

A high-angle, wide shot of a busy city street, likely in New York City. The street is filled with pedestrians crossing at various points, including a large crosswalk in the foreground. Several buses are visible, including a prominent blue and white bus in the center with the destination 'M34 CROSSTOWN' displayed on its front. A dark SUV is driving in the foreground. The street is lined with buildings, some with commercial signage like 'Subway' and 'MODELS'. The overall scene depicts a dense, multi-modal urban environment.

# URBAN ROAD DIETS

## Making it Fit – For all Road Users

Heidi Wolf, Acting Deputy Director Pedestrian Projects Group, NYC Department of Transportation  
Northeast Region Road Diet Peer to Peer Exchange, June 9, 2016

# STREET DESIGN, THE OLD WAY

Q	43 Ave.	33 St.	Roosevelt Ave.	M-18185
BOROUGH	STREET	SIDE	FROM TO	HOUSE NO. FILE NO.

TO ENGINEER OF MAINTENANCE: INSTALL AND MAINTAIN THE FOLLOWING TRAFFIC CONTROL DEVICES AS SPECIFIED BELOW. \*SHOW SIGNS AT READY IN PLACE.

SUPERSEDES: M-11772

STANDARD NO.	DISTANCE		FACE	ARROW POINTS	MOUNTING ON--TYPE	SIDE	HEIGHT
	BETWEEN	FROM PL					
1.	From: 33 St.	To: Roosevelt Ave.	-- Paint center lane line, and one lane line 11'0 off each side of center lane line.				

CONTRACT 77 - 6

T88-842/LL 5/5/88

REMOVE EXISTING SIGNS LOCATED FOLLOWING DISTANCE FROM PROPERTY LINE

PREPARED BY: J. Meyer RECOMMENDED: E. Chapman	TYPED SW PUBLISHED 9-28-78	APPROVED BY: <i>[Signature]</i> HENRY D. DE MARTY CHIEF TRAFFIC CONTROL COMMISSIONER
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CITY OF NEW YORK—DEPARTMENT OF TRAFFIC

FORM NO. 25-25M 826026 (76)

COMPLETED 7-30-79



# VISION ZERO IN NYC

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- Lead by City Hall
- Multi-Agency
- Comprehensive
  - Engineering
  - Enforcement
  - Education
  - Policy



