

St Nicholas Avenue

Safety Improvements and Bicycle Lanes

2015



Presented by New York City Department of Transportation, Transportation Planning & Management
September 10, 2015 to Manhattan CB 12 Traffic and Transportation Committee



St Nicholas Avenue

Corridor Project Background

- Vision Zero calls for an expanded bicycle network in Manhattan that improves safety for all road users
- CB 12 requested a network of bike routes in 2012
- CB 12 approved Phase 1 bike routes and DOT began implementation in 2014

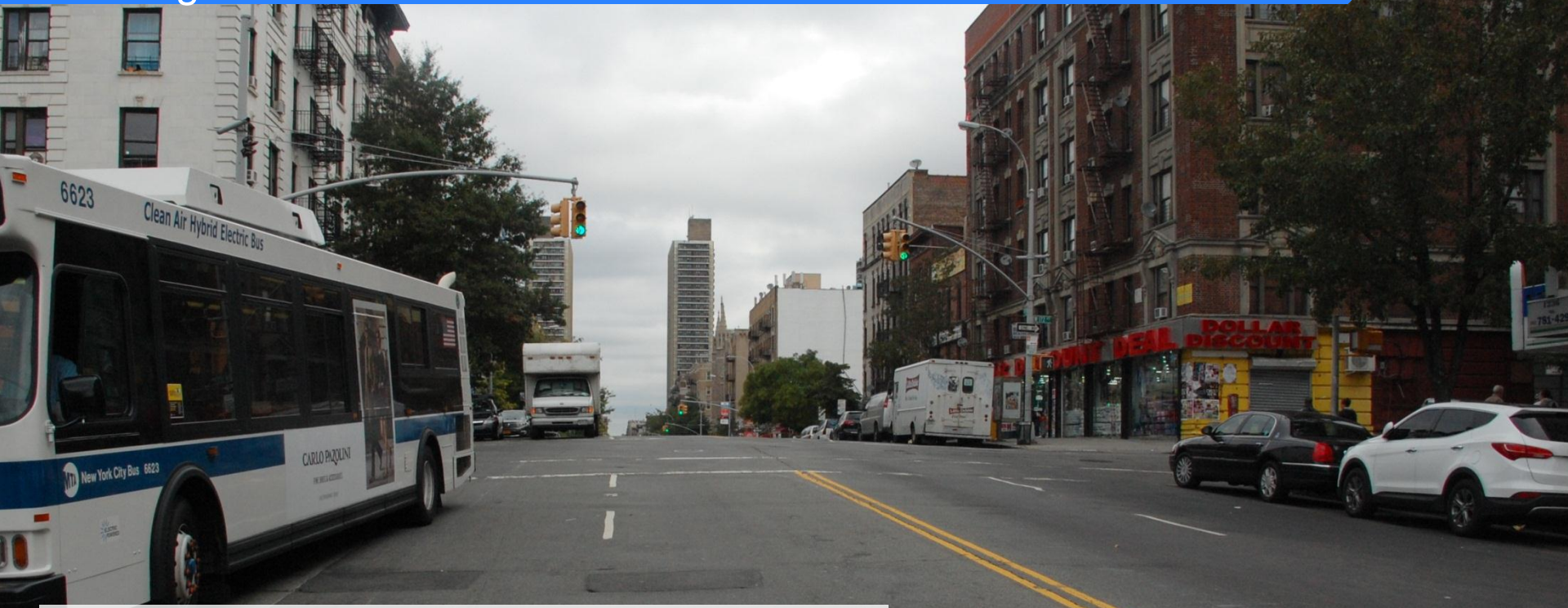
St Nicholas Avenue

Corridor Project Map



St Nicholas Avenue

Existing Conditions



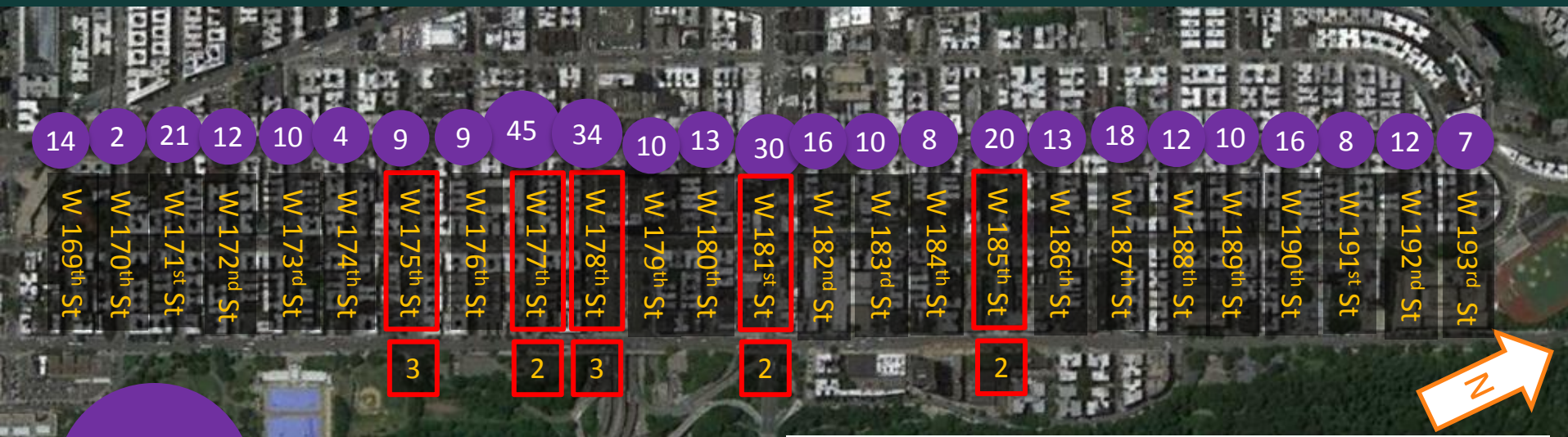
- 60' wide corridors with long crossings
- No dedicated space for cyclists
- Moderate traffic volumes can be accommodated in a single lane
- Shared through/ left turn lane causes unpredictable maneuvers
- Poor signal timing

St Nicholas Ave @ W 171 St
Looking north

St Nicholas Ave

Crash History (2009-2013)

- High Crash Corridor with 20 people killed or severely injured (KSI) per mile, ranking in the top third of Manhattan corridors



Total Injuries

of KSI

Intersection in the top 10% KSI of Manhattan intersections

St Nicholas Ave - Broadway to W 193rd St, MN

Injury Summary, 2009-2013 (5 Years)

	Total Injuries	Severe Injuries	Fatalities	KSI
Pedestrian	141	18	0	18
Bicyclist	29	2	0	2
Motor Vehicle Occupant	234	5	0	5
Total	404	25	0	25

KSI = Killed/ Severely Injured

N

St Nicholas Ave

Crash History (2009-2013)



Left turns and rear-end collisions comprise 39% of motor vehicle crashes on the corridor.

