

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
CALIFORNIA TRAFFIC CONTROL DEVICES COMMITTEE

MEETING OF THE
CALIFORNIA TRAFFIC CONTROL DEVICES COMMITTEE

SAN MATEO PUBLIC LIBRARY
OAK ROOM
55 WEST 3RD AVENUE
SAN MATEO, CALIFORNIA

VOLUME II OF II

THURSDAY, FEBRUARY 20, 2014

9:00 A.M.

Reported by: John Cota

A P P E A R A N C E SCommittee Members

Hamid Bahadori, Chairman

Mark Greenwood, Vice Chairman

John Ciccarelli

Bryan Jones

Rick Marshall

Emma Olenberger

Larry Patterson

Lt. David Ricks

Devinder Singh, Committee Secretary

Bill Winter

Alternate Committee Members in Attendance

Michael Kenney

Sam Morrissey

Caltrans Staff - Sacramento Office

Johnny Bhullar

Atifa Ferouz

Don Howe

Martha Styer

A P P E A R A N C E SAlso Present

Jay Beeber
Safer Streets LA *and*
Reason Foundation

Chad Dornsife
Best Highway Safety Practices Institute
and National Motorists Association

Leo Espelet
Kimley-Horn and Associates, Inc.
Representing City of National City

Kevin Korth
US Department of Transportation
Federal Highway Administration

Jim Lissner
Hermosa Beach Resident

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1 acting as a voting member.

2 COMMITTEE MEMBER RICKS: Lieutenant David Ricks,
3 California Highway Patrol.

4 COMMITTEE MEMBER JONES: Bryan Jones, Public Works
5 Director for the City of Fremont. and representing the
6 bicyclists and pedestrians in the state.

7 COMMITTEE MEMBER PATTERSON: I am Larry Patterson,
8 I am the Interim City Manager for the City of San Mateo and
9 formerly the Public Works Director representing the League
10 for Northern California.

11 COMMITTEE MEMBER CICCARELLI: John Ciccarelli,
12 Bicycle Solutions, consultant to San Francisco, representing
13 non-motorized travelers.

14 COMMITTEE CHAIRMAN BAHADORI: Okay. In the
15 audience I see two, three people. Anyone was wasn't here
16 yesterday? Why don't we go ahead and introduce -- Sam,
17 start.

18 MR. MORRISSEY: Sure. Sam Morrissey, City Traffic
19 Engineer of Santa Monica, alternate representative for the
20 League of California southern cities.

21 COMMITTEE CHAIRMAN BAHADORI: Martha?

22 MS. STYER: Martha Styer, Caltrans Headquarters,
23 Traffic Operations.

24 MR. ESPELET: Leo Espelet with Kimley-Horn and
25 Associates, today representing the city of National City.

1 MR. WONG: Garland Wong with the City of
2 Fairfield.

3 MR. KENNEY: Mike Kenney with the County of San
4 Diego, representing the southern counties as an alternate

5 MR. DORNSIFE: Chad Dornsife with Best Highway
6 Safety Practices Institute and also the National Motorists
7 Association.

8 MR. BEEBER: Jay Beeber, Executive Director of
9 Safer Streets LA, Research Fellow at the Reason Foundation.

10 MS. FEROUZ: Atifa Ferouz with Caltrans Traffic
11 Operations.

12 MR. LISSNER: Jim Lissner. I do the website
13 highwayrobbery.net about red light camera tickets and I am
14 from Hermosa Beach.

15 MR. BHULLAR: Johnny Bhullar with Caltrans, Editor
16 of CA MUTCD.

17 MR. HOWE: I am Don Howe, I am with Caltrans
18 Traffic Operations. I am tech staff support today so if you
19 have a presentation either Johnny or I can help you.

20 COMMITTEE CHAIRMAN BAHADORI: Thank you.

21 We also need to offer a time for public comment if
22 there is anyone in the audience who wants to address the
23 Committee on a non-agendized item. If you want to speak on
24 an agenda item wait until we call that item. But if you
25 have any item that you want to discuss with the Committee.

1 Seeing none, okay, we go back to our agenda. It
2 starts on page two. We will start with actually 13-07,
3 which is a request to experiment with bike boxes submitted
4 by National City. They were here last meeting. They
5 received some comments from the Committee and now they are
6 back with additional information.

