Background

Previous Work

- June 2018 NYC DOT presentation to CB 11 Transportation Committee about existing issues on Bronxdale Ave corridor, requesting feedback about atypical intersections
- February 2020 NYC DOT presented proposal to CB 11 Transportation Committee for safety improvements to Bronx Park E/White Plains Rd/Bronxdale Ave/Unionport Rd intersection, including protected bike lanes leading to Bronx Park Greenway
  - Fall 2020 installation
Background

Community Outreach

- September 2018 - NYC DOT Street Ambassadors visited two locations along Bronxdale Ave to listen to people using the street.
- A mix of ages and road users said they frequently traveled along Bronxdale Ave.
- Vehicles failing to yield and speeding vehicles were the top concerns.
**Background**

**Green Wave: A Plan for Cycling in New York City**

*Analysis of fatalities key factors (2014-Present):*
- 60% of fatalities happened at intersections; 23% involved a vehicle turn; 16% involved a driver’s failure to yield the right of way
- Nearly 90% of fatalities happened on streets without bike lanes

**Citywide Protected Bicycle Lane (PBL) Network**
- Build 30 miles of protected bicycle lane annually, guided by a PBL vision document.

**Better Design:**
- Implement **new design** standards based on national & international best practices 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 the road campaign
- **Educate all street users** about safe truck operation on city streets
- Increase helmet giveaways and helmet use encouragement.

**Bronxdale Avenue Safety Improvements**
**Background**

**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*

---

**Protected Bike Lanes**

**Before and After Crash Data, 2007 - 2017**

- **1,477** Total Injuries
- **1,263** MV Occupant Injuries
- **627** Pedestrian Injuries
- **628** Cyclist Injuries

- **224** Cyclist Injuries Before
- **231** Cyclist Injuries After

*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, Inlay St / Conover St, Paerdegat Ave. Only sections of projects that included protected bike lanes were analyzed. Source: NYPD AIS/TAMS Crash Database*
Presentation Outline

1. Existing Conditions
2. Proposed Corridor Changes
3. Proposed Intersection Changes
Existing Conditions
Existing Conditions

Safety

- 179 injuries on Bronxdale Ave between 2014 and 2018
- Excess roadway width and complicated intersections create long, challenging pedestrian crossings

Bronxdale Ave (E Tremont Ave to Bronx Park E, BX)
Injury Summary, 2014-2018 (5 years)

<table>
<thead>
<tr>
<th></th>
<th>Total Injuries</th>
<th>Severe Injuries</th>
<th>Fatalities</th>
<th>KSI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pedestrian</td>
<td>29</td>
<td>6</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Bicyclists</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Motor Vehicle Occupant</td>
<td>142</td>
<td>10</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>179</td>
<td>16</td>
<td>1</td>
<td>17</td>
</tr>
</tbody>
</table>

Fatalities, 01/01/2014 – 12/26/2020: 1

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

Bronxdale Ave at Antin Pl

Bronxdale Avenue Safety Improvements
Existing Conditions

Existing Issues

1. Low vehicle volumes and resulting speeding
2. Undefined lane assignments
3. Pedestrian access issues
4. Lack of neighborhood bicycle-friendly connections to Bronx Park
Existing Conditions

Relatively Low Vehicle Volumes

- Wide street combined with low vehicle volumes encourages speeding
- 84% of vehicles observed were traveling over the speed limit
- 46% observed traveling 5mph+ over the speed limit
Undefined lane assignments

- Through-vehicles swerve around left-turning vehicles
- Left-turning vehicles feel back-pressure from through-vehicles
Existing Conditions

Pedestrian Access Issues

- Bronxdale Ave is a diagonal street
- Complex intersections feature challenging pedestrian crossings

Bronxdale Ave at Antin Pl

Neill Ave/Antin Pl/Hunt Ave/Wallace Ave

Rhinelander Ave/Muliner Ave

Bronxdale Avenue Safety Improvements
Lack of Local Bicycle Routes Connecting to Bronx Park

