



Washington Bridge Street Improvement Project

Proposed Redesign

Presented to Manhattan Community Board 12 on November 7th, 2022



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Background



Cycling in Numbers

Network Map:

DOT is responsible for the largest bike network in North America with over **1,455+** lane miles

NYC Ridership:

- **880,000** ride a bicycle regularly (at least several times a month)
- **550,000** daily commuting bicycle trips (2021)
- **104%** increase in daily cycling (2011-2021)
- **27 million** Citi Bike trips in 2021



Safety



Protected Bike Lanes

- **34% reduction in risk of injury**
- On the highest-risk streets, cycling risk or injury is reduced by over 60%



Standard Bike Lanes

- **32% reduction in risk of injury**
- Improved safety on all study projects



Shared Lanes

- **18% reduction in risk of injury** across all projects
- Limited use (wayfinding, as part of bike blvds, or on very narrow/low volume streets)

Source: *Safe Streets for Cycling: How Street Design Affects Bicycle Safety and Ridership*. October, 2021.

Neighborhood Profile

Highbridge, Morris Heights, and Washington Heights

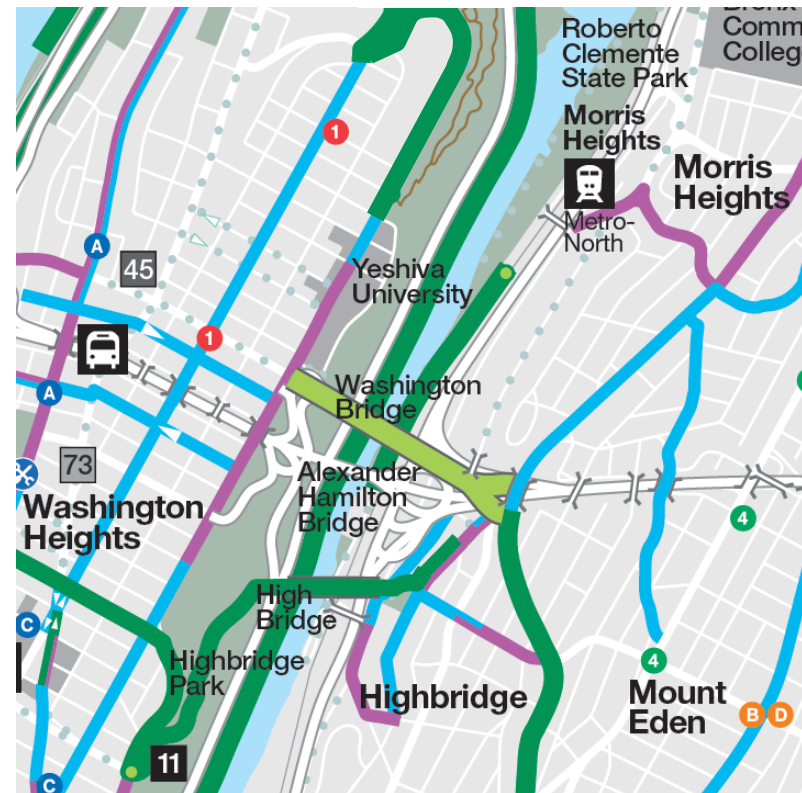
Of commuters in Highbridge and Morris Heights

- **62%** live in car-free households
- **67%** use public transit to get to work
- **20%** drive to work (includes carpooling)

Of commuters in Washington Heights

- **70%** live in car-free households
- **69%** use public transit to get to work
- **12%** drive to work (includes carpools)

Commuters in these neighborhoods are disproportionately vulnerable to slow, unreliable transit

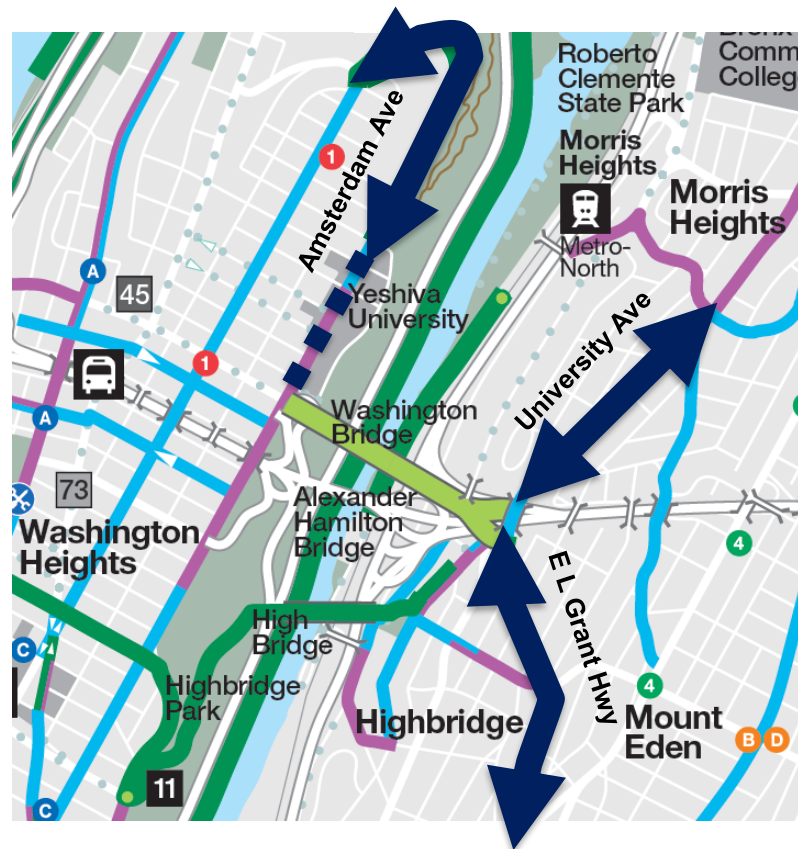


Source: U.S. Census Bureau, 2018 5-year American Community Survey

Bike Network

Recent expansion of the protected bicycle network

- Protected bike lanes on Amsterdam Ave in Manhattan in 2022
- Protected bike lanes on Edward L Grant Hwy in 2020
- Protected bike lanes on University Ave in 2022
- Potential to extend the existing two-way protected bicycle lanes on Amsterdam Ave to the bridge (■ ■ ■)