7 Mr. Greenwood, this is your item you sponsored, do
8 you want to introduce it?

9 COMMITTEE VICE CHAIRMAN GREENWOOD: Yes. I'd just
10 keep it brief and introduce Leo Espelet from Kimley-Horn and
11 Associates representing National City.

12 COMMITTEE CHAIRMAN BAHADORI: Thank you.

13 MR. ESPELET: Good morning, everyone. I have a
14 brief presentation. My intent is to kind of go back to
15 where we left on the October meeting. The comments that we
16 received in the October meeting and then we have modified
17 the request to meet and respond to the comments received.

18 Before I get going I also want to mention that I
19 appreciate John's help through the process. He was
20 instrumental in helping us, providing comments and helping
21 us to make the revisions.

22 Really quick about what the project is all about.
23 The city of National City is basically adding 6.5 miles of
24 Class II facilities throughout the city in three major
25 corridors at 4th Street, 18th and the D Avenue corridors,

1 which are community corridors per their circulation element.
2 And as part of active transportation grants received through
3 SANDAG the City is able to implement these Class II
4 facilities.

5 So one of the -- because these are new facilities
6 one of the wishes from the City is to implement innovative
7 traffic control devices like bicycle boxes to prevent -- in
8 this case, you know, increase visibility and prevent right
9 hook conflicts. So the bicycle boxes will be installed at
10 seven locations.

11 When we came in October to present the request for
12 experimentation at that point the plan was to implement
13 bicycle boxes as illustrated in the NACTO guidelines, we're
14 following their guidelines. And so from that point that's
15 basically what we are showing on the top is how the bicycle
16 boxes were supposed to be implemented at that point. On the
17 bottom exhibit to the right is what NACTO guidelines are.

18 But in October we received several comments so I
19 am just going to go through just the major comments that we
20 received.

21 One was that if we implement the NACTO guidelines
22 for the bicycle boxes we have a conflict with the California
23 Vehicle Code 2211 (sic) which basically states that the
24 drivers of any vehicle attempting to turn upon a highway
25 should do as follows: right turns, for both the approach for

1 the right hand turn and the right hand turn should be made
2 as close as practical to the right hand curb or edge of the
3 roadway. So per NACTO, approaching the intersection, the
4 bicycle boxes will have a solid bike lane, which creates a
5 conflict with the California Vehicle Code as vehicles need
6 to approach the curb. So that was one of the comments that
7 was brought up and we had several discussions on how to
8 mitigate for that or how to at least obtain information and
9 more data that would help with the study of this conflict
10 for the implementation of bicycle boxes.

11 Other comments that were received were -- one was
12 there was some discussion on whether or not we need to keep
13 the NO RIGHT TURN ON RED signs; and the conclusion was that
14 we must unless there is an exclusive right turn lane.

15 Several items were asked for included to the
16 experimentation as part of observations of the visual
17 analysis. The first one, the lateral position of bicyclists
18 and motorists.. Right turning vehicles. Motorists should
19 move toward the curb. The markings might affect this. So
20 that bullet point addresses the conflict with the Vehicle
21 Code and the experiment to address that and collect data for
22 that purpose. Conflicts with bike and car -- position
23 relative to crosswalks and the timing.

24 Near misses and evasive maneuvers. That was
25 something that was brought up. Not only the conflicts that

1 get reflected to accident data, also as part of the data
2 collection we should collect near-misses and percentage of
3 those.

4 And then another one is the scanning over the
5 shoulder by bicyclists as they approach the intersection.
6 If they are going to left and so forth. The position where
7 the scanning occurs and whether or not it changed the
8 behavior after the implementation of the bicycle box.

9 Other comments were regarding the approach of the
10 ingress bike lane. It was recommended that we modify our
11 experiment and trying to collect data for different type of
12 devices or different type of approaches. One is just the
13 dotted white line, typical per Caltrans detail 39. And then
14 do a dotted white line with the green bands. So that was
15 another recommendation.

16 And then for the egress lane through the
17 intersection it was recommended to look at four different
18 options, a no egress lane markings at all, the white only
19 dotted both sides, the dotted with the green bands or per
20 NACTO-recommended, which is the solid and dotted with the
21 green solid markings.

22 Then three more comments. One was it was
23 suggested for us to obtain data before the implementation of
24 the bicycle boxes just with standard bike lanes. Collect
25 data for that and then see whether or not the bicycle boxes,

1 how the behavior changed when the bicycle boxes were
2 implemented.

