Hudson Street
Parking-Protected Bicycle Path

2014

VISION ZERO

NEW YORK CITY DOT

Commissioner Polly Trottenberg New York City Department of Transportation
Presented by NYC DOT Bicycle Program to Manhattan CB 2 on April 3, 2014

Project Background

Existing protected bicycle path

Existing buffered bicycle lane

November 2011: CB 2 passes resolution in support of upgrading existing buffered bike lane on Hudson St

2013: DOT begins coordination with Hudson Square BID for Canal St to W. Houston St

Existing Conditions – Northbound

Hudson Street Vehicle Volumes
Between Christopher and W 10th Streets

Motor Vehicles	AM Peak Hour (8am – 9am)	PM Peak Hour (4pm – 5pm)
Northbound	842	751

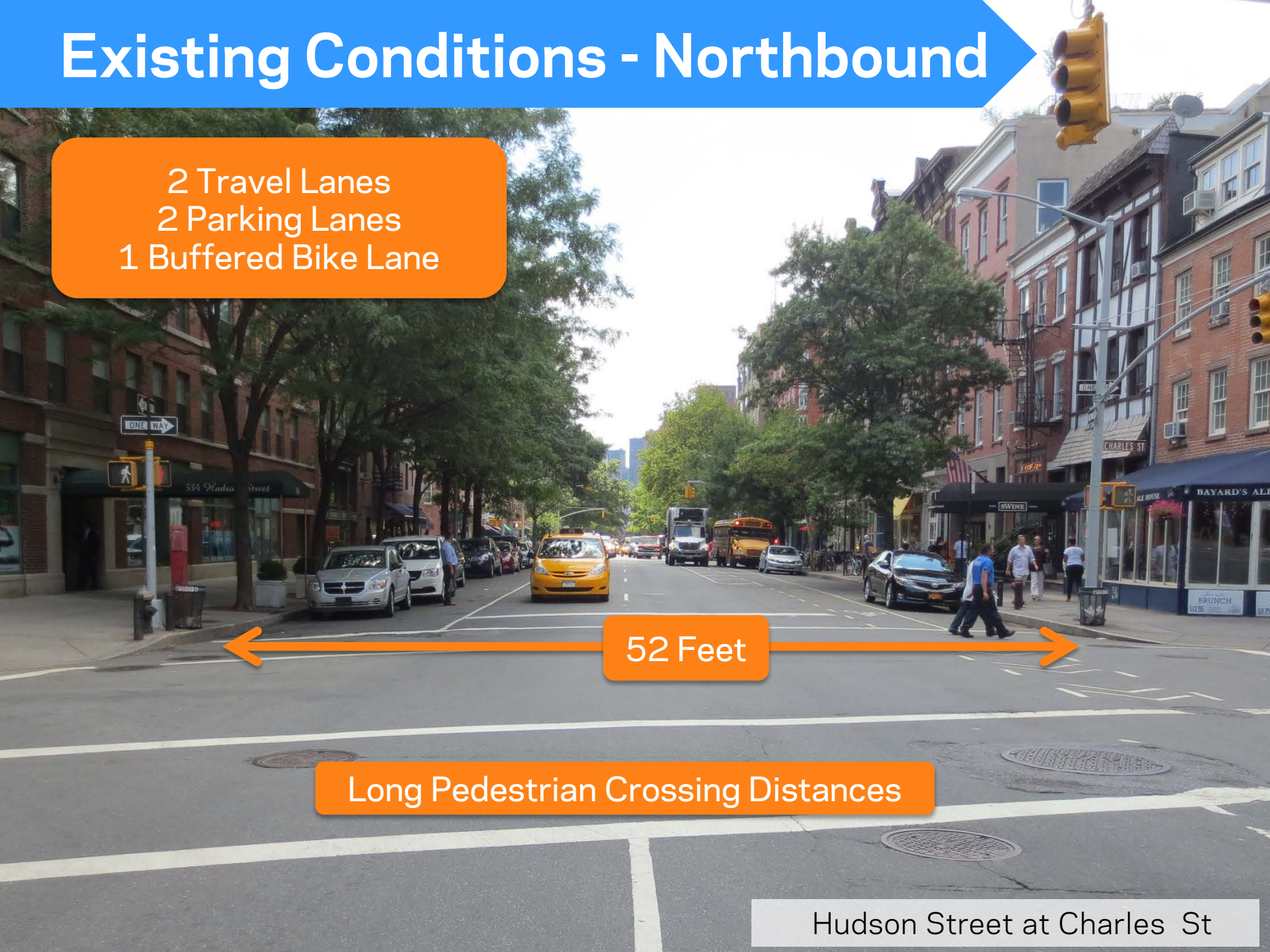
Hudson Street Bicycle Volumes
Between Leroy and Morton Streets

