



# California Traffic Control Devices Committee Agenda Item Report



<b>Meeting Date:</b> August 04, 2022 <b>Item Number:</b> 16-08	<b>From:</b> David Man, Principal TE, Caltrans District 4
<b>Sponsored By:</b> Yue Wang, PE, Caltrans	<b>Presented By:</b> Gurinderpal (Johnny) Bhullar, PE, TE, Secretary, CTCDC
<b>Description:</b> Request for Closure of Experiment with the Diagonal Down Yellow Arrow Lane Use Control Signal Indications on Freeway.	

**Recommendation:**

Motion by committee to approve closure of this experiment in response to Caltrans' District 4 Traffic Operations' (experimenting agency) letter dated August 8, 2021, addressed to CTCDC Chair, and email dated July 15, 2022, addressed to CTCDC Secretary, requesting immediate closure of experiment.

**Agency Making Request/Sponsor:**

David Man (Caltrans) / Yue Wang, CTCDC Member.

**Background:**

Caltrans District 4 requested approval from CTCDC to experiment with the Diagonal Down Yellow Arrow Lane Use Control Signal Indication along the Interstate 80 (I-80) corridor in Alameda and Contra Costa Counties. CTCDC provided approval in CTCDC's March 3, 2016, meeting.

Caltrans' District 4 Traffic Operations' (experimenting agency) provides a summary of the activities related to this experiment in the attached letter dated August 8, 2021, addressed to CTCDC Chair, and email dated July 15, 2022, addressed to CTCDC Secretary, requesting immediate closure of experiment.

**Attachments:**

- Attachment A – Caltrans letter dated August 8, 2021.
- Attachment B – Caltrans email dated July 15, 2022.



# ATTACHMENT A



# California Traffic Control Devices Committee Agenda Item Report



## Attachment A – Caltrans letter dated August 8, 2021.



CALIFORNIA STATE TRANSPORTATION AGENCY

GAVIN NEWSOM, GOVERNOR

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**California Department of Transportation**

DISTRICT 4  
P.O. BOX 23660, MS-1A | OAKLAND, CA 94623-0660  
(510) 286-5900 | FAX (510) 286-6301 | TTY 711  
[www.dot.ca.gov](http://www.dot.ca.gov)



August 8, 2021

Mr. David Fleisch  
California Traffic Control Devices Committee, Chair  
Division of Safety Programs  
P.O. BOX 942873, MS-36  
Sacramento, CA 94273

Dear Mr. Fleisch:

The California Department of Transportation (Caltrans) District 4 would like to provide an update on the progress of the experimentation that was approved by the California Traffic Control Devices Committee (CTCDC).

Caltrans asked for approval from CTCDC to experiment with the Diagonal Down Yellow Arrow Lane Use Control Signal Indication along the Interstate 80 (I-80) corridor in Alameda and Contra Costa Counties. After receiving CTCDC's approval on March 3, 2016, Caltrans subsequently sought approval from the Federal Highway Administration (FHWA).

FHWA officially approved the diagonal down yellow arrow experiment on August 31, 2016 after Caltrans agreed to modify the experimentation schedule and data collection requirements. Specifically, FHWA requested Caltrans collect baseline data for one year before beginning to test variations of the diagonal down arrow. The baseline collection period concluded in the fall of 2017. During this period, the lane use control signal displayed the yellow "X" in accordance with the California Manual on Uniform Traffic Control Devices (CA MUTCD) to advise merging out of a blocked downstream lane.

However, the Richmond San Rafael Bridge part-time lane, which was adjacent to the study corridor, was implemented in April of 2018. This part-time lane corridor with twenty sets of overhead gantries for eastbound I-580 traffic implemented lane control to open and close the part-time lane daily and is actively enforced by CHP. The lane control along I-80 when activated, is primarily for incident management on a more advisory basis. Due to concerns motorist confusion, Caltrans management and CHP suggested any ongoing experiments along I-80 with diagonal down arrows be paused until safety implications of the newly installed part-time lane can be evaluated.

