



CRESCENT ST PROTECTED BIKE LANES

Presented to Queens Community Board 1 – June 2020



PRESENTATION OVERVIEW

1. Background
2. Proposal
3. Making it Work
4. Summary



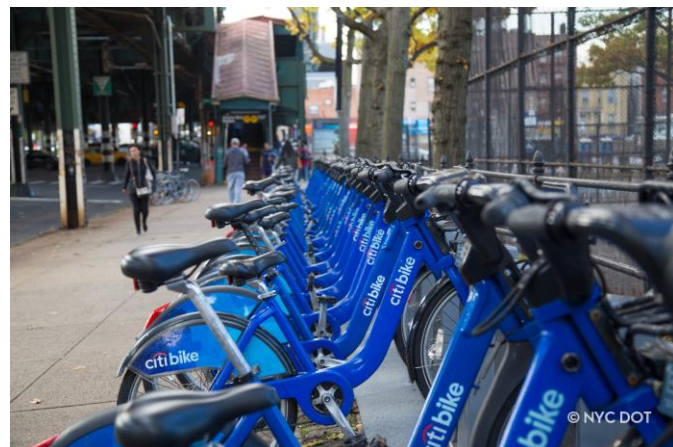
Background

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INTEREST IN IMPROVED BIKE ACCESS IN ASTORIA

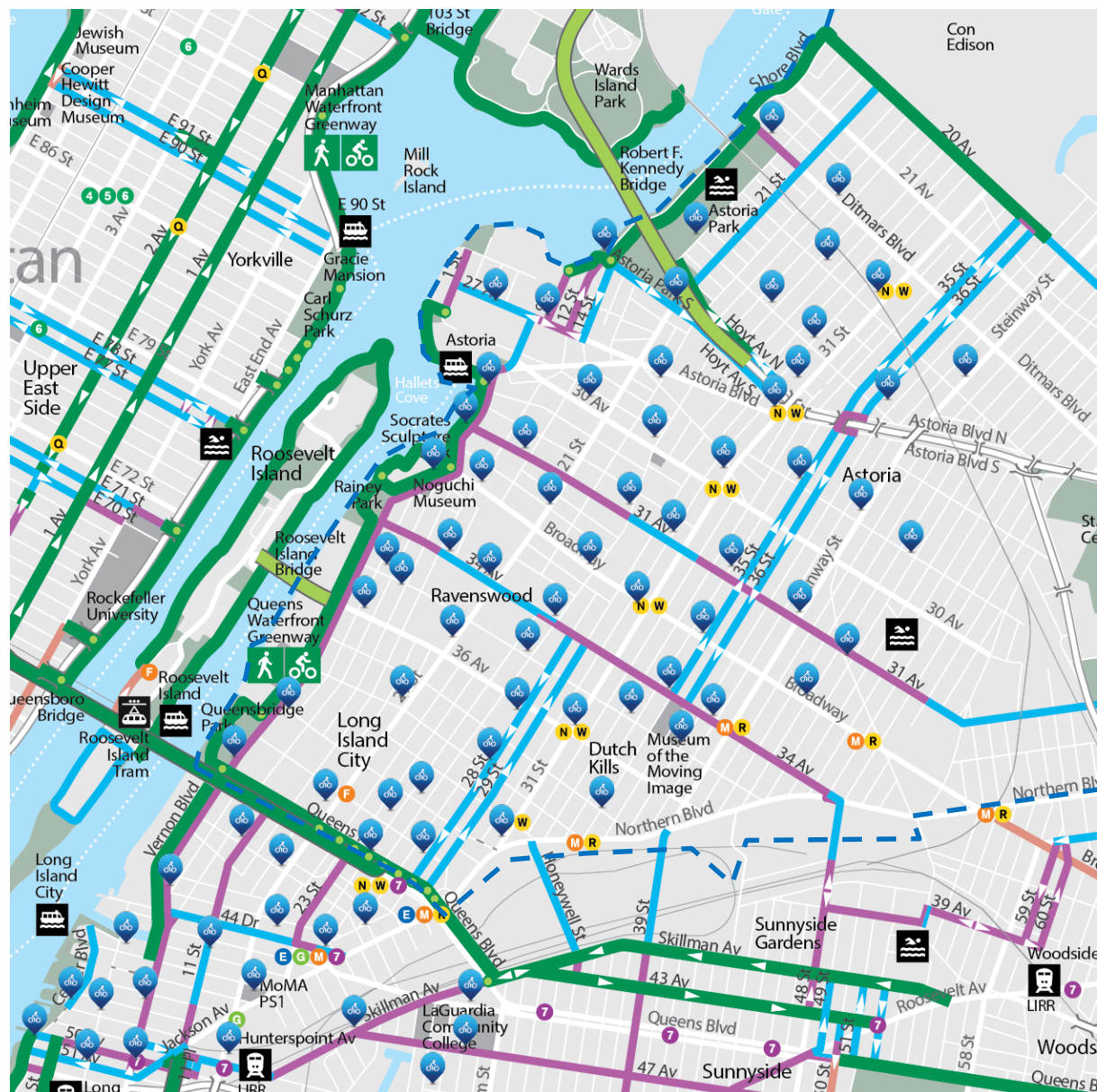
Citi Bike Expanded to Astoria Fall 2017 – 2018

*Future infill expansion to be
planned in CBs 1 & 2*



224,166 Citi Bike trip starts & ends
occurred in Community District 1
in its first summer
(July, Aug, Sept 2018)

**NYCHA residents 16 and older qualify
for a discounted annual membership of
\$5/month**



Green Wave A Plan for Cycling in New York City



Analysis of fatalities – key findings (2014 - 2019):

- Nearly **90% of fatalities** happened on streets **without bike lanes**
- **60% of fatalities happened at intersections**
 - 23% involved a vehicle turn
 - 16% involved a driver's failure to yield the right of way

Green Wave Plan:

Citywide Protected Bike Lane Network:

- Build **30 miles of protected bicycle lane** annually
- Build **75 miles of bicycle infrastructure** in **10 Bicycle Priority Districts** (7 in Brooklyn, 3 in Queens) by 2022

Better Design:

- Implement **new design standards** based on national & international best practice **to enhance safety at intersections**
- Continue piloting new designs with rigorous safety analysis

Education and Outreach:

- Launch next phase of **Vision Zero public awareness campaign**, **educating drivers with a focus on cyclist safety** and expand the "Get There" bicycle encouragement/rules of road campaign.
- Educate all street users about safe truck operation on city streets
- **Increase helmet giveaways and helmet use encouragement**

NYPD Enforcement

- **Target enforcement on highest risk activities:** speeding, failing to yield, blocking bike lanes, oversized trucks/trucks off route