Bicycles	12-hour Period
Weekday	824
Weekend	654

Source: ATI Data, Vehicles: btw Christopher St and W. 10th St, June 2014 (seasonally adjusted), Bicycles: btw Leroy St and Morton St, Sept-2013

Hudson Street at Grove St

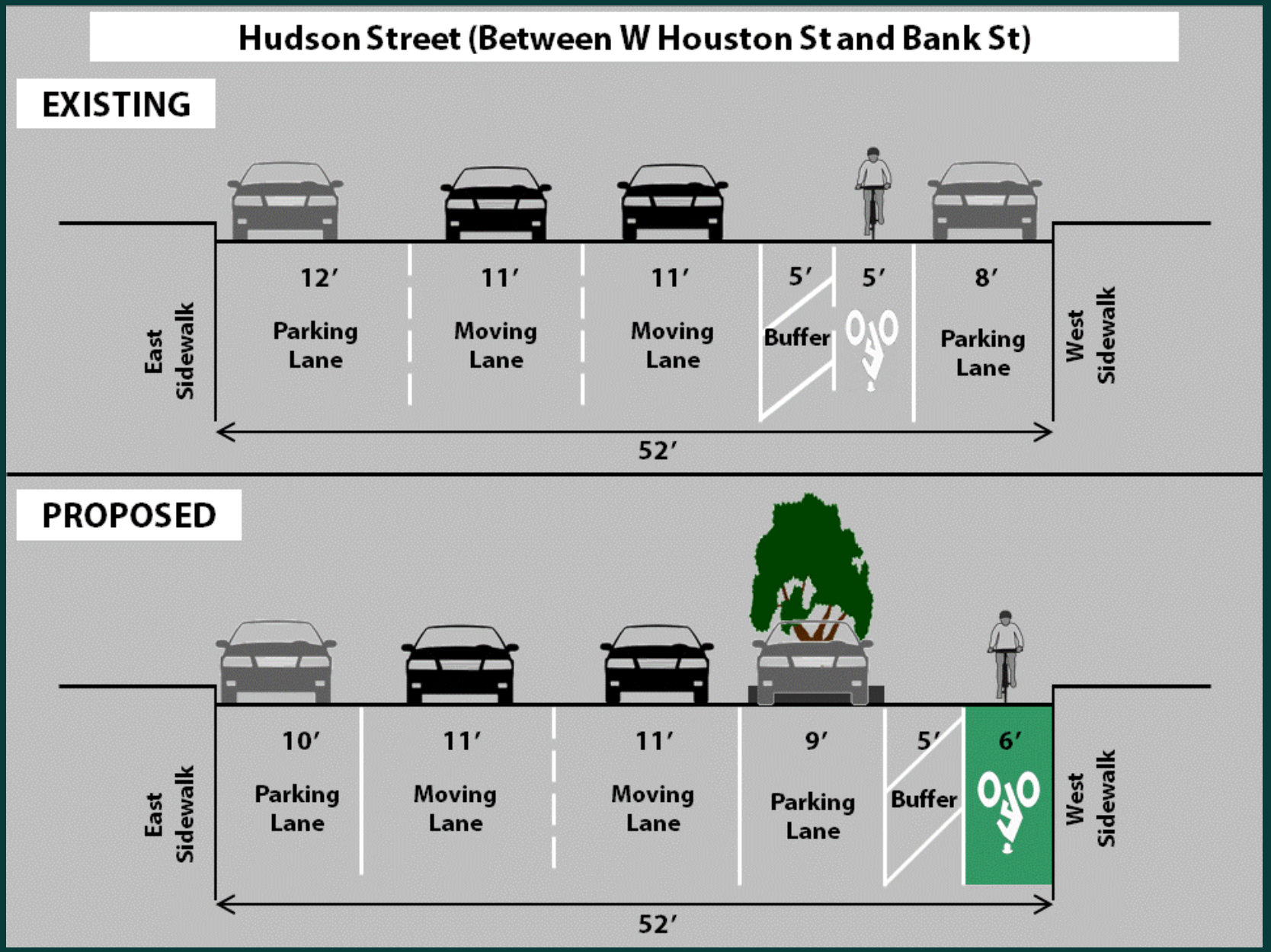
