

# Clybourn Ave. Protected Bike Lane Study Halsted St. to Division St.



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# Agenda

- **Project Goals**
- **Existing Roadway Conditions**
- **Traffic Data/Impacts**
- **Parking Conditions**
- **Crash Analysis**
- **Proposed Changes**
- **Next Steps**

**NORTH**  
North/Clybourn

CTA Brown Line

Sedgwick

HALSTED

WEED

OGDEN

CLYBOURN

ORLEANS

MOHAWK

LARRABEE

SCHICK

GOETHE

SEDGWICK

DIVISION

ORLEANS

# Pilot Study



- IDOT and CDOT pilot project to install and evaluate the first barrier protected bike lanes on a State route
- First use of concrete for physical separation
- Pilot evaluated under IDOT's Feasibility Study on bicycle and pedestrian facilities.
  - Analyzes safety, operations, and maintenance of various facilities.

# Project Goals



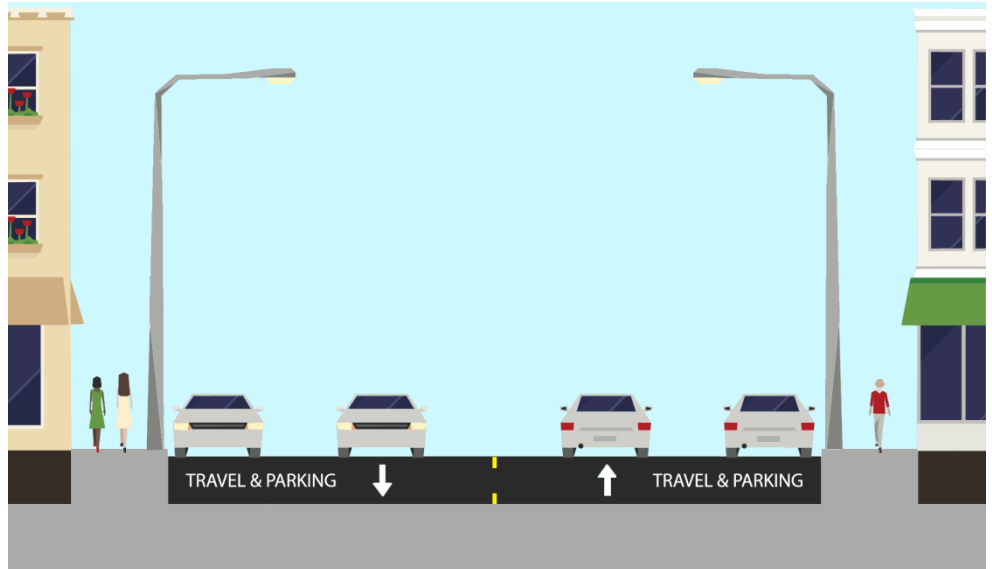
- Reduce crashes
- Increase transportation options and balance needs of various roadway users
- Evaluate protected bike lane elements



# Existing Roadway Conditions

## Roadway Characteristics:

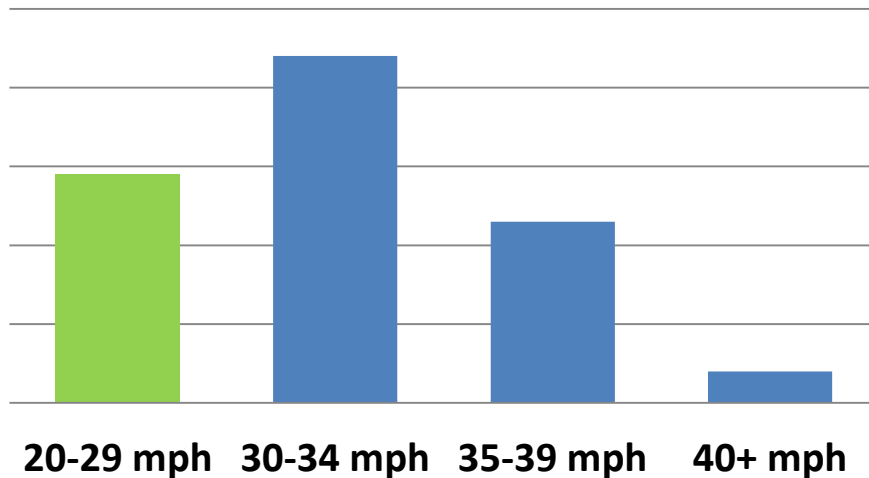
- 1 lane in each direction
- Rush hour parking controls
- On-street parking on both sides
- Wide undefined pavement
- Sidewalk on both sides
- Crosswalks at intersections
- CTA Red Line
- CTA Buses (#37, #70, #132)
- No bike lanes
- Four Divvy Stations
- Defined as a Crosstown Bike Route in the Streets for Cycling Plan 2020



# Traffic Data

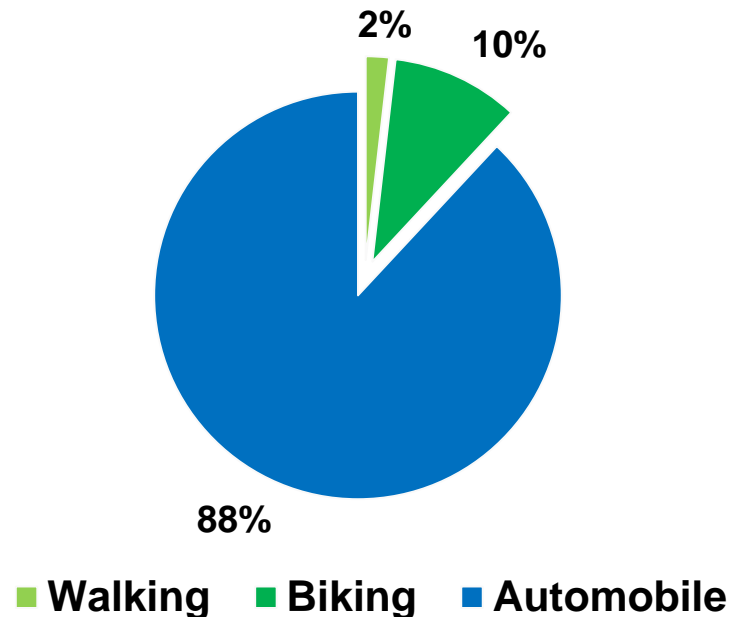
## Motor Vehicle Speed Data:

