Background

- Background:
  - NYS recently completed project to transform Sheridan Expressway into pedestrian and bicycle-friendly Sheridan Boulevard and transferred ownership to NYC DOT

- NYC DOT Project Goals:
  - Improve local vehicle access to Sheridan Blvd
  - Provide multi-modal connections to/from the new Sheridan Blvd and Starlight Park
  - Adjust local streets to improve safety and better accommodate access to Sheridan Blvd
Project Location

E 172^{nd} St and E 173^{rd} St, Southern Blvd to Sheridan Blvd

- Existing Neighborhood Slow Zone
- W Farms Rd is a local truck route
- Sheridan Blvd is a through truck route
- Nearby schools:
  - Samara Community School on Vyse Ave between E 172^{nd} St and E 173^{rd} St
  - East Bronx Academy for the Future on Southern Blvd between E 173^{rd} St and E 174^{th} St
- E 172^{nd} St and E 173^{rd} St have mainly residential land use with a few commercial buildings

= project limits
= school locations
Existing Bike Network in Project Area

E 172\textsuperscript{nd} St and E 173\textsuperscript{rd} St, Southern Blvd to Sheridan Blvd

- Existing standard bike lanes on Bryant Ave and Longfellow Ave
- Bronx River Greenway includes two-way bike path on Edgewater Rd and connects Concrete Plant Park and Starlight Park
- The NYS DOT improvements included new access points to Starlight Park including a new pedestrian bridge across the Bronx River

\textcolor{red}{\textbf{LEGEND}}

- Proposed Bicycle Route
- Existing Bicycle Facilities
- Protected Bicycle Path
- Bicycle Lane
- Signed Route

\includegraphics[width=\textwidth]{map.png}
Safety Data

Common crash types:
- Rear ends
- Right angle conflicts due to vehicles not stopping at stop signs
- Conflicts when exiting parking spots

E 172nd St and E 173rd St
(Sheridan Blvd to Southern Blvd)

Crash Data

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<tr>
<th>Mode</th>
<th>Total Injuries</th>
<th>Severe Injuries</th>
<th>Fatalities</th>
<th>KSI</th>
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<td>Total</td>
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</table>

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

Lack of Neighborhood Access to Sheridan Blvd

No access to or from Sheridan Blvd at E 173rd St, E 172nd St, and Jennings St

W Farms Rd and E 173rd St
Existing Conditions

Narrow, Sub-Standard Two-Way Roadways

E 172nd St and Vyse Ave

E 172nd St and Boone Ave
Existing Conditions

Lack of Bicycle Infrastructure

E 172nd St and Boone Ave
Existing Conditions

Ambiguous Sheridan Access
Proposed Network Changes

- Open up access to Sheridan at E 173rd St and from Sheridan at E 172nd St
- Convert E 172nd and E 173rd between Southern Blvd and Sheridan Blvd to one-way streets, with E 172nd St westbound and E 173rd St eastbound
- Movements to/from W Farms Rd to Sheridan Blvd will not be permitted
Access to Sheridan Blvd at E 173rd St

- Vehicles traveling eastbound on E 173rd St will be able to proceed northbound on Sheridan Blvd and connect to I-95 or proceed southbound and connect to Bruckner Blvd.
Access to E 172\textsuperscript{nd} St at Sheridan Blvd

- Northbound vehicles will be required to use Edgewater Rd to access westbound E 172\textsuperscript{nd} St
- New traffic signal at W Farms Rd and E 172\textsuperscript{nd}
Restricted Movements

- Movements between W Farms Rd and Sheridan Blvd will not be permitted to prevent conflicts between vehicles.
- For example, a vehicle moving from southbound West Farms Rd to southbound Sheridan Blvd could conflict with southbound through movements on Sheridan Blvd.
- Signage will be used to inform drivers which movements are not permitted.

Restricted Movements

from main road
from service road
Evaluation of Network Changes

Traffic Modeling Methodology

- NYC DOT built a comprehensive and detailed traffic model that includes all streets from Southern Blvd to Sheridan Expressway on E 172nd St and E 173rd St to analyze proposed conditions with the one-way conversions.

- DOT used origin and destination trip-tracking software (Streetlight) to determine current travel patterns and apply them to proposed conditions with access to/from Sheridan Blvd.

Image of model that DOT created to analyze impacts of one-way conversions.
Traffic Modeling and Design

- NYC DOT design accommodates projected volume changes to prevent significant traffic impacts
- Parking spots repurposed for 1 block approaching Sheridan Blvd and Southern Blvd to allow for additional travel lanes

Two travel lanes on E 173rd St at approach to W Farms Rd

Two travel lanes on E 172nd St at approach to Southern Blvd
Proposed Corridor Improvements

Existing Conditions: E 172nd St and E 173rd St (30’ Sections)

Proposed Plan: E 172nd St and E 173rd St (30’ Sections)

Existing Conditions: E 172nd St and E 173rd St (34’ Sections)

Proposed Plan: E 172nd St and E 173rd St (34’ Sections)
Bike Route Connections

Proposed standard bike lanes on E 172nd St and E 173rd St
Project Benefits

- Improves connections to Starlight Park, Starlight Park Bridge, Bronx River Ave
- Reduces conflicts and improves clarity for vehicles
- Adds .6 miles of standard bike lanes to network
- Improve local access to Sheridan Blvd will reduce traffic congestion at adjacent intersections

Example: Cabrini Blvd and E 180th St, Manhattan
Thank You!

Questions?