



# **WILLIAMSBURG BRIDGE ACCESS AND CONNECTIONS**

## **Bike Network Development and Safety Improvements**

Presented to Community Board 1, March 7, 2017



## PRESENTATION OVERVIEW



- **Background**
  - Growth in Cycling
  - L Train Shutdown
  - Neighborhood Connectivity
  - Proposal Overview
- **Williamsburg Bridge Approach**
  - S 5<sup>th</sup> St, S 5<sup>th</sup> Pl, S 4<sup>th</sup> St, Borinquen Pl
- **Scholes St, Meserole St Connections**
  - S 3<sup>rd</sup> St, Scholes St, S 4<sup>th</sup> St, Meserole St
- **Summary**

---

**Background**

1

NYC MOBILITY

Recent Travel Trends (2010-2015)



**+370,000**  
New York City  
residents




**+520,000**  
new jobs


Biking provides an efficient and affordable transportation option for a growing city



**+20%**  
growth  
tourists



**+10%**  
growth in  
subway trips

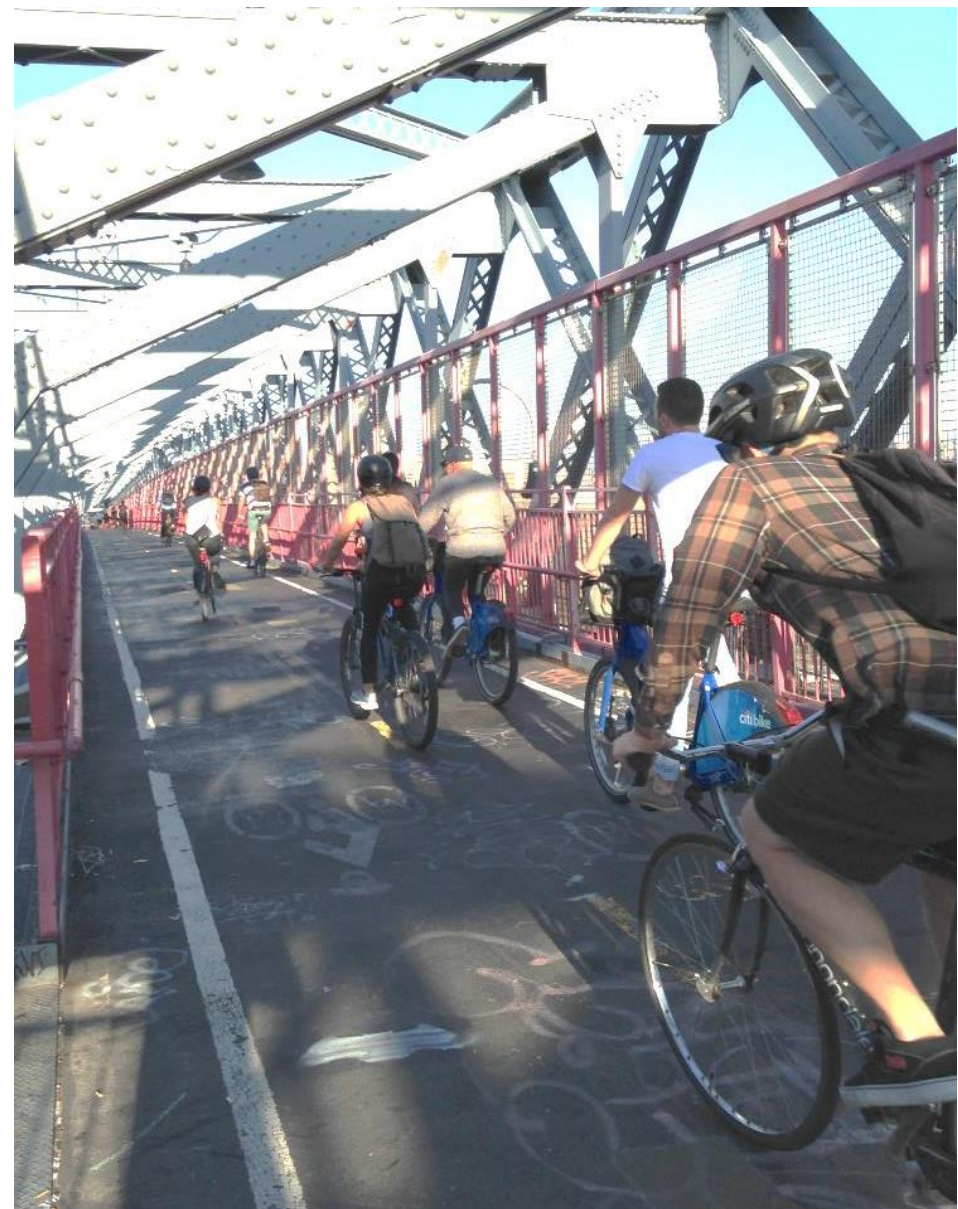


**+80%**  
growth in daily  
cycling trips

### GROWTH IN CYCLING – Williamsburg Bridge

**83%** increase in bike commuting  
in Brooklyn 2010-2015

An average of **7,580** cyclists used  
the Williamsburg Bridge every day  
in 2016 - *an increase of 13%*  
*compared to 5 years ago*



