

Sherman and St Nicholas Avenues

Safety Improvements and Bicycle Lanes

2015



Presented by New York City Department of Transportation, Transportation Planning & Management
May 4, 2015 to Manhattan CB 12 Traffic and Transportation Committee



Sherman and St Nicholas Avenues

Corridor Project Background

- Vision Zero calls for an expanded bicycle network in Manhattan that improves safety for all road users
- CB 12 requested a network of bike routes in 2012
- CB 12 approved Phase 1 bike routes and DOT began implementation in 2014
- Sherman Ave scheduled for repaving this summer provides an opportunity to improve road configuration

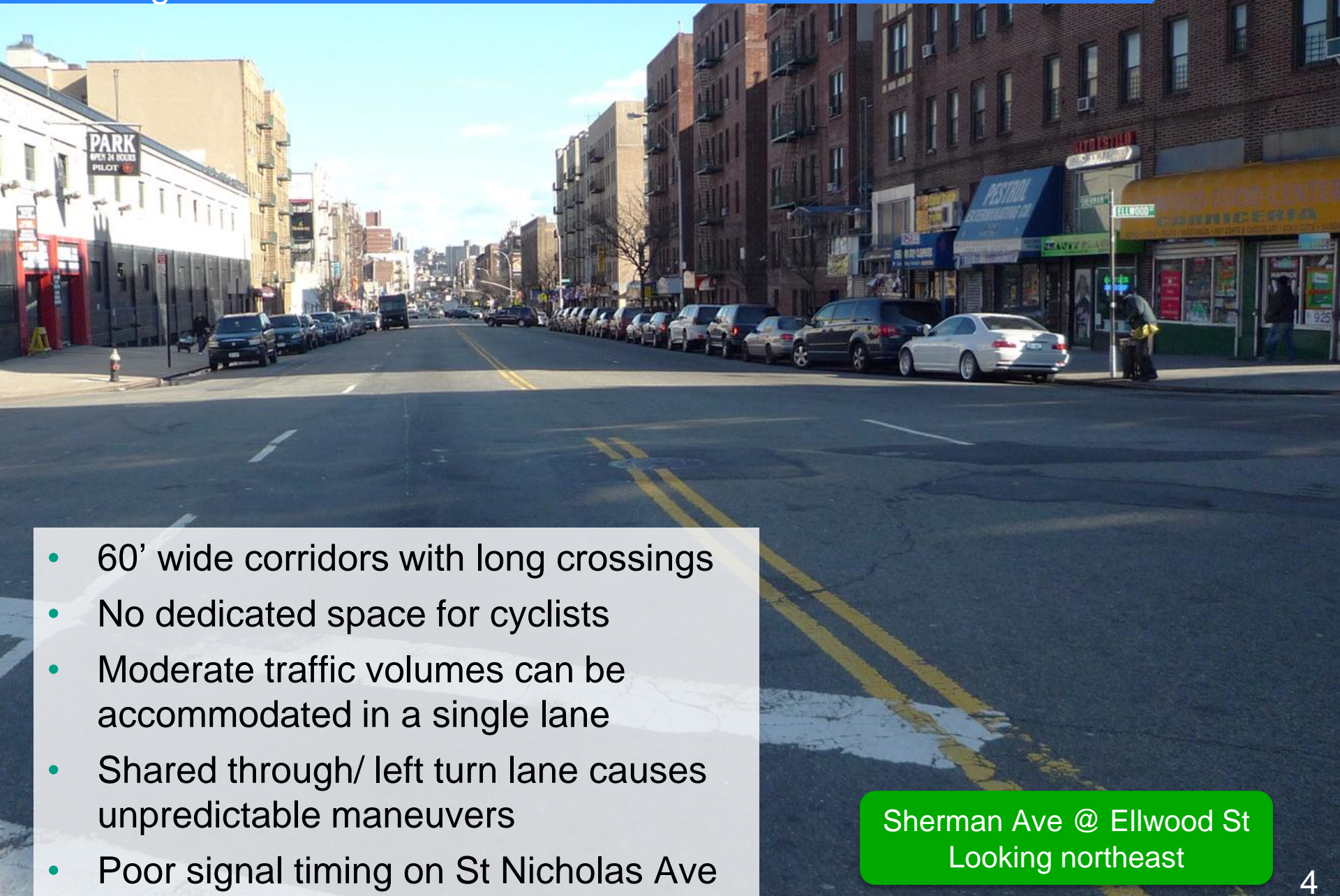
Sherman and St Nicholas Avenues

Corridor Project Map



Sherman and St Nicholas Avenues

Existing Conditions

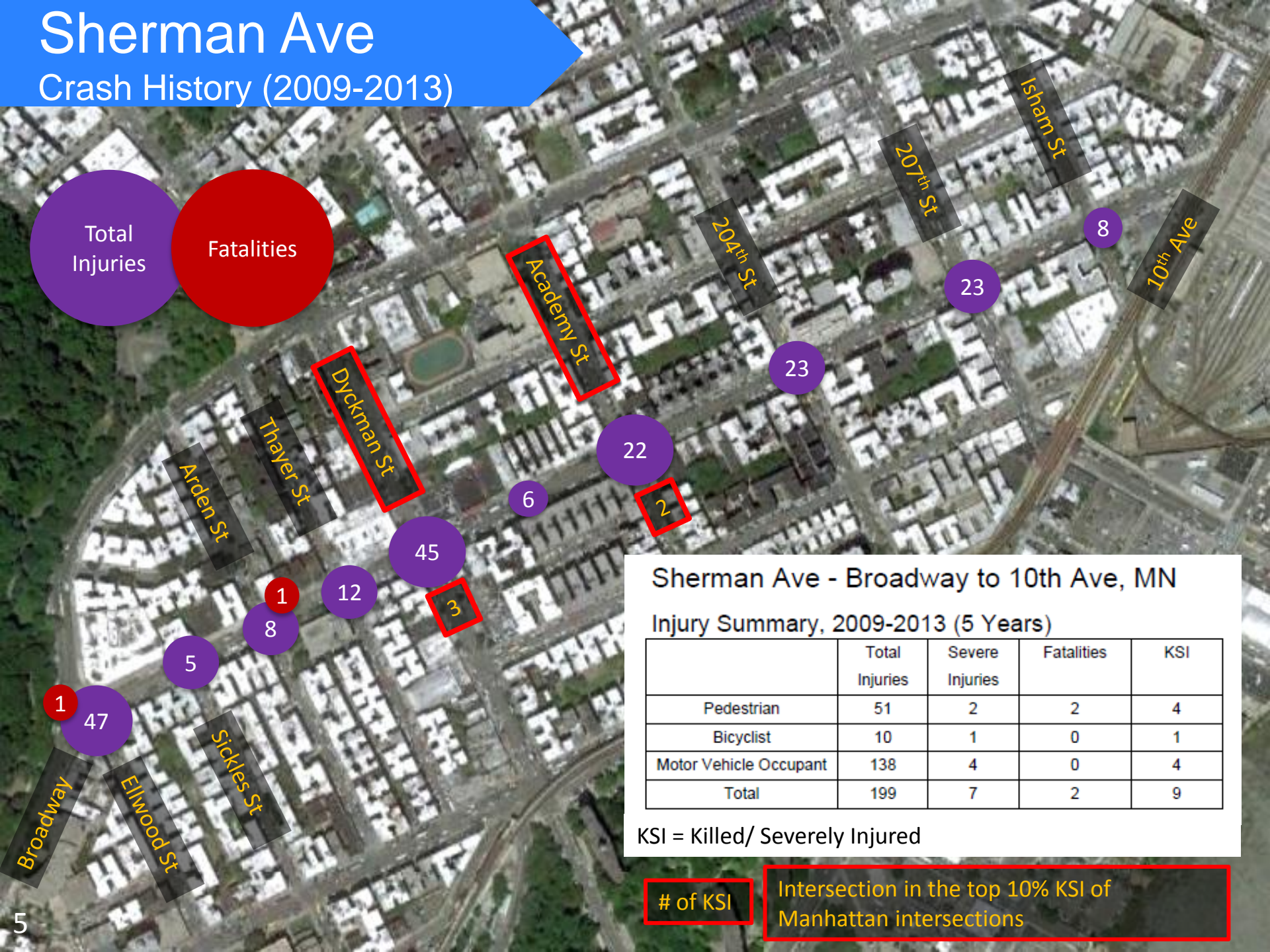


- 60' wide corridors with long crossings
- No dedicated space for cyclists
