

Hillside and Metropolitan

Pedestrian Safety Improvements

2014



Commissioner Polly Trottenberg New York City Department of Transportation
Presented by the Pedestrian Projects Group on May 27, 2014 to Queens CB9 Transportation Committee

Project Area



Metropolitan Ave

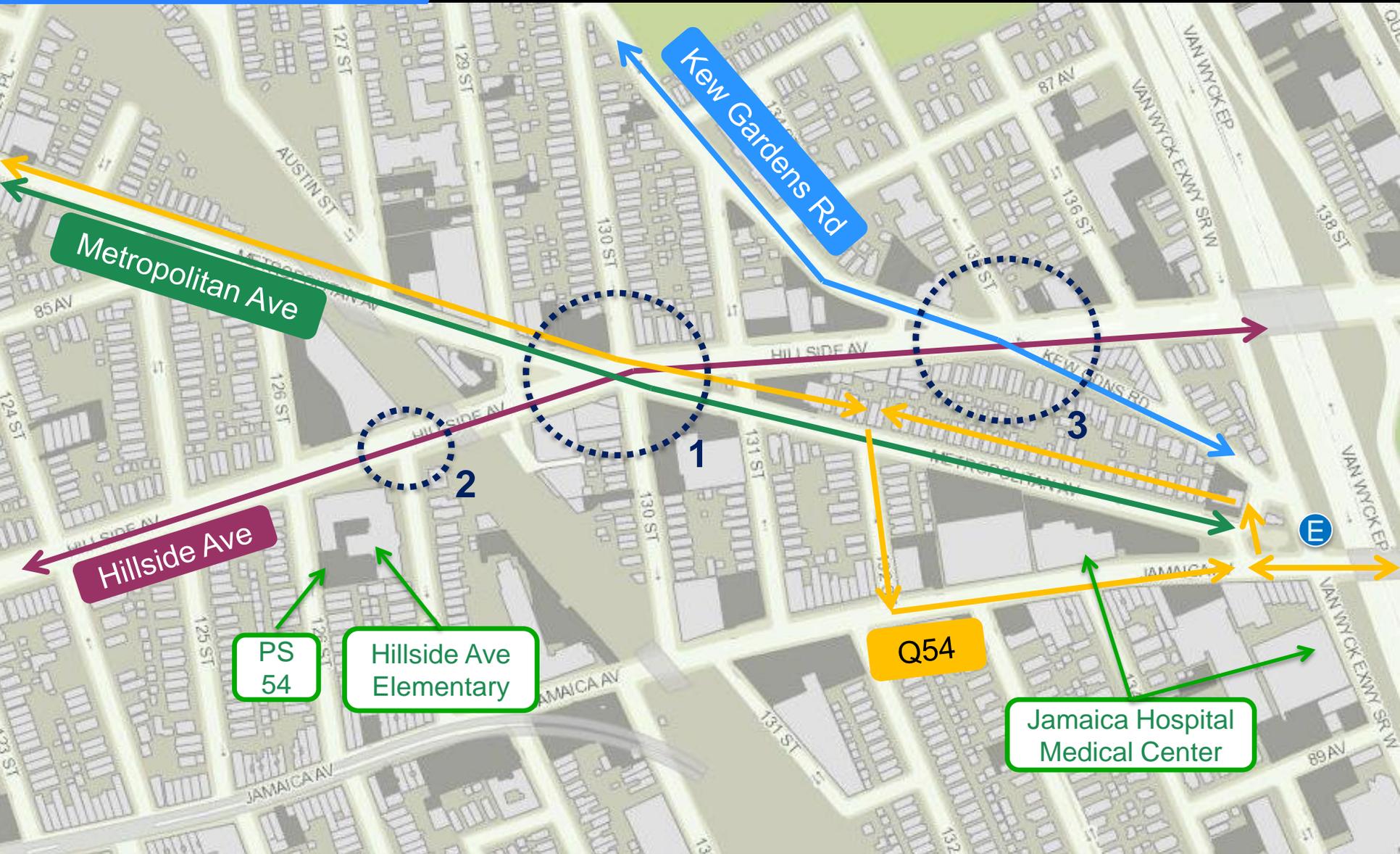
Kew Gardens Rd

Van Wyck Expy

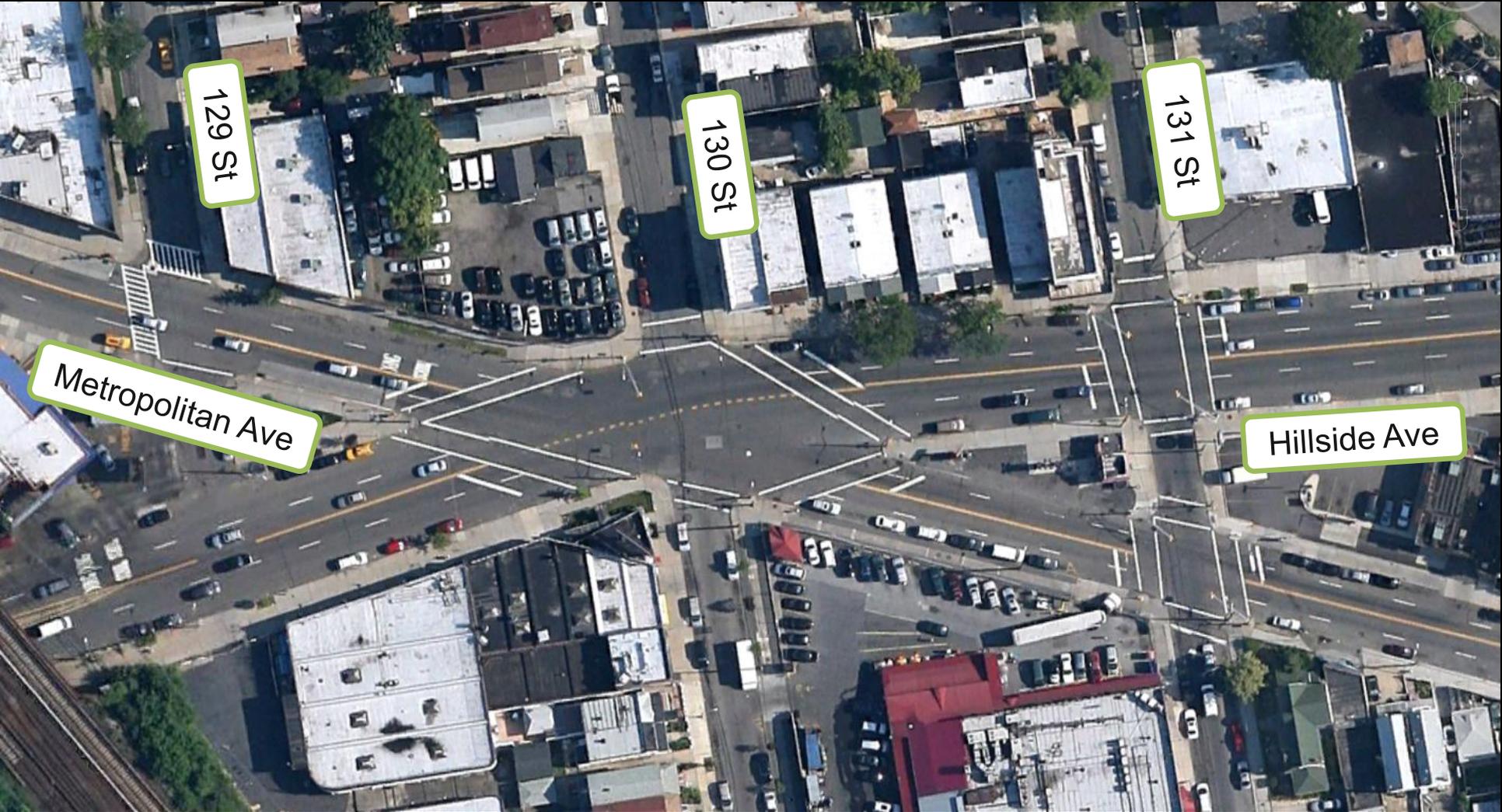
Hillside Ave

Jamaica Ave

Project Area



1. Existing Aerial



Crash History

24% of motor vehicle crashes involved left turning vehicles

60% of pedestrian crashes took place when pedestrians are crossing with signal.

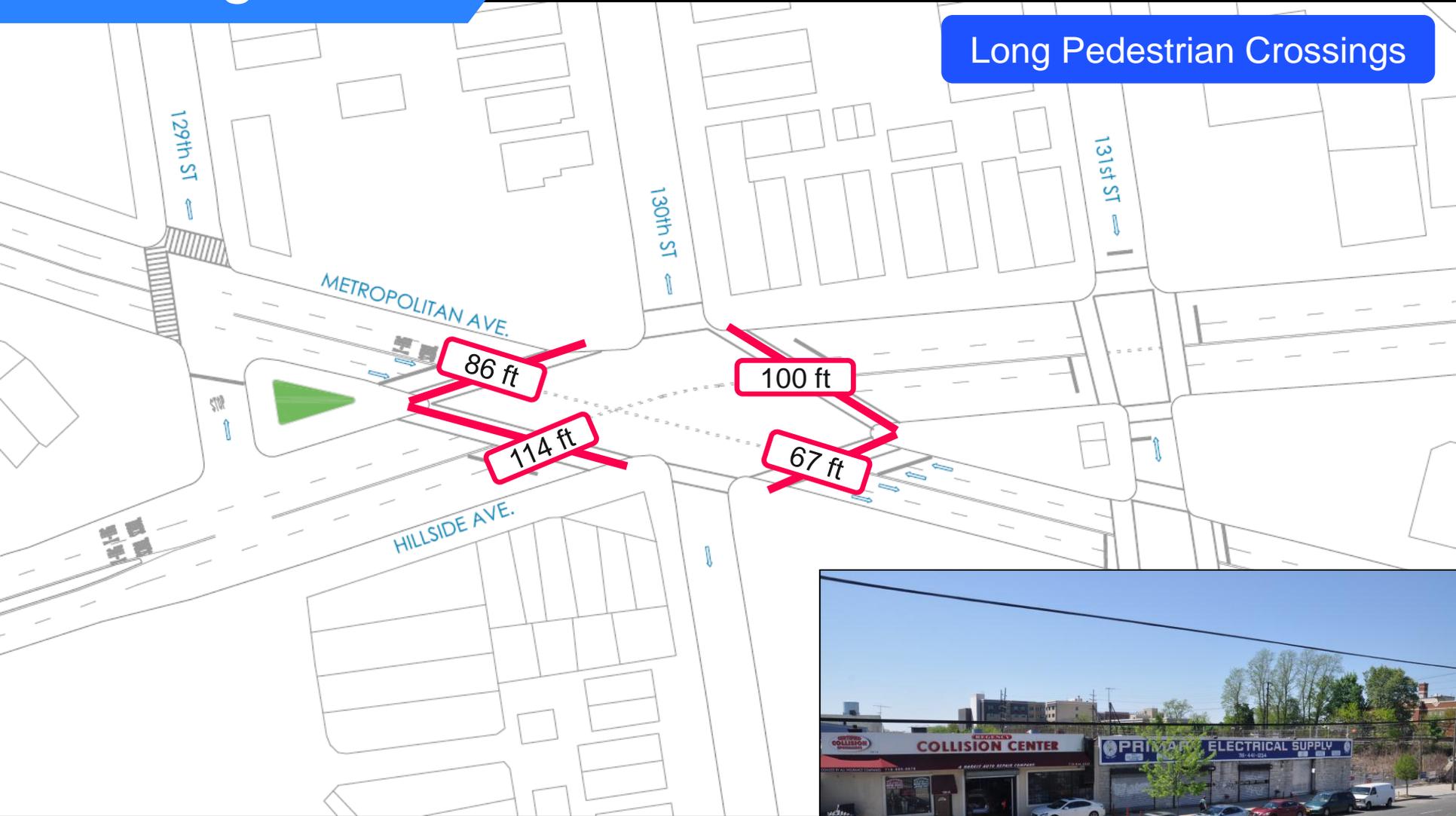


| | Total Injuries | Severe Injuries |
|------------------------|----------------|-----------------|
| Pedestrian | 6 | 0 |
| Bicyclist | 2 | 1 |
| Motor Vehicle Occupant | 38 | 2 |
| Total | 46 | 3 |

Metropolitan Ave at Hillside Ave
Injury Summary, 2008-2012 (5 years)