Existing Conditions - Northbound



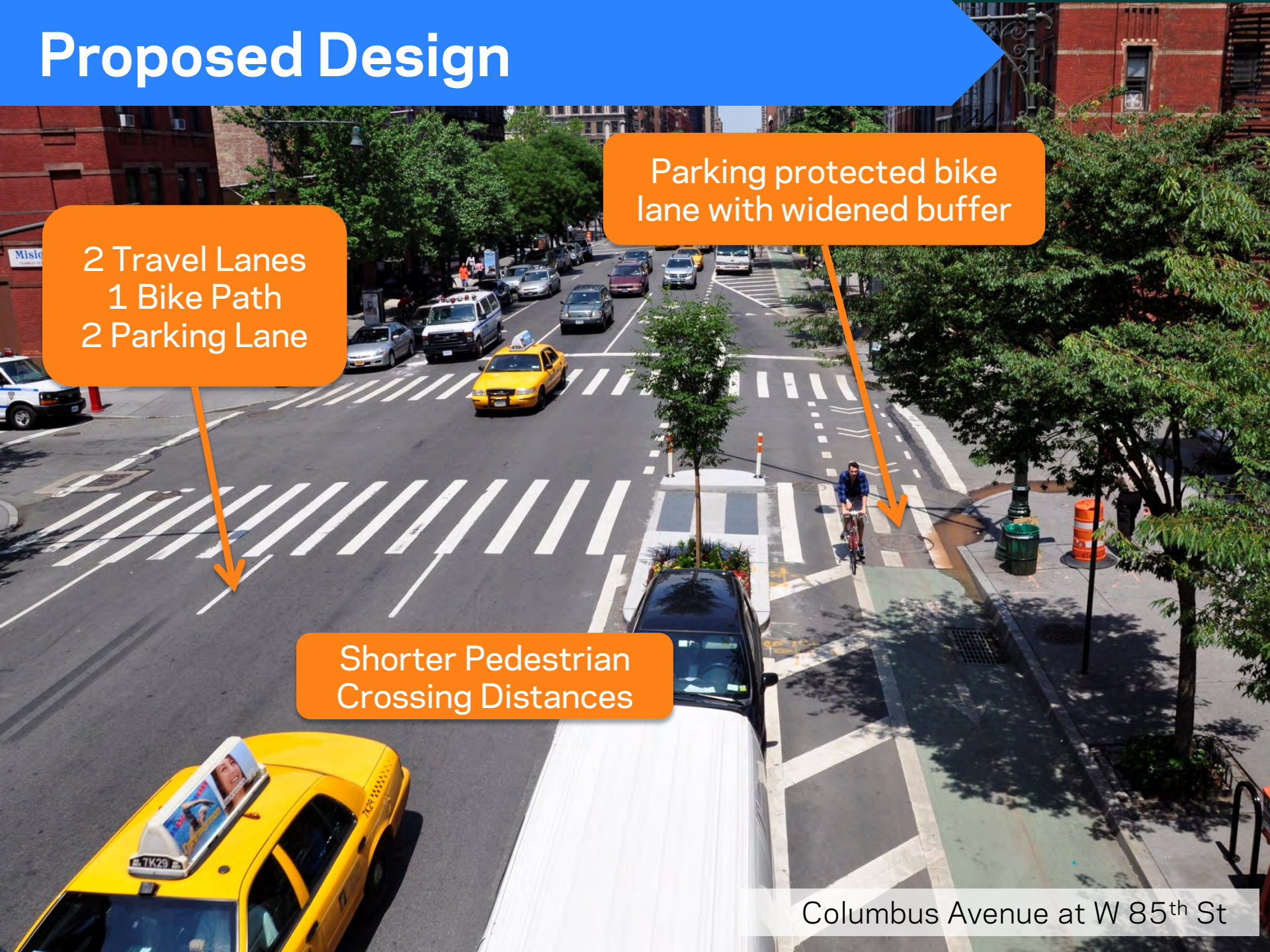
Existing Conditions - Northbound

Hudson Street at W 10th St

Proposed Configuration - Northbound



Proposed Design



Existing Conditions - Southbound