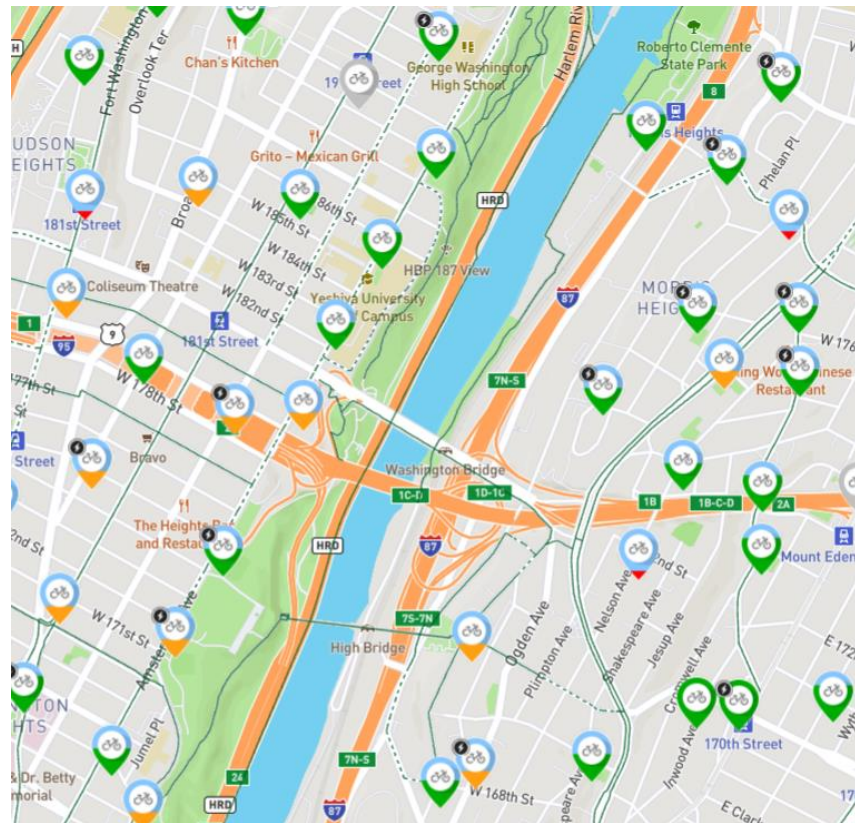


Citi Bike Network

Recent expansion of the Citi Bike in
Manhattan Community Board 12 and
Bronx Community Boards 4 and 5

Approximately 600,000 Citi Bike trips
began or ended in Mn 12, Bx 4, or Bx 5
since August 2021

Only 4.6% (27,000) of those trips crossed
the Harlem River



Request from Elected Officials

Letter requesting bus, bicycle, and pedestrian improvements on the Washington Bridge co-signed by:

Mark Levine

Manhattan Borough President

Vanessa L. Gibson

Bronx Borough President

Carmen De La Rosa

NYC Council, District 10

Mark Levine

NYC Council, District 16



September 14, 2022

Ydanis Rodriguez
Commissioner
New York City Department of Transportation
55 Water Street
New York, NY 10041

Dear Commissioner Rodriguez,

We write to request that the New York City Department of Transportation (DOT) evaluate the potential for bus, bicycle, and pedestrian safety improvements on the Washington Bridge and

develop a plan to widen the pedestrian and dedicated bus lanes on both sides of the bridge, improve cycling safety, implement way

Your agency has been exploring Washington Bridge improvements project in the past, targeting upgrades to the bridge in the 2018 report 'Connecting Communities: A Vision for the Harlem River Bridges' and the more recent 'Streets Master Plan'. Furthermore, DOT has either recently completed or targeted cycling and pedestrian improvements on both the Brooklyn and Queensboro Bridges in order to encourage alternative modes of travel as our city continues to slowly rebound and reopen from the COVID-19 pandemic. Yet, no progress has been made on the Washington Bridge.

In addition to the current bus and bicycle travel on the Washington Bridge, we request that DOT consider the potential for bus, bicycle, and pedestrian safety improvements on the Washington Bridge and develop a plan to widen the pedestrian and dedicated bus lanes on both sides of the bridge, improve cycling safety, implement way

136,300 rides on Saturday, August 13, a weekly record with 837,729 riders between July 31 and August 6 (while also recording roughly 120,000 daily riders for 5 consecutive days during early August's heat wave), and a monthly record with over 3.5 million rides in July.

We must ensure that the Washington Bridge is able to effectively and adequately connect New Yorkers to these infrastructure improvements. Current conditions on the bridge include six car travel lanes, and two extremely narrow, poorly lit paths for both pedestrian and cyclist use. This is the only 24/7 pedestrian crossing in this area, and it is not sufficient.