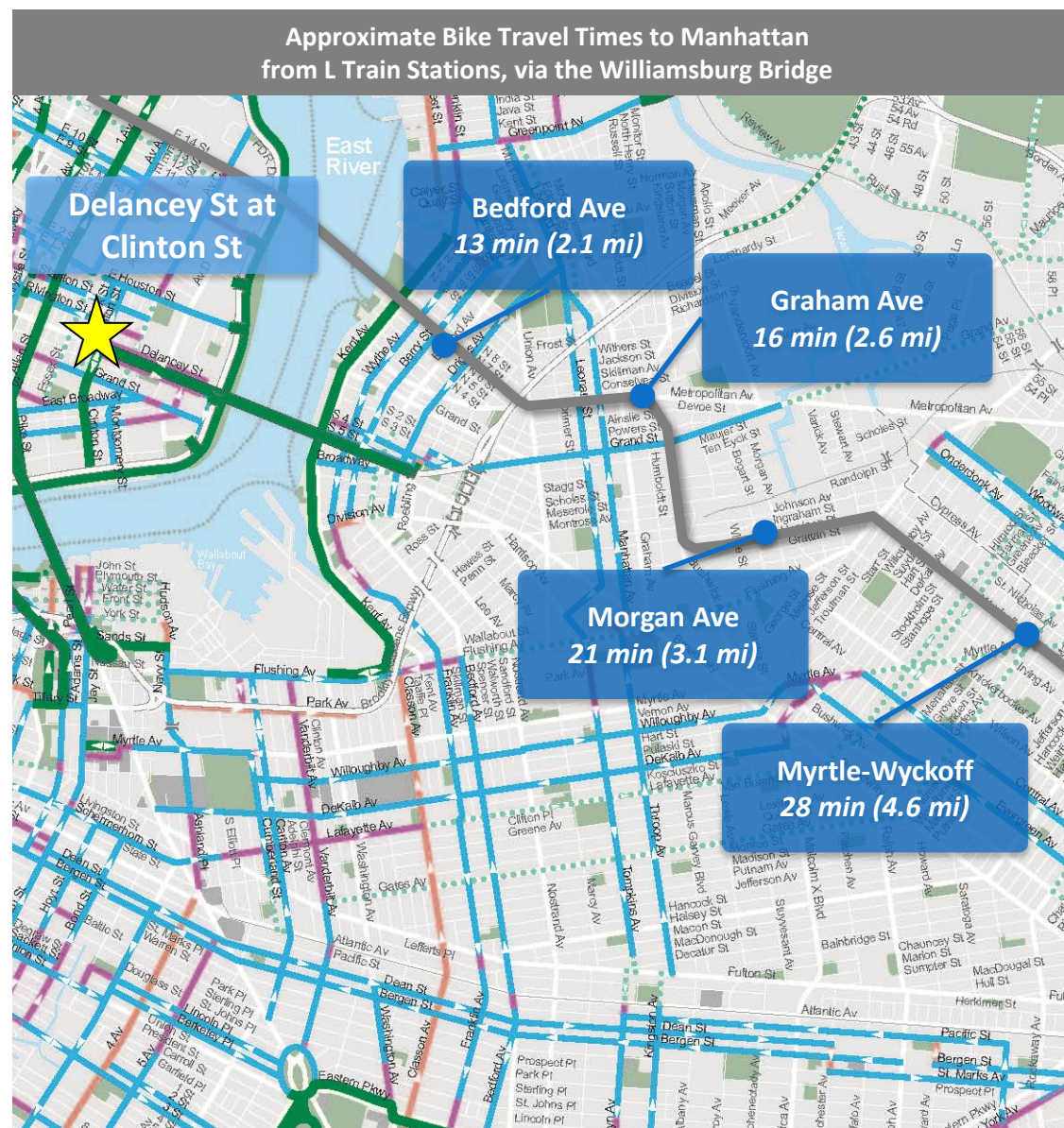


## GROWTH IN CYCLING – L Train Shutdown

**Substantial increase in bike ridership on Williamsburg Bridge expected with closure of L line**

- **During Hurricane Sandy**, bike volumes on Manhattan Bridge increased **200-300%**
- **During the 2005 transit strike**, bike volumes on the East River bridges **more than quadrupled**

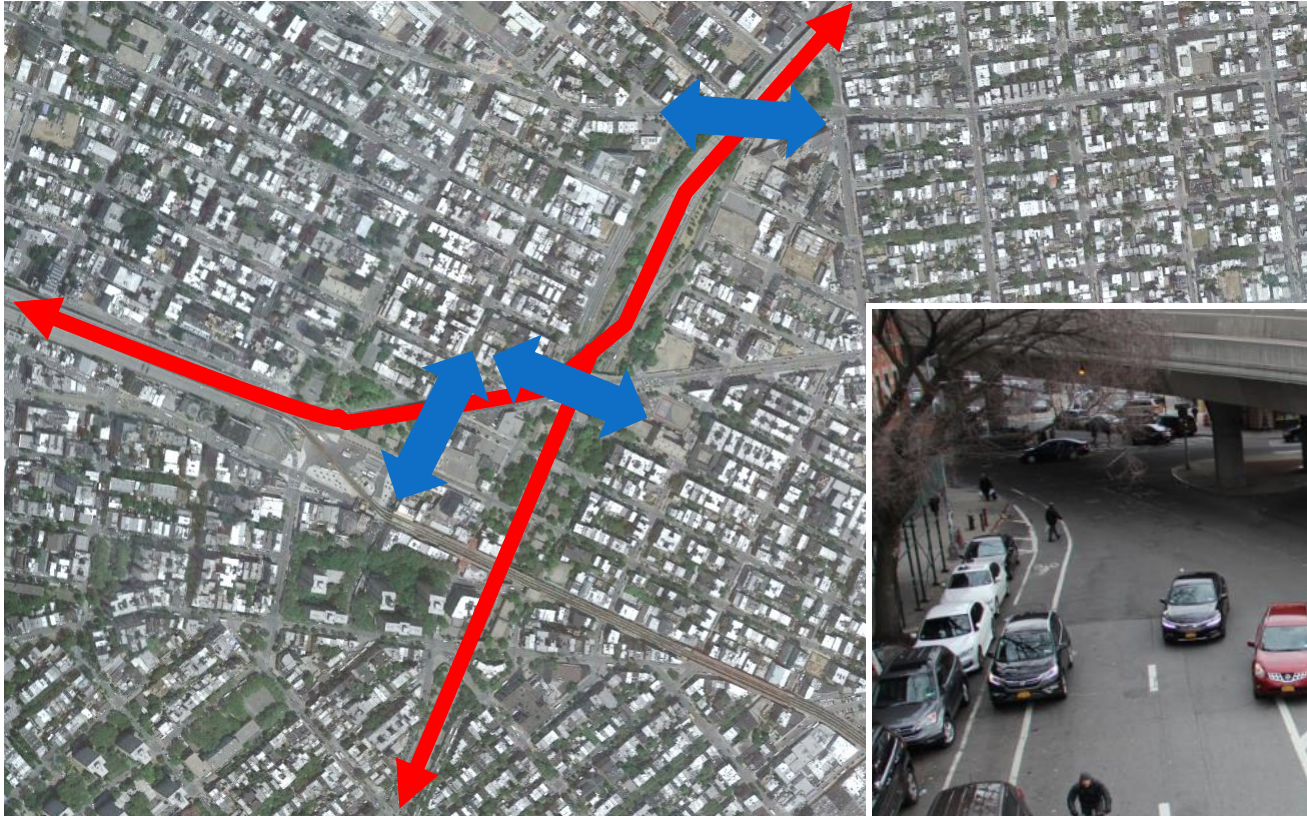
**Biking will provide a convenient alternative to transit for regular L train riders**