Hudson Street Vehicle Volumes
Between Horatio and Gansevoort Streets

Motor Vehicles	AM Peak Hour (9am – 10am)	PM Peak Hour (6pm – 7pm)
Southbound	604	659

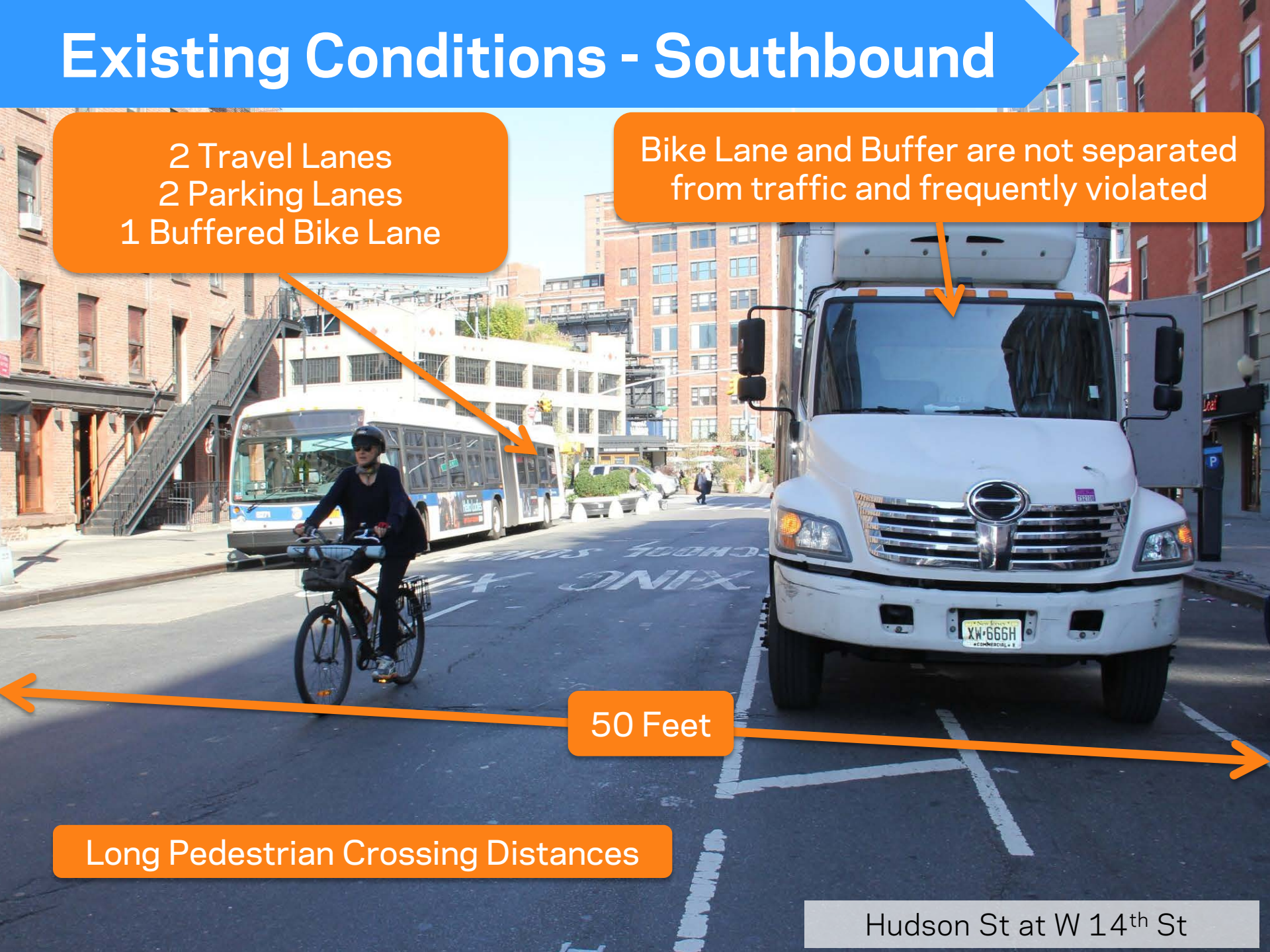
Hudson Street Bicycle Volumes
Between Horatio and Gansevoort Streets