- Moderate traffic volumes can be accommodated in a single lane
- Shared through/ left turn lane causes unpredictable maneuvers
- Poor signal timing on St Nicholas Ave

Sherman Ave @ Ellwood St
Looking northeast

Sherman Ave

Crash History (2009-2013)



Sherman Ave - Broadway to 10th Ave, MN

Injury Summary, 2009-2013 (5 Years)

	Total Injuries	Severe Injuries	Fatalities	KSI
Pedestrian	51	2	2	4
Bicyclist	10	1	0	1
Motor Vehicle Occupant	138	4	0	4
Total	199	7	2	9

KSI = Killed/ Severely Injured

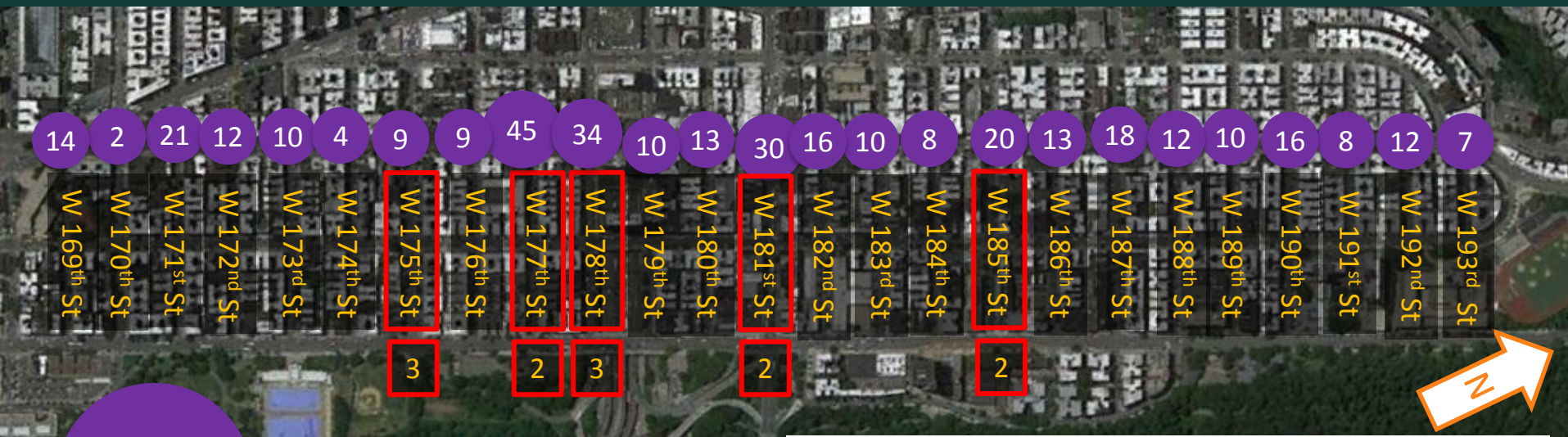
of KSI

Intersection in the top 10% KSI of Manhattan intersections

St Nicholas Ave

Crash History (2009-2013)

- High Crash Corridor with 20 people killed or severely injured (KSI) per mile, ranking in the top third of Manhattan corridors



Total Injuries

of KSI

Intersection in the top 10% KSI of Manhattan intersections

St Nicholas Ave - Broadway to W 193rd St, MN

Injury Summary, 2009-2013 (5 Years)

