



# 4TH AVENUE, BROOKLYN

Project Update

May, 2017



# PRESENTATION OVERVIEW

## 1. Background

*Where we are in the process*

## 2. Proposed Modifications

*Potential for change*

## 3. Discussion

*Table activities, report back to group*



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Background

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## 4<sup>th</sup> Avenue Street Improvement Project (Designed 2011, Installed 2012-13)

### Improvements:

- Road diet (travel lanes removed)
- High visibility crosswalks
- Left-turn bans
- Painted median tips

### Safety data:

#### 15<sup>th</sup> - 65<sup>th</sup> St (2012)

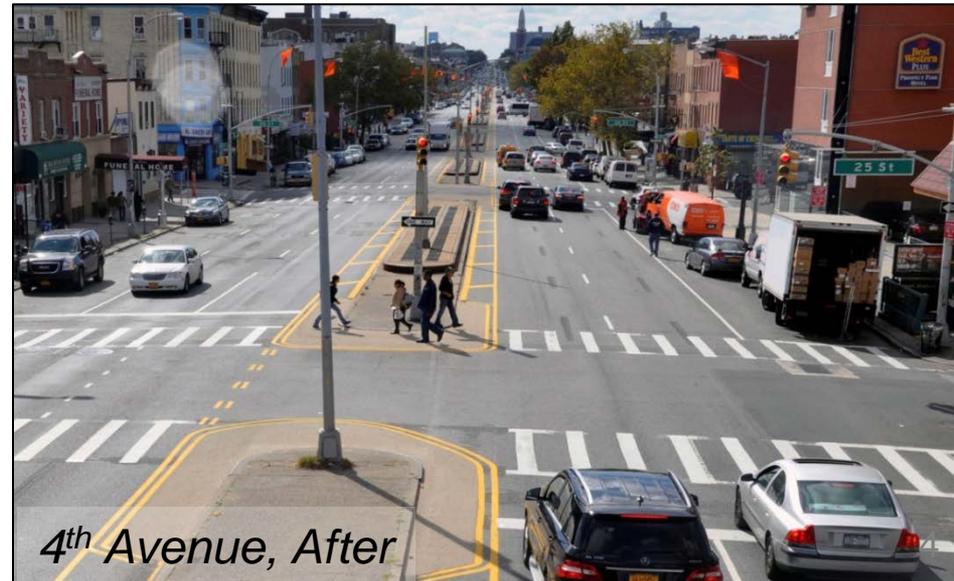
3 years after data

- Crashes with injuries decreased **19%**
- Pedestrian injuries decreased **34%**
- Cyclist injuries decreased **41%**

#### Atlantic Ave - 15<sup>th</sup> St (2013)

2 years after data

- Crashes with injuries decreased **30%**
- Pedestrian injuries decreased **68%**
- Total injuries decreased **31%**



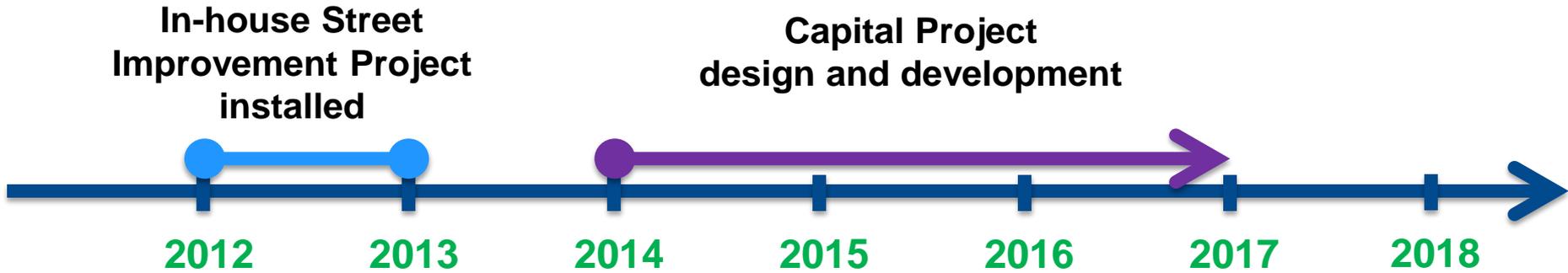
## 2012-2013 Street Improvement Project

Traffic calming and pedestrian safety improvements transform 4<sup>th</sup> Ave from a highway-like street to a vibrant neighborhood corridor



# 4<sup>th</sup> Avenue Capital Project

## Timeline



***What's a Capital Project?***

- Major street reconstruction
- Long-term, permanent changes
- Detailed design process
- Multi-million dollar budgets
- Coordination with outside agencies (MTA, DEP, Parks)

# 4<sup>th</sup> Avenue Capital Project (previously proposed)



## Original Capital Project Scope of Work

- Raised medians
- Landscaping: planted median
- Public art
- Benches
- Wayfinding signage



*Final design currently in process but has capacity for change.*

**Proposal did not include bicycle facilities, based on 2011 conditions**



**Elected Officials and Community have asked DOT to consider additional complete streets elements in light of changing context**

**2014: Protected Bike Lane Study:**

**Safety gains for all road users**

- All injuries down **20%**
- Pedestrian injuries down **22%**
- Motor vehicle occupant injuries down **25%**

**2010-2015: New Yorkers riding bikes**

- Daily cycling up **80%**
- Brooklyn bike commutes to work up **83%**
- Daily cycling trips up to 450,000

