

Mayor's Bicycle Advisory Council Public Meeting

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What factors should be considered in the planning, engineering and construction of on-street bikeways in Chicago?

Four typical bikeways in Chicago are: Bike Lanes, Marked Shared Lanes, Bus/Bike Lanes and Signed Bike Routes.

Bike Lanes are a 5 to 6 feet wide portion of the roadway designated by striping, signing and pavement markings, for exclusive use by bicyclists. Chicago has 113 miles of existing Bike Lanes.

Marked Shared Lanes are open to both vehicle and bicycle traffic designated by striping, signing and bike and chevron symbol pavement markings as a preferred route for cyclists. They are typically 12 to 14 feet wide. Chicago has 27 miles of existing Marked Shared Lanes.

Bus/Bike Lanes are lanes designated by striping, signing and pavement markings for the exclusive use of shared bus and bicycle traffic. They are typically 12 to 14 feet wide.

Signed Bike Routes are roadways designated as a preferred route for cyclists. A well-designed signed route clearly shows directional arrows and mileage to specific destinations in the city. Chicago has 241 miles of existing Signed Bike Routes.



When proposing to install a bikeway, the following factors are considered:

- Total street width. To install a Bike Lane there needs to be enough width for parking (if allowed), 5-6 feet for the Bike Lane and at least 10 feet for the vehicular travel lane.
- Parking. Is on-street parking allowed? If so, how lightly is it used? Are there, rush hour parking restrictions?
- Pavement conditions. If CDOT installs a bikeway, will cyclists have a smooth ride? Will the street need to be resurfaced in the near future?
- Timing. Are there upcoming projects within the projected limits of the bikeway such as CDOT's Streetscapes, Arterial Streets Resurfacing Program (ASRP) or private developments?
- Traffic Volumes. How congested is the street? Can a travel lane be removed without adversely affecting traffic? Can parking be removed? How will local businesses react?
- Usage. Is there cyclist demand? Is the roadway a designated bus route or heavily used by trucks? What are the observed habits of motorists on the road? Are they prone to speeding or passing on the right?
- Approvals. Many approvals are required before a bikeway can be installed. Depending on the roadway and its jurisdiction, OEMC, Cook County Highway Department, IDOT, CDOT and the Alderman may have to approve the proposed bikeway.
- Costs. Depend on the pavement (concrete or asphalt?) and materials required.
- The right fit. Chicago has an extensive bikeways network. The key to a well-designed network is proper placement. Proper placement allows cyclists in any part of the city to reach retail shops, businesses, schools, parks and neighboring cities using the network in a more efficient way.
- Geography. Will the bikeway establish a facility in a previously underserved location?

The 2009 Federally funded Chicago bikeways project contains designs for 18 miles of new bikeways, approximately 56% located on the south side of the city and the 2010 Federally funded bikeways project contains designs for 17 miles of new bikeways, approximately 71% located on the south side of the city. The 2009 Arterial Streets Resurfacing Projects will potentially install 10 miles of new bikeways citywide.

What are the advantages and disadvantages of one (*your choice*) of the following innovative designs for on-street bikeways?

Colored Bike Lanes

- Colored bike lanes are currently used in Chicago to denote conflict areas at intersections in which a cyclist and motorist each require use of a lane (e.g. transition from travel lane to turning lane). There is an ongoing Federal Highway Administration (FHWA) study analyzing the effectiveness of green colored bike lanes at such conflict areas.

Example locations include:

- Northbound Dearborn at Chicago
 - Eastbound Milwaukee at Augusta
 - Southbound Halsted at Roosevelt
- CDOT is also investigating the use of full, green bike lanes for possible installation after the FHWA study is complete (i.e. green bike lanes for entire block lengths instead of just conflict areas).
 - *Advantages:* Increases bikeway visibility.
 - *Disadvantages:* Current materials used in Chicago are cost prohibitive.



Grade Separated (Raised) & Barrier Separated Bike Lanes.

- Raised bike lanes are slightly elevated to discourage motorists from driving in the lane, protecting bicyclists from motor vehicle traffic. CDOT has completed designs for two locations, one of which the Illinois Department of Transportation rejected, the other is pending.
 - *Advantages:* Discourages motorists from driving in the bike lane. Maintains ability of cyclist to merge left (e.g. to avoid obstacles or to turn left).
 - *Disadvantages:* Requires extensive curb and gutter reconfiguration.
- CDOT has investigated barrier separated bike lanes but has not yet identified a suitable location.
 - *Advantages:* Protects cyclists from overtaking, motor vehicle traffic.
 - *Disadvantages:* Does not allow merging movements during turns. Does not provide parking, delivery, driveway or alley access. Concentrates bike/car interaction at intersections where most conflicts already occur. Requires more right of way than any other on-street bikeway. Hampers routine roadway maintenance. Extensive infrastructure reconfigurations.



Bike Boulevards

- Bike boulevards are shared roadways designed to optimize flow for bicycle use and discourage motor vehicle use by using traffic calming, intersection treatments and signage to give priority to cyclists. CDOT has identified pilot locations and prepared concept designs. Timeline and funding not yet identified.
 - *Advantages:* Provides an optimal route for bicyclists and pedestrians. Discourages cut-through motor vehicle traffic and encourages community involvement.
 - *Disadvantages:* Treatments may be costly. Strict location requirements.

Bike Boxes/Advanced Stop Lines

- Bike boxes are advanced stop lines installed at intersections with high volumes of bicycle traffic. They provide bicyclists a designated space in front of queued motor vehicles, giving them a head start and extra visibility when stopped at red lights.
 - *Advantages:* Increased safety due to higher visibility. Provides a more comfortable space to wait ahead of vehicle exhaust.
 - *Disadvantages:* May impede traffic movement when light turns green. Bus stop and right turn conflicts may be a concern.



Credit: Jonathan Maus