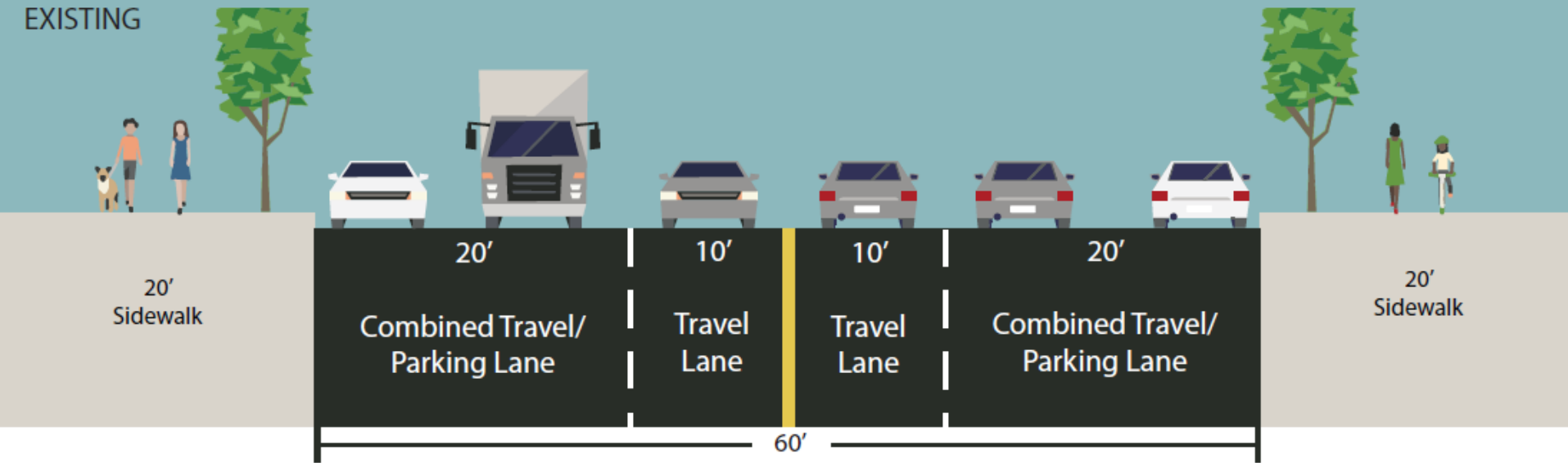
	Total Injuries	Severe Injuries	Fatalities	KSI
Pedestrian	141	18	0	18
Bicyclist	29	2	0	2
Motor Vehicle Occupant	234	5	0	5
Total	404	25	0	25

KSI = Killed/ Severely Injured

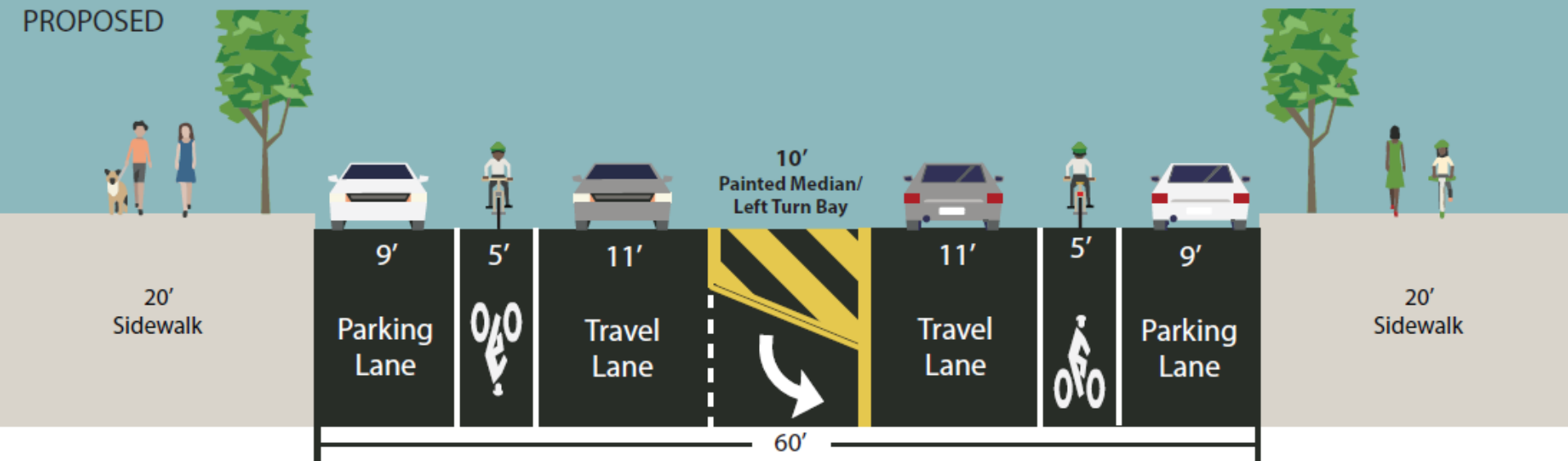
Sherman and St Nicholas Avenues

Proposed Configuration (Cross Section)