Existing Issues

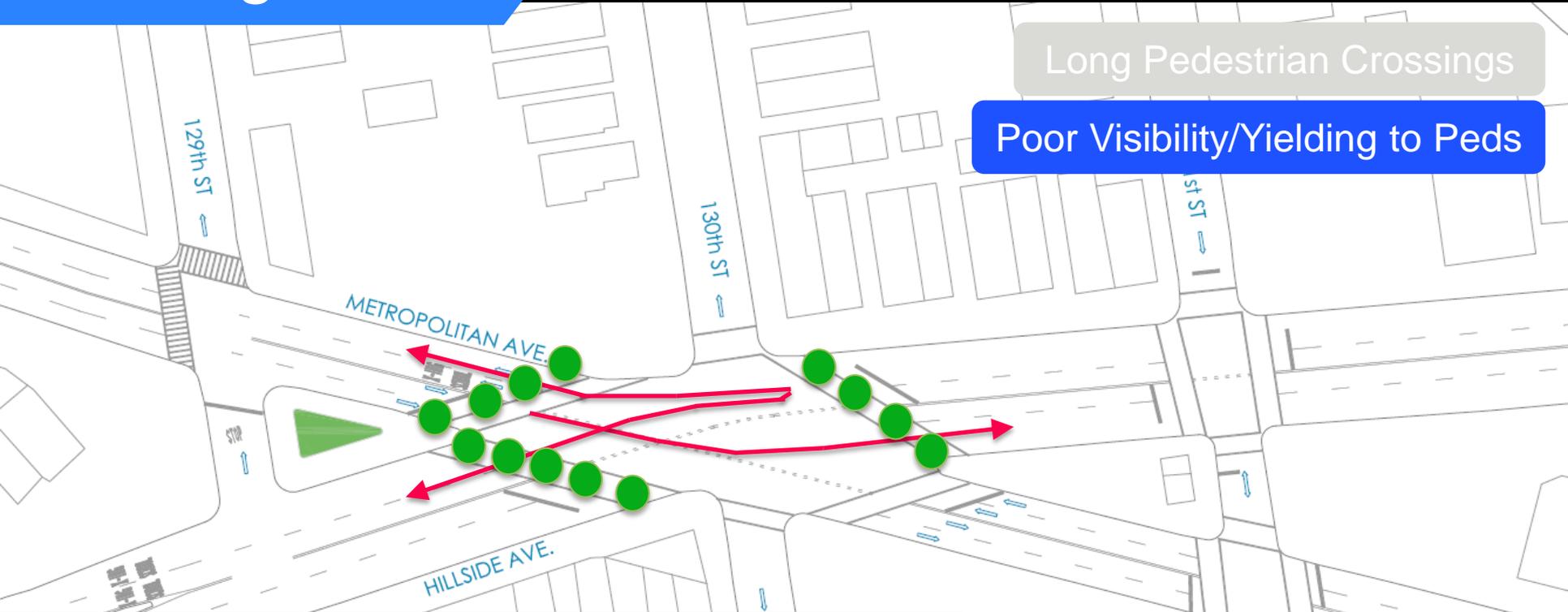
Long Pedestrian Crossings



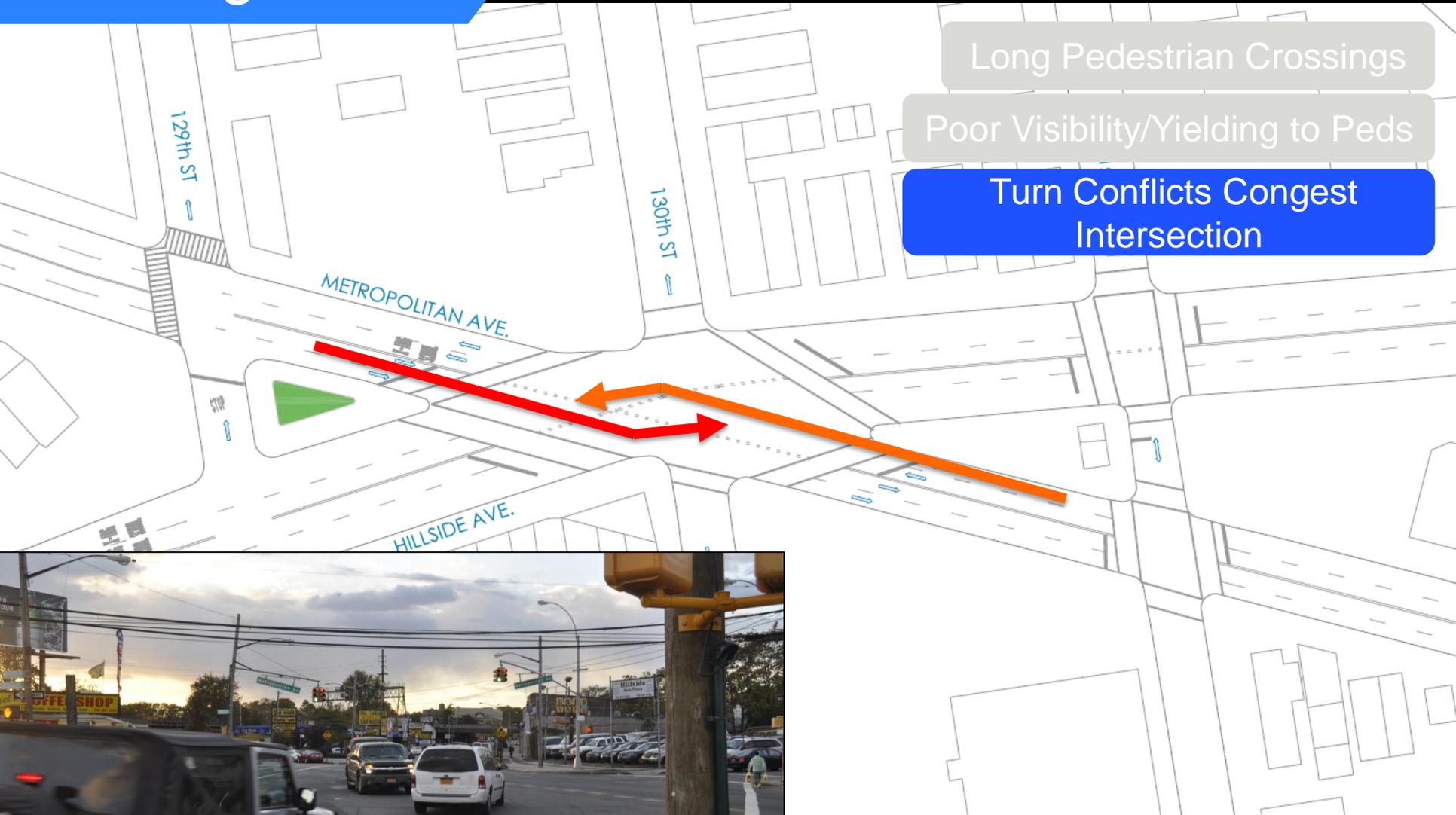
Existing Issues

Long Pedestrian Crossings

Poor Visibility/Yielding to Peds



Existing Issues



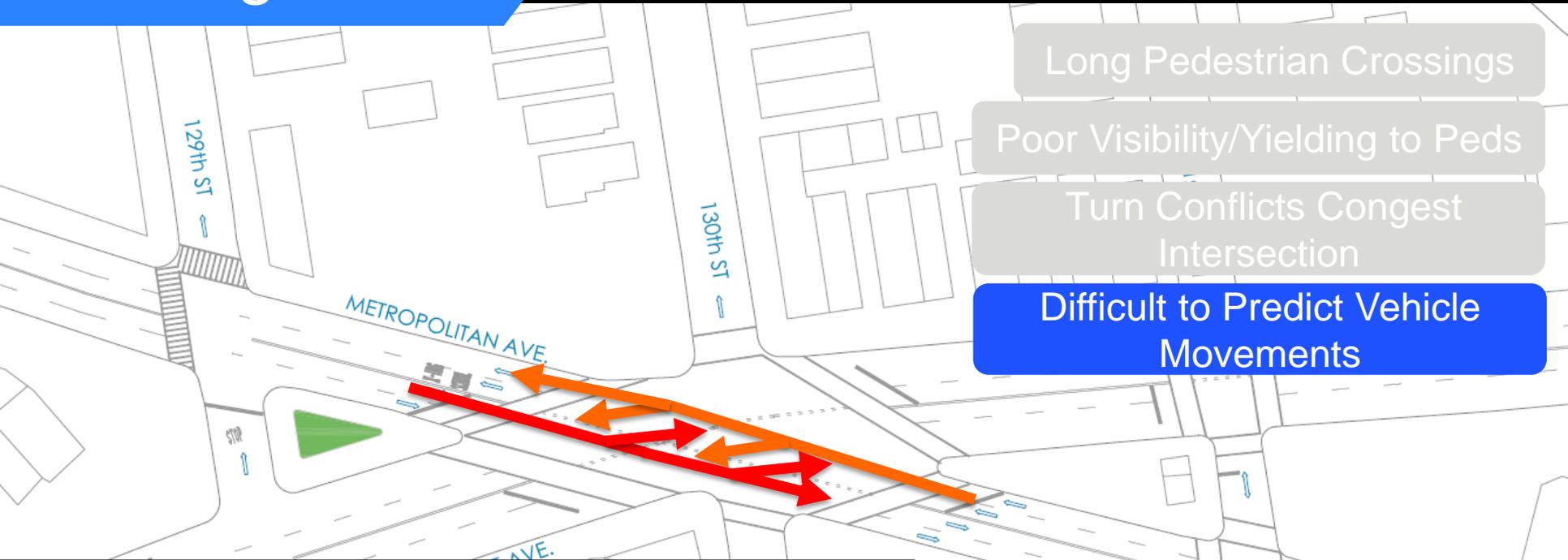
Long Pedestrian Crossings

Poor Visibility/Yielding to Peds

Turn Conflicts Congest Intersection



Existing Issues



Long Pedestrian Crossings

Poor Visibility/Yielding to Peds

Turn Conflicts Congest
Intersection

Difficult to Predict Vehicle
Movements

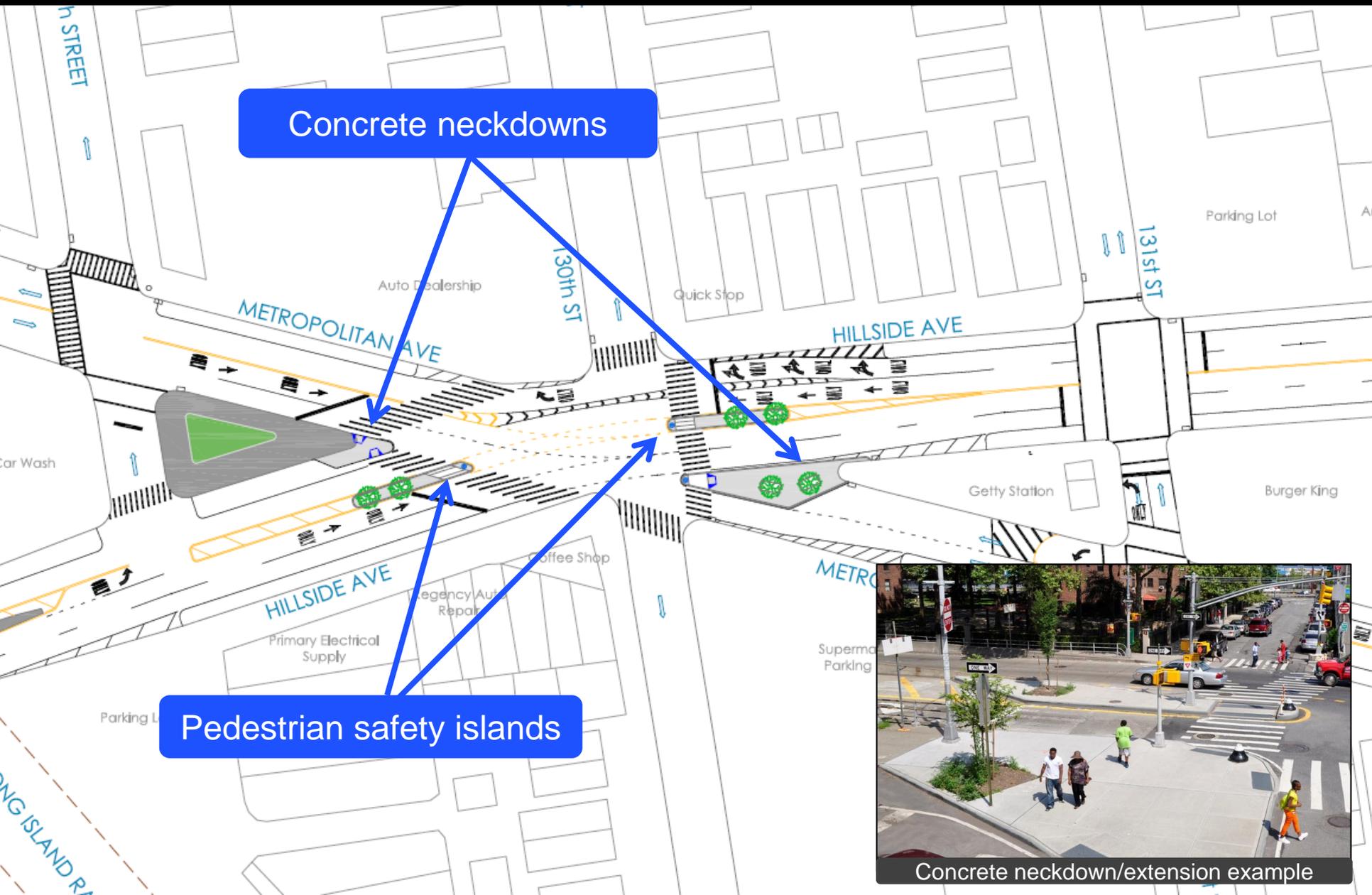


Rapid Response Toolkit

- Signal Timing
- Pavement Markings
- Turn Restrictions
- Concrete Islands & Island Extensions

