CYPRESS HILLS STREET
SAFETY IMPROVEMENTS

Queens CB 5 Transportation Committee
April 25, 2017
PRESENTATION OVERVIEW

- Background
- Proposal
- Summary
Cypress Hills St Overview

Background

- 104th Precinct requested traffic calming and protection for bike lanes
- Cypress Hills St bike route is part of greenway network connecting parks
- Few destinations along corridor: cemetery entrances, bus stops, substandard pedestrian environment
Cypress Hills St Overview
Safety Issues

Cypress Hills St (Cooper Ave – Jackie Robinson Pkwy), QN
Injury Summary, 2010-2014 (5 Years)

<table>
<thead>
<tr>
<th></th>
<th>Total Injuries</th>
<th>Severe Injuries</th>
<th>Fatalities</th>
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<tbody>
<tr>
<td>Pedestrian</td>
<td>4</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Bicyclists</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Motor Vehicle Occupant</td>
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<td>6</td>
<td>2</td>
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<tr>
<td>Total</td>
<td>103</td>
<td>6</td>
<td>2</td>
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</table>

Fatalities, 01/01/2010 – 04/10/2017: 4

Cypress Hills St is a High Crash Corridor, ranking in the top third of Queens corridors

Project Background
Cypress Hills St Overview

Project Goals

- Improve safety for all road users
- Enhance pedestrian access to Machpelah and Mt Neboh Cemeteries
- Increase bicycle access to parks, greenway route
- Improve pedestrian/bus rider experience

Project Proposal

1. **Cooper Ave to Jackie Robinson Pkwy**
   - Upgrade Existing Bike Route to Protected Bike Lanes,
   - Fill in missing gaps in bike route
   - Install new pedestrian crossings
   - No parking loss

2. **Cypress Hills St to Highland Park**
   - Improve Park Connection for pedestrians and bike riders
Upgrade Existing Bike Lanes
Cooper Ave – Jackie Robinson Pkwy
Existing Bike Route
Proposal
Upgrade Bike Lane Design and Complete Network Gaps

West side of Cypress Hills St

East side of Cypress Hills St
Cypress Hills St
Cooper Ave – Jackie Robinson Pkwy

- 1 vehicle lane each direction
- Curved roadway, blind summits, and high vehicle speeds
- Existing but incomplete buffered bike lanes - 65 daily cyclists
- Little to no sidewalk on east side
- B13 Bus route, 5 stops on each side within 0.5 mile
Cypress Hills St – Greenway Safety Improvements

Existing

- West Sidewalk
- 6’ Travel Lane
- 6’ Buffer
- 3’ Buffer
- 4’ Median
- 6’ Buffer
- 3’ Buffer
- 12’ Travel Lane
- 25’
- Mt Neboh Cemetery

Proposed

- West Sidewalk
- 6’ Travel Lane
- 6’ Bollard
- 1’ Buffer
- 1’ Buffer
- 5’ Median
- 1’ Buffer
- 12’ Travel Lane
- 25’
- 27’
- Mt Neboh Cemetery

Protected bike lanes have resulted in ↓ - 20% decline in total injuries for all road users

SB Bicycle Lane Protected by Bollards & Wider Buffer

NB Bicycle Lane Protected by Bollards, borders new pedestrian space
At Bus Stops
Cypress Hills Street near Jackie Robinson Pkwy, facing north

Proposed

West Sidewalk

12' Travel Lane

12' Travel Lane

1' Buffer

5' Median

1' Buffer

8' Bus Bulb

25'

27'

SB bus permitted to access curb

Bus bulbs provide ADA bus access on NB side

Mt Neboh Cemetery
B13 Bus Stop Consolidation

Existing:
- 3 stops within 870 feet (3 blocks) between 80th Ave and Cooper Ave
- Substandard waiting and drop-off space

Proposed:
- Consolidate stop at 78th Ave
- ADA improvements at NB stops
- Access to Highland Park and residential neighborhoods improved

Existing Stops to remain
- Curbside Stop
- Bus Bulb

Existing Stops to remove
Safety Improvements

78th Ave

**Existing:** NB left turns banned in AM

Cooper Ave

**Existing:** Limited pedestrian access to triangle park and destinations north

Proposed

- Turn ban to be instated for all hours
- New Pedestrian Crossings

- Existing: Limited pedestrian access to triangle park and destinations north

Cypress Hills St – Greenway Safety Improvements
1 Cypress Hills St Cooper Ave – Highland Park

78th Avenue

Existing

- NB left turns from Cypress Hills St banned in AM
- Conflict between turning and through vehicles causes congestion, unsafe movements
- Bike lane markings end without warning
- No sidewalk on east side

Proposed

- Eliminate NB left turns from Cypress Hills St at all times
- Extend protected bike lane through intersection
- Add painted sidewalk space that is accessible by crosswalks
- Improve traffic flow, decrease congestion and unsafe movements
Cooper Avenue – Proposed Additional Safety Improvements

Issues
- Limited pedestrian access to Drumm Triangle
- Heavy turns onto Cooper Ave conflict with pedestrian crossing
- Insufficient time dedicated to NB left turns onto Cooper Ave

Proposed
- Study in Progress: Stop controlled crossings (pending warrant) or enhanced crossings to Drumm Triangle
- Increased pedestrian space
- Adjust signal timing at Cypress Hills St/Cooper Ave to improve traffic flow and pedestrian safety
Update Park Connection
Jackie Robinson Pkwy – Highland Park
Highland Park Access
Jackie Robinson Pkwy Service Rd

- Existing bike route on sidewalk - *unmarked*
- 1 vehicle lane each direction
- Jackie Robinson Pkwy access for vehicles
- Highland Park entrance for pedestrians, bike riders
Improved Access to Highland Park

