

# **NCUTCD Bicycle Technical Committee Meeting**

1 PM EST, January 18, 2012

Draft minutes prepared by John S. Allen, January 20, 2012 (revised June 7, 2012)

## ***Attendance***

### **Committee members**

Richard Moeur, Chair  
John Allen  
John Ciccarelli  
Ted Curtis  
Cindy Engelhart  
Bill Fox  
Ron van Houten

Michael Jackson  
Dwight Kingsbury  
Dan Lang  
John LaPlante  
Tim Oliver  
Theo Petritsch  
John Schubert

### **Guests**

Paul Carlson, Research Committee Chair  
Connie Frederickson, Impact Recovery Systems  
Bruce Friedman, FHWA  
Dan Lang, Flint Trading  
Sam Morrissey, City of Santa Monica, California  
Jeff Rosenblum, City of Cambridge, Massachusetts  
Joe Stafford, Pennsylvania Bicycle Access Council  
Gail Tait-Nouri, Montgomery County, Maryland

## ***Minutes of June 2011 Meeting***

Minutes of the June meeting were approved by acclamation.

## ***Web hosting***

The BTC has set up its own web site, as has the Light Rail TC. Gene Hawkins recommended that we figure out what Internet presence NCUTCD should have; this could include more than minutes and notices: Wikis, social media. Can the BTC site be considered an expense of the NCUTCD for 5 years? Moeur will bring this up at the Board meeting tonight.

Schubert: some of the proposed Internet presence amounts to attractive wants, not do-or-die needs. Web presence can be made easier: grab a WordPress template and it's done. Allen pointed out that WordPress also has its limits, and agreed to represent the BTC on the NCUTCD Internet task force.

## ***Membership***

Ted Curtis was appointed to the BTC at the June meeting in Boise. Shawn Dikes resigned. As of today, we have 11 government members and 8 non-government. Dan Lang may become a member as of tomorrow. John LaPlante indicated that he will be resigning following the June meeting

BTC Terms are for 2 years and end at the even-numbered year meetings. Moeur will recommend all current members for reappointment.

### ***AASHTO Bicycle Guide***

The guide will probably be published this summer, maybe fall. Ballots have been received. There were about 100 minor comments to resolve from the final balloting.

### ***ITE Traffic Control Devices Handbook***

The bicycle chapter was 91 pages, prepared by Moeur and Ciccarelli, much larger than in earlier editions. The Handbook is to be published in the spring or summer of this year. There has been talk about moving material out of the MUTCD and into the Handbook or other references but there is no resolution on that topic yet.

### ***Compliance and Rulemaking***

2009 MUTCD compliance: all states should be operating under the 2009 MUTCD as of this week, either using the MUTCD as is, modified by a state supplement, or using a state MUTCD rewritten to conform to the 2009 MUTCD.

Are the 58 compliance dates in the 2009 MUTCD to be reduced to 11? No final rule has been issued yet. Also there is no final word yet on the definitions of Standard and of Engineering Judgment.

A pending rulemaking on accessibility issues in public rights of way may change many Guidances to Standards. This is Federal civil rights law and is much more stringent and enforceable than the MUTCD. There are issues with unfunded mandates. In part 4, accessible pedestrian signals and 3.5 ft/second walking speed are recommended, but the draft rules will make them mandatory. There is a question of availability of hardware, for example vibrotactile warning surfaces.

Friedman gave updates on the rulemaking for compliance dates for signs. This issue went up to the Secretary of Transportation. Both the compliance date rulemaking and the rulemaking for the Definitions of Standard and Engineering Judgment are out of the MUTCD team's control right now. Final rules will probably be issued in the first half of this year. The official rulings database at <http://mutcd.fhwa.dot.gov/orsearch.asp> is available and is an interactive, useful resource. The new edition of the FHWA Standard Highway Signs and Markings book should be coming out soon. Friedman has entered Part 2 rulings back to 2000 into the official rulings database. He will now link reports and correspondence, starting with the most recent rulings for all Parts. Incoming material is difficult to deal with because it is often only in hardcopy or PDFs, and needs to also be converted into a Section 508-compliant html version before it can go into the database.

