Background Info for Motorist-Directed Signage

Ed Barsotti, Ride Illinois, November 18, 2015

What signage is available to alert and educate motorists about sharing the road with bicycles? Is there a preferred sign, which can be recommended for consistent use in Illinois? Ride Illinois has been studying this issue in preparation for collaborations with road agencies and possibly local bicycle clubs.



"Share the Road" sign

This sign has long been accepted in the MUTCD, but is subject to different and often mistaken interpretations by motorists and cyclists. It is increasingly falling out of favor – see, for example, news on the elimination of the sign in Delaware: www.bikede.org/2015/08/29/share-the-road-is-a-problem. Delaware's change is based in part on a recent behavioral study comparing Share the Road signs and Bikes May Use Full Lane signs, as well as Shared Lane Markings (aka "Sharrows").

"Bikes May Use Full Lane" (BMUFL) sign



Accepted in the MUTCD's 2009 version, the sign "may be used on roadways where no bicycle lanes or adjacent shoulders usable by bicyclists are present and where travel lanes are too narrow for bicyclists and motor vehicles to operate side by side." Also, the sign "may be used in locations where it is important to inform road users that bicyclists might occupy the travel lane."

That behavioral study found BMUFL signs are more easily understood than Share the Road signs.

Using the full lane - or not?

When does a bicyclist need to use the full lane? When exactly are BMUFL signs appropriate? What width travel lanes are "too narrow for bicyclists and motor vehicles to operate side by side"?

By Illinois law (625 ILCS 5/11-1505), a bicyclist must ride as close as "practicable and safe" to the right-hand curb or edge, with a number of exceptions, *some* of which include:

- When preparing for a left turn a cyclist is likely to be in the left half of the lane.
- When approaching a place where a right turn is authorized cyclists may move closer to center to reduce the likelihood of a right-turning motorist passing them and then cutting them off.
- Riding at normal traffic speed examples include downhills and low-speed areas (e.g. "downtown")
- Avoiding parked cars dooring from parallel-parked cars, or diagonally-parked cars backing up.

These lead to some of the most logical places for BMUFL signs: steep downhills, roads for which bike and car speeds are close, roads with on-street parking (especially diagonal), through lanes in intersection approaches where bike lanes have been temporarily dropped due to turn lanes. But, another of the "far-right rule" exceptions leads to some questions:

"...substandard width lanes that make it unsafe to continue along the right-hand curb or edge. For
purposes of this subsection, a 'substandard width lane' means a lane that is too narrow for a bicycle
... and a vehicle to travel safely side by side within the lane."

According to the AASHTO <u>Guide for the Development of Bicycle Facilities</u> (2012), page 4-3: "Lane widths that are 14 ft (4.3 m) or greater allow motorists to pass bicyclists without encroaching into the adjacent lane." Consistent with Illinois law (625 ILCS 5/11-703(d)), AASHTO uses a 3 feet minimum lateral clearance when deriving the 14 ft width threshold of a "substandard width lane". Thus, BMUFL signs could legally be used for any road having lane widths less than 14 feet (most do).

However, is that best practice? Realistically, a bicyclist usually does not need to ride in the center of a lane if the *only* applicable "far-right rule" exception is substandard lane width. The practical goal of the bicyclist is to discourage a motorist from dangerously "squeezing by" within the same lane, with less than 3 feet of passing clearance. This goal can generally be achieved by riding far enough out into the lane (maybe 18-36") to force the motorist to move at least partially into the next lane to pass. While it may seem rude to some motorists, it is a matter of safety for cyclists.

We feel that this scenario does not seem ideal for Bikes May Use Full Lane signs. "Full Lane" – often interpreted as the *center* of the lane – might be overkill from a cyclist perspective. Meanwhile, the phrase might increase bewilderment or even resentment among some motorists. Instead, we have explored signs alerting motorists to either the state's 3-foot passing rule, or the need to change lanes to pass a bicycle.

3-Foot Law Signs and MUTCD

There are variations of 3-foot state law signs, in limited use. Two include Cape Coral, FL (left) and California (right). Some may argue Cape Coral's might be misinterpreted that cyclists should move further right when being passed.







The national MUTCD does not currently have an approved 3-foot law sign having graphics, but the issue is currently being studied for a future version. Among the leading contenders is the California version, approved in that state's MUTCD. Until that time, word-only signs, such as the wording in the sign at left, may be used in adherence with the national MUTCD.

Even more instructive is the MUTCD's current stance, seen below from their FAQ webpage mutcd.fhwa.dot.gov/knowledge/fags/fag_part9.htm#signsq1:

Q: The agency I work for has recently enacted a law that requires the motorist to keep a minimum lateral distance of 3 feet from the bicyclist when overtaking the bicyclist. I have seen this sign used elsewhere, but cannot find the sign in the Manual. Where can I find the standard sign for this situation?

A: No standard sign exists. The purpose of highway signing is not to create awareness, which is typically the intent of a sign conveying programmatic rules of the road. Other media—such as radio, television, and

newspaper ads; notices on 511 travel information systems; postal mailings; and Web sites—are more appropriate for and conducive to promoting and/or marketing specific programs and new regulations. Special word message signs for the three-foot law should not be installed haphazardly and should be limited to locations where the operation of the two vehicle types is demonstrating a problem or crash history. Thus, installing these signs where say a physically-separated bikeway exists would be counterproductive to achieving the agency's goal. An example of a special word-only message sign for this application could be a four-line black on white regulatory sign with the legend CHANGE:: LANES:: TO PASS:: BICYCLES.



Local examples

Kane County DOT created a motorist-directed sign (at right) in conjunction with a local bike club. It consists of an MUTCD-approved bike/ped warning sign superimposed on Share the Road text. KDOT rotates placement of these signs on popular rural bike routes.

Below, Lake County DOT pairs a motorist-directed Share the Road sign with a cyclist-directed regulatory sign on the riding 2-abreast law, most relevant for club rides.







Highland Park uses the same cyclist-directed signs as Lake County DOT. The City is currently investigating motorist-directed signs.

Ride Illinois' (current) recommendation for motorist-directed signs

Based on the above, Ride Illinois suggests using "BIKES MAY USE FULL LANE" signs in places where cyclists logically would be riding near the center of the lane, including but not limited to: steep downhills, low speed areas such as downtowns, roads with on-street parking (especially diagonal), and through lanes at intersections when bike lanes have been temporarily dropped.

For popular bike routes having travel lane widths 14 feet or more (and not meeting suggested Bikes May Use Full Lane situations), we suggest using the word-only "STATE LAW – 3 FEET MIN TO PASS BICYCLES" regulatory sign.

For popular bike routes having travel lane width less than 14 feet (again, not meeting BMUFL situations), we suggest the word-only "STATE LAW – 3 FEET MIN TO PASS BICYCLES" or the MUTCD-recommended "CHANGE LANES TO PASS BICYCLES" regulatory signs – with a preference for the Change Lanes sign.

These latter two recommendations may change when further behavioral studies have been done comparing the signs, and/or when the MUTCD committee approves new 3-feet minimum signage with graphics.

Our intention is to work with bike clubs and other cyclists to determine such locations having problems with close passing. We would also like to collaborate with clubs and agencies on installation of appropriate signs – both motorist-directed as well as cyclist-directed.



Best of all would be national adoption of the sign at right (just kidding):