**2016: Bike Share expansion**

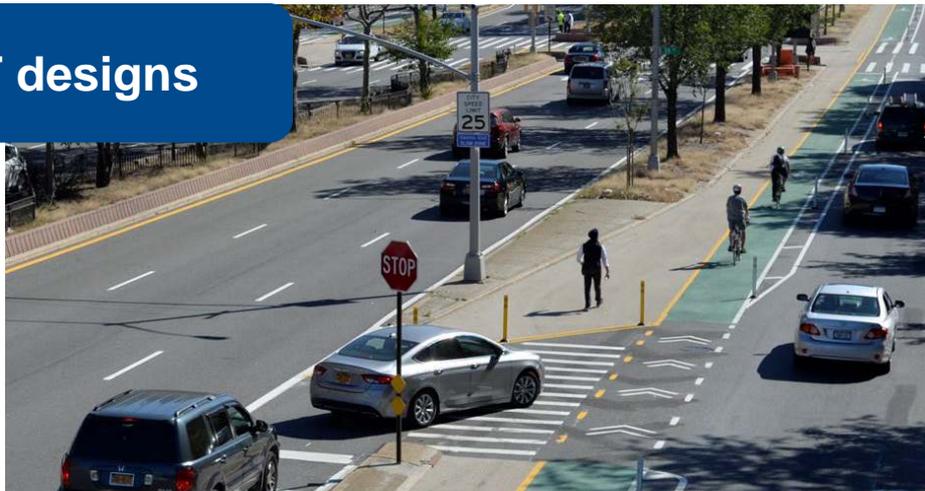
- Brooklyn CB 6 installed fall 2016
- Potential future expansion to Sunset Park

**2016: Availability of new designs**

- Protected bike lanes on two-way streets
- New intersection treatments
  - Calmed crossings
  - Signal treatments



# Progress of DOT designs



Queens Boulevard

Queens, 2015



Amsterdam Avenue

Manhattan, 2015



Jay Street

Brooklyn, 2016

# Background

## 3<sup>rd</sup> Ave

- 6 vehicular lanes
- 2 parking lanes
- No bike lanes



## 5<sup>th</sup> Ave

- 2 vehicular lanes
- 2 parking lanes
- No bike lanes south of 23<sup>rd</sup> Street

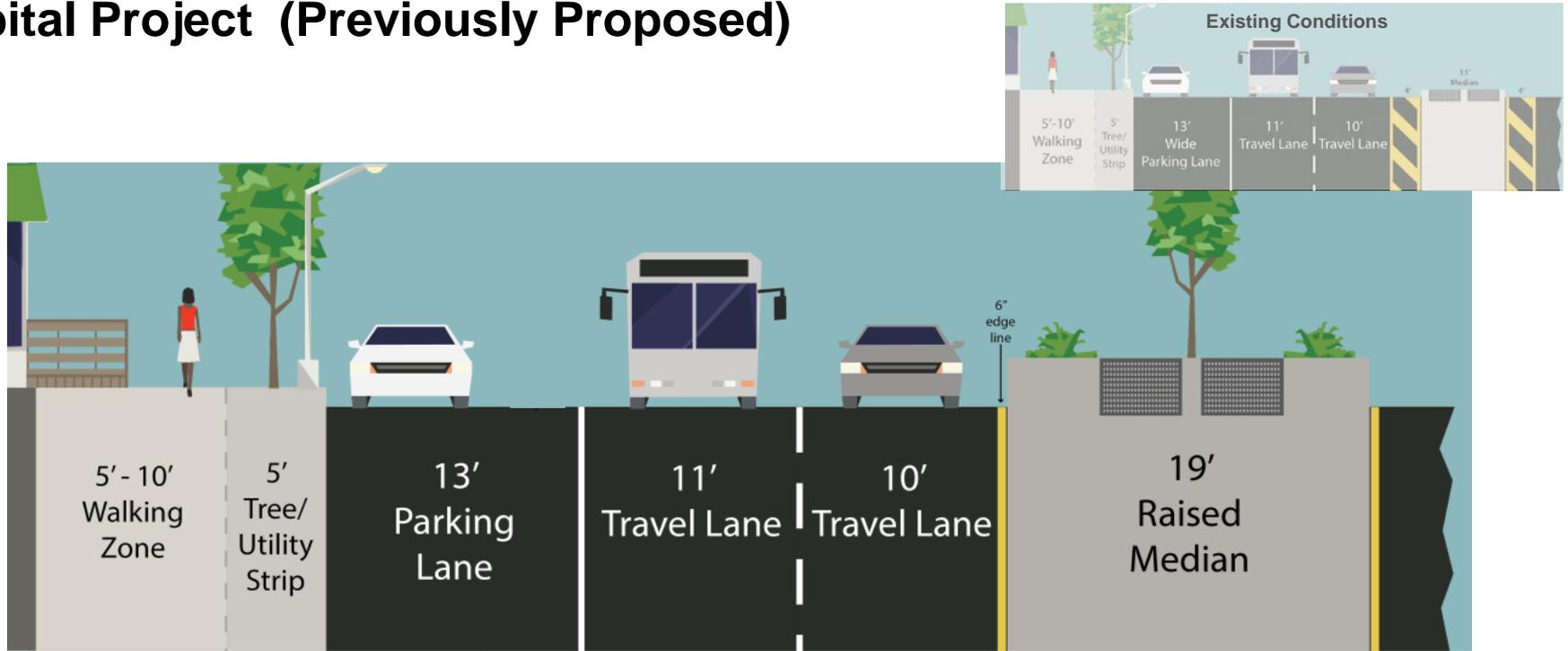


## 4<sup>th</sup> Ave

- 4 travel lanes + left-turn bays
- 2 wide parking lanes
- No bike lanes
- Shopping and transit