EXISTING

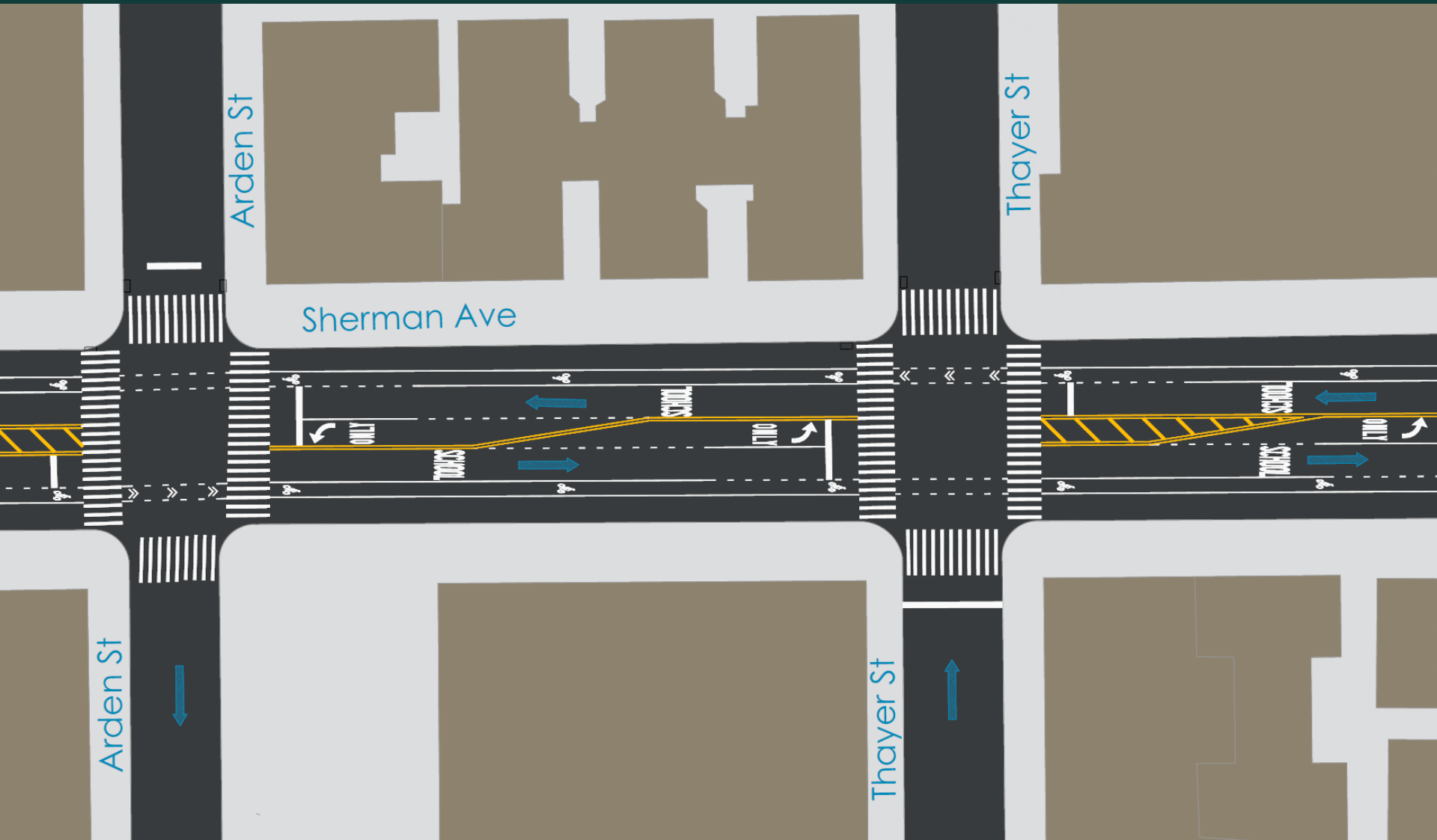


PROPOSED



Sherman and St Nicholas Avenues

Proposed Configuration (Sample Block)



Sherman and St Nicholas Avenues

Proposed Design



- Bicycle lane provides dedicated space for cyclists
- Remove one lane in each direction
- Add left turn lanes maintain capacity at intersections
- No parking loss

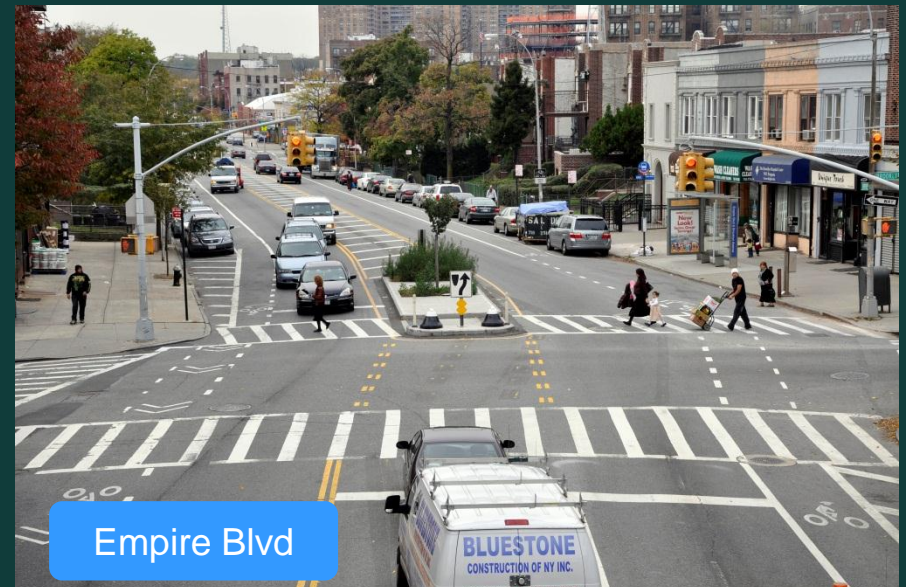
Proposed Configuration:
E 222nd St, Bronx

Safety Results from Similar Treatments

4 lane to 3 lane Traffic Calming

PROJECT	CRASHES WITH INJURIES (% CHANGE)
West 6 th Street, BK	-24%
Empire Boulevard, BK	-15%
Allerton Avenue, BX	-28%
Gerritsen Avenue, BK	-40%
Southern Boulevard, BK	-20%
Randall Avenue, BX	-22%
Macombs Road, BX	-44%

Reducing the number of travel lanes and installing bike lanes improves safety for all street users



Sherman and St Nicholas Avenues

Parking Regulations



To address double parking, DOT will work with businesses to identify possible locations for commercial loading zones

St Nicholas Ave and 179th St

St Nicholas Avenue

Pedestrian Island Opportunities



Concrete pedestrian safety islands can be located in painted medians pending approval

Vanderbilt Ave, Brooklyn

St Nicholas Avenue

Signal Timing



DOT contractor is producing study to optimize signal progression. Benefits will include:

- Decreased travel times
- Reduced congestion

St Nicholas Ave @ W 190th St
Looking south

Sherman and St Nicholas Avenues

Corridor Project Summary



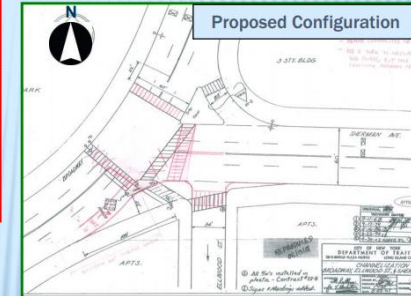
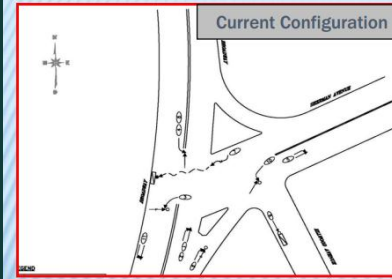
- Enhances safety for all street users
- Expands the bicycle network by creating new bicycle connections
- Improves safety at left-turn intersections
- Reduces opportunities for speeding and reckless driving

Sherman Ave and Broadway Intersection

Project Background

- The Sherman Creek/Inwood Traffic Study, presented on April 5th 2010 to CB 12, developed recommendations for pedestrian safety at 16 critical intersections, including Broadway & Sherman Ave
- DOT presented Sherman Creek – Inwood Safety Improvements to CB 12 on May 2nd 2011 and received a resolution in support; Broadway & Sherman Ave identified as future Department of Design and Construction (DDC) project
- No longer planned for capital project; in-house project developed