**Existing**: vehicle slip lane and no crosswalk at Jackie Robinson Pkwy on/off ramp
Jackie Robinson Pkwy

**Existing**
- Slip lane for SB right turns to Jackie Robinson Pkwy on-ramp
- Missing crosswalks
- Unclear, challenging pedestrian access to Highland Park

**Proposed**
- Signalize slip lane to Jackie Robinson Pkwy on ramp
- Install new crosswalk
- Enhance bike connection to Highland Park
2 Highland Park Access  Cypress Hills St – Highland Park entrance

Existing

Proposed

Narrowed Traffic Lanes Calm Traffic

- Separate vehicles from curb with buffer
- Mark shared route on sidewalk
- Add wayfinding signs

15’ Travel Lane

15’ Travel Lane

12’ Travel Lane

12’ Travel Lane

30’
Project Benefits

- Improved safety and efficiency for all road users
- Improved pedestrian space and crossings, access to parks, cemeteries
- Improved bus service with consolidated, ADA compliant stops
- Safe one mile protected bicycle connection to Highland Park, greenways
THANK YOU!

Questions?
One way, protected bike lane design precedents most similar to Cypress Hills St proposal with 3 years of after data include the following: 9th Ave (16th-31st), 8th Ave (Bank-23rd, 23rd-34th), Broadway (59th-47th, 33rd-26th, 23rd-18th), 1st Avenue (Houston to 34th), 2nd Ave (Houston-34th), Columbus Ave (96th-77th).

Note: Only sections of projects that included protected bicycle lanes were analyzed.

Source: NYPD AIS/TAMS Crash Database
Cypress Hills St and 78th Ave

**AM Peak** 7:00 AM - 8:00 AM
**PM Peak** 3:00 PM - 4:00 PM

### Existing

**AM**
- Intersection LOS: C
- Delay: 21.1

**PM**
- Intersection LOS: D
- Delay: 38.8

### Proposed

**AM**
- Intersection LOS: B
- Delay: 13.3

**PM**
- Intersection LOS: B
- Delay: 16.9

78th St - Jackie Robinson Pkwy ATR

*Hourly average @ peaks.

### Traffic Counts

<table>
<thead>
<tr>
<th></th>
<th>NB from Jackie Robinson Pkwy</th>
<th>SB to Jackie Robinson Pkwy</th>
<th>SB from Cooper Ave</th>
<th>NB to Cooper Ave</th>
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<tr>
<td><strong>AM</strong></td>
<td>1033</td>
<td>577</td>
<td>469</td>
<td>885</td>
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<tr>
<td><strong>PM</strong></td>
<td>860</td>
<td>809</td>
<td>599 (Cooper)</td>
<td>640</td>
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### Vehicle Delay

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<tr>
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<td>857</td>
<td>623</td>
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*AM ADJUSTED* and *PM ADJUSTED* indicate peak hour traffic volumes.
Cypress Hills St and Cooper Ave

AM Peak: 7:00 AM - 8:00 AM
PM Peak: 3:00 PM - 4:00 PM

Existing

<table>
<thead>
<tr>
<th>AM</th>
<th>Intersection LOS</th>
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Proposed

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<th>Intersection LOS</th>
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<table>
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<th>Intersection LOS</th>
<th>Delay</th>
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**Cooper Ave - Jackie Robinson Pkwy ATR**

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<th>RT</th>
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<tr>
<td>LT</td>
<td>359</td>
<td>48</td>
<td>446</td>
<td>150</td>
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<tr>
<td>RT</td>
<td>526</td>
<td>40</td>
<td>519</td>
<td>158</td>
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*Hourly average @ peaks.*

- AM: 885, 2+5
- PM: 640, (78th), 599

**TMC**

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<tr>
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Cypress Hills St – Greenway Safety Improvements
Cypress Hills St and Cypress Ave/Jackie Robinson

AM Peak: 7:00 AM - 8:00 AM
PM Peak: 3:00 PM - 4:00 PM

**Existing**
- Cypress Ave
  - AM: Intersection LOS C, Delay 33.9
  - PM: Intersection LOS D, Delay 36.2
- Jackie Robinson on/off ramp
  - AM: Intersection LOS C, Delay 34.8
  - PM: Intersection LOS E, Delay 62.4

**Proposed**
- Cypress Ave
  - AM: Intersection LOS D, Delay 39.2
  - PM: Intersection LOS C, Delay 33.4
- Jackie Robinson on/off ramp
  - AM: Intersection LOS C, Delay 24.5
  - PM: Intersection LOS E, Delay 58.6

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<th>Intersection</th>
<th>AM</th>
<th>PM</th>
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<tbody>
<tr>
<td>NB from Jamaica Ave</td>
<td>896</td>
<td>765</td>
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<tr>
<td>NB to 78th St</td>
<td>1033</td>
<td>860</td>
</tr>
<tr>
<td>SB from 78th</td>
<td>4+6+10+13</td>
<td>3+6</td>
</tr>
<tr>
<td>SB to Jamaica Ave</td>
<td>577</td>
<td>809</td>
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</tbody>
</table>

*Circular Greenway Safety Improvements

**Class**
- TH: THROUGH
- RT: RIGHT
- LT: LEFT
- EB: EB
- NB: NB
- WB: WB

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<tr>
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<tbody>
<tr>
<td></td>
<td>SB</td>
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</table>

**AM ADJUSTED**
- 391
- 151
- 35
- 34
- 92
- 123
- 74
- 117
- 134
- 645
- 148
- 90
- 231

**PM ADJUSTED**
- 614
- 135
- 60
- 29
- 178
- 109
- 95
- 125
- 92
- 548
- 206
- 80
- 174

*Hourly average @ peaks.*