Safety – Complete Street Redesign

Street designs that include protected bike lanes increase safety for all users

-15% drop in all crashes with injuries

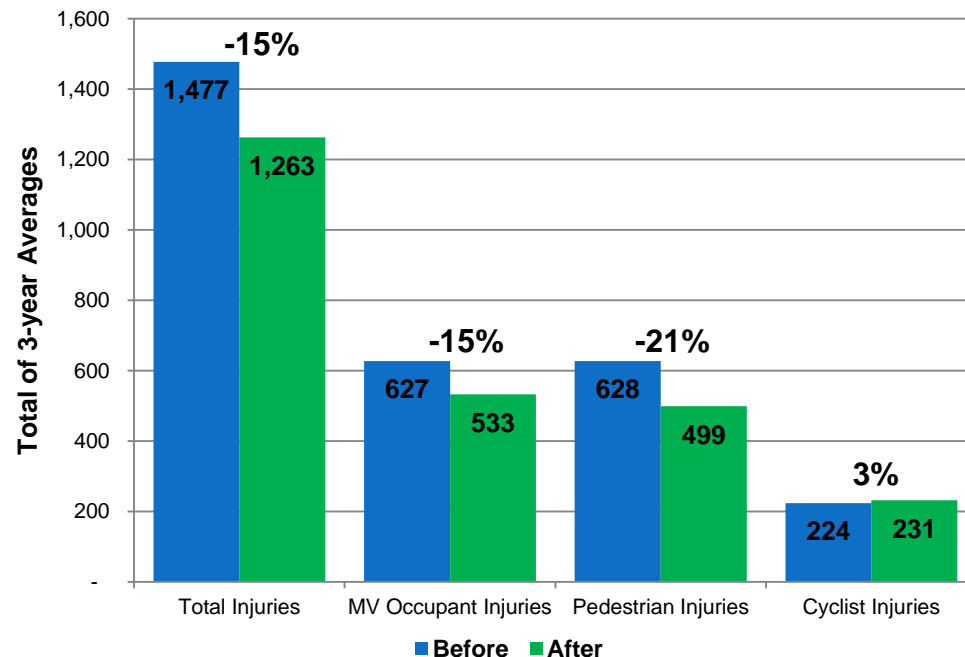
-21% drop in pedestrian injuries

on streets where protected bike lanes were installed 2007-2017

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

Protected Bike Lanes

Before and After Crash Data, 2007 - 2017

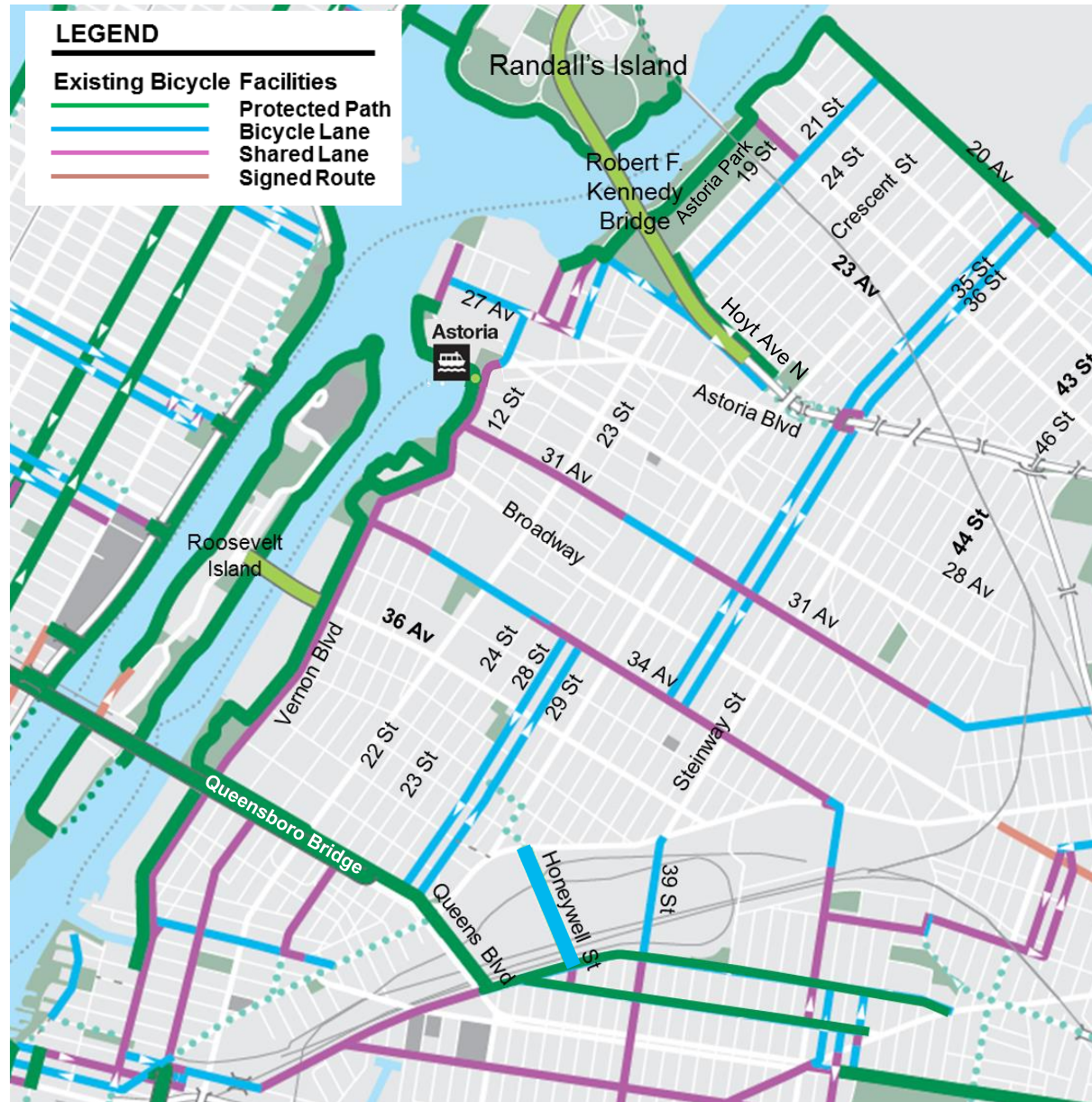


Data from 25 separate protected bicycle lane projects installed from 2007-2014 with 3 years of after data. Includes portions of 1 Ave, 2 Ave, 8 Ave, 9 Ave, Broadway, Columbus Ave, Hudson St, Lafayette St / 4 Ave, Sands St, Allen/Pike St, Kent Ave, Prospect Park West, Flushing Ave, Bruckner Blvd & Longfellow Ave, Imlay St / Conover St, Paerdegat Ave. Only sections of projects that included protected bike lanes were analyzed. Source: NYPD AIS/TAMS Crash Database

ROUTE SELECTION

Existing Bike Network

- Waterfront routes (protected lanes on 20th Ave, Hoyt Ave N, Shore Blvd)
- Connections to parks
- Difficult to access some destinations (Central Astoria, new protected lanes, transit connections)
- Street network challenging to navigate
- Public and elected official requests to expand network and create bridge-to-bridge protected bike route on Crescent Street



COMMUNITY ENGAGEMENT & OUTREACH

Bike Network Expansion Discussion

- **Pre-Meeting** with Community Board Leadership, Elected Official Reps 2/4/2020
- **Public Workshop** Astoria Bike Network and Protected Lanes 2/11/2020



Astoria Network Workshop, Feb 11

FEEDBACK FROM COMMUNITY ENGAGEMENT & OUTREACH

What We Heard

- **Public Workshop** – *120+ attendees, 77% were residents of Community District 1*
 - Overwhelming support for “bridge to bridge” protected path on Crescent St
 - Preference for protected bike lanes over conventional lanes where feasible
 - Participants identified the need for future east-west lanes in addition to north-south routes
 - Desire for improved intersection designs for better visibility between drivers, pedestrians, & cyclists
- **Elected Officials**
 - CM Constantinides, CM Van Bramer support a Crescent St path to link RFK and Queensboro Bridges
- **Mt. Sinai Hospital**
 - Working to improve access with loading zones, parking regs, and appropriate treatments at entrances



PROTECTED BIKE ROUTE SELECTION

North-south Protected Bike Routes Presented at Workshop

- 1 **Crescent St:** two-way protected path
- 2 **31st St:** pedestrian & transit access improvements under the elevated – with protected bicycle lanes in each direction

Crescent St Protected Bike Route

- Simpler, standard design that will be ready to implement on a quicker timeframe
- Less resource-intensive design
- Supported by both Council Members as the preferred route
- Area elected officials support additional protected lanes in Astoria
- Crescent Street has a great deal of public support for protected bike lanes and has been in the public eye for many years
- DOT has received little public opposition to protected bike lanes on Crescent Street



