



E 233 ST, WEBSTER AVE, BRONX BLVD **BRONX RIVER GREENWAY CONNECTOR**

Presented to Bronx Community Board 12
June 2021



PRESENTATION OVERVIEW

1. Background
2. Proposal
3. Summary



Background

1

Introduction to NYC DOT

Safe, efficient, and environmentally responsible movement of people and goods on the City's streets



NYC DOT is responsible for:

- 6,000 miles of streets and highways
- 789 bridges and tunnels
- 12,000 miles of sidewalk
- 12,700 signalized intersections
- 315,000 street lights
- Staten Island Ferry
- 1 million+ street signs
- 200 million+ linear feet of roadway markings

NYC DOT Bicycle Unit

Responsible for building on-street bike network and increasing bike safety

Largest bike network in North America
(1000+ lane miles)

NYC Bike ridership growing every year

- **450,000 bike trips per day** (2016 estimate)
- **Daily cycling up 80%** (2010-2015)
- **60,000 Citi Bike trips daily** (2015)

Street redesigns improve safety for all road users

- Cyclists
- Pedestrians
- Drivers
- Bus Riders

Recent Bike Network Expansion Projects (2011-2016)



Green Wave: A Plan for Cycling in New York City



Analysis of fatalities – key findings (2014 - 2019):

- Nearly 90% of fatalities happened on streets **without bike lanes**
- 60% of fatalities happened at intersections
 - 23% involved a vehicle turn
 - 16% involved a driver's failure to yield the right of way

Green Wave Plan:

Citywide Protected Bike Lane Network:

- Build **30 miles of protected bicycle lane** annually
- **Encourage increase in cycling mode share** for safety and emissions reduction

Better Design:

- Implement **new design standards** based on national & international best practice **to enhance safety at intersections**
- Continue piloting new designs with rigorous safety analysis

Education and Outreach:

- Launch next phase of **Vision Zero public awareness campaign**, **educating drivers with a focus on cyclist safety** and expand the "Get There" bicycle encouragement/rules of road campaign.
- Educate all street users about safe truck operation on city streets
- **Increase helmet giveaways and helmet use encouragement**

NYPD Enforcement

- **Target enforcement on highest risk activities:** speeding, failing to yield, blocking bike lanes, oversized trucks/trucks off route

NYC DOT Bicycle and Greenway Program

Street Improvement Projects

Low-cost projects designed and installed with DOT in-house resources: markings, signs, concrete, signals

Quickly improve safety and mobility for all street users: motorists, pedestrians, bus passengers, bike riders

105 projects installed in 2016, across the five boroughs, addressing 76 Vision Zero priority geographies



NYC DOT STREET IMPROVEMENT TOOLBOX



Curb Extensions

- Provide additional space for pedestrians
- Improve alignment and visibility
- Slow turning vehicles



High Visibility Crosswalks

- Improve visibility
- Discourage vehicles from encroaching in crosswalk



Signal Timing Changes

- Improve traffic flow
- Decrease conflict between vehicles and crossing pedestrians and bikes

SAFETY – Protected Bike Lanes

Street designs that include protected bike lanes increase safety for all users

-15% drop in all crashes with injuries

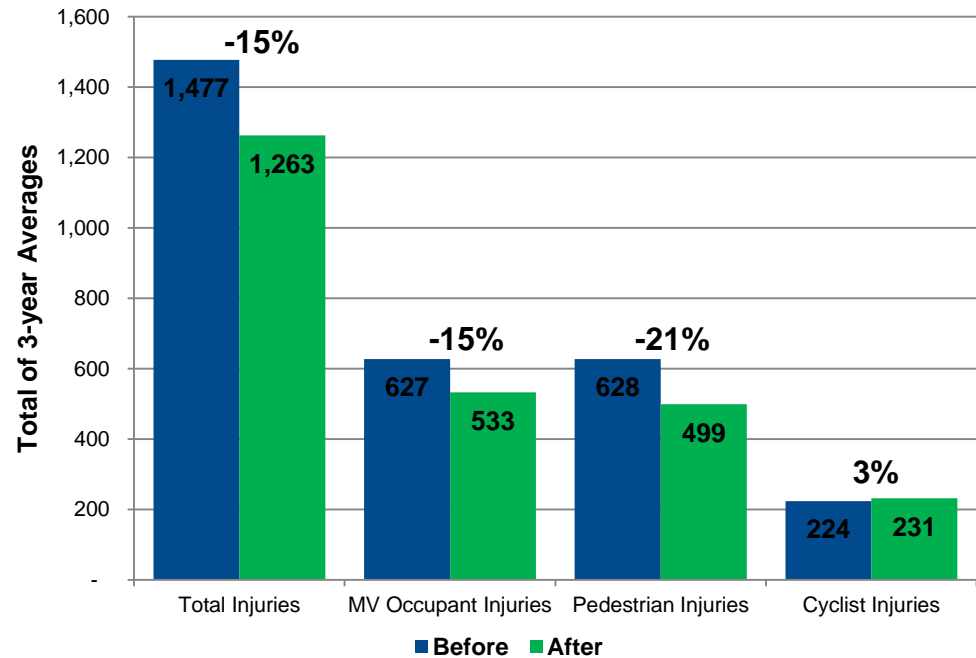
-21% drop in pedestrian injuries

on streets where protected bike lanes were installed 2007-2017

Injuries to cyclists increase only 3%,
despite a 61% bike volume increase

Protected Bike Lanes

Before and After Crash Data, 2007 - 2017



Data from 25 separate protected bicycle lane projects installed from 2007-2014 with 3 years of after data. Includes portions of 1 Ave, 2 Ave, 8 Ave, 9 Ave, Broadway, Columbus Ave, Hudson St, Lafayette St / 4 Ave, Sands St, Allen/Pike St, Kent Ave, Prospect Park West, Flushing Ave, Bruckner Blvd & Longfellow Ave, Imlay St / Conover St, Paerdegat Ave. Only sections of projects that included protected bike lanes were analyzed.
Source: NYPD AIS/TAMS Crash Database

PROJECT HISTORY

2006

Bronx River Greenway Plan

Identified connections between Shoelace Park and Muskrat Cove as priority project; federal funds allocated to Parks

2013

NYC Parks Bikeway Proposal

Proposal and traffic study of Webster Avenue, E 233rd St and Bronx Blvd to provide greenway connections. Federal funds transferred to NYCDOT for on-street connections.