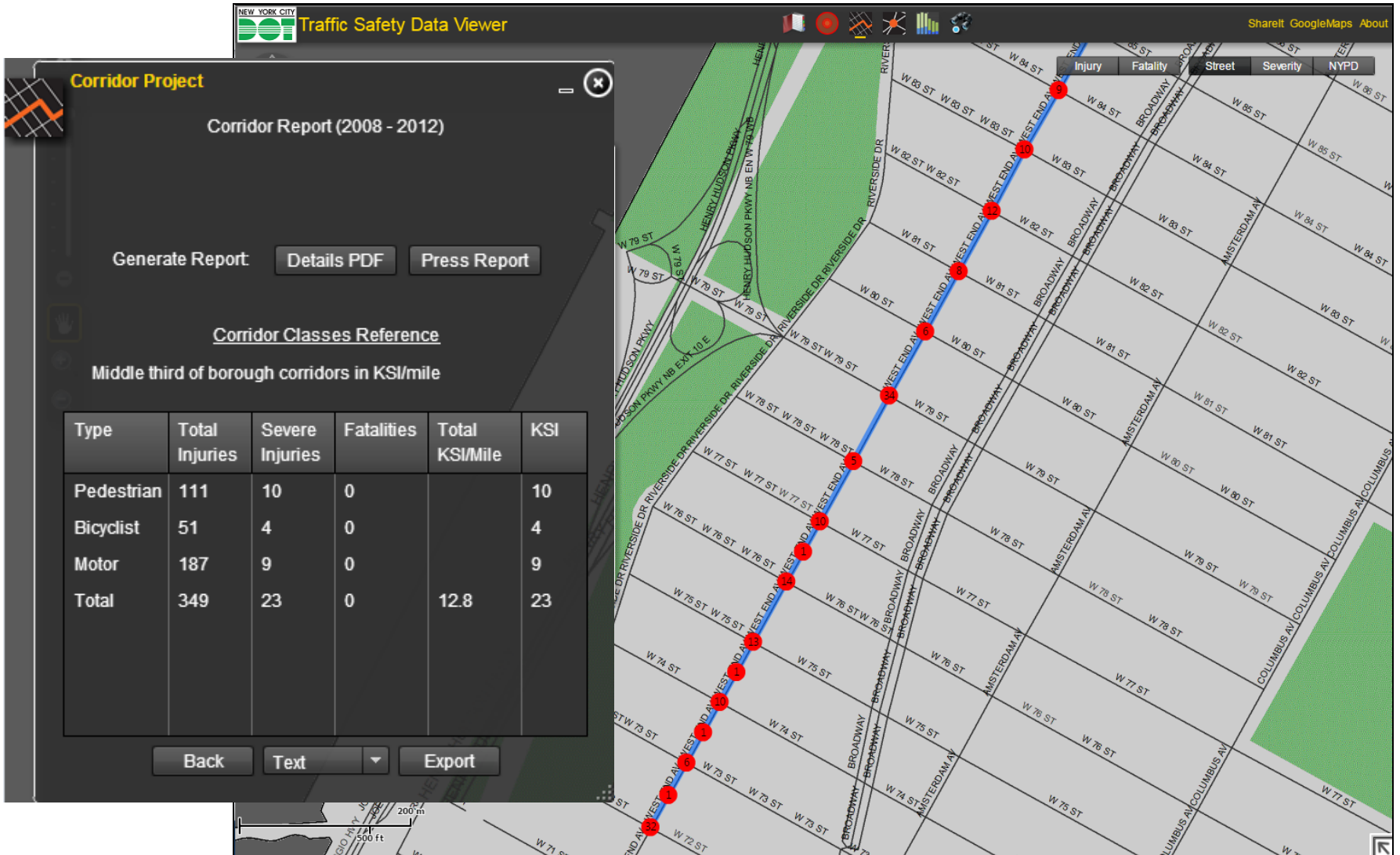


# STREET IMPROVEMENT PROJECTS:

9 years of Aggressive Street Re-Engineering



# DATA DRIVEN





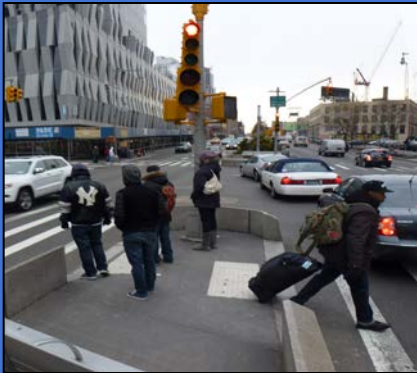


# ROAD DIET BASICS



- Generally ~ 500 cars per lane
- Level of service C is acceptable
- Refuge islands in shadow of left turn bay where applicable
- Road diets help enforce safe driving and the new 25 mph speed limit

# STREET DESIGN: 3 CONSTRUCTION OPTIONS

For safety projects, faster construction saves lives

	Capital Concrete	In-House Concrete	Temporary Non-Concrete
Build Time	5+ years	1-2 years	1-2 years
Cost	High	Low	Very Low
			