We know that DOT has been exploring Washington Bridge improvements project in the past, targeting upgrades to the bridge in the 2018 report 'Connecting Communities: A Vision for the Harlem River Bridges' and the more recent 'Streets Master Plan'. Furthermore, DOT has either recently completed or targeted cycling and pedestrian improvements on both the Brooklyn and Queensboro Bridges in order to encourage alternative modes of travel as our city continues to slowly rebound and reopen from the COVID-19 pandemic. Yet, no progress has been made on the Washington Bridge.

As we continue to approach the implementation of congestion pricing, infrastructure investments that will encourage bus travel and make cycling safer must be the highest priority. Thank you for your time and attention to this matter. I look forward to working with you to ensure that upper Manhattan residents receive the transportation investments that they deserve.

Sincerely,

Mark Levine
Manhattan Borough President

Carmen De La Rosa
NYC Council, District 10

Vanessa L. Gibson
Bronx Borough President

Althea Stevens
NYC Council, District 16

Published in 2018, the plan identifies opportunities for bicycle and pedestrian connections between Manhattan and the Bronx

NEW YORK CITY
DOT AECOM

Connecting Communities:

A Vision for the Harlem River Bridges



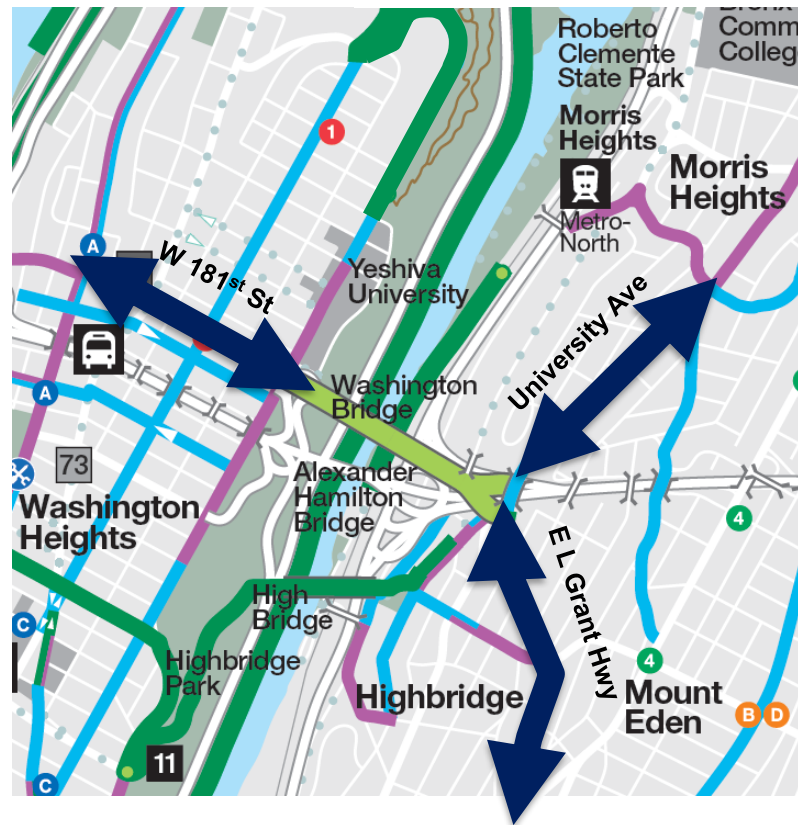
Bus Network

Following the launch of the busway on April 26, 2021, the average bus speed for all routes on W 181st St increased at all times of the day compared to the same periods in both 2019 & 2020

- Westbound speed gains were highest
- Westbound AM and PM peak speeds were 30% faster compared to 2019

Bus speeds increased significantly as customers returned throughout the recovery in 2021

Washington Bridge carries 5 bus routes serving 68,000 daily riders



Proposal

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Goals

Reduce the number and severity of crashes

Improve pedestrian and cyclist safety, access, and comfort

Improve frequency and accessibility of bus transit



Proposal

Create a dedicated bicycle connection between Manhattan and the Bronx

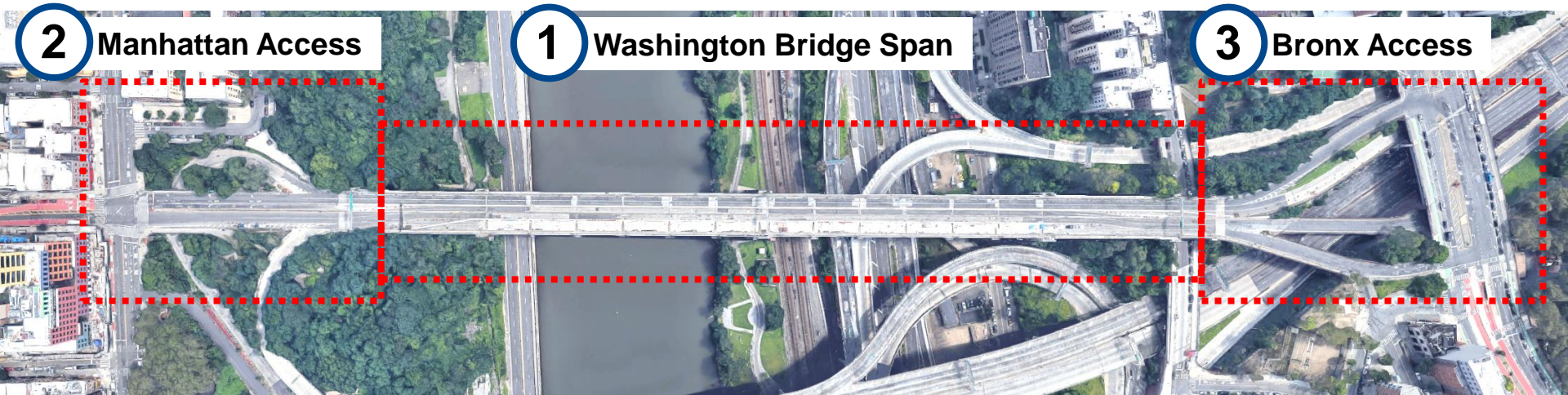
Improve pedestrian conditions by separating them from cyclists on the bridge and making targeted improvements at adjacent intersections