A hot-linked PDF version of the MUTCD is in the works. Most of the Defined Words and Phrases in Section 1A.13 will pop up a definition. Interpretations and a list of known errors will be linked.

### ***Priority List***

Priority list: are we good with it? Many issues have been completed. Current issues are bike boxes, work zone figures, bicycle signals, colored bike lanes, and alternatives to "Share the Road" signs. Colored bike lanes have interim approval from FHWA. We need to revisit Part 9 figures.

Ciccarelli is aware of a probable forthcoming RTE by a northern California city to test BMUFL signs, adding the Change Lanes To Pass plaque, adding Shared Lane Markings, then adding a wide green

strip similar to Long Beach's installation.

Sam Morrissey may have research results on bike boxes in Santa Monica in the future.

### ***Bicyclists in Work Zones***

Bill Fox is working on additions to Part 6 to address bicyclists in work zones. He developed text and 5 typical applications, took them to Temporary Traffic Control TC, got comments, and incorporated edits.

Share the Road (for a wider lane) vs. BMUFL (for a narrower one) have two different applications in temporary traffic control.

Ciccarelli: cyclist's choice whether to take an alternate route may depend on the length of the roadway or path that is affected by construction.

Petritsch: there's nothing to prohibit varying from the typical application shown. The length of the road or path closure could be added in the text.

Engelhart: why is the BMUFL sign white when other construction signs are orange? Answer: it is a regulatory sign. Where would we put the plaque indicating the length of roadway affected? Petritsch suggests that it be placed with the "bike lane closed" sign.

There was an extended discussion of minor details of the five typical applications which Fox had generated.

### ***Tour to Turner-Fairbank Research Center***

Paul Carlson from the Research Committee discussed the tour to the Turner-Fairbank Research Center. There are new laboratories to view. The general purpose of the Research Committee is to facilitate research. The committee submits about 5 ideas to NCHRP per year, and one is funded. Other bodies may do the research too. Moeur showed a list of research projects being balloted; we need ideas to submit to the Research Committee in June. We need to develop problem statements that can get onto the list, get accepted and lead to useful results. Allen: research should consider mobility, different types of cyclists and education/publicity as well as safety. LaPlante: Bike boxes and cycle tracks need research. There is no one standard way to cross a right turn lane, and the different approaches need to be compared through research.

There was an extended discussion of a Florida document showing different applications of dashed sections of green-painted pavement. One proposed treatment was for gap acceptance yield control (not free-flow); LaPlante says that there should not be free-flow RTL where there is a bike lane. Petritsch disagrees because these treatments exist, as bad as they are.

Ciccarelli: A couple of mitigation measures would include a wider lane and island channelization. You want to deter the motorist from immediately entering the through lane. The fourth of the treatments in the Florida document is a reverse drop-lane situation.

Another is bike lane passing a turnout at a bus stop: Allen: a turnout needs to be very wide then because otherwise a cyclist is defenseless if the bus starts to merge out. LaPlante: bus drivers are trained to look for overtaking traffic, not a problem. Schubert: underpinning this discussion is the issue of angles at which bicyclists and motorists can see well. Moeur: adequate sight distance doesn't work in directions in which motorists are not conditioned to look. Older-driver stiff-neck training raises this issue. Stafford: will the Yield To Bikes sign work in the free flow? Van Houten: yes for in-street signs.

Allen: In an example with an added right turn lane before an intersection, the length of the dashed section was insufficient.

Ciccarelli: One concern in an example with a bike lane crossing another lane is decreased vigilance by cyclists.

Petritsch: All Florida did was to add skip-dash green bike lane to ordinary skip dashes.

Morrissey: There's lots of expense in painting all bike lanes green.

Oliver: Keep this treatment consistent with other parts of the manual.

Rosenblum: Maintaining painted bike lanes is a problem in Cambridge too. In Cambridge, color is just used in the transition zone.