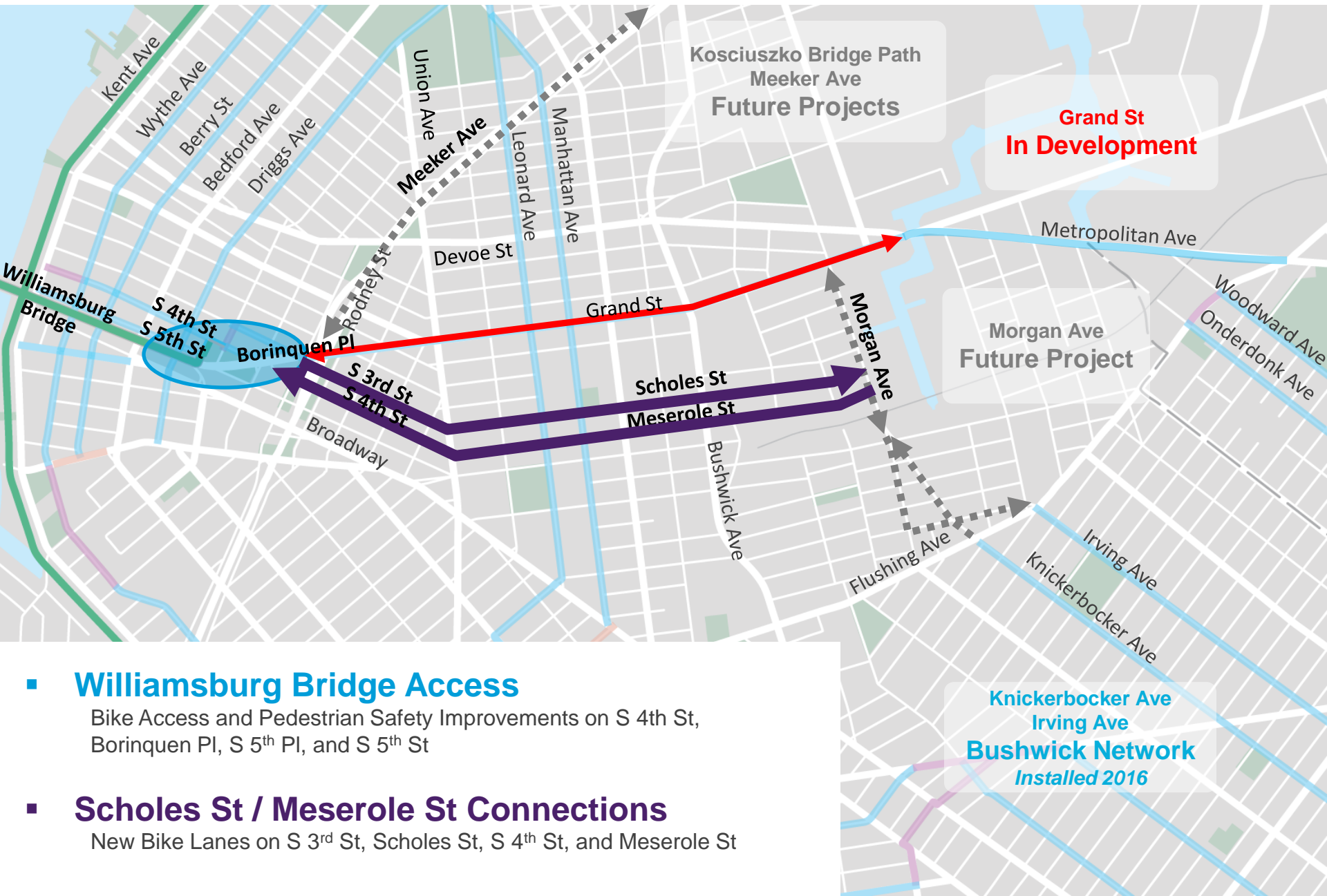


## NEIGHBORHOOD CONNECTIVITY

**Williamsburg Bridge structure, elevated Brooklyn-Queens Expressway and their associated ramps divide neighborhoods**



PROPOSAL OVERVIEW



- **Williamsburg Bridge Access**  
Bike Access and Pedestrian Safety Improvements on S 4th St, Borinquen Pl, S 5th Pl, and S 5th St
- **Scholes St / Meserole St Connections**  
New Bike Lanes on S 3rd St, Scholes St, S 4th St, and Meserole St



---

## Williamsburg Bridge Access

2

## PROPOSED IMPROVEMENTS

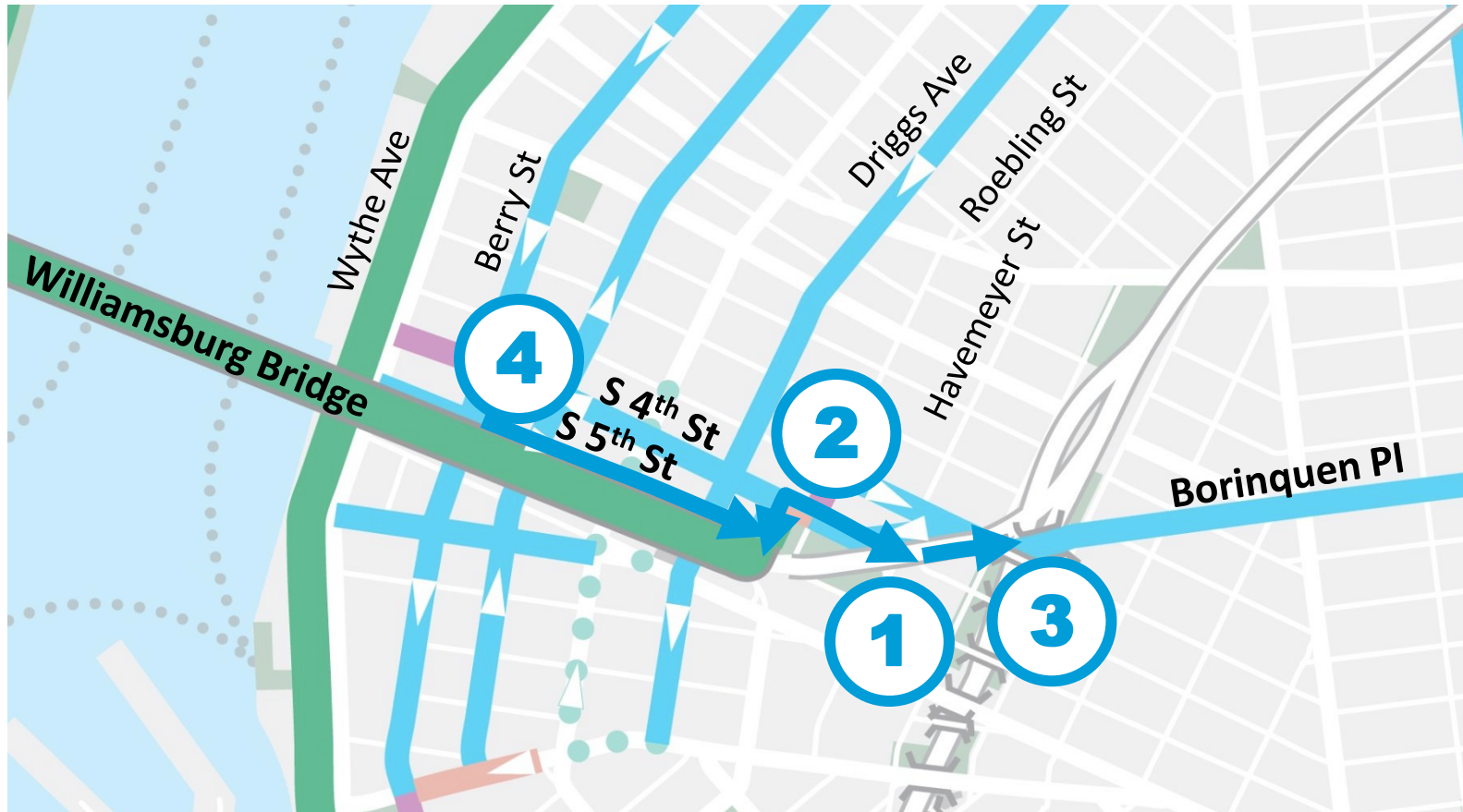
- 1

Intersection Safety Improvements at S 4<sup>th</sup> Pl, Havemeyer St and Borinquen Pl
- 2