Improve bus operations for transit-riders on the bridge



Proposal

Improvements are proposed for the bridge span itself and for both the Manhattan side and Bronx side



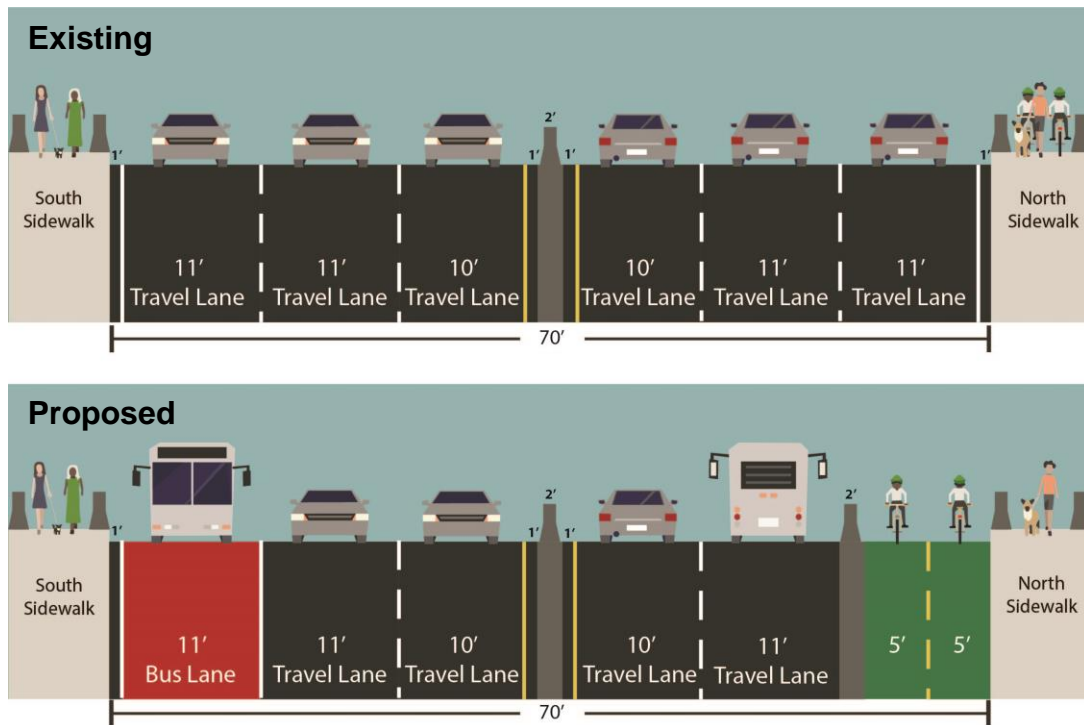
① Existing Bridge Design

- Three vehicle lanes in each direction, separated by a concrete barrier
- Narrow sidewalks shared by both pedestrians and cyclists



