FORDHAM AREA, BRONX
BICYCLE LANE NETWORK EXPANSION
Presented to Bronx Community Boards 5, 6, 7
May 2021
PRESENTATION OVERVIEW

1. Background
2. Toolkit
3. Proposal
4. Summary
Background
Project Goals

• **Build** robust on-street bicycle network

• **Support** new bike share riders and bicycle ridership growth

• **Improve** road safety for all road users

• **Create** new connections to key destinations:
  - *Fordham*
  - *University Heights*
  - *Tremont*
  - *Claremont*
  - *Crotona*
INTEREST IN IMPROVED BIKE ACCESS IN THE BRONX

NYC Bicycle Ridership
• 24% (nearly 1.6 million) of adult New Yorkers ride a bike regularly
• 540,000 daily cycling commuting trips in 2019

Bike Share Expansion
• Citi Bike is Expanded to the Bronx CB 5 & CB 7 in 2021
• 15% of New Yorkers use Bike Share (Mobility Survey, 2018)
• Citi Bike regularly serves over 80,000 trips per day; 10 million trips in 2019

145,000+ Citi Bike trips started or ended in the Bronx in 2020

Reduced Fare Bike Share:
NYCHA residents & SNAP recipients 16 and older qualify for a discounted annual membership of $5/month (7,000+ members)
**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
**Background**

**BICYCLE ROUTE SELECTION**

**Existing Bicycle Lane Network**
- Connections to Parks, Bridges
- New protected lanes on Southern Blvd, Greenway along Moshulu Pkwy, Bronx River Greenway
- Difficult to access some destinations (University Heights Bridge, Claremont Park)

**Street Network Issues**
- Discontinuous streets & irregular street grid
- Frequent changes in traffic direction
- Narrow street widths
- Lack of east-west bicycle routes
- Physical barriers created by Park Ave, Grand Concourse, the Aqueduct, Step Streets

**Area Destinations**
- **Parks:** Claremont, Crotona, & Bronx Parks
- **Bridges:** University Heights, Washington, & High Bridge Bridges
- **Transit:** Fordham Plaza
- **Schools:** Bronx Community College
Toolkit

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Safety Benefits of Bicycle Infrastructure

Bike Lane Projects Increase Safety for All Road Users

- Markings organize the roadway
- Standard width travel lanes discourage speeding, unsafe behavior
- Bike lanes provide dedicated space for cyclists and increase predictability of cyclist location for drivers and pedestrians
- Upgraded crosswalks improve visibility and pedestrian safety
**Shared Bicycle Lanes**

*Edgecombe Ave, Wash. Heights.*

- **Sharrow markings** guide cyclists where to ride on the street
  - Alert drivers & cyclists of shared space
  - Provide wayfinding for cyclists
  - Guide cyclists away from car doors

- **Striped bicycle lane** provides dedicated space in the road
  - Discourage speeding by visually narrowing the road
  - Increase predictability by clearly defining road space for each user

**Standard Bicycle Lanes**

*E 216th St, Bronx*

- **Striped bicycle lane protected** by bollards or floating parking
  - Maximizes traffic calming by physically narrowing roadways
  - Increases safety for all road users by shortening crossing distances for pedestrians, & separating people driving and biking

**Protected Bicycle Lanes**

*Queens Blvd, QN*
Project Proposal
Add new cycling routes to key destinations

- North South connections
- East West connections

Route Selection Criteria

- Continuity
- Width
- Connectivity
- Road Typography

Proposed Route Groups:

1. Standard Bicycle Lanes
2. Shared Bicycle Lanes
3. 180th St Standard Bicycle Lanes - Design Update
4. Park Avenue Protected Bicycle Lanes

Goals:

*Increase Safety for All Road Users & Support Bike Share Ridership*
Project Proposal

Standard Bicycle Lanes

Bicycle lanes create new neighborhood connections
• Provide dedicated space and wayfinding for cyclists
• Connects to existing & proposed protected bicycle lanes
• No parking loss or travel lane removal
• Crosses barriers: Park Ave, Grand Concourse, Aqueduct, Claremont & Crotona Park

1 Standard Bicycle Lanes

Existing Typical Conditions: Grand Ave, BX

Proposed Typical Design Example: E 216th St, BX

Legend
- Proposed Routes
- Phase 2 Routes
- In-Progress Routes

Existing Bicycle Facilities
- Protected Path
- Bicycle Lane
- Shared Lane

Corridors
- Davidson Ave
- Grand Ave
- W 183 St
- Buchanan Pl
- W 182 St
- Folin St
- W 181 St
- E 189 St
- E 188 St
- Webster Ave
- E 175 St
- E 173 St
- E 172 St
- Fulton Ave
- Crotona Park N/E/S
- Monroe Ave
- Weeks Ave
- Clay Ave
- Teller Ave
- Findlay Ave
- E Moshulu Pkwy N
- Moshulu Pkwy S
- Marion Av
- Bainbridge Av
2 Shared Bicycle Lanes