Bicycles	12-hour Period
Weekday	1,528
Weekend	1,040

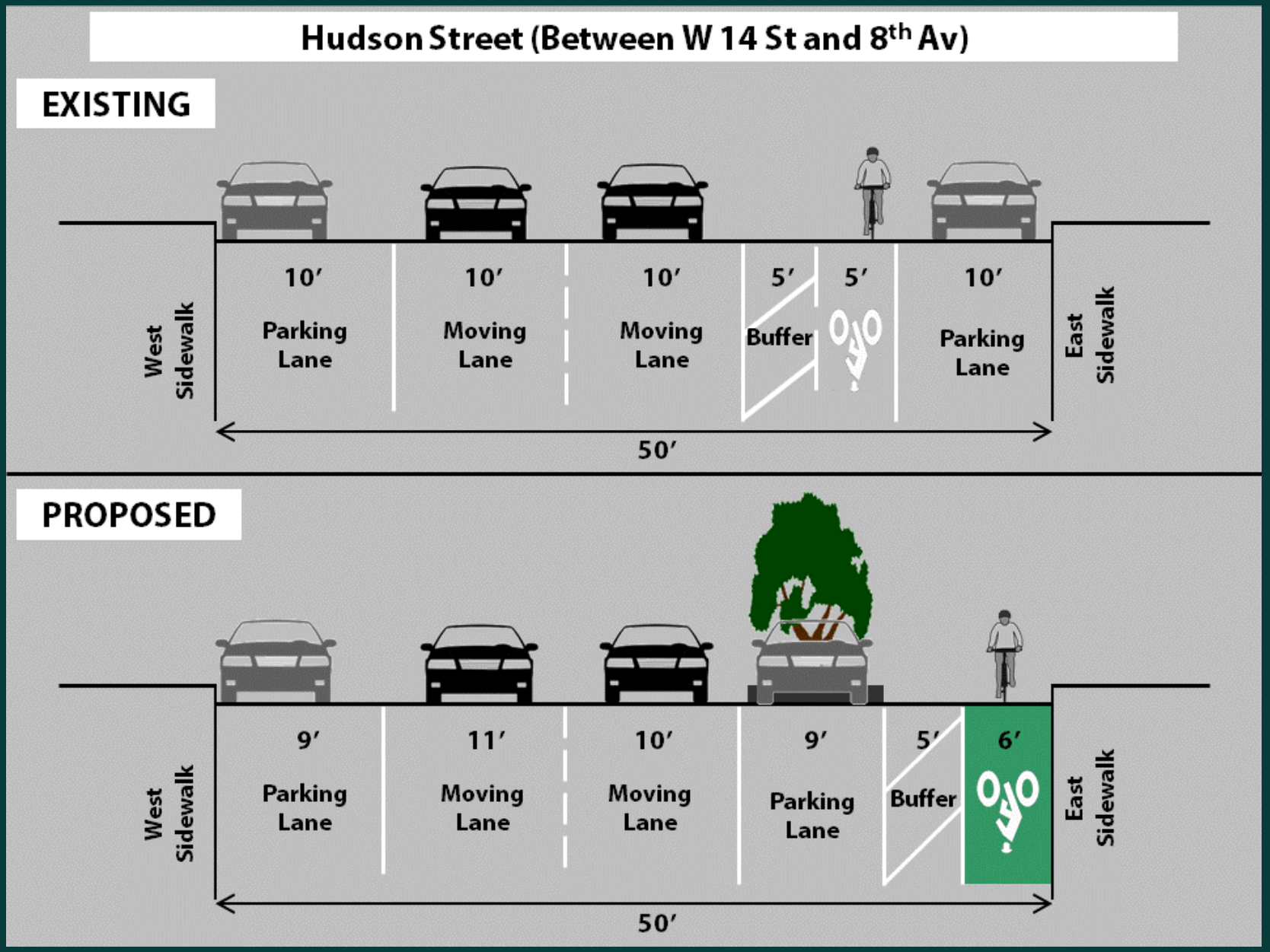
Source: ATI Data, Vehicles & Bicycles btw Gansvoort St and Horatio St, April 2014