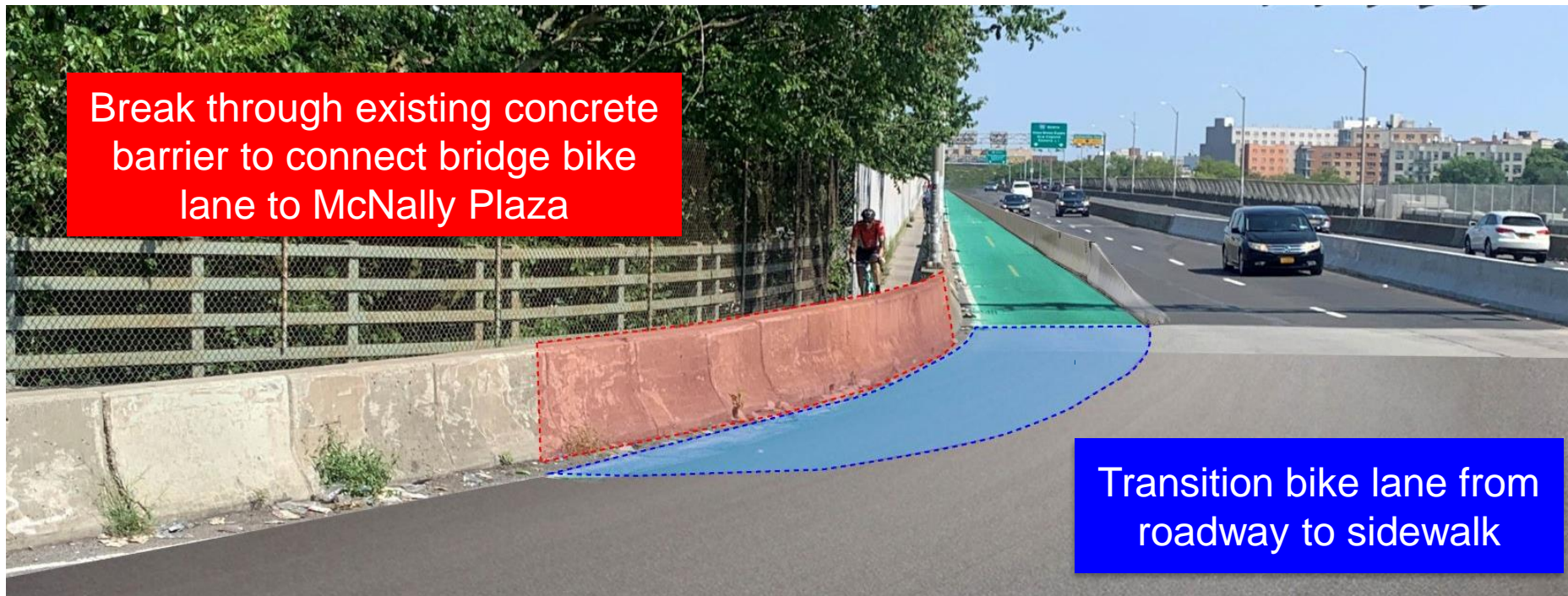
1 Proposed Bridge Path Design

- Install a two-way barrier-protected bicycle lane on the Manhattan-bound (north) side of the bridge
- Install a dedicated bus lane on the Bronx-bound (south) side of the bridge



① Proposed Bridge Path Design

- Connect the bike lane in the roadway on the Manhattan side



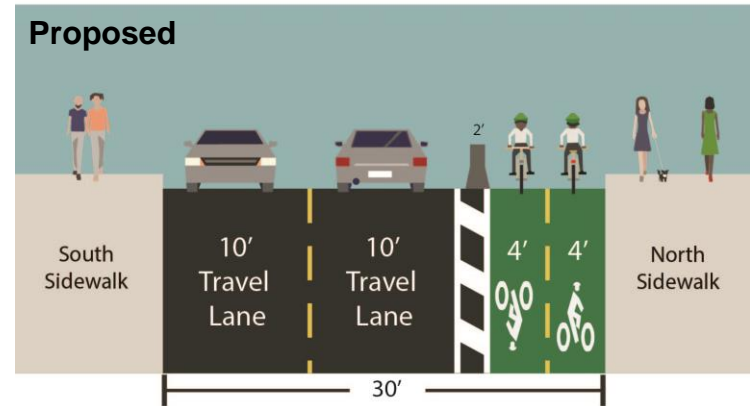
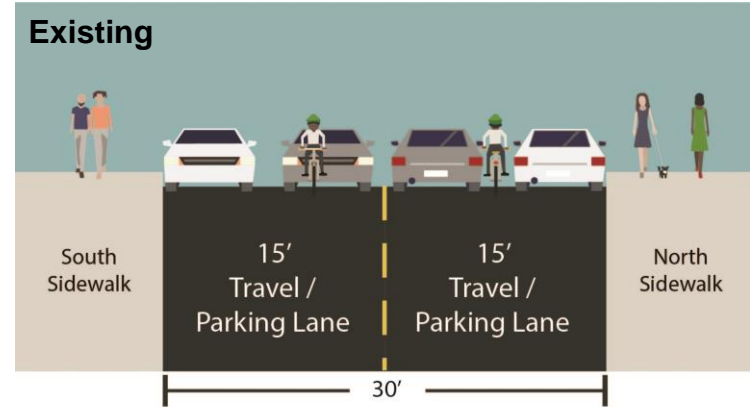
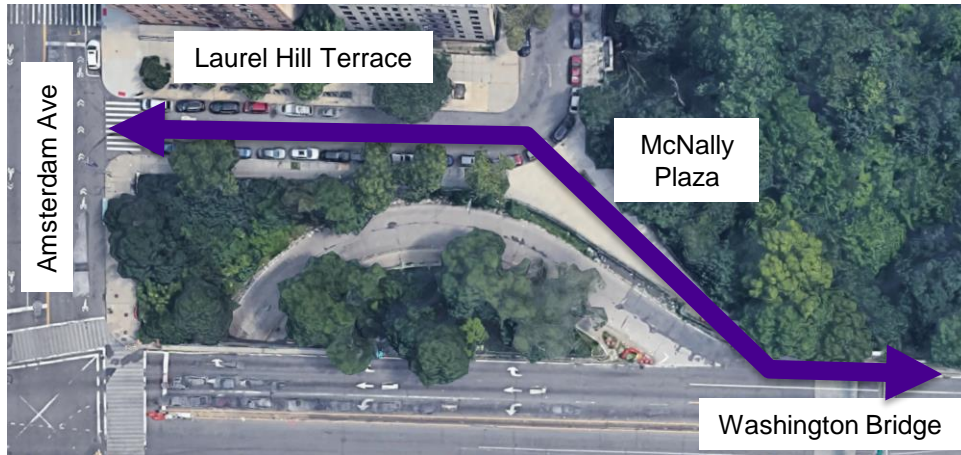
② Existing Manhattan Cycling Connection

- Cyclist and pedestrian access on the Manhattan side is on the north side of the Washington Bridge via a sidewalk connection on Laurel Hill Terrace half a block north of the bridge



