

An aerial photograph of Columbus Circle in New York City. The circular park in the center features a large fountain with multiple water jets and a statue on a pedestal. Pedestrians are walking on the sidewalks. The surrounding streets are busy with traffic, including yellow taxis, a green SUV, a yellow van, and a black sedan. Two cyclists are riding across the intersection. Traffic lights and street signs are visible at the corners. The text '8 AVE & COLUMBUS CIRCLE' is overlaid in large blue letters, and 'Bike Safety Improvements' is overlaid in white letters below it.

# 8 AVE & COLUMBUS CIRCLE

## Bike Safety Improvements

Presented on June 20 and June 25, and July 10, 2018

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**Background**

1

GROWTH IN CYCLING – Trends

+156%

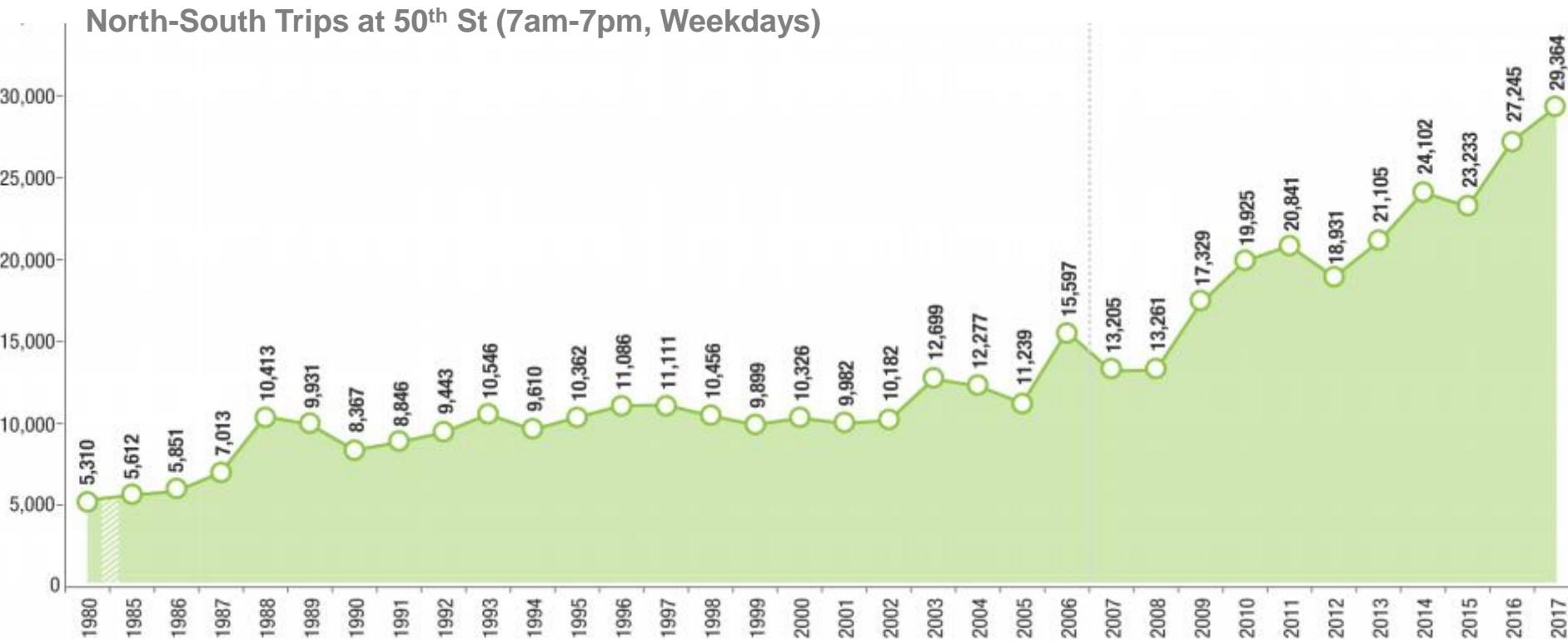
Growth in daily cycling in New York City  
(2006-2016)