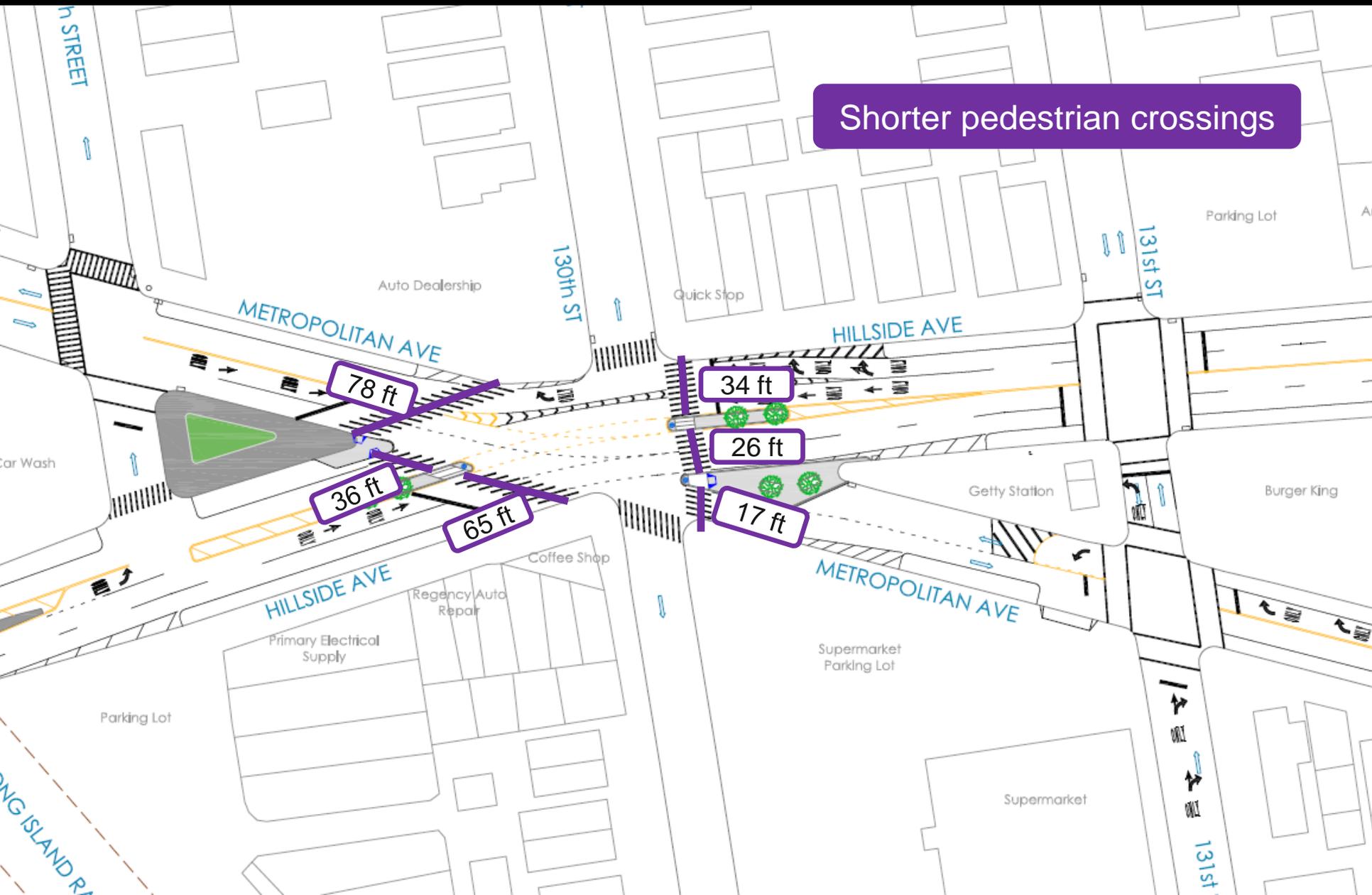


Proposed Improvements



Concrete neckdown/extension example

Proposed Improvements



Shorter pedestrian crossings

78 ft

36 ft

65 ft

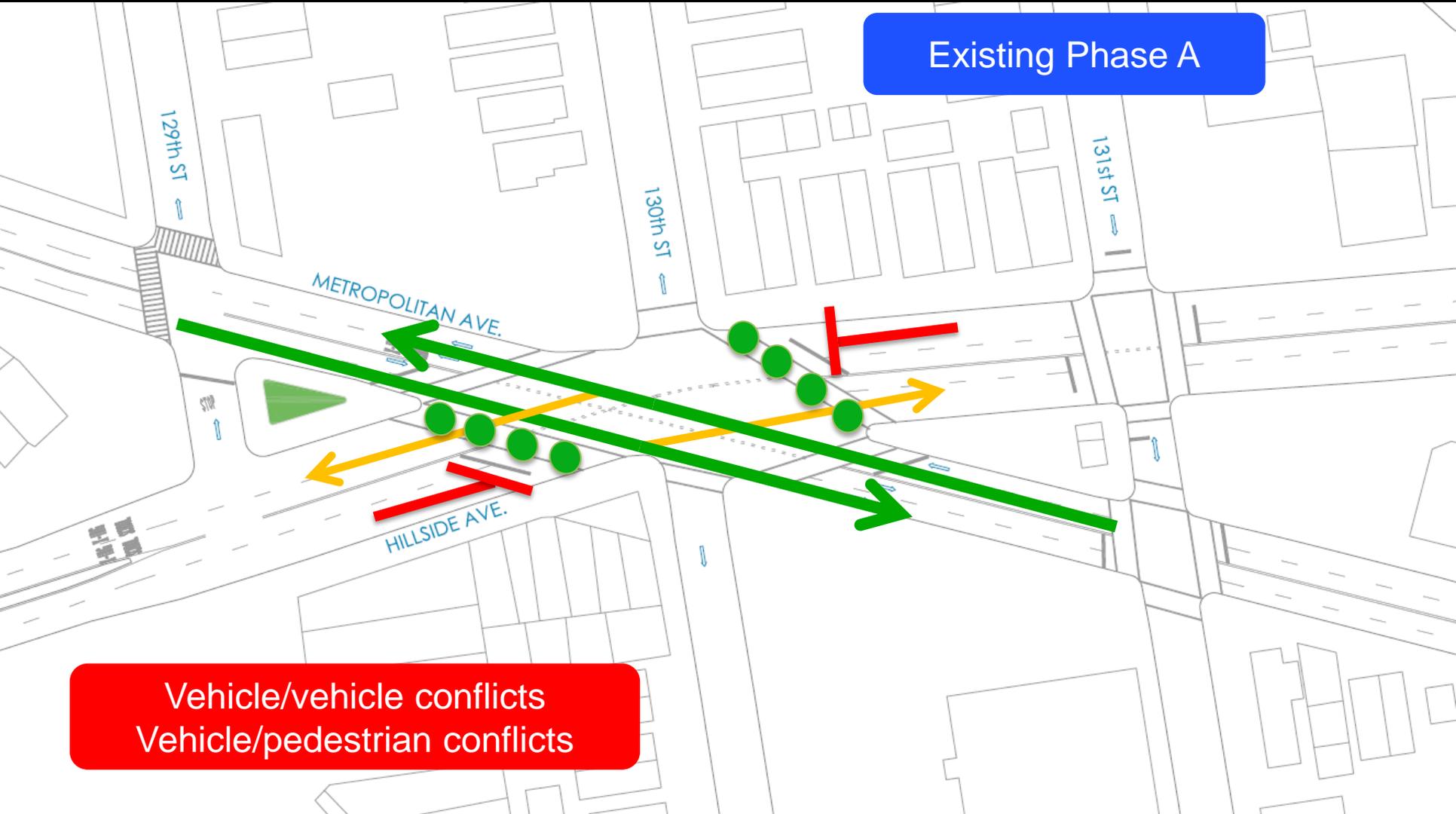
34 ft

26 ft

17 ft

Signal Timing Benefits

Existing Phase A

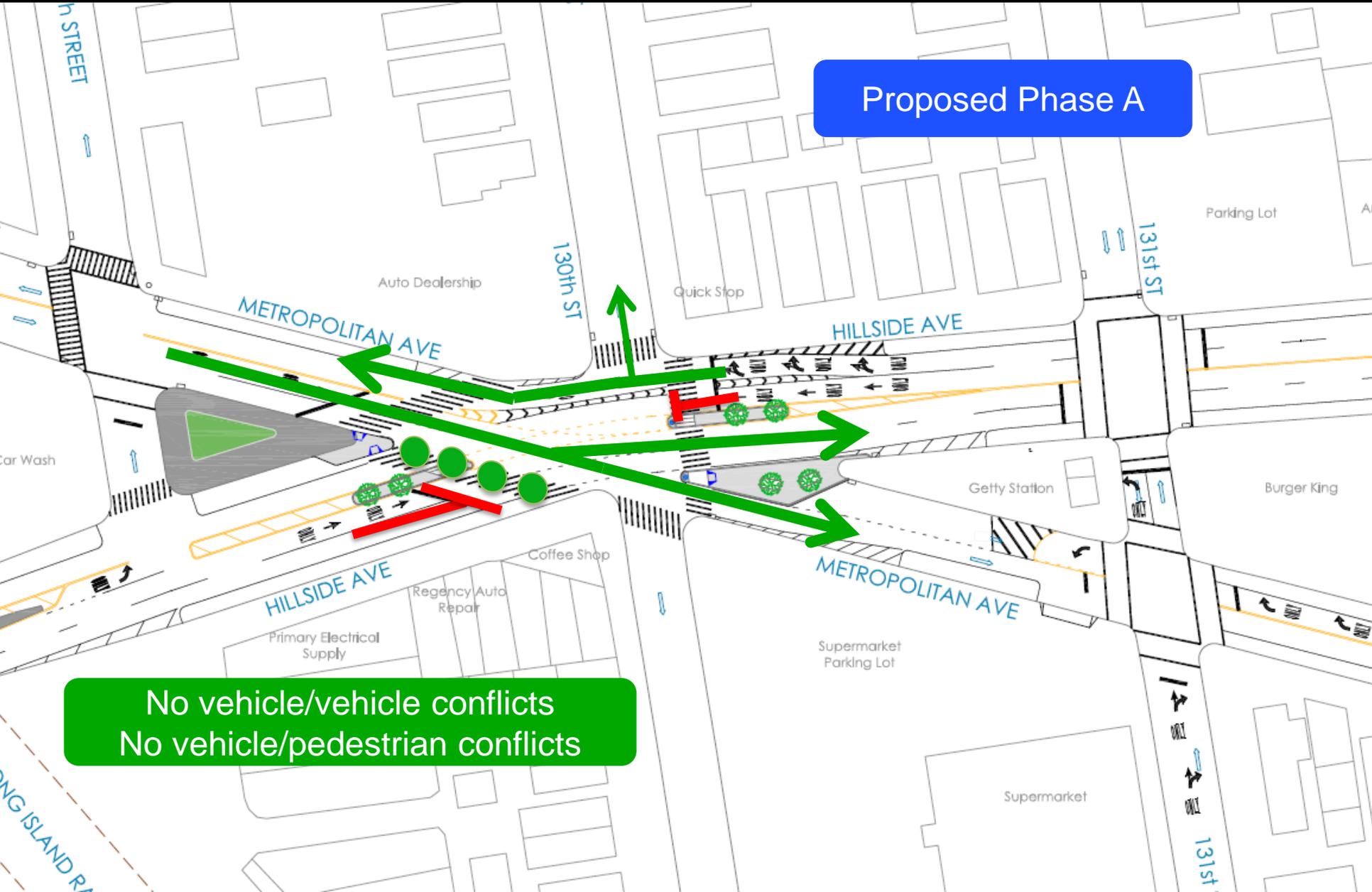


Vehicle/vehicle conflicts
Vehicle/pedestrian conflicts

Signal Timing Benefits

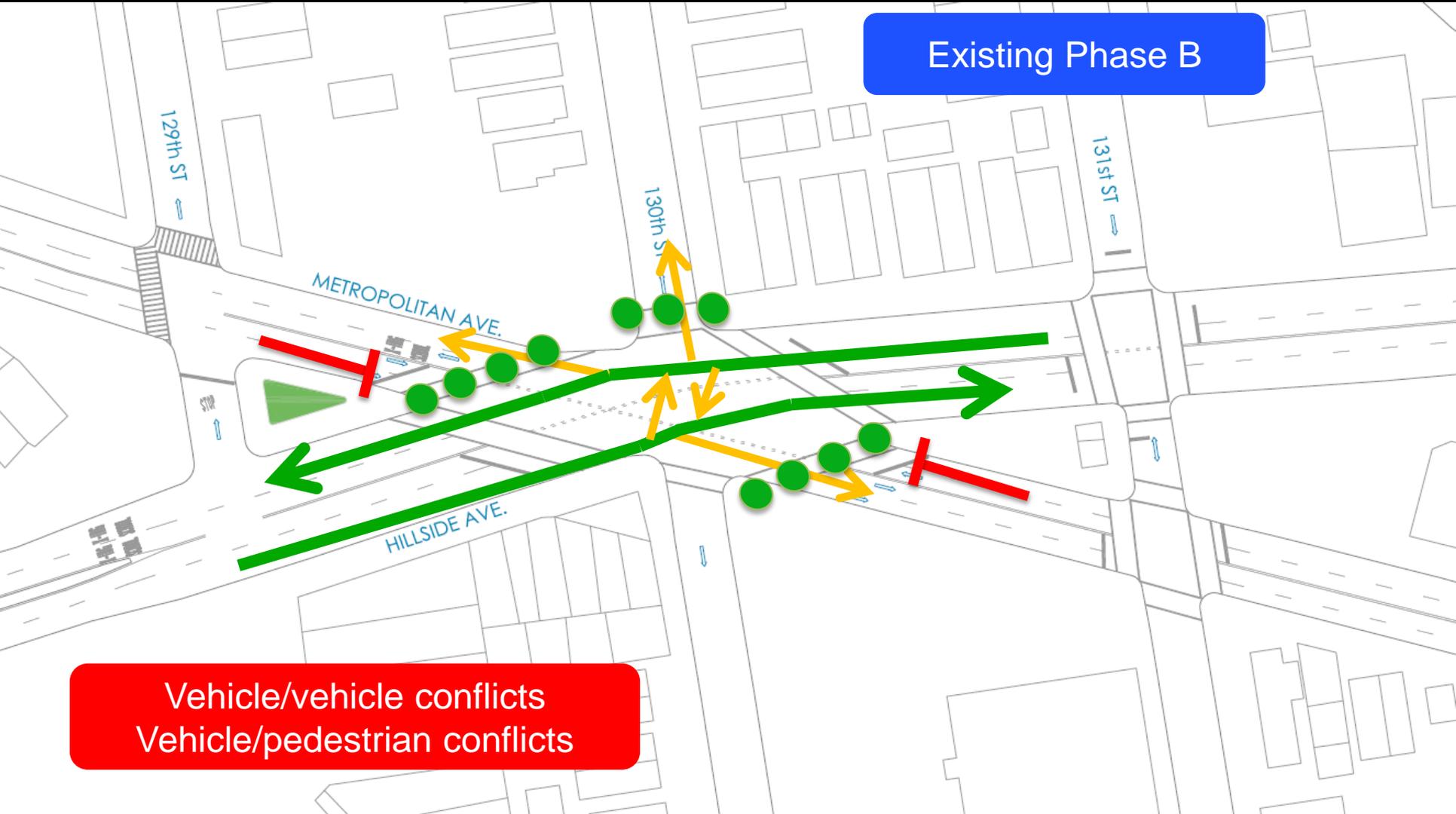
Proposed Phase A