# Capital Project (Previously Proposed)



## Bicycling

No designated bicycle facility  
*(no change)*

## Ped Crossings

**ADD** pedestrian refuges in medians

## Parking

Wide parking lane  
*(no change)*

## Traffic/Loading

**MODIFY** Build out channelization

## Landscaping

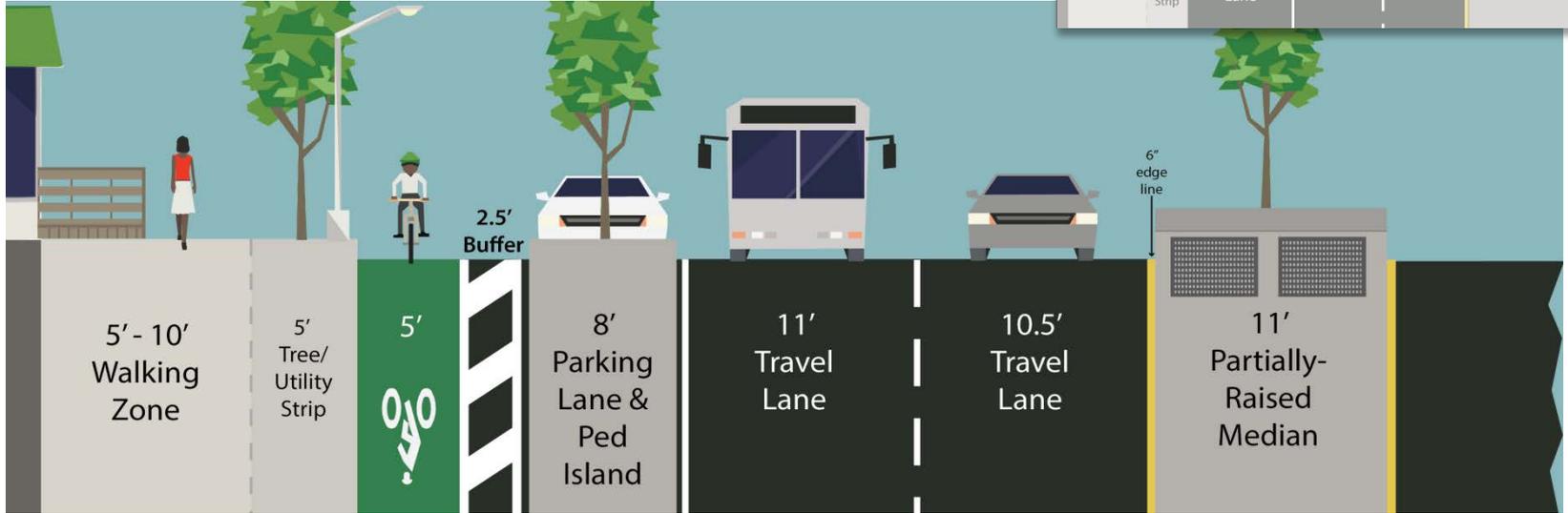
**ADD** trees and plantings to median

# Capital Project (Previously Proposed)



**EXAMPLE: West Houston St**  
Manhattan

# Capital Project - Potential Improvements



## Pedestrians

**ADD**  
pedestrian  
refuge  
islands with  
landscaping

## Bicycling

**ADD**  
protected  
bicycle  
lane

## Parking

**REMOVE**  
some  
parking for  
islands and  
loading  
zones

## Traffic/Loading

**REMOVE**  
wide parking  
lane, lost  
width may  
impact  
traffic

## Landscaping

**REMOVE**  
plantings from  
median

**ADD**  
landscaping on  
islands

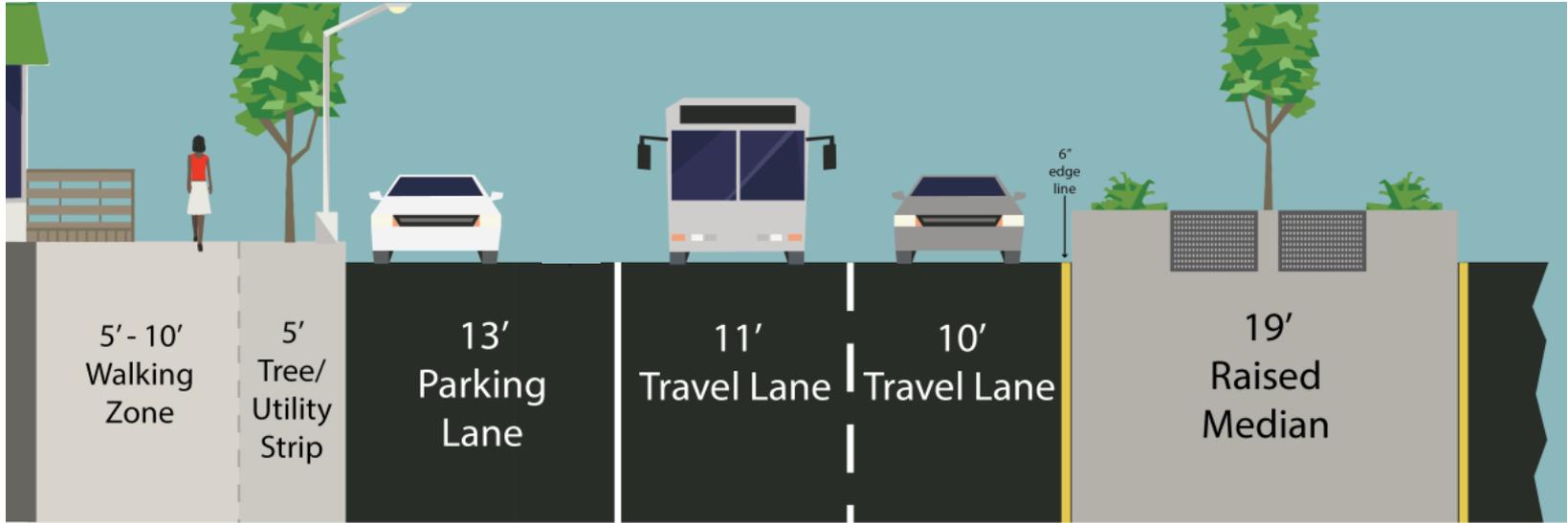
# Capital Project - Potential Improvements



