

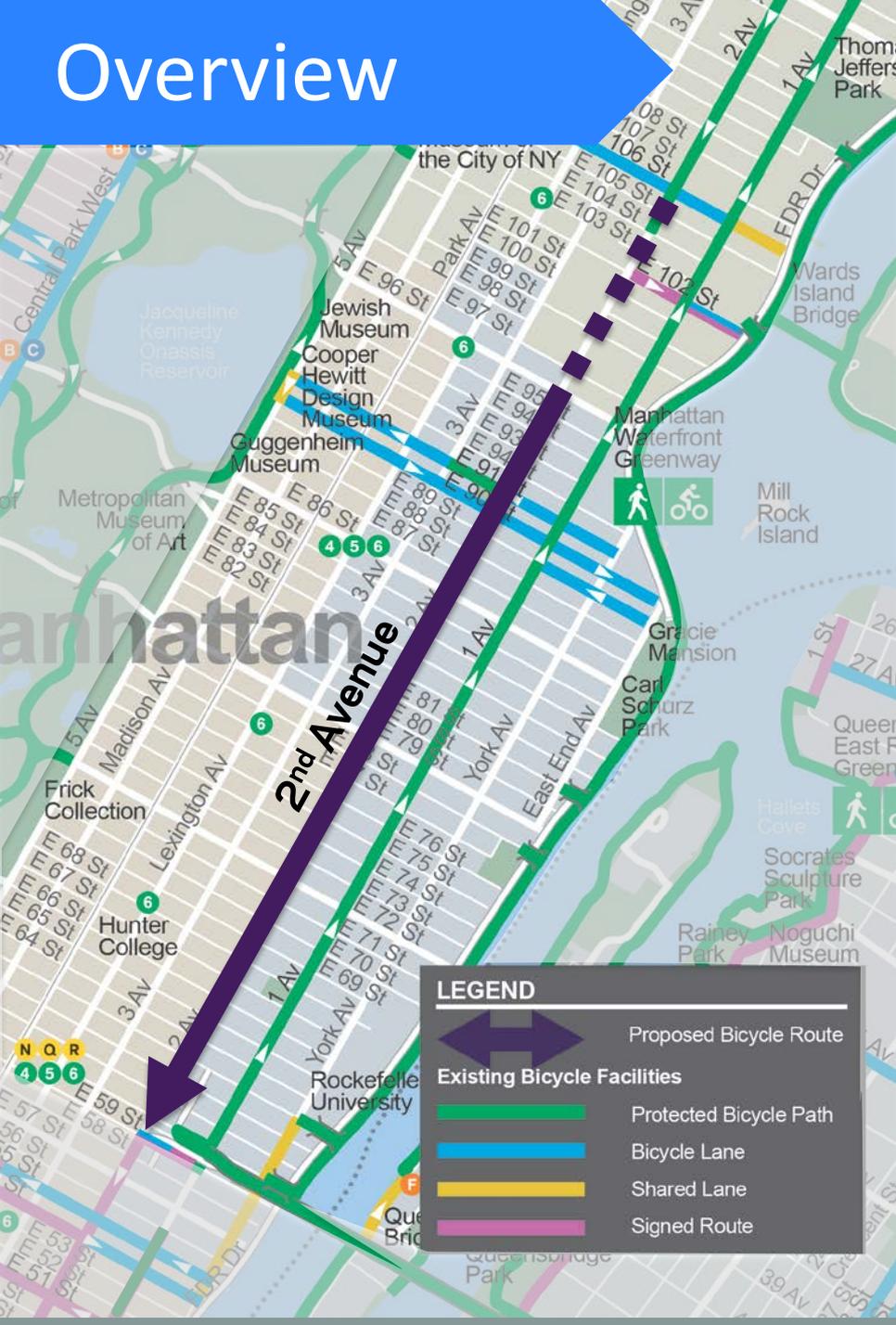
2nd Avenue

Safety and Mobility Improvements



2016

Overview

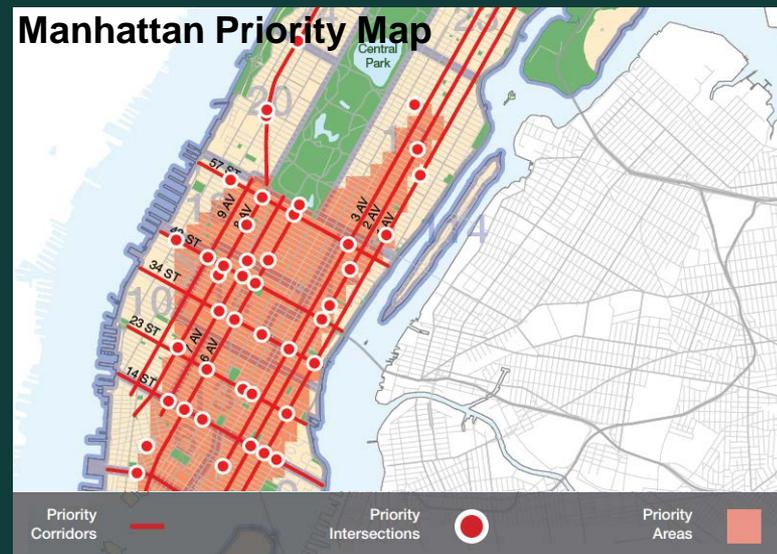
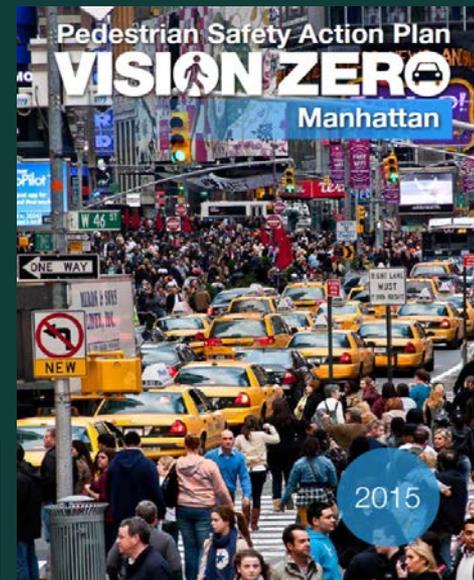