No vehicle/vehicle conflicts
No vehicle/pedestrian conflicts



Signal Timing Benefits

Existing Phase B

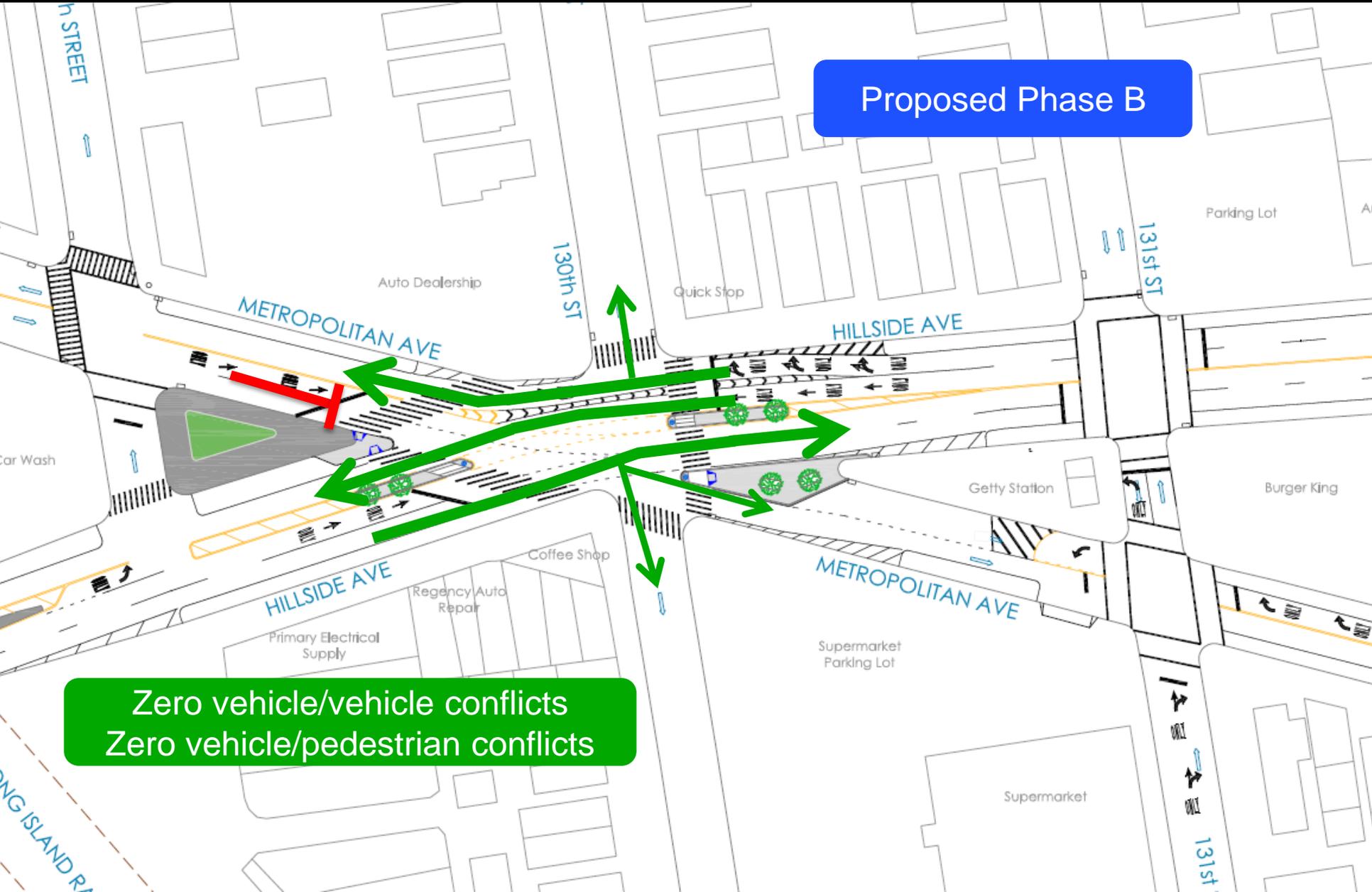


Vehicle/vehicle conflicts
Vehicle/pedestrian conflicts

Signal Timing Benefits

Proposed Phase B

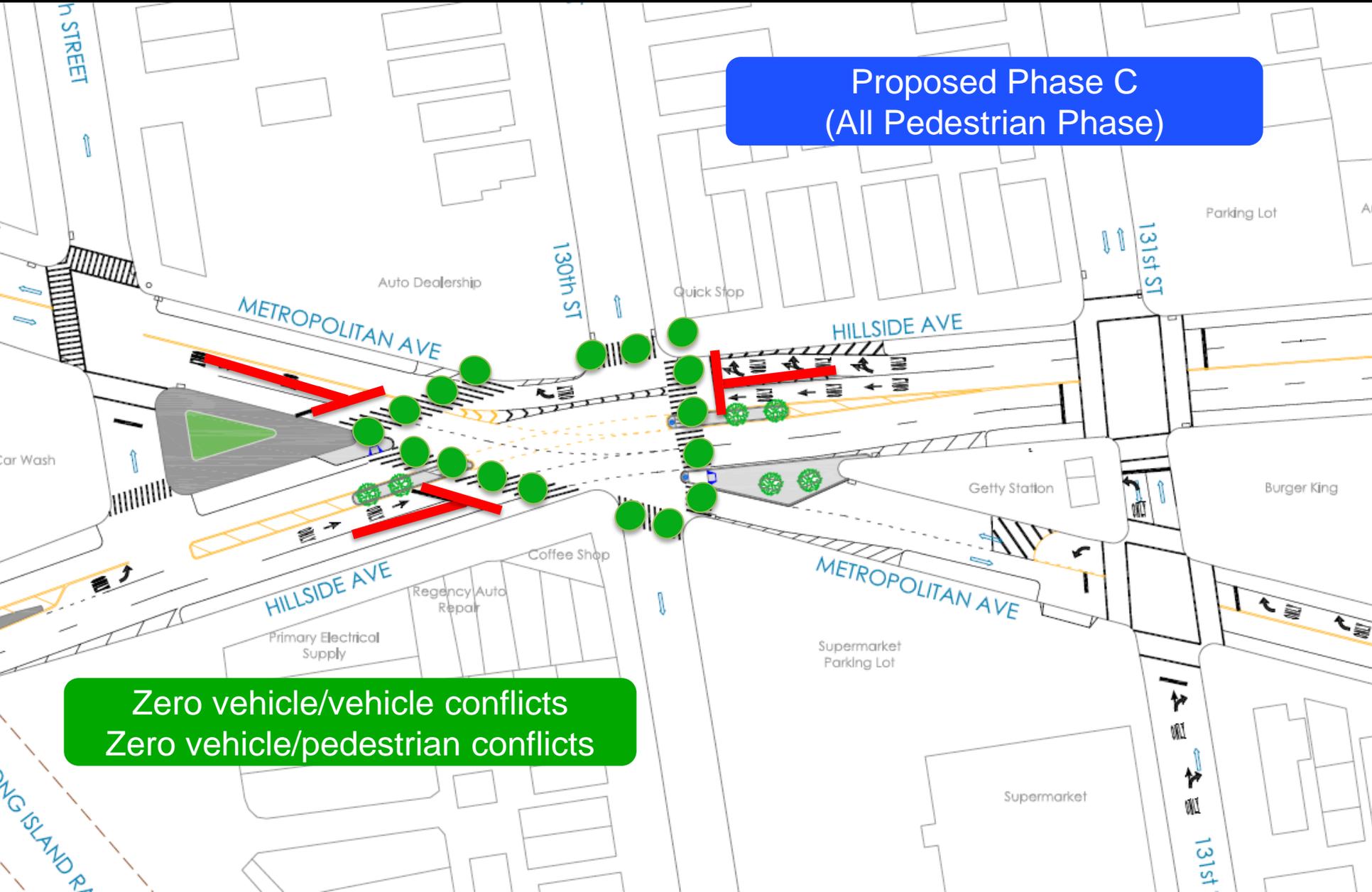
Zero vehicle/vehicle conflicts
Zero vehicle/pedestrian conflicts



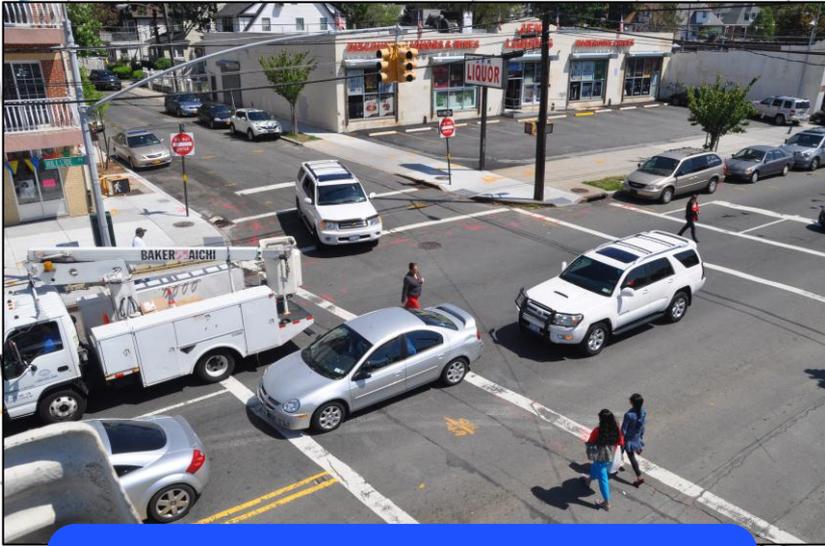
Signal Timing Benefits

Proposed Phase C
(All Pedestrian Phase)