3 There were some discussions about non-standard
4 graphic signs. The NACTO has some non-standard graphic
5 signs so there was some discussion about that. And the
6 conclusion was not to -- not to add those to the experiment
7 because there's just too many variables in the experiment.
8 So the simpler the study the better.

9 And the last one was to present our request to the
10 CBAC, which at that point by the October presentation CBAC
11 hadn't had a chance to review our request.

12 So those were all the comments or the summary of
13 the comments.

14 So, like I said, working with John and other
15 members of the CBAC we came up with the revision to the
16 request and basically what we propose to do is two concepts
17 of the bicycle boxes. Part of it is just on the
18 implementation, the opportunities that we have as part of
19 the implementation. We want to have some kind of
20 consistency through the city so we don't want to have, you
21 know, each intersection along the corridor with a different,
22 a different setup.

23 So what we are going to do is we are going to do
24 two corridors, which is 18th and D Avenue, which actually
25 are two corridors that intersect themselves. Have one

1 option. And then the other option is along 4th Street,
2 which includes four additional bicycle boxes. They are
3 pretty similar to each other but basically the differences
4 are on the egress and the -- the ingress and egress lanes.

5 So along 18th Street and D Avenue we are not going
6 to have any egress lane, so that's the option that we are
7 going to obtain data for. And on the ingress lane we are
8 going to have dash only, which is basically the standard,
9 typical bike lane approach to an intersection and have the
10 bike box at the intersection.

11 And then along 4th Street we'll have a dashed
12 egress lane and then we have egress -- for the ingress lane
13 we'll have green bands associated with the dashed, the
14 dashed white lines.

15 And the intent is if -- depending on how the
16 experimentation goes we have an option to add more. There
17 is some additional work that is potentially going to happen
18 in the next few years on 18th and D Avenue so 4th Street is
19 probably going to be -- we are not going to come back and do
20 more work. But on 18th and D we will so therefore we have
21 an opportunity to -- to revise what we did on 18th and D
22 Avenue, implementing some of the concepts that we were using
23 it for.

24 Regarding the non-standard graphic signs. We
25 removed those from both options.

1 And the last comment, to present to the CBAC. We
2 actually did that and we participated on the February 6th
3 meeting and the CBAC supported the experiment.

4 Regarding the data collection. Basically, listed
5 in purple are all the things that we were going to do as far
6 as the original experiment. In red are the items that were
7 added at the request for the new experiment, which basically
8 adds all the information that was asked at the October 17th
9 meeting. It's all showing in red. Which I listed before as
10 part of the comments.

11 Any questions?

12 COMMITTEE CHAIRMAN BAHADORI: Colleagues, any
13 questions? Any questions?

14 Okay, thank you, we will open it to the public.
15 And then if there are questions we would ask you to come
16 back. Thank you, very nice presentation.

17 MR. ESPELET: Thank you.

18 COMMITTEE SECRETARY SINGH: Mr. Chairman.

19 COMMITTEE CHAIRMAN BAHADORI: Yes.

20 COMMITTEE SECRETARY SINGH: Just for the Committee
21 information. CBAC reviewed this request and they requested
22 to CTCDC to authorize experimentation to the City of
23 National City.

24 COMMITTEE CHAIRMAN BAHADORI: Thank you for the
25 reminder, Mr. Singh. You know that that's the

1 recommendation from CBAC.

2 At this time if there are any members of the
3 audience who wish to address the Committee or ask questions
4 about this item. Seeing none.

5 MR. HOWE: Mr. Chair? Mr. Chair?

6 COMMITTEE CHAIRMAN BAHADORI: Yes.

7 MR. HOWE: I'm Don Howe from Caltrans. I do have
8 a question about this particular sign that is being proposed
9 for experiment and I'll zoom in on it to highlight it. It
10 might be a little fuzzy but I think we'll get the idea for
11 it. It's on page 91 and it's the green and red and white
12 sign.

13 COMMITTEE CHAIRMAN BAHADORI: That's the one with
14 the yield triangle?

15 MR. HOWE: Yes.

16 COMMITTEE CHAIRMAN BAHADORI: And the arrows?

17 MR. HOWE: And I was going to ask, is that a sign
18 that is considered experimental by FHWA or NACTO? That
19 would be a question I would ask of the gentleman.