+107%

Growth in biking to work in Manhattan  
(2011-2016)

+55%

Growth in number bikes crossing 50<sup>th</sup> St in Midtown  
(2012-2017)





## GROWTH IN CYCLING – Citi Bike

Citi Bike regularly serves over  
**70,000 trips per day**

### Total Number of Citi Bike Trips in NYC:

**2017 - 16 million**

**2016 - 14 million**

**2015 - 10 million**

April – Sept 2017

**2.4 million**

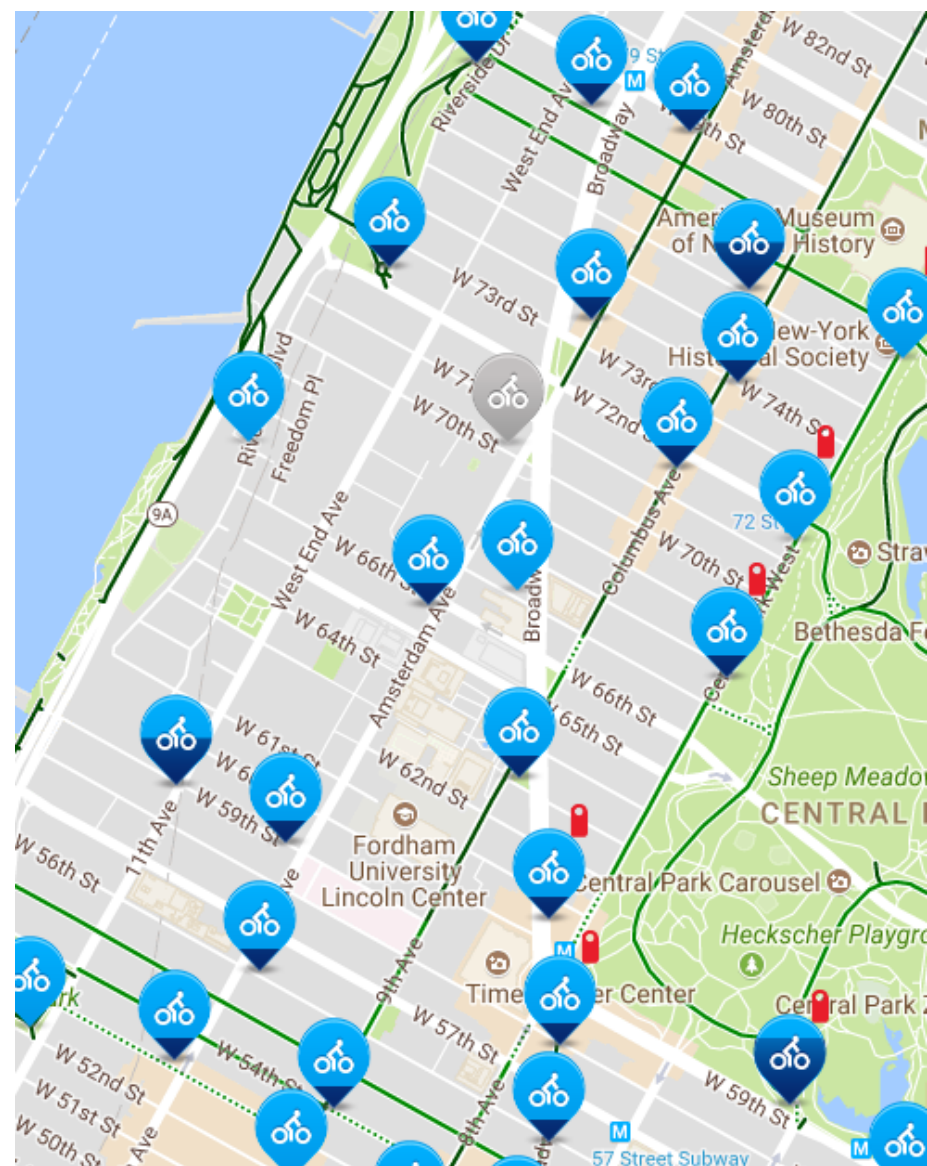
Citi Bike trips started or ended in CB 4