- 65% of Vehicles traveling over 30 MPH Speed Limit
- 85<sup>th</sup> Percentile Speed – 36 MPH
- 95<sup>th</sup> Percentile Speed – 39 MPH

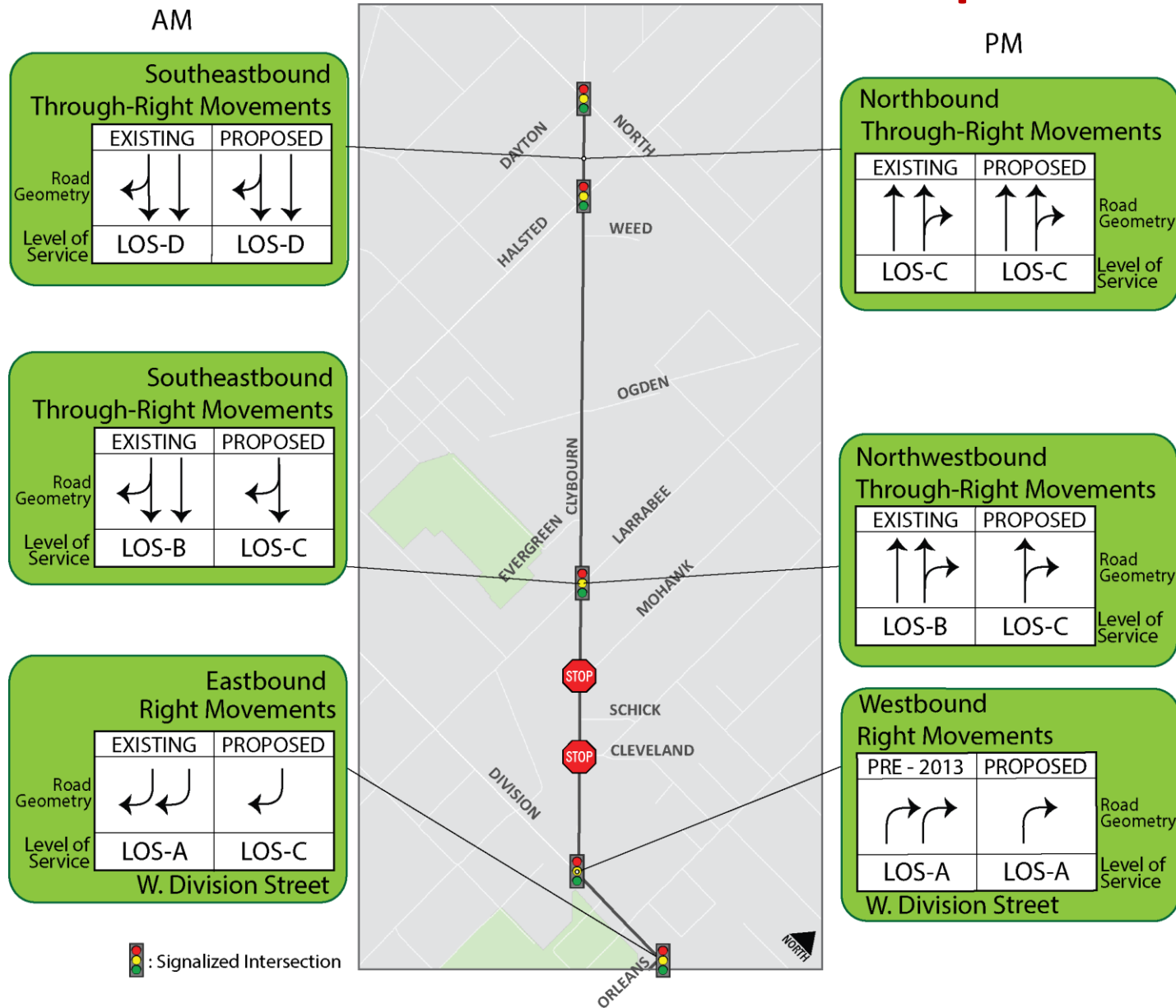


## Count Data:

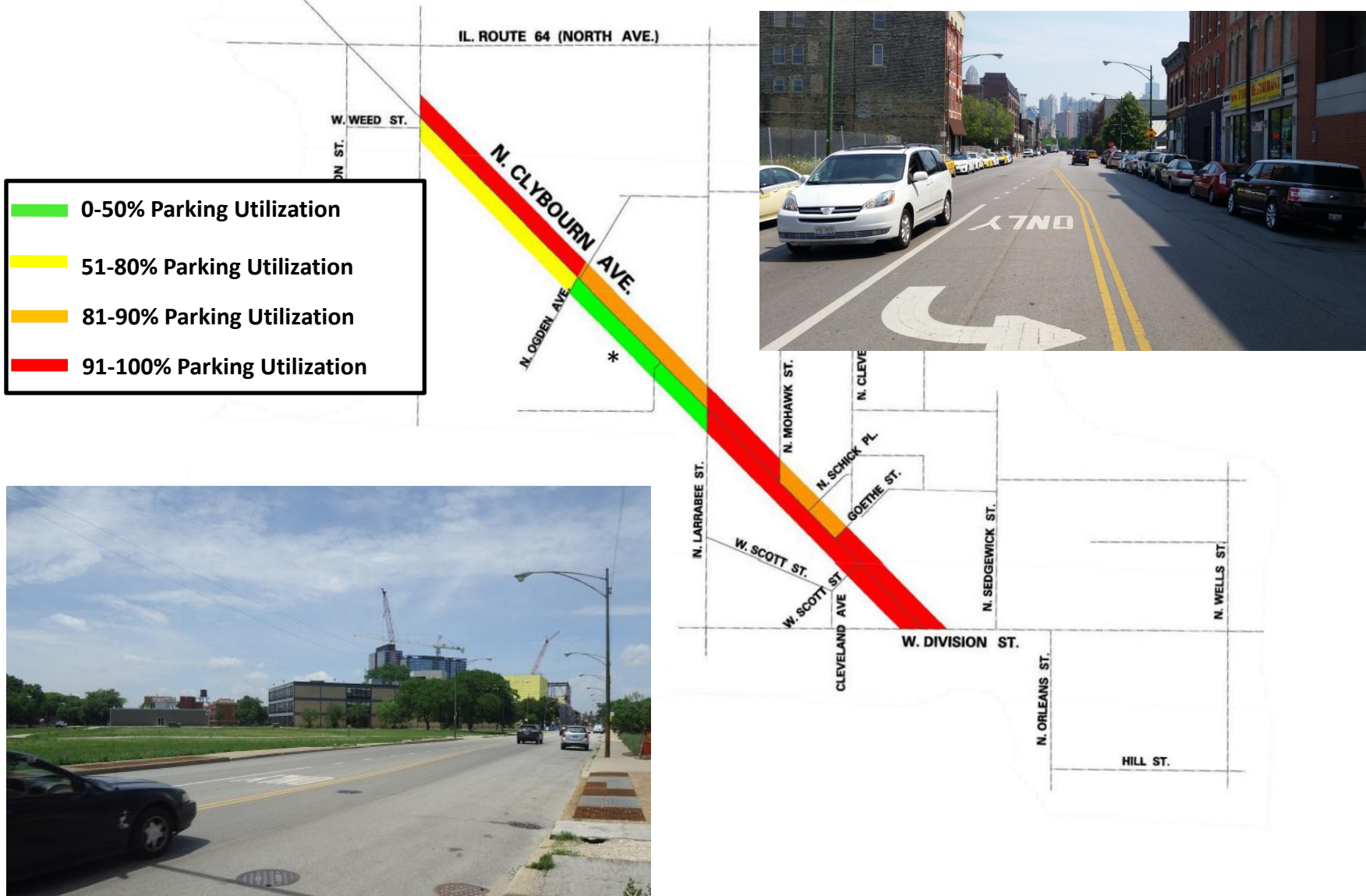
- 11,000 vehicles per day
- Over 100 bicyclists in the peak hour
- 60% South-eastbound in AM