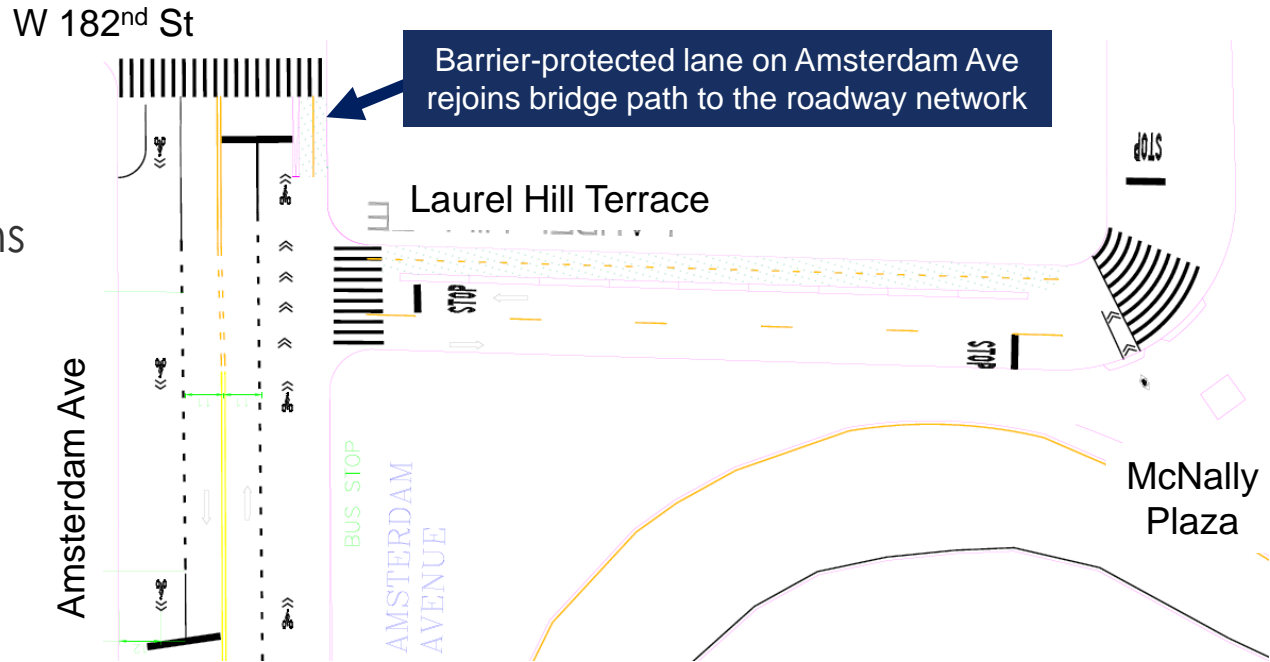
② Proposed Manhattan Bike Connection

- Install barrier protected bicycle lane on north side of Laurel Hill Terrace
- Connect McNally Plaza with Amsterdam Avenue
- Proposal removes 20 parking spaces



② Proposed Manhattan Bike Connection

- The bridge path will connect to Amsterdam Avenue via a barrier-protected two-way lane at the W 182nd St intersection (1 parking space)
- Northbound cyclists continue with the green light
- Southbound cyclists cross with pedestrians at the W 182nd St intersection



③ Existing Bronx Bike Connection

- Protected bicycle lanes on University Ave and E L Grant Hwy
- On the bridge cyclists share the northside sidewalk with pedestrians
- Single turn lanes on University Ave feeds two lanes on the bridge



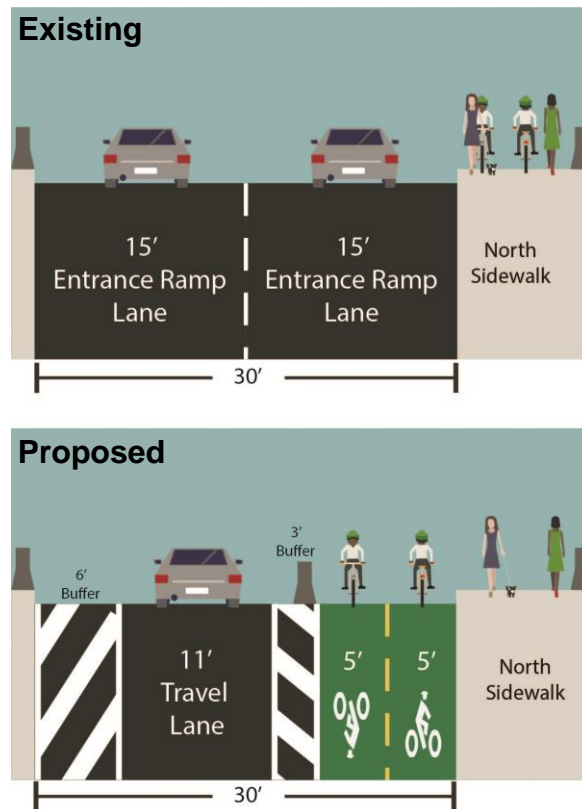
③ Existing Bronx Bike Connection

- Unlike the rest of the bridge, on the entrance ramp there is no barrier to protect cyclists and pedestrians from vehicles, only grade separation