**3.3 million**

Citi Bike trips started or ended in CB 5

**1.3 million**

Citi Bike trips started or ended in CB 7



## BIKE NETWORK – Midtown West / Upper West Side

### Previously Installed

- Hudson River Greenway
- 9<sup>th</sup> Avenue
- 8<sup>th</sup> Avenue
- Broadway
- Columbus Ave
- Amsterdam Ave

### Proposed Future

- 52<sup>nd</sup> St, 55<sup>th</sup> St



### Gap in Protected Bike Lane Network

- 8<sup>th</sup> Avenue protected bike lane ends at 56<sup>th</sup> St, only shared lane connection to Columbus Circle, Central Park, CPW
- 48% increase in cycling trips on 8<sup>th</sup> Ave at 50<sup>th</sup> St (2013-2017)
- Columbus Circle is challenging for cyclists to navigate

Assemblymember Linda Rosenthal requested improvements to intersection of 8<sup>th</sup> Ave and W 57<sup>th</sup> St

Community Board 7 requested improvements to Columbus Circle



SAFETY – Vision Zero

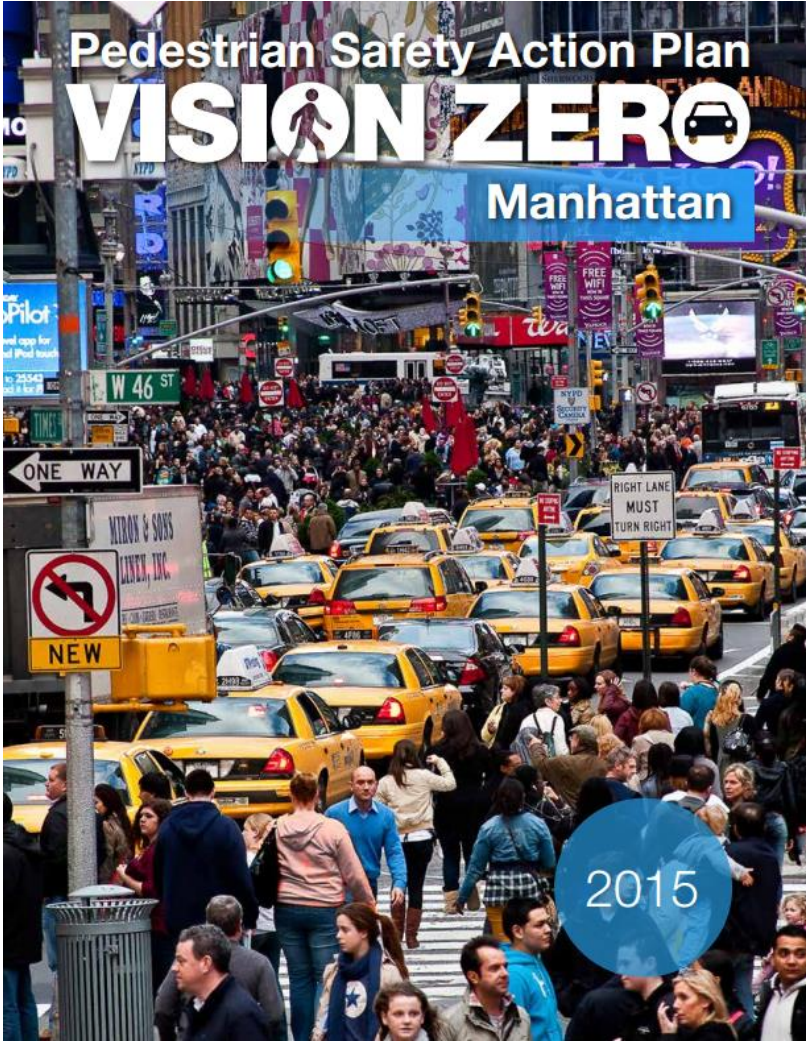
8th Ave

is a Vision Zero Priority Corridor  
Top 10% of borough corridors in KSI/mile

8th Ave (56th – 58th St) & Columbus Cir, MN  
Injury Summary, 2012-2016 (5 years)