Zero vehicle/vehicle conflicts
Zero vehicle/pedestrian conflicts

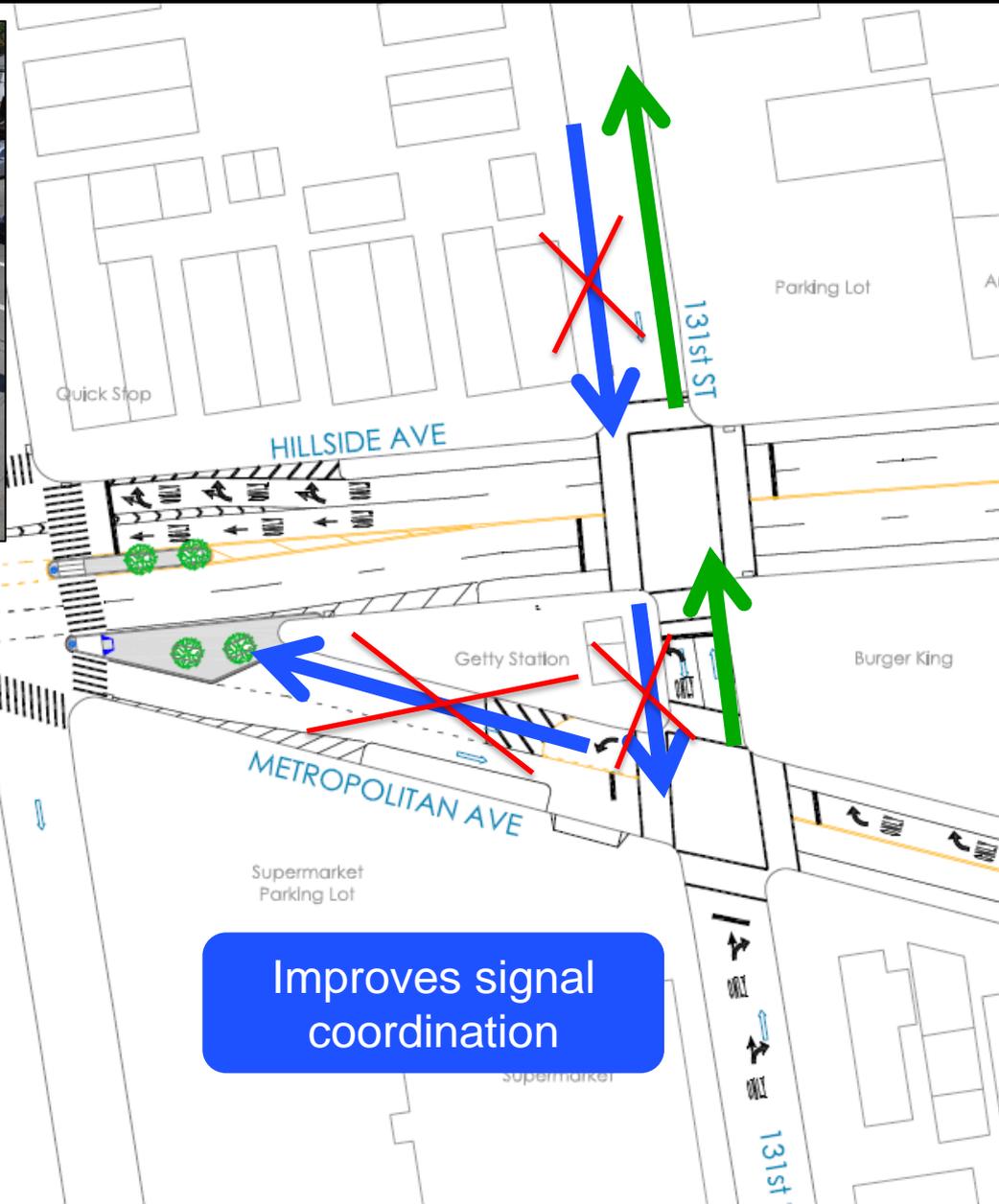


Proposed Improvements



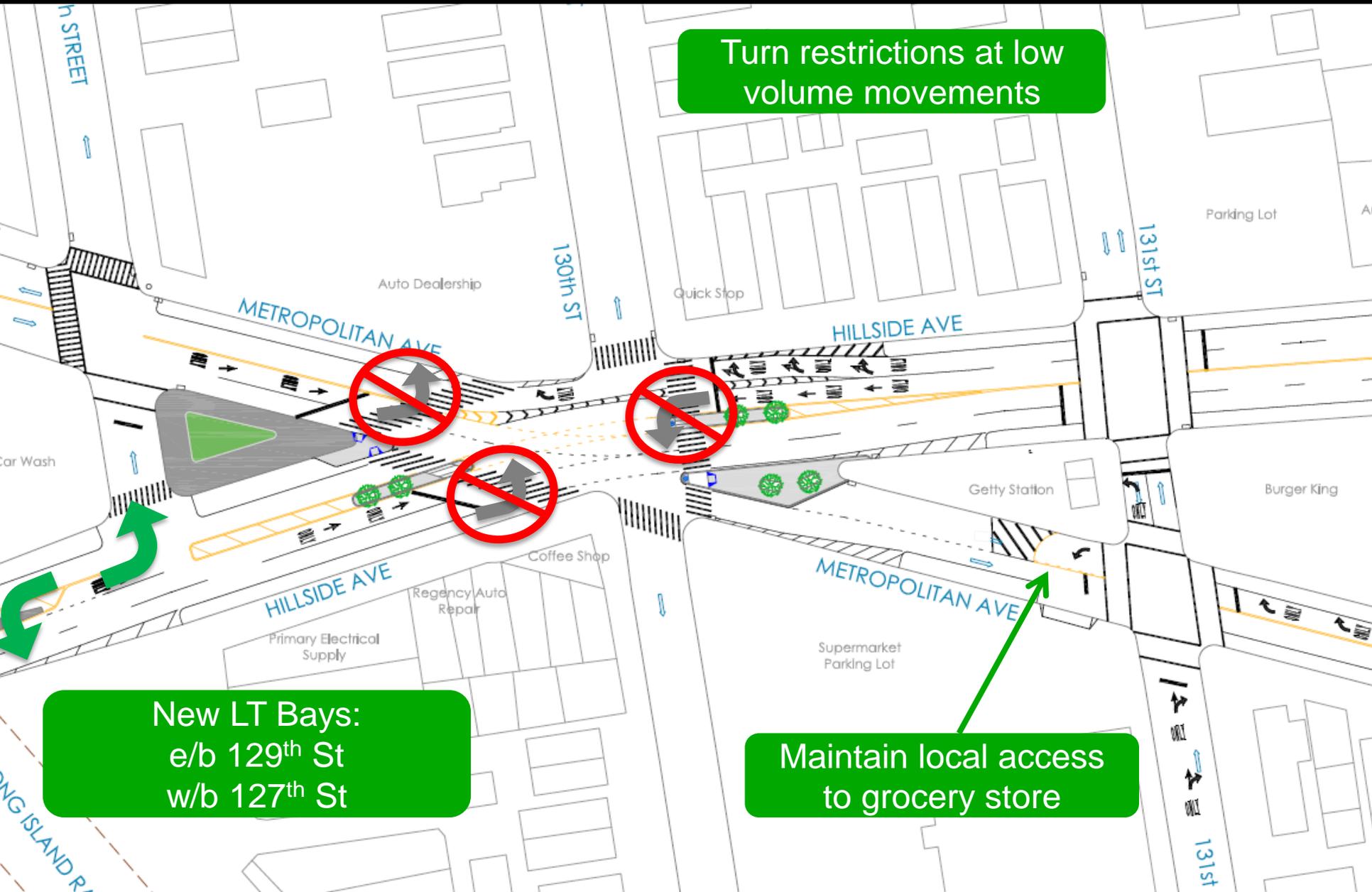
Eliminates head-on condition
on 131st St at Hillside Ave