2017

Installation of neighborhood bike network

provided bike connections and access to Shoelace Park in Williamsbridge CB12

2018

Shoelace Park Reconstruction

NYC Parks reconstructed paths and constructed new entrances to formalize the Bronx River Greenway in Shoelace Park and Muskrat Cove

2020-21

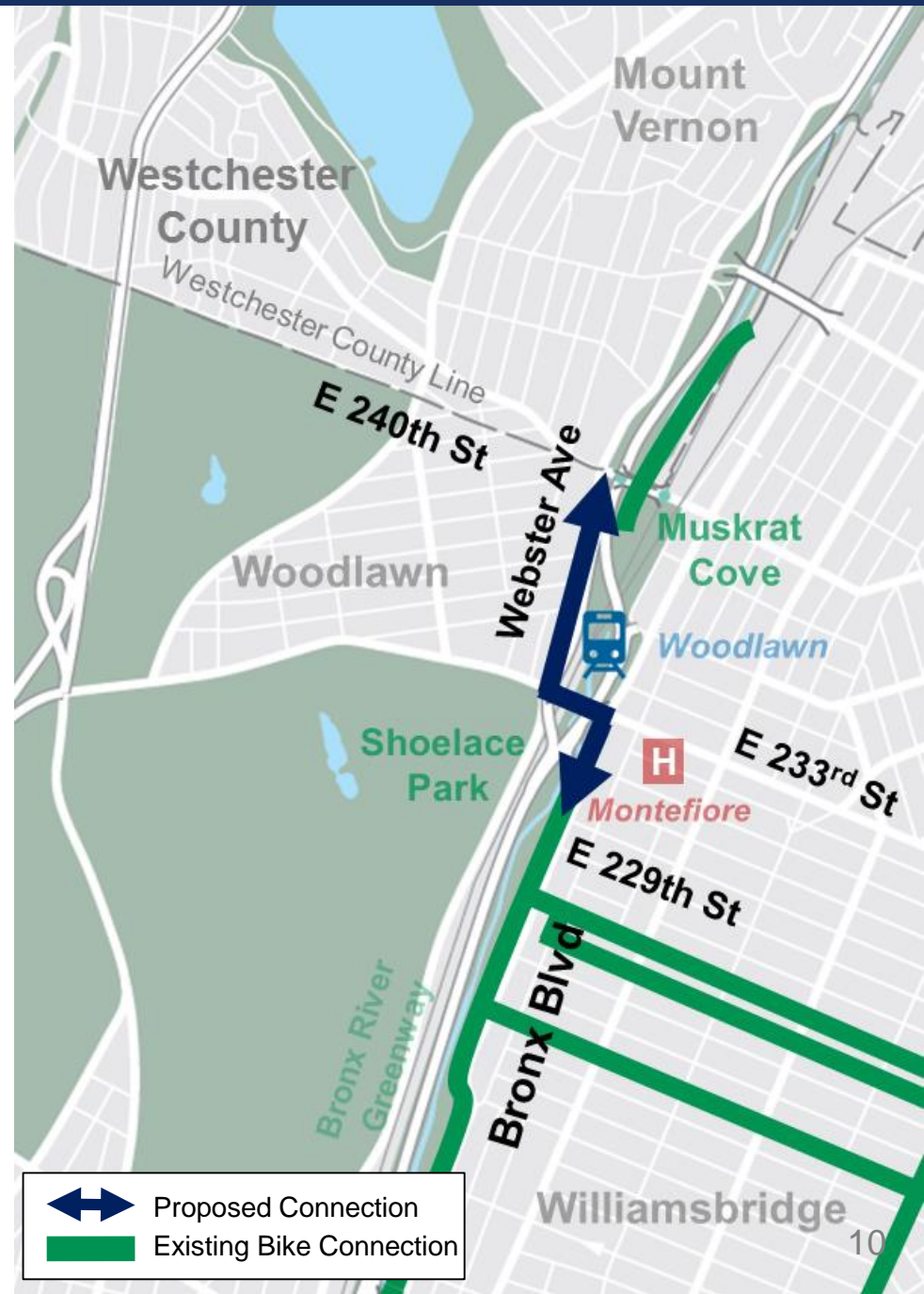
Project development and outreach

2021

Implementation

2021 -
Future

Bronx River Greenway Extension
Westchester County



ISSUES

Gap in Bronx River Greenway on Webster Avenue, E 233rd St and Bronx Blvd

1

Webster Avenue

Lack of bicycle connections to Westchester and Muskrat Cove

2

E 233rd St Bridge

No direct, safe pedestrian and bicycle crossing from Woodlawn Station to Montefiore Medical Center and Shoelace Park