Accident Diagram and Proposed Improvement - Broadway & Sherman Ave -



1. Curb extension on South side
2. Redesign of high visibility crosswalks
3. Signal timing modification

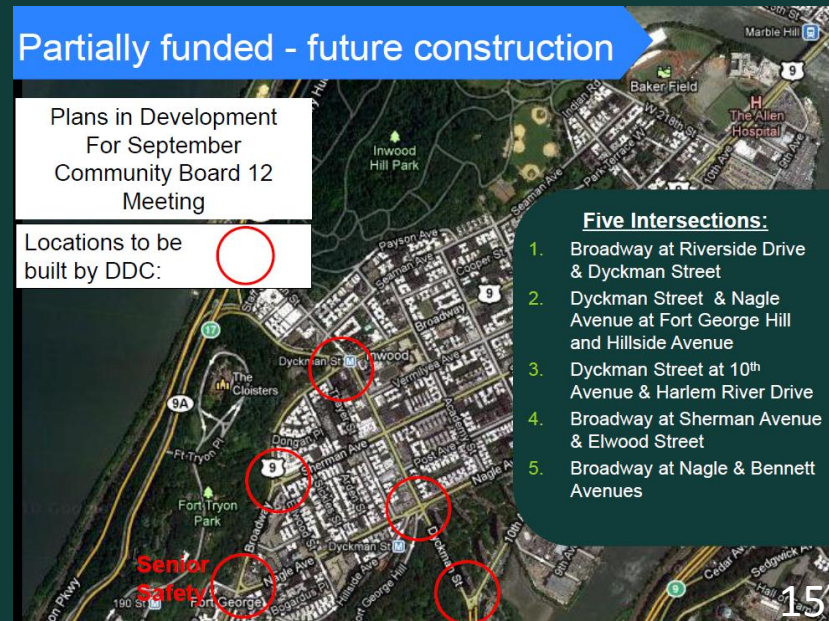


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Partially funded - future construction

Plans in Development
For September
Community Board 12
Meeting

Locations to be
built by DDC:

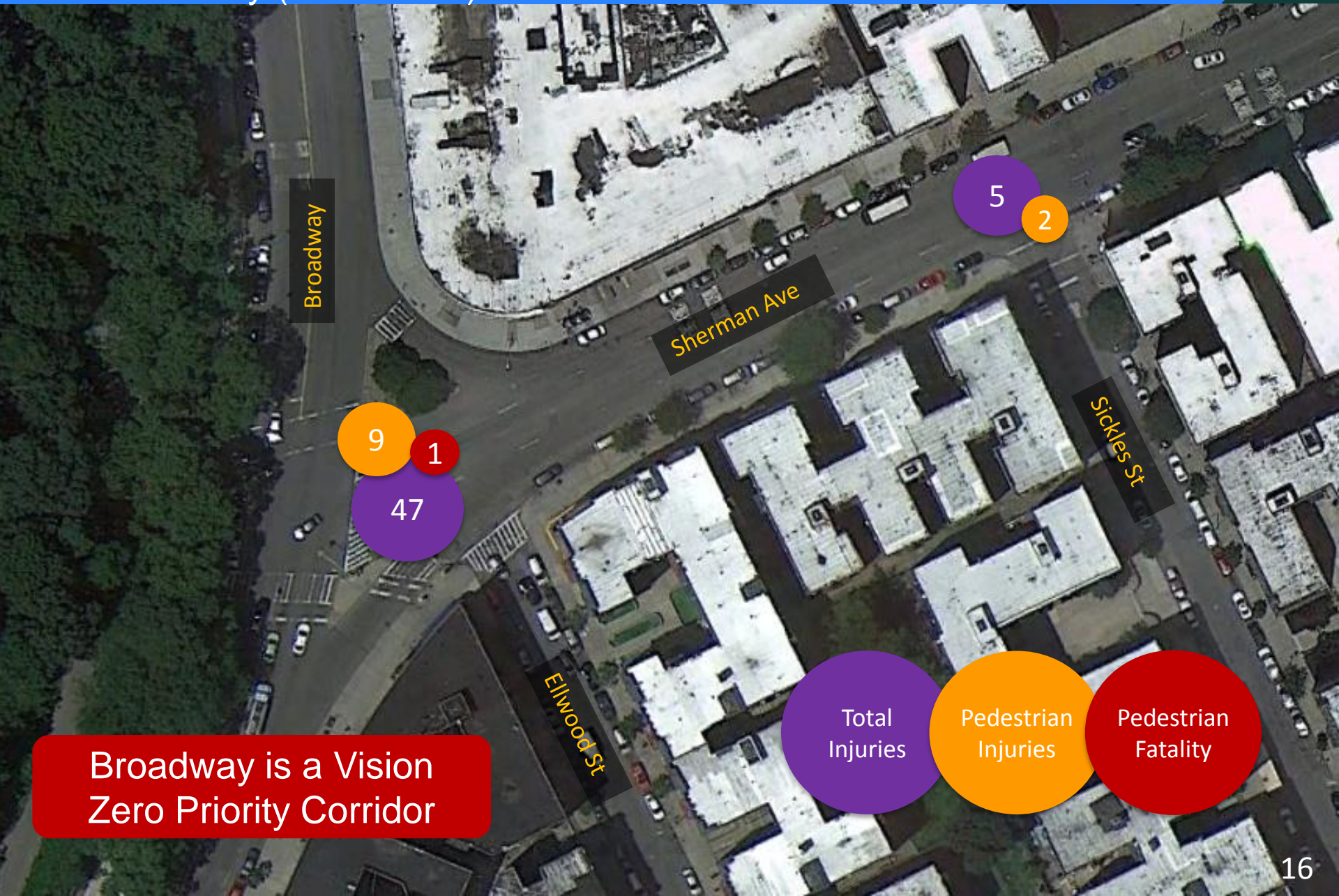


Five Intersections:

1. Broadway at Riverside Drive & Dyckman Street
2. Dyckman Street & Nagle Avenue at Fort George Hill and Hillside Avenue
3. Dyckman Street at 10th Avenue & Harlem River Drive
4. Broadway at Sherman Avenue & Elwood Street
5. Broadway at Nagle & Bennett Avenues

Sherman Ave and Broadway Intersection

Crash History (2009-2013)