Flatbush Ave Ext, Brooklyn

7<sup>th</sup> Av & W 23<sup>rd</sup> St, Manhattan

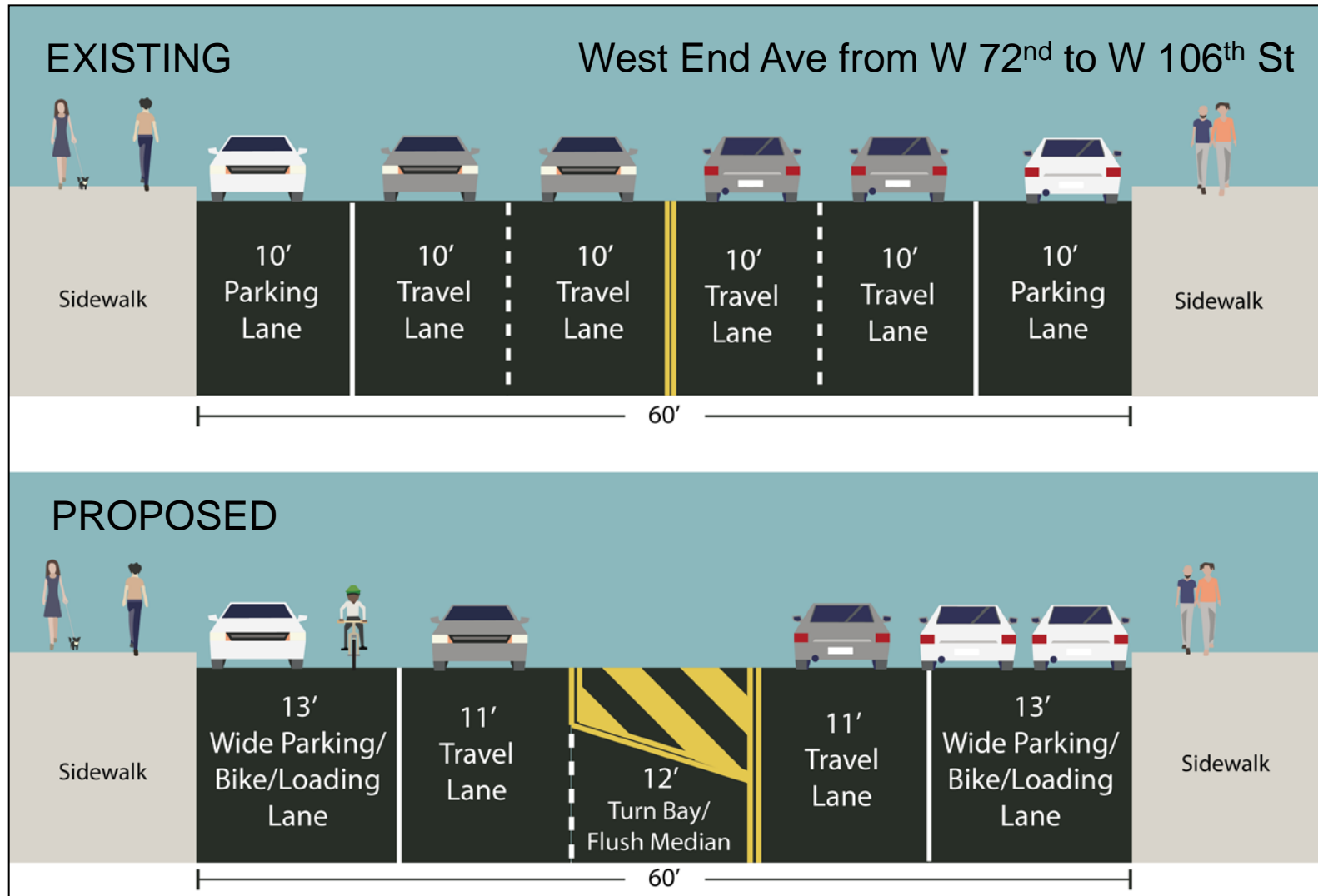
Madison Square, Manhattan



# STREET DESIGN: THE OPERATIONAL TOOLBOX

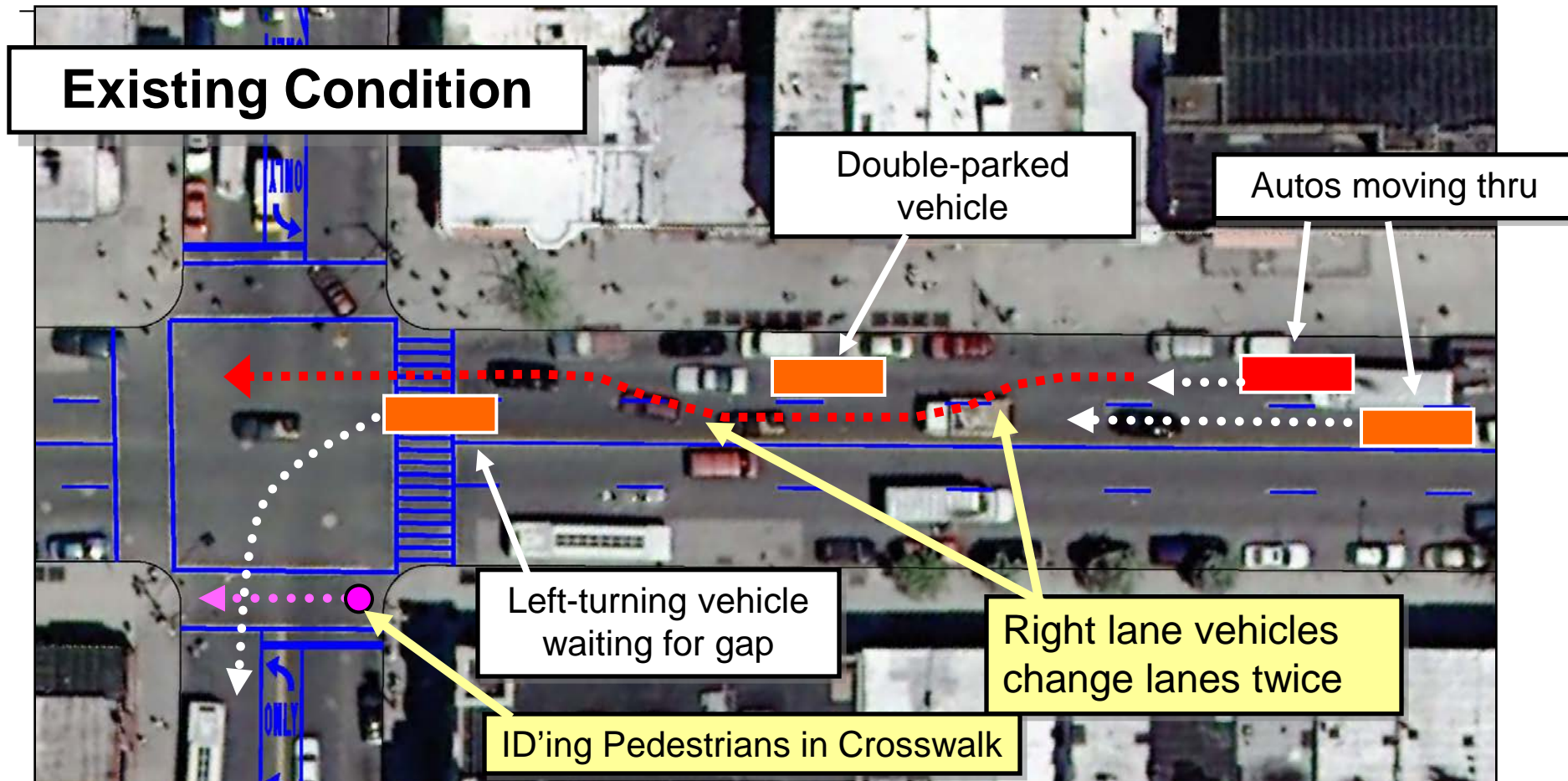