3

Bronx Blvd

Lack of pedestrian access from Williamsbridge to Shoelace Park

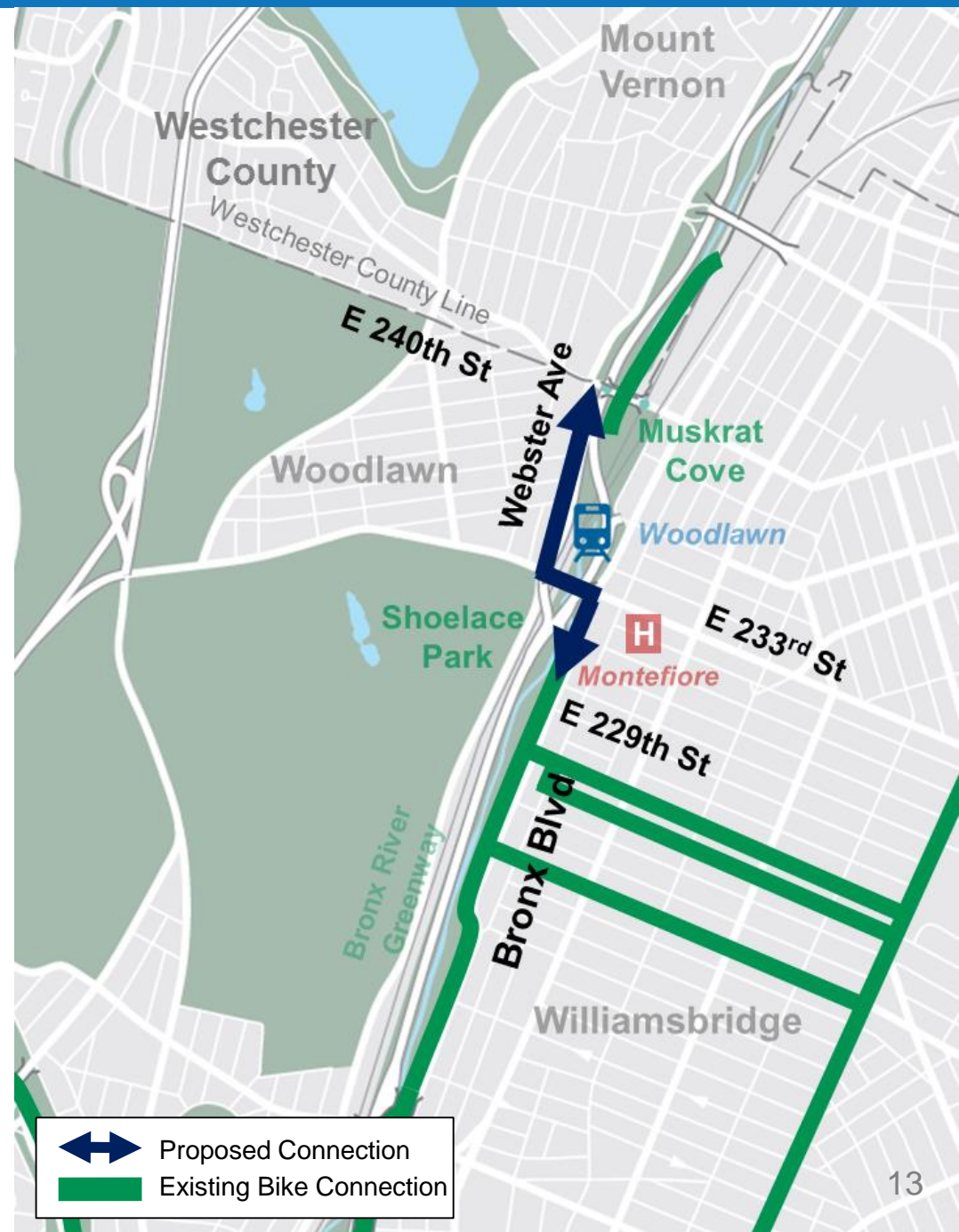


Proposal

2

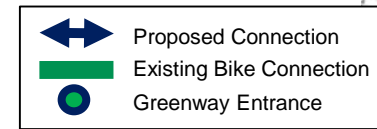
PROJECT GOALS

- **Close gap in Bronx River Greenway** on Webster Avenue, E 233 St Bridge and Bronx Blvd
- **Provide safe bicycle and pedestrian access to Muskrat Cove and Shoelace Park**
- **Improve bicycle and pedestrian crossings to Woodlawn station**
- **Establish bicycle connection to Westchester County** on Webster Avenue



1

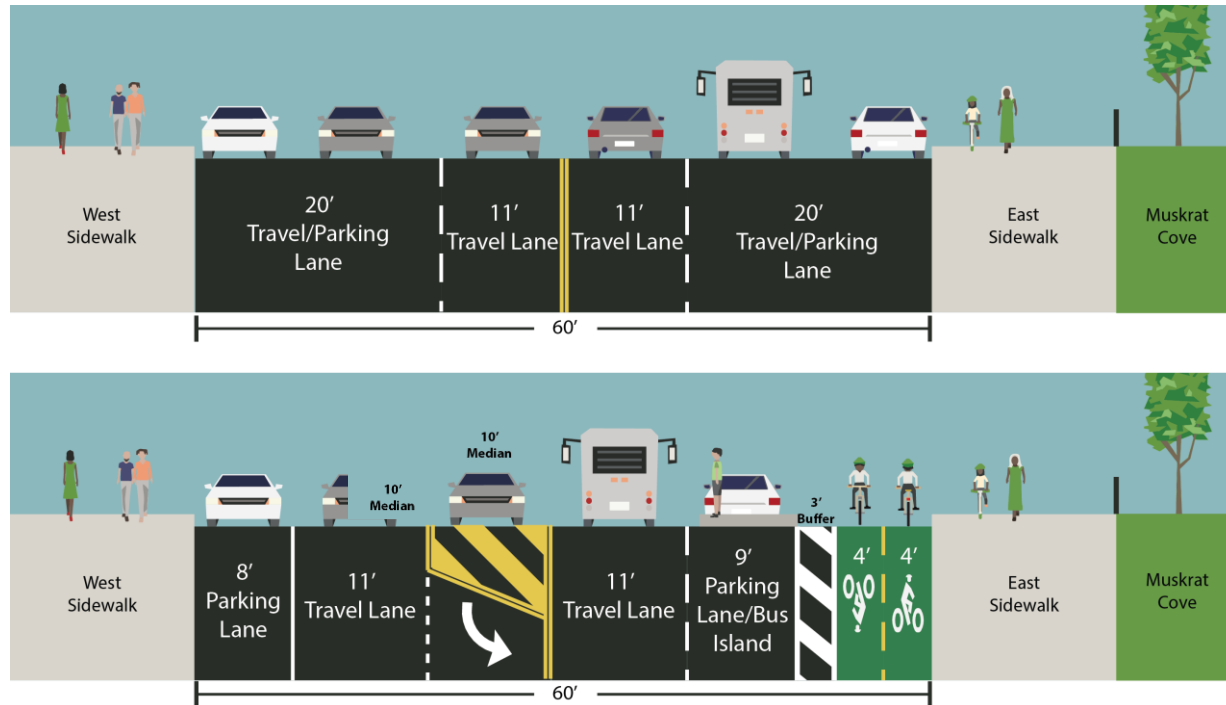
WEBSTER AVENUE EXISTING CONDITIONS



- **Vehicle volumes decrease** on approach to Bronx River Pkwy
- **Muskrat Cove/Bronx River** Greenway entrance at Bronx River Pkwy On Ramp
- **Bx16 Bus Stops** on Webster Ave from E 233 St to E 240 St

