



Meeting Date: October 14, 2025 Item Number: 25-12	From: Kevin Schumacher & Chi Cheung To, California Public Utilities Commission (CPUC) and Mike Malyy, Caltrans	
Sponsored By: Amjad Obeid, Caltrans	Presented By: Kevin Schumacher & Chi Cheung To, CPUC and Mike Malyy, Caltrans	

Description: Request for review and recommendation to finalize CA MUTCD 2026 Part 8 titled "Traffic Control for Railroad and Light Rail Transit Grade Crossings" proposed documents that have been revised in response to 10/2/25 CTCDC Meeting comments and is being prepared to adopt Federal Highway Administration's National MUTCD 2023 (11th Edition) before the January 18, 2026, deadline.

Recommendation:

Motion by committee, recommending Caltrans to finalize and prepare the CA MUTCD 2026 Part 8 titled "Traffic Control for Railroad and Light Rail Transit Grade Crossings" draft documents and incorporate them into CA MUTCD 2026 version that is being prepared to adopt Federal Highway Administration's National MUTCD 2023 (11th Edition) before the January 18, 2026, deadline.

Agency Making Request/Sponsor:

Kevin Schumacher & Chi Cheung To, CPUC and Mike Malyy, Caltrans / Amjad Obeid, Caltrans

Background:

For detailed background on this item, including the previously proposed revisions upon which the CTCDC provided comments shared below were based, as well as the meeting minutes of the meeting discussions, please refer to agenda item 25-12 document and its attachments, that were included in the October 2, 2025 meeting and are available at: https://dot.ca.gov/programs/safety-programs/ctcdc/meetings.

This item was discussed previously in the October 2, 2025, meeting. During the meeting, several CTCDC members, the public, and the FHWA CA Division representative shared their comments and concerns on the proposed revisions. The meeting discussions resulted in the CTCDC providing multiple comments to Caltrans and requesting Caltrans to review and address these comments, as appropriate. Caltrans was asked to revise these draft documents based on review of the CTCDC comments and provide them to CTCDC for review and discussion in a future meeting. Summary of the CTCDC comments provided on October 2, 2025, meeting and Caltrans review, response and resolution to these comments, is as follows:





1. CTCDC Comment - Chapter 8B, Section 8B.07, Paragraph 05:

CA MUTCD 2026 Proposal includes text:

The R8-8 sign, if used, should be located on the right-hand side of the highway on either the near or far side of the grade crossing, depending upon which position provides better visibility to approaching drivers or motorists stopped on the crossing.

<u>CTCDC member comment:</u> CVC Section 22451 does not define the meaning of flashing-light signals and automatic gates.

<u>Caltrans agreed</u> and the text was revised as follows:

The R8-8 sign, if used, should be located on the right-hand side of the highway on either the near or far side of the grade crossing, depending upon which position provides better visibility to approaching drivers or motorists at the grade crossing stop or yield line.

2. CTCDC Comment - Chapter 8B, Section 8B.11, Figure 8B-1, Table 8B-1:

<u>CA MUTCD 2026 Proposal</u> includes EXEMPT grade crossing plaques.

<u>CTCDC member comment:</u> If crossings are allowed exempt status pursuant to CVC 22452.5 and CPUC General Order 145, (1) Section 8B.11 wording per the Federal edition should not be removed, (2) the Exempt sign (R15-3) in Figure 8B-1 should remain and (3) the Exempt Plaque reference in Table 8B-1 should remain for motorist messaging consistency between advance warning and regulatory messaging.

<u>Caltrans disagreed with the comment and explained</u> that this would require further development of Guidance or Standards. The proposed Section 8B.11 adopts the same text used in prior CA MUTCD 8B.07. Optional placement of the R15-3 sign on the railroad warning device mast would not be consistent with CPUC General Order 75-D, would result in greater inconsistency in signage placed at grade crossings, and would not identify the distinction in stopping requirements addressed in CVC 22452. No changes made.

3. CTCDC Comment - Chapter 8B, Section 8B.20, Paragraph 03:

CA MUTCD 2026 Proposal does not have paragraph 03.

CTCDC member comment: Consider adding paragraph 03:

Guidance:

For highway-grade crossings where a Quiet Zone has been established, advance warning signage should be provided to all crossing users through use of supplemental W10-9 or W10-9P signs for sidewalk and pathway users that would not otherwise have notification.





<u>Caltrans disagreed with the comment and explained</u> that this would require further development of Guidance to be practical considering the Standard statement in Section 8B.20 in combination with the sign sizes in Table 9A-1. No changes made.

