

Meeting Date: November 04, 2021 Item Number: 21-20	From: Gurinderpal (Johnny) Bhullar, PE, TE, Secretary to CTCDC
Sponsored By: Lee Haber, PE, Caltrans	Presented By: Russ Wenham, PE, TE, PTOE, Caltrans
Description: Proposed Changes to Figures for Red Reflectors on Exit Ramps to Address Recessed Marker Issues	

Recommendation:

Motion by committee to recommend including proposed changes to Figure 3A-114(CA) "Exit Ramp with Enhanced Pavement Markers for Wrong Way Details" and 3B-24(CA) "Examples of Standard Arrows for Pavement Markings (Sheet 2 of 8)" of the CA MUTCD.

Agency Making Request/Sponsor:

Caltrans.

Background:

In March 2016 the CTCDC approved Caltrans' request for experimentation to use wrong-way retroreflective pavement markers on exit ramps.

In November 2020 the CTCDC recommended to modify the CA MUTCD to include wrong-way retroreflective pavement markers on exit ramps and to optionally allow the use on lane lines in other applications.

Refer to the following for more background and information:

- 1. November 5, 2020 CTCDC meeting minutes: https://dot.ca.gov/-/media/dot-media/programs/safety-programs/documents/ctcdc/11-5-20_minutes-a11y.pdf
- 2. Caltrans Division of Safety Programs internet site: https://dot.ca.gov/programs/safety-programs/wrong-way

Wrong-way retroreflective pavement markers were adopted in the 2014 CA MUTCD Revision 6 on March 30, 2021.

The wrong-way marker experimentation and deployment to date has been in areas where raised pavement markers were used. As Caltrans implements wrong-way marker delineation on exit ramps statewide, there are many locations that require the use of recessed markers. The raised marker configuration in the CA MUTCD and the Caltrans Standard Plans needs to be modified so that the ground in recesses are not in conflict with other ground in recesses and do not encroach into the shoulder of the cross-street. Additionally, the one-way recesses for wrong-way markers, need to be configured opposite to the primary direction of travel.



The proposed changes shown in the attachments will provide guidance for wrongway markers where the markers are recessed.

Caltrans will make the necessary changes to the Caltrans Standard Plans for consistency with the CA MUTCD.

Attachments:

Attachment A – Proposed Change to Figure 3A-114(CA) Attachment B – Proposed Change to Figure 3B-24(CA)



ATTACHMENT A



Attachment A – Proposed Change to Figure 3A-114(CA)

Proposal:

Note:

Black text is consistent with the Federal MUTCD.

Blue text is current text as amended for use in California.

Struck-out red text is to be deleted from the CA MUTCD.

Red text is newly proposed text.

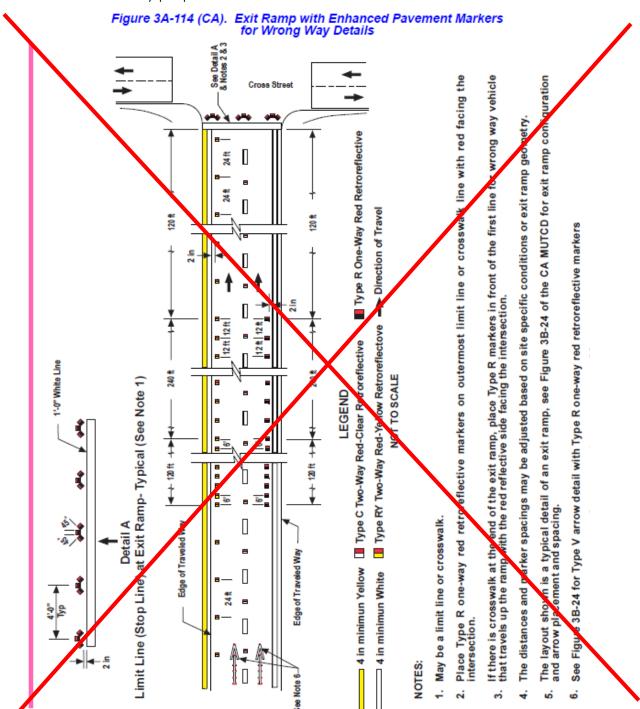
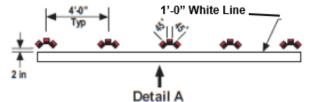
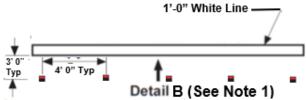




Figure 3A-114 (CA). Exit Ramp with Enhanced Pavement Markers for Wrong Way Details



Limit Line (Stop Line) at Exit Ramp- Typical (See Note 1)



Limit Line (With Recessed Markers) at Exit Ramp- Typical

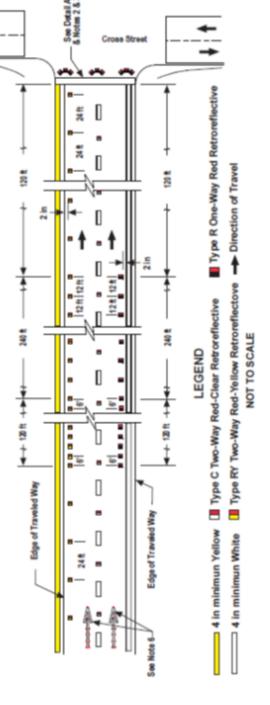
Notes:

1.May be a limit line or crosswalk.

2.Place Type R one-way red retroreflective markers on outermost limit line or crosswalk line with red facing the intersection.

3.If there is crosswalk at the end of the exit ramp, place raised Type R markers in front of the first line for wrong way vehicle that travels up the ramp, and recessed Type R markers in advance of the leading line in the direction of travel with the red reflective side facing the intersection.

- 4. The distances and marker spacings may be adjusted based on site specific conditions or exit ramp geometry.
- The layout shown is a typical detail of an exit ramp, see Figure 3B-24 (CA) of the CA MUTCD for exit ramp Configuration and arrow placement and spacing.
- 6. See Figure 3B-24 (CA) for Type V arrow detail with Type R one-way red retroreflective markers
- When pavement markers are recessed, use two-way recesses with twoway markers and one-way recesses with one-way red markers. Configure one- way recesses in the opposite direction of travel





ATTACHMENT B



Attachment B – Proposed Change to Figure 3B-24(CA)

Proposal:

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