1 WEBSTER AVENUE

E 240 St – E 233 St



Existing

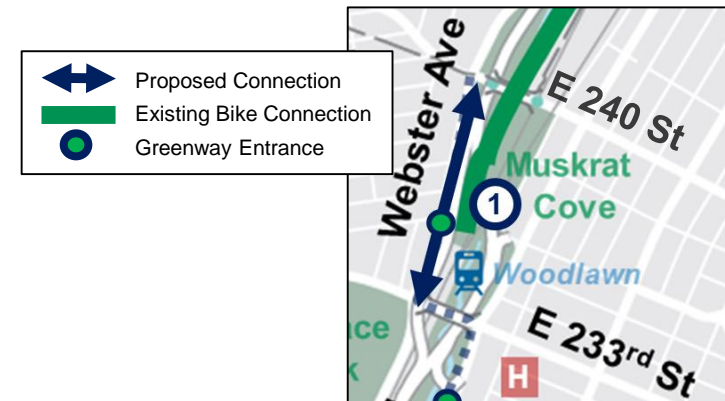
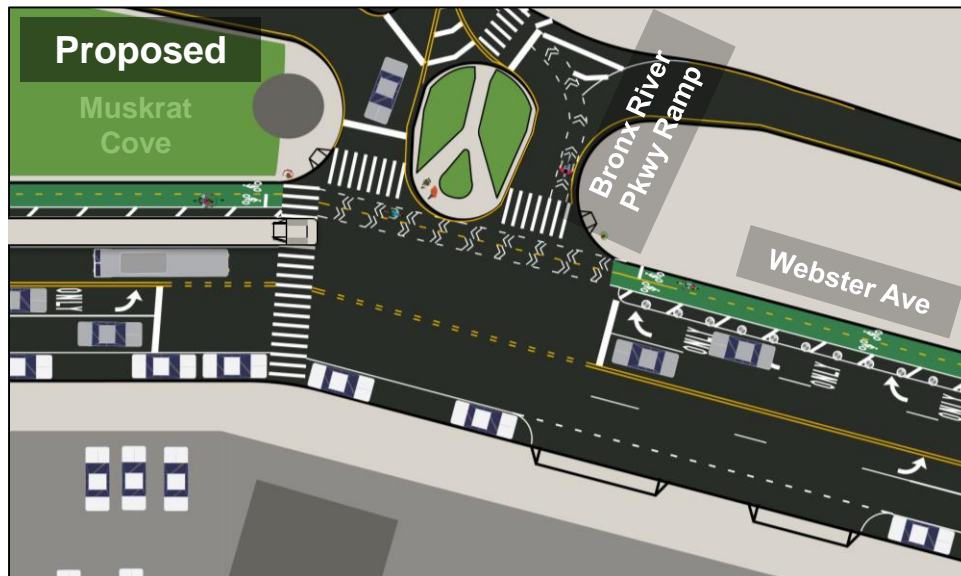
- **Non-standard lane widths**
- **Lack of bicycle connections** to Muskrat Cove and Bronx River Greenway
- **Long pedestrian crossing distances**
- **Right turn conflict** at Bronx River Pkwy on ramp
- **No east-west crossings** between Bronx River Pkwy/Muskrat Cove and E 240th St

Proposed

- **Provide two-way, parking protected path** on Webster Avenue from E 233rd St to E 240th St and connections to Muskrat Cove, Bronx River Greenway
- **Improve predictability of cyclists movements** by providing separate, dedicated space along the curb
- **Establish one lane in each direction** and standardize lane widths to discourage speeding
- **Improve bus operations** by allowing faster pickup and drop off at bus islands

1 WEBSTER AVENUE

Muskrat Cove



Existing

- **Conflicting right turn** right turn on red during pedestrian and bicycle crossing at Muskrat Cove
- **Lack of bicycle connections to Bronx River Greenway** entrance in Muskrat Cove
- **No east-west pedestrian crossings** between Bronx River Pkwy/Muskrat Cove entrance and E 240th St

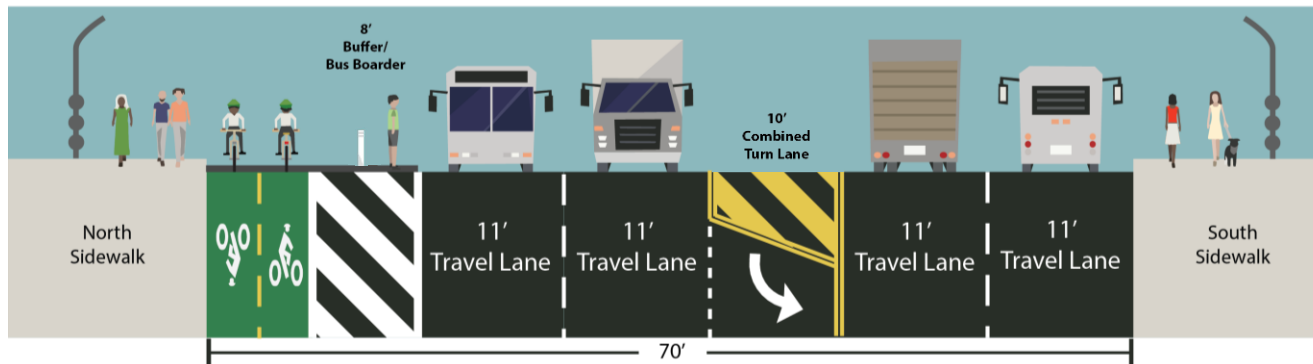
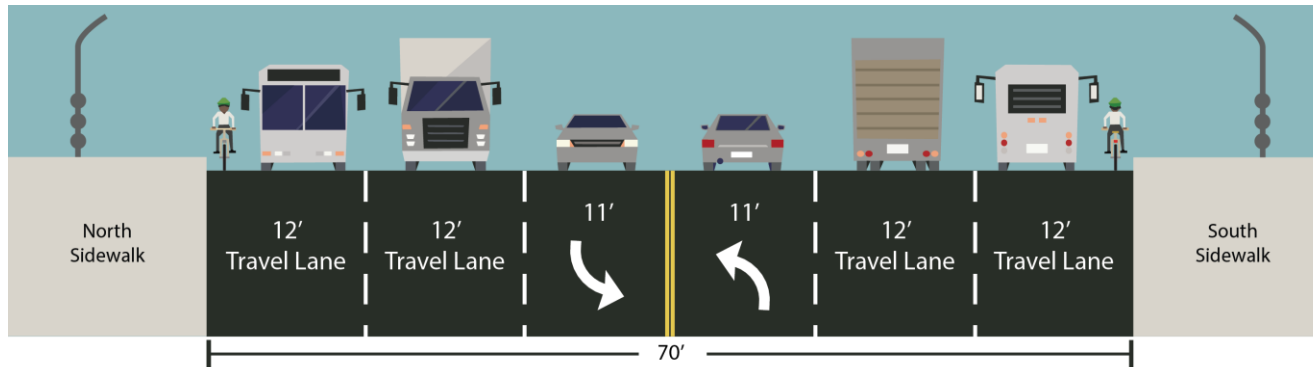
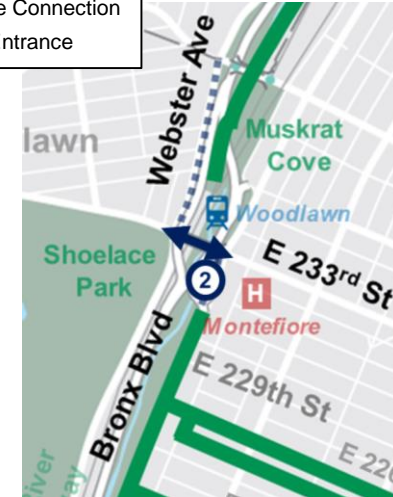
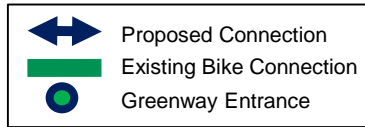
Proposed