PLANNED ROUTES

Conventional & Shared Bike Lane Network

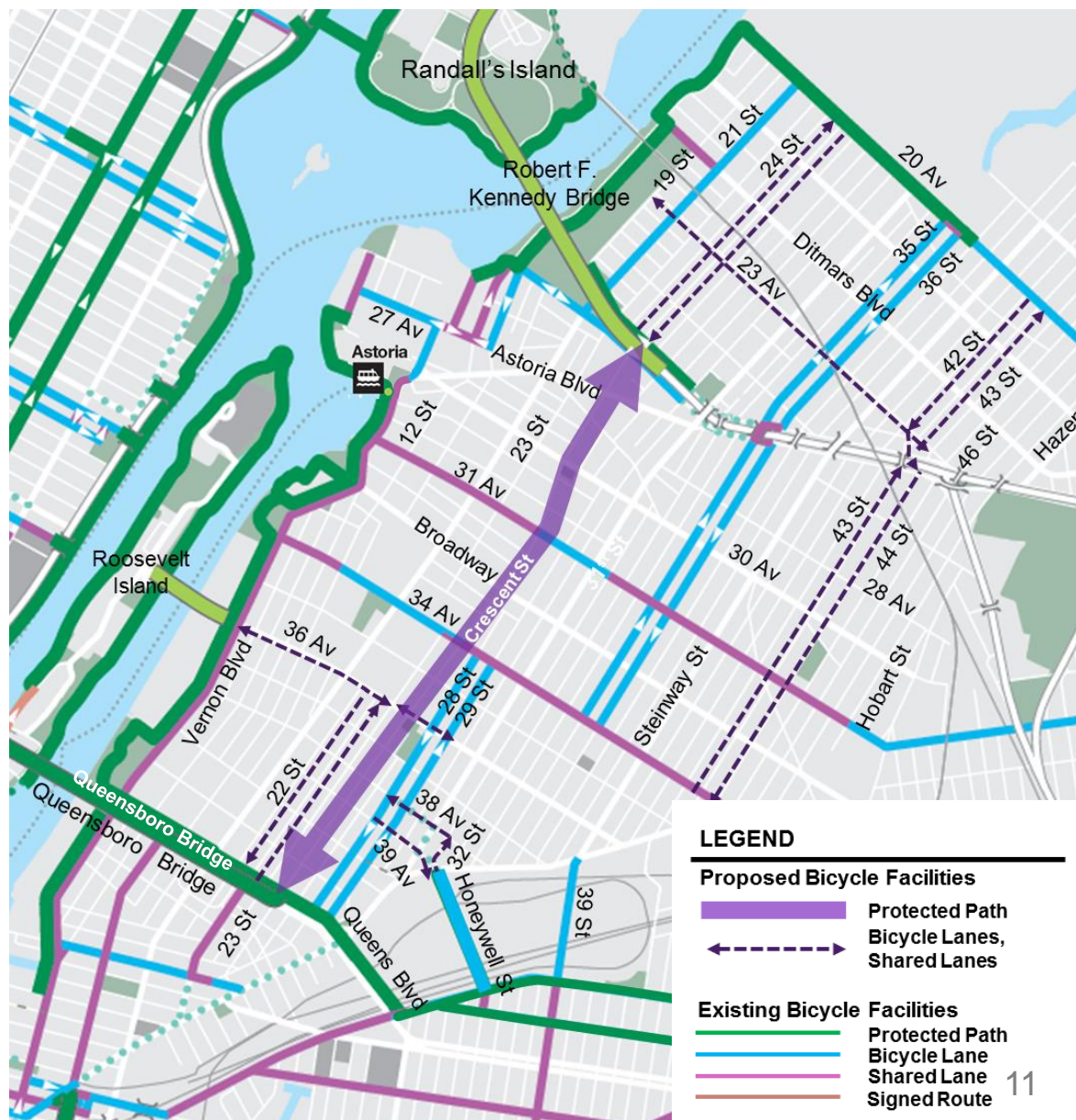
- New connections throughout Astoria

Crescent St Protected Bike Path

- Two-way protected path from RFK Bridge to Queensboro Bridge

Benefits

- Close gaps within bike network
- Network connections provide wayfinding throughout Astoria
- Bridge to Bridge connection –
 - Queensboro Bridge to Manhattan
 - RFK Bridge to Randalls Island, continue to the Bronx



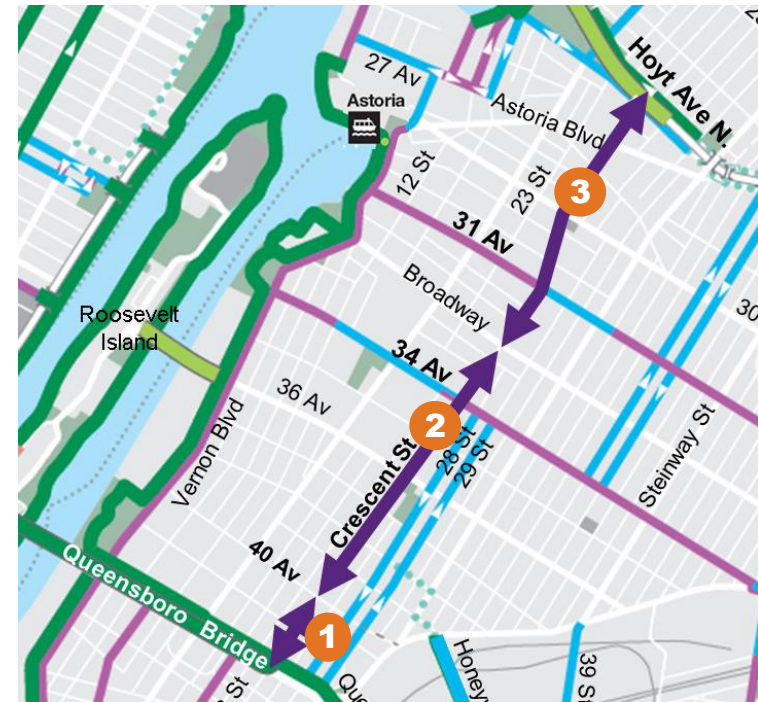
TEMPORARY BICYCLE ROUTE

Citywide Transportation for COVID-19 Recovery

- Transportation plays a critical role during the pandemic, and will continue to be just as essential during social and economic recovery
- Bikes are an important part of a resilient transportation network to help move people and goods while adhering to social distance guidelines
- Quick installation with barrels, cones, signs, and existing markings

To be Installed in Phases:

- 1 Queensboro Bridge (Queens Plaza N.) to 40th Ave
- 2 40th Ave to Broadway
- 3 Broadway to Hoyt Ave N.