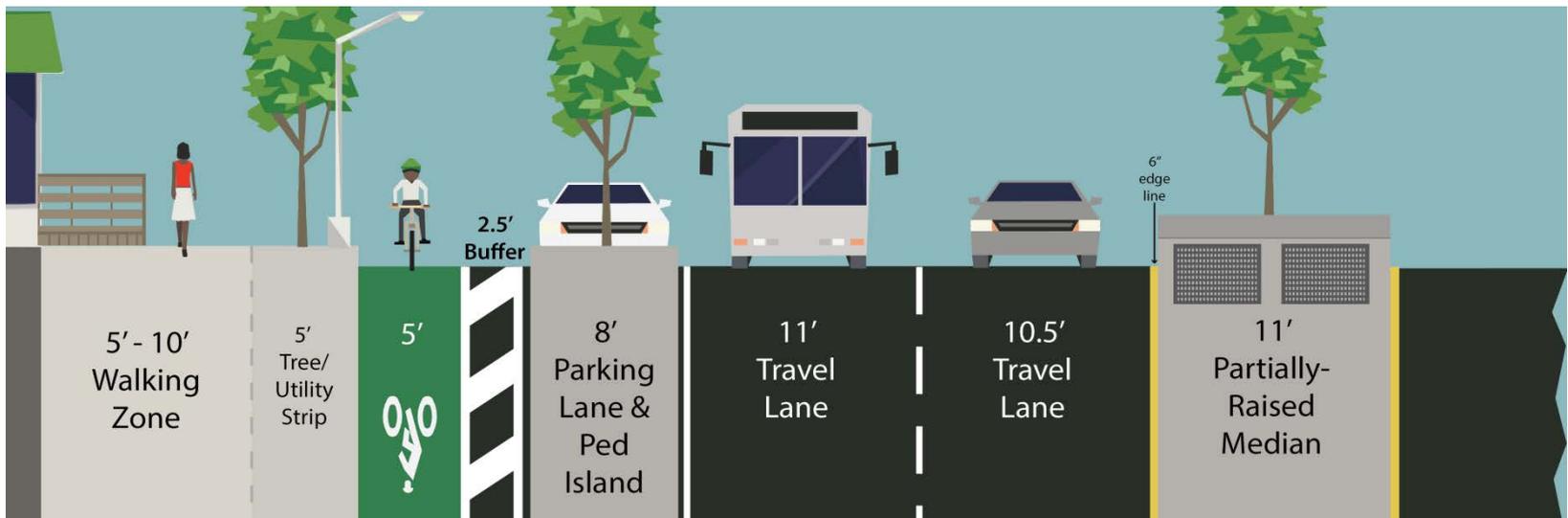
**EXAMPLE: Amsterdam Ave**  
Manhattan

# Capital Project - Potential Improvements

## Existing Capital Plan

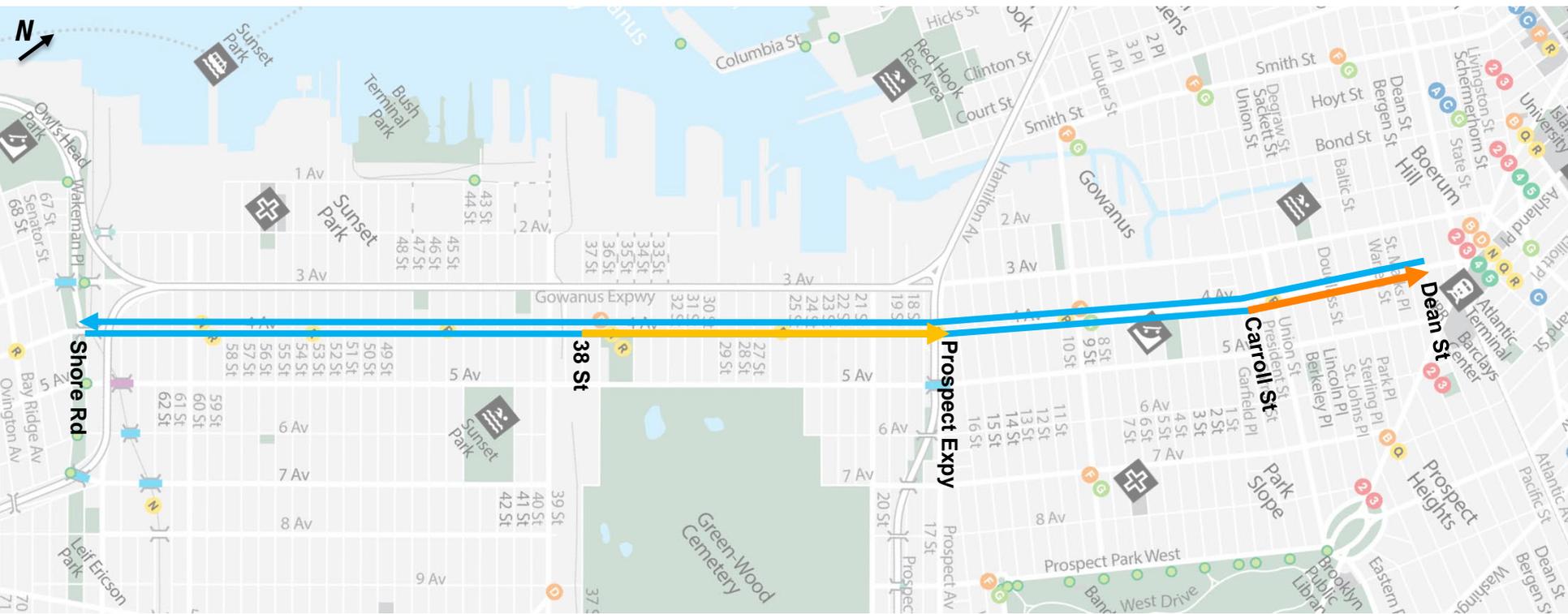


## Proposed Changes to Capital Plan