20 COMMITTEE MEMBER CICCARELLI: Don, if I understand
21 Leo's presentation correctly, I don't believe that that was
22 retained in the experiment.

23 MR. ESPELET: That's correct. That was one of the
24 comments. We removed those non-standard signs. So we
25 deleted it.

1 MR. HOWE: Okay, so that's a sign that will not be
2 included?

3 MR. ESPELET: Correct.

4 MR. HOWE: Okay. Because that was a concern we
5 had that that's non-standard. I wanted to zoom in on the
6 other one and just mention that I have had requests for the
7 other sign there that is the combination -- the one that is
8 shown here with turning vehicles. And instead of the
9 standard pedestrian symbol they have substituted the
10 bicycle. And we have actually allowed that in our District
11 5 area around Santa Cruz so that's something that we have
12 allowed. So I would encourage that sign which is a
13 modification using a bicycle rather than a pedestrian,
14 rather than the sign that is next to it. It has things
15 overlapping and I would imagine it's considered a confusing
16 sign, it's non-standard. That's all I have.

17 COMMITTEE CHAIRMAN BAHADORI: Thank you, Mr. Howe.
18 So that's okay, the comment from Caltrans is okay.
19 That's how you're going to do it, right?

20 MR. ESPELET: The comment we received in October
21 and I think the conclusion of the discussion was not to add
22 these signs, the non-conforming signs, the non-standard
23 signs to the experiment because we would be adding too many
24 variables. And therefore we decided not to include those
25 signs as part of our setups.

1 COMMITTEE CHAIRMAN BAHADORI: Okay. You may want
2 to stand there. I'd hate for you to go back and forth.
3 Let's finish the item --

4 MR. ESPELET: Sure.

5 COMMITTEE CHAIRMAN BAHADORI: -- at least no more
6 questions. Sorry, I don't mean to keep you standing up
7 there.

8 MR. ESPELET: That's okay.

9 COMMITTEE CHAIRMAN BAHADORI: Probably it's going
10 to be brief.

11 Any other questions or comments? Mr. Greenwood.

12 COMMITTEE VICE CHAIRMAN GREENWOOD: I do have one
13 question. I believe I actually asked it at the last meeting
14 too and that is, will accident history be collected as part
15 of this experiment?

16 MR. ESPELET: Yes. That data is continuously
17 being collected by the City so that data will be available.
18 But in addition to the accident data the one thing that was
19 brought up is that it's important for us also to observe and
20 collect data on near-misses. So that's important data that
21 we're going to collect. So not only the accidents but also
22 the near-misses and that will be collected through videos.

23 COMMITTEE VICE CHAIRMAN GREENWOOD: Yes, the near-
24 misses are mentioned here in the proposal but actual
25 collision data is not mentioned. I just want to make sure

1 that we are going to include that data in the report.

2 MR. ESPELET: Yes, yes. If it wasn't it's an
3 oversight but the intent is to have that data. And like I
4 said,, the City collects that data on a continuous basis.

5 COMMITTEE CHAIRMAN BAHADORI: Mr. Winter, I saw --

6 COMMITTEE MEMBER WINTER: Yes. And actually my
7 question isn't so much for this applicant but maybe more for
8 Caltrans. I know on our agenda packet there are several
9 different applicants that have experiments in the queue here
10 or that are in the process even for the green bike lane
11 treatments. I think Long Beach had part of theirs as a bike
12 box. I am not sure -- I'd have to, I suppose, delve into
13 the individual ones to know how many others had bike boxes.

14 But I think just more of a comment than to
15 Caltrans. It may be convenient, if this applicant is
16 approved, that at some point in time we kind of get an idea
17 of where they all are cumulatively. Because while I think
18 you've got a great sampling and I think how the presentation
19 is laid out you've got a very good indication of what your
20 data is going to be. It would be interesting to see
21 comparatively speaking how they are all stacking up to each
22 other.

23 COMMITTEE CHAIRMAN BAHADORI: A very good
24 suggestion. That is directed mostly -- not for you, it's
25 mostly for Caltrans. Devinder, you want to answer?

1 COMMITTEE SECRETARY SINGH: Yes, I will follow up.
2 However, I am not getting any data from Long Beach. I am
3 sending them requests before the meeting to all the agencies
4 who are doing experiments, I have not received any update
5 from Long Beach. So I will follow up again and I will
6 coordinate.

