# *Illinois Bike Summit*
# IDOT Complete Streets Policy Presentation

Illinois Department of Transportation

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## Overview

- History of Complete Streets
- IDOT Policy
- Warrants for Bicycle and Pedestrian Accommodations
- Examples
- Coordination, Funding, and Agreements
- Clybourn Avenue Pilot Project
- Questions & Answers

## What is a Complete Street?

- Roadways that accommodate all users such as pedestrians, bicyclists, transit riders, and motorists.
- They may include sidewalks, median islands, shared-use paths, on-street bike lanes, and facilities for transit.
- They consider the context of the surrounding community.

http://bikefriendlync.org/2011/11/02/poll-should-colorado-boulevard-be-2-lane-or-4-lane/

More Info

http://www.smartgrowthamerica.org/complete-streets

## And why build them?

"Streets designed with only cars in mind may limit transportation choices by making walking, bicycling, and taking public transportation inconvenient, unattractive, and dangerous." [1]


https://www.pedbikeimages.org/pubdetail.cfm?picid=648 | photo: Dan Burden

1) http://www.smartgrowthamerica.org/complete-streets/complete-streets-fundamentals/complete-streets-faq

## And why build them?

Walking, biking, or riding the bus or train may or may not be a *choice*, and Complete Streets policies recognize the many ways we travel.

- 1 in 12 have no access to vehicles
- 1 in 5 Americans over 65 do not drive
- Everyone under the age of 15

https://www.pedbikeimages.org/pubdetail.cfm?picid=301 | photo: Chris Metka

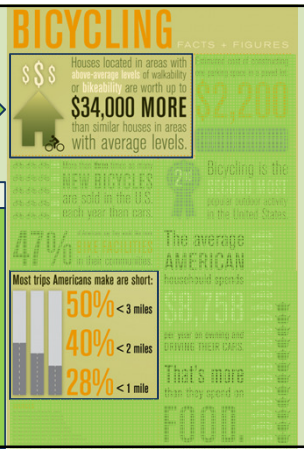
https://www.pedbikeimages.org/pubdetail.cfm?picid=140 | photo: Dan Burden

### Purpose of Policy

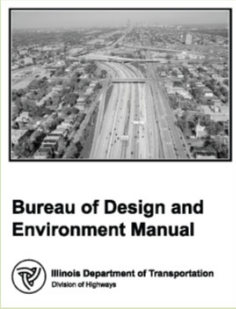
It is thought that Complete Streets can help promote safety, mobility, health, sustainability, equity, and economic growth.

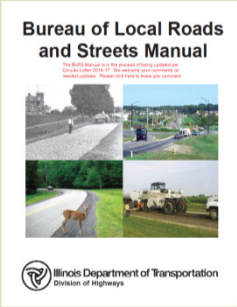
### In Good Company

- **Illinois** was the **first state** to adopt a **Complete Streets law** for roadways under its jurisdiction, but many have followed.
- Over 720 regional and local agencies, 30 states, the Commonwealth of Puerto Rico, and the District of Columbia have adopted policies, laws, and resolutions.
- **Examples in Illinois:** Arlington Heights, Blue Island, Champaign-Urbana, Cook County, DuPage County

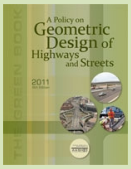


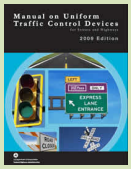
## State Design Manuals

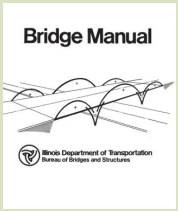


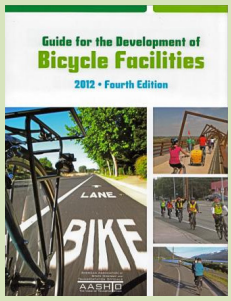




## Other Design Manuals




## Illinois Complete Streets Law

Enacted 2007, Public Act 095-0665 (SB0314)

Sec. 4-220. Bicycle and pedestrian ways.