- **Background**
- **Project Benefits**
 - Overall Design
 - Left Turn Treatments
- **Proposal**
 - Design: 59th St to 68th St
 - Design: 68th St to 105th St
- **Project Summary**

Why 2nd Avenue? Vision Zero Priority Corridor

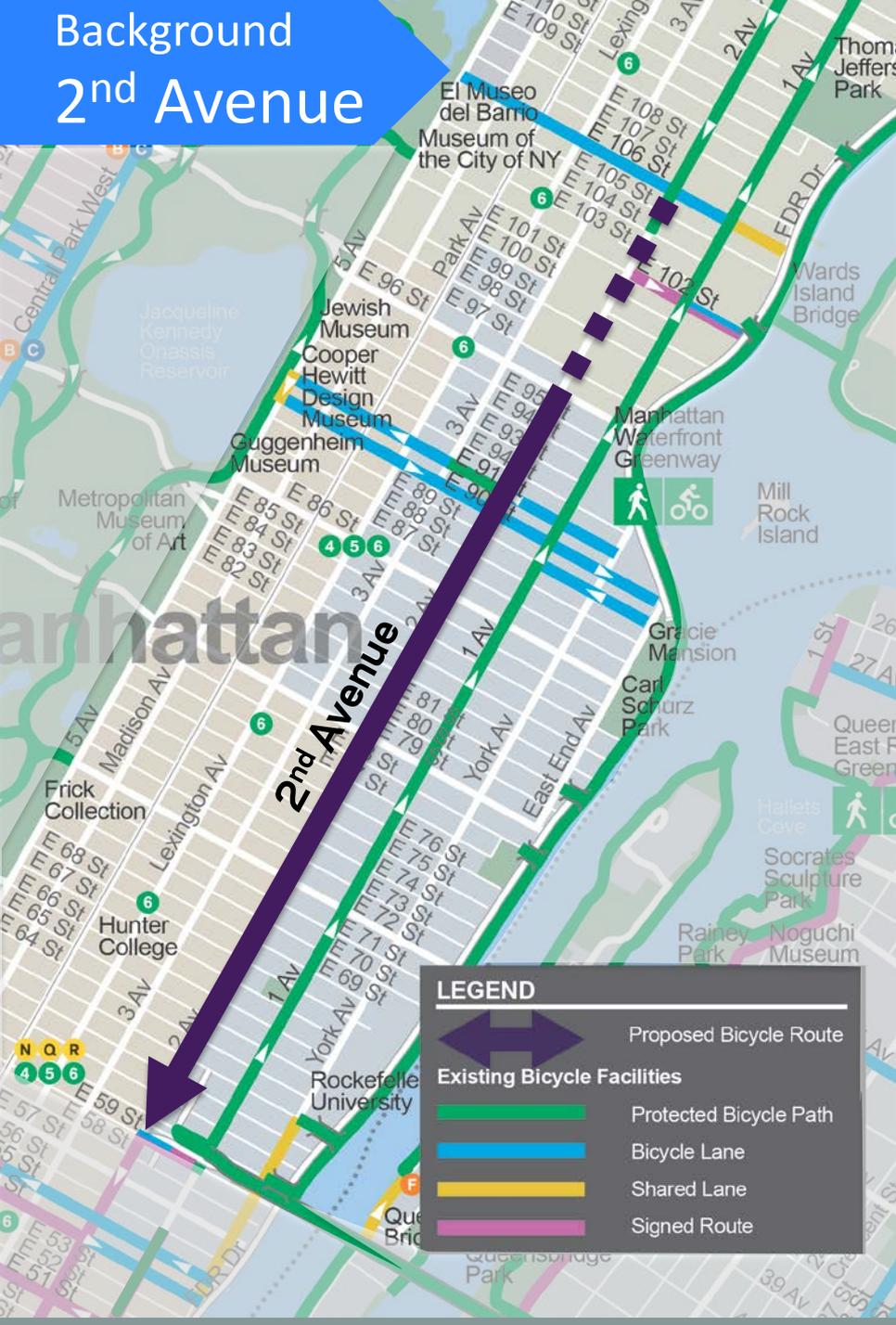
Vision Zero

- Multi-agency effort to reduce traffic fatalities in NYC
- Borough Action Plans released in 2015
- Priority Intersections, Corridors, and Areas identified for each borough
 - **2nd Ave Priority Corridor**
 - **2nd Ave at E 79th St Priority Intersection**



Background

2nd Avenue



North of 105th St

Existing Protected Bike Lane

Installed 2012

South of 59th St

Existing Bike Route

Installed 2011

105th St to 59th St

Gap in Bike Network

Due to 2nd Ave Subway Construction

Construction activity on Second Avenue will finish in 2016

Background

Select Bus Service



Bus Lane Hours

7am – 10am

2pm – 7pm

SBS Stop Locations

96-95th St

87-86th St

79-78th St

68-67th St

Background

Bike Volumes

1st Ave E 85 th to E 86 th St	12-hour Bike Volume
October 2007	297
October 2011	362
October 2015	893

- A three fold increase in cycling on 1st and 2nd Avenues since 2007.