7 COMMITTEE MEMBER WINTER: Thanks.

8 COMMITTEE CHAIRMAN BAHADORI: Okay, thank you.
9 Great suggestion, thank you. John.

10 COMMITTEE MEMBER CICCARELLI: Regarding the green.
11 There is a variety of different contexts in which green is
12 being used and approved. Federal Highway has approved the
13 use of green pavement marking for -- specifically for bike
14 lanes, Class II facilities; has not approved the use of
15 green for application in back of shared lane markings. Or
16 in the case of Long Beach's treatment, continuous green
17 pavement marking, sort of like a green carpet treatment. It
18 also has not addressed the use of green in bike boxes. So
19 all those remain experimental.

20 Furthermore, Federal Highway recently removed
21 permission to continue experimentation on continuous green
22 pavement treatments as Long Beach was using and as Oakland
23 was using in an experiment. I believe the concern was that
24 a stripe of green that was very wide that was within a lane
25 could be mistaken as an exclusive facility. So the green

1 story continues to evolve.

2 In the specific case of bike boxes. I think it's
3 great that National City is bringing forth such a well-
4 structured experiment because there really are some open
5 questions about how motorists and bicycles will behave in
6 the presence of these new markings and at various times in
7 the signal cycle.

8 But in parallel, the National Committee, the
9 Bicycle Technical Committee and the Markings Technical
10 Committee have formulated future draft MUTCD language for
11 bike boxes, including green pavement color. So on its own
12 track that is advancing towards the 2016 Federal MUTCD.

13 COMMITTEE CHAIRMAN BAHADORI: Thank you. We all
14 know that Mr. Ciccarelli was very helpful and instrumental
15 in addressing the comments that we shared with National City
16 and bringing it to this point and we would like to thank
17 John for his contributions.

18 Kevin, you have something to add?

19 MR. KORTH: Kevin Korth, Federal Highway
20 Administration. Just to expand on what John mentioned.
21 Federal Highway for bike boxes and green pavement in the
22 bike boxes are both experimental options that Federal
23 Highway will weigh and vote yes or no on.

24 Shared -- Green shared lane markings are no longer
25 being accepted as an experiment. So I would like to tell

1 the Committee if anyone comes up to you with a shared -- a
2 green shared lane marking for the bicycles that Federal
3 Highway is not going to accept any more of those
4 experiments.

5 COMMITTEE CHAIRMAN BAHADORI: Thank you for
6 sharing that information, helpful.

7 Any other questions from the Committee Members?

8 Okay, thank you very much.

9 MR. ESPELET: Thank you.

10 COMMITTEE CHAIRMAN BAHADORI: Okay, this came to
11 us last meeting. We had some comments and Mr. Ciccarelli
12 worked with them and brought it to this point. We have a
13 request for experimentation in front of us, is there a
14 motion?

15 COMMITTEE MEMBER CICCARELLI: I move approval.

16 COMMITTEE CHAIRMAN BAHADORI: There is a motion.

17 COMMITTEE VICE CHAIRMAN GREENWOOD: Second.

18 COMMITTEE CHAIRMAN BAHADORI: There is a second.

19 Any discussions? Yes, John.

20 COMMITTEE MEMBER CICCARELLI: Just briefly I want
21 to comment our colleagues on the California Bicycle Advisory
22 Committee for providing really valuable input. I think this
23 is one instance where giving time for collaboration between
24 our Standards Committee and the Bicycle Advisory Committee
25 at the state level was really fruitful in bringing forward a

1 well-structured application.

2 COMMITTEE CHAIRMAN BAHADORI: Thank you. And we'd
3 like to -- we'd like to thank them for their contributions.
4 Any other discussions, remarks?

5 Okay, seeing none, we have a motion and a second.
6 All those in favor say aye.

7 (Ayes.)

8 COMMITTEE CHAIRMAN BAHADORI: Opposition?
9 Abstention?

10 Seeing none, the motion passes unanimously.

11 Thank you very much. Thank you.

12 MR. ESPELET: Thank you.

13 COMMITTEE CHAIRMAN BAHADORI: Okay, we are moving
14 on to Item 13-08. Do we do that first or do we go to the
15 interim approval? Okay, let's do this yellow change
16 interval timing. Let me go. Since that is my own item let
17 me go through the list here so I don't miss anything here.