- 60% North-westbound in PM



# Traffic Controls and Impacts



# Parking Conditions

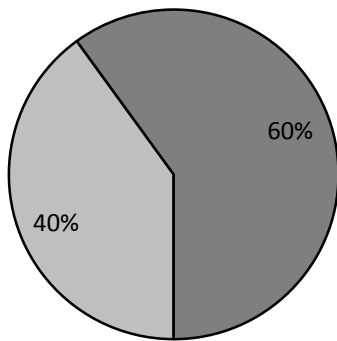




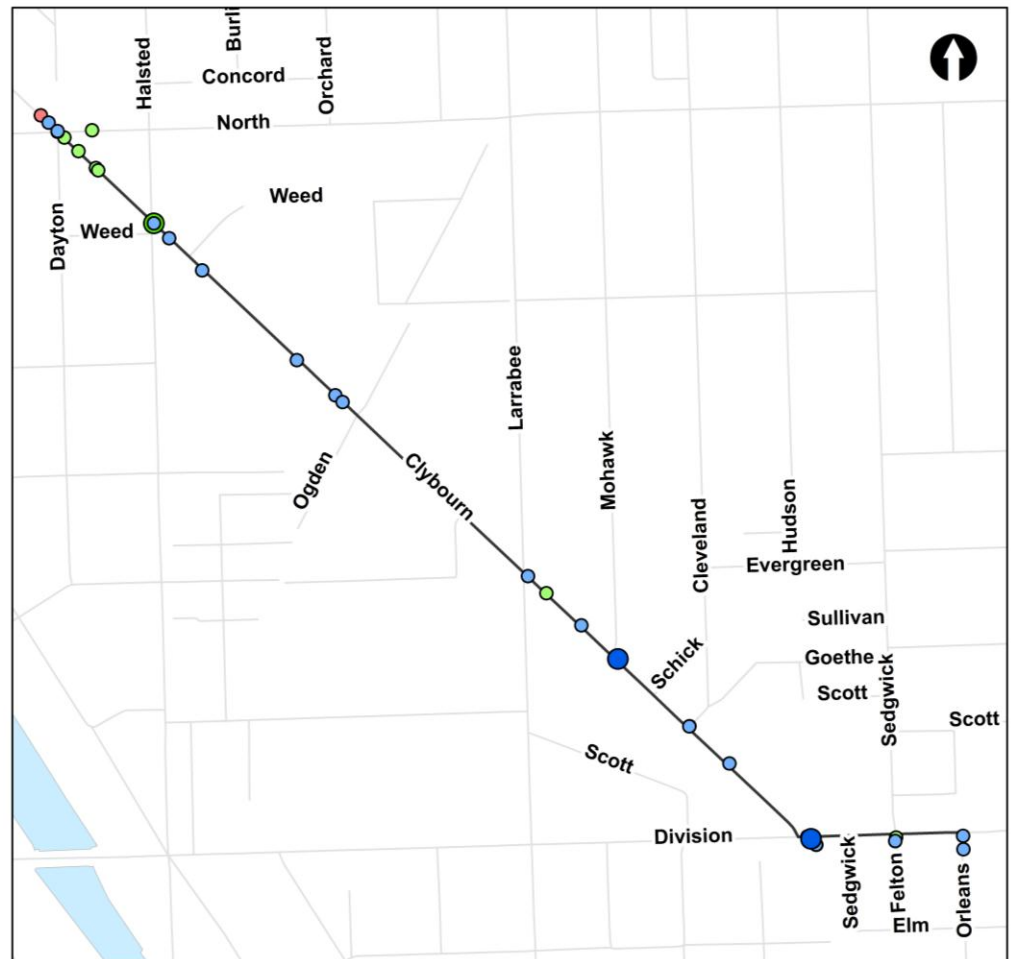
# Crash Analysis

- 423 reported crashes in five years (2008 – 2012)
  - 3 Serious Injury crashes
- 1 Bicyclist Fatality in 2013

Percent of Fatal and Serious Injury Crashes by Mode:



□ BIKE/PED    ■ VEHICULAR

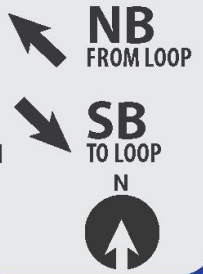


- |   |   |   |
|---|---|---|
| <b>Pedestrian A &amp; B Crashes</b><br>● Fatal Pedestrian Crashes<br>● A-Injury Pedestrian Crashes<br>● B-Injury Pedestrian Crashes | <b>Bicyclist B Crashes</b><br>● Fatal Bicycle Crashes<br>● A-Injury Bicycle Crashes<br>● B-Injury Bicycle Crashes | <b>Automobile A &amp; B Crashes</b><br>● Fatal Automobile Crashes<br>● A-Injury Automobile Crashes<br>● B-Injury Automobile Crashes |
|---|---|---|



**KEY INTERSECTIONS AND SEGMENTS:**

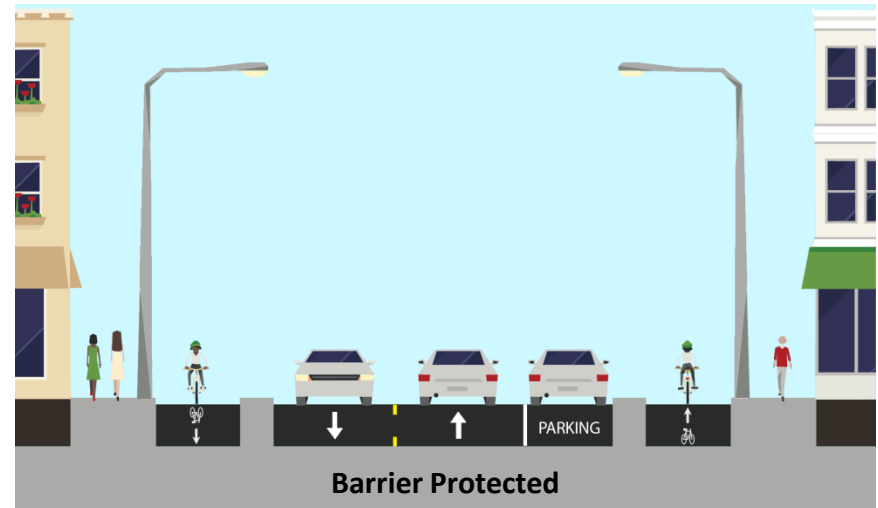
- 1. DIVISION TO LARRABEE
- 2. LARRABEE TO HALSTED
- 3. DIVISION INTERSECTION
- 4. LARRABEE INTERSECTION
- 5. OGDEN INTERSECTION
- 6. HALSTED TO NORTH



# Division to Larrabee Alternatives

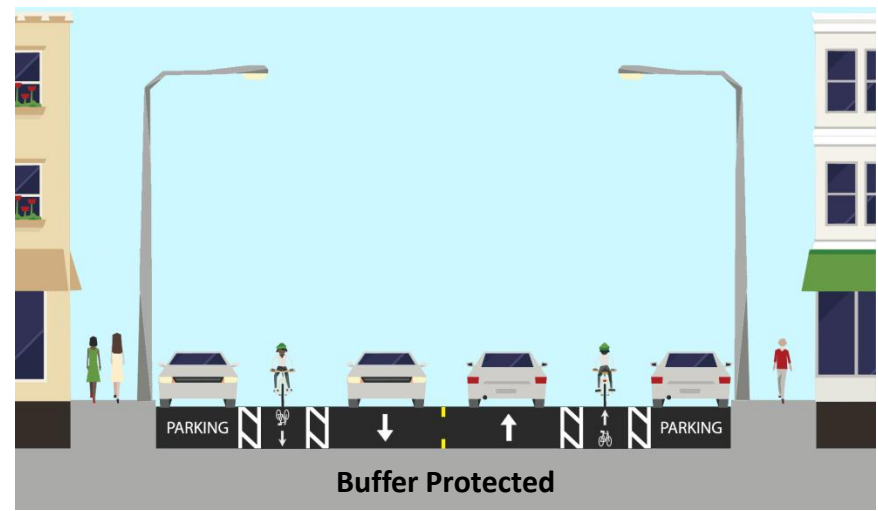
## Barrier Protected Bike Lanes

- Eliminates door zone
- Concrete curb separation at various locations
- Some parking removal required
- Some impacts to loading zones
- Opportunities for drainage improvements
- Pedestrian refuge space



## Buffer Protected Bike Lanes

- Increased separation between bicyclists and motorists via pavement markings
- Retains more on-street parking spaces
- Does not provide physical protection for bicyclists
- Retains existing curbside access



