Meeting Minutes
Markings Technical Committee
National Committee on Uniform Traffic Control Devices
January 9 - 12, 2008 – Arlington, VA

I. Call to order (Gene Hawkins)
   A. Self introductions – members and visitors
      1. New MTC members approved by Council include Larry Corcora, Michael Hare, Tom Grant, Arturo Serna, and Aaron Weatherholt. Total MTC membership is now 31 members.
   B. Distribution of attendance rosters (each day).

II. Committee business
   A. Approval of June 2007 minutes – Motion by J. Kellenberger, 2nd by J. Tidabak, approved unanimously.
   B. Discussion of plan to review NPA:
      1. Evaluate NPA and categorize changes as: identical to previous approved NCUTCD recommendations, minor/editorial, major/significant and recommended by MTC, major/significant and approval not recommended by MTC.
      2. Identify issues that can be presented to Council this week for approval.
      3. Identify controversial issues that will require major discussion by MTC.
      4. Make assignments for work to be completed for June meeting.
      5. Those items that can be completed will be presented to Council during this meeting. MTC will finish work on remaining items through the listserv and at the June meeting for presentation to Council.
   C. G. Hawkins led discussion on overview of changes in Part 3 to identify major issues and items that need to be discussed.
   D. Scott Wainwright discussed FHWA’s list of significant changes to Part 3 in the NPA. He explained the proposed compliance date selection for most marking changes was based on typical service life for markings. He also explained the rationale for being more prescriptive with this NPA was based on FHWA goal to promote more uniformity nationally.

III. Part 3 – NPA Review
   A. General Comments
      1. Blue RPMs (docket item 228) – MTC agrees this application is not a TCD, but recommends addressing use of blue RPMs for identifying fire hydrant locations in a support statement. (Initially assigned to D. Woodin, but presented to Council on Thursday – finished?).
      2. Route Shield Pavement Marking Symbols (docket item 229) – MTC voted to add additional examples to Figure 3B-25 to show US and State Routes and color state routes. (assigned to S. Thorson).
      3. MTC requested Toll Plaza Task Force to identify all discussion on toll plaza markings in NPA and create a new section on toll plaza markings in Part 3. Request new text and figures as soon as possible so they can be reviewed by listserv and presented to Council in June.
   B. Section 3A
1. 3A.01 – MTC approves of NPA changes.
2. 3A.02 – MTC approves of NPA changes.
3. 3A.03 – MTC approves of NPA changes.
4. 3A.04 - MTC approves of NPA changes except for blue RPMs and route shield pavement marking symbol colors (see III.A.2 above).
5. 3A.05 - MTC recommends moving the second sentence on “wide lines” to a support statement and remove the word shall from the sentence. Add to text in standard statement: “When used to extend a line, the width of a dotted line shall be at least the width of the line it extends. When used as a lane line, the width of a dotted line shall be either normal or wide.”
6. 3A.06 - MTC approves of NPA changes except for definition of theoretical gore. Need to add to definition to address urban settings/issues. (assigned to D. Centa).

C. Section 3B
1. 3B.01 – MTC approves of new language that prohibits use of a single solid yellow center line on a two-way roadway. MTC will attempt to draft language to add meaning to the UVC reference in the support statement. (assigned to D. Woodin). Also need to address inconsistencies in use of terms “double” and “wide” with reference to lines in various sections. (assigned to T. Taylor).
2. 3B.02 - MTC approves of NPA changes except support statement on passing sight distance differences for operational use and design use. Need to revise wording. (assigned to J. Ellison).
3. 3B.03 – MTC approves of NPA changes including new language on TWLT arrow markings as a “Guidance” statement.
4. 3B.04 - MTC approves of NPA changes except the “guidance” statement dealing with dotted white lines used at lane reduction transitions (including Figure 3B-13). (assigned to J. Kellenberger and D. Centa). MTC recommends changing compliance date for all pavement marking changes in 3B.04 to “either ten years or when the roadway is resurfaced, whichever comes first”.
5. 3B.05 - MTC approves of NPA changes except Standard statement for entrance ramps. Need to add an Option statement to allow termination of channelizing line upstream from the theoretical gore for tapered ramps. (assigned to T. Taylor) Also, the last sentence of the Option statement needs to be changed to use the concept “enhanced for nighttime visibility” instead of “supplemented”. (Note - 3B.13 discussion may make this a moot point.)
6. 3B.06 - MTC approves of NPA changes.
7. 3B.07 - MTC approves of NPA changes except we recommend editorial change to add the words “right-hand” to the new option statement regarding bicycle lane and edge line.
8. 3B.08 - MTC approves of NPA changes except change figure 3B-12c to show one approach as a dual left and the other as a single left. Ask GENE to clarify change
9. 3B.09 – Same as 3B.04 (J. Kellenberger and D. Centa). Also use same compliance dates as 3B.04.
10. 3B.10 - MTC approves of NPA changes except add “white chevron markings” to last sentence in Option statement. Requests from Tollbooth Task Force: remove tollbooths from the first sentence of the first standard and add language to not
require markings after passing the tollbooth; allow shorter taper lengths for tollbooths (will need to define ramp and mainline toll plazas).