Crescent St at 40th Ave



Crescent St at 35th Ave

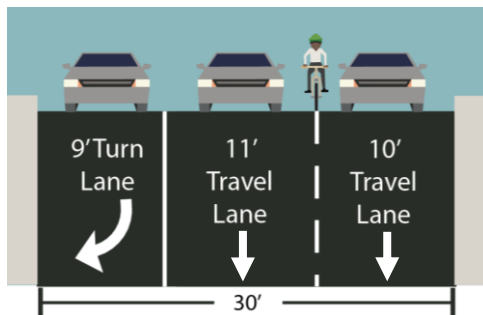


TEMPORARY BICYCLE ROUTE

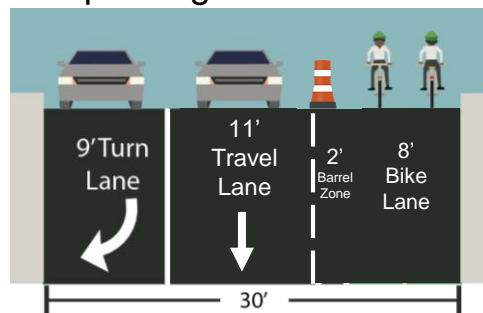
Crescent St Typical Temporary Designs

Queens Plz. N to 41 Ave

Existing

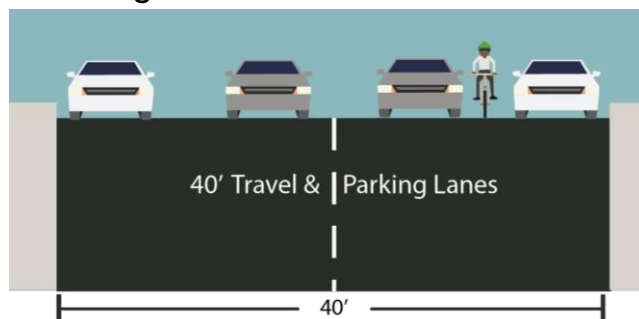


Temp Design

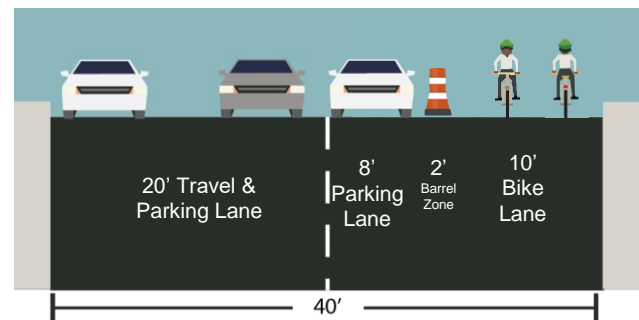


38th Ave to Newtown Ave*

Existing

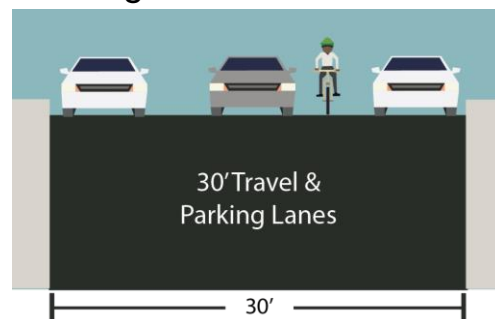


Temp Design

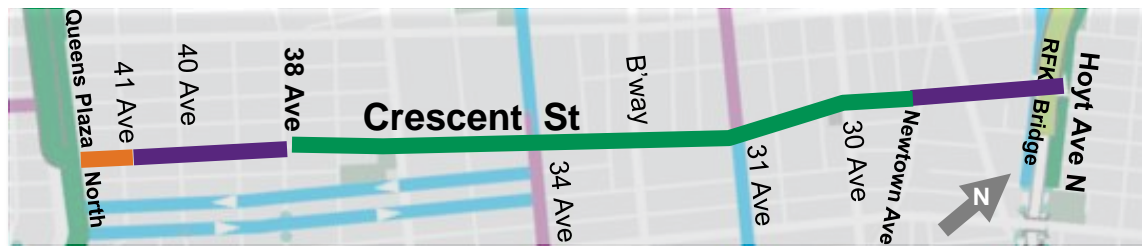
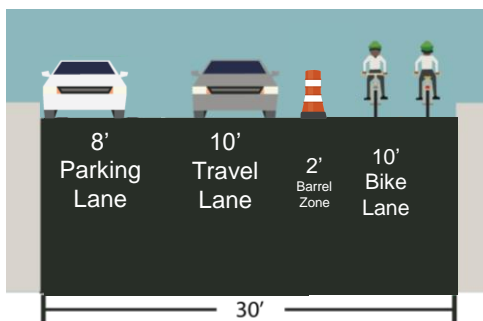


41 Ave to 38 Ave*, Newtown Ave to Hoyt Ave N.

Existing



Temp Design



*Existing conditions differ from 30 Ave – Newtown Ave, 41 Ave – 40 Ave

Crescent St Proposal

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EXISTING CONDITIONS & ISSUES – CRESCENT ST

Commercial, residential, & industrial corridor, actively used by vehicles, pedestrians and cyclists

- No dedicated space for cyclists
- Excess space in the roadway allows for speeding on wide blocks (40')
- Lack of space for vehicles to pass a cyclist on narrow blocks (30')



SAFETY

Crescent St is in a Vision Zero Priority Area

- High crash corridor with 9 persons killed or severely injured in a 5 year period
- Ranking in the top third of Queens corridors

Crescent St (Queens Plaza North to Hoyt Ave North), QN

Injury Summary, 2013 – 2017 (5 years)

	Total Injuries	Severe Injuries	Fatalities	KSI
Pedestrian	45	4	0	4
Bicyclist	16	1	0	1
Motor Vehicle Occupant	180	3	1	4
Total	241	8	1	9

Fatalities, 01/01/2013 – 4/29/2020: 2

Source: Fatalities: NYCDOT, Injuries: NYSDOT. KSI: Persons Killed or Severely Injured

- Street designs that include protected bike lanes increase safety for all users:15% reduction in all crashes with injuries, 21% reduction in pedestrian injuries (Before-after data 2007-2017, Source: NYPD AIS/TAMS Crash Database)



PARKING PROTECTED TWO-WAY BICYCLE LANE

Benefits

Reduces conflicts, increases safety

- **Separates bikes** from moving vehicles
- **Calms traffic** with standard width travel lane
- Increases **predictability** of cyclist location for drivers and pedestrians

Creates new transportation connection

- **Improves access** for bicyclists for transportation and recreation
- Provides **comfortable** space for cyclists of varied ages and experience levels
- Encourages **physical activity** – recreational bike rides, walking, jogging



Prospect Park West, BK



Kent Ave, BK

PROJECT LOCATION

Overview

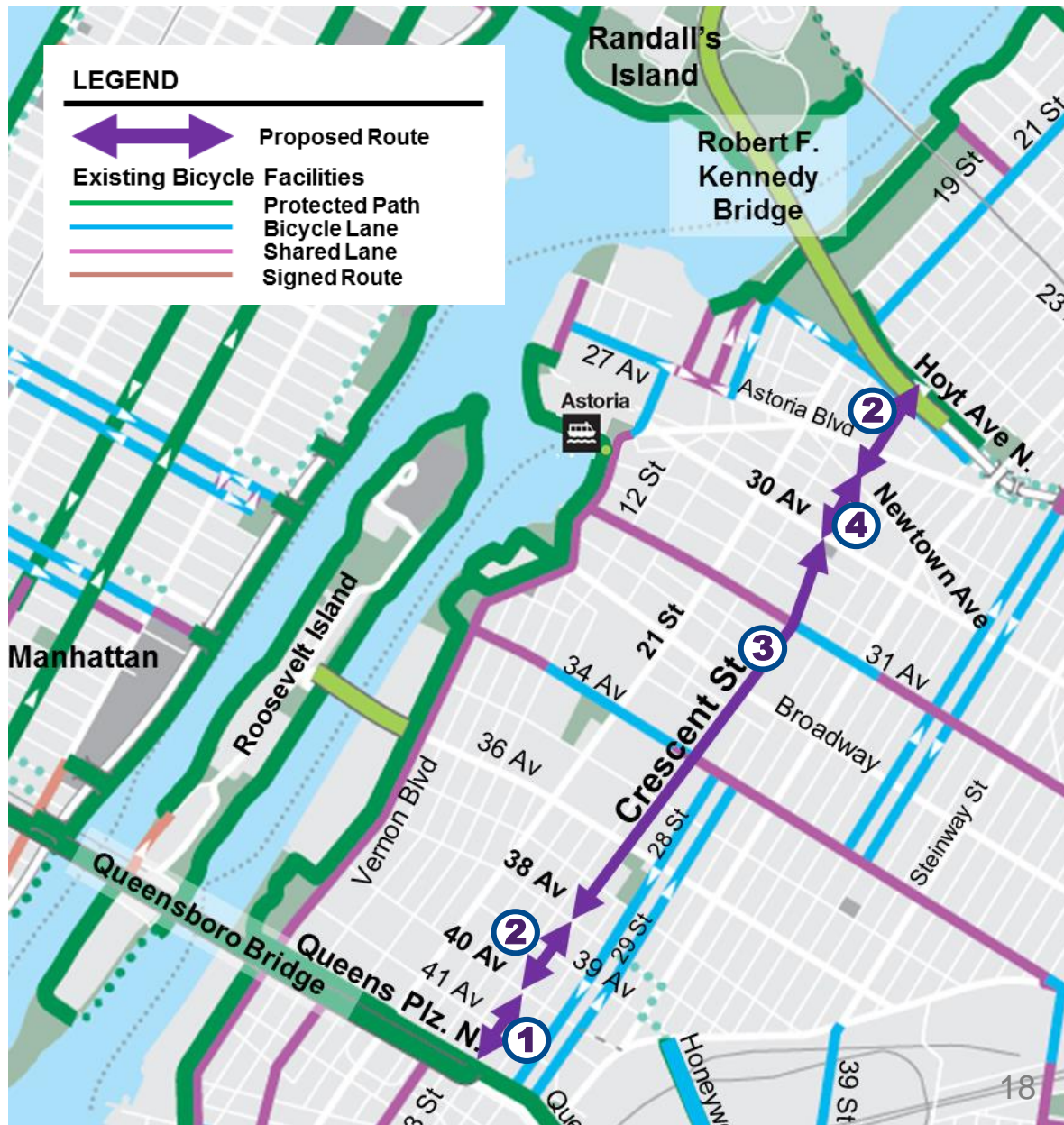
Project Segments

- 1** Queens Plaza North to 40th Ave
One-way multi-lane street, some parking
- 2** 40th Ave to 38th Ave,
Newtown Ave to Hoyt Ave North
One-way, one travel lane, two parking lanes
- 3** 38th Ave to 30th Ave
One-way, two travel lanes, two parking lanes
- 4** 30th Ave to Newtown Ave
Two-way street, two parking lanes