131st St between
Metropolitan and Kew
Gardens converted to
northbound only

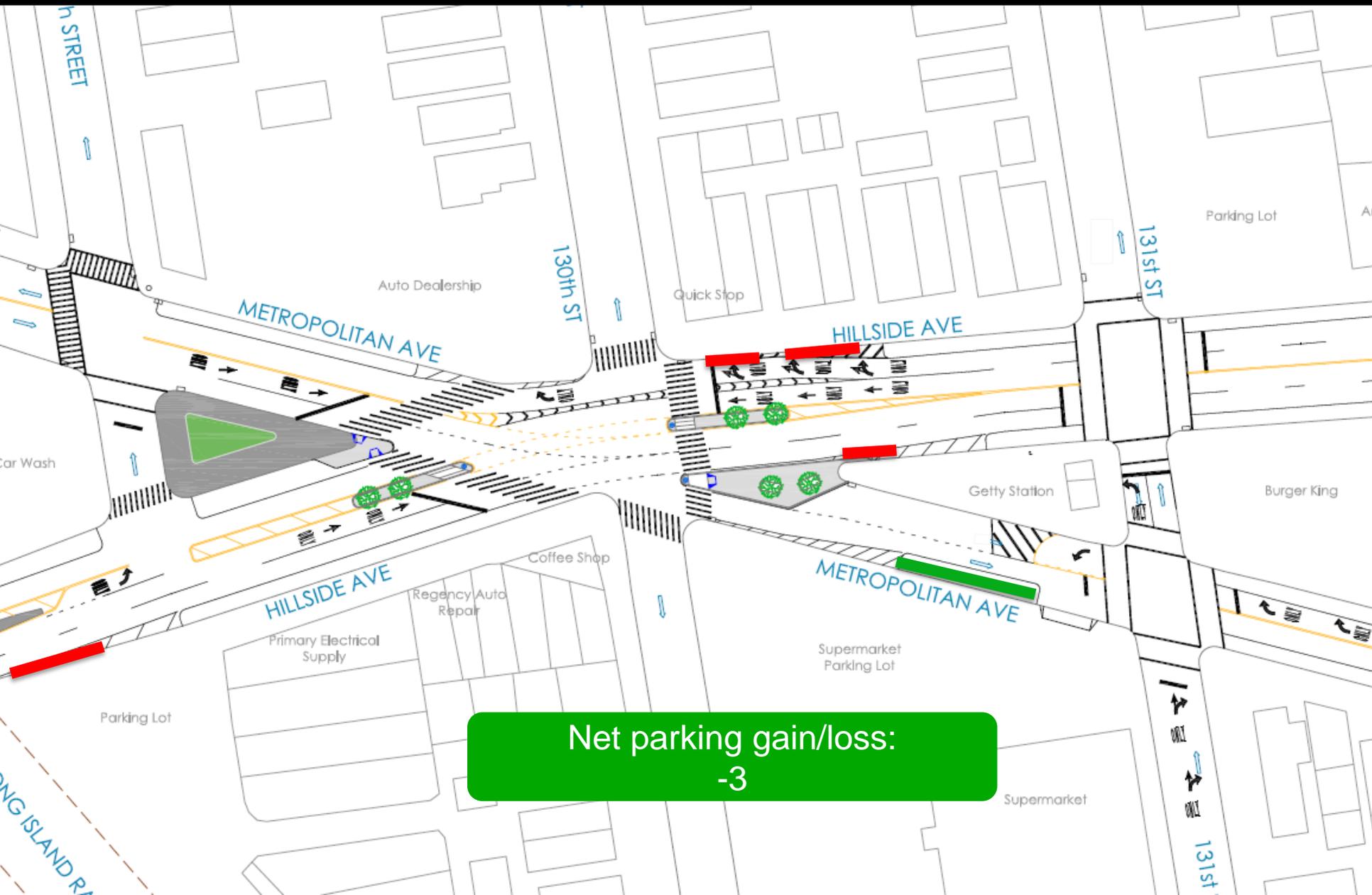


Improves signal
coordination

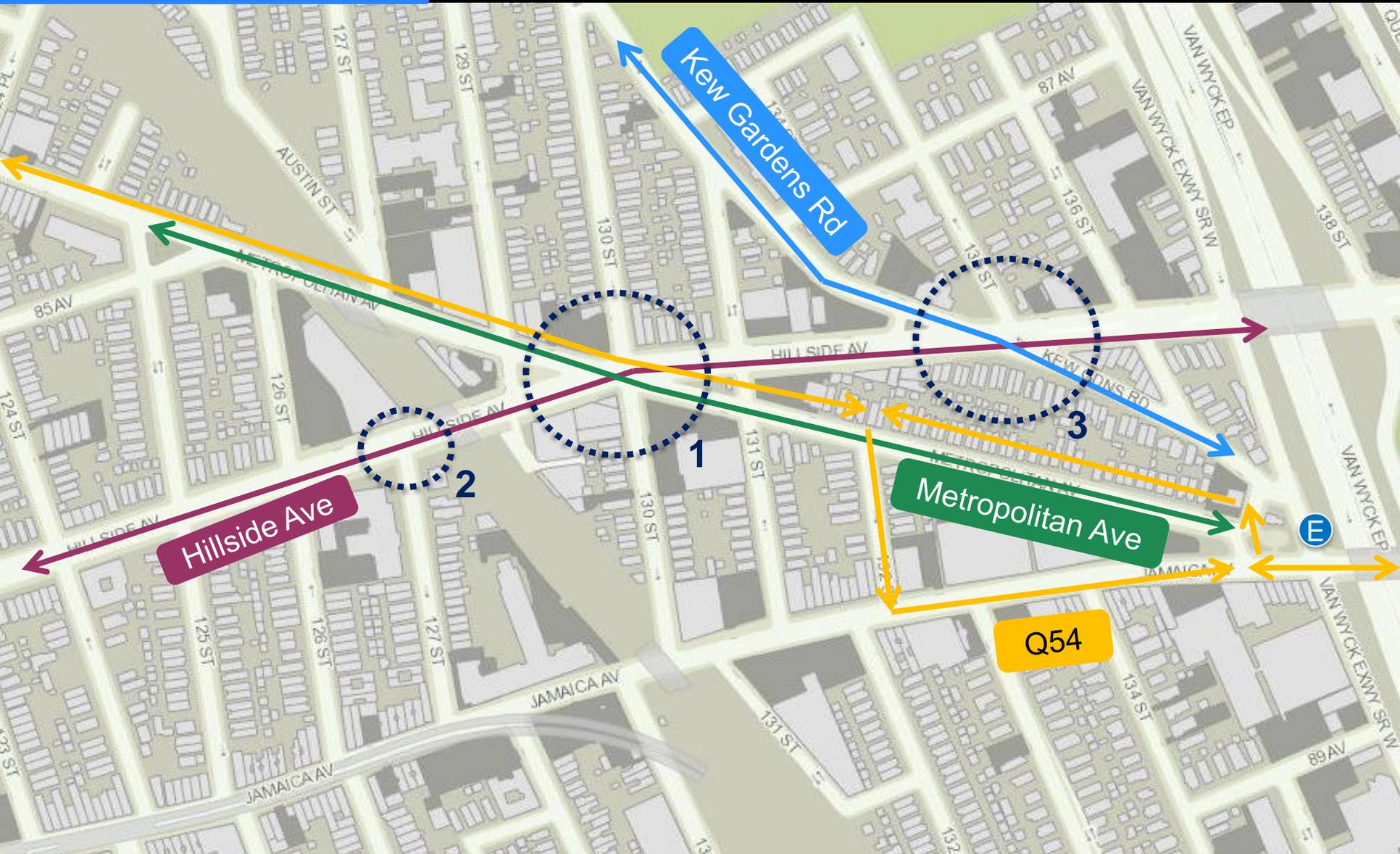
Proposed Improvements



Proposed Improvements



Project Area



2. Existing Aerial



Hillside Ave

126 St

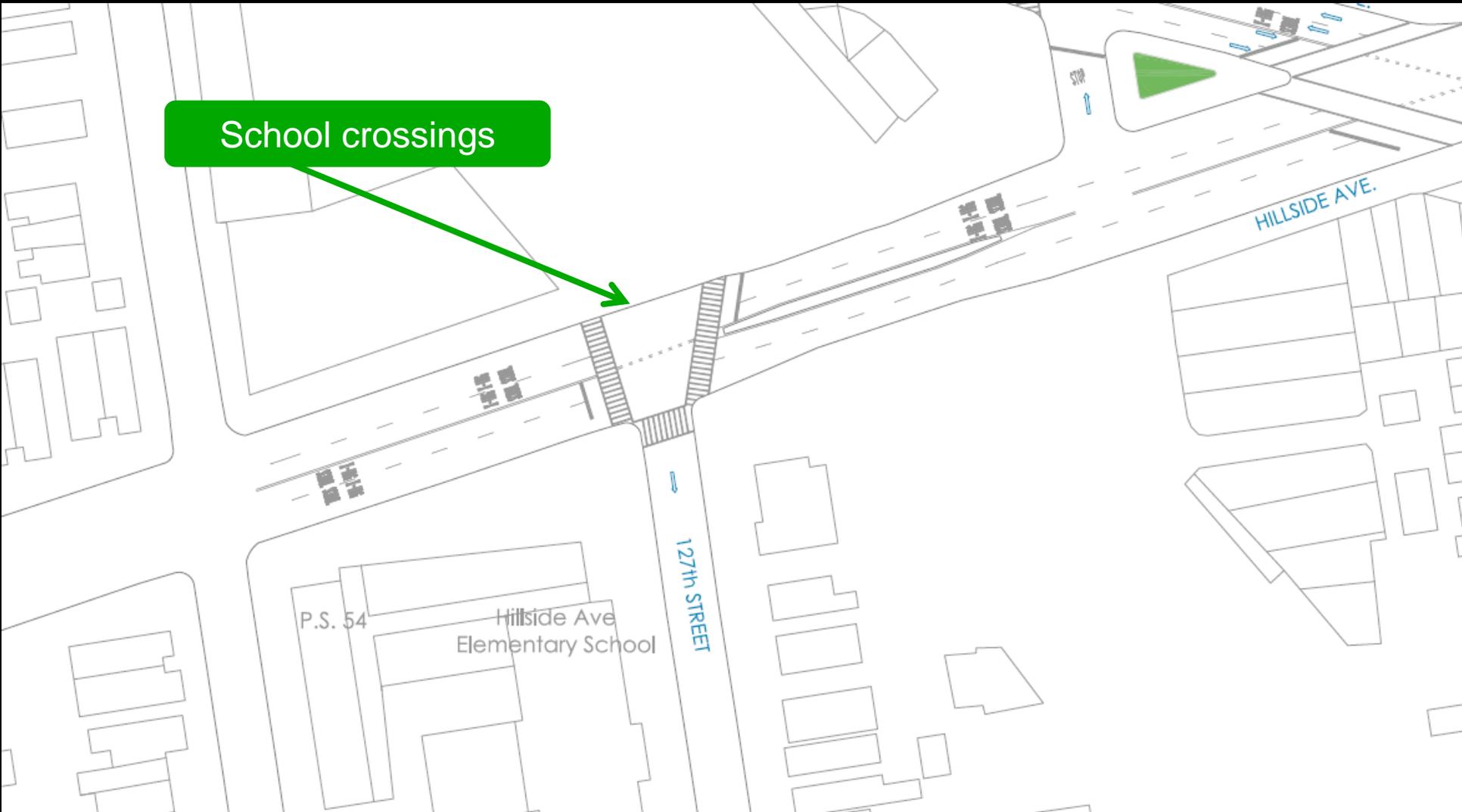
PS 54

Hillside Ave
Elem School

127 St

Existing Condition

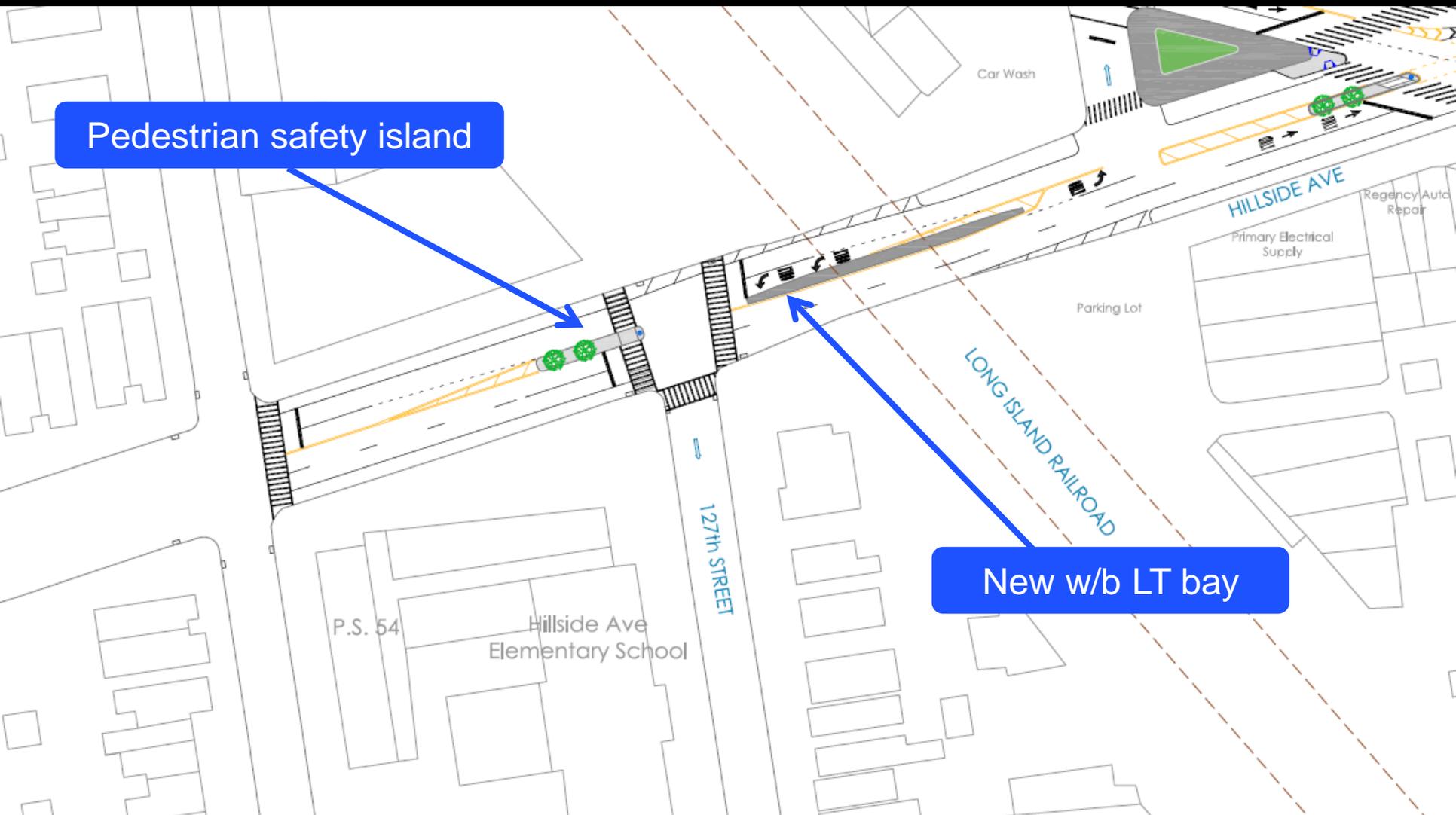
School crossings



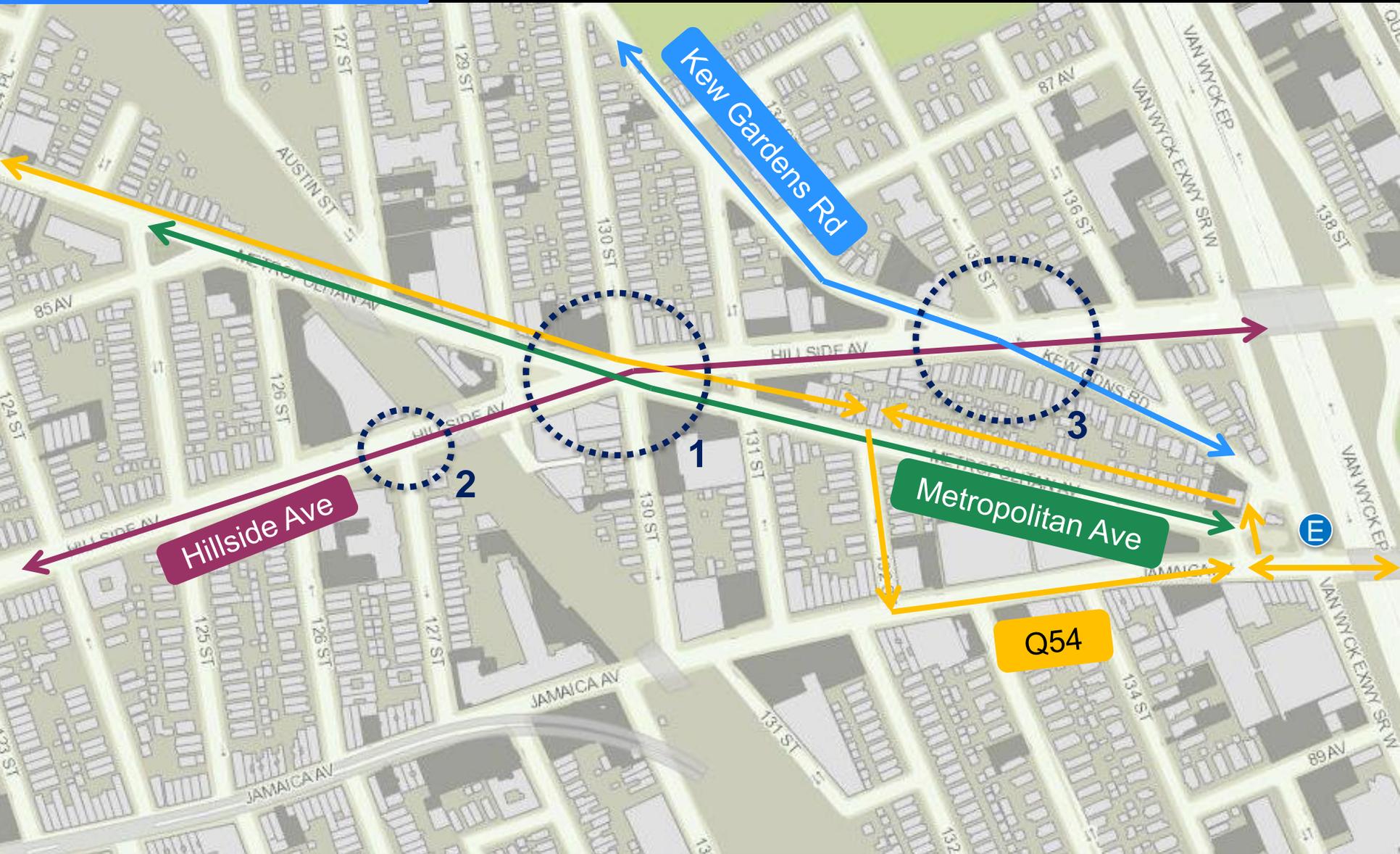
Proposed Improvements

Pedestrian safety island

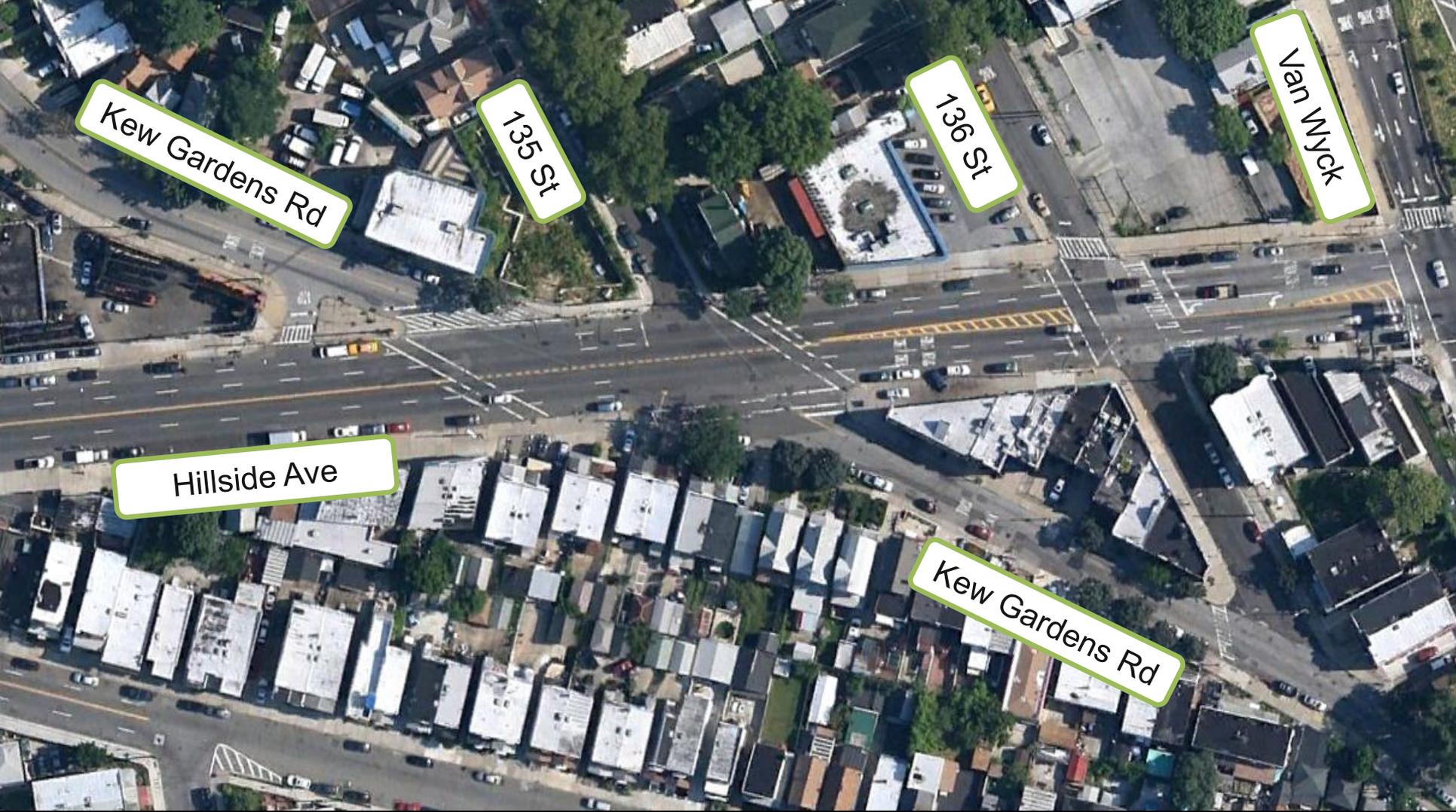
New w/b LT bay



Project Area

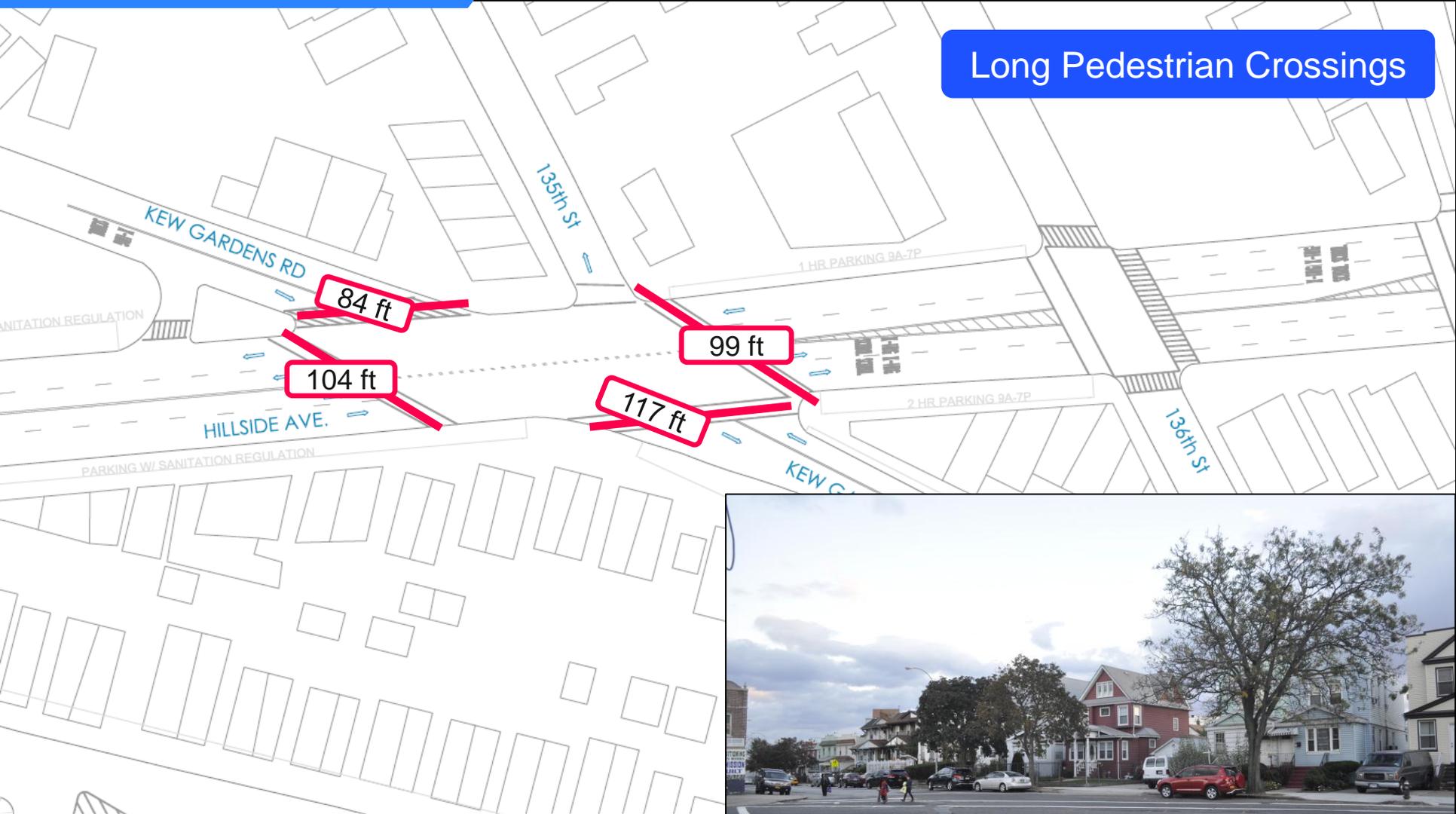


3. Existing Aerial



Existing Issues

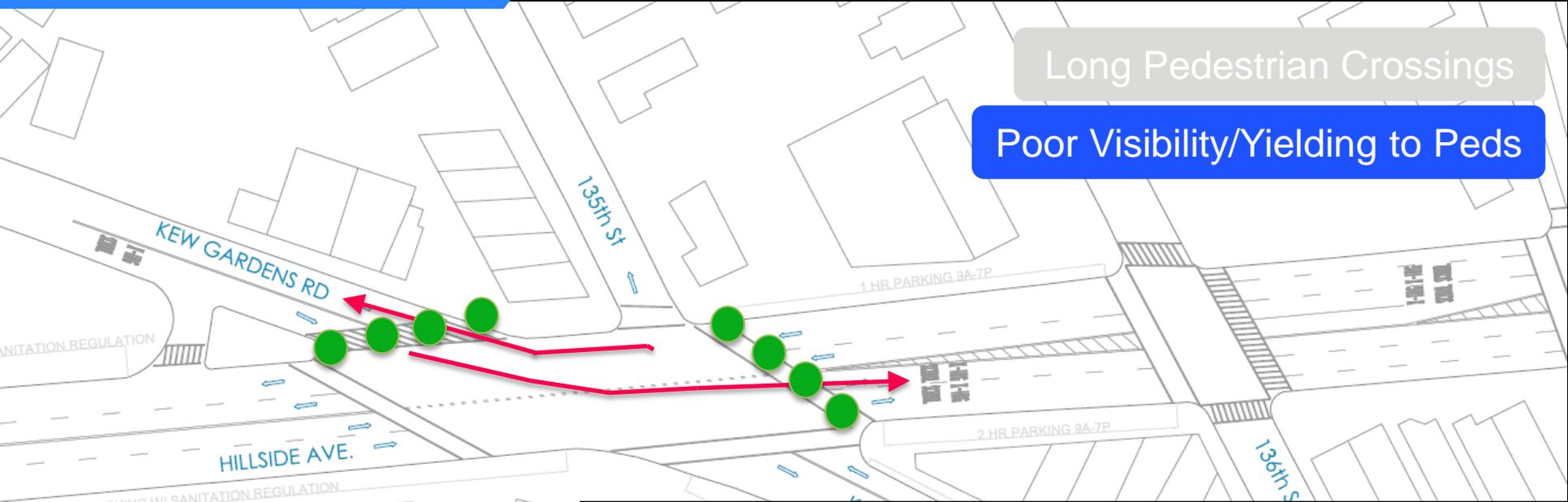
Long Pedestrian Crossings



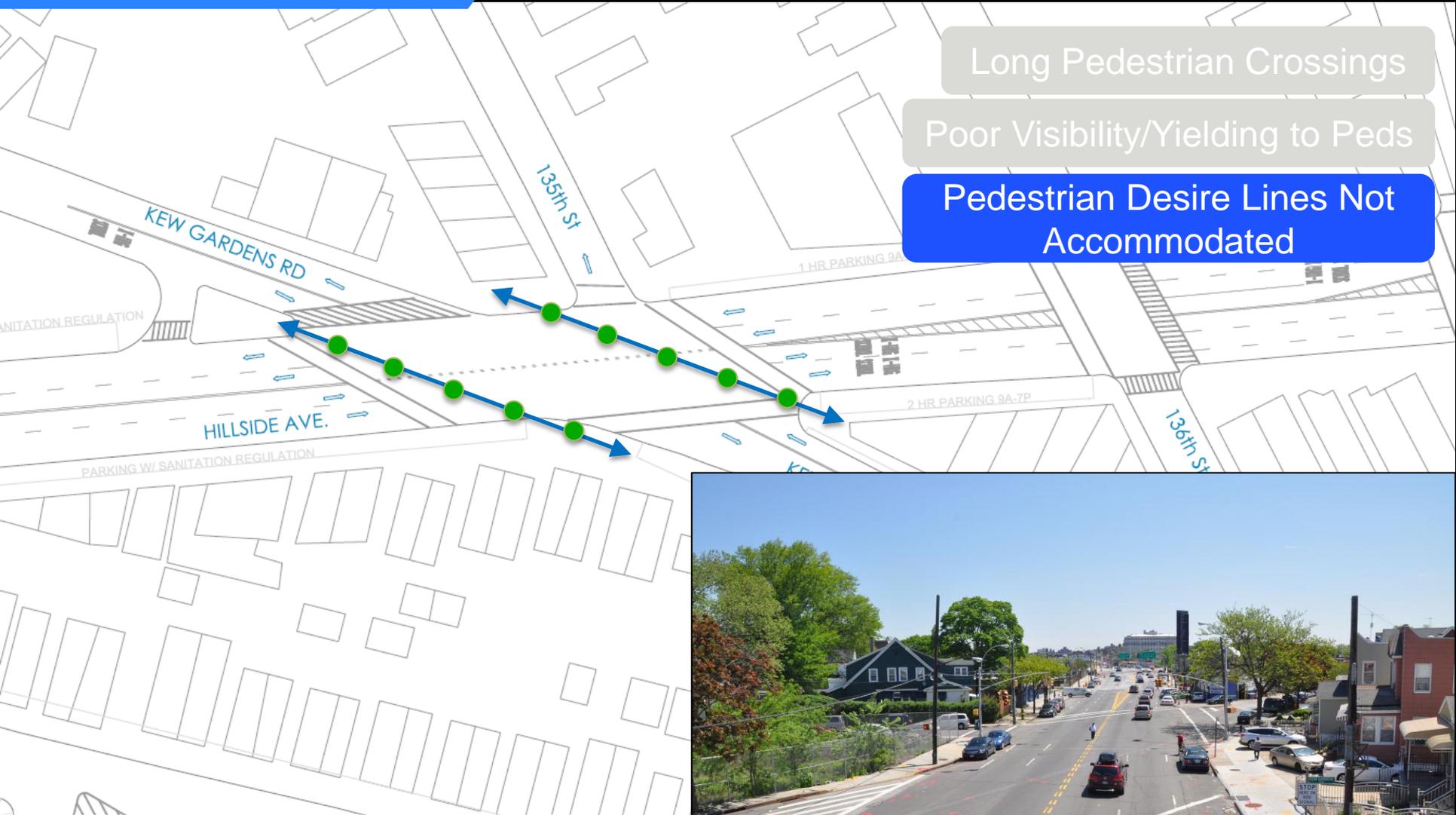
Existing Issues

Long Pedestrian Crossings

Poor Visibility/Yielding to Peds

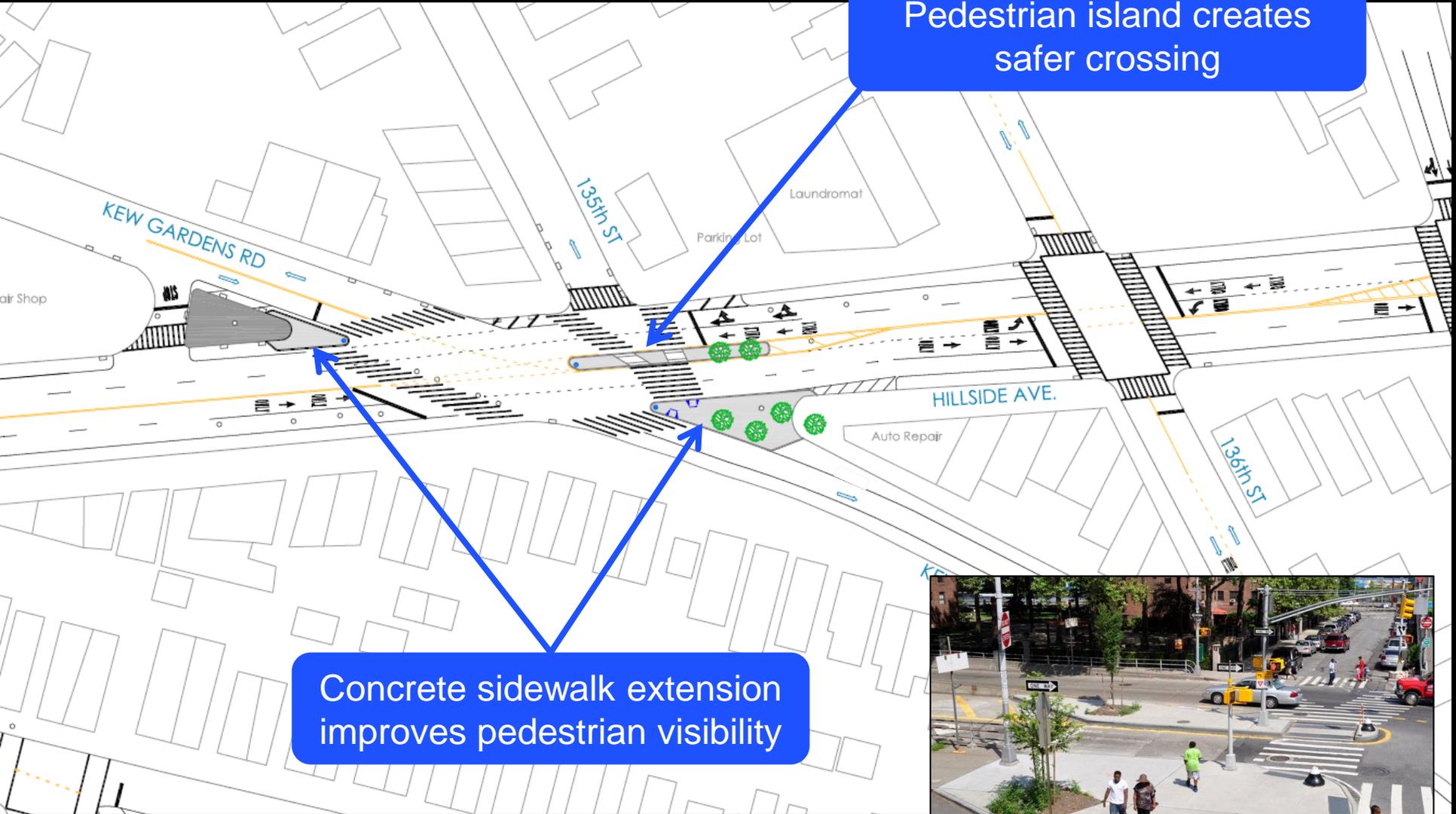


Existing Issues



Proposed Improvements

Pedestrian island creates safer crossing

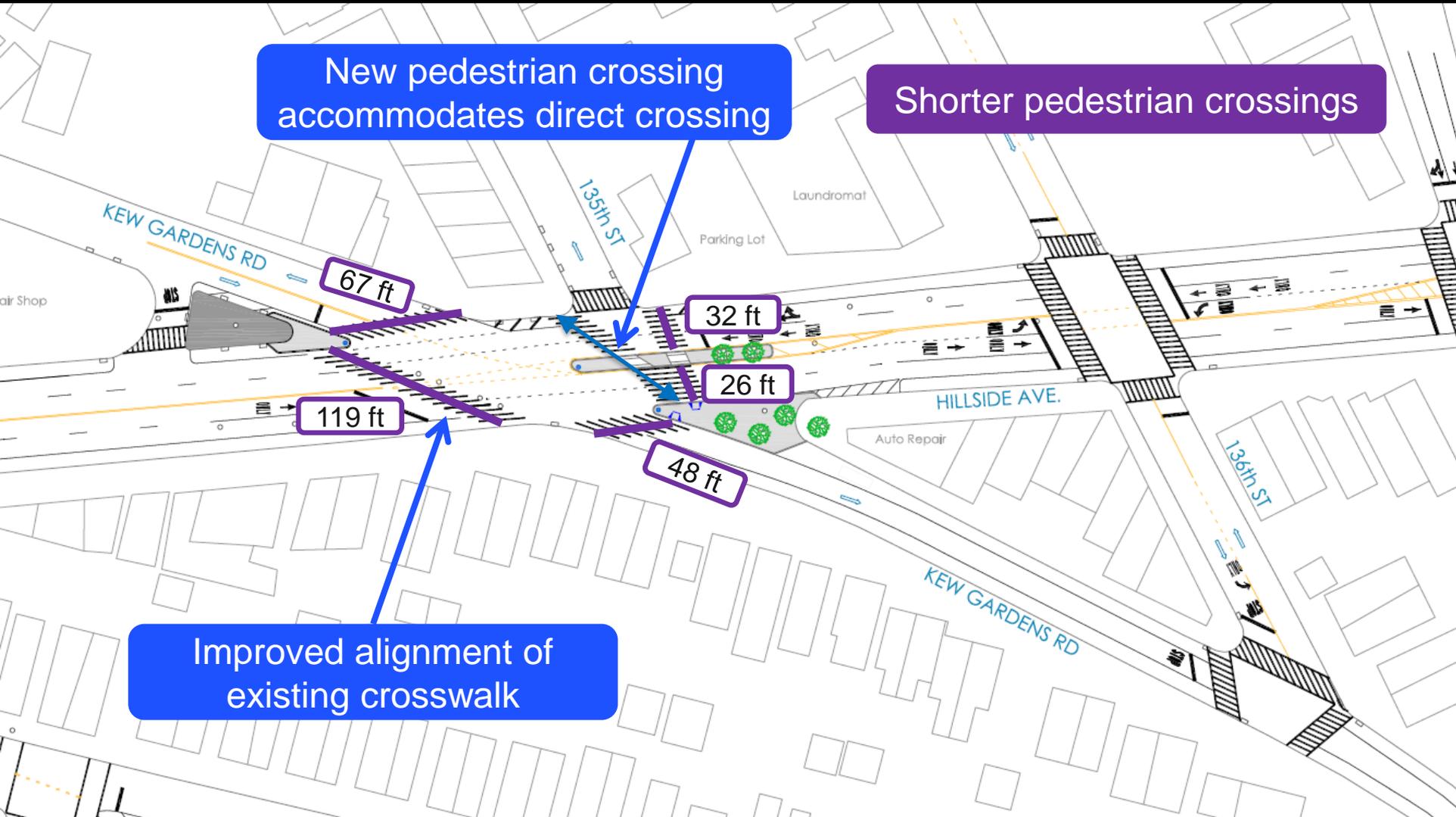


Concrete sidewalk extension improves pedestrian visibility



Concrete extension example

Proposed Improvements



