



NAVY STREET SANDS STREET TO FLUSHING AVE

Presented to Community Board 2
June 18, 2020



Project Area Location



- Existing Navy St bike lane installed in 2004 is a key connection to the Manhattan Bridge and the Brooklyn Waterfront Greenway
- Sands St separated path constructed in 2009
- Flushing Ave separated path completion scheduled for autumn 2020

Existing Conditions Bicycle Route

- Heavy bike volumes
 - 2,867 bikes 12-hr weekday count
 - 4,070 bikes 18-hr weekday count
 - 596 bikes 2-hr weekend peak
- September 2016*
- Standard bike lanes vulnerable to double parking
 - Northbound left turn on to Sands St presents conflicts with motor vehicles



Project Area Safety

Navy Street Flushing Ave to Sands St Crash History 2013-2017

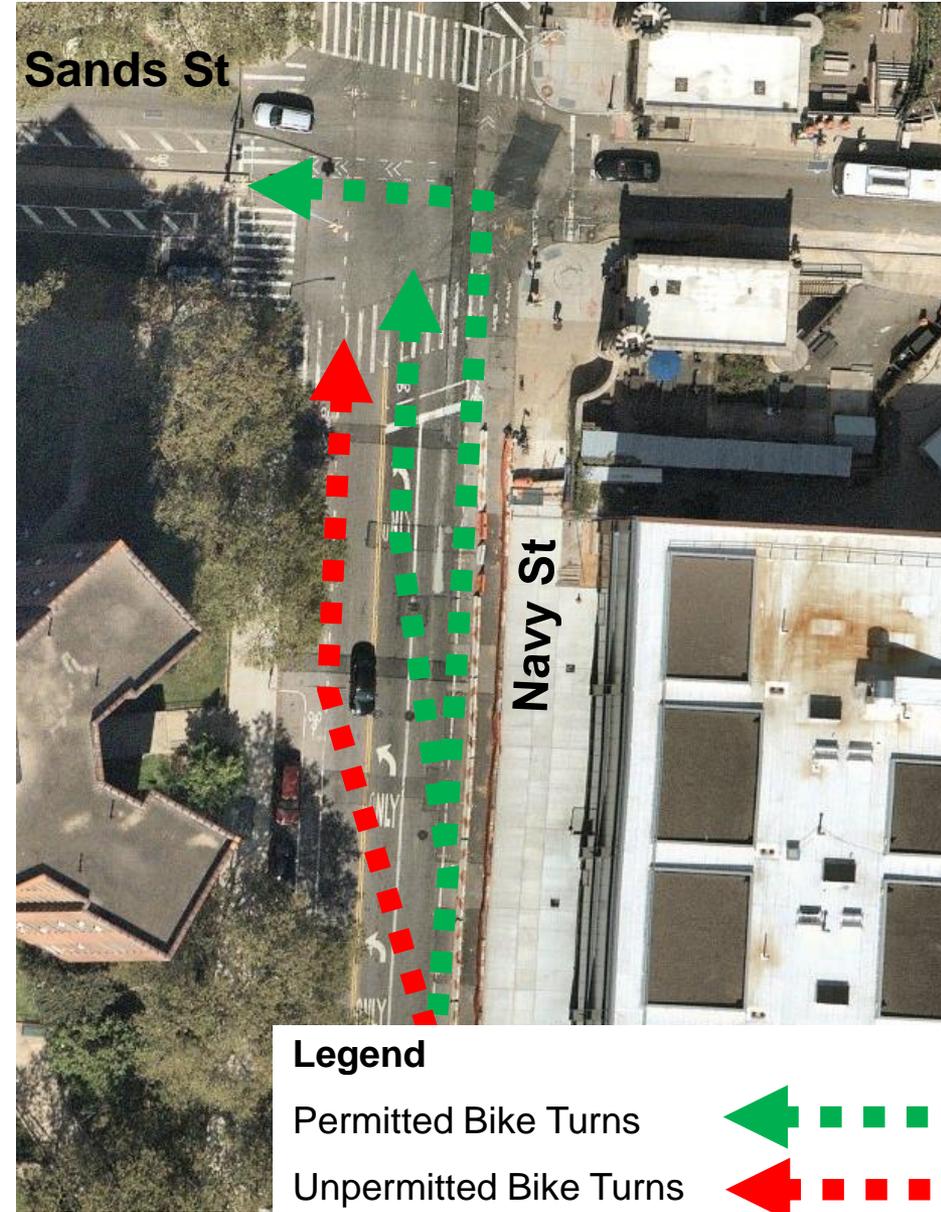
	Total Injuries	Severe Injuries	Fatalities	KSI
Pedestrian	7	0	0	0
Bicyclists	15	3	0	3
Motor Vehicle Occupant	37	2	0	2
Total	59	5	0	5