Two-way Protected Bike Lane on S 5<sup>th</sup> Pl and S 4<sup>th</sup> St
- 3

Eastbound Bike Connection on Borinquen Pl Median
- 4

Parking Protected Bike Lane on S 5<sup>th</sup> St





# Williamsburg Bridge Approach

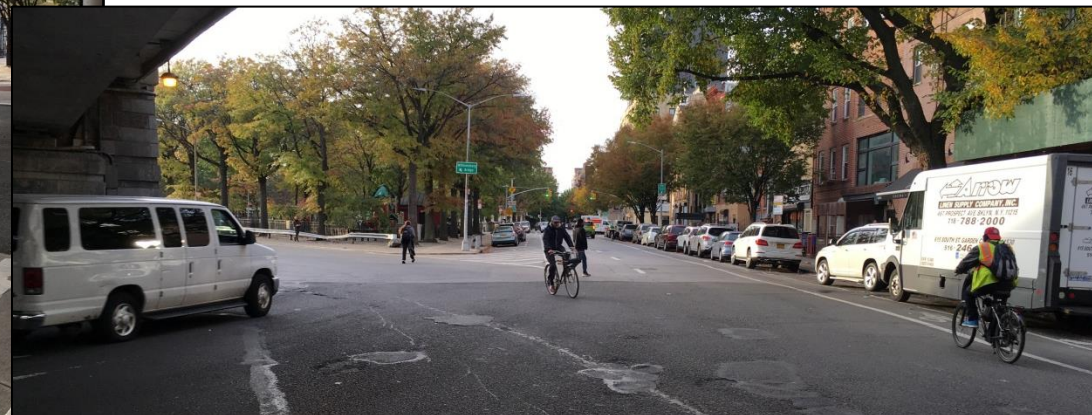
1

## Intersection Safety Improvements at S 4<sup>th</sup> St, Havemeyer St and Borinquen Pl

### EXISTING CONDITIONS

#### Challenging intersection disconnects neighborhoods

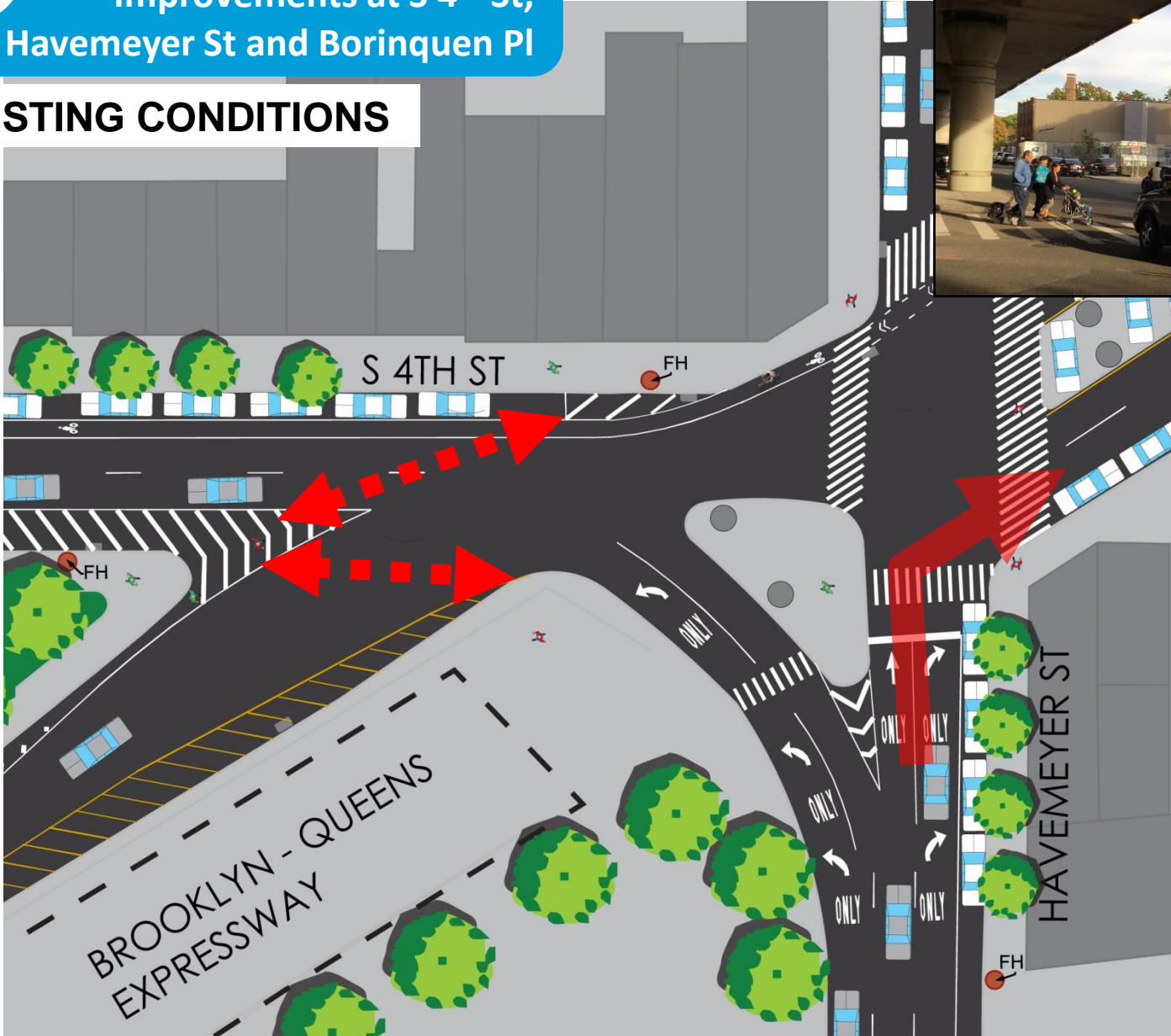
- No pedestrian crossings at S 4<sup>th</sup> St and bridge entrance
- No direct connection for bikes from Williamsburg Bridge to Borinquen Pl/Grand St
- Double parking in existing bike lane
- Difficult to cross Borinquen Pl due to heavy right turn



1

Intersection Safety Improvements at S 4<sup>th</sup> St, Havemeyer St and Borinquen Pl

## EXISTING CONDITIONS





1

## Intersection Safety Improvements at S 4<sup>th</sup> St, Havemeyer St and Borinquen Pl

### PROPOSED IMPROVEMENTS

**New signalized crossings at S 4<sup>th</sup> St and bridge entrance and signal timing changes at Havemeyer St create seamless pedestrian and bike connection through intersection**

- New concrete pedestrian island, expanded refuge island and median
- Double right turn from Havemeyer St to Borinquen Pl on separate phase from pedestrian crossing
- Requires loss of 4 parking spaces during the PM peak, Monday to Friday, 2-7pm.