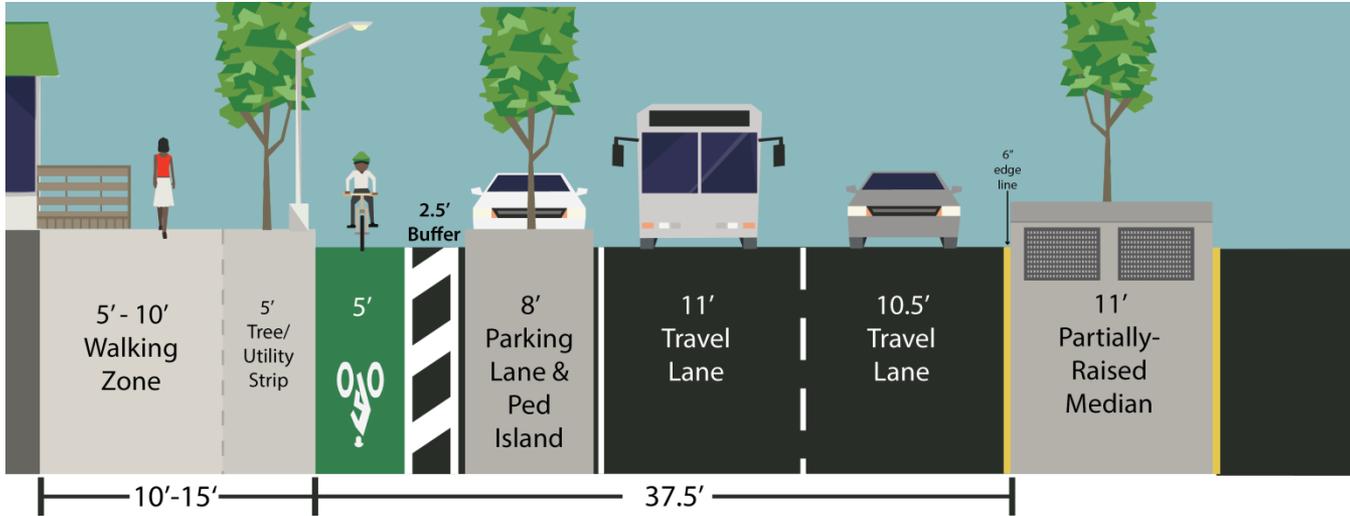
# Capital Project - Potential Improvements

-  Parking-protected bicycle lane
-  AM rush-hour curbside bicycle lane / Parking-protected bicycle lane
-  No bicycle facility (3 NB travel lanes)