Segments based on existing roadway typology

Project Goals

- Close gaps in bicycle network
- Improve access to bridges
- Improve safety for all road users

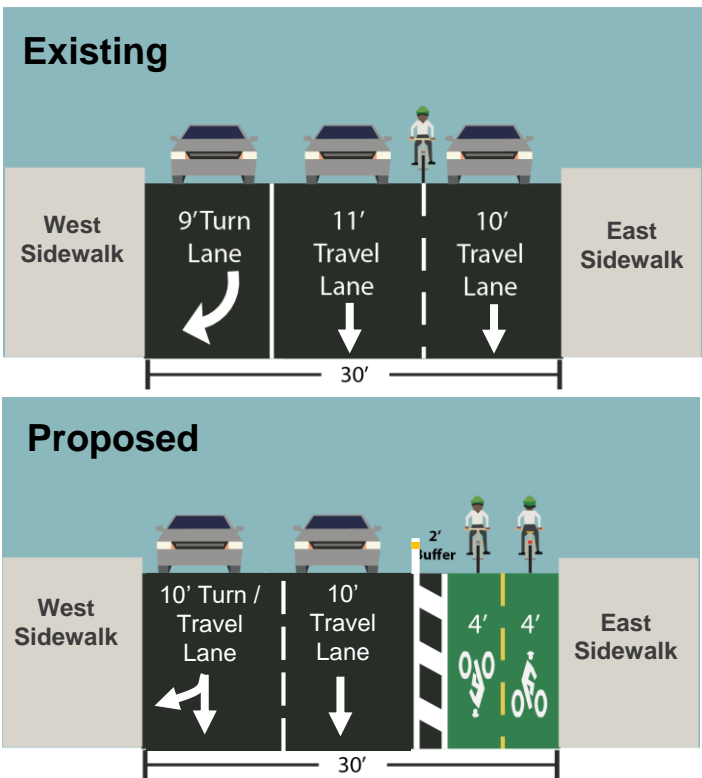


1 CRESCENT ST: Queens Plaza N. to 40th Ave

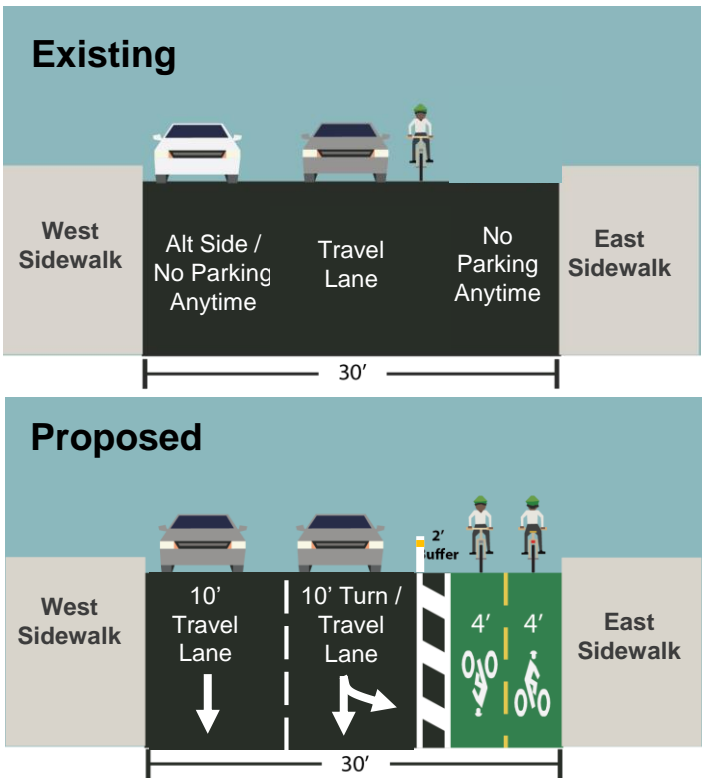
Delineator-Protected Two-way Bike Lane

- Separate cyclists from pedestrians and vehicles
- Cyclists protected by buffer and vertical elements
- New concrete curb extension at Queens Plz. N. & Crescent St
- Lane changes:
 - Queens Plz. N. to 41 Ave: Repurpose one travel lane
 - 41st Ave to 40th Ave: Repurpose one parking lane

1a) Queens Plaza N. to 41st Ave



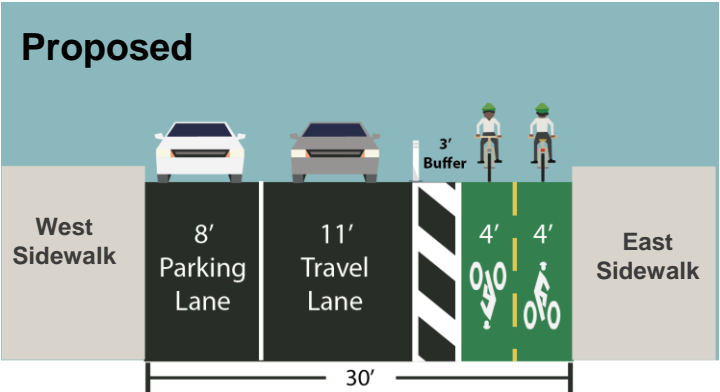
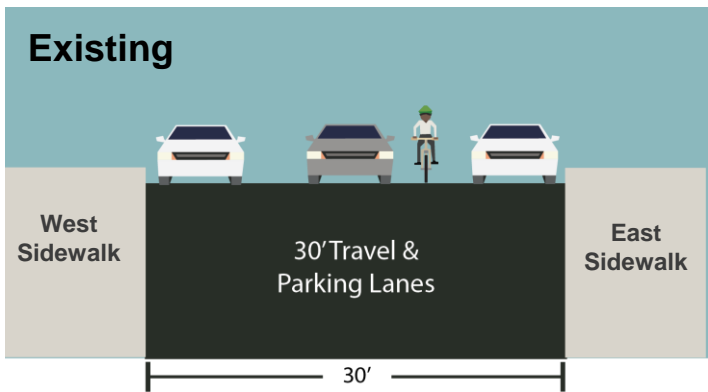
1b) 41st Ave to 40th Ave



② CRESCENT ST: 40th Ave to 38th Ave, Newtown Ave to Hoyt Ave North

Delineator-Protected Two-way Bike Lane

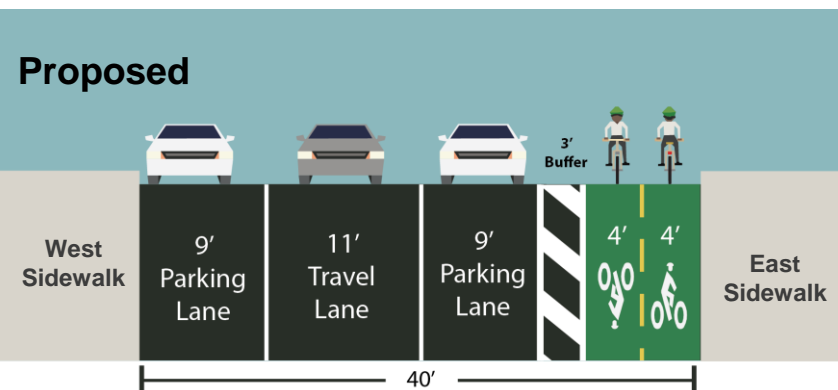
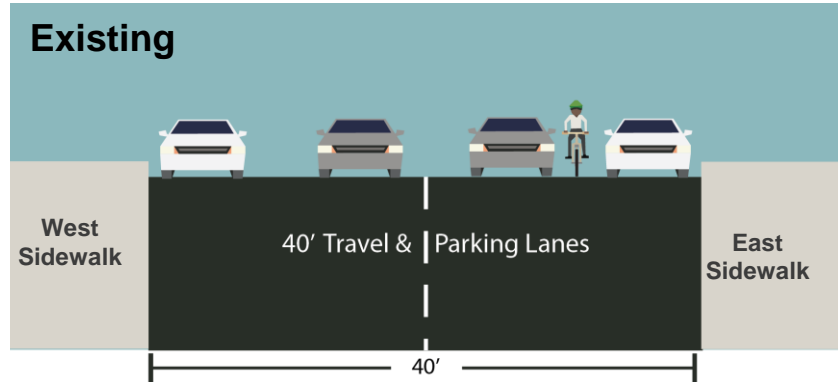
- Separate cyclists from pedestrians and vehicles
- Cyclists protected by buffer and vertical elements
- Repurpose one parking lane