2

## Two-way Protected Bike Lane on S 5<sup>th</sup> Pl and S 4<sup>th</sup> St

### EXISTING CONDITIONS

#### Existing routes to bridge challenging, indirect

- Route to bridge requires challenging left turn from S 4<sup>th</sup> St to S 5<sup>th</sup> Pl and uses shared sidewalk on S 5<sup>th</sup> Pl resulting in
  - high bike volumes that conflict with pedestrians
  - high incidence of contraflow biking
- No eastbound connection on S 4<sup>th</sup> St to Borinquen Pl/ Grand St, indirect route via Roebling St and S 3<sup>rd</sup> St





2

## Two-way Protected Bike Lane on S 5<sup>th</sup> Pl and S 4<sup>th</sup> St

### PROPOSED IMPROVEMENTS

**Two-way protected path creates safe, direct connection to/from bridge, accommodates high bike volumes**

- Parking protected on S 5<sup>th</sup> Pl
- Jersey barrier protected / parking protected on S 4<sup>th</sup> St
- Reduces turning conflicts and bike-pedestrian conflicts
- Improved signal timing at S 4<sup>th</sup> St and Roebling St
- Requires loss of 2 parking spaces and left turn on S 4<sup>th</sup> St



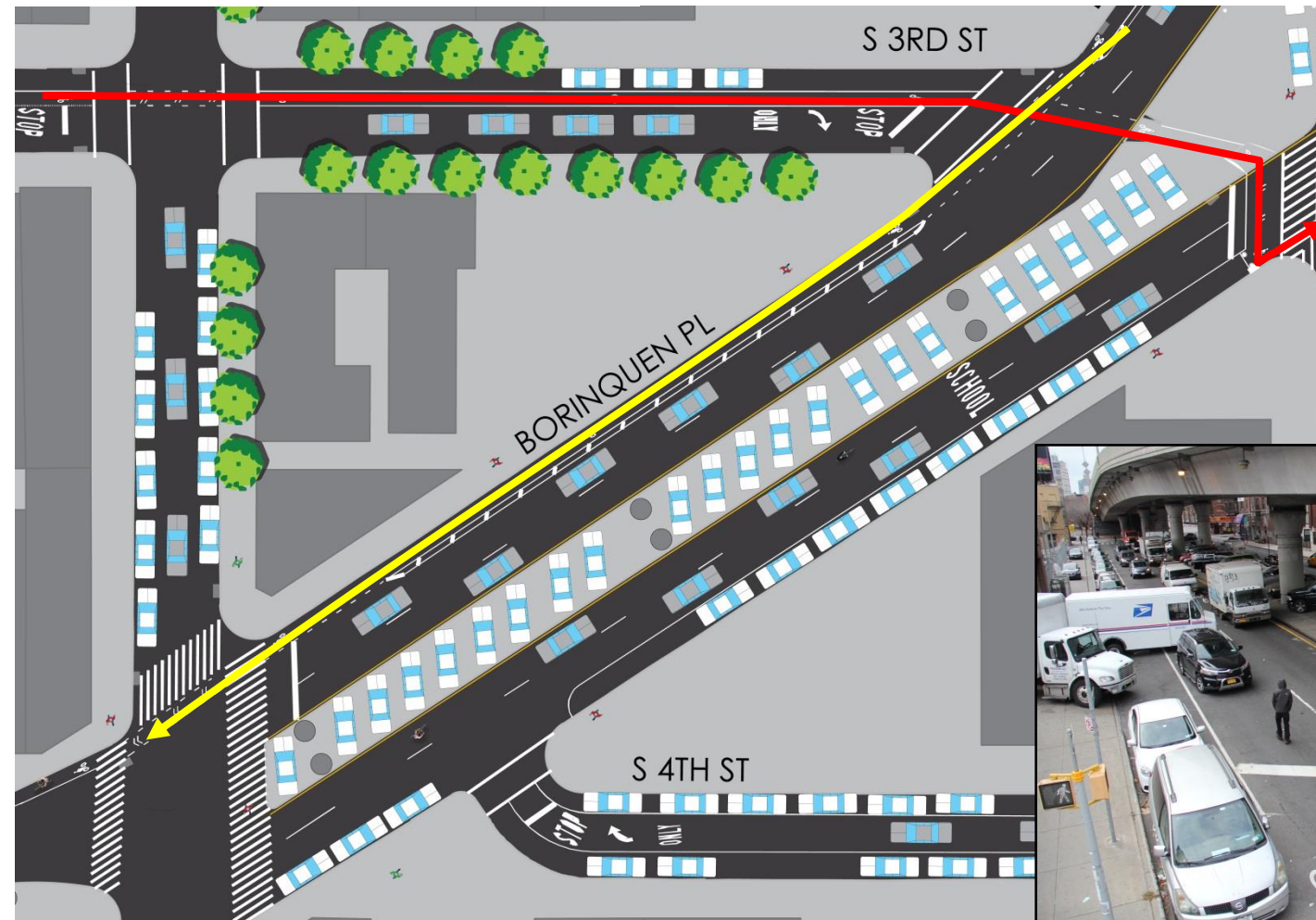
3

## Eastbound Bike Connection on Borinquen Pl Median

**Existing route on S 3<sup>rd</sup> St is indirect and has an uncontrolled crossing at Borinquen Pl**

- Indirect route leads to contraflow biking
- Proposed two-way protected bike lane on S 4<sup>th</sup> St would end at Havemeyer St and Borinquen Pl
- Illegal parking along median disrupts neighborhood continuity, impairs pedestrian and bike movements