- **Provide leading pedestrian interval** to allow safe access to Muskrat Cove and Bronx River Greenway
- **Route cyclists** to Bronx River Greenway entrance
- **Investigating signalized or enhanced crossing** at E 235th St to improve access to buses and park entrance
- **Relocation of Bx16 stop** to Bronx River Pkwy and Woodlawn station entrance with new bus boarding island

2

E 233 ST BRIDGE

Webster Avenue to Bronx Blvd



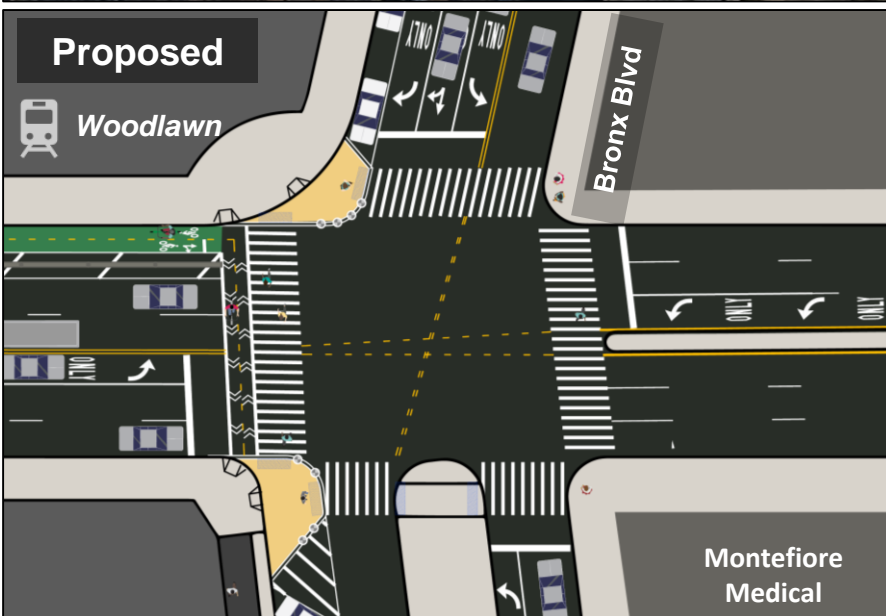
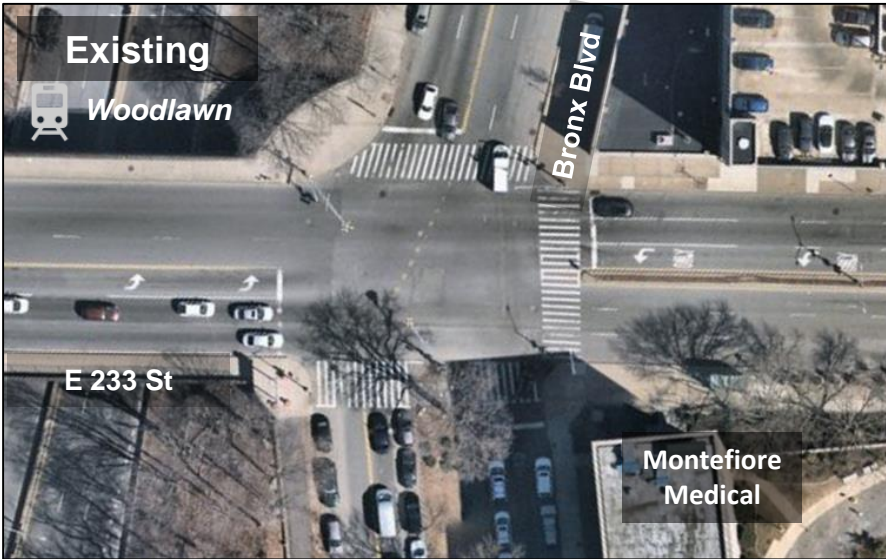
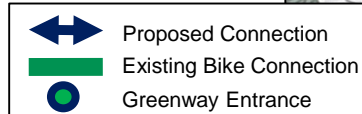
Existing

- **Non-standard lane widths**
- **Lack of bicycle connections** to Bronx Blvd and Shoelace Park
- **Long pedestrian crossing distances**

Proposed

- **Provide two-way, protected bike path** on E 233rd St from Webster Avenue to Bronx Blvd
- **Improve predictability of cyclists movements** by providing separate, dedicated space along the curb
- **Combine left turn lanes on E 233 St** to standardize lane widths and provide bicycle path
- **Improve bus operations** by allowing faster pickup and drop off