# Typical 4 to 3 Road Diet Cross-Section





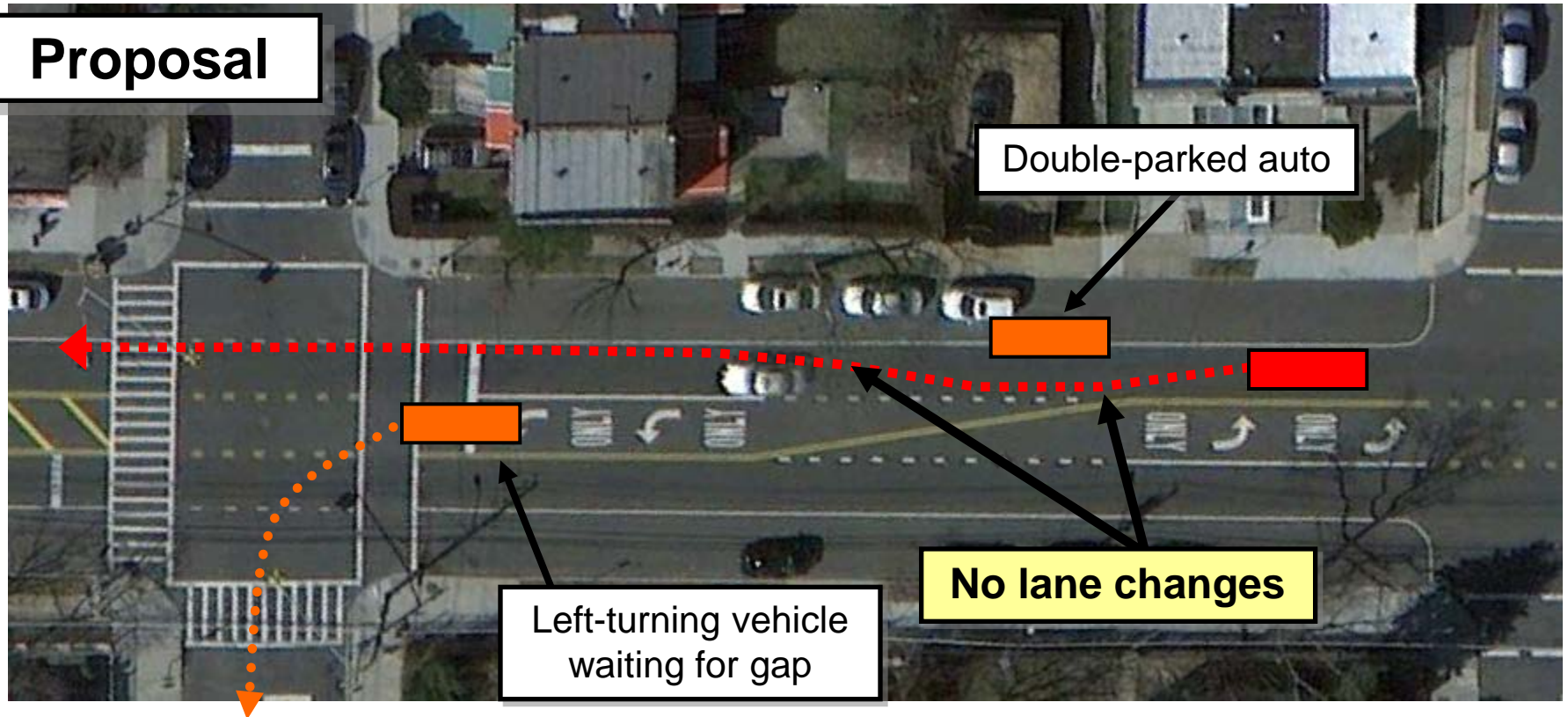
# ISSUE: Interrupted Through Movements



- Frequent lane changing
- No “good” through travel lane