Hudson Street at Jane St

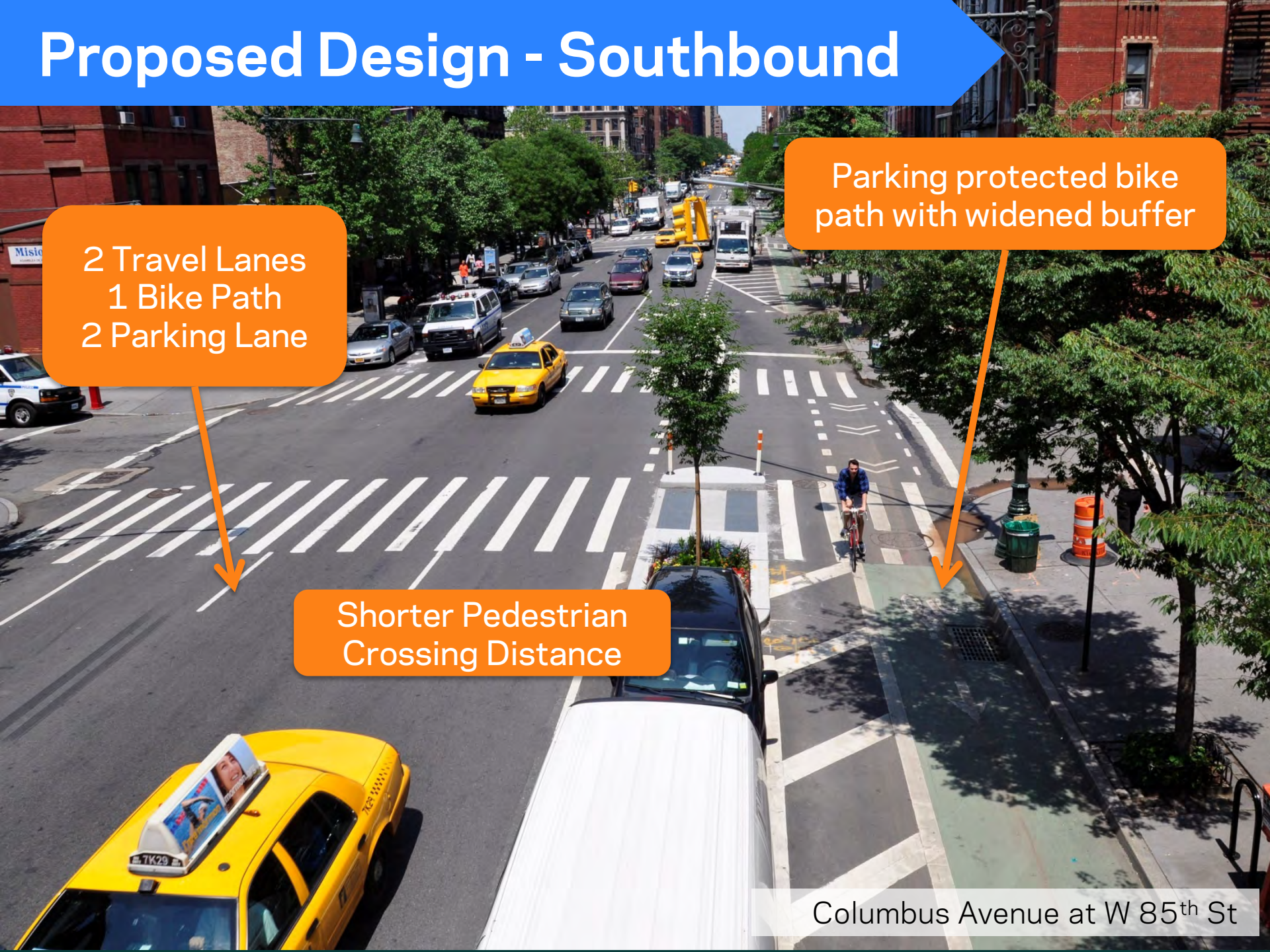
Existing Conditions - Southbound



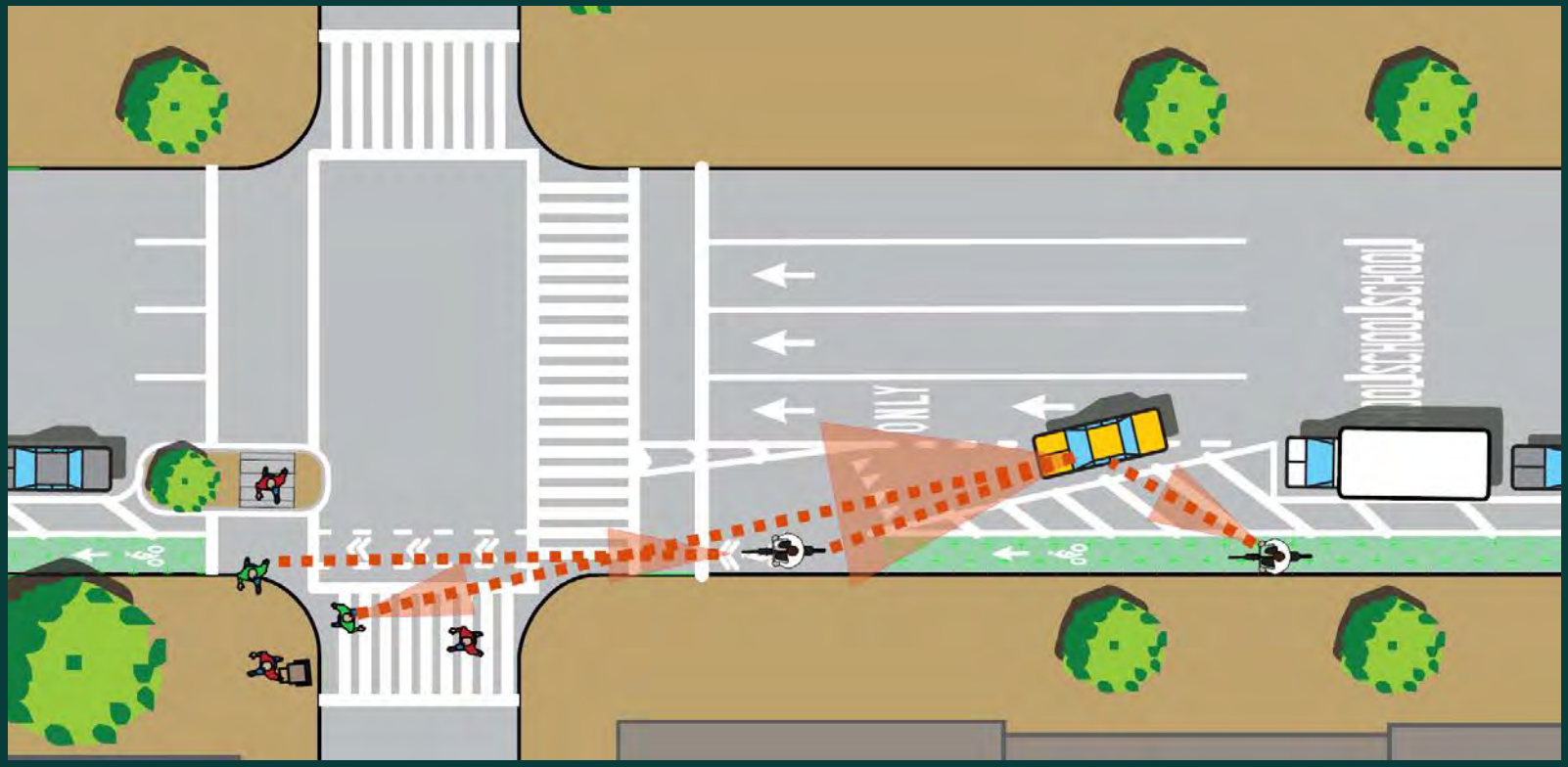
Proposed Configuration - Southbound



Proposed Design - Southbound



Protected Bicycle Path Mixing Zone



- Mixing Zone Provides Space to Negotiate Conflict
  - Informs cyclist that vehicle is turning, no guesswork
  - Removes vehicle from traffic stream/eliminates “back pressure”
  - Gentle approach angle, vehicle gradually approaches cyclist, no abrupt “hook” turns
- Mixing Zone Provides Visibility
  - Eliminates visual obstruction of parked cars
  - Angle improves drivers’ peripheral vision