2 E 233 ST BRIDGE Bronx Blvd



Existing

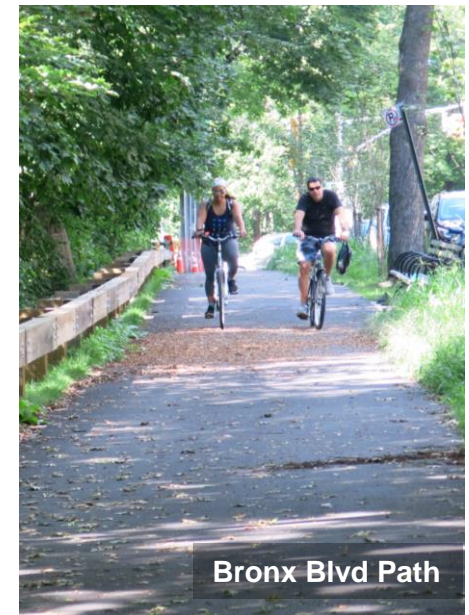
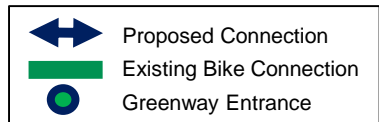
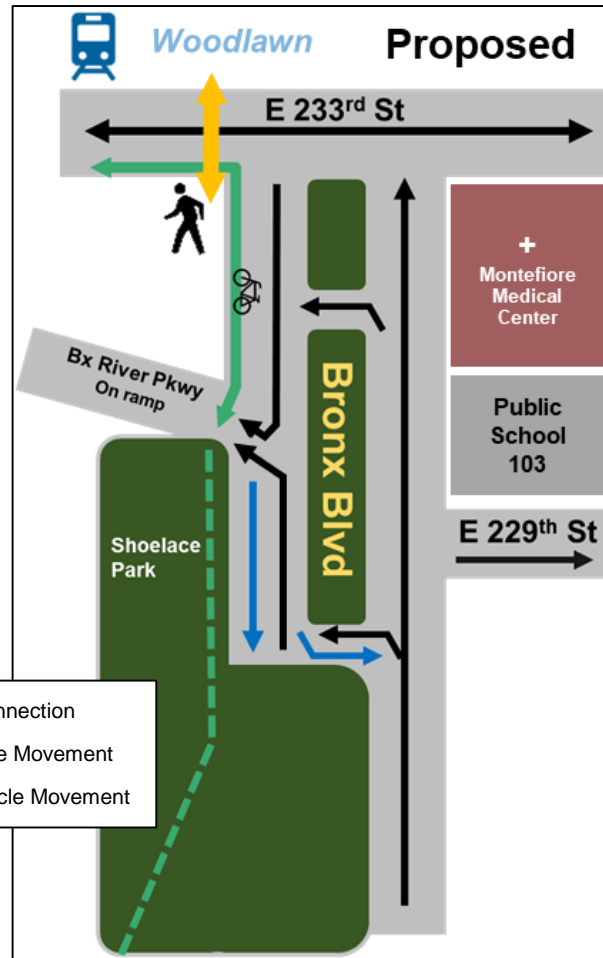
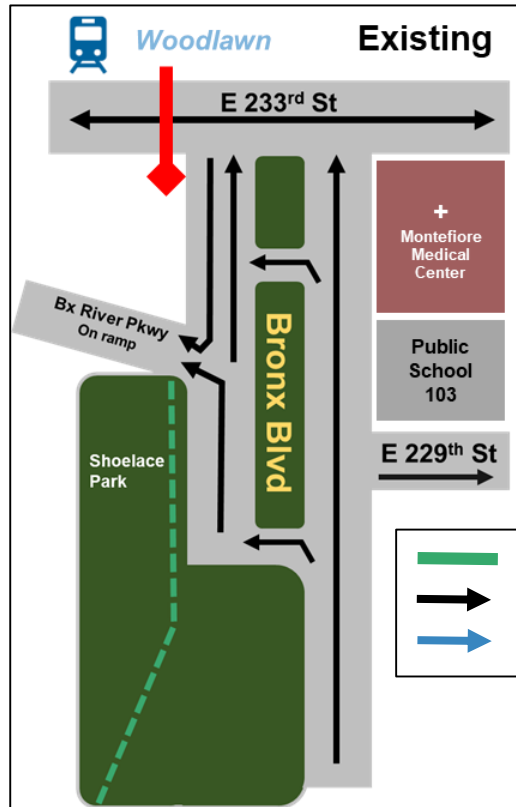
- Long pedestrian crossings distances across Bronx Blvd
- No western crosswalk due to double left turns from Bronx Blvd onto E 233rd St
- No direct and safe connections to bus stops, Woodlawn Station and Montefiore Medical pedestrians crossing midblock on E 233rd St

Proposed

- Provide painted pedestrian space at the intersection to shorten pedestrian crossings
- Eliminate double left on Bronx Blvd to provide western crosswalk
- Provide new west crosswalk for pedestrian, cyclists crossing E 233rd St
- Provide actuated pedestrian signal at proposed crosswalk
- Establish southbound right turn lane to normalize intersection