# Division to Larrabee

## Barrier Protected Bike Lanes

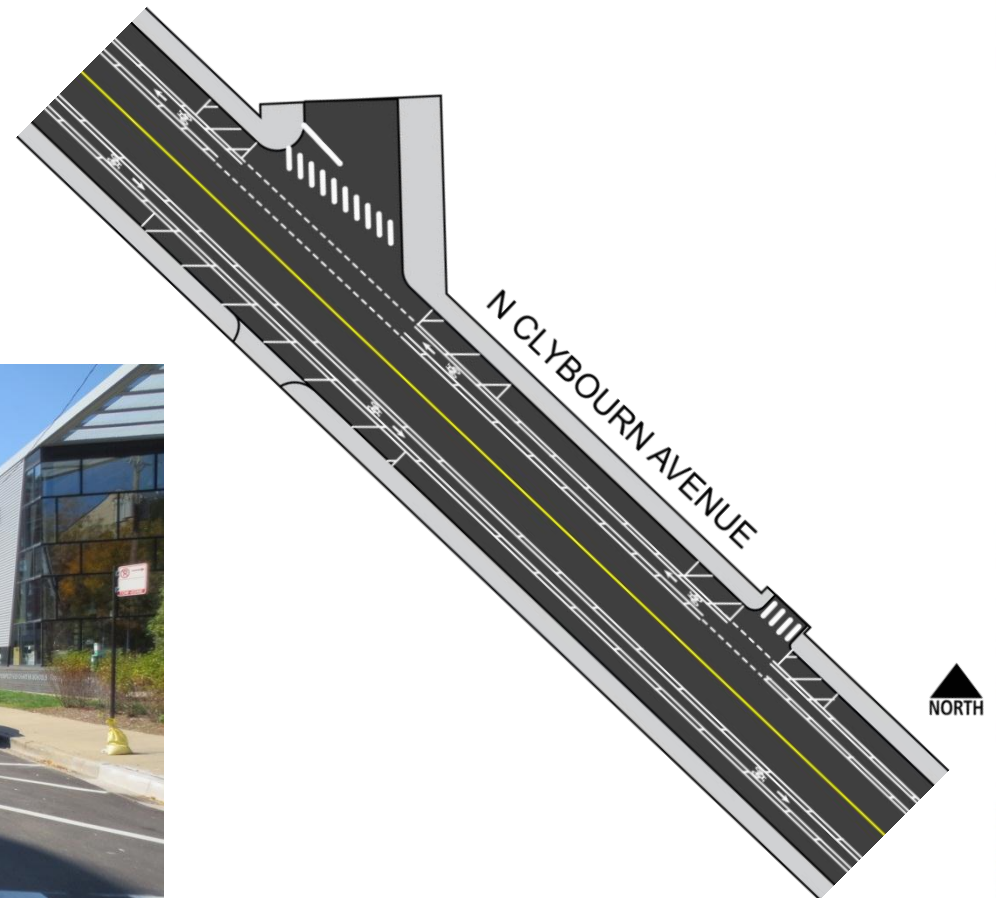
- 43 parking spaces removed (55% of total)
- Maintains three loading zones on east side
- Need to relocate one loading zone on west side
- Handicap loading zone would remain on west side
- Potential for concrete pedestrian refuge space and water infiltration applications
- Improved channelization and guidance for all modes



# Division to Larrabee

## Buffer Protected Bike Lanes

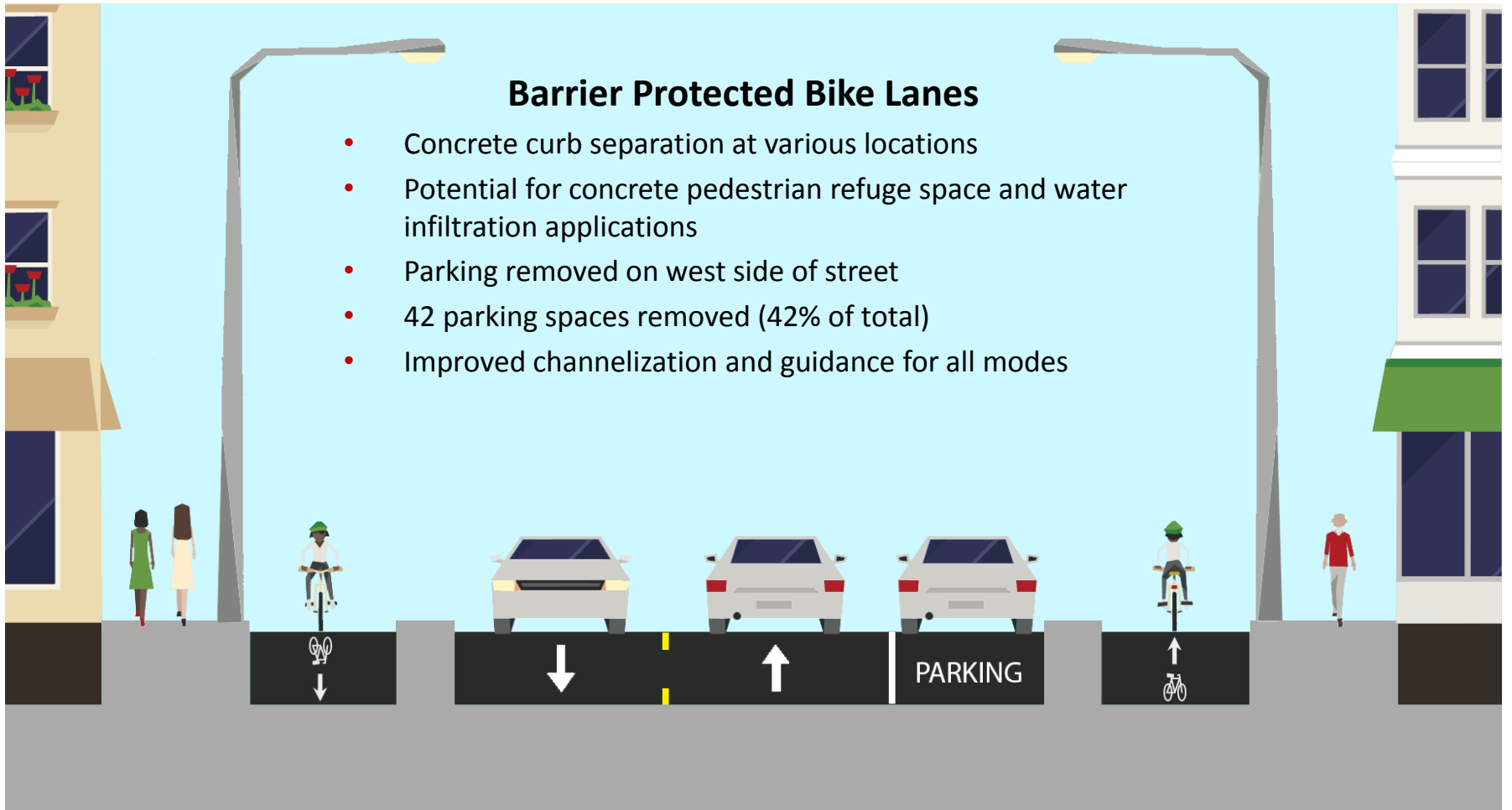
- 5 parking spaces removed (6% of total)
- Maintains all loading zones
- Provides a striped buffer between motorists and cyclists
- Mitigates conflicts between parked vehicles and cyclists (does not eliminate)
- Maintains existing curbside access



# Larrabee to Halsted Concept

## Barrier Protected Bike Lanes

- Concrete curb separation at various locations
- Potential for concrete pedestrian refuge space and water infiltration applications
- Parking removed on west side of street
- 42 parking spaces removed (42% of total)
- Improved channelization and guidance for all modes