New pedestrian crossing accommodates direct crossing

Shorter pedestrian crossings

Improved alignment of existing crosswalk

67 ft

32 ft

26 ft

119 ft

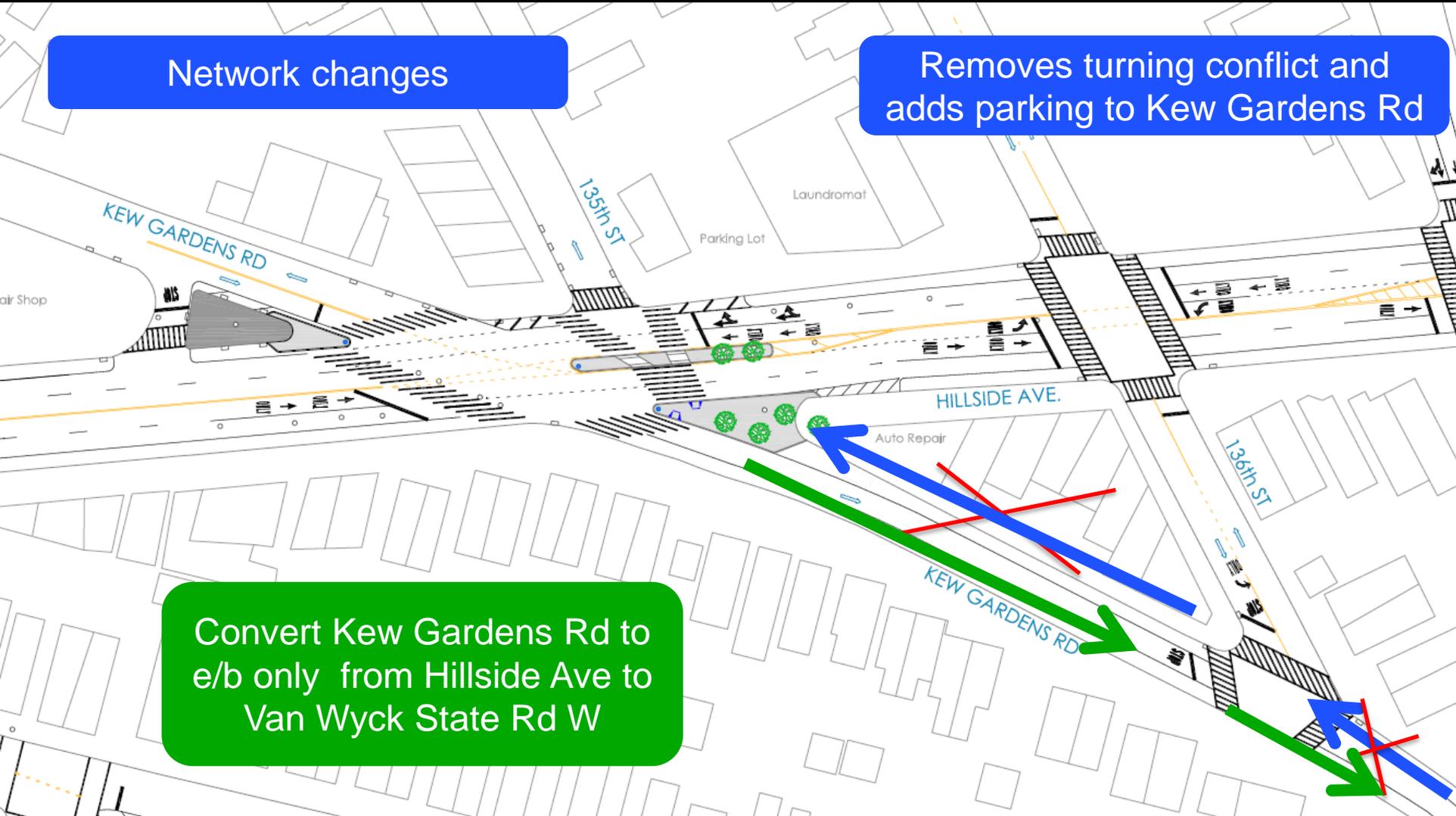
48 ft

Proposed Improvements

Network changes

Removes turning conflict and adds parking to Kew Gardens Rd

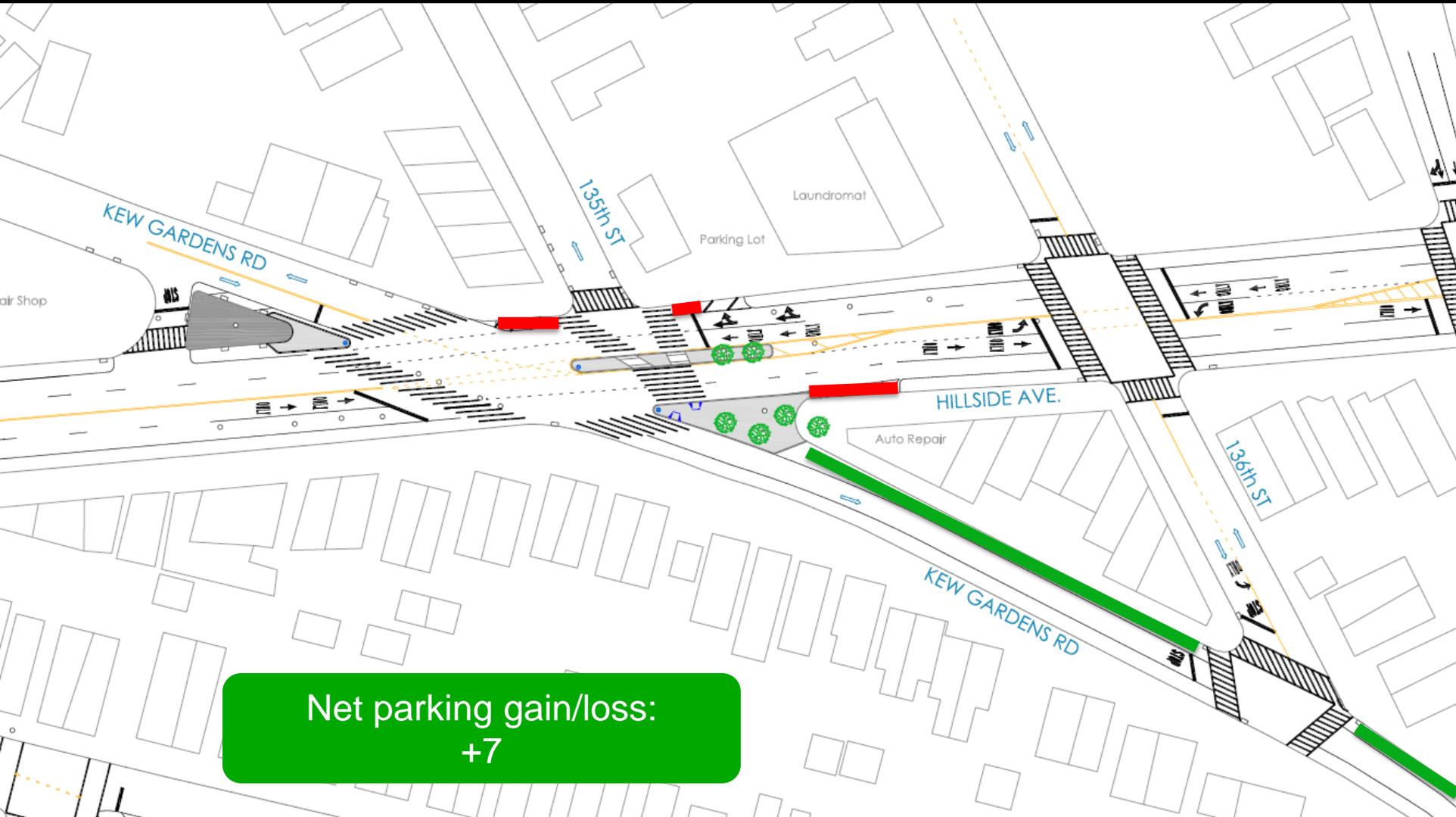
Convert Kew Gardens Rd to e/b only from Hillside Ave to Van Wyck State Rd W



Proposed Improvements



Proposed Improvements



Proposal Benefits

1. Hillside and Metropolitan

- Pedestrian islands create safer, shorter crossings
- Sidewalk extensions shorten crosswalks, improve visibility
- Improved signal timing provides conflict free ped crossings
- Network changes remove vehicle-vehicle turning conflicts
- Reduced congestion resulting from eliminated Metropolitan LT conflicts

2. Hillside and 127th

- Pedestrian islands create safer, shorter crossings
- Left turn bay improves turn movement

3. Hillside and Kew Gardens

- Pedestrian island creates safer, shorter crossings
- Sidewalk extensions shorten crosswalks, improve visibility
- Pedestrian desire lines accommodated across Hillside Ave

Proposal Summary