(a) Bicycle and pedestrian ways shall be given full consideration in the planning and development of transportation facilities, including the incorporation of such ways into State plans and programs.

(b) In or within one mile of an urban area, bicycle and pedestrian ways shall be established in conjunction with the construction, reconstruction, or other change of any State transportation facility except:

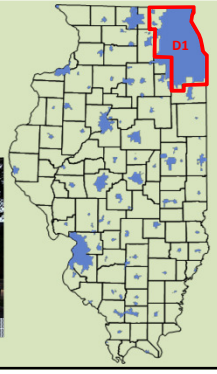
(1) in pavement resurfacing projects that do not widen the existing traveled way or do not provide stabilized shoulders; or

(2) where approved by the Secretary of Transportation based upon documented safety issues, excessive cost or absence of need.

## Illinois Urban Areas

- An "urban area" is defined by the Federal Highway Administration as:

| Population Range |
| --- |
| 50,000+ |


## "The Traveled Way"

- Typically does not include adding turn-lanes or auxiliary lanes

## Illinois Complete Streets Law

(c) Bicycle and pedestrian ways may be included in pavement resurfacing projects when local support is evident or bicycling and walking accommodations can be added within the overall scope of the original roadwork.

## Warrants for Accommodations

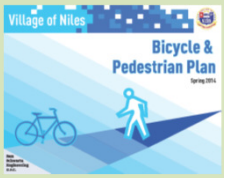
- Adding lanes
- Adding stabilized shoulders (rural context)
- Full roadway reconstruction
- New roadway construction

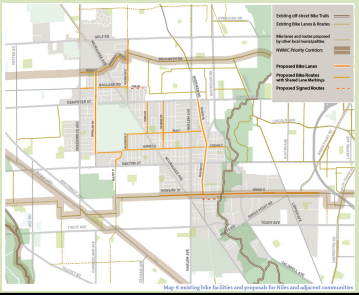
## Adding Lanes


## Stabilized Shoulders

## Warrants for Accommodations

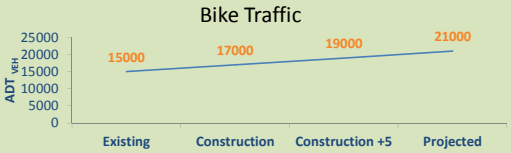
- The street is designated as a bikeway in a regionally or locally adopted bike plan or is published in a map as a recommended bike route.



## Warrants for Accommodations

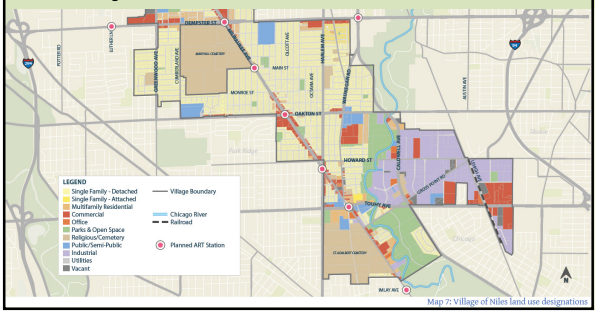
- The projected two-way bicycle traffic volume will approximate 25 ADT or more during the peak three months of the bicycling season five years after completion of the project.




$ADT_{bike} = ADT_{veh} \times \%$ Bike per Census

## Warrants for Accommodations

- The route provides primary access to a park, recreational area, school, or other significant destination.

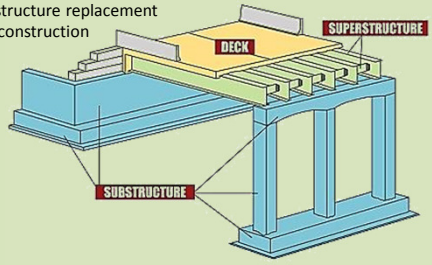


## Warrants for Accommodations -Bridges-

- The route provides unique access across a natural or man-made barrier (e.g., bridges over rivers, railroads, highways, or through a National Forest).
- Bicyclists will be accommodated on the bridge unless bicycles are otherwise prohibited to operate on the roadway approaches.
- For [bridge] projects that meet no other warrants, a minimum shoulder width of 4 ft (1.2 m) shall satisfy this warrant.
- The highway project will negatively affect the recreational or transportation utility of an independent bikeway or trail. Highway projects will negatively affect at-grade paths and trails when they are severed, when the projected roadway traffic volumes increase to a level that prohibits safe crossings at-grade, or when the widening of the roadway prohibits sufficient time for safe crossing.