11. 3B.11 – MTC approves of NPA changes except Blue RPMs covered in E above. Rewrite the first standard to not eliminate the use of chip seal markers. Create a standard for rigid (not to exceed 1” height) and flexible (not to exceed 2” height) (assigned to J. Kalchbrenner). G. Hawkins will meet with Signals Technical Committee to discuss second standard and support statement regarding RPMs and in-roadway lights. The last Guidance statement needs to be an Option statement.

12. 3B.12 - MTC approves of NPA changes except add the word “white” to the last sentence of the Option: “…or a white single broken or solid lane line marking”.

13. 3B.13- MTC approves of NPA changes except MTC recommends removal of the words “retroreflective or internally illuminated” from the first guidance statement. (assigned to Zoubir Ouadah) Also, the Option statement needs to include a new sentence that says “To enhance the nighttime visibility of RPMs used to supplement …..retroreflective or internally illuminated RPMs may be used.”

14. 3B.14 - MTC approves of NPA changes except the first standard needs to be eliminated. It is addressed in 3B.11.

15. 3B.15 – MTC approves of NPA changes

16. 3B.16 - MTC approves of NPA changes except need to discuss the sign spacing issue (20’ to 50’ provision) with RW Signing Committee. Any changes in Part 2 could affect this section. (assigned to D. Thomas).

17. 3B.17 - MTC approves of NPA changes except need to add a provision to allow use of a single X in the box. (was this handled with figure 3B-17 – J. Ellison?)

18. 3B.18 - MTC approves of NPA changes except remove the word substantial from the last paragraph of the guidance statement to read “other substantial measures”.

19. 3B.19 – MTC approves of NPA changes.