Existing Conditions

Bronxdale Avenue Safety Improvements
Proposed Corridor Changes
Proposed Corridor Changes

• Install one travel lane per direction plus left turn bays
• Install parking-protected bicycle lanes with painted pedestrian islands where feasible
• Repurpose 5 parking spots per block to improve visibility at intersections (60 total spots)
• Shorten pedestrian crossing distances
• Reduce speeding
• Organize traffic
Proposed Corridor Changes

Example of Similar Project: 9th Street, Brooklyn

- Painted pedestrian islands shorten crossing distances and provide refuge for slower users
- Dedicated left turn lanes organize traffic and reduce “back pressure”
- Protected bicycle lanes are more comfortable for families and less experienced riders
- Narrowed roadway discourages speeding
Proposed Corridor Changes

Typical intersection design
- Painted pedestrian islands
- Dedicated left turn bays
- Protected bicycle lanes
- Narrowed roadway
Benefits to Local Bicycle Network

Bicycle lanes on Bronxdale Ave could connect:

• Bronx Park
• Pelham Pkwy Greenway
• Bronx River Greenway
• Castle Hill Ave bicycle lanes (and Soundview Ferry Terminal)
Proposed Intersection Changes
Proposed Intersection Changes

Bronxdale Ave/Rhinelander Ave/Muliner Ave Existing Conditions

- Rhinelander Ave north crosswalk is ~140’ long
- Bronxdale Ave south crosswalk is ~120’ long
- Rhinelander Ave is signalized; Muliner Ave is stop-controlled
Proposed Intersection Changes

Bronxdale Ave/Rhinelander Ave/Muliner Ave Proposed Conditions

- Install painted pedestrian triangle island to shorten crossing distances
- Investigate future capital improvements to close slip lane and build out the corner
Neill Ave, Hunt Ave, Antin Pl, Wallace Ave Existing Conditions

- Confusing mix of signalized vs. stop-controlled intersections, slip lanes
- Poor visibility under elevated train structure
- Pedestrian desire lines without crosswalks: south side of Bronxdale Ave crossing elevated train structure, east side of Antin Pl crossing Bronxdale Ave
Bronxdale Ave/Antin Pl/Holland Ave

- Add crosswalk across Bronxdale Ave
- Remove Bronxdale Ave slip lane that forces drivers back on to Bronxdale Ave
- Shorten crossing distances
Proposed Intersection Changes

Bronxdale Ave/Hunt Ave

- Replace long eastbound slip lane to Hunt Ave
- Add pedestrian crossing along south side of Bronxdale Ave
- Improve movements around elevated train structure and columns
Proposed Intersection Changes

Bronxdale Ave/Neill Ave/Hunt Ave

- Close stop-controlled unnecessary slip lane from Neill Ave to Hunt Ave
- Remove confusing mix of traffic signals and stop signs
- Shorten north crosswalk from 100 feet to 30 feet
Proposed Intersection Changes

Antin Pl/Hunt Ave/Neill Ave/Wallace Ave Proposed Conditions

- Close right-turn slip lanes and replace with expanded pedestrian spaces:
  - Neill Ave southbound at Bronxdale Ave
  - Bronxdale Ave westbound at Antin Pl
  - Bronxdale Ave eastbound at Hunt Ave

- Install new pedestrian crossings:
  - Antin Pl east side across Bronxdale Ave
  - Bronxdale Ave south side across Hunt Ave

- Install parking and pedestrian space at Hunt Ave and Holland Ave

Bronxdale Avenue Safety Improvements
Summary of Proposed Changes

• Reduce speeding by narrowing roadway and removing excess vehicular capacity

• Improve lane organization with left turn lanes and bike lanes

• Shorten crossing distances with painted pedestrian islands

• Install family-friendly protected bike lanes to Bronx Park

• Simplify irregular intersections and improve pedestrian access by installing new pedestrian spaces and crossings
THANK YOU!

Questions?
Appendix

SCHOOL TREATMENT