## Bridges

- Scope determined by Bridge Condition Report
  - Deck patching/maintenance
  - Deck replacement
  - Superstructure replacement
  - Full reconstruction




## IL 176 over Des Plaines River


## Exceptions

- Projects along fully access controlled highway facilities, i.e. interstates and highways requiring ramps to access
- When approved by the Secretary of Transportation based upon safety issues, excessive costs, or absence of need.

## Partial Exceptions

- If existing roadway width can be restriped and/or resigned to provide bike accommodation where local [agency] support is evident

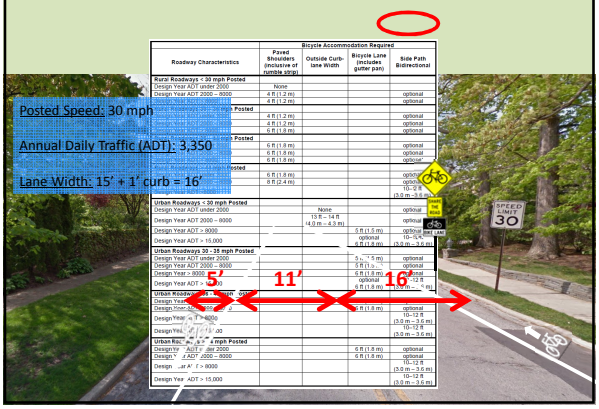
  - Design must coincide with Bicycle Facility Selection table (Figure 17-2.A)

## Bicycle Facility Selection Table

| Roadway Characteristics | Bicycle Accommodation Required: Paved Shoulders (inclusive of rumble strip) | Outside Curb-lane Width | Bicycle Lane (includes gutter pan) | Side Path Bidirectional |
|---|---|---|---|---|
| **Rural Roadways < 30 mph Posted** | | | | |
| Design Year ADT under 2000 | None | | | |
| Design Year ADT 2000 – 8000 | 4 ft (1.2 m) | | | optional |
| Design Year ADT > 8000 | 4 ft (1.2 m) | | | optional |
| **Rural Roadways 30 – 35 mph Posted** | | | | |
| Design Year ADT under 2000 | 4 ft (1.2 m) | | | optional |
| Design Year ADT 2000 – 8000 | 4 ft (1.2 m) | | | optional |
| Design Year ADT > 8000 | 6 ft (1.8 m) | | | optional |
| **Rural Roadways 36 – 44 mph Posted** | | | | |
| Design Year ADT under 2000 | 6 ft (1.8 m) | | | optional |
| Design Year ADT 2000 – 8000 | 6 ft (1.8 m) | | | optional |
| Design Year ADT > 8000 | 6 ft (1.8 m) | | | optional |
| **Rural Roadways > 44 mph Posted** | | | | |
| Design Year ADT under 2000 | 6 ft (1.8 m) | | | optional |
| Design Year ADT 2000 – 8000 | 8 ft (2.4 m) | | | optional |
| Design Year ADT >8000 | | | | 10–12 ft (3.0 m – 3.6 m) |
| **Urban Roadways < 30 mph Posted** | | | | |
| Design Year ADT under 2000 | | None | | optional |
| Design Year ADT 2000 – 8000 | | 13 ft – 14 ft (4.0 m – 4.3 m) | | optional |
| Design Year ADT > 8000 | | | 5 ft (1.5 m) | optional |
| Design Year ADT > 15,000 | | | optional 6 ft (1.8 m) | 10–12 ft (3.0 m – 3.6 m) |
| **Urban Roadways 30 - 35 mph Posted** | | | | |
| Design Year ADT under 2000 | | | 5 ft (1.5 m) | optional |
| Design Year ADT 2000 – 8000 | | | 5 ft (1.5 m) | optional |
| Design Year > 8000 | | | 6 ft (1.8 m) | optional |
| Design Year ADT > 15,000 | | | optional 6 ft (1.8 m) | 10–12 ft (3.0 m – 3.6 m) |
| **Urban Roadways 36 - 44 mph Posted** | | | | |
| Design Year ADT under 2000 | | | 5 ft (1.5 m) | optional |
| Design Year ADT 2000 – 8000 | | | 6 ft (1.8 m) | optional |
| Design Year ADT > 8000 | | | | 10–12 ft (3.0 m – 3.6 m) |
| Design Year ADT > 15,000 | | | | 10–12 ft (3.0 m – 3.6 m) |
| **Urban Roadways > 44 mph Posted** | | | | |
| Design Year ADT under 2000 | | | 6 ft (1.8 m) | optional |
| Design Year ADT 2000 – 8000 | | | 6 ft (1.8 m) | optional |
| Design Year ADT > 8000 | | | | 10–12 ft (3.0 m – 3.6 m) |
| Design Year ADT > 15,000 | | | | 10–12 ft (3.0 m – 3.6 m) |