# Proposed Traffic Movement

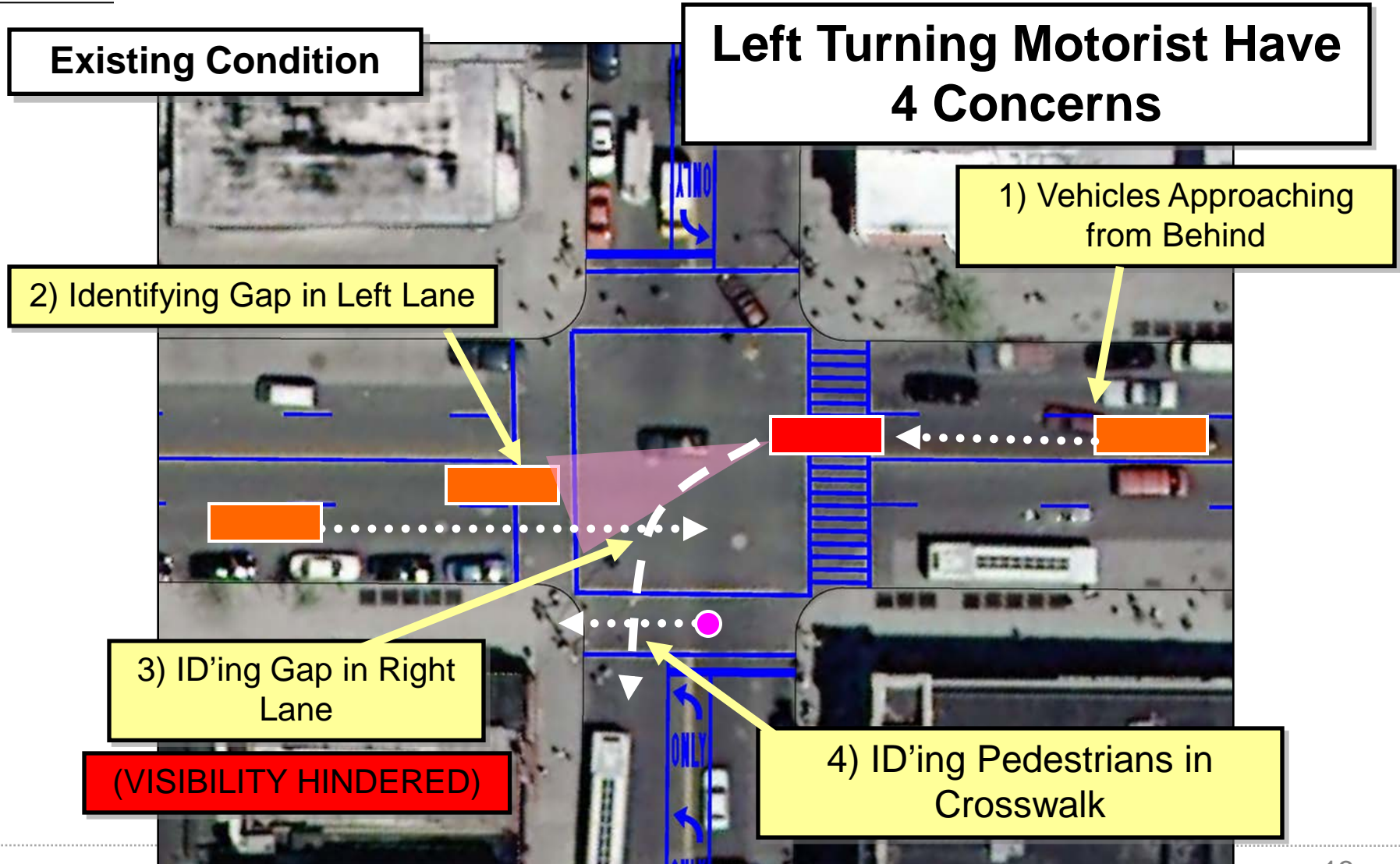
## Proposal



- Normal activity doesn't force lane changes
- One "good" through travel lane
- More orderly and predictable movements