Shared Bicycle Lane Connections

**Existing Typical Conditions: Grand Ave, BX**

**Proposed Typical Design**

**Shared bicycle lanes connect to network**
- Organize roadway
- Provide wayfinding for cyclists – fill gaps in network where protected & standard bicycle lanes not feasible
- No parking loss or travel lane removal
- Connect between north-south & east-west routes

**Project Corridors**
- Davidson Ave
- Grand Ave
- W 183 St
- W 181 St
- E 189 St
- E 188 St
- E 187 St
- Webster Ave
- E 175 St
- E 173 St
- Fulton Ave
- Crotona Park N
- Morris Ave
- E Mt Eden Ave
- Bainbridge Av
- Park Ave
E 180th St Standard Bicycle Lanes – Design Update

Example of existing conditions:
Morningside Ave, Manhattan

Proposed Typical Design Example:
3rd Ave, Bronx

Standard bicycle lanes connect to network
- Organize roadway, calm traffic
- Provide dedicated space and wayfinding for cyclists
- Connects Grand Concourse Bike Lane to Southern Blvd
- No parking loss
- Further traffic analysis needed to remove turning lanes
Protected bicycle lanes create a central north-south path
- Cyclists protected by buffer and bollards
- Connect between Claremont & Crotona Park, & 165th St bike lane to Fordham Plaza
- Design is compatible with existing traffic volumes
- Convert existing conventional bike lanes to protected bike lanes without removing parking or travel lanes

Typical Existing Conditions: Park Ave

Proposed Typical Design: 188th – 173rd St

Proposed Typical Design: 173rd – 165th St
Summary
Bronx Bike Share Area
Bicycle Lane Network Expansion

Benefits

• Expand the bicycle network
  • Standard & shared bicycle lanes
  • Protected bicycle lanes
• Close gaps within bike network
• Support bike share users
• Network connections build on protected lane and provide wayfinding
• Increase safety for all road users
Questions?
THANK YOU!
PROJECT OVERVIEW

1. Park Ave
   E 188 St to E 189 St
   Install Shared Lane Markings on low volume blocks for connection to Fordham Plaza

2. Park Ave
   E 173 St to E 188 St
   Upgrade NB and SB curbside bike lanes to bollard-protected bike lane

3. Park Ave
   E 165 St to E 173 St
   Upgrade NB curbside buffered bike lane to two-way bollard-protected bike lane

4. Melrose Ave
   E 165 St to E 163 St
   Add upgrade curbside buffered bike lane and install green paint
**PROPOSED**

2. **Park Ave**
   - **E 173 St to E 188 St**
   - Upgrade NB and SB curbside bike lanes to bollard-protected bike lane

**EXISTING/ISSUES**
- **Buffered Curbside Bike Lane** does not prevent double parking in bike lane
- **Long pedestrian crossings** at targeted intersections

**PROPOSED**
- **Protected bike lane** creates dedicated, predictable space for cyclists, discourages wrong-way and sidewalk riding, and reduce pedestrian conflicts
- **Shortens pedestrian crossing distance, improve visibility** at targeted intersections
- Proposed design has no impact on number of travel lane or parking loss
PROPOSED DESIGN ELEMENTS

Creates bike lane that is comfortable for all ages and abilities

Example of one-way bollard-protected bike lanes separated by flexible delineators and qwick kurb
PROPOSED

**Park Ave**
E 165 St to E 173 St
Upgrade NB curbside buffered bike lane to two-way bollard-protected bike lane

**EXISTING/ISSUES**
- **Buffered Curbside Bike Lane** does not prevent double parking in bike lane
- **No southbound bike lane**
- **Long pedestrian crossings** at targeted intersections

**PROPOSED**
- **2-way protected bike lane** creates dedicated, predictable space for cyclists, discourages wrong-way and sidewalk riding, and reduce pedestrian conflicts
- **Shortens pedestrian crossing distance, improve visibility** at targeted intersections
- **Proposed design has no impact on number of travel lane or parking loss**
PROPOSED DESIGN ELEMENTS

Creates bike lane that is comfortable for all ages and abilities

Examples of two-way bollard-protected bike lane separated with qwick-kurb and flexible delineators