BDE Manual: Ch. 17 Figure 17-2.A

## Restriping Example




## Road Diets

Reducing number of travel lanes requires full engineering study (Phase I)

Often difficult to develop during resurfacing plan preparation (Phase II only, typically)

– If only narrowing while maintaining same number of lanes, no study is required (previous example)

| Phase I | Phase II | Phase III |
|---|---|---|
| Preliminary Engineering and Environmental Studies | Contract Plan Preparation and Right-of-Way Acquistion | Construction |

## Road Diet Example

## Typical Accommodation Example

## Typical Accommodation Example


## Public/Agency Coordination

| Organization | Yes | NA | Organizations* | Yes | NA |
|---|---|---|---|---|---|
| Metropolitan Planning Organization (if applicable) | ☐ | ☐ | League of Illinois Bicyclists* | ☐ | ☐ |
| Local Municipalities | ☐ | ☐ | Illinois Department of Natural Resources* | ☐ | ☐ |
| Park or Forest Preserve Districts | ☐ | ☐ | Trails for Illinois* | ☐ | ☐ |
| Sub-Regional Planning Council (as appropriate) | ☐ | ☐ | Active Transportation Alliance (District 1 only)* | ☐ | ☐ |
| Local Bicycle Clubs, Advocacy Groups | ☐ | ☐ | | | |

*Note: Addresses are presented in Section 17-5.*

**CHECKLIST FOR ORGANIZATIONS AND PUBLIC COORDINATION**

**Figure 17-1.C**

## Funding & Cost Participation

- BDE 5-5.02(b) ------- *Sidewalks*
- BDE 5-5.02(o) ------- *Bicycle Accommodations*
- BDE 17-1.07 ------- *Funding*
- Future Accommodations
- Permits and Grants

## Maintenance and Jurisdiction

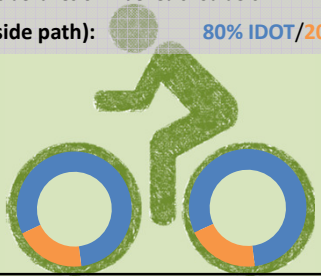
A Local Agency *MUST* accept maintenance and jurisdiction of sidewalks and off-street bicycle accommodations on State Routes

https://www.pedbikeimages.org/pubdetail.cfm?picid=2081 Photo: Justin Pryzby

https://www.pedbikeimages.org/pubdetail.cfm?picid=856 | Photo: Austin Brown

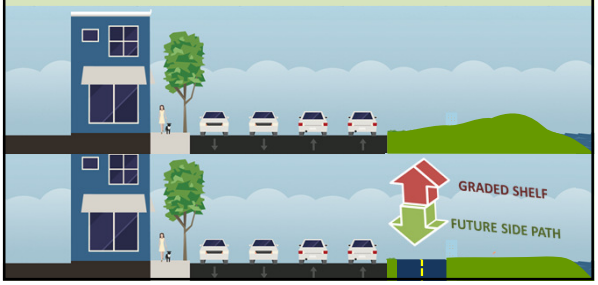
## Funding and Cost Participation

- **Bridges (& approaches):** 100% IDOT
- **On-Road (full bike lanes):** 80% IDOT/20% Locals
  - **Wide outside lanes or widened shoulders:** 100% IDOT
- **Off-Road (side path):** 80% IDOT/20% Locals