	Total Injuries	Severe Injuries	Fatalities	KSI
Pedestrian	47	6	0	6
Bicyclists	34	5	0	5
Motor Vehicle Occupant	64	6	0	6
Total	145	17	0	17

Source: Fatalities: NYCDOT, Inuries: NYSDOT. KSI: Persons Kiilled or Severely Injured. \* Includes fatalities from 2012-2018





SAFETY – Protected Bike Lanes

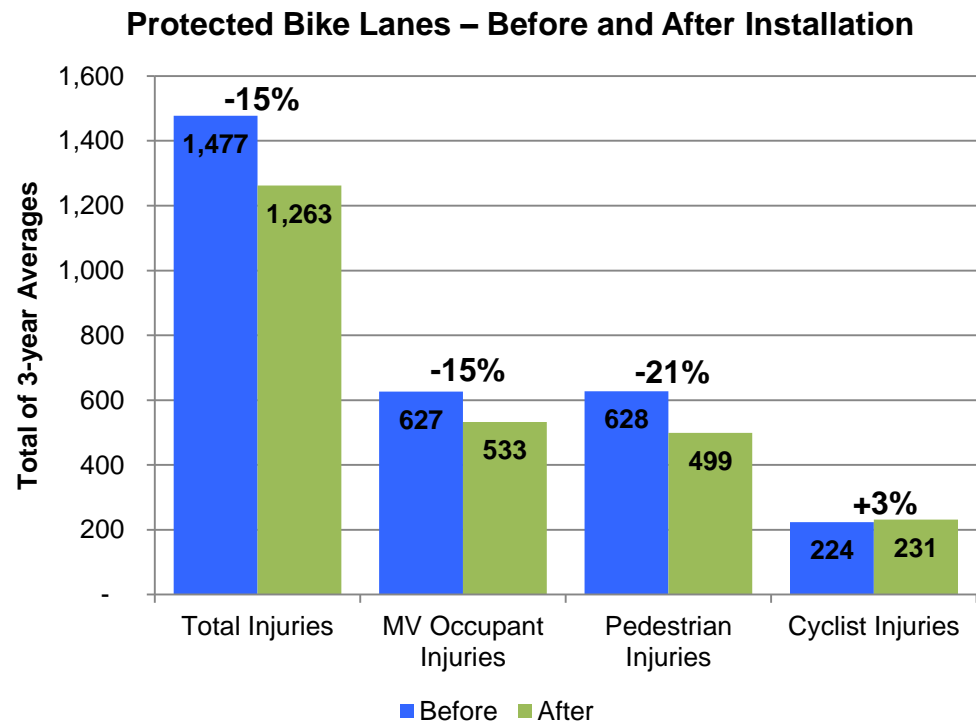
Protected bike lanes improve safety for all road users

On streets with protected bike lanes:

- Pedestrian injuries **decrease 21%**
- Motorist injuries **decrease 15%**
- Injuries to cyclists increase only 3%, despite a **61% bike volume increase**

On Columbus Ave (W 96<sup>th</sup> to W 69<sup>th</sup> St):

- Cyclist volumes **increased 30%\***
- Total injuries **decreased 30%\***



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 & East 163 St, Imlay St / Conover St, Paerdegat Ave. Only sections of projects that included protected bike lanes were analyzed. Source: NYPD AIS/TAMS Crash Database

\* Columbus 76-69: total injuries decreased 33% while bike volumes increased 15%. Columbus 96-77: total injuries decreased 20% and bike volumes increased 50%.