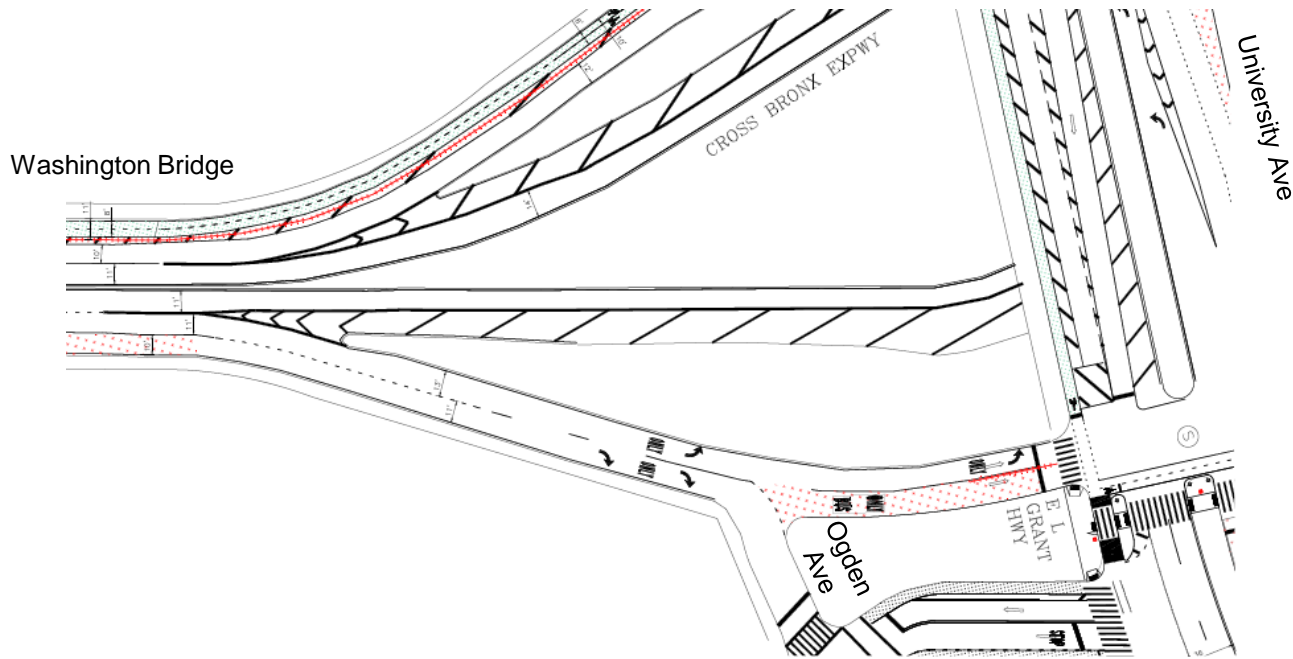
③ Proposed Bronx Bike Connection

- Replace one of the lanes on the entrance ramp from University Ave with a barrier-protected two-way bike lane
- Separate cyclists in the roadway from pedestrians on the sidewalk
- Single turn lanes from both northbound and southbound University Ave proceed at different times so the ramp only requires one vehicle lane



3 Proposed Bronx Bus Improvements

- One travel lane on the exit ramp to University Ave will be converted to a dedicated bus lane
- Eastbound right turns to southbound Odgen Ave will continue to be allowed