2nd Ave E 87 th to E 86 th St	12-hour Bike Volume
October 2007	314
October 2011	631
October 2015	940

Proposal Existing Issues

No bike facility

Disorganized roadway

Long pedestrian crossing distances

Disproportionate scale to neighborhood



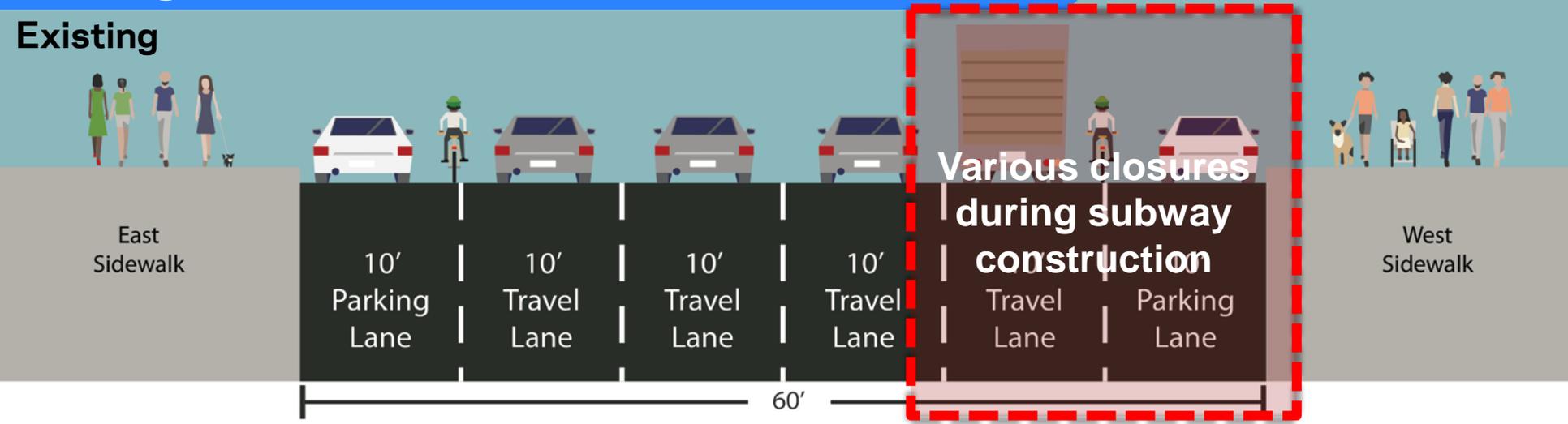
**Vision Zero
Corridor**



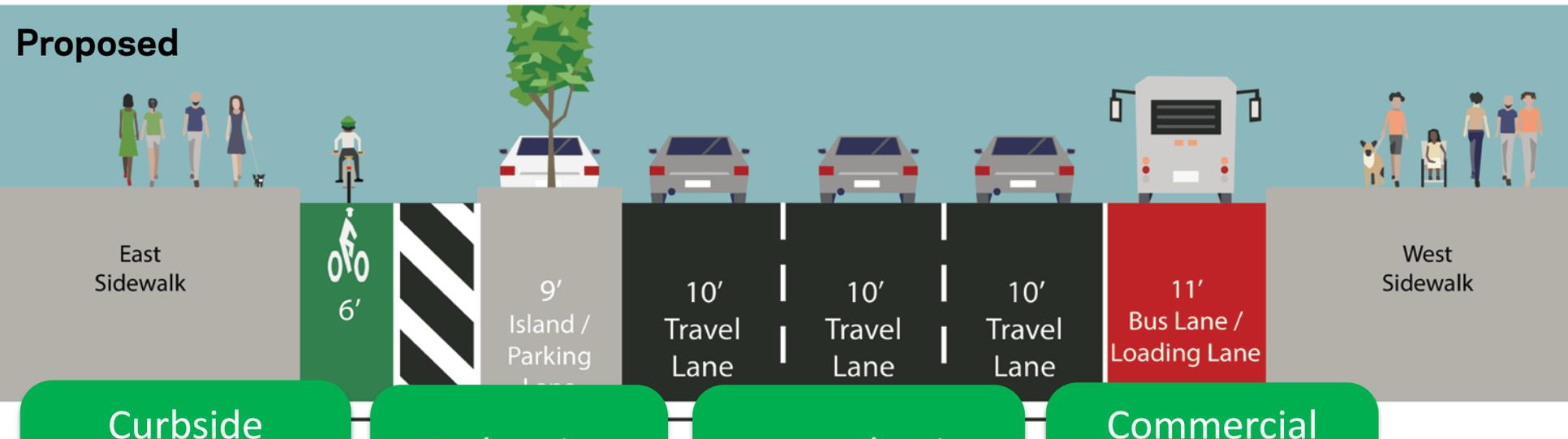
Proposal

Design: 68th St to 69th and 70th to 105th St

Existing



Proposed



Curbside parking protected lane

Pedestrian safety islands

Lane reduction new turn lanes

Commercial loading regulations

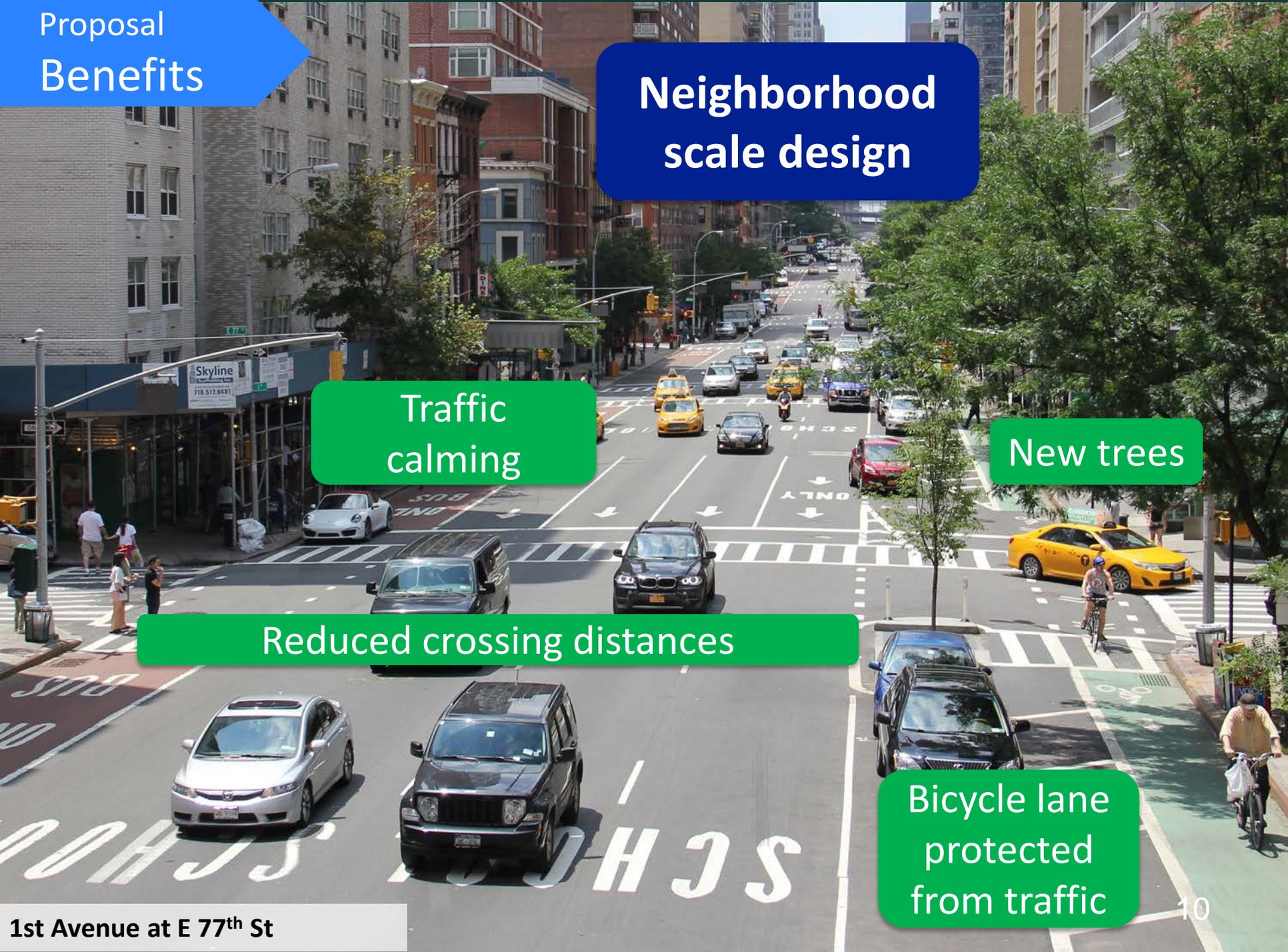
Neighborhood
scale design

Traffic
calming

New trees

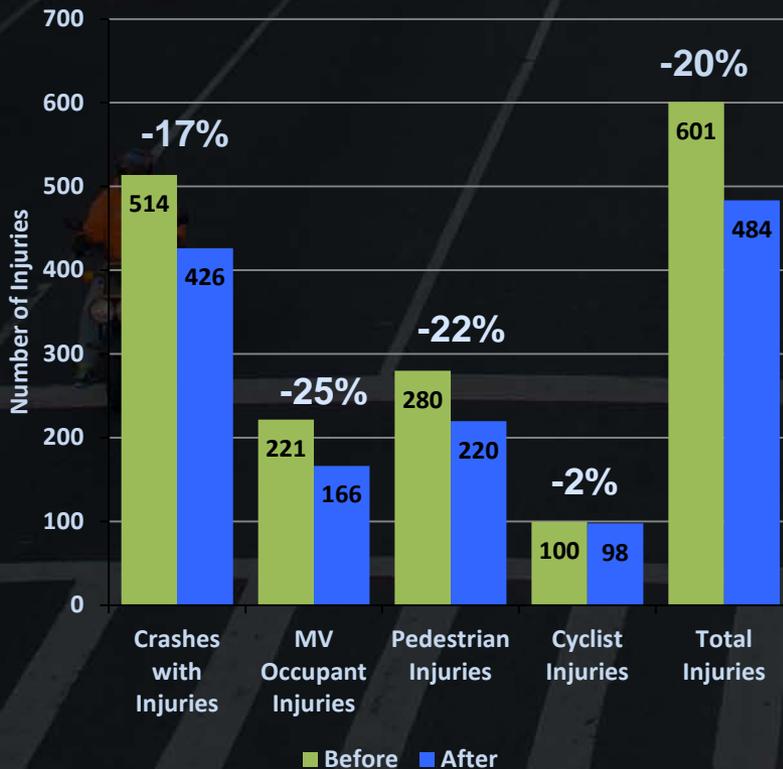
Reduced crossing distances

Bicycle lane
protected
from traffic



Proposal Benefits

Protected Bicycle Lanes with 3 yrs of After Data: Before vs After



Protected bike lanes improve safety for all street users (pedestrians, cyclists and motorists):

- **Total injuries:**
reduced by 20%
- **Crashes with injuries:**
reduced by 17%
- **Pedestrian injuries:**
reduced by 22%
- **Cyclist injuries:**
show minor improvement even as bicycle volumes have dramatically increased

Protected bicycle lane projects with 3 years of after data include the following: 9th Ave (16th-31st), 8th Ave (Bank-23rd, 23rd-34th), Broadway (59th-47th, 33rd-26th, 23rd-18th), 1st Avenue (Houston to 34th), 2nd Ave (Houston-34th), Columbus Ave (96th-77th) Note: Only sections of projects that included protected bicycle lanes were analyzed