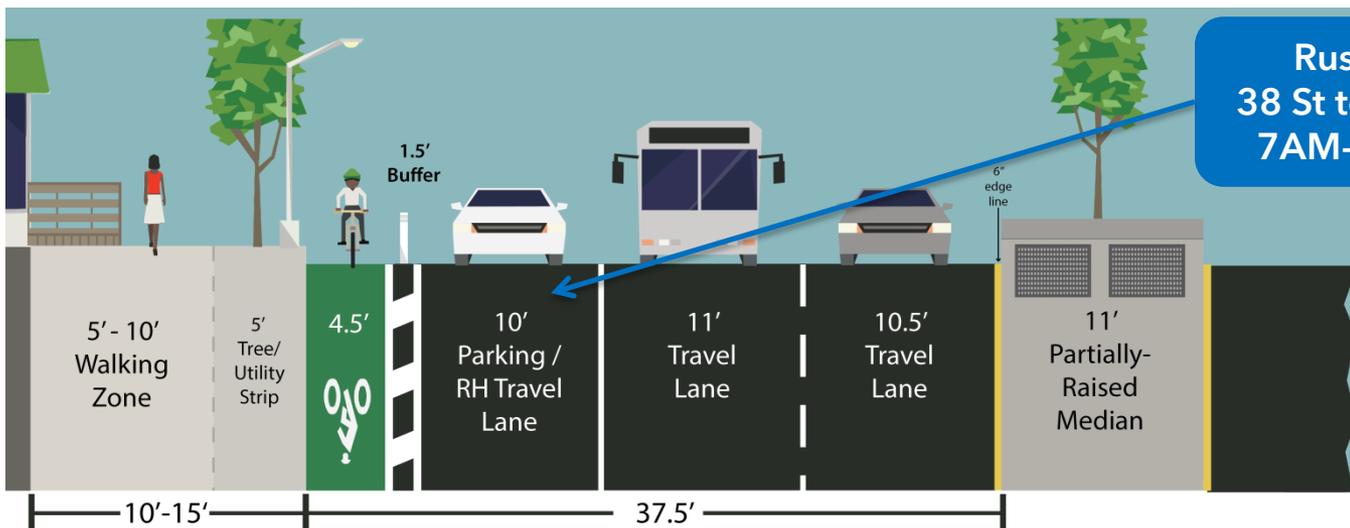


# CROSS SECTIONS – RUSH HOUR

## Proposed Design – Typical section



## Proposed Design – Northbound AM Rush Hour Section



## OVERVIEW

### New Elements of Design

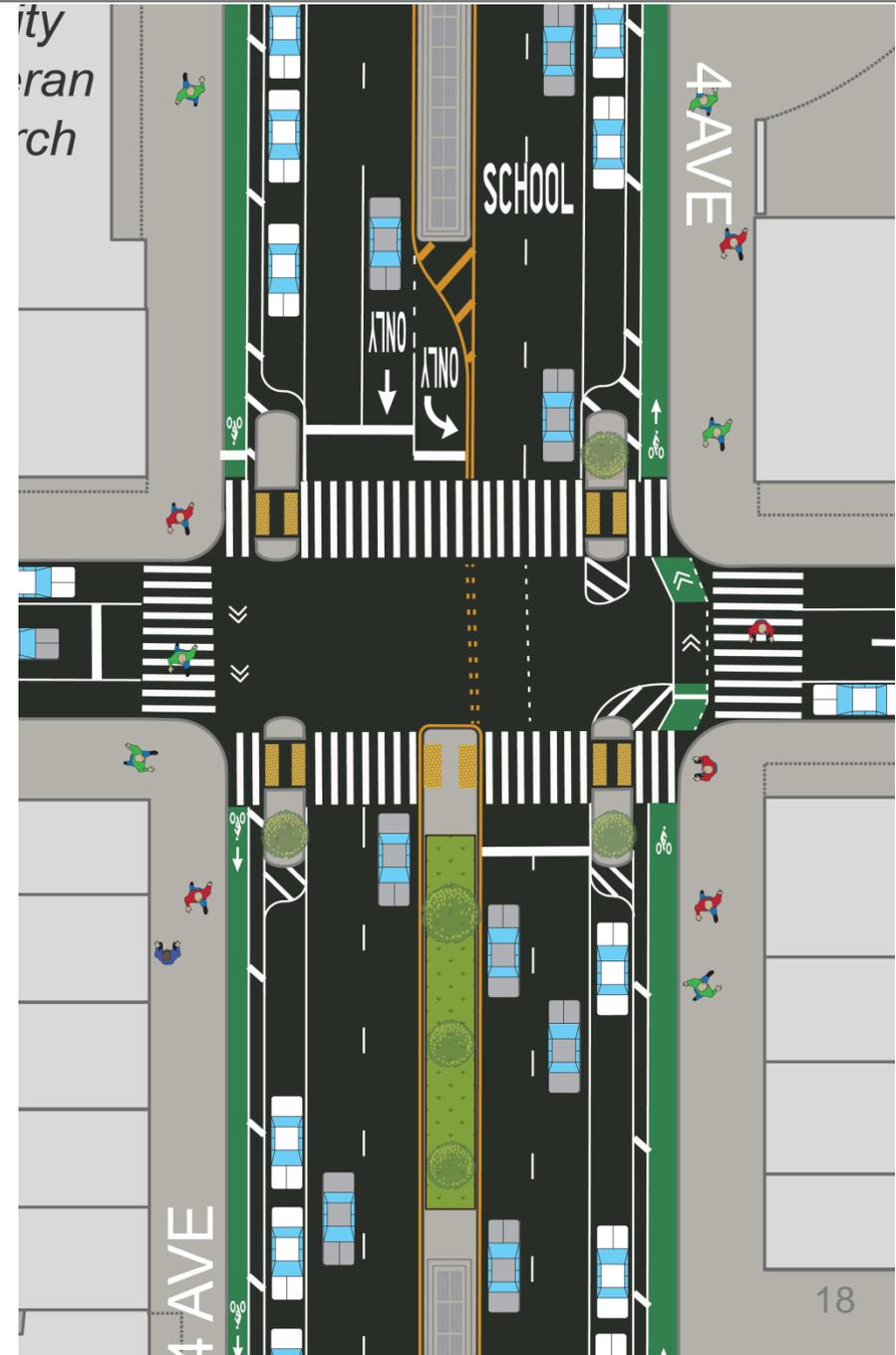
- Protected bike lanes with pedestrian refuge islands

### Modified Elements of Design

- Medians
- Landscaping
- Parking/Loading
- Pedestrian crossings
- Traffic Impacts

### Unchanged Elements of Design

- Rush-hour lane (38<sup>th</sup> St to Prospect Av)
- Public Art, Wayfinding, CityBenches
- Majority of 2011 safety elements:
  - Left-turn bans
  - High-visibility crosswalks
  - Reduced pedestrian crossing distances
  - Road diet