### EXISTING CONDITIONS





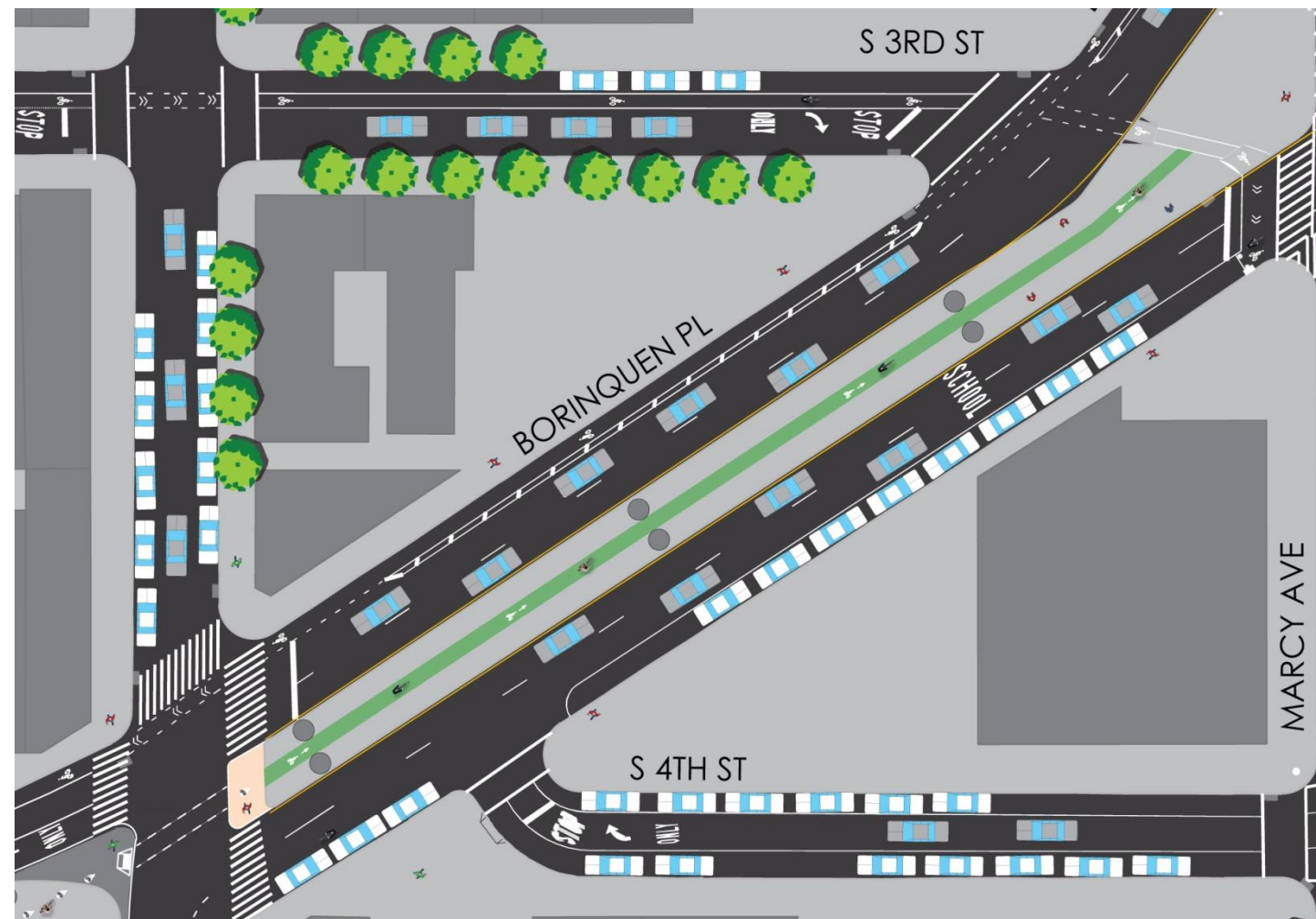
3

## Eastbound Bike Connection on Borinquen Pl Median

**New eastbound bike path along Borinquen Pl median creates safe, direct connection from bridge and S 4<sup>th</sup> St to Borinquen Pl/Grand St**

- Eliminates illegal parking along median
- Opportunity to reimagine public space

## PROPOSED IMPROVEMENTS





3

## Potential for DOT Art on Borinquen PI Median

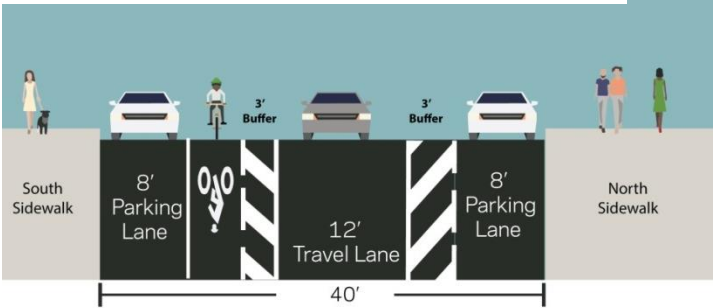


## 4 Parking Protected Bike Lane on S 5<sup>th</sup> St

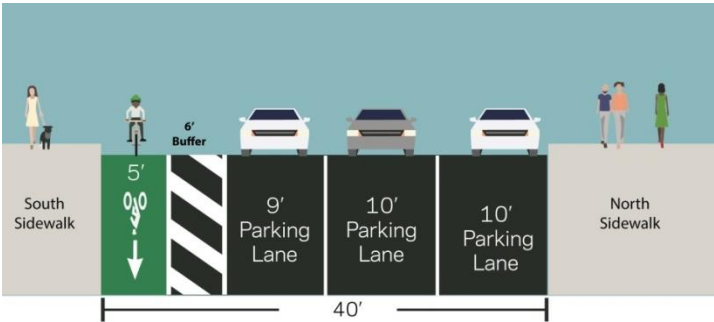


Berry St to Driggs Ave

### EXISTING CONDITIONS



### PROPOSED IMPROVEMENTS

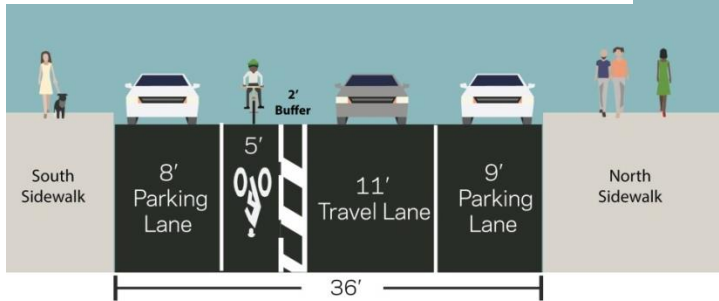


## Parking protected bike lane creates stronger western connection to and from bridge path

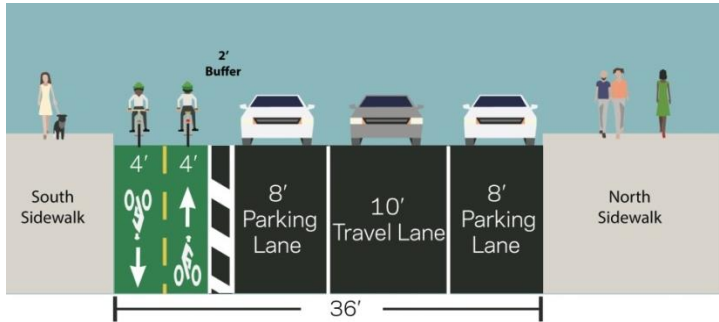
- Parking protected eastbound lane connects Berry St to bridge path
- Parking protected two-way path connects bridge path to Driggs St
- Requires the loss of 3 parking spaces