# ISSUE: Challenging Left Turns

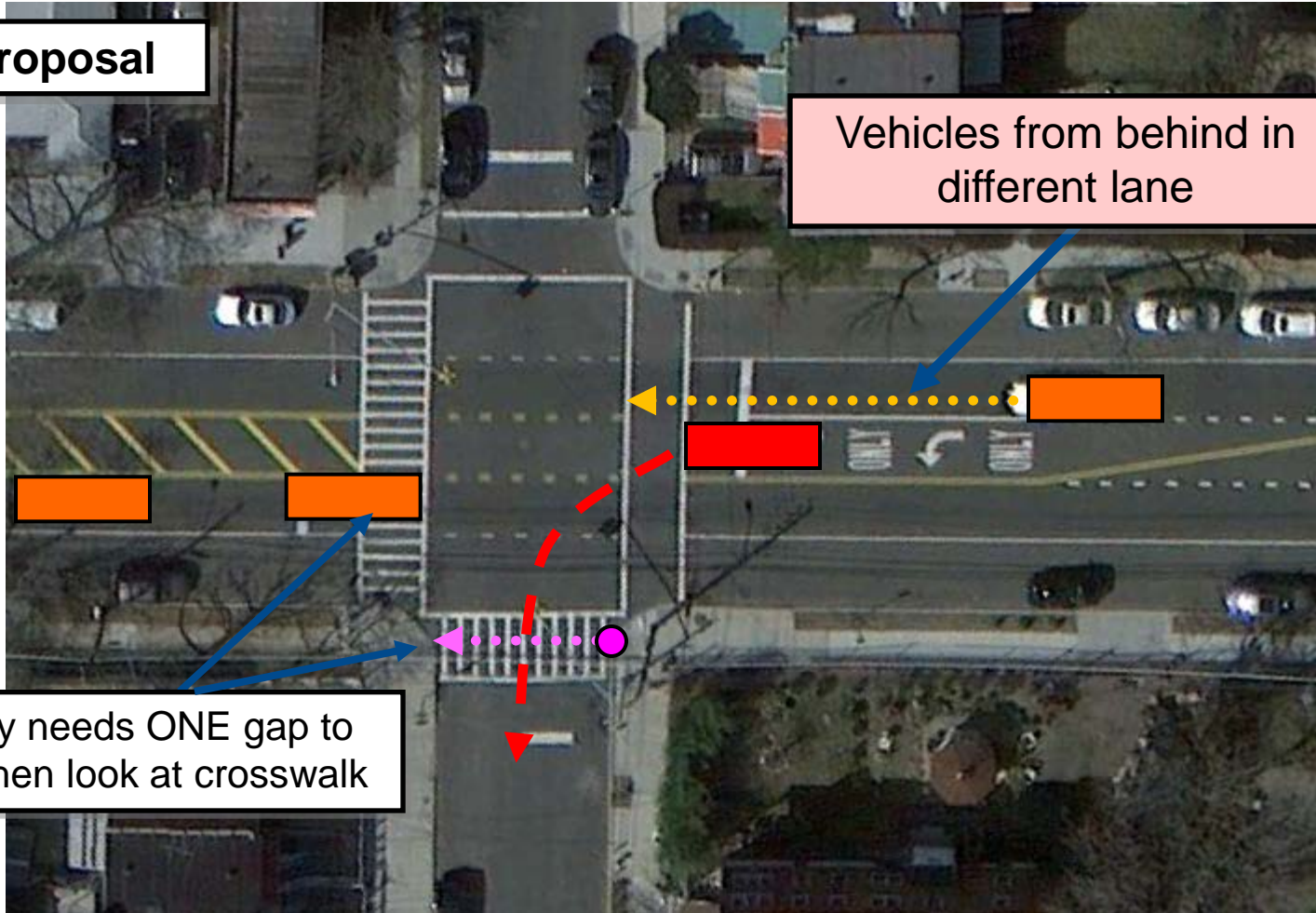


# Proposed Left Turn

## Proposal

Vehicles from behind in different lane

Driver only needs ONE gap to turn; can then look at crosswalk





# Gerritsen Ave, between Ave W & Ave R, BK

Corridor Redesign: 4 to 3 (2009)