- People on bikes make up 60% of serious injuries on Navy St
- Frequent conflicts between bikes and motor vehicles



Issues Motor Vehicle Conflicts

- Majority of northbound cyclists turn left at Sands St
- Lack of protected lane causes some cyclists to leave bike lane to reduce conflict- travel in southbound lane
- Backups in northbound left turn lane prompt some motorists to drive in bike lane
- Majority of southbound cyclists turn left at Flushing Ave

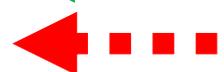


Legend

Permitted Bike Turns



Unpermitted Bike Turns



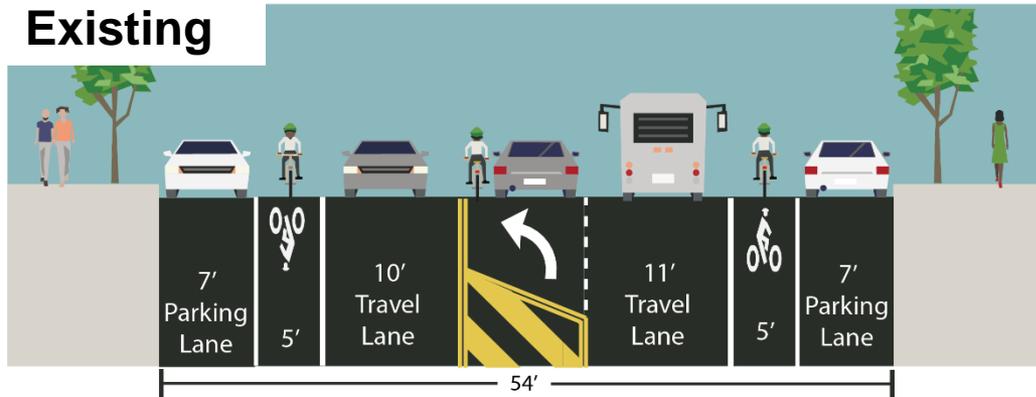
Proposed Design Goals

- Upgrade bike route to Manhattan Bridge
- Improve pedestrian safety
- Reduce conflicts between people on bikes and in motor vehicles
 - Reduce wrong-way cycling
 - Reduce turning conflicts
- Improve cyclist safety and comfort
 - Reduce double parking in bike lane
 - Increase distance from traffic
- Maintain motor vehicle circulation