Driggs Ave to S 5<sup>th</sup> PI

### EXISTING CONDITIONS



### PROPOSED IMPROVEMENTS



---

Scholes St, Meserole St  
Connections

3



# Scholes St, Meserole St Connections

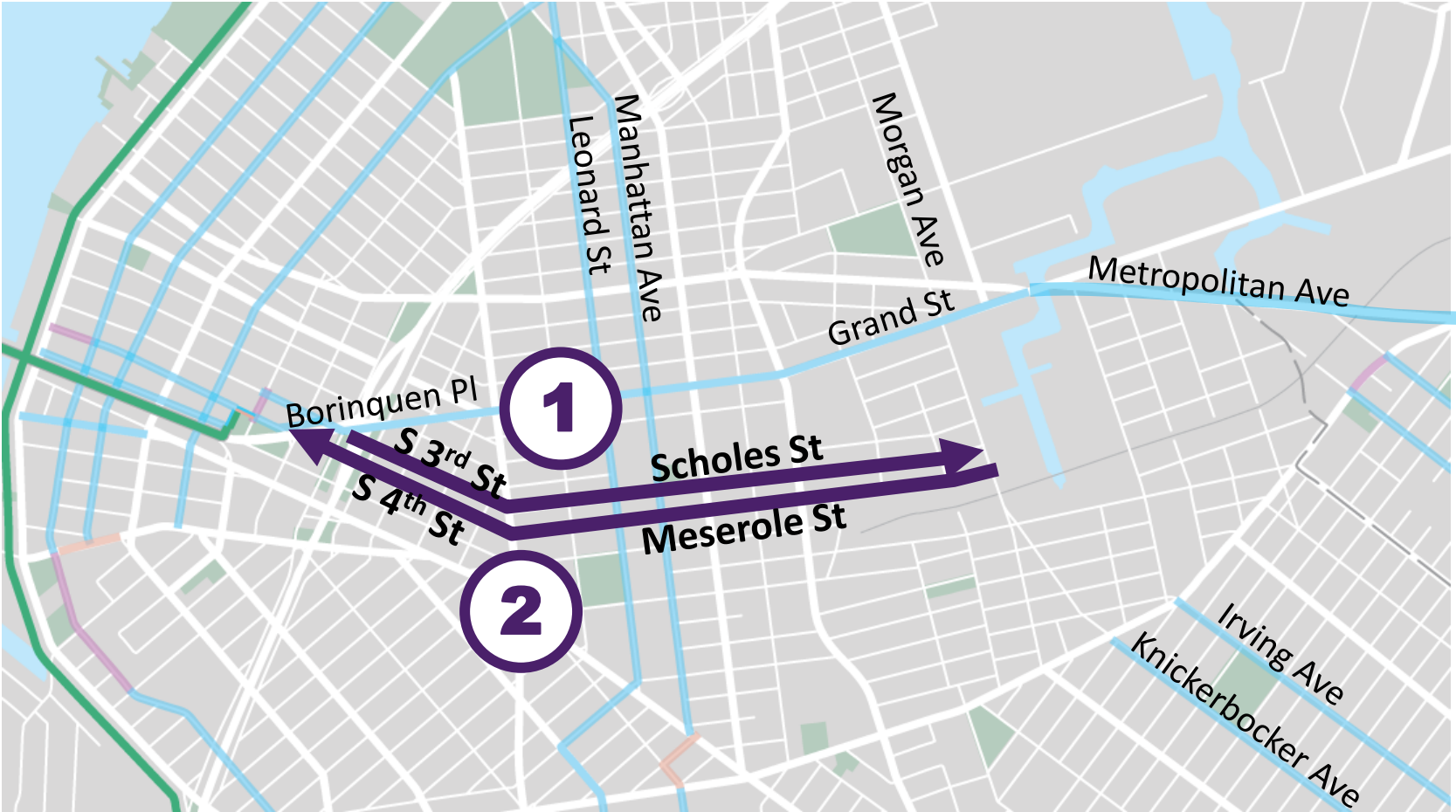
## PROPOSED IMPROVEMENTS

1

Eastbound Bike Lane on  
S 3<sup>rd</sup> St and Scholes St

2

Westbound Bike Lane on  
Meserole St and S 4<sup>th</sup> St



# Scholes St, Meserole St Connections

1

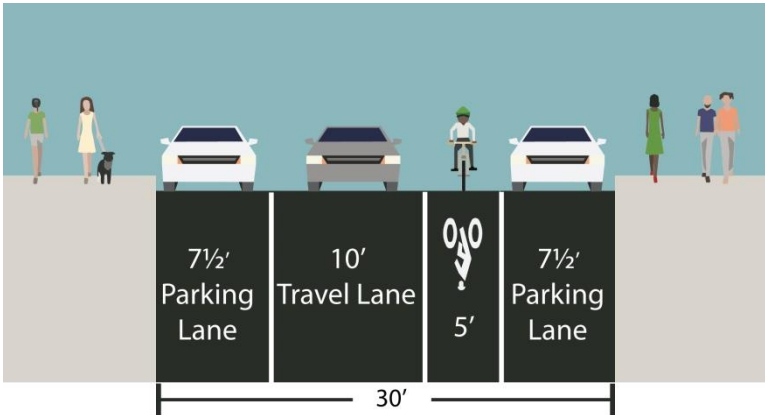
Eastbound Bike Lane on  
S 3<sup>rd</sup> St and Scholes St

Borinquen Pl to Leonard St  
Bushwick Ave to Morgan Ave

## EXISTING CONDITIONS



## PROPOSED IMPROVEMENTS



Bike lanes create new connection from bridge to East Williamsburg and Bushwick

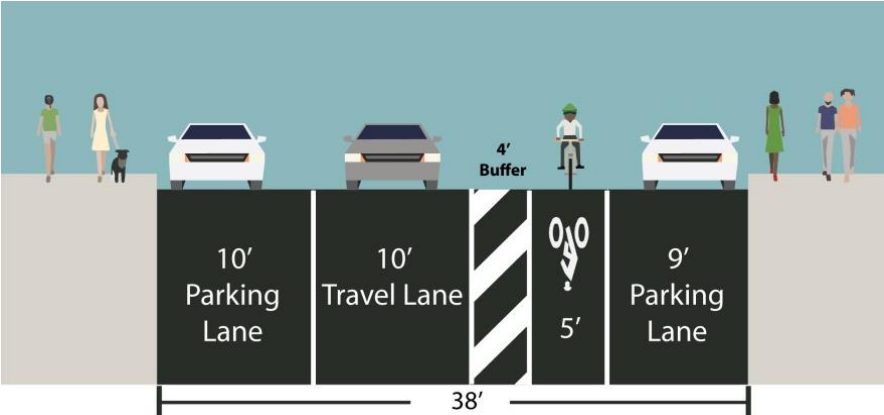
- Organize roadway, calm traffic
- Provide dedicated space for cyclists
- No impact on capacity or parking

Leonard St to Bushwick Ave

## EXISTING CONDITIONS



## PROPOSED IMPROVEMENTS





2

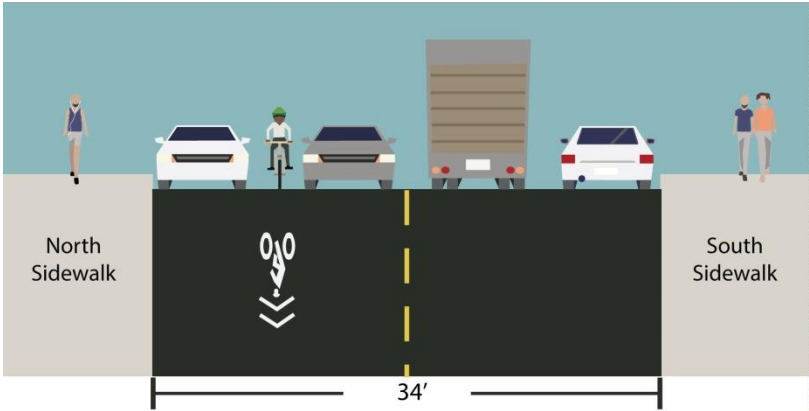
Westbound Bike Lane on  
Meserole St and S 4<sup>th</sup> St

- Shared lanes and bike lanes create from East Williamsburg and Bushwick to bridge
- Organize roadway, calm traffic
  - Provide dedicated space for cyclists where feasible
  - No impact on capacity or parking

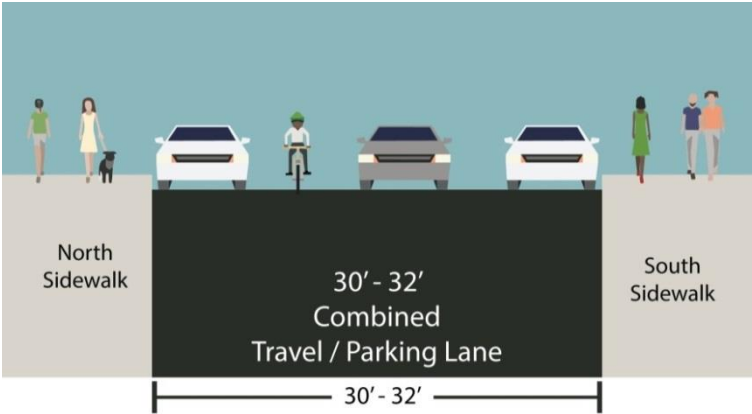
Morgan Ave to Bushwick PI  
**EXISTING CONDITIONS**