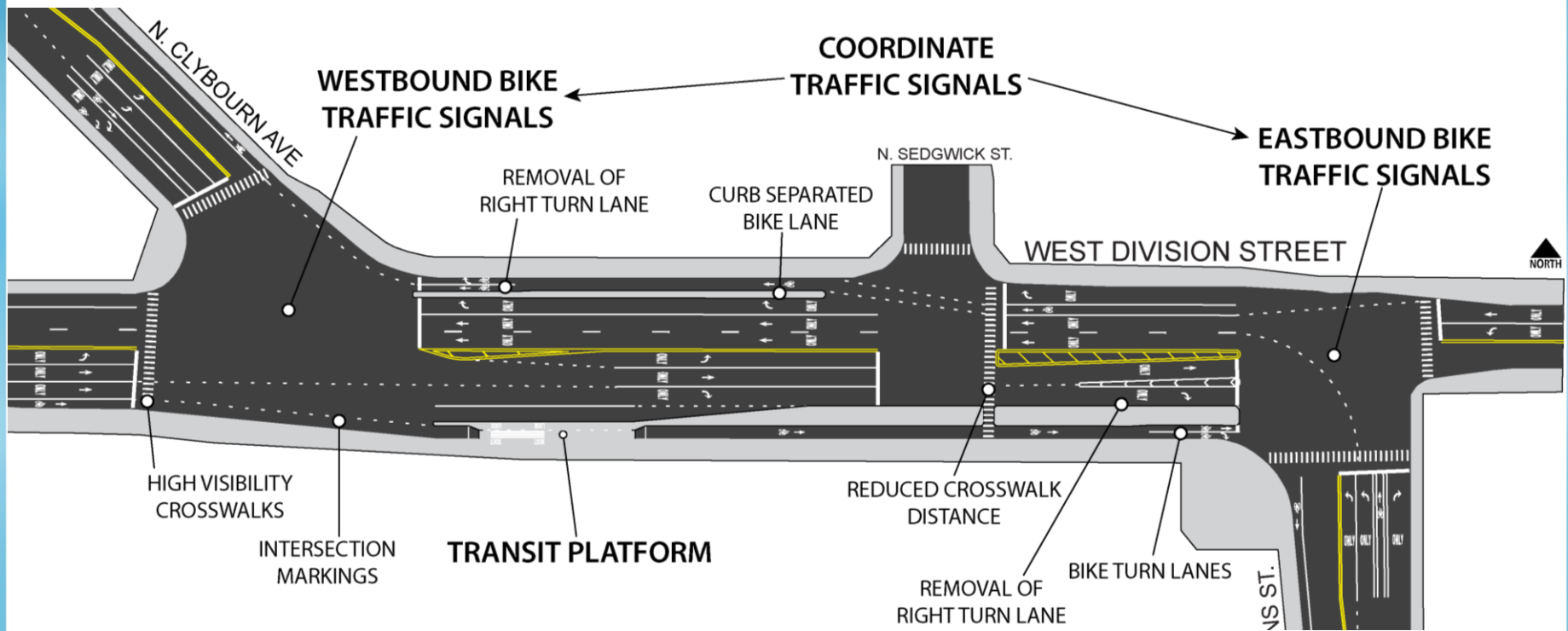


# Parking Offsets

- Removal of rush hour parking restrictions
- Extending parking through non-compliant driveways
- 15 new parking spaces on west side of Larrabee
- 5 new parking spaces on east side of Orleans



# Clybourn/Division/Orleans Intersection



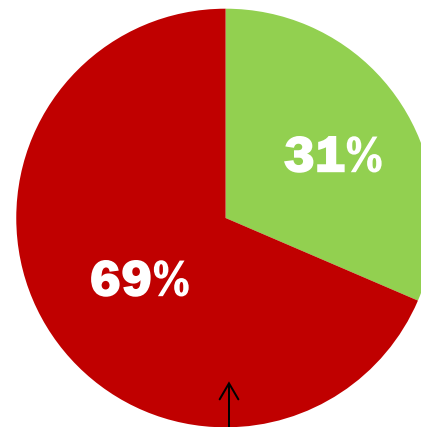




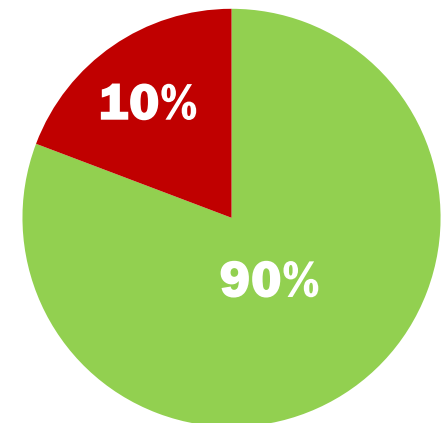
# New Dedicated Bicycle Signals

- Improve safety
- Minimize conflicts between bicyclists and right turning motorists
- Increase compliance