## Funding and Cost Participation

- State will take reasonable actions to *not preclude* future additions of sidewalks and paths
  - Local pays 100% for future installation




## Funding and Cost Participation

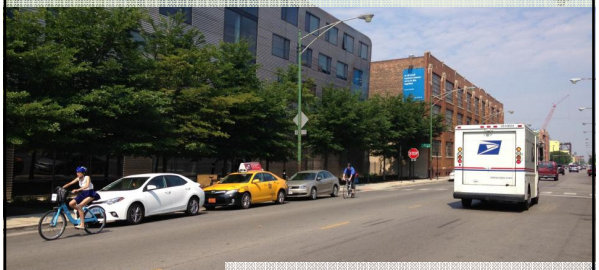
<u>Additional Resources/Grant Opportunities</u>

- Surface Transportation Program **(STP)**
- Illinois Transportation Enhancement Program **(ITEP)**
- Congestion Mitigation and Air Quality **(CMAQ)**
  - Chicago or St. Louis Metro Area
- Safe Routes to School **(SRTS)**
- Transportation Alternatives Program **(TAP)**

## Clybourn Avenue Pilot Project

- 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 using IDOT's on-going Feasibility Study on bicycle and pedestrian facilities.
  - Analyzes safety, operations, and maintenance of various bike/ped accommodations.

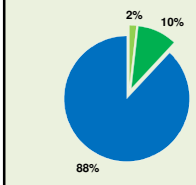
## Project Goals

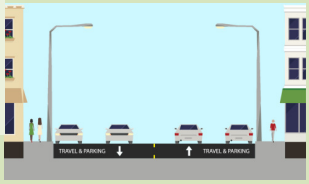


- Reduce crashes
- Increase transportation options and balance needs of various roadway users
- Evaluate separated bike lane elements

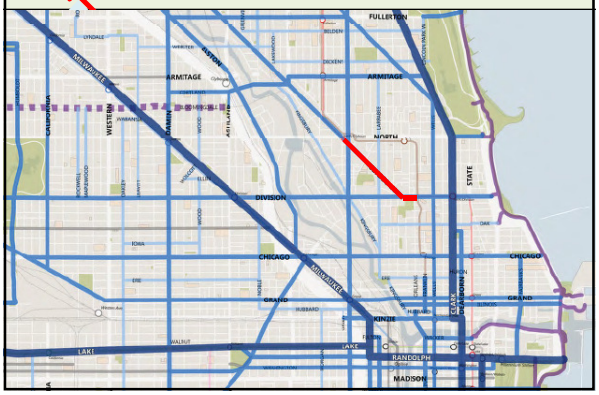
## Existing Roadway Conditions

**Count Data:**
- 11,000 vehicles per day
- Over 100 bicyclists in the peak hour



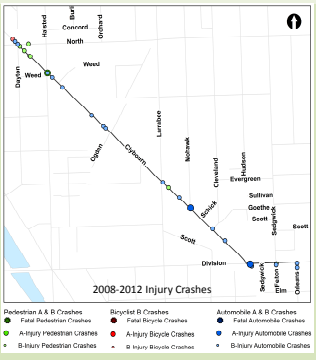

## Network Connectivity



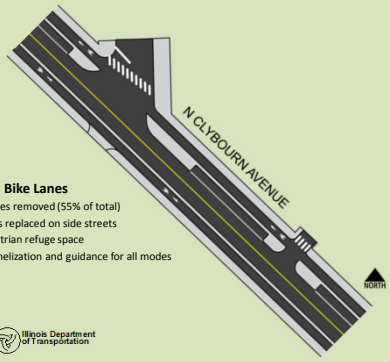

## Crash Analysis

- 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:

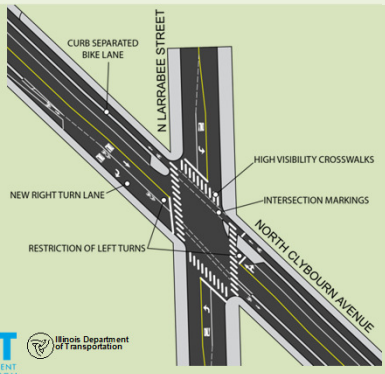




## Division to Larrabee

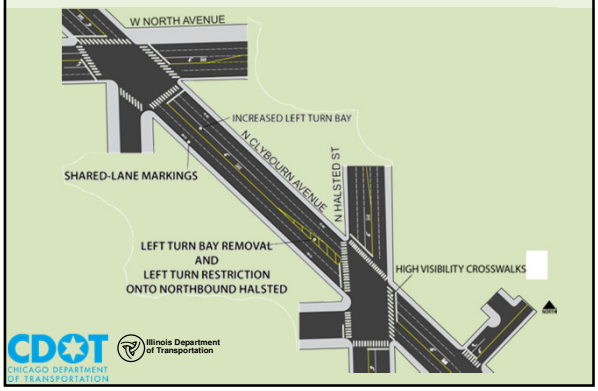



**Curb-Separated Bike Lanes**
- 43 parking spaces removed (55% of total)
  - 20 spaces replaced on side streets
- Concrete pedestrian refuge space
- Improved channelization and guidance for all modes

## Larrabee Intersection



## Halsted to North

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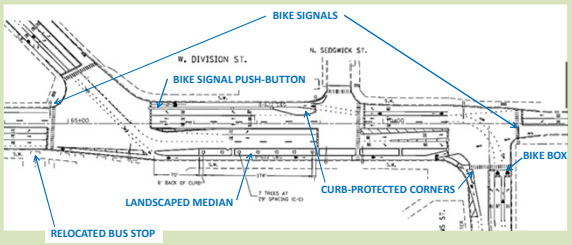
## Clybourn/Division/Orleans Intersection

Final Design Features

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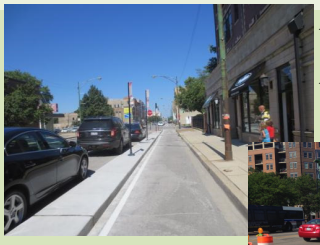
## Curb Types



- Minimum 3' wide for exiting vehicle/ door-zone
- Developed design detail based off similar facilities in Austin, TX

- Stamped, colored concrete at curb bump-outs/ wider median

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## Curb Types

Painted end caps with flexible delineators

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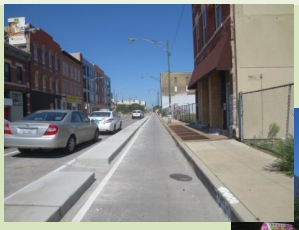
## Drainage Considerations



- Retrofit to utilize existing drainage
- Gapped median at inlets and utilities

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## Lane Widths and Maintenance

- 7.5' wide bike lanes
- Allow for street sweeping and room to pass other cyclists

*Image Credit: Streetsblog Chicago

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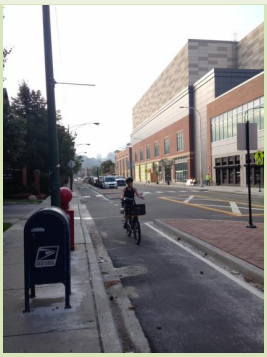
## Construction

- Cost: $700,000
- Timeline: 2-3 months
- Field adjustments: Additional median gaps for drainage

## Next Steps

- Finalize construction
- After data collection
- 3-Year Pilot Study
- Design modifications if necessary



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## Questions?

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