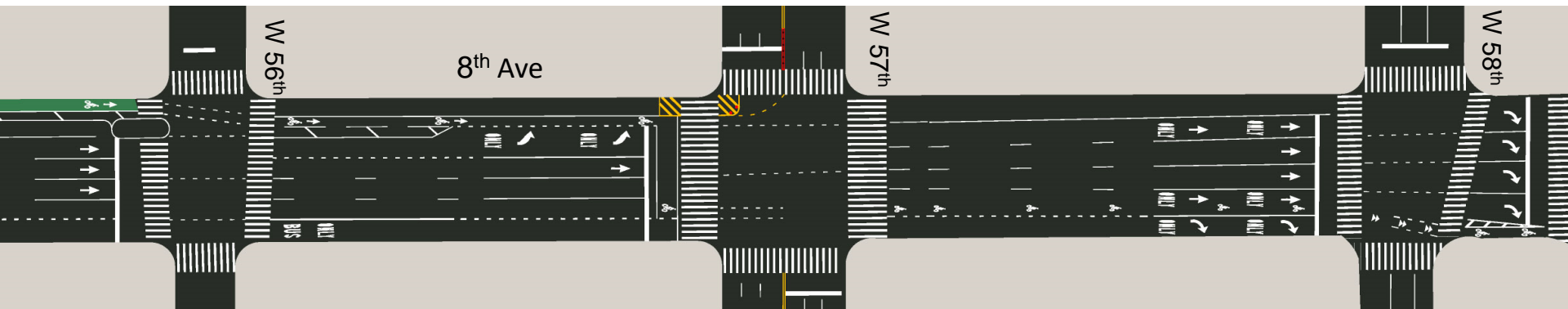
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**Proposal**

**2**

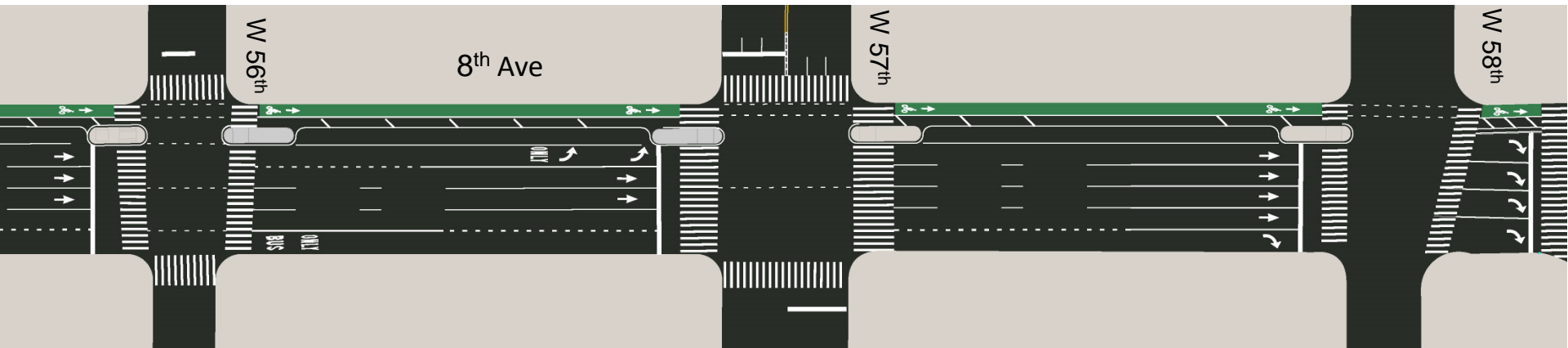


## EXISTING CONDITIONS- 8<sup>th</sup> Ave



- Protected lane on 8<sup>th</sup> Ave ends at W 56<sup>th</sup> St
- Buffered bicycle lane from W 56<sup>th</sup> St to W 57<sup>th</sup> St
- Cyclists must cross the street at W 57<sup>th</sup> St to continue in a shared lane on the east side of the street between W 57<sup>th</sup> St and W 58<sup>th</sup> St
- Cyclists enter Columbus Circle via bike lane on east side of the street