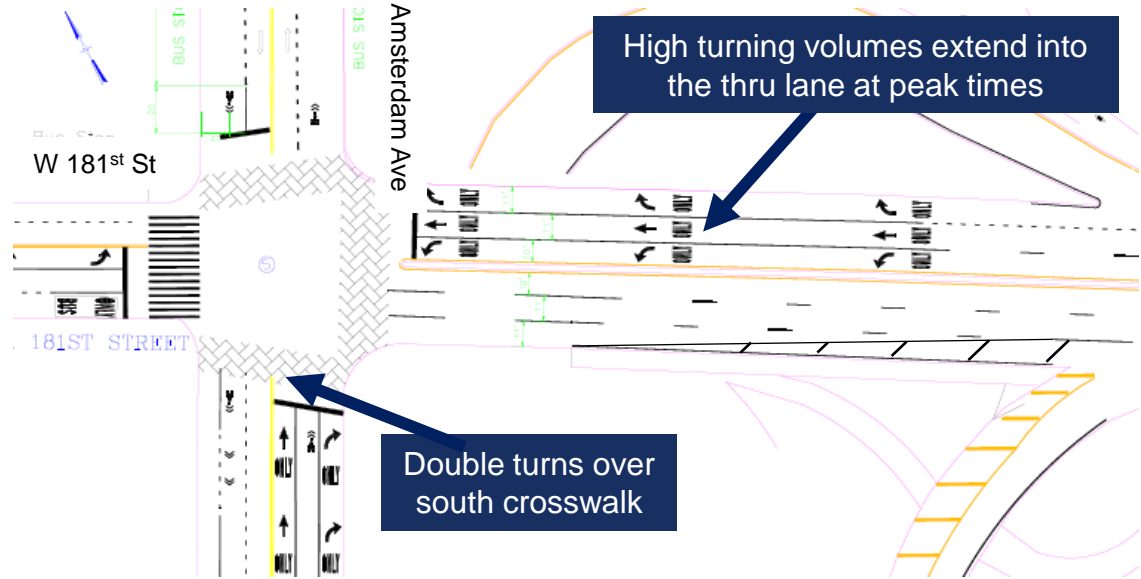


Making it Work

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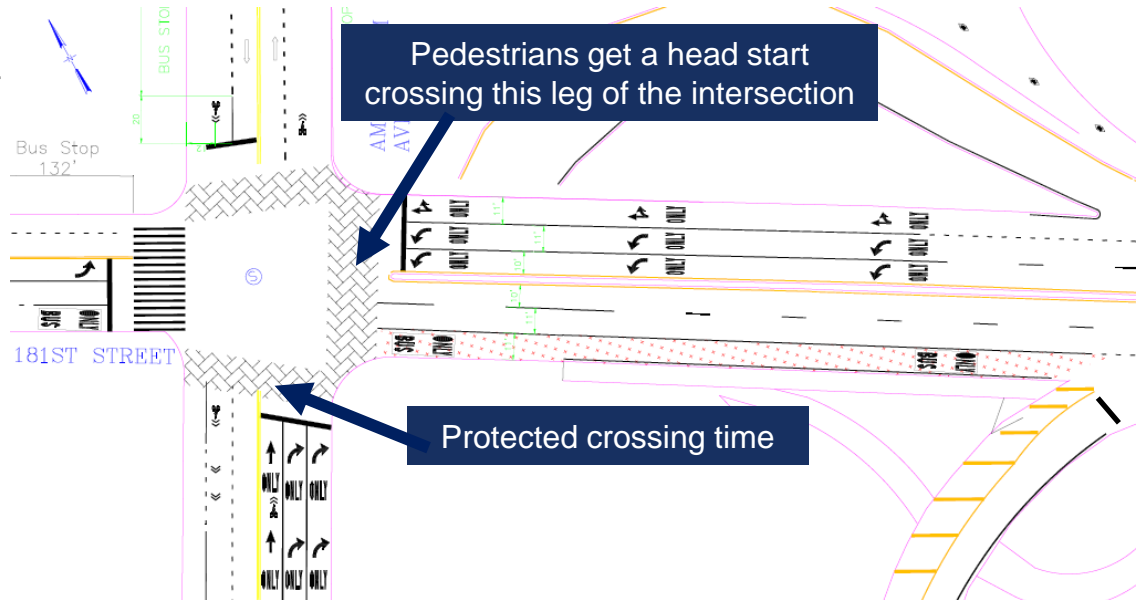
1 Amsterdam Ave and W 181st St – Existing

- Westbound vehicles exiting the bridge have left, thru, and right turn lanes
- Westbound thru is limited at Audubon Ave (one block west of Amsterdam Ave resulting in a higher left turn volume, which spills into the thru lane
- Multiple and consistent double turns over the south crosswalk
- High left turn volumes, low thru and right turn volumes



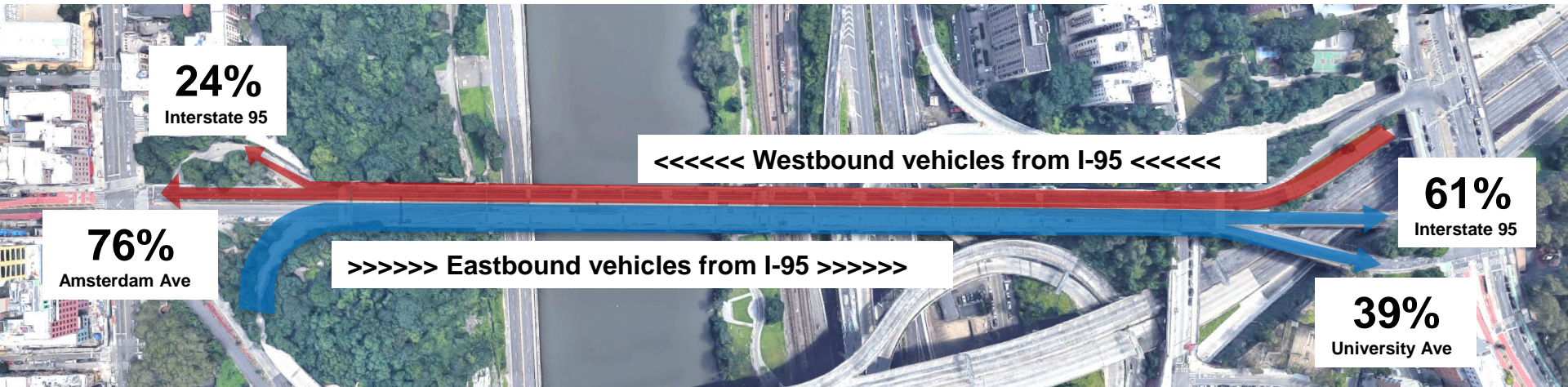
1 Amsterdam Ave and W 181st St Changes

- **Install a second westbound left turn lane** for Manhattan-bound vehicles
- **Install combined thru and right turn lane** accommodating lower volume movements
- Install a second **northbound right turn lane** on Amsterdam Ave
- Add a signal phase to separate the westbound left turns from the pedestrian phase in south
- Add a Leading Pedestrian Interval to give pedestrians in the east crosswalk a head start



② Washington Bridge Capacity

- Addition of bike and bus improvements reduces the capacity of the bridge by one travel lane in each direction
- On-going construction beginning in 2020 reduced the capacity of the bridge by one lane in each direction for two years without major incident
- Significant bridge volumes come from “I-95 to I-95” cut-through traffic



Summary

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Summary

- Dramatically improve safety and comfort for cyclists and pedestrians on a critical route connecting Manhattan and the Bronx
- Improve crossings for pedestrians at the intersection of Amsterdam Ave and W 181st St
- Improve bus service for eastbound transit riders with a dedicated bus lane
- Maintain capacity for westbound motorists and transit riders approaching Amsterdam Ave



Thank You!

Questions?



NYCDOT



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NYCDOT