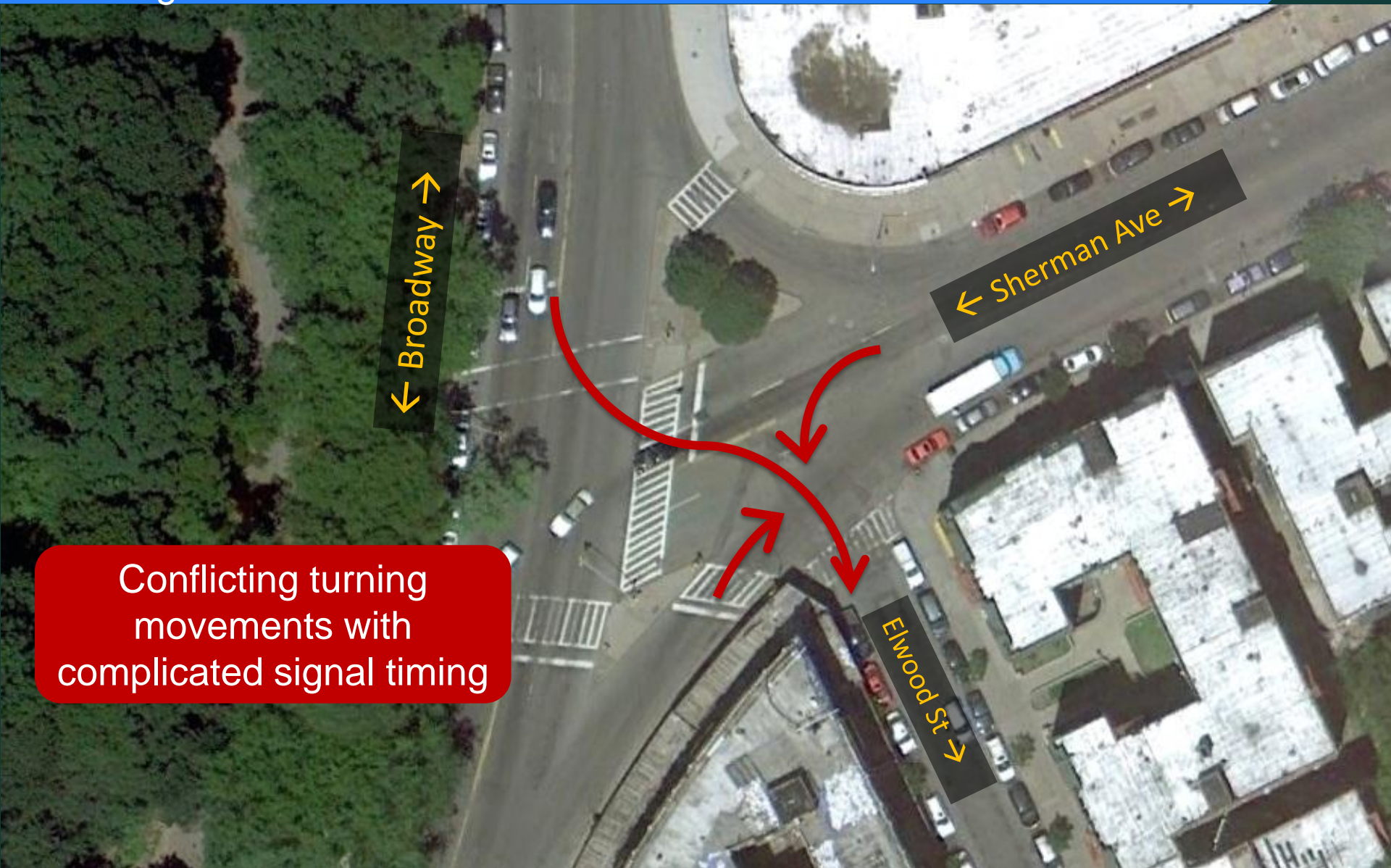
Sherman Ave and Broadway Intersection

Existing Conditions



Sherman Ave and Broadway Intersection

Existing Conditions



Sherman Ave and Broadway Intersection

Existing Conditions



Conflicting turns



Pedestrian desire line
at Ellwood St