  - Cyclist & Motorist can see each other and avoid a crash

Parking/Loading Changes

Converted Parking Spaces *	Parking Space Equivalents (Approx.) Total *
Turn Lanes/ Mixing Zones	-33
Pedestrian Islands	-21
Parking Buffers	-4
Total Spaces Repurposed	-58

- Curbside access retained for 76% of Hudson St corridor

* Total includes streets with daytime parking restrictions.

Mixing Zones

Total of 7 mixing zones proposed:

- 5 in Northbound section
- 2 in Southbound section

Safety Benefits

Three Year Before and After Crash Analysis on Parking-Protected Bicycle Paths

	Change in Crashes w/ Injuries	Change in Total Injuries
1st Avenue E 1st St- E 33rd St	-6%	-11%
2nd Avenue E 33rd St- E 24th St, E 13th St – E 2nd St	-11%	-7%
8th Avenue Bank St – W 23rd St	-20%	-25%
9th Avenue W 33rd St – W 16th St	-43%	-46%

1st Ave Before data: 7/1/07-6/30/10 After data: 12/1/10-11/30/13
2nd Ave Before data: 7/1/07-6/30/10 After data: 12/1/10-11/30/13
8th Ave Before data: 8/1/05-7/31/08 After data: 7/1/09-6/30/12
9th Ave Before data: 7/1/04-6/30/07 After data: 11/1/08-10/31/11

Columbus Avenue at W 90th St

Project Summary

- Separates cyclists from moving traffic
- Decreases pedestrian crossing distances
- Improves safety for all road users
- Simpler, safer left turns
- Extends existing protected paths

2nd Avenue at E 2nd St

Questions?

Thank You