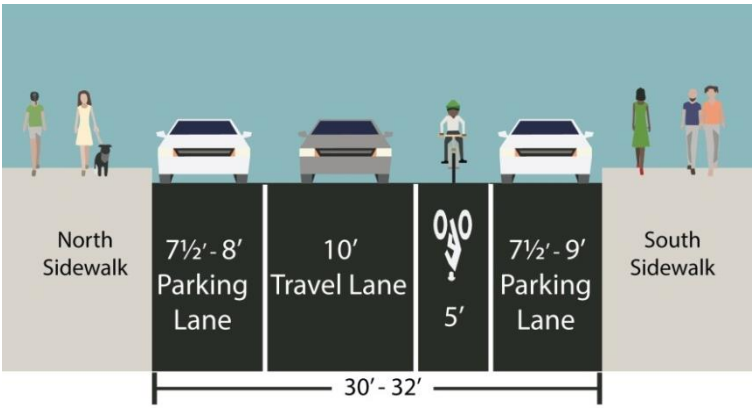
**PROPOSED IMPROVEMENTS**



Bushwick PI to Borinquen PI  
**EXISTING CONDITIONS**



**PROPOSED IMPROVEMENTS**



## 2

### Westbound Bike Lane on S 4<sup>th</sup> St

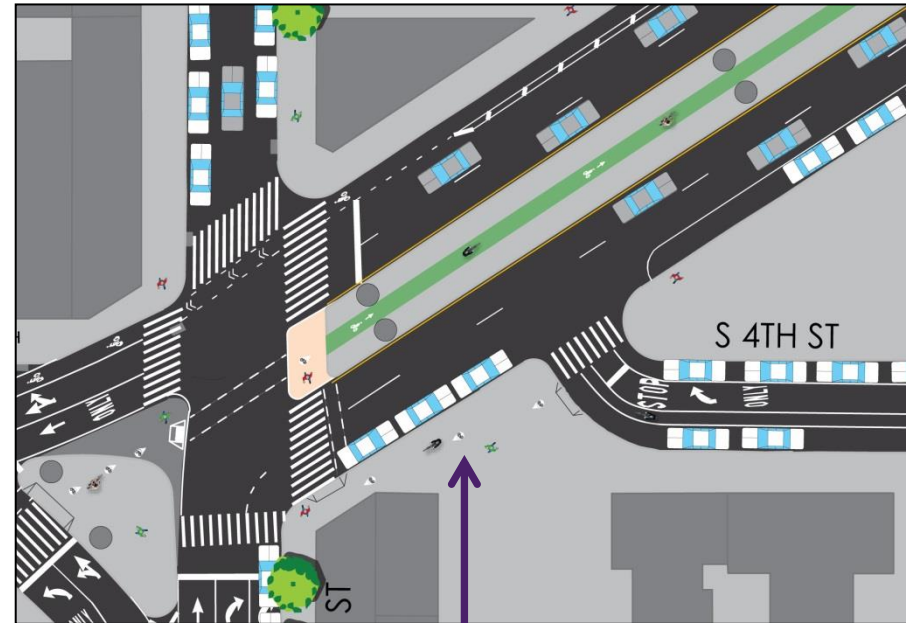
#### EXISTING CONDITIONS



#### Connection to Borinquen PI

- Use wide sidewalk on south side of Borinquen PI to access signalized intersection and cross to westbound bike lane
- Discourages contraflow riding
- Requires the removal of 1 parking space

#### PROPOSED IMPROVEMENTS



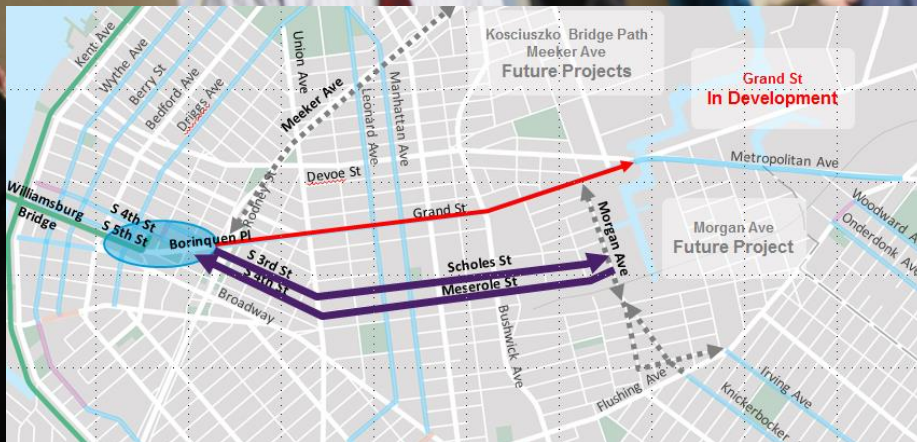
Bike Stamps



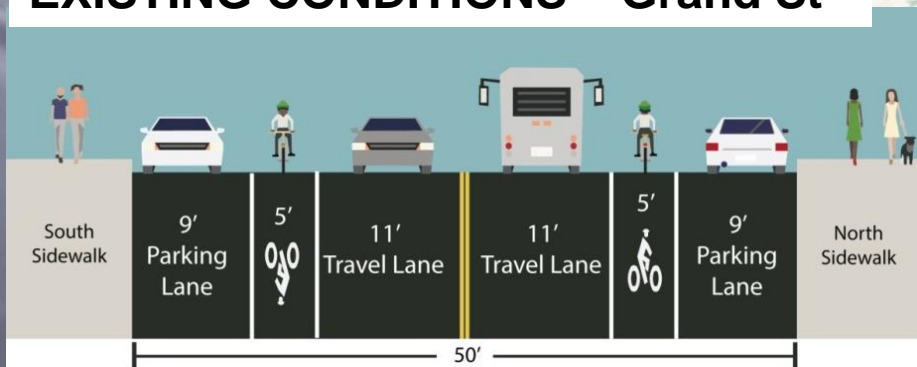
# L Train Shutdown

## Grand Street

- A plan will be submitted this year once input from workshops is synthesized
- Will be part of a larger roll out of L train mitigation



## EXISTING CONDITIONS – Grand St



---

## Summary

# 4

## BENEFITS OF DESIGN ELEMENTS

### Roadway markings

#### Vehicles

- Organize the roadway
- Improves safety
- Improve alignment, and visibility
- Establish standard width; discourage speeding

#### Cyclists

- Dedicated space for cyclists
- Increase predictability of cyclists location
- Direct connections to existing network
- Provide wayfinding

#### Refuge islands, painted neck downs, and high visibility crosswalks

- Creates shorter, safer pedestrian crossings
- Creates new pedestrian crossings
- Improves alignment at intersections
- Discourage drivers from encroaching into crosswalk



Organized  
roadway

Dedicated  
space for  
cyclists

Shorter, safer  
pedestrian  
crossings



---

# Questions?

# THANK YOU!



NYC DOT



NYC DOT



nyc\_dot



NYC DOT