Crashes with Injuries  
-40%



Before



After



# Gerritsen Ave, between Ave W & Ave R, BK

Corridor Redesign: 4 to 3 (2009)



- Travel Lane Reduction
- Left Turn Bays
- Channelized Center Median
- Pedestrian Refuge Islands
- Street trees



# Empire Blvd, between Bedford Ave & Utica Ave Bk

Corridor Redesign: 4 to 3 (2010)

Crashes with Injuries  
**-15%**



Before



After



# Empire Blvd, between Bedford Ave & Utica Ave Bk

Corridor Redesign: 4 to 3 (2010)

- Travel Lane Reduction
- Left Turn Bays
- Channelized Center Median
- Pedestrian Refuge Islands
- Bicycle Lanes
- Street trees





# Vanderbilt Ave, BK

4 lane two-way street: 4 to 3, bike lane



Before

Filled major gap in bike network



After



# Vanderbilt Ave, BK

4 lane two-way street: 4 to 3, bike lane





# 9<sup>th</sup> Ave, between 16<sup>th</sup> St & 23<sup>rd</sup> St, MN

60' wide one-way Ave: 4 to 3 protected bike lane

Crashes with Injuries  
-52%





60' wide one-way Ave: 4 to 3 protected bike lane

- Travel Lane Reduction
  - Split Left Turn Lanes
  - Channelized Center Median
  - Pedestrian Refuge Islands
  - Bicycle Lanes & Signals
  - Street trees