4. CTCDC Comment - Chapter 8C, Section 8C.05, Paragraph 03:

CA MUTCD 2026 Proposal includes text:

⁰³ Edge lines, lane lines, and center lines may be omitted on or between the rails to conform to the requirements of the railroad company and/or transit agency.

Centerlines and Lane Lines" on grade crossing panels should remain per the Federal 11th Edition due to maintenance practices of railroad personnel responsible for the maintenance of concrete grade crossing panels. Grade crossing panels are removed to complete repairs to the track structure (rail, ballast, sub ballast). When they are placed back, maintainers place panels to maintain the life of the crossing surface as much as possible. This means that panels in the median area could be placed in a travel lane at the crossing. If this happens, striping on panels could be confusing with a painted median stripe in the middle of a thru lane. Omission of the option is presumptive by the state and needs to be part of the diagnostic team discussion with the railroad company responsible for crossing surface maintenance.

<u>Caltrans disagreed with the comment and explained</u> that the option in the national edition refers to "on or between the rails", which even after applying the option still results in Guidance to place the markings on any concrete panels on the field side of the rail. The Guidance of Section 8C.05 is appropriate in stating that the lines "should extend up to and across the grade crossing to reduce the likelihood that road users might inadvertently turn into the track area." This is a safety consideration related to past incidents in California. As Guidance, Section 8C.05 has flexibility to deviate based on review by Diagnostic Team, and engineering study, and/or CPUC determination. Also, paragraph 01 was revised as follows:

01 Except as provided in Paragraphs 3 through 4 and 5 of this Section, if edge lines (see Section 3B.09), lane lines (see Section 3B.06), or center lines (see Section 3B.01) are used on an approach to a grade crossing, the edge lines, lane lines, and center lines should extend up to and across the grade crossing to reduce the likelihood that road users might inadvertently turn into the track area..

5. CTCDC Comment - Chapter 8C, Figure 8C-1 (CA):

<u>CA MUTCD 2026 Proposal</u> depicts example of placement of warning signs and pavement markings at grade crossings.

<u>CTCDC member comment:</u> Lane lines between RR Stop Lines and through the track area should be omitted from Figure 8C-1 (CA) to help distinguish the grade





crossing as an intersection and enhance the awareness of the stop line by motorists and automated vehicles, similar to roadway-roadway intersections.

<u>Caltrans disagreed with the comment and explained</u> that this would require further development of Guidance on this topic. The figures are consistent with the extension of lane lines as discussed in Guidance of Section 8C.05. No changes made.

6. CTCDC Comment - Chapter 8C, Figure 8C-1 (CA):

<u>CA MUTCD 2026 Proposal</u> depicts example of placement of warning signs and pavement markings at grade crossings.

<u>CTCDC member comment:</u> Add "R"'s to all W10-1 sign symbols for consistency with other figures with W10-1 signs. Add "90 degree" notation between arrows at the RR Stop lines and roadway edge line.

<u>Caltrans agreed with comment</u> and explained this is an issue with incompatible fonts and that all fonts will be corrected.

7. CTCDC Comment - Chapter 8C, Figure 8C-1 (CA):

<u>CA MUTCD 2026 Proposal</u> depicts example of placement of warning signs and pavement markings at grade crossings.

<u>CTCDC member comment:</u> In Detail E, "LT" and "RT" designations should be added to W10-2 and W10-3 sign callouts for clarity. In addition, consider rotating W10-2 sign for left turn approach to grade crossing 180' for additional clarity and distinguish from W10-2 sign for right turn. Also, consider rotating W10-3 sign for exclusive left turn lane 180' for additional clarity and distinguish from W10-3 sign for exclusive right turn lane.

<u>Caltrans disagreed with the comment and explained</u> that this would require further development of sign codes clarifying the intent of "LT" and "RT" and possibly adding supporting language clarifying the orientation of this type of sign (W10-2, W10-3, W10-4). Currently "LT" and "RT" abbreviations do not appear in MUTCD. The orientation of the sign shows the track closest to the track. No changes made.

8. CTCDC Comment - Chapter 8C, Figures 8C-1, 8C-3, and 8C-4:

<u>CA MUTCD 2026 Proposal</u> depicts examples of pavement markings at grade crossings.

CTCDC member comment: Consider removing the North Arrow from these figures.

<u>Caltrans acknowledged the comment and explained</u> the North Arrow does not affect the contents of the figures and will remain at this time. No changes made.