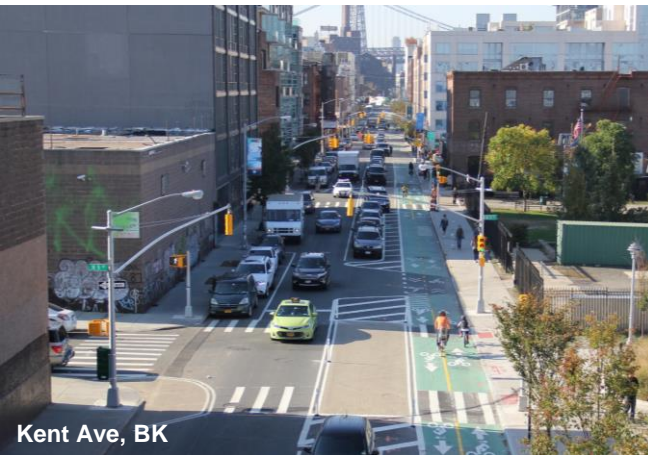
3 CRESCENT ST: 38th Ave to 30th Ave

Parking-Protected Two-way Bike Lane

- Separate cyclists from pedestrians and vehicles
- Cyclists protected by buffer and parked cars
- Provide pedestrian crossing islands, offset crossings to slow turning vehicles
- Repurpose one travel lane, add right turn lanes, rush hour lane at select locations



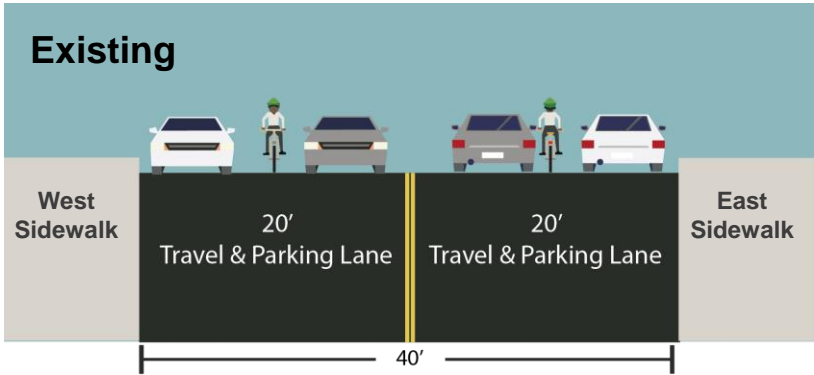
Floating parking design will include some parking removal for intersection designs and vehicle turns



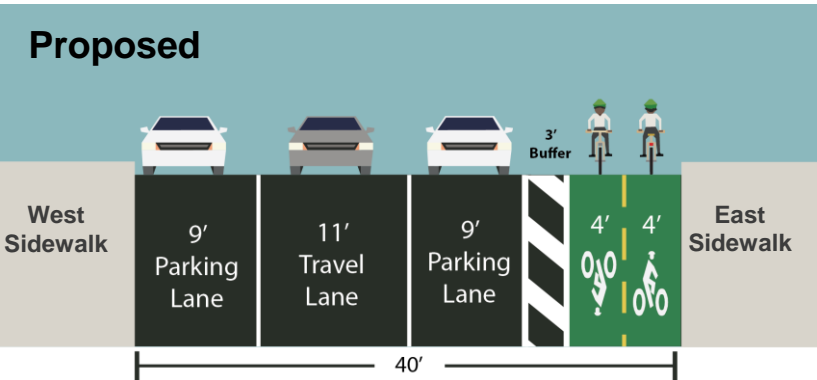
4 CRESCENT ST: 30th Ave to Newtown Ave

Parking-Protected Two-way Bike Lane

- Separate cyclists from pedestrians and vehicles
- Cyclists protected by buffer and parked cars
- Provide pedestrian crossing islands, offset crossings to slow turning vehicles
- Repurpose one travel lane, converting two-way street to southbound one-way street



Crescent St at 30th Ave



Floating parking design will include some parking removal for intersection designs and vehicle turns



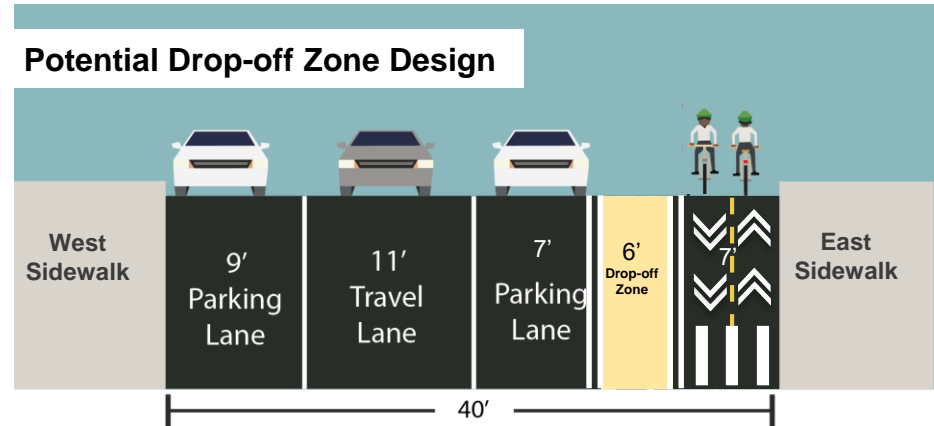
Kent Ave, BK



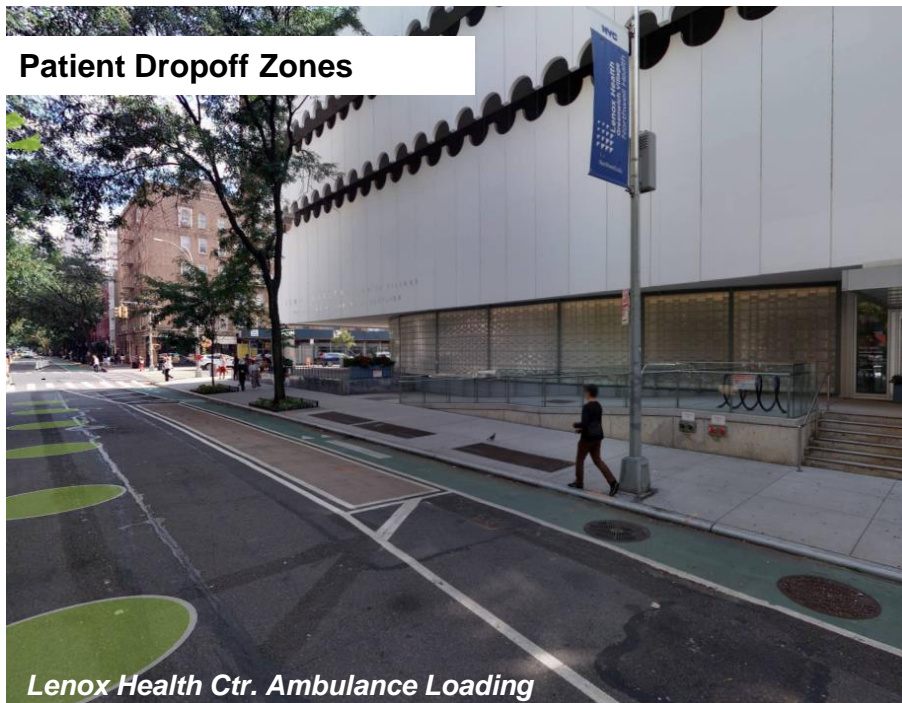
LOADING AND CURB ACCESS – MT. SINAI HOSPITAL