Sherman Ave and Broadway Intersection

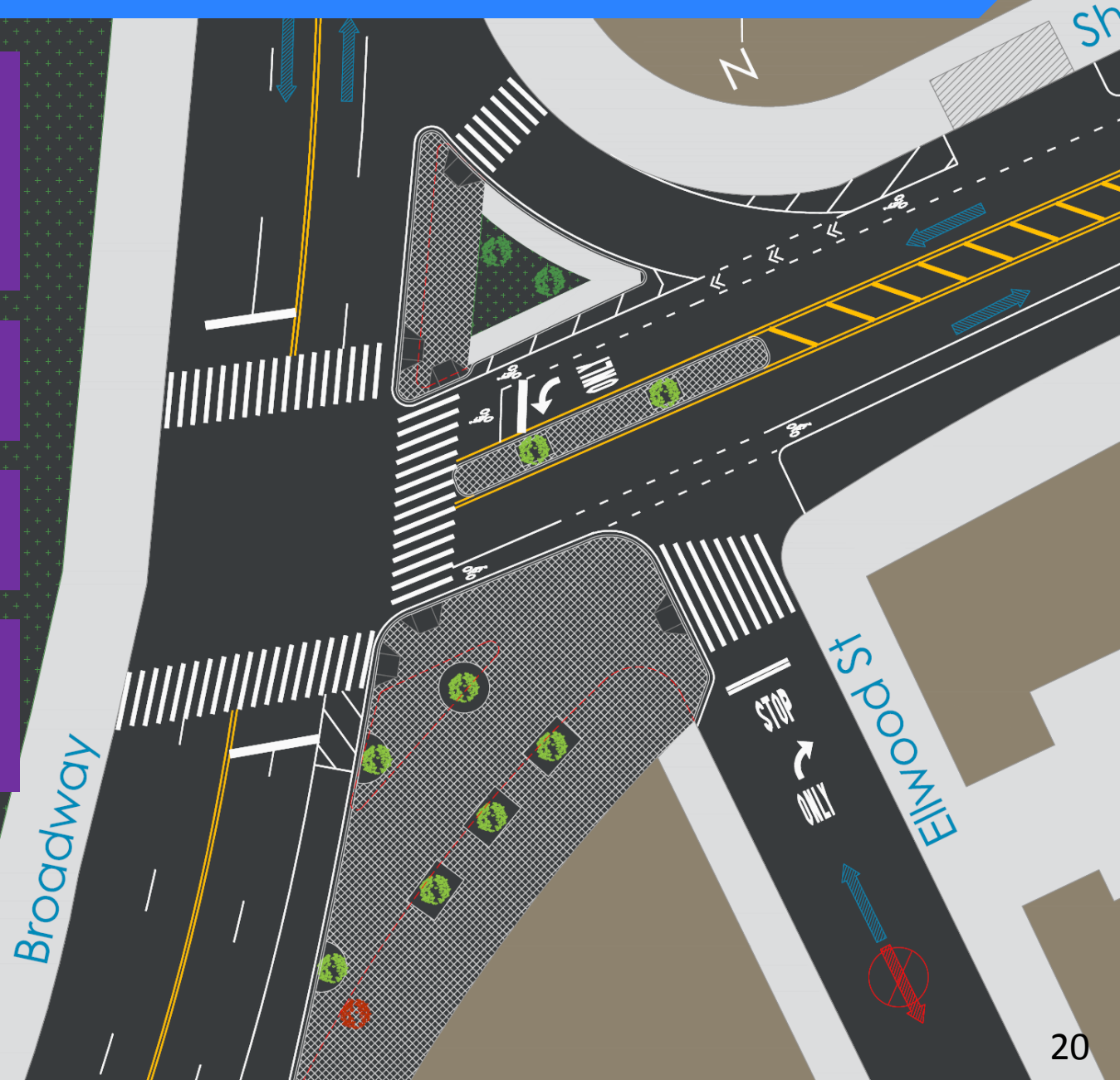
Proposal

Close right turn slip lane from Broadway with concrete sidewalk extension

Expand northern island

Construct median island with trees

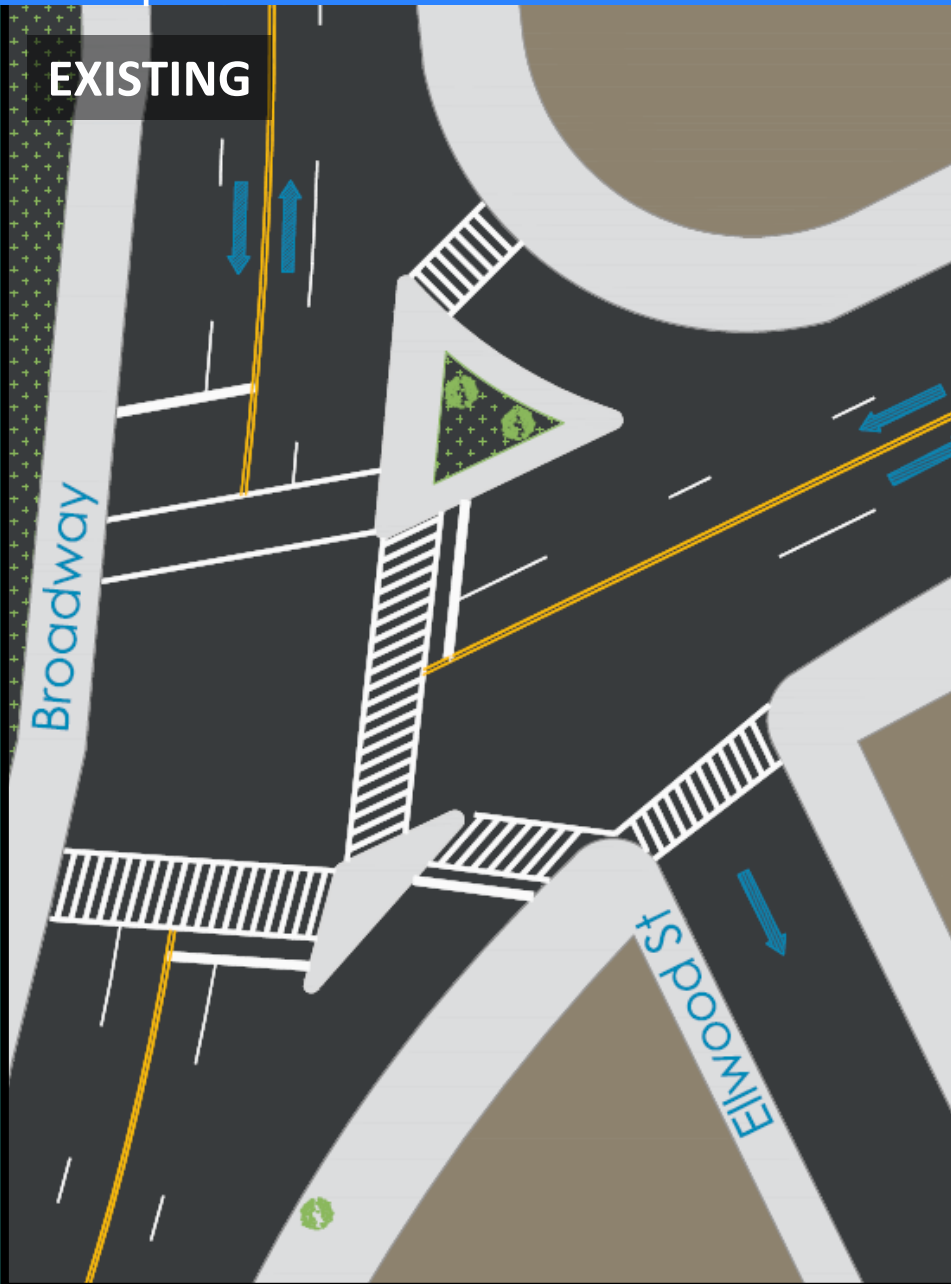
Reverse Ellwood St between Nagle and Sherman Aves