**BEFORE  
INSTALLATION**



**AFTER  
INSTALLATION**



Bicyclists entering  
Intersection on Red Lights

# Traffic Signal Phasing on Dearborn



Phase A: Bikes, Thrus



# Traffic Signal Phasing on Dearborn



Phase B: Bike Clearance



# Traffic Signal Phasing on Dearborn



Phase C: Conflicting Turns and Thrus

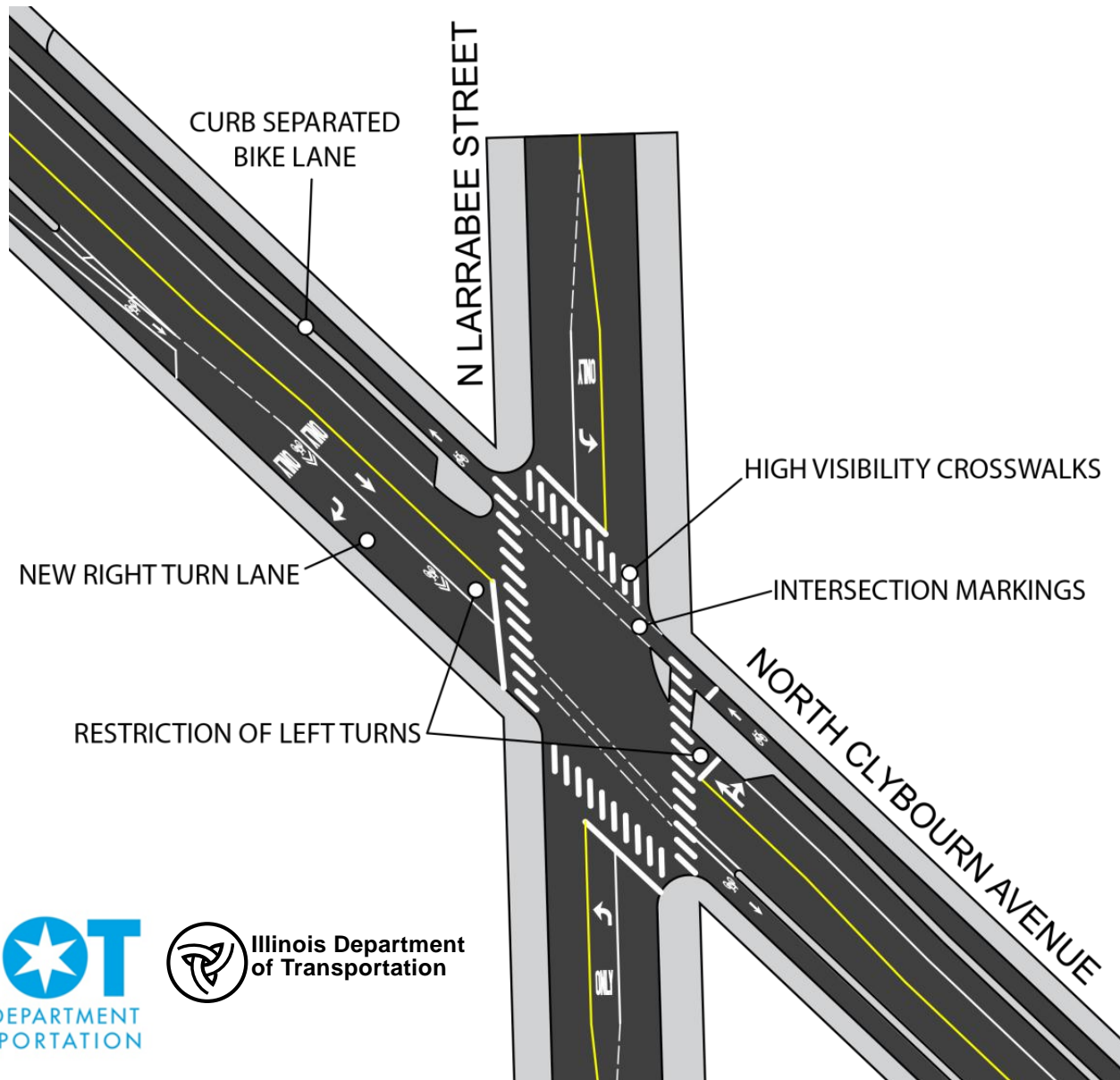
# Traffic Signal Phasing on Dearborn



Phase D: Vehicle Clearance



# Larrabee Intersection



# Left Turn Restrictions



XXX (XXX) → : Traffic Volume - AM (PM)  
XXX (XXX) 🚲 : Bike Volume - AM (PM)

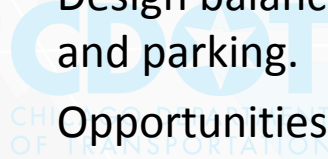
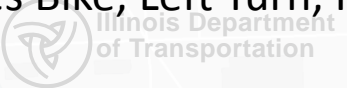
10 (14) ↵  
523 (374) →  
174 (79) →  
54 (14) 🚲 ↵  
8 (48) 🚲 ↵  
33 (51) ↵  
253 (433) ↵  
12 (14) ↵