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## **DISCUSSION**

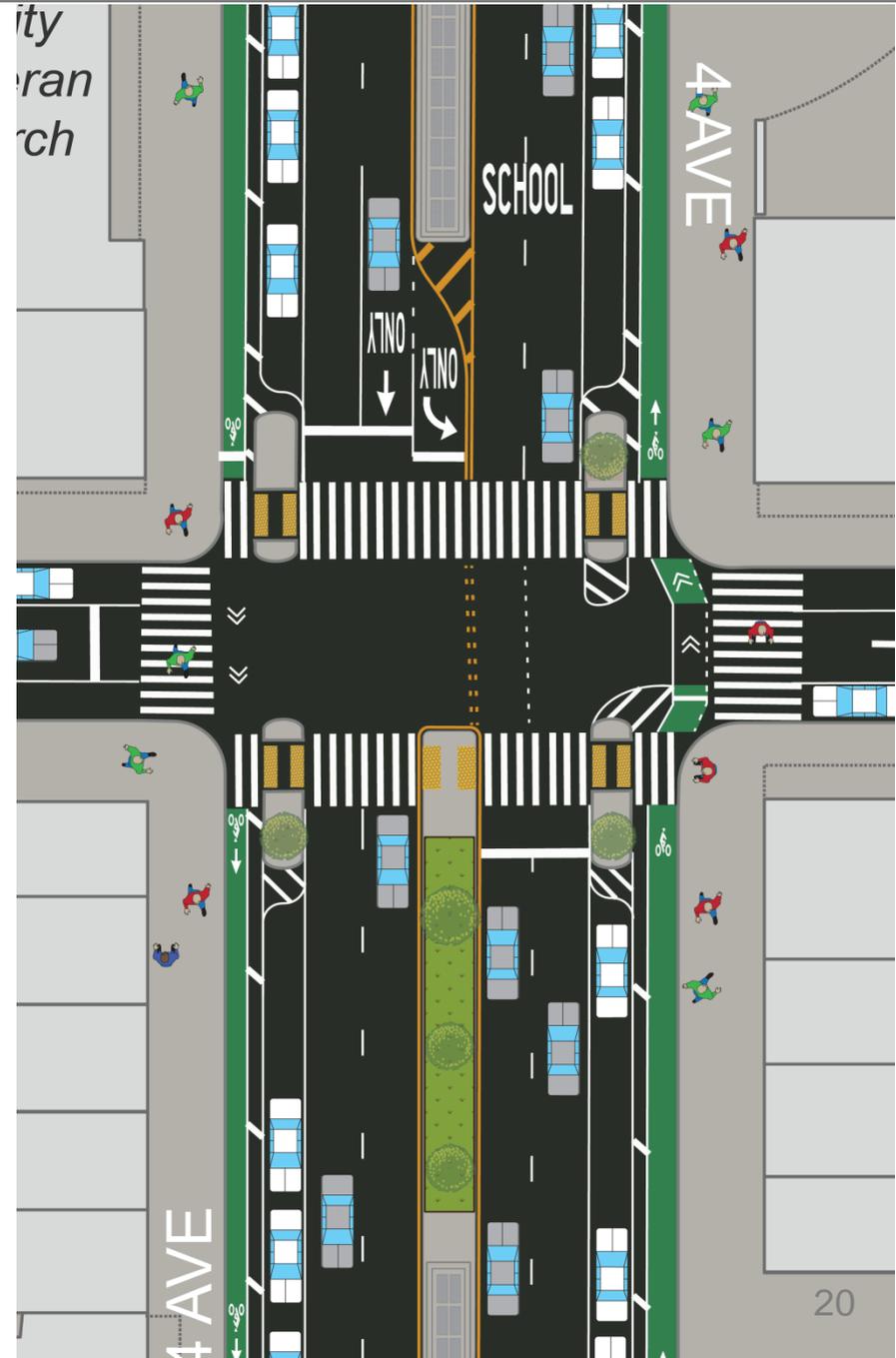
Complete Streets Design

*New and Modified Elements*

# 2

## DISCUSSION TOPICS

1. Pedestrian Crossings
2. Bicycling
3. Vehicles/Parking/Loading
4. Landscaping/Street Furniture/ Art



## PEDESTRIAN ENVIRONMENT

### Fewer median pedestrian refuges

- Shift median refuge islands at left turn bays to curbside pedestrian islands (~1/3 of existing median refuges)

### New pedestrian refuges would provide even more pedestrian space.

- Narrower roadway, but less space in middle of the roadway
- Pedestrian crossing distance would be shorter, but same amount of time to cross
- Islands provide landscaping opportunity



Columbus Ave  
Planted Island  
Manhattan, 2014

## BICYCLING

### Add protected bicycle lane

- Connects Park slope, Sunset Park, and Bay Ridge
- Low-stress connections to 4.5+ miles of protected lanes between jobs, schools, subway and shopping
- 8 lane-miles added to bike network

### Improve safety for people on foot, in cars, and on bikes

- Narrow roadway provides less opportunity for speeding vehicles
- Removes cyclists from traffic, discourages sidewalk riding



**Kent Ave**

**Parking Protected Bicycle Lanes**

**Brooklyn, 2009**

## VEHICLES

### Maintains road diet, removes wide parking lanes

- Two through lanes + left-turn bays (existing condition)
- Narrowed lane width may slow speeds due to illegal parking

### 4<sup>th</sup> Ave functions as a neighborhood street

- Other major streets appropriately handle majority of through-traffic
  - Gowanus Expwy
  - 3<sup>rd</sup> Ave



4<sup>th</sup> Ave at 23<sup>rd</sup> St

In-house improvements

Brooklyn, 2012

## PARKING/LOADING

### Parking loss

- Remove less than one space per refuge islands (<4 per intersection)

### Loading zones

- DOT will study loading needs to modify or expand loading zones



Broadway

Pedestrian Refuge and Loading Zone

Manhattan, 2009

# LANDSCAPING

## Narrower median, fewer plants

- Less space for understory plantings and trees in the median
- No space for plantings next to subway vents

## New refuge islands, more plants

- Landscaping removed from median may be replaced in new islands



9th Ave

Planted Island  
Manhattan



2' of landscaping adjacent to grates removed from plan

Landscaping narrowed by 4'