## PROPOSED DESIGN – 8<sup>th</sup> Ave



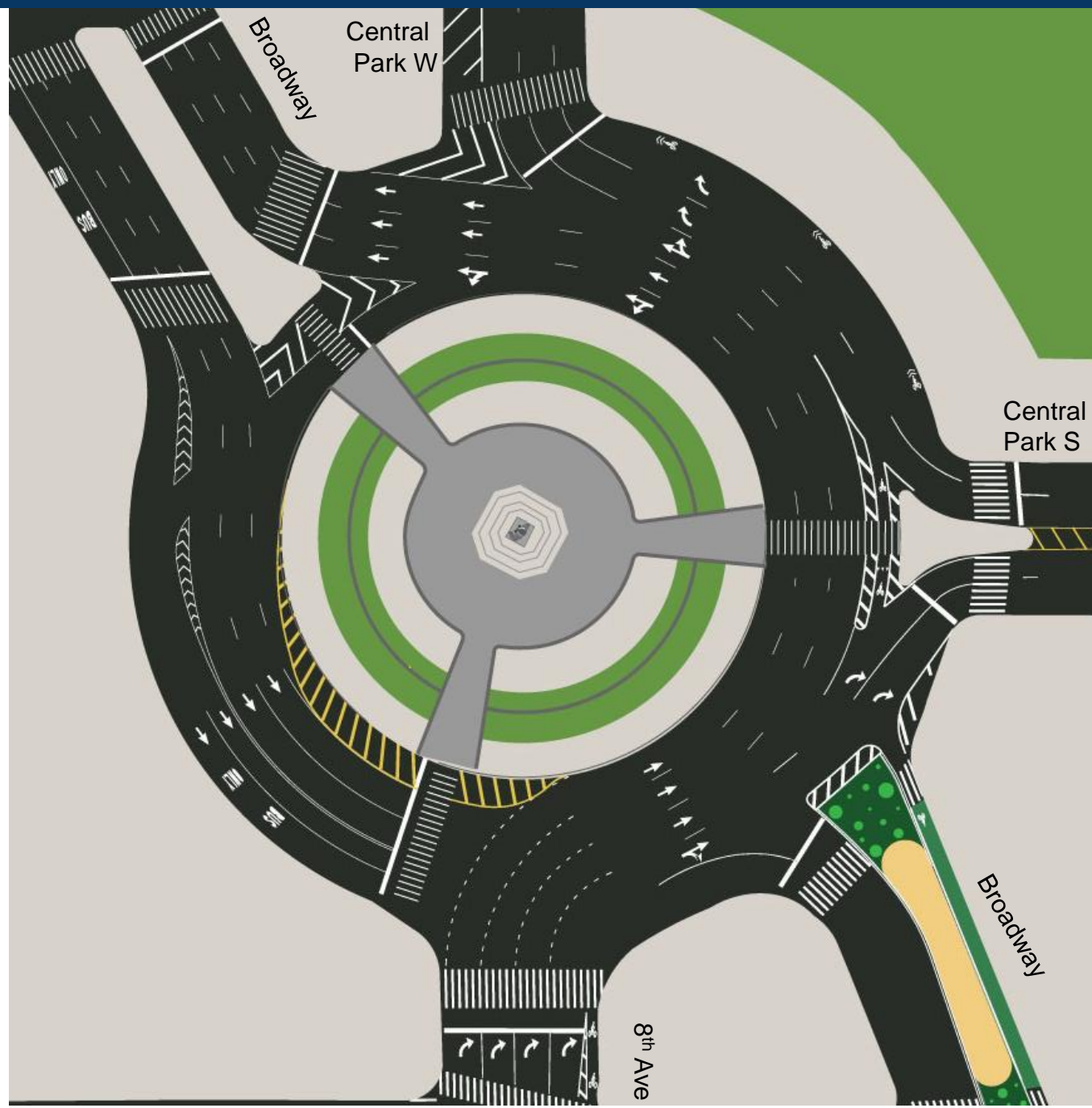
- Continue 8<sup>th</sup> Avenue protected lane design to Columbus Circle
- Install pedestrian refuge islands at 57<sup>th</sup> and 58<sup>th</sup> Streets to shorten crossing distances
- Install split phase left turn at 57<sup>th</sup> Street intersection
  - Pedestrians and cyclists have protected time to cross
  - Motorists have dedicated time to make left turns