9. CTCDC Comment - Chapter 8D, Section 8D.01, Paragraph 05:

CA MUTCD 2026 Proposal includes text:

⁰⁵ The meaning of flashing-light signals and automatic gates shall be as stated in Sections 11-701 and 11-703 of the Uniform Vehicle Code CVC Section 22451 (see Section 1A.06).

<u>CTCDC member comment:</u> CVC Section 22451 does not define the meaning of flashing-light signals and automatic gates.

<u>Caltrans acknowledged the comment and explained</u> that CVC 22451 is equivalent to UVC 11-701, both address the intended meaning of the grade crossing warning devices, with minor differences. The actual definition of "flashing-light signals" is in MUTCD Part 1. The intended meaning to be conveyed to motorists by this type of device in stated in CVC 22451(a)(1). It is referred to as "clearly visible electric or mechanical signal device". The meaning conveyed to motorists is "warning of the approach or passage of a train, car, or on-track equipment." CVC 22451(b) addresses gates.

10. CTCDC Comment - Chapter 8D, Section 8D.03, Paragraph 06:

CA MUTCD 2026 Proposal includes text:

⁰⁶ It is acceptable to replace a damaged gate arm with a gate arm having vertical stripes even if the other existing gate arms at the same grade crossing have diagonal stripes; however, it is also acceptable to replace a damaged gate arm with a gate arm having diagonal stripes if the other existing gate arms at the same grade crossing have diagonal stripes in order to maintain consistency per the provisions of Paragraph 13 of Section 1B.03.

<u>CTCDC member comment:</u> Editorial: after the portion that is shown to be deleted, (1) also omit the comma, (2) capitalize the "I" in "it" and (3) remove the word "also".

Caltrans agreed and the text was revised as follows:

It is acceptable to replace a damaged gate arm with a gate arm having vertical stripes even if the other existing gate arms at the same grade crossing have diagonal stripes; however, it It is also acceptable to replace a damaged gate arm with a gate arm having diagonal stripes if the other existing gate arms at the same grade crossing have diagonal stripes in order to maintain consistency per the provisions of Paragraph 13 of Section 1B.03.

11. CTCDC Comment - Chapter 8D, Section 8D.09, Paragraph 02a:

CA MUTCD 2026 Proposal includes text:

Additional information is available in a document published by the Institute of Transportation Engineers (ITE) titled "Preemption of Traffic Signals Near Railroad Grade Crossings, 2nd Edition" (2021).





<u>CTCDC member comment:</u> Consider revising the reference to the ITE Preemption of Traffic Signals Near Railroad Grade Crossings "2nd Edition (2021) to simply state "Latest Edition". ITE is currently working on the 3rd Edition to make the Recommended Practice consistent with the 11th Edition. It is currently under Peer Review and is expected to be out of public review in the beginning of 2026.

<u>Caltrans acknowledged the comment and explained</u> that due to potential discrepancies between editions and the possibility of the referenced material to be outdated, the paragraph was deleted. Subsequent paragraphs were renumbered appropriately.

12. CTCDC Comment - Chapter 8D, Section 8D.09, Paragraph 02g (now 02f):

CA MUTCD 2026 Proposal includes text:

Where traffic control signals interconnected with a grade crossing include pedestrian signal heads, the Diagnostic Team shall evaluate and recommend, subject to CPUC determination, whether the right-of-way transfer time includes the pedestrian clearance time.

<u>CTCDC member comment:</u> Editorial: Omit the word "the" prior to "the pedestrian clearance time". Pedestrian Clearance Time is not a set number at any location during preemption. Inclusion of the word "the" makes it seem otherwise.

<u>Caltrans agreed</u> and the text was revised as follows:

Where traffic control signals interconnected with a grade crossing include pedestrian signal heads, the Diagnostic Team shall evaluate and recommend, subject to CPUC determination, whether the right-of-way transfer time includes pedestrian clearance time.

13. CTCDC Comment - Chapter 8D, Section 8D.10, Paragraph 8:

CA MUTCD 2026 Proposal includes text:

⁰⁸ Blank-out turn prohibition signs that are exclusively associated with preemption typically start to display their message when the track clearance interval begins or when the automatic gate begins activation, whichever occurs first.

<u>CTCDC member comment:</u> For blank-out turn prohibition signs, recommend changing operation from "when the automatic gate begins activation" to "when the crossing activation starts". This is a distinct input that will be received from the rail signal system and can drive the illumination of the blank-out sign in the traffic signal controller. Using gate activation, time would need to be estimated and programmed by the highway agency, and this introduces more opportunities for errors and variance.