St Nicholas Ave

High Pedestrian Volumes

178th Street

984 NB pedestrians

746 SB pedestrians

560 NB vehicles

386 SB vehicles

185th Street

567 NB pedestrians

494 SB pedestrians

423 NB vehicles

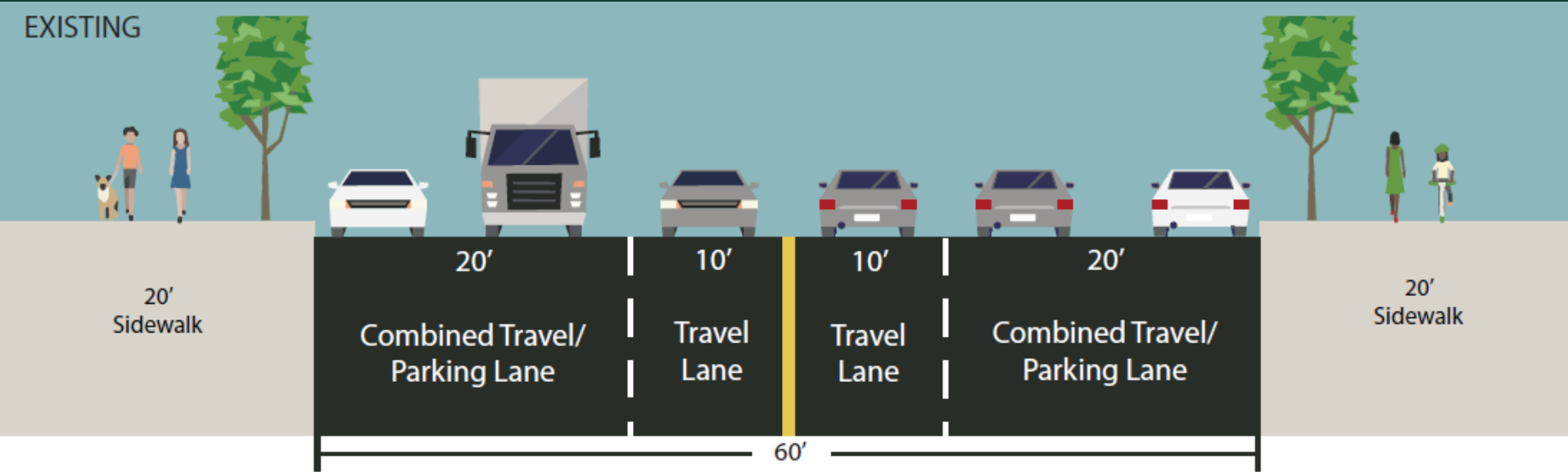
445 SB vehicles

Peak hour volumes from counts conducted
5/20/15, 6/17/13 – 6/23/13 and 10/19/13-
10/25/13

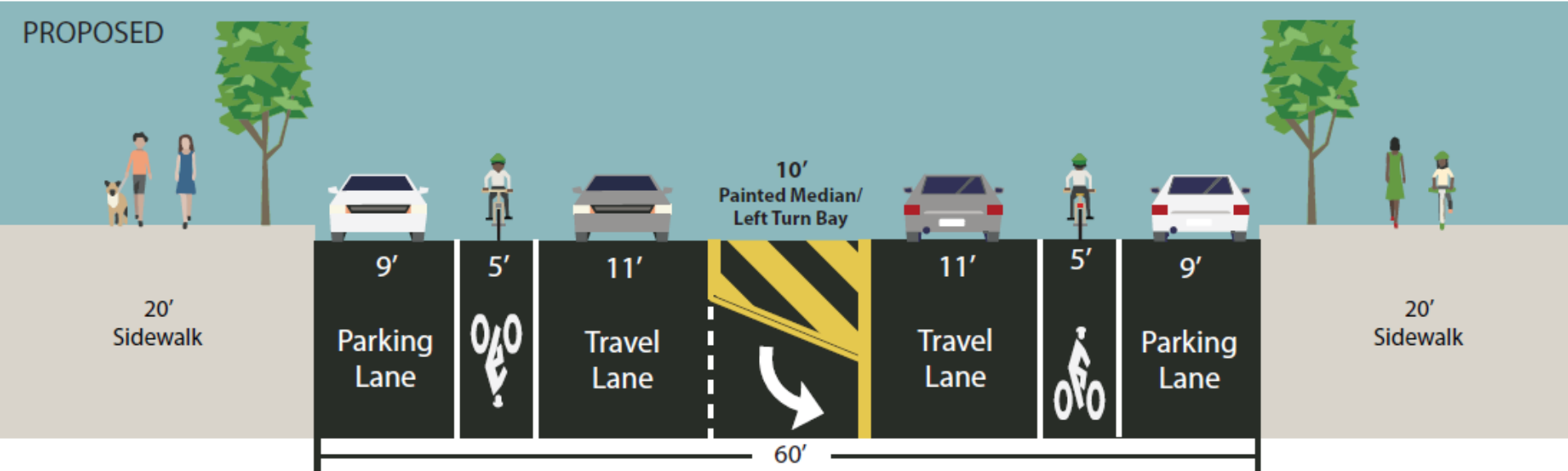
St Nicholas Avenue

Proposed Configuration (Cross Section)

