetable oils, meaning that it is yet another way that we are reducing our dependency on fossil fuels.

We are also partnering with sectors outside of government. The NYCx Climate Action Challenge called on the tech industry to develop solutions for scaling electric vehicle (EV) charging infrastructure and help accelerate adoption of EVs citywide. It is our position that now is the wrong time to phase out critical tax credits to incentivize the purchase of electric vehicles, and we urge Congress to ensure they are preserved going forward. We also urge increased federal investment in transportation infrastructure that supports electric vehicles nationwide.

Congress should step up with substantial new funding and economic incentives for states, regions, and local governments and the private sector to invest in greenhouse gas mitigation, including smart electric vehicle charging infrastructure for cars, trucks, and buses. This should include funding for interstate charging networks so that EV drivers can be confident of finding charging points for most journeys across America.

Additional federal funding and incentives should be made available to support electrification of public sector fleet vehicles, such as school buses and transit buses. These investments will require changes to streets, bus depots, electric grids, and other complex integrated systems. Congress has a role in supporting more effective intermodal transportation planning to enable this important energy and mobility transition.

And critically, with any new infrastructure funding, Congress should ensure that federal, state, and local infrastructure investments are designed and evaluated to take account of the latest anticipated forecasts for sea level rise, rainfall and flood maps, heat island impacts, and other empirical research that underpins effective resiliency planning. Super storms like Hurricane Sandy are expected to only grow in frequency, and that single event has left New York City with billions in required infrastructure spending. From the rehabilitation of a major subway line connecting Brooklyn and Manhattan to the need to completely replace train tubes connecting New Jersey and Manhattan, our region is a case study for the essential resiliency investment communities across the country will require. Within our agency, we are undertaking a massive capital project to improve the resiliency of the Staten Island Ferry. Federal leadership and funding will be critical to effective adaptation planning and investment across the U.S.

Similarly, New York City strongly opposes the Trump Administration's efforts to roll back adopted more stringent fuel economy standards adopted by California and many other states under the Clean Air Act. We count on those standards to help us achieve our environmental and public health goals.

Because the transportation sector is now the largest source of greenhouse gas emissions in the United States, the federal government needs to help ensure federal aid recipients are taking this growing threat seriously. Currently, the opposite is happening. The Federal Highway Administration recently moved to repeal a rule that established a carbon pollution performance measure for the first time. New York City recognizes the need to do more to reduce greenhouse gas emissions from transportation, in collaboration with other jurisdictions in our metropolitan region. Access to reliable information on regional greenhouse gas pollution from transportation will help the City, region, and States consider the effectiveness of strategies to monitor and mitigate greenhouse gas pollution over time. The greenhouse gas measure established by the FHWA on January 18, 2017, would provide this vital information, which is why New York City supported its adoption.

Without the measure, it will be harder for New York City and other states, regions, and local governments to ensure consistency in the methods by which transportation sector greenhouse gas emissions are evaluated from area to area and across different evaluation frameworks. Such consistency is crucial to successful development of strategies for reducing emissions from transportation systems, since they cross multiple political boundaries.

As a result, the cost and time involved in doing transportation sector greenhouse gas analysis will be higher due to lack of standardization of assumptions and reporting methods, and will inhibit consideration of these impacts in the transportation planning and decision-making process.

This, in turn, will hamper timely consideration and implementation by state and local governments of a wide array of measures that are available to reduce greenhouse gas emissions. Instead, some state and local governments will make ill-advised decisions to invest in transportation projects that will increase vehicle miles traveled, yielding greater greenhouse gas emissions and adverse climate change impacts.

Other current measures of performance monitoring, such as congestion management or air quality conformity analysis, do not provide adequate substitutes for analysis of greenhouse gases. As discussed above, a greenhouse gas measure would provide vital information about the level of greenhouse gas emissions from the transportation sector and the effectiveness of strategies aimed at reducing those emissions. Further, while some strategies that cut congestion, such as reducing VMT, will also cut greenhouse gases and air pollution, other congestion cutting strategies, such as widening roads, can lead to increased driving and therefore increased greenhouse gases and air pollution.