## EXISTING CONDITIONS

Shared lane markings and a short bike lane designate route for cyclists around east side of circle

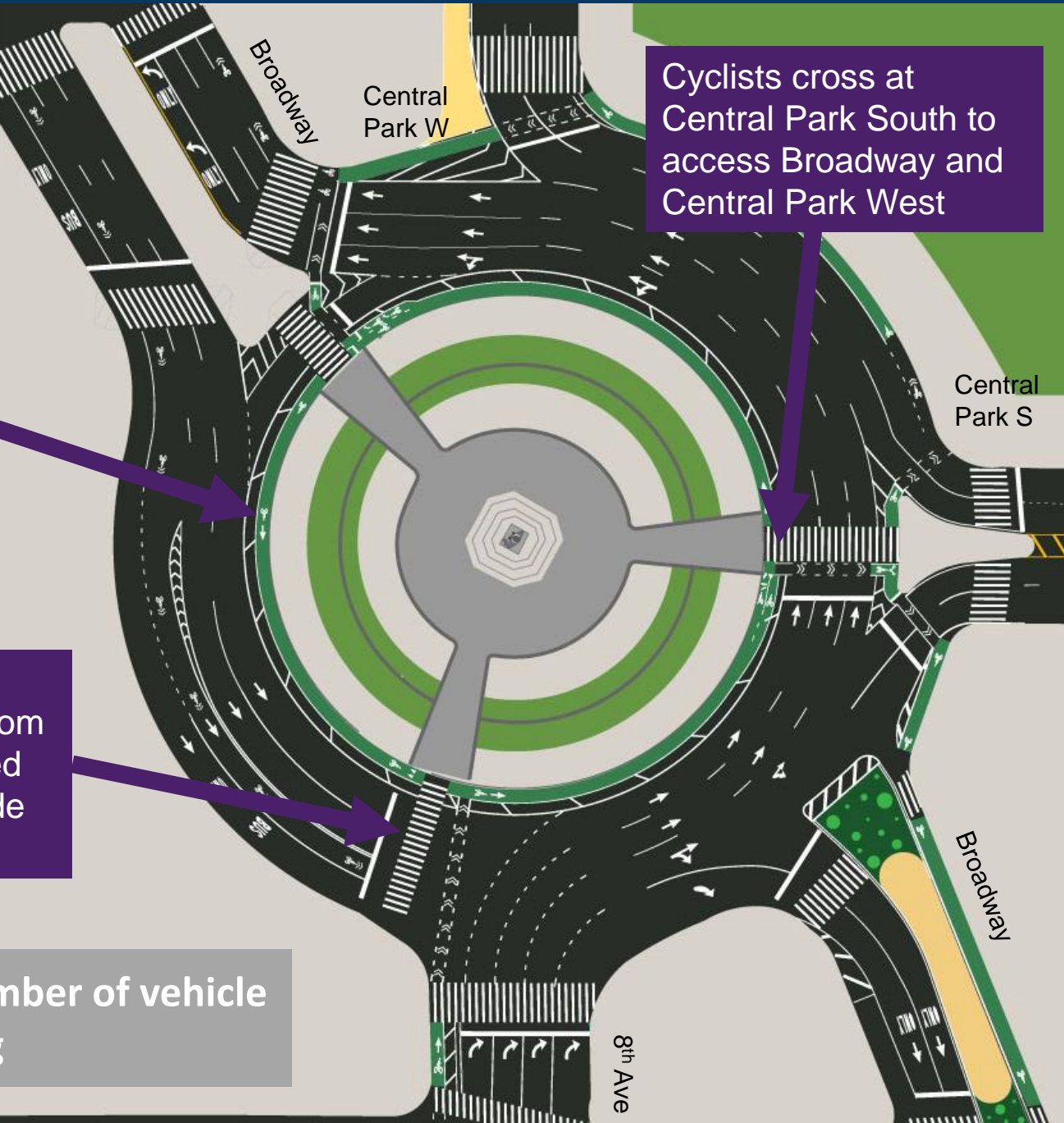
Multiple lanes of turning vehicles at each exit of the circle