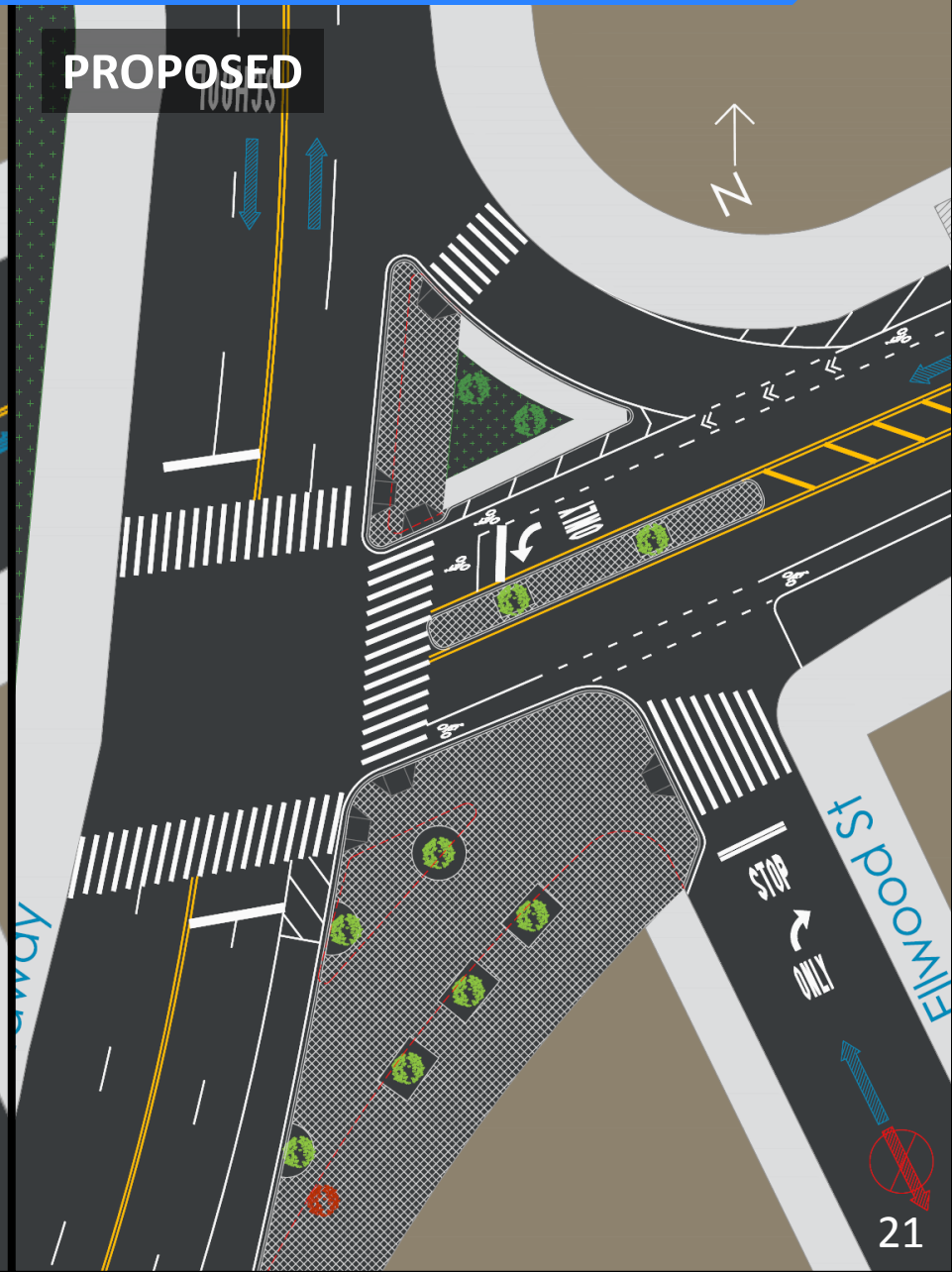
Sherman Ave and Broadway Intersection

Proposal

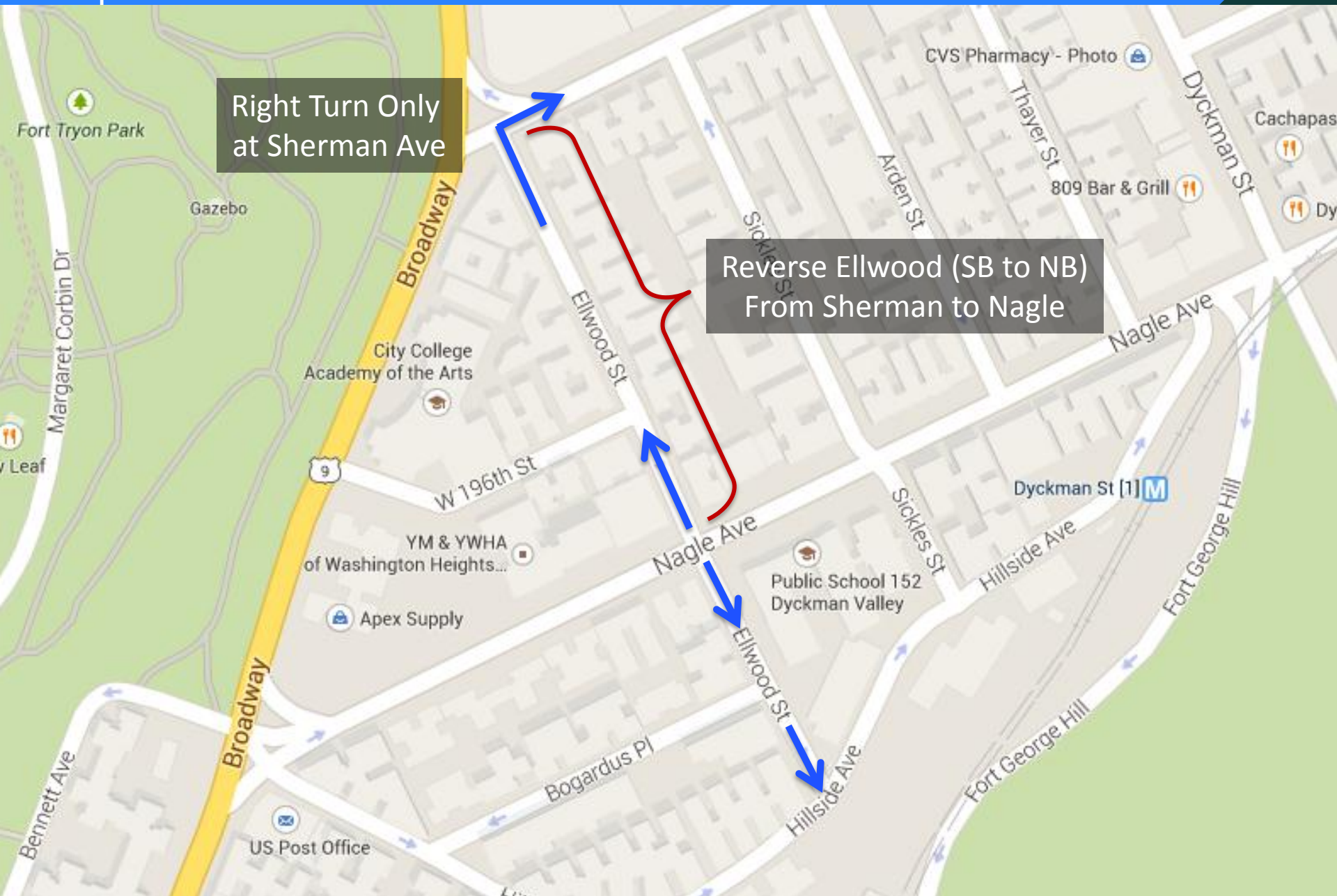
EXISTING



PROPOSED



Proposal



Sherman Ave and Broadway Intersection

Proposal

More direct
pedestrian paths

118 ft

73 ft

38% reduction in
crossing distance

Broadway

Elmwood St

STOP

ONLY

Sherman Ave and Broadway Intersection

Intersection Project Summary

- Increase safety for all users
- Create shorter, more direct pedestrian crossings
- Clarify vehicular movements
- Safer turning movements
- Improve streetscape





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Thank
You