Curb Management, Design Update

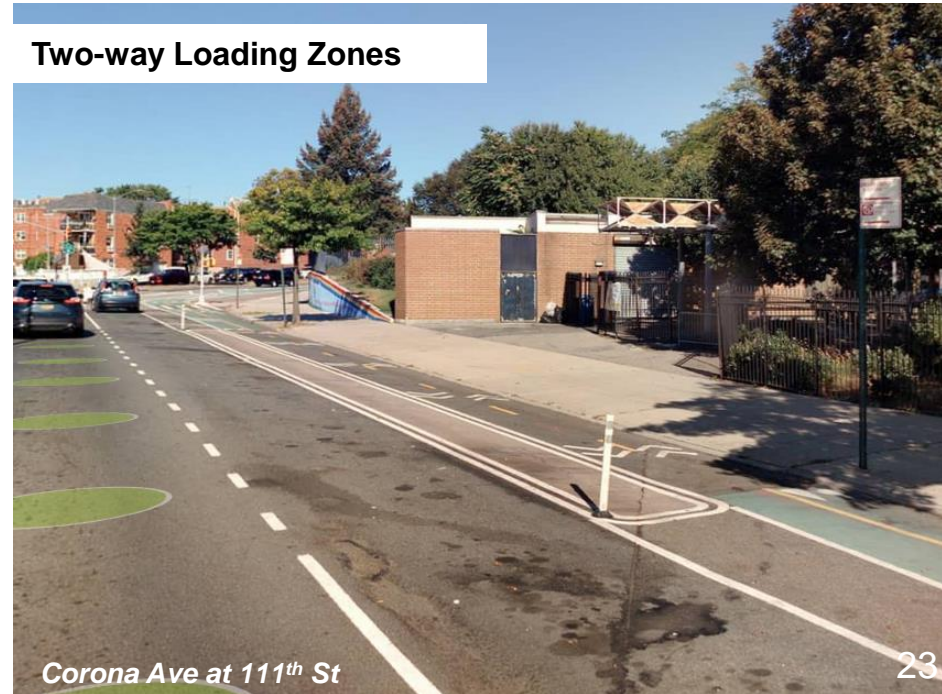
- Special markings to be used at locations with unique pickup/dropoff: i.e. schools, health centers
 - Painted pedestrian drop-off zone provides wider space to exit vehicles
 - Lack of green paint, and narrowed bike lane provide contrast to warn cyclists
 - Additional warning markings include rumble strips, crosswalk, chevrons, yield markings



Patient Dropoff Zones



Two-way Loading Zones

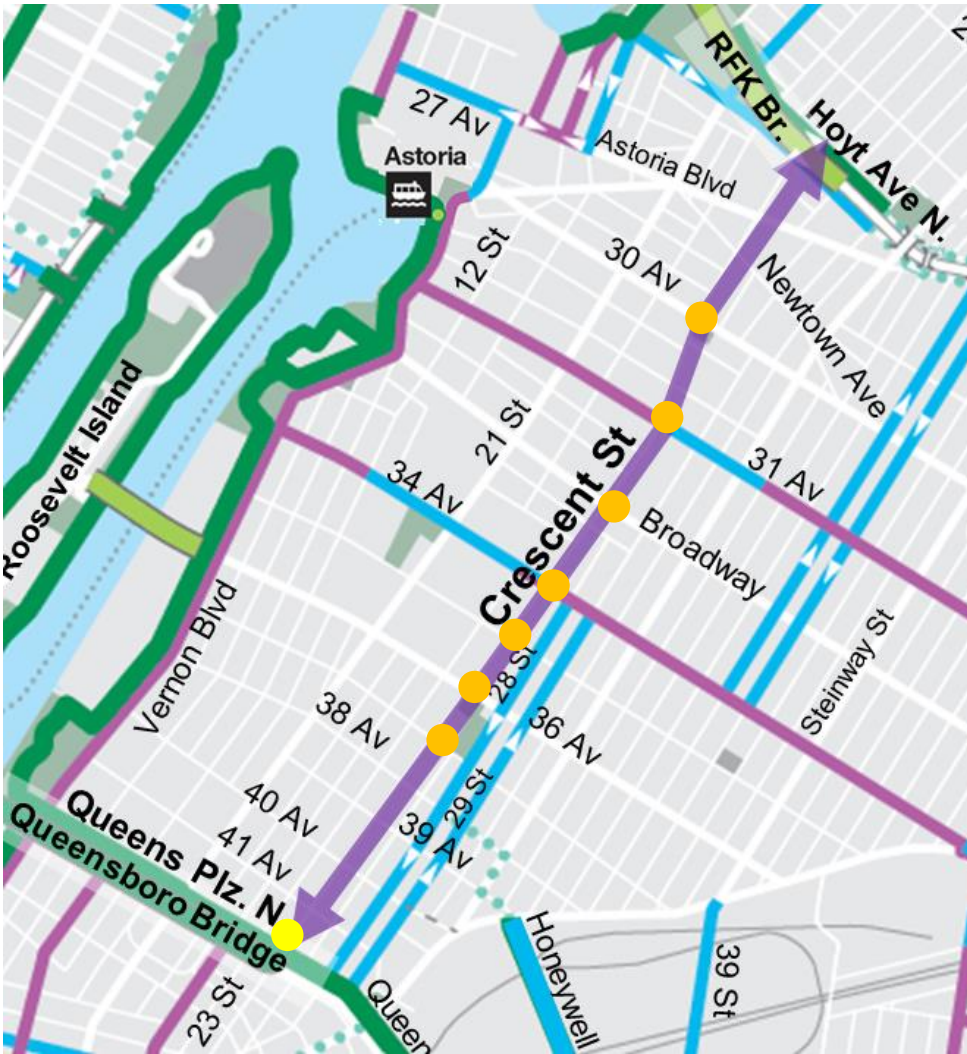


OVERVIEW OF PEDESTRIAN IMPROVEMENTS

Painted Pedestrian Island



Painted Pedestrian Island & Offset Crossing



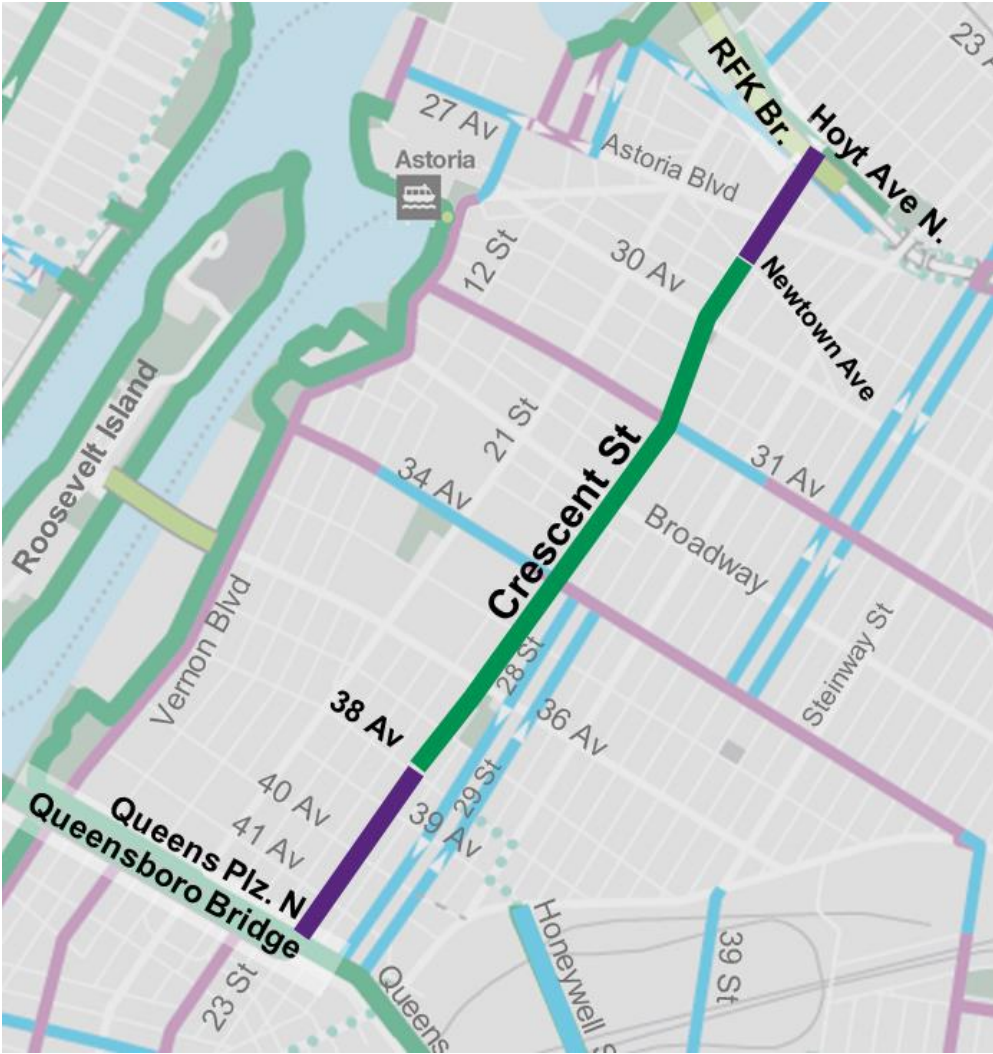
- Painted Pedestrian Island & Offset Crossing
- Concrete Curb Extension
- ↔ Project Route