Cyclists must cross multiple sets of turn lanes to continue uptown on Central Park West





PROPOSED DESIGN



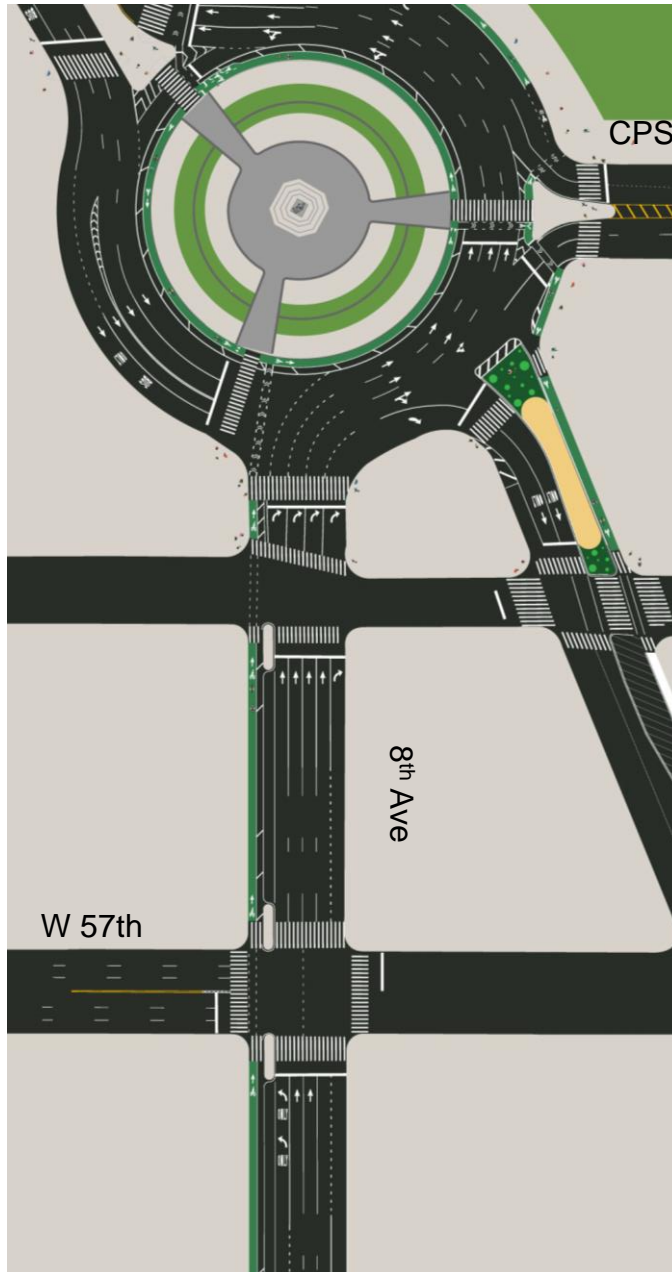
Provides dedicated space for cyclists on the inside of the circle

Cyclists cross at Central Park South to access Broadway and Central Park West

Cyclists have direct, conflict-free access from 8<sup>th</sup> Ave to new buffered bike lane around inside of circle

No change to the number of vehicle lanes or signal timing

## PROPOSED DESIGN



### **Pedestrians**

- Shorten crossing distances
- Calm traffic
- Protected time to cross 57<sup>th</sup> St on west side of 8<sup>th</sup> Ave

### **Cyclists**

- Protected bike lane connection to Columbus Circle
- Dedicated cycling space within the circle
- Clear bike routes to exit the circle

### **Motorists**

- Maintain adequate vehicle capacity
- Maintain existing vehicle lanes within the circle

# THANK YOU!

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## Questions?



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