Proposed changes to the intersection of Hillside/Metropolitan

1. Add two concrete neckdowns to shorten crosswalks
2. Add two concrete pedestrian islands to create safer crossings
3. Improve signal timing to allow for conflict-free crossings and vehicle turns
4. Convert Metropolitan btwn 130 St/131 St to e/b only
5. Convert 130 St btwn Metropolitan and Kew Gardens to n/b only
6. Restrict following LTs:
 1. e/b Metropolitan to s/b 130 St
 2. e/b Hillside to s/b 130 St
 3. w/b Hillside to s/b 130 St
7. Add new turn bays at:
 1. e/b Hillside to n/b 129 St
 2. w/b Hillside to s/b 127 St
8. Add concrete pedestrian island @ Hillside/127th St to create safer crossing

Proposed changes to the intersection of Hillside/Kew Gardens

1. Add concrete pedestrian island to create safer crossing
2. Add two concrete sidewalk extensions to create shorter crossings
3. Convert Kew Gardens Rd btwn Hillside Ave/Van Wyck State Rd to e/b only
4. Restrict following LTs:
 1. e/b Metropolitan to n/b Kew Gardens Rd and 135 St
 2. w/b Hillside to s/b Kew Gardens Rd
5. Add new turn bay at e/b Hillside to n/b 136 St



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Thank
You