Van Houten: The human visual system works well with edges.

Ciccarelli: Longitudinal is different.

Moeur: Kay Fitzpatrick's research shows that high-visibility crosswalks affect behavior. The question becomes do we move forward with something like this?

Petritsch will prepare revised drawings and have a draft proposal for BTC review out by March 1.

### ***Report from Temporary Traffic Control***

Fox returned from the Temporary Traffic Control Committee and reported that it was happy with our suggestions on the bicyclists-in-work-zone proposal; there were minor changes, but no other comments.

### ***Submission of Proposals***

Moeur: the Chairs' meeting this morning developed a timeline for review of proposals by NCUTCD sponsoring organizations; in the spring review cycle, they are to ready by February 15.

### ***Adjournment***

The BTC adjourned at 5 PM to make way for the Pedestrian Task Force.

# NCUTCD Bicycle Technical Committee Meeting

1 PM EST, January 19, 2012

Draft minutes prepared by John S. Allen, January 26, 2012 (revised June 7, 2012)

## *Attendance*

### **Committee members**

Richard Moeur, Chair  
John Allen  
John Ciccarelli  
Ted Curtis  
Michelle DeRobertis  
Cindy Engelhart  
Bill Fox  
Ron van Houten

Michael Jackson  
Dwight Kingsbury  
Dan Lang  
John LaPlante  
Tim Oliver  
Theo Petritsch  
John Schubert  
Bill Schultheiss

### **Guests**

Andy Clarke, League of American Bicyclists  
Connie Frederickson, Impact Recovery Systems  
Bruce Friedman, FHWA  
Jim Kalchbrenner, Pexco  
Randy McCourt, DKS Associates  
Michael Moule  
Jeff Rosenblum, City of Cambridge, Massachusetts  
Peter Speer, Pexco  
Joe Stafford, Pennsylvania Bicycle Access Council

### *Web Hosting*

The Board approved NCUTCD's paying for BTC's Web hosting.

### *Membership*

Dan Lang was approved and is now a member of the Bicycle Technical Committee.

### *Pexco presentation on tubular delineator markers*

Jim Kalchbrenner and Peter Speer of Pexco (<http://www.pexco.com>) gave a presentation on the use of flexible tubular delineator posts for bicycle facilities.

They made the point that there are three levels of rigidity and strength of such markers. The strongest are designed to prevent entry of heavy vehicles. The Pexco posts are the most flexible and are designed to allow a motor vehicle to pass. At low speeds there will be no damage to the vehicle and so, for example, an emergency vehicle may gain entry to an area normally prohibited; at high speeds there will be denting as a post slaps the hood, but no risk to occupants.

There was extensive discussion of when and where it would be appropriate to use delineator posts in connection with bicycle facilities. Committee members pointed out the distinction between a bike lane, across which motorists must merge – and a path, which motorists cross only at designated locations. Posts could have significant use in connection with paths or as a median with a buffer-separated or contraflow bike lane, but they need to be away from the edge of where bicyclists ride, or else they narrow its effective width. Even posts which are the most benign for motor vehicles and would not cause significant injury due to direct contact could take down a bicyclist by diverting the handlebar or tangling with a leg, crank or pedal. Shorter posts could pose less of a problem, as they do not reach as high as a bicycle's handlebar.

Some of these delineators leave a 2 inch high base protruding above the roadway when removed, and this could be hazardous to bicyclists. Others have a flush base which would avoid this problem and also be compatible with snowplowing.

Engelhart: do we want to ask for a bicycle-friendly delineator? LaPlante suggested that any standard for delineator use would have to be carefully worded to avoid issues with conflicts with turning and merging traffic.

Schultheiss pointed out that this is an allowed device, raising serious issues for the entire manual and particularly, temporary traffic control.

Jackson was concerned with aesthetics.

Ciccarelli mentioned that San Francisco uses them often, and suggested that a synthesis of the practice would be appropriate.