Source: NYPD AIS/TAMS Crash Database

Proposal

Design: Mixing Zones at 1-way Left Turns

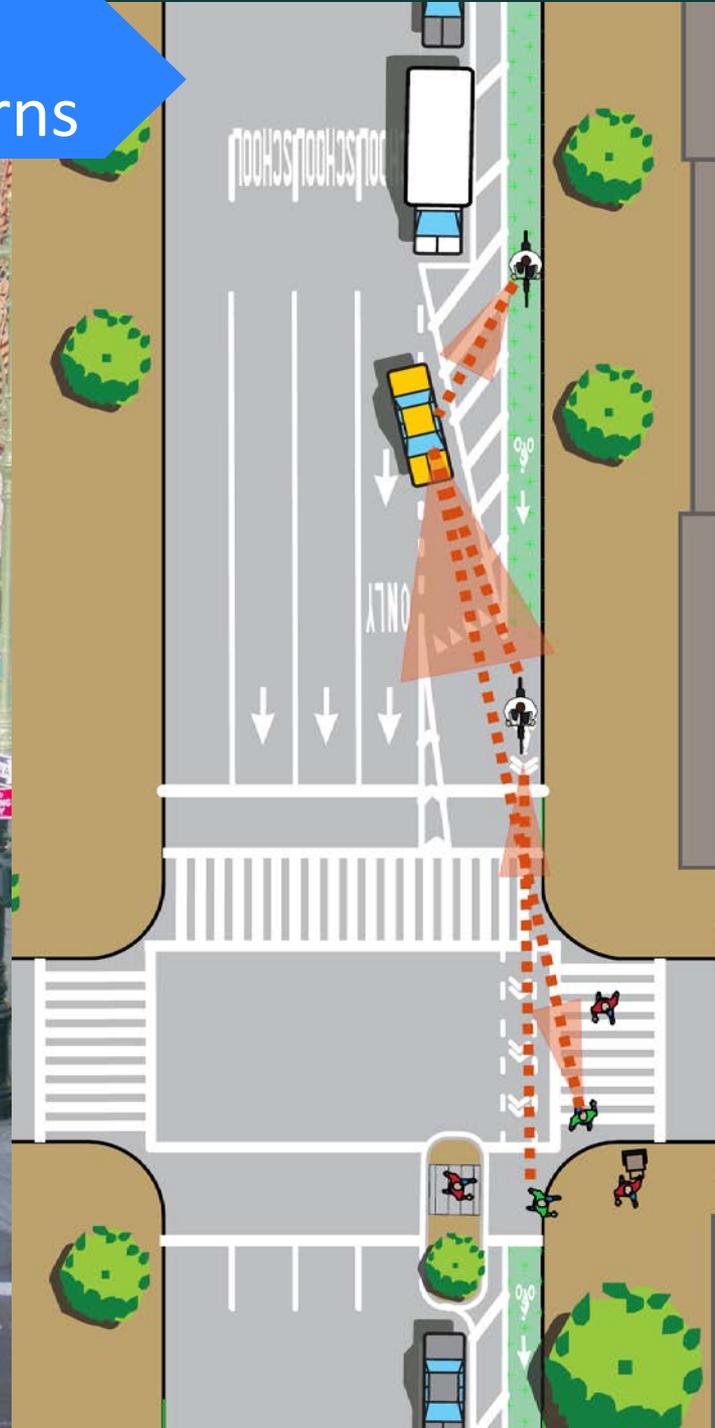


Improves visibility of cyclists

Provides space to negotiate conflict

Removes left turns from through lanes

Creates left turn vehicle storage



Proposal

Design: Turn Bays at 2-way Left Turns



96th St

86th St

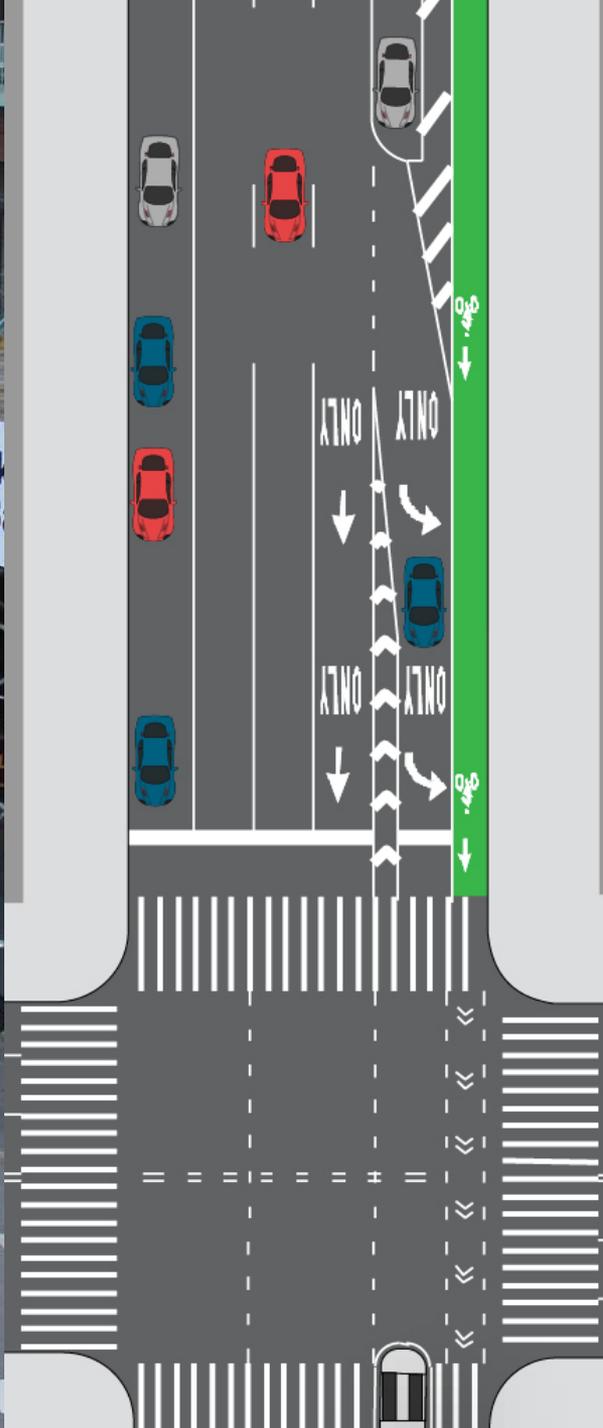
79th St

72nd St

Turning vehicles
queue for turn phase

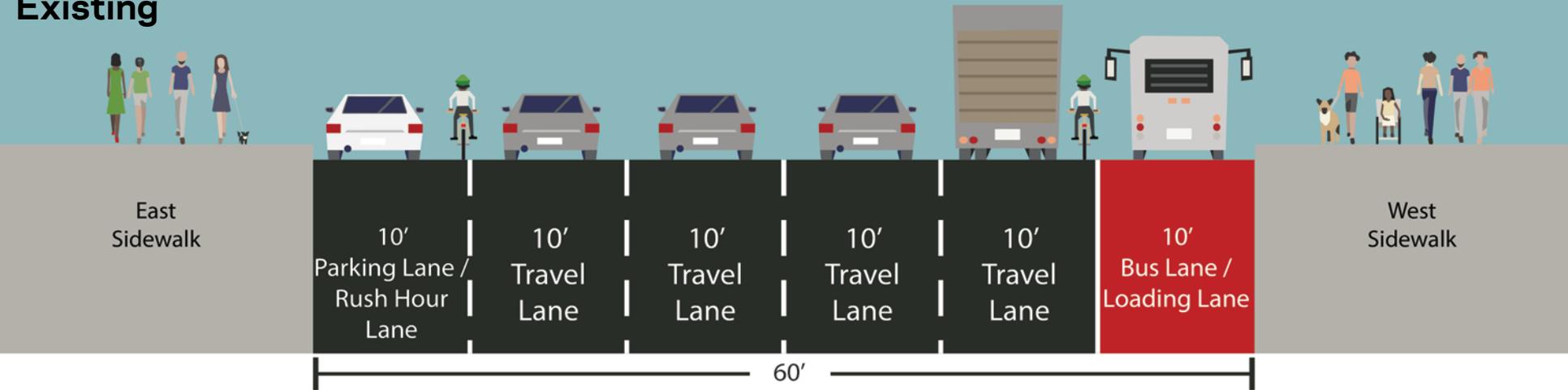
Bike lane continues
the length of the block