Congress should restore and strengthen the FHWA's now rescinded greenhouse gas measure. Congress needs to step in to ensure that all levels of government have the information needed to ensure at a minimum transparency about the greenhouse gas impacts of transportation sector investments and policies. New rules should require state and local transportation agencies to adopt and report on progress for greenhouse gas reduction strategies, setting measurable goals and benchmarks for performance. This is vital to increasing consistency and effectiveness across transportation systems in adopting such strategies, and helping reduce climate change and other air pollution.

Federal transportation law already requires that certain objectives be accomplished, including minimizing transportation-related fuel consumption and air pollution[16], but these requirements have not been enforced by U.S. DOT rulemaking. To effectively accomplish those objectives requires timely availability of information about the effects of state and regional transportation plans and programs on greenhouse gas emissions, using comparable metrics and analysis methods across states and regions. The FHWA's now revoked greenhouse gas regulation would provide that vital information.

There is no sound policy reason to stop collecting this data. Maybe some fear what the numbers are telling us. But burying our heads in the sand does not change reality, and does nothing to help make smarter policy and investment choices. We have little to lose and nothing to fear from a data-based approach to policymaking. Across the federal government, there is an understandable desire to learn from data and avoid wasting taxpayer dollars.

[16] 23 U.S.C 134(a)(1), 23 U.S.C 134(c)(1) and 23 U.S.C. 135(a)(1).

5. Project Delivery Reform

We appreciate this Committee's focus on expediting project delivery. While federal support for our investments is essential, it is often the case that federally funded transportation projects take longer to complete, due to planning, design-procurement and implementation requirements administered by multiple agencies under dozens of statutes. Importantly, expedited delivery does not have to and should not mean undermining important environmental safeguards and protections.

A good first step would be to enhance local authority by increasing the federal funding that is directly available to cities. Direct access to funds helps critical safety, accessibility, and state of good repair projects that are responsive to local needs to get in the ground faster, cheaper, and with fewer redundant reviews than funds channeled through states. Additionally, project reviews by multiple agencies add months, or even years to projects, often with little to no substantive change. Streamlining permitting and reviews by developing concurrent permit processing guidelines will help deliver projects more efficiently. Increased use of tiered environmental and plan reviews and programmatic agreements can facilitate better consideration of alternatives within consolidated planning processes. These changes will promote a consistent and predictable process that leads to better outcomes. Active transportation networks should be eligible to undergo a systemic streamlined environmental review process to better account for cumulative impacts and benefits.

FHWA should also adopt a direct aid model that resembles the FTA process by granting 'self-certification' and delegation of design authority directly to cities. FTA provides funding to its grantees and allows them to implement projects quickly based on local conditions without any additional FTA approvals, as long as grantees certify that they are meeting the Federal requirements. FTA conducts reviews of the grantees work every three years to ensure that requirements were met as certified. The existing FHWA process delegates some responsibilities to the State, but not all, creating duplicative levels of review by both State and FHWA at multiple stages of project delivery. This adds months or years to project timelines.

Moreover, USDOT could require States and large cities to develop programmatic agreements between relevant State, Federal, and local resource and transportation agencies. These agreements would cover routine permitting from the Coast Guard, Army Corps of

Engineers, Environmental Protection Agency (EPA) and State for common activities, such as bridge projects, restriping, and sea wall reconstruction, and road maintenance, development of new bus lanes, bicycle lanes, and signalization. This will allow these activities to bypass time-consuming special processing as long as the project activities follow mutually agreed upon procedures to minimize unnecessary adverse impacts through routine mitigation and impact avoidance. These agreements should identify triggers for more in-depth project review where warranted.

6. **Conclusion**

This Congress has an exciting opportunity to rethink how the federal government supports the massive infrastructure needs of cities and other communities across the country. I appreciate the opportunity to speak with you today regarding New York City's priorities and am happy to answer any questions.