20. 3B-20 – MTC approves of NPA changes except editorial comment to add “YIELD” to the list of regulatory messages that may be used. Also, change A Regulatory: 2 to “ONLY (with appropriate symbol, arrow, or text)”. Also, change the statement regarding ISA parking space marking in each parking space from Guidance back to Option provided ADAG does not require the marking. (assigned to J. Shamay - check ADAG). Editorial comment – change references to figures in the support statement regarding lane use arrows to 3B-23 and 3B-27 respectively. Support statement on lane use arrows – need to conduct AASHTO listserv survey to see if state agencies are using other types of arrows in freeway exit only lanes. (assigned to D. Thomas) Add the words “when used in turn lanes of adequate length” to address turn lanes not long enough for more than one arrow. (assigned to J. Ellison). Remove the word “well” and the second “should be” from the last sentence of the guidance statement. In the standard statement on Lane-use, lane reduction, and wrong-way arrow markings…..” – move the reference to figure 3B-24 to a new second sentence in the standard. In the Option for the use of the Only marking, remove the new text that deals with “the exclusive use of a single movement”. Add “except where U-turns and left turns are allowed from the same lane” at the end of the standard on the “ONLY” word marking. Change use of lane reduction arrow in lane reduction transitions in situations less than 45 MPH from Guidance to Option.
21. 3B-21 – MTC approves of NPA changes.
22. 3B.22 - MTC does not approve NPA changes. Concerns include lack of guidance on spacing, description of situations where these would be used, and the title. Task force to consider revisions (assigned to P. Garvey, L. Corcora, and S. Thorson).
23. 3B.23 - MTC approves of NPA changes
24. 3B.24 – Requests from Toll Plaza Task Force: add ETC lanes to first sentence of the first support statement; remove discussion on managed lanes; and add “except for toll booths,” to B. MTC comments - In the first standard F, the word “TRANSIT” will not fit in a single lane if the minimum height of 6’ letters is used. Need to add “Except for continuous access…” at beginning of second guidance statement. (Task force for preferential lanes – TBD)
25. 3B.25 – Request from Toll Plaza Task Force: remove language on managed lanes; change first option statement to guidance. First Option statement should be a support statement. Add reference to figure 2E-42 to guidance statement. (Task force for preferential lanes – TBD)
26. 3B.26 – MTC approves of NPA changes except need to add option to allow 8” width for urban areas or speeds less than 45 MPH. (assigned to J. Ellison) Also propose to delete the word crosshatching since “diagonal lines” is sufficient.
27. 3B.27 - MTC approves of NPA changes except compliance period needs to be same as 3B.04.
28. 3B.28 - MTC approves of NPA changes except compliance period needs to be same as 3B.04.
29. 3B.29 - Requests from Toll Plaza Task Force: change title to Markings for Mainline Toll Plazas; remove last statement in Option regarding obstructions in roadway; add “…non-stop ETC Only lanes…” to the first standard; change guidance statement to support; need recommendation on use of purple color for lane markings. (assigned to purple task force? - several industry members and J. Kellenberger?? D. Jones??)
30. Figure 3B-1 – All changes considered editorial.
31. Figure 3B-2 - All changes considered editorial.
32. Figure 3B-3 - All changes considered editorial.
33. Figure 3B-4 - All changes considered editorial.
34. Figure 3B-5 - All changes considered editorial. (Task force is evaluating other changes in text that may affect figure)
35. Figure 3B-6 - All changes considered editorial.
36. Figure 3B-7 - All changes considered editorial except move the arrows closer together to approximate scale.
37. Figure 3B-8 - All changes considered editorial except add “wide” to the text on solid white lane line and identify physical gore once. Change line to point at theoretical gore point in B and C.
38. Figure 3B-9 – T. Taylor is revising B of this figure. Add “wide” to the text on solid white lane line in A. Change line to point at theoretical gore point in A.
39. Figure 3B-10A – Add “wide” to Optional solid white line and add wide white dotted line to lane drop marking note. Remove dimensions from right side of the figure.
40. Figure 3B-10B – Remove note with the * and revise figure to show added right lane for the exit. Need two separate drawings to show A lane drop and B added decal lane. (assigned to S. McDonald to prepare language to describe what is needed in new figure, FHWA will revise figure).

41. Figure 3B-10C – Delete the word “signalized” from title in C. Add “wide normal” to optional dotted line.

42. Figure 3B-11 – MTC agrees with new drawing.

43. Figure 3B-12 - All changes considered editorial.

44. Figure 3B-13 - Task force is dealing with this figure.

45. Figure 3B-14 - All changes considered editorial.

46. Figure 3B-15 - All changes considered editorial.

47. Figure 3B-16 - All changes considered editorial.

48. Figure 3B-17 – MTC agrees with new drawing except we recommend adding another option to show a single X in the box.

49. Figure 3B-18 – No revisions.

50. Figure 3B-19 – No revisions.

51. Figure 3B-20 – MTC agrees with new drawing.

52. Figure 3B-21 - All changes considered editorial.

53. Figure 3B-22 – No revisions.

54. Figure 3B-23 – No revisions.

55. Figure 3B-24 – All changes considered editorial. MTC recommends adding “narrow arrow” example. Orient RPMs in E to face traffic instead or angled with direction of arrow.