4th Ave

Planted Median  
Rendering: To be modified in new design

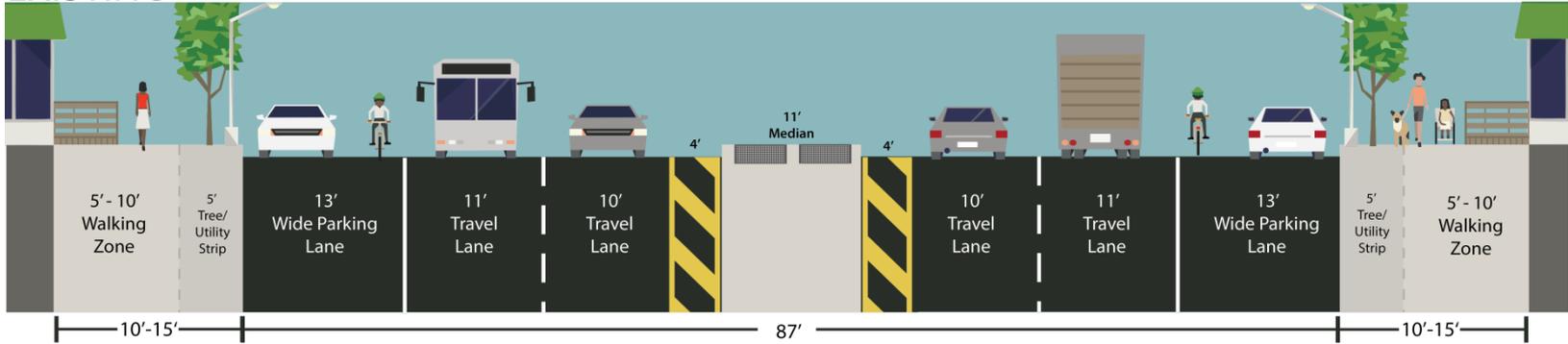
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# Summary

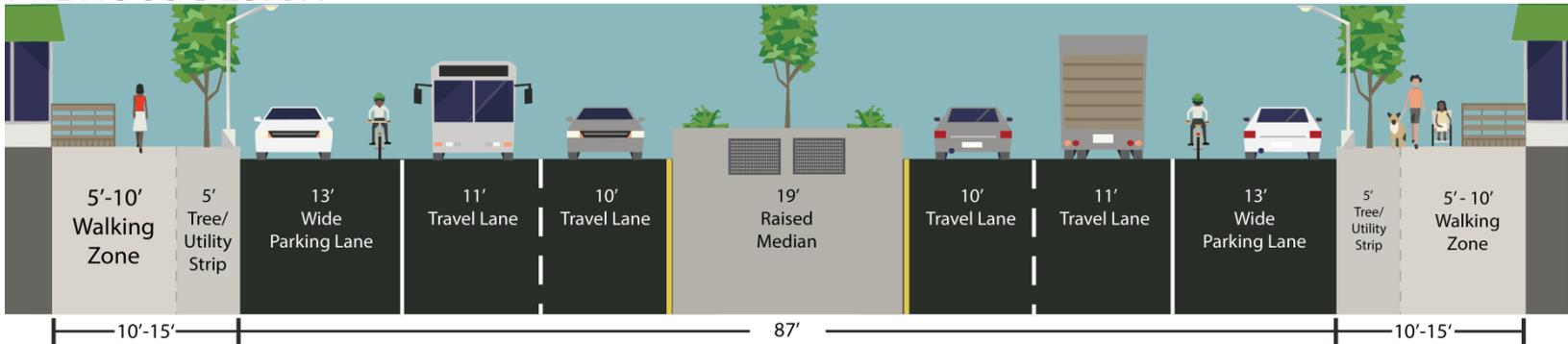
# 3

# CROSS SECTIONS

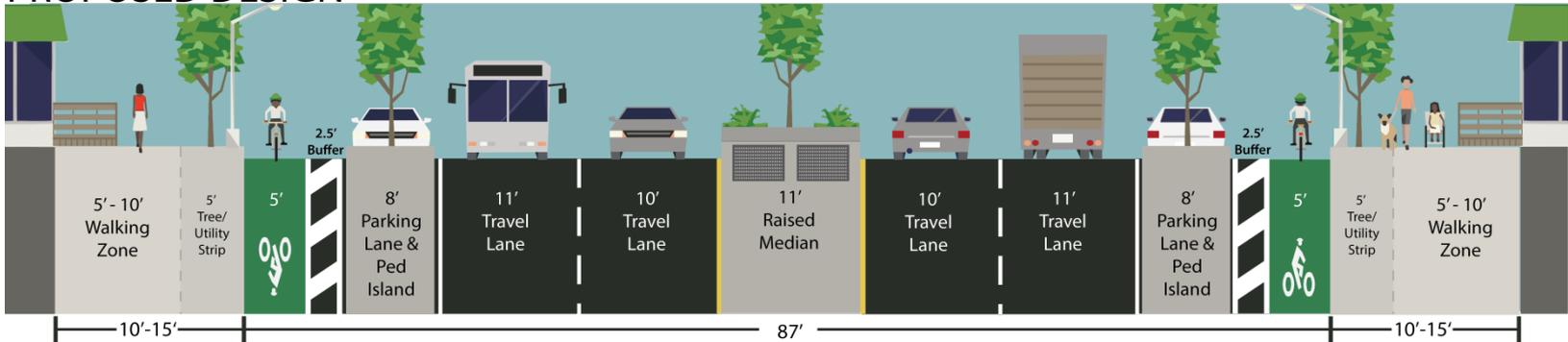
## EXISTING



## PREVIOUS DESIGN



## PROPOSED DESIGN





Questions?

**THANK YOU!**