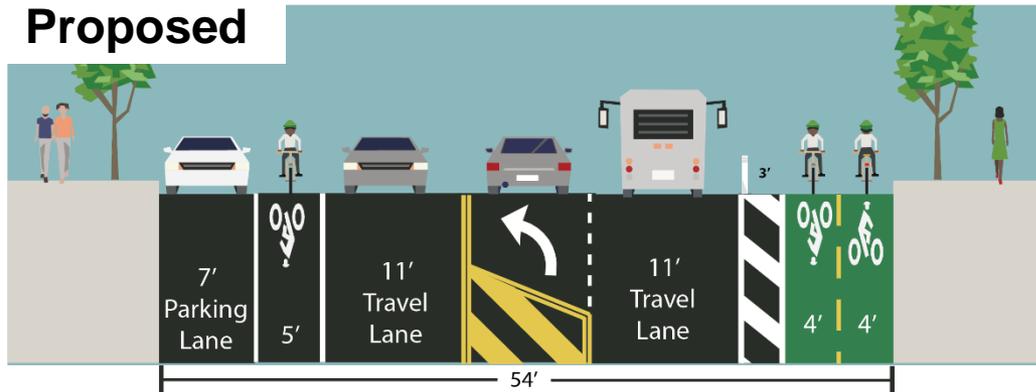


Proposed Design

Existing



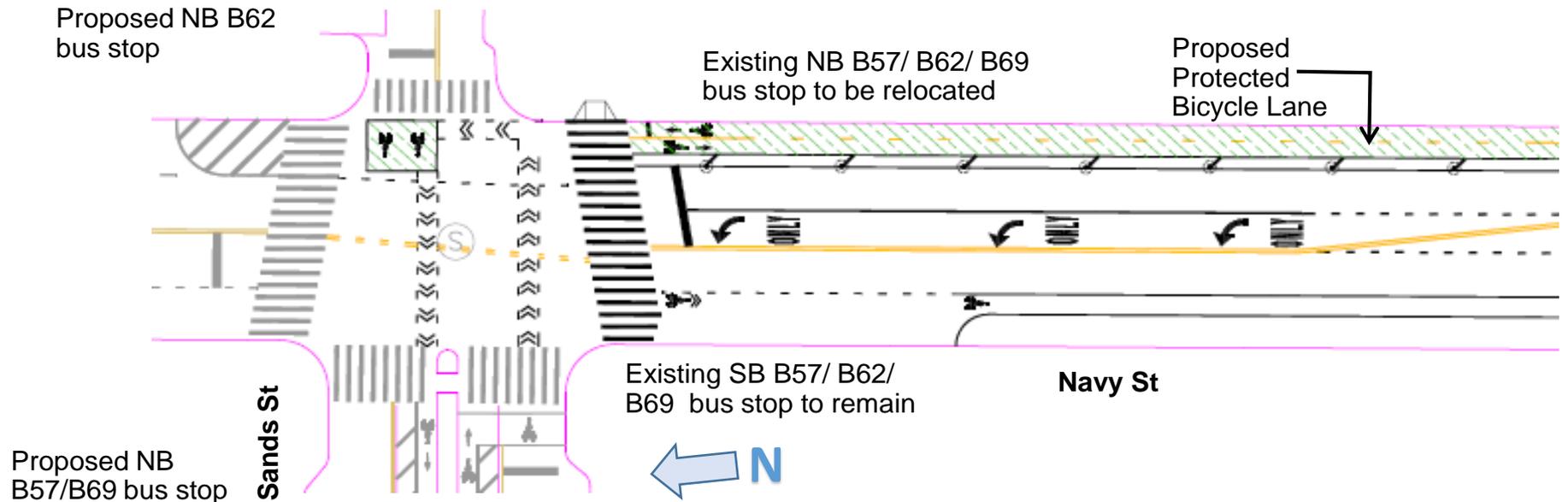
Proposed



- Narrower roadway discourages off-peak speeding
- Buffer discourages double parking and keeps bike lane clear of parked vehicles
- Reduces double parking in bike lane
- Removes 14 parking spaces from east curb of Navy St

Proposed Design Navy St at Sands St

- Two-way parking protected bike lane connects Flushing Ave to Sands St
- Bike waiting box facilitates two-stage crossing for northbound bikes turning left at Sands St
- Southbound standard bike lane permits direct path to bike lanes south of Flushing Ave
- NB B62 bus stop on the SE corner of Navy St and Sands St to be relocated to NE corner on the far side of intersection
- NB B57 and B69 bus stop on the SE corner of Navy St and Sands St to be relocated to NW corner onto Sands St



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

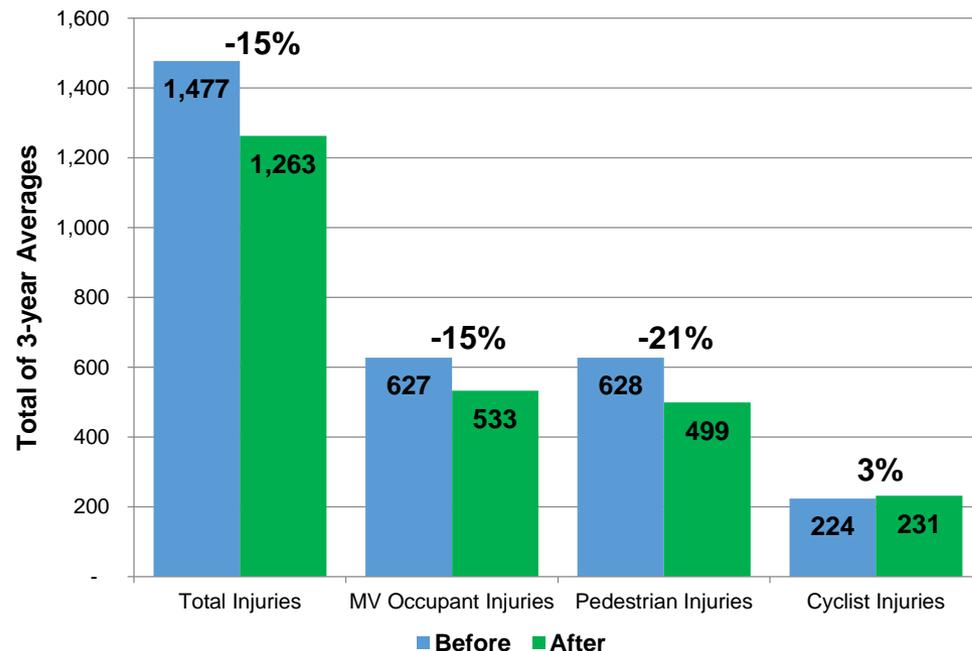
*Injuries to cyclists increase only 3%,
despite a 61% bike volume increase*



Kent Ave, BK

Protected Bike Lanes

Before and After Crash Data, 2007 - 2017



Prospect Park W, BK

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

Summary Project Benefits

- Creates a safer, more direct and comfortable experience for cyclists
- Reduces wrong-way cycling and conflicts between bikes and motor vehicles
- Increases pedestrian safety by organizing roadway and calming traffic
- Discourages speeding by narrowing roadway
- Discourages blocking the bike lane
- Maintains traffic capacity