Pedestrians and cyclists have a
leading phase to get a head start

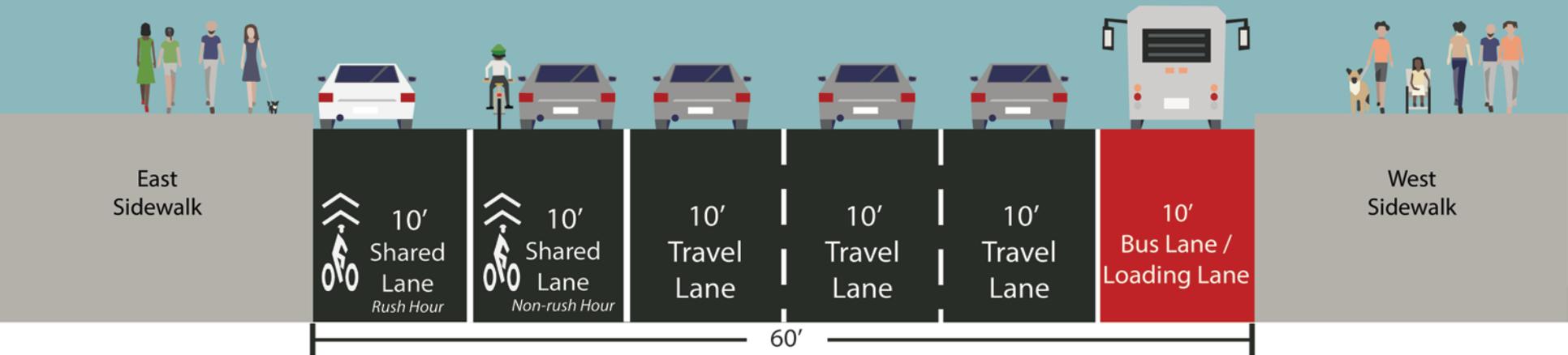


Transitional Design: 59th St to 68th St

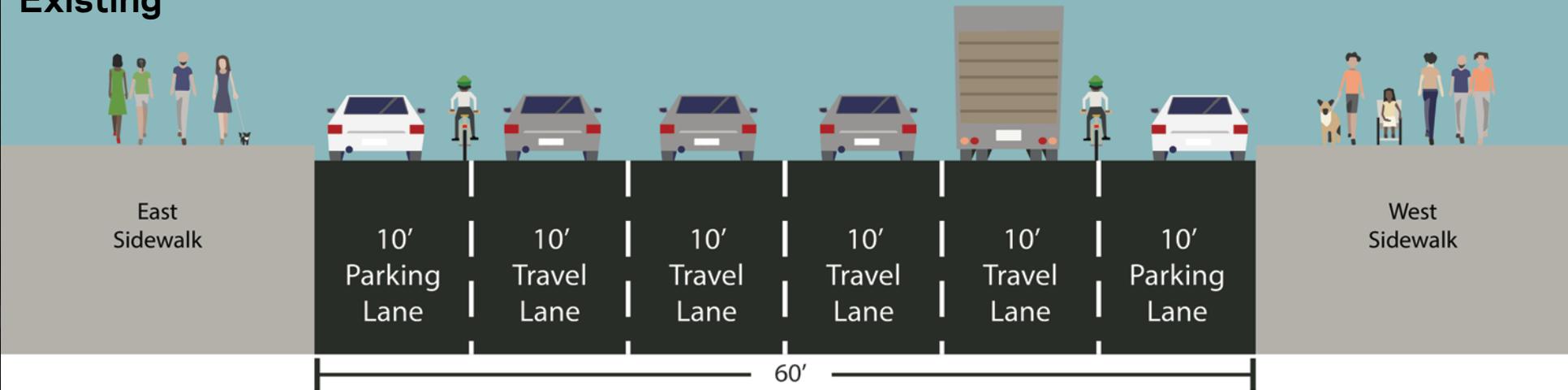
Existing



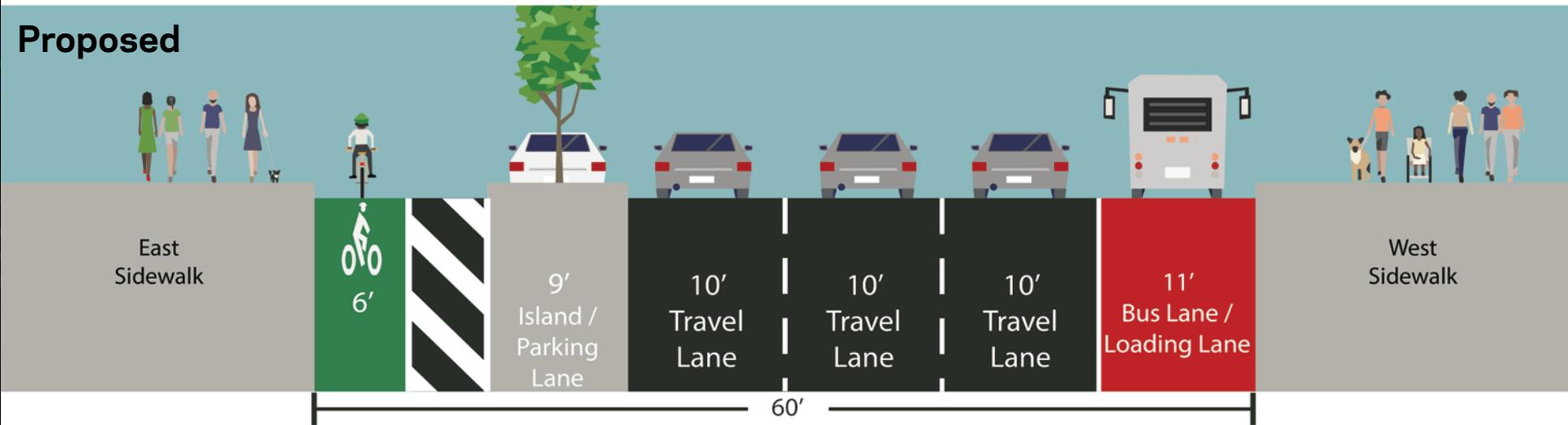
Proposed



Existing

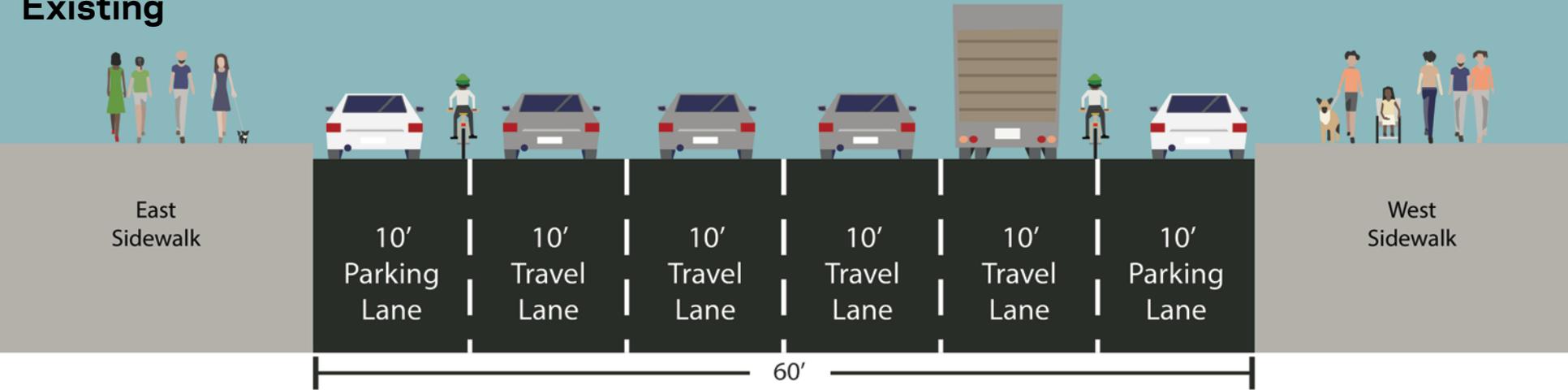


Proposed