<u>Caltrans agreed</u> to revise the text to more closely match terms used in other sections of Part 8 and the text was revised as follows:





Blank-out turn prohibition signs that are exclusively associated with preemption typically start to display their message when the track clearance interval begins or when the grade crossing warning system begins activation, whichever occurs first.

14. CTCDC Comment - Chapter 8D, Section 8D.09, Paragraph 44:

CA MUTCD 2026 Proposal includes text:

Permissive and/or protected/permissive mode left-turns should not be used for left turn movements where the opposing movement is a track clearance phase.

<u>CTCDC member comment:</u> Revisit or refine the prohibition of permissive left-turns as long as it can be confirmed that there would be no yellow turn trap.

<u>CTCDC member comment:</u> The intent is to provide a clear track clearance phase off the tracks to ensure it is not blocked by the conflicting movements. Need to ensure that guidance exists to prevent a yellow left turn trap on railroad preemption.

<u>Caltrans acknowledged the comment and explained</u> that after conferring with SMEs on the subject, no change is made. The topic is important to avoid the left turn trap scenario upon railroad preemption. In rare cases, if a traffic signal controller is able to support the use of a flashing-yellow arrow during preemption, that is important to evaluate by the Diagnostic Team and/or engineering study before implementation.

15. CTCDC Comment - Chapter 8D. Figure 8D-2:

<u>CA MUTCD 2026 Proposal</u> depicts examples of location plan for flashing-light signals at four-quadrant gates.

CTCDC member comment: Consider removing the North Arrow from these figures.

<u>Caltrans acknowledged the comment and explained</u> the North Arrow does not affect the contents of the figures and will remain at this time. No changes made.

16. CTCDC Comment – Chapter 8E, Figures 8E-1, 8E-2, 8E-6, and 8E-9:

CA MUTCD 2026 Proposal depicts various examples.

<u>CTCDC member comment:</u> Consider removing the North Arrow from these figures.

<u>Caltrans acknowledged the comment and explained</u> the North Arrow does not affect the contents of the figures and will remain at this time. No changes made.

17. CTCDC Comment - Chapter 8E, Figure 8E-4:

<u>CA MUTCD 2026 Proposal</u> depicts an example of an Automatic Pedestrian Gate at a Pathway or Sidewalk Grade Crossing.

<u>CTCDC member comment:</u> Mention California accessibility requirements.





<u>Caltrans agreed with comment</u> and a note was added to the Figure to refer to DIB 82 for ADA requirements.

18. CTCDC Comment - Chapter 8E, Figure 8E-8:

<u>CA MUTCD 2026 Proposal</u> depicts an example of an Automatic Pedestrian Gate at a Pathway or Sidewalk Grade Crossing.

CTCDC member comment: Dimensions shown are blank.

<u>CTCDC member comment:</u> The was an issue with fonts throughout the section and some characters are not showing up.

<u>Caltrans agreed with comment</u> and explained that all fonts will be corrected.

<u>Caltrans has prepared</u> the finalized proposal on CA MUTCD 2026 Part 8, incorporating CTCDC recommendation and Caltrans decisions, and it is attached to this agenda item. It is being provided for review to the CTCDC members and the public to share Caltrans decision on the CTCDC comments that were provided. Upon receiving formal CTCDC recommendation to finalize CA MUTCD 2026 Part 8 proposal, it will be revised as per the CTCDC passing motion details and then submitted to FHWA CA Division for review and determination of "substantial conformance" finding with the National MUTCD 2023 (11th Edition).

Attachments:

Due to the number of individual chapters in CA MUTCD 2026 for some of the parts, and each chapter further separated for text, figure and table contents, to facilitate review and allow for ease in referencing these attachments, instead of providing them in the listing format, they are being provided in the tabular format.

CA MUTCD 2026 Part 8 Attachments

8	Traffic Control for Railroad and Light Rail Transit Grade Crossings			
Ch. # Chapter Ti	Chambar Title Deceriation	Attachment #s		
	Chapter Title Description	Text	Figure	Table
8A	General	1	NA	NA
8B	Signs	2	3	4
8C	Markings	5	6	NA
8D	Flashing-Light Signals, Automatic Gates, and Traffic Control Signals	7	8	NA
8E	Pathway and Sidewalk Grade Crossings	9	10	NA