56. Figure 3B-25 – needed changes discussed in III.A.2 text above

57. Figure 3B-26 - No revisions.

58. Figure 3B-27 - All changes considered editorial.

59. Figure 3B-28 - All changes considered editorial.

60. Figure 3B-29 - All changes considered editorial.

61. Figure 3B-30 – Task force working on this figure.

62. Figure 3B-31 - Task force working on this figure.

63. Figure 3B-32 - Task force working on this figure.

64. Figure 3B-33 - Task force working on this figure.

65. Figure 3B-34 - Task force working on this figure.

66. Figure 3B-35 - All changes considered editorial.

67. Figure 3B-36 - All changes considered editorial.

68. Figure 3B-37 - All changes considered editorial.

69. Table 3B-1 – All changes considered editorial.

70. Table 3B-2 – No revisions.

71. Table 3B-3 – All changes considered editorial.

D. Section 3C

1. General – J. Marcuson gave a report for the Roundabout Task Force. Lee R. presented an update on version 2 of the Roundabouts Guide (scheduled to come out next year). FHWA has asked if we can reduce the number of figures and move them to the Roundabouts Guide. MTC recommends keeping all figures in the MUTCD since the Chapter was created with the understanding that text would be kept to a minimum and much of the information for practitioners would be
conveyed by the figures. The text in the NPA is consistent with what was previously approved by the Council with few exceptions. MTC concurs with the compliance period recommended by FHWA. Need to refer to “Standard Arrow” instead of “Normal Arrow” throughout text and figures.

2. 3C.03 – reference to figure 3C-7 should read 3C-7B.
3. 3C.06 – Reverse order of text in second sentence of option statement to read “Yield word pavement markings (see figure 3C-1) and Yield Ahead (symbol or word) may be……”.

4. Figure 3C-1 - remove dimensions from wide white dotted line.
5. Figure 3C-2 – remove the YIELD word markings from the figure.
6. Figure 3C-3 – change “normal” arrow to “standard” arrow.
7. Figure 3C-18 – Modify figure to move the Route Pavement Marking down the page to be shown correctly on the approach instead of too close to the roundabout as shown (editorial comment).

E. Section 3D
1. 3D.01 – 3D.03 - MTC approves of NPA changes.
2. 3D.04 – MTC approves of NPA changes except we recommend to add “at a minimum mounting height” in the first guidance statement.
3. Figure 3D-1 - All changes considered editorial.

F. Section 3E
1. 3E (entire Chapter) - MTC approves of NPA changes.

G. Section 3F
1. General – Need to revise chapter to address permanent vs. temporary application and color of bands for this section (assigned to J. Kellenberger, M. Hare, Jeff Tidaback, and P.D. Kiser). Will be revisited at June meeting.

H. Section 3G
1. Section 3G (entire Chapter) - MTC approves of NPA changes.
2. Figure 3G-1 - MTC agrees with new drawing except add the word “minimum” to dimensions shown from back of curb.

I. Section 3H
1. 3H.01 – Add to the standard “An edgeline shall not be used in addition to a rumble stripe that is located along a shoulder”. Develop a figure to show rumble stripes. (assigned to T. Grant, D. Thomas, and Eric ?)
2. 3H.02 - MTC approves of NPA changes.

IV. Part 5 (Markings) – No significant changes, all editorial. MTC approves of NPA changes.
V. Part 7 (Markings) – Need to review NPA in detail to identify any changes. (Assigned to Z. Ouadah, R. Airomloo, and L. Corcora for presentation to MTC in June).
VI. Part 8 (Markings) – Need to review NPA in detail to identify any changes. (Assigned to R. Airomloo and D. Hockstra for presentation to MTC in June).
VII. Part 9 (Markings) - Need to review NPA in detail to identify any changes. (Assigned to Eric ?, Steve ?, and Peter ? for presentation to MTC in June).
VIII. Figures in other Parts of MUTCD that include markings
A. Figure 2B-12 A,B, and C – need to show channelizing lines as wide lines.
B. Figure 2D-7 – need to show traffic flow arrows and need to show correct markings to comply with Part 3.

IX. Meeting wrap-up
A. Discussed agenda and plans for the June meeting.
B. Instructions to task forces and individuals with assignments: forward proposed text that is ready for review by MTC in June to G. Hawkins by April 30, 2008. If input is needed from MTC prior to submitting to Gene, send it to listserv.
C. Motion to adjourn by D. Jones, 2nd by D. Woodin, approved unanimously.