OVERVIEW OF BIKE LANE DESIGN

Parking-protected bike lane



Delineator-protected bike lane



- █ Parking-protected Bike Lane
- █ Delineator-protected Bike Lane

Making It Work

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LOADING AND CURB ACCESS

Driveways

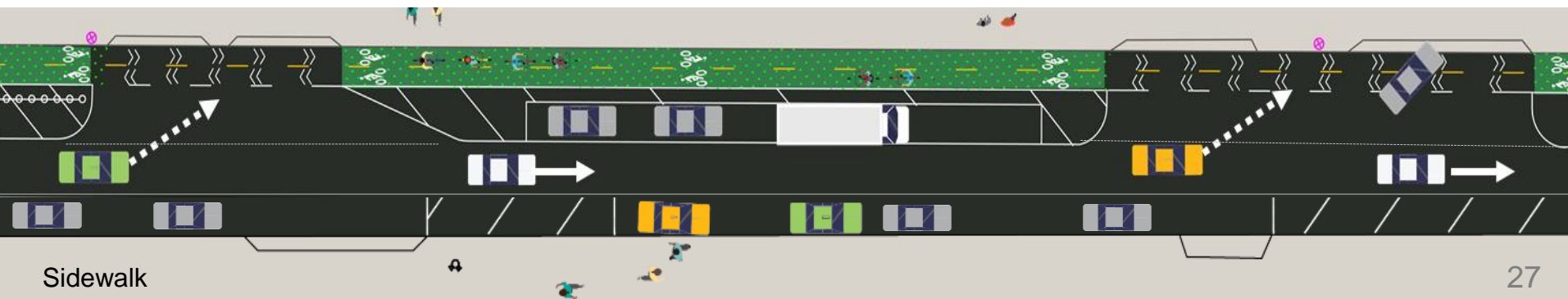
- Driveway access is maintained and indicated with markings

Curb Access

- Parking-protected design maintains loading and access along both sides of the street

Curb Management Tools

- Potential for loading zones, parking regulation changes for pickup/drop-off, metering
- Coordination to continue as businesses reopen



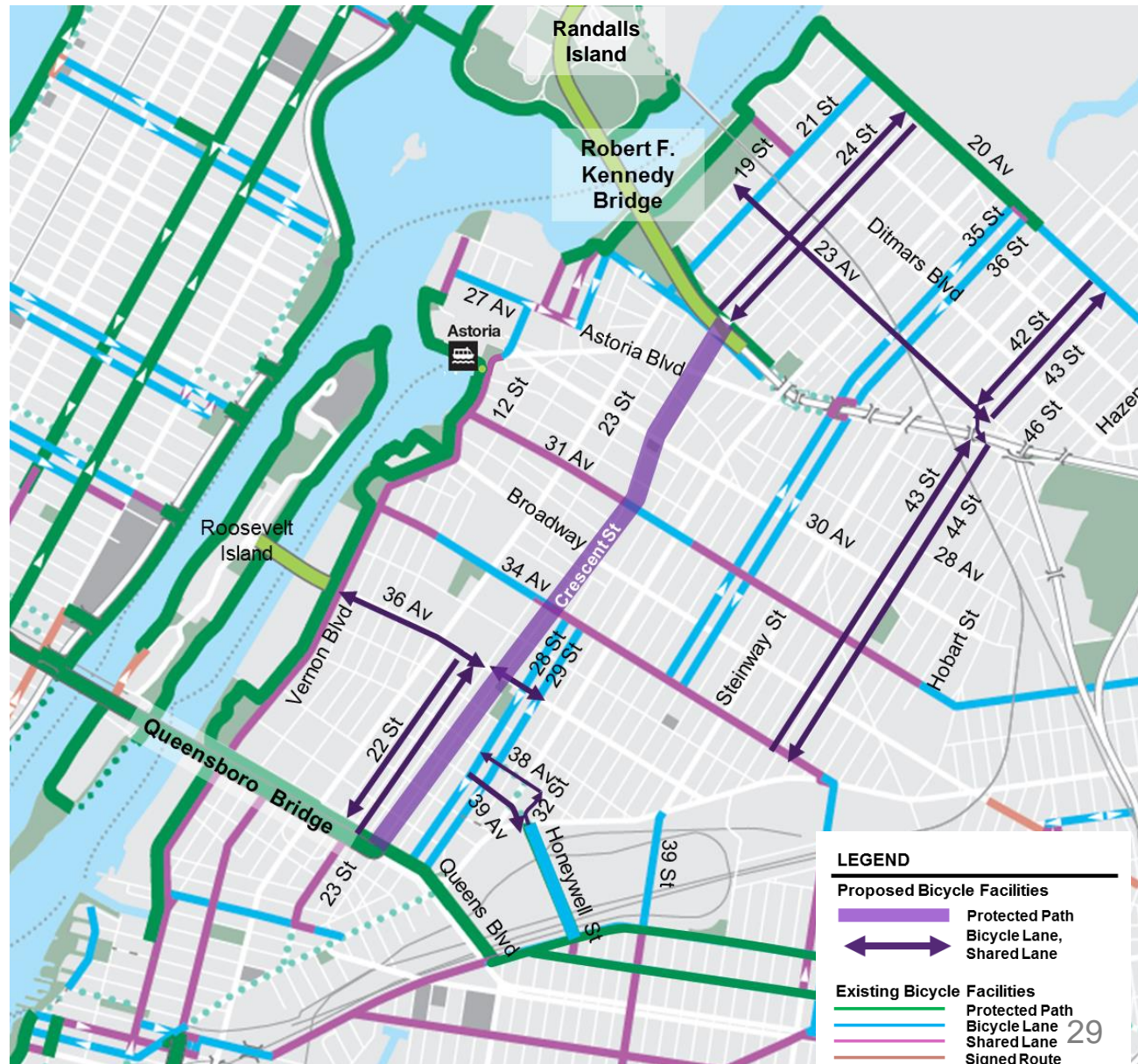
Summary

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Astoria Bike Network Expansion

Benefits

- Close gaps within bike network
- Network connections provide wayfinding throughout Astoria
- Bridge to Bridge connection
 - Queensboro Bridge to Manhattan
 - RFK Bridge to Randalls Island, continue to the Bronx



Next Steps

Protected Bicycle Route – Crescent St

- Begin implementation 2020

Conventional & Shared Bicycle Network Expansion

- Begin implementation 2020

Additional Protected Bike Routes

- Exploring opportunities for additional east-west and north-south protected routes



Questions?
THANK YOU!



NYC DOT



NYC DOT



nyc_dot



NYC DOT