"Provide a safe and reliable transportation network that serves all people and respects the environment"



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### Attachment A – Caltrans letter dated August 8, 2021. (Continued)

Mr. David Fleisch  
August 8, 2021  
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Caltrans intended to resume experimentation on I-80's lane control signs in 2020, but the recent public health pandemic and significant increase in vandalism to power systems of the lane control signs in the Alameda County segment of I-80 corridor has impacted the Department's ability to conduct necessary field studies as originally planned. Caltrans is currently looking to ways to harden the its electrical assets from theft and vandalism.

Given the unfortunate circumstances and the original experimentation timeframe presented to FHWA, it would be prudent to conclude the current experimentation efforts along I-80 with the intent by Caltrans to resubmit a revised experimentation request to study the diagonal down arrow on Richmond San Rafael Bridge's lane control signals in the near future.

If you have any questions or concerns, please reach out to me via email at david.man@dot.ca.gov.

Sincerely,

David Man  
Principal Transportation Engineer

c: Robert Bronkall (Vice-Chair, CTCDC)  
Johnny Bhullar (Secretary, CTCDC)

"Provide a safe and reliable transportation network that serves all people and respects the environment"



# ATTACHMENT B



## California Traffic Control Devices Committee Agenda Item Report



### Attachment B – Caltrans email dated July 15, 2022.

**From:** [Man\\_David@DOT](mailto:Man_David@DOT)  
**To:** [Bhullar\\_Gurinderpal\\_S@DOT](mailto:Bhullar_Gurinderpal_S@DOT)  
**Subject:** 2(09)-117 (E) – Diagonal Downward Yellow Arrow Lane Use Control Signal Indications---CA DOT  
**Date:** Friday, July 15, 2022 9:42:19 AM

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Johnny:

Caltrans asked for approval from CTCDC to experiment with the Diagonal Down Yellow Arrow Lane Use Control Signal Indication along the Interstate 80 (I-80) corridor in Alameda and Contra Costa Counties. After receiving CTCDC's approval on March 3, 2016, Caltrans subsequently sought approval from the Federal Highway Administration (FHWA).

FHWA officially approved the diagonal down yellow arrow experiment on August 31, 2016 after Caltrans agreed to modify the experimentation schedule and data collection requirements. Specifically, FHWA requested Caltrans collect baseline data for one year before beginning to test variations of the diagonal down arrow. The baseline collection period concluded in the fall of 2017. During this period, the lane use control signal displayed the yellow "X" in accordance with the California Manual on Uniform Traffic Control Devices (CA MUTCD) to advise merging out of a blocked downstream lane.

However, the Richmond San Rafael Bridge part-time lane, which was adjacent to the study corridor, was implemented in April of 2018. This part-time lane corridor with twenty sets of overhead gantries for eastbound I-580 traffic implemented lane control to open and close the part-time lane daily and is actively enforced by CHP. The lane control along I-80 when activated, is primarily for incident management on a more advisory basis. Due to concerns motorist confusion, Caltrans management and CHP suggested any ongoing experiments along I-80 with diagonal down arrows be paused until safety implications of the newly installed part-time lane could be evaluated in 2022.

Caltrans intended to resume experimentation on I-80's lane control signs in 2020, but the recent public health pandemic and significant increase in vandalism to power systems of the lane control signs in the Alameda County segment of I-80 corridor has impacted the Department's ability to conduct necessary field studies as originally planned. Caltrans is currently looking to ways to harden the its electrical assets from theft and vandalism.

Given the unfortunate circumstances and the original experimentation timeframe presented to FHWA, on behalf of District 4 Traffic Operations, I request immediate closure of this experiment. Caltrans may resubmit a revised experimentation request to study the diagonal down arrow on Richmond San Rafael Bridge's lane control signals in the near future.

Thanks,  
David Man



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Attachment B – Caltrans email dated July 15, 2022. (Continued)

Acting Division Chief  
Division of Traffic Operations  
(510)314-5335 (c)