EXISTING

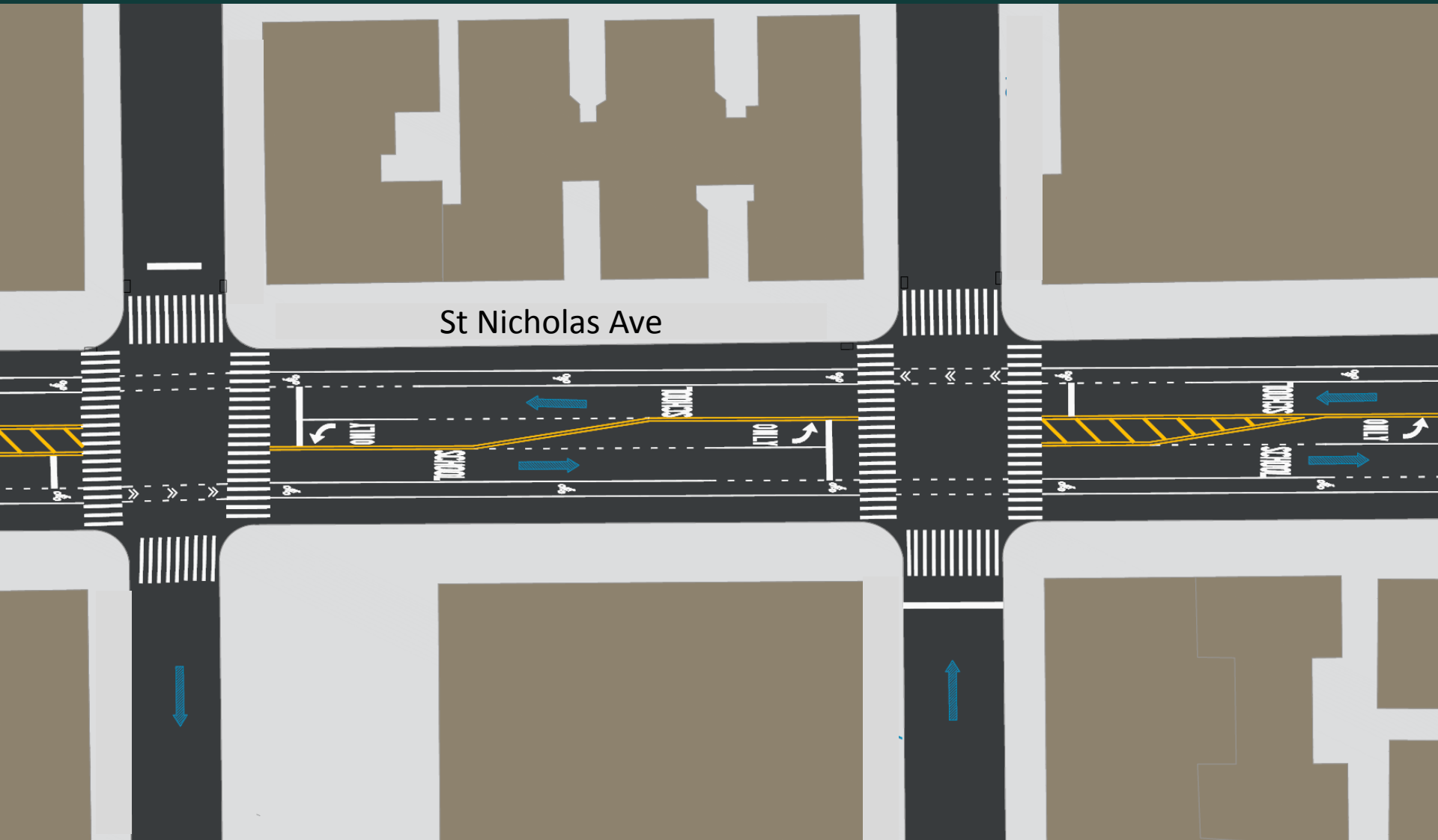


PROPOSED



St Nicholas Avenue

Proposed Configuration (Sample Block)



St Nicholas Avenue

Proposed Design



- Bicycle lane provides dedicated space for cyclists
- Remove one lane in each direction
- Add left turn lanes maintain capacity at intersections
- No parking loss

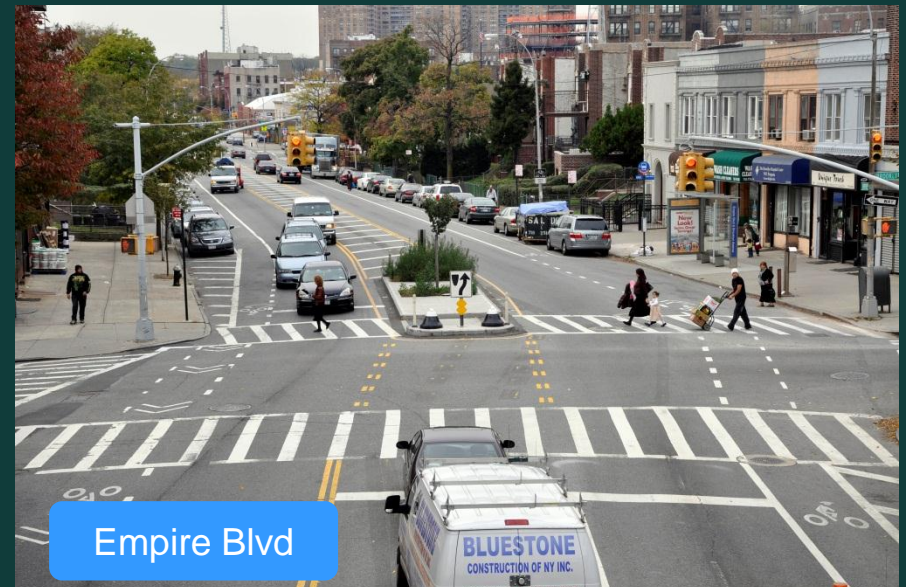
Proposed Configuration:
E 222nd St, Bronx

Safety Results from Similar Treatments

4 lane to 3 lane Traffic Calming

PROJECT	CRASHES WITH INJURIES (% CHANGE)
West 6 th Street, BK	-24%
Empire Boulevard, BK	-15%
Allerton Avenue, BX	-28%
Gerritsen Avenue, BK	-40%
Southern Boulevard, BK	-20%
Randall Avenue, BX	-22%
Macombs Road, BX	-44%

Reducing the number of travel lanes and installing bike lanes improves safety for all street users



St Nicholas Avenue

Parking Regulations



To address double parking,
DOT will work with
businesses to identify
possible locations for
commercial loading zones

St Nicholas Avenue

Pedestrian Island Opportunities



Concrete pedestrian safety islands can be located in painted medians pending approval

Vanderbilt Ave, Brooklyn

St Nicholas Avenue

Signal Timing



DOT contractor is producing study to optimize signal progression. Benefits will include:

- Decreased travel times
- Reduced congestion

St Nicholas Ave @ W 190th St
Looking south

St Nicholas Avenue

Corridor Project Summary



- Enhances safety for all street users
- Expands the bicycle network by creating new bicycle connections
- Improves safety at left-turn intersections
- Reduces opportunities for speeding and reckless driving



nyc.gov/dot

Thank
You