# 1<sup>st</sup> Ave, between 1<sup>st</sup> St & 33<sup>rd</sup> St MN

70' Wide One-Way Ave: 5 to 3, Protected Bike Lane

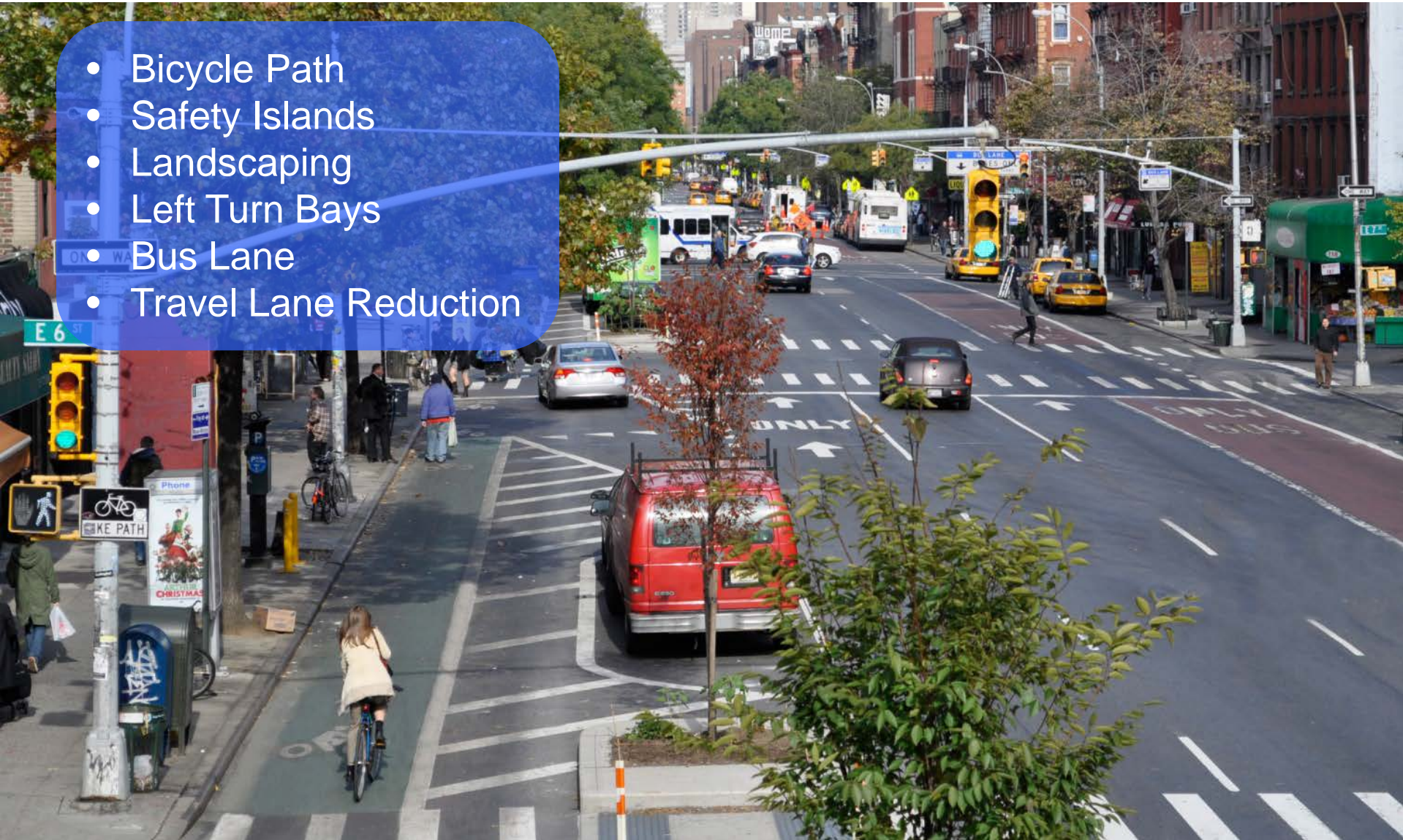
Crashes with Injuries  
-6%





## 70' Wide One-Way Ave: 5 to 3, Protected Bike Lane

## 70' Wide One-Way Ave: 5 to 3, Protected Bike Lane

- 
- Bicycle Path
  - Safety Islands
  - Landscaping
  - Left Turn Bays
  - Bus Lane
  - Travel Lane Reduction



# Adam Clayton Powell

## 6 to 5 Conversion (2013)

Pedestrian Injuries  
**-17%**



Before



After



# Adam Clayton Powell

## 6 to 5 Conversion (2013)



- Travel Lane Reduction
- Left Turn Bays
- Median tip extensions
- Bicycle Lanes





# Broadway: Greenlight For Midtown, MN

Corridor Redesign- One way with Bike Lane (2009)

Crashes for all users  
-52%





# Broadway: Greenlight For Midtown, MN

## Capital Corridor Redesign



Temporary materials  
were quickly installed  
and then capitally built





# Columbus Ave, between 77<sup>th</sup> St & 97<sup>th</sup> St, MN

Corridor Redesign (2010) – Lane narrowing lead to parking protected bike lane



Before

Crashes with Injuries  
-27%



After



# Columbus Ave, between 77<sup>th</sup> St & 97<sup>th</sup> St, MN

## Complex Corridor Redesign (2010)

- Travel Lane Narrowing
- Left Turn Bays
- Pedestrian Refuge Islands
- Parking Protected Bicycle Lanes
- Street trees

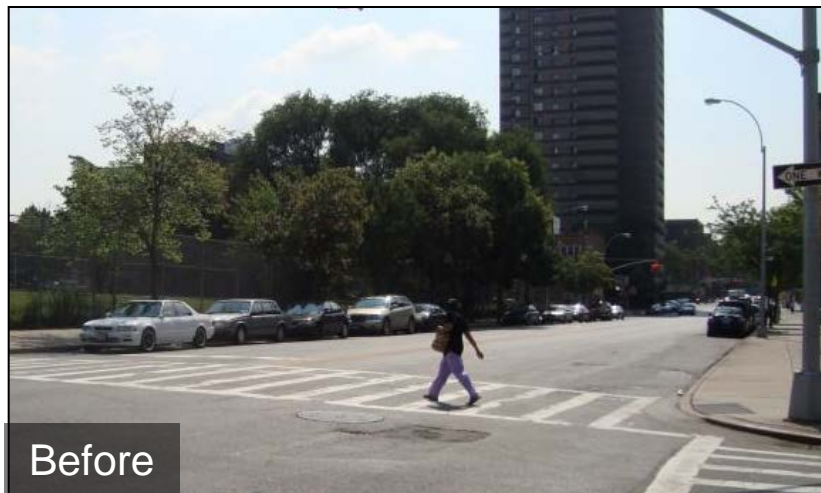




# E 180<sup>th</sup> St, between Webster & Boston Rd, BX

50' Wide: 2-way lane narrowing (2010)

Crashes with Injuries  
-21%



Before



After



# E 180<sup>th</sup> St, between Webster & Boston Rd, BX

50' Wide: 2-way lane narrowing (2010)

- Travel Lane Narrowing
- Channelized Center Median
- Left Turn Bays



# THANK YOU!

## Questions?



NYC DOT



NYC DOT



nyc\_dot



NYC DOT