3

BRONX BLVD Shoelace Park Access



Existing

- Double left turns at E 233 St and Bronx River Pkwy

Proposed

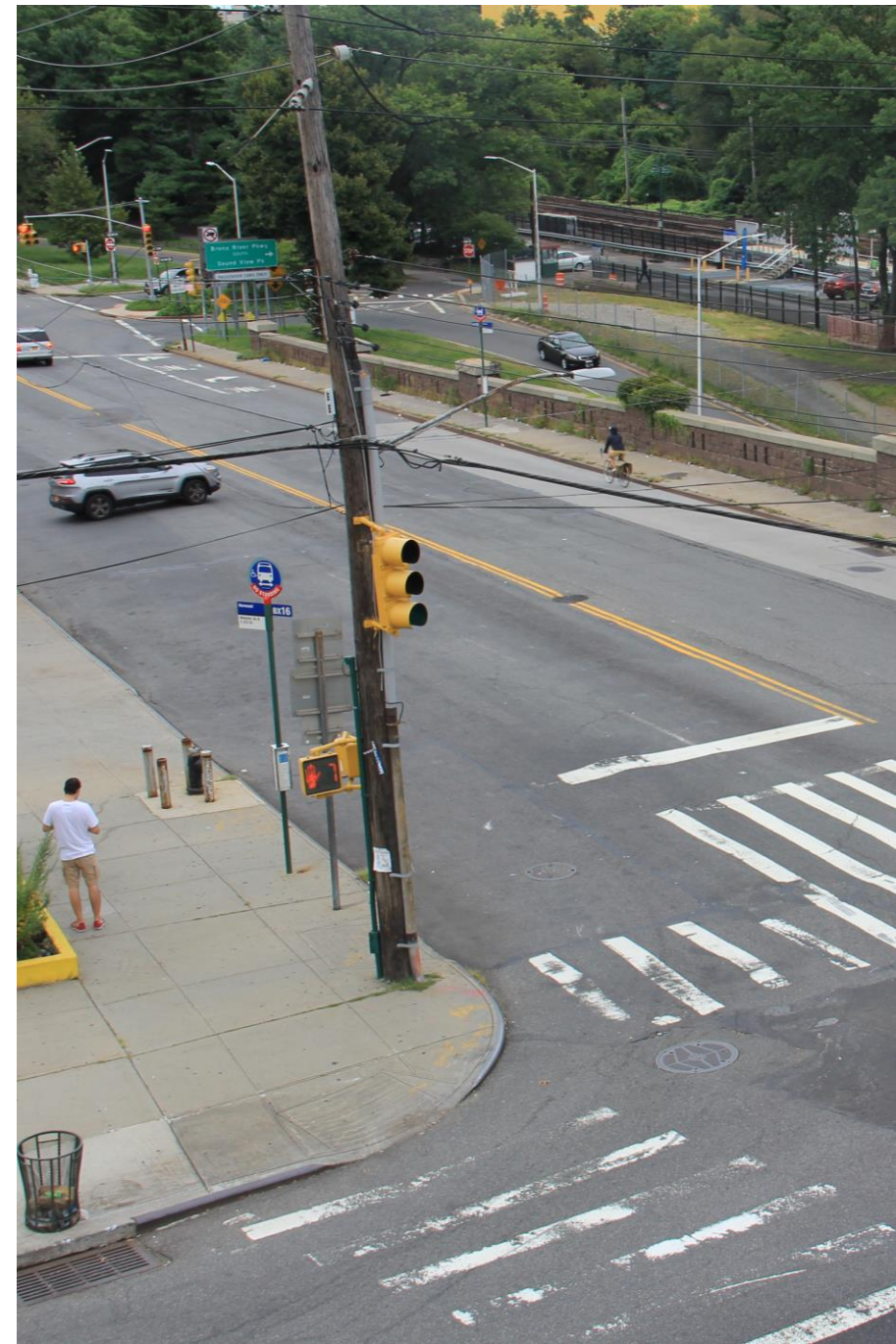
- Establish one southbound lane between E 233rd St and Bronx River Pkwy eliminating double left across pedestrian crossing and improving access to Woodlawn station
- Provide one northbound and southbound lane south of Bronx River Pkwy to provide exit for vehicles continuing south of Bronx River Pkwy On Ramp
- Provide angled parking between E 233 St and Bronx River Pkwy On Ramp
- Parking loss of approximately 30 spaces on Bronx Blvd West with two-way conversion

Summary

4

SUMMARY

- **Provide Bronx River Greenway and Westchester connection**
 - Two-way parking protected bike path on Webster Avenue
 - Two-way protected bike path on E 233 St to Shoelace Park path
 - Connections to off-street shared use path to Shoelace Park on Bronx Blvd
- **Provide safe bicycle and pedestrian access to parks and destinations**
 - Signal timing improvements at:
 - Webster Ave & Bronx River Pkwy
 - E 233 St & Bronx Blvd
 - New pedestrian crossings:
 - E 233 St & Bronx Blvd
 - E 235 St & Webster Ave



THANK YOU!

Questions?



NYC DOT



NYC DOT



nyc_dot

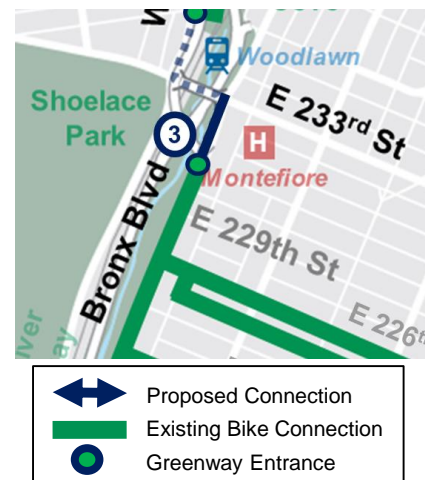
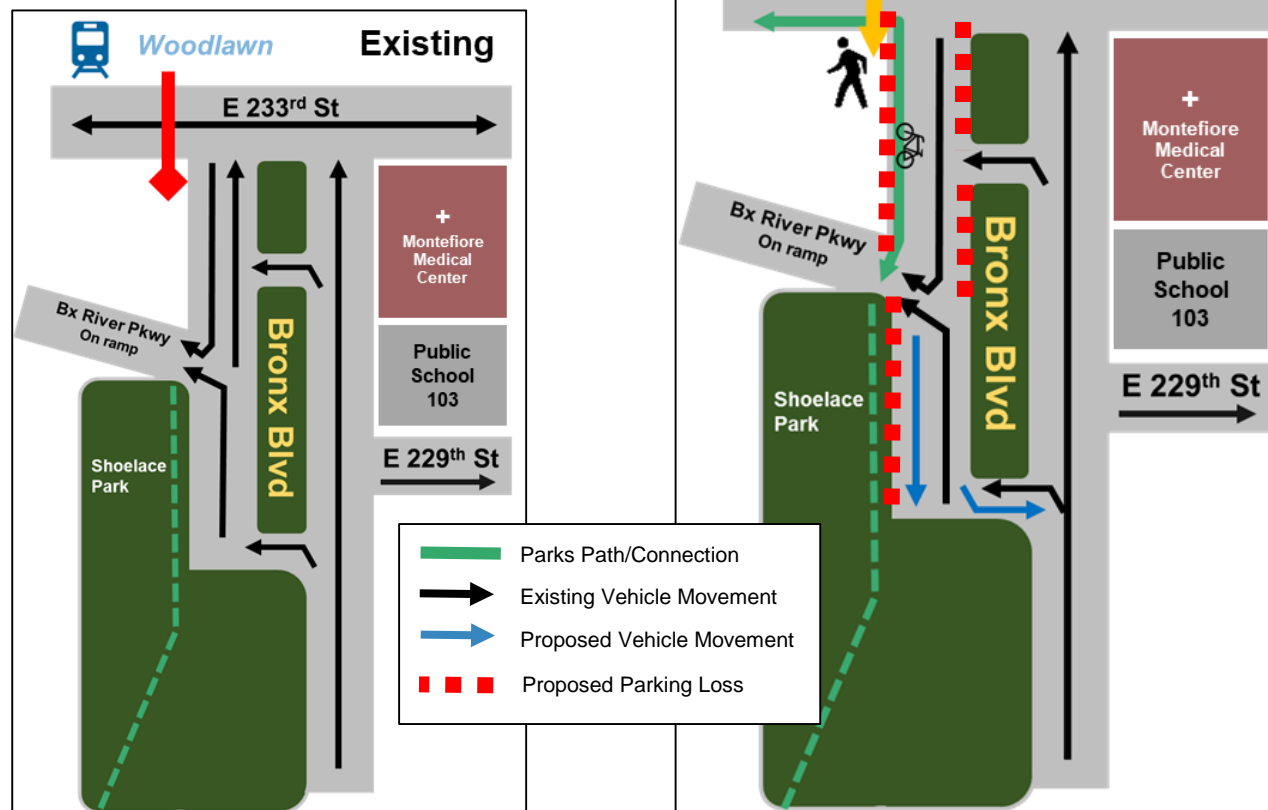