### ***Task Force***

Moeur called for volunteers on a task force on cycle tracks and the use of raised devices in bicycle facilities. Petritsch, Schultheiss, DeRobertis, and Jim Kalchbrenner from Pexco volunteered.

### ***Uniform Vehicle Code***

Allen, the bicyclist representative on the Uniform Vehicle Code task force, reported on its meeting on the previous evening, and that most of his suggestions had a positive reception. A major issue was with evolving vehicle classifications, and especially to define electrically-assisted bicycles differently from gasoline-powered motorized bicycles. There may also be a need for new wording concerning special bicycle signals and other issues brought up in the BTC. Allen will provide a report on the meeting and distribute his report to the BTC. Some additional issues may be identified by other BTC members. The next step after issues are identified is to develop specific legislative wording to address them. Allen called for assistance in developing legally correct wording. Clarke offered the assistance of lawyers through the League of American Bicyclists.

Van Houten, the pedestrian representative on the task force, had proposed new wording on crossing a street with or without a median and addressing the issue of the requirement to step into the roadway before drivers are required to yield. Ciccarelli suggested a change in the rule setting a distance in feet from a signalized crossing beyond which a driver is required to yield to a pedestrian. Moeur stated that this work is critical, and to keep it moving.

### ***Revisions to Part 9 of the MUTCD***

The BTC went through the Standards statements in Part 9 of the MUTCD at the June 2011 meeting in

Boise, determining what to keep as Standards, change to Guidance etc. Moeur developed a proposal based on the discussion at the meeting. The rewording proved not to be as simple as might be imagined, due to interactions with other sections. In particular, Moeur suggested modifying all of section 9B.03 to be consistent with the content in Chapter 2B on the use of STOP and YIELD signs.

The BTC had a long discussion of how the applications of stop signs should be described in Part 9. Allen pointed out an issue of the wording about assigning right of way in Chapter 2C, as it is more correctly described in terms of yielding right of way. This affects Part 9 but it needs to be taken to the signs and markings committee. There was a discussion of the working on right of way at intersections in 2B.04 and following, and to what extent it is applicable to bicycle facilities.

### ***Private Sites Open to Public Travel***

Randy McCourt described that Federal Law says that sites open to public travel are covered by the MUTCD. Resulting issues have gone into the committees and will go eventually to the NCUTCD Council for approval. DeRobertis and LaPlante are working on the task force addressing this, and we will get a report from the task force in June. DeRobertis gave examples of issues such as driveways, or chain barriers blocking a path which crosses private property.

McCourt indicated that many sites don't need traffic control until they begin to look like places for public travel.

Friedman: if the public is invited, then so are bicyclists. Are there special issues on private property that are not covered in Part 9, or things in Part 9 that are not applicable on private property?

McCourt; we need the BTC's help. Input is critical.

Stafford: in private parking lots, the parking spaces are private but the aisles are effectively public roadways.

Allen suggested issues with traffic signals and yielding rules, which are different for a driveway entrance and for a street intersecting another.

Friedman suggested adding "shared-use path" to the Definitions94(b) in Section 1A.13.

### ***Bike Boxes***

Proposed MUTCD content on advance stop lines to accommodate bicyclists; e.g. "bike boxes" was presented to the BTC by Bill Schultheiss. He referred to research recently performed. There was a long discussion of the advantages of bike boxes in providing a legal option to filter forward and a waiting area which is not in the crosswalk; and also of their deficits, in particular that they are inconsistent with traffic law requiring drivers to merge right before turning right, and that they produce a potentially hazardous conflict when the traffic signal turns green. Allen mentioned a second type of bike box, in the cross street to facilitate two-step left turns. The committee decided that this warranted a separate proposal. Also, terminology needs clarification.

The BTC then commented on and revised the draft proposal. This revised proposal may be forwarded to the Markings Technical Committee at a later date for their review, comment, and concurrence once consensus is reached in the BTC on this treatment.

### ***Adjournment***

The BTC adjourned at 7:00 PM. The next meeting of the BTC will be June 20-22 in Orlando, Florida.