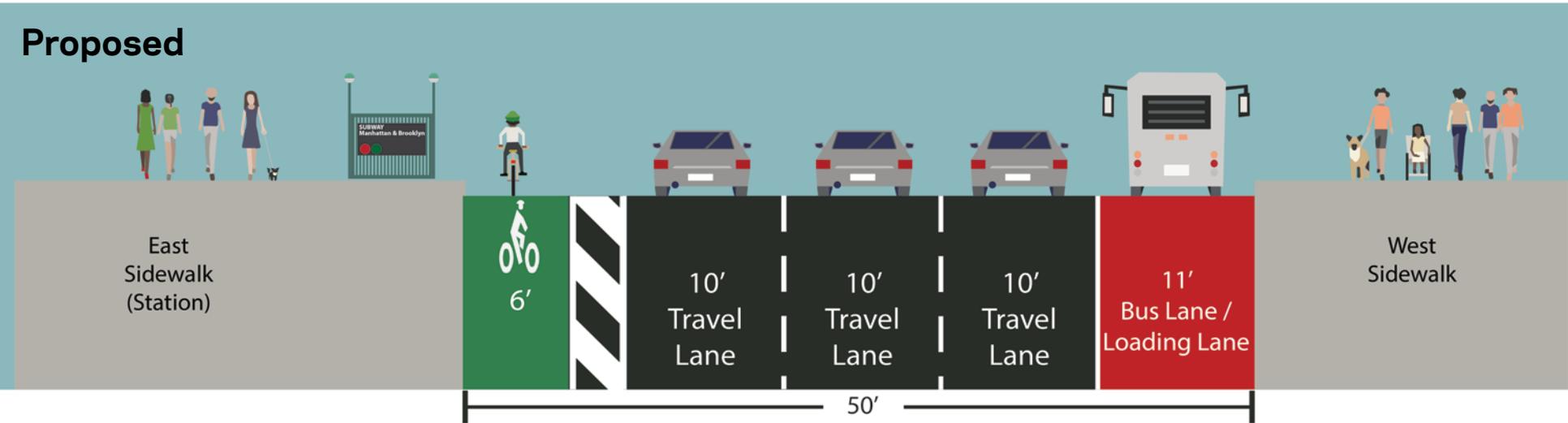


Subway Station Design: 69th St to 70th St

Existing



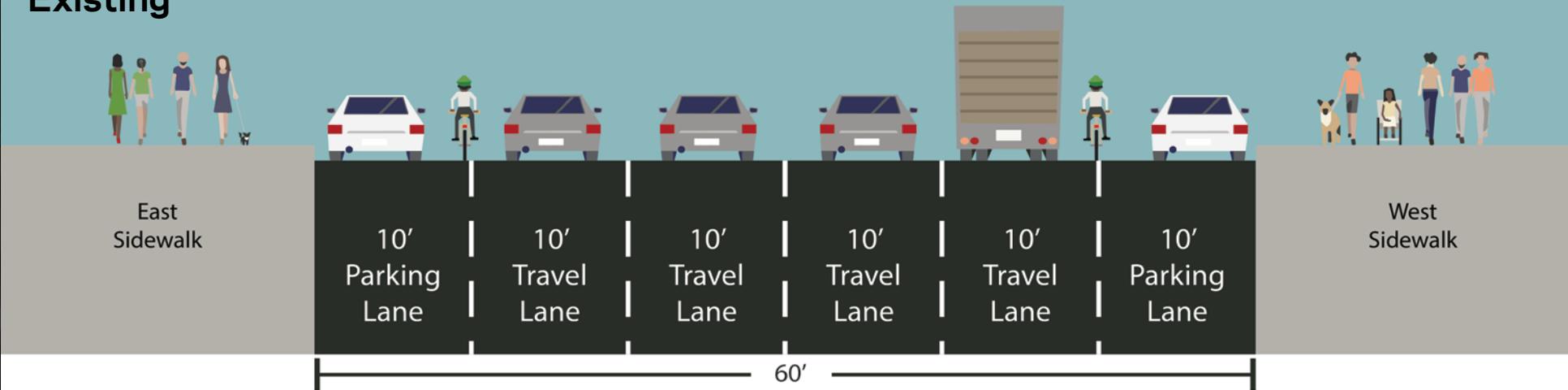
Proposed



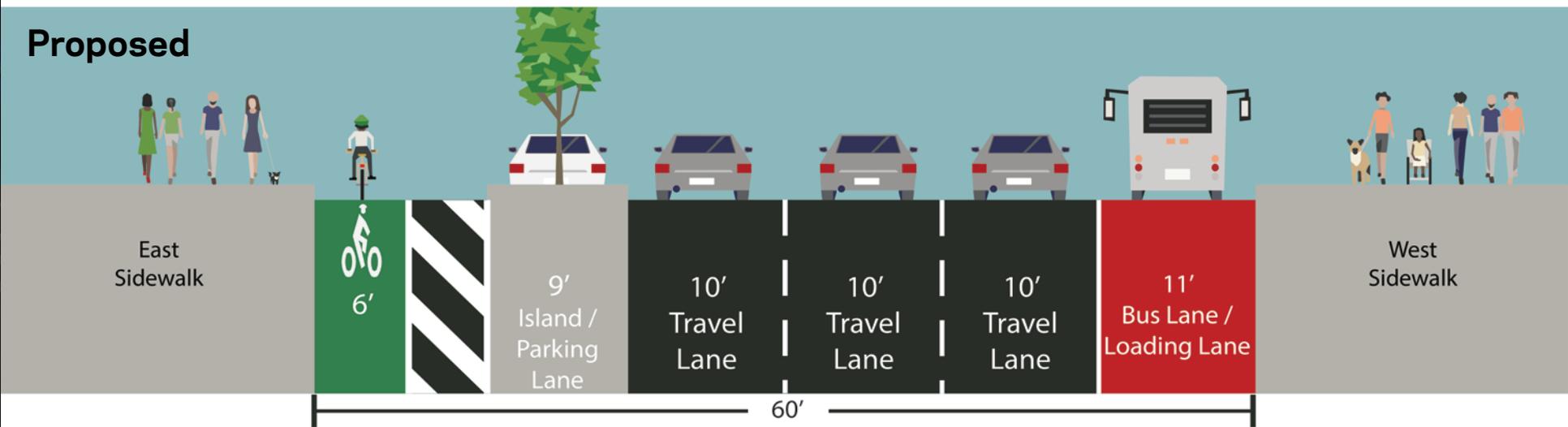
Proposal

Design: 70th St to 105th St

Existing



Proposed



Project Benefits

Existing



East Sidewalk

10'
Parking
Lane

10'
Travel
Lane

10'
Travel
Lane

10'
Travel
Lane

10'
Travel
Lane

P

60'

Safer, more organized street

Reduced crossing distances for pedestrians

Proposed



East Sidewalk

6'

9'
Island /
Parking
Lane

10'
Travel
Lane

10'
Travel
Lane

10'
Travel
Lane

Bus
Loading Lane

60'

Expansion of the bike network

Continuation of bus lane

Questions?

Thank
You