STANTON (EDWIN) PARK

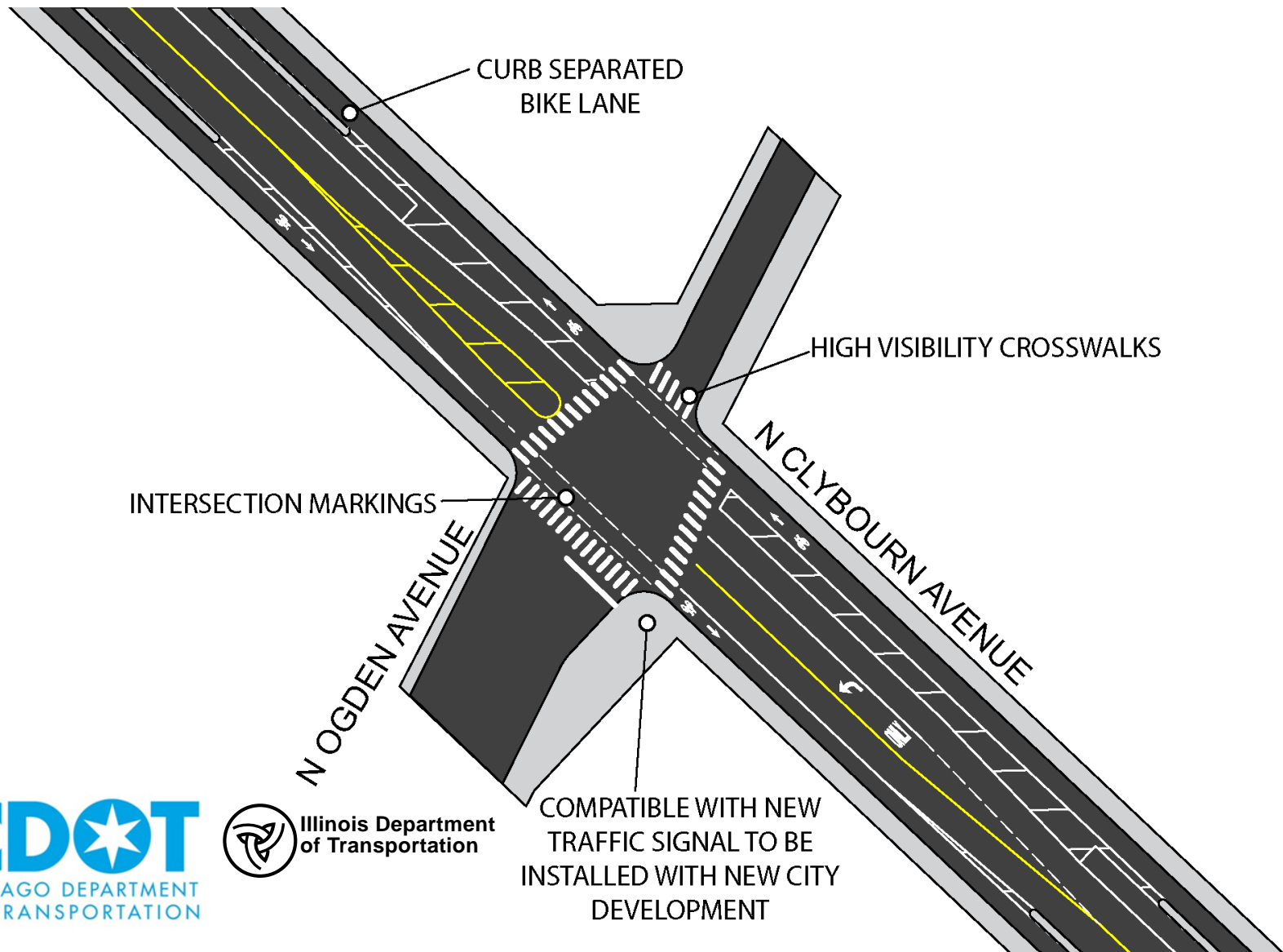
LARRABEE

DIVISION

- Counterintuitive movement
- Design balances Bike, Left Turn, Right Turn Volumes and parking.
- Opportunities to use other streets to access Larrabee

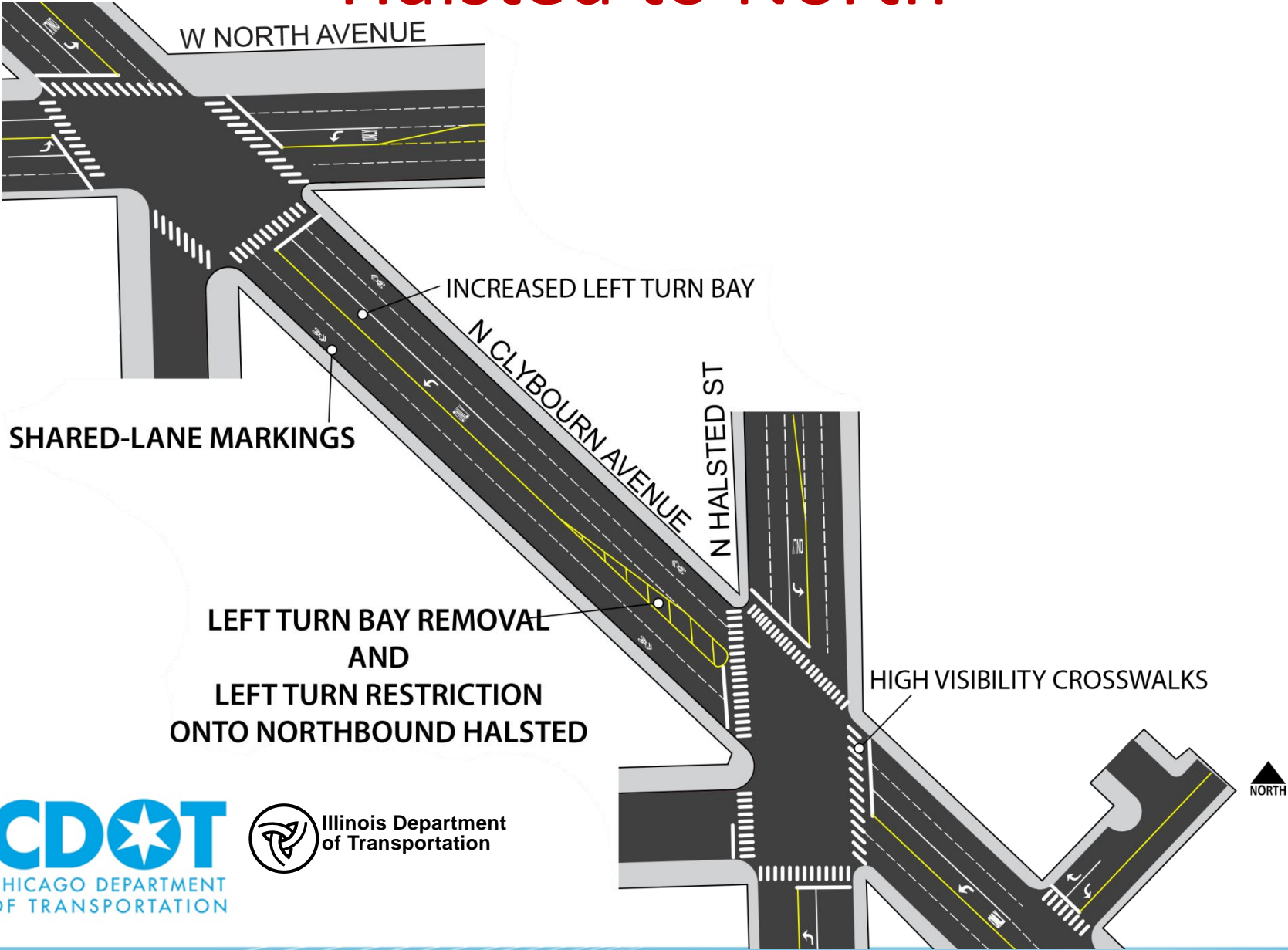


# Ogden Intersection





# Halsted to North



# Next Steps

- Continue Outreach
- Finalize Design
- Construction in Spring / Summer 2015
- After data collection late 2015 / early 2016
- Design modifications if necessary



# Questions?

Thank You!

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Illinois Department  
of Transportation