NYC DOT

Appendix

3

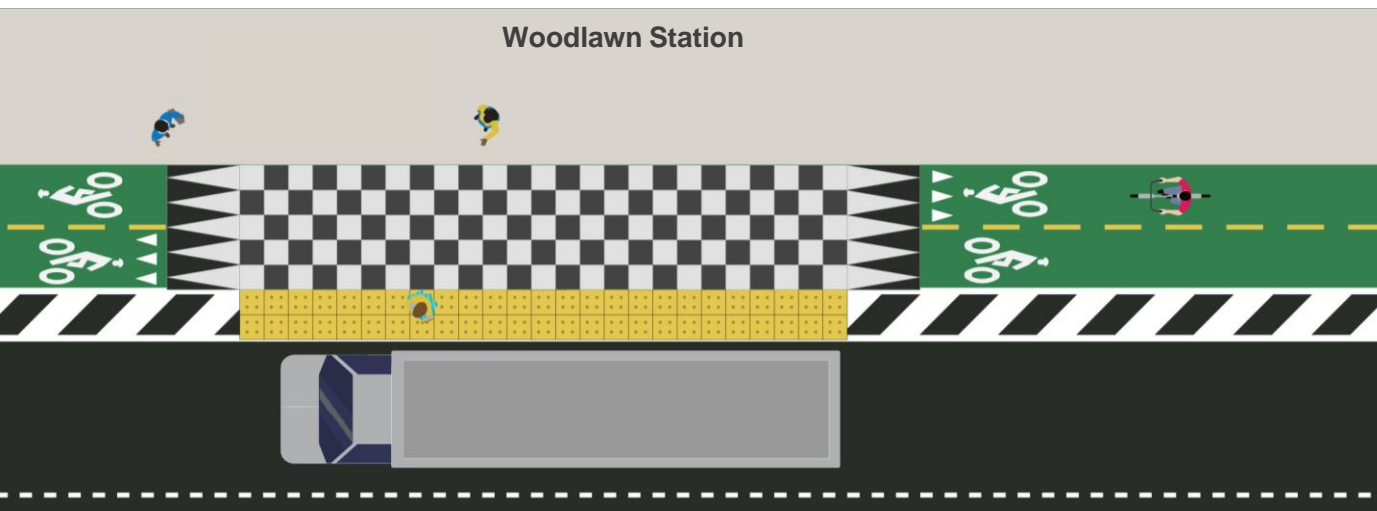
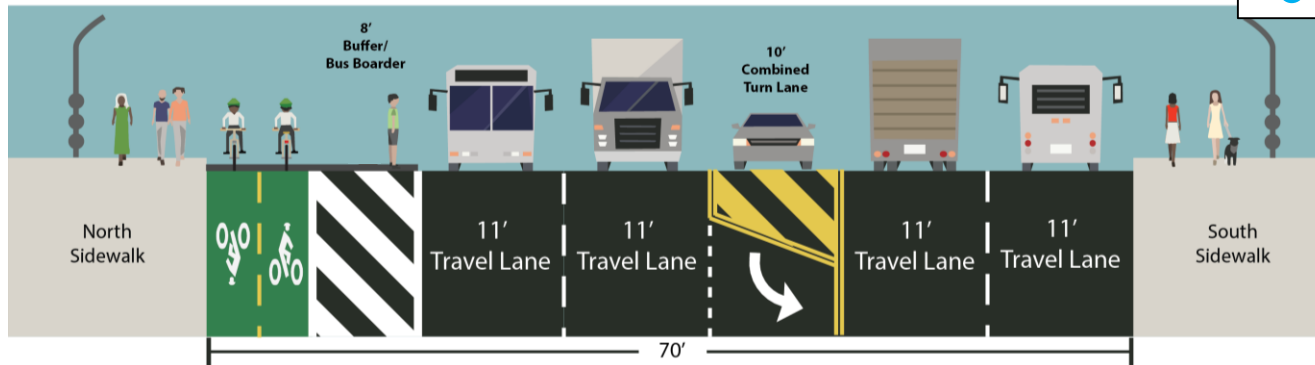
BRONX BLVD Parking Removal



Proposed Parking Removal – E 233rd St – E 229th St

- **Parking loss of approximately 30 spaces on Bronx Blvd West** with two-way conversion
- **Proposed angled parking** would provide 36 spaces along the west curb north of Bronx River Pkwy
- **102 parking spaces maintained** on Bronx Blvd East/Northbound
- Existing No Standing Anytime on east curb south of Bronx River (West) Pkwy On Ramp

NORTHBOUND BUS STOPS – Proposed Design



Bus boarding islands

- Improve bus operations by allowing **faster pickup and drop off**, buses do not need to maneuver to/from curve
- Provide **clear indication of bus stop** for cyclists, **ramps reduce cyclists speeds**

PROPOSED DESIGN ELEMENTS – Bus boarding islands



VERTICAL PROTECTION – EXAMPLES