18 Okay. On this item, before I start, you have
19 received a lot of comments on this in writing and I would
20 like to make sure that you have received all the written
21 comments since the agenda was posted. They are from a
22 variety of people and Devinder has been sharing them as they
23 have been coming in. They are specifically like from
24 Mr. Beeber, from Monica Suter, from Dr. Parsonson. I
25 probably butchered his last name. And there are a whole

1 bunch of people who have commented. If you have not had the
2 chance to read those comments please do so as we are going
3 through this item.

4 This item was pretty much initiated by a bill that
5 was introduced by Assemblyman Nazarian. This is the last
6 comment that came in yesterday, actually, from Assemblyman
7 Nazarian's office to Devinder and I, the one that you are
8 seeing on the screen. Also hard copies are being shared
9 with you.

10 COMMITTEE SECRETARY SINGH: No hard copies.

11 COMMITTEE CHAIRMAN BAHADORI: Okay. And then
12 another thing was that there was a TRV research paper from
13 -- under National Cooperative Highway Research Program, the
14 infamous NCHRP, and it was NCHRP 731. So these two provided
15 the nexus for discussion on evaluation of the yellow timing,
16 whether we need to evaluate how we are doing the yellow
17 timing calculation for traffic signals in California.

18 Although AB 612 was specifically focused on the
19 signalized intersections that are equipped with red light
20 camera enforcement, since those intersections are such a
21 minute fraction, about 420 out of 36,000 intersections in
22 California, probably that would not have justified to look
23 at the issue by this Committee because that was a specific
24 law enforcement issue more than safety.

25 However, NCHRP 731 provided the pretext and the

1 context and the background to look at the yellow timing
2 issue as a whole for California. And that's why the
3 Committee, our Committee here, decided to form a
4 subcommittee to look at this.

5 You asked me to put a group of people together to
6 look at this issue. And we specifically wanted to be as
7 inclusive as possible to have representations from the whole
8 spectrum, consultants, cities, counties, red light camera
9 enforcement manufacturers, consultants and the legislative
10 people. So we put the subcommittee together of 19 people.
11 The list of the 19 people is included in the agenda package.

12 And before even I get to the item I would like to
13 thank all those individuals for their time because we spent
14 12 hours. We had four conference calls, each three hours,
15 so we spent hours. And they all volunteers their time. We
16 thanked them for that.

17 Our discussions were heated at times but always
18 courteous and professional. People had disagreements
19 because they had different points of view and different
20 interests that they represented but we went through the
21 discussions pretty successfully.

22 Two members of the Devices Committee were members
23 of that subcommittee, Mr. Winter and Mr. Patterson and one
24 of our alternate members, Mr. Miller, Rock Miller was also
25 participating as a member of the subcommittee. So there was

1 a good connectivity between the whole devices committee and
2 the subcommittee as well.

3 Basically what happened was that we started
4 looking at like four specific issues. We said that, okay,
5 how do we do the yellow timing in California? Today, as you
6 know, there is Table 4D-102. And 4D-102 has a column that
7 says "Posted Speed Limit" and has a column that says
8 "Minimum Yellow." And the posted speed limit is the posted
9 speed limit.

10 And that we arrived at about four or five years
11 ago, maybe six years ago, when this issue came to the
12 Devices Committee, and before that time that column was
13 Approach Speed. And practitioners and even the attorneys
14 they were asking, what is approach speed. Approach speed is
15 not defined in the MUTCD.

16 So we went through another subcommittee exercise
17 and at that time we decided that the approach speed is going
18 to be defined as the posted speed.

19 And then two years after that exercise we went
20 through a whole series of workshops and we spent two years
21 defining how we -- better defining how we do posted speed
22 limits in California. And we made modifications and then
23 there was a piece of legislation that did further
24 clarification and now for the last five or six years we have
25 a new way of doing posted speed limits in California, which

1 is much better than what we had for many decades.

2 However, NCHRP 731, in their observation, mostly
3 focused in California, or at least partially focused in
4 California, they observed that still in California the
5 drivers go about 7.5 miles per hour over the posted speed
6 limit. That if you do field measurements you see that still
7 people are going 7 to 8 miles over the posted speed limit.
8 So a posted speed limit being used as a primary tool for
9 calculating the minimum yellow might not be serving the
10 interest of traffic safety best. So we had that in mind
11 going into this discussion.

12 So the first item that the Committee had to deal
13 with, that our subcommittee -- and excuse me, I
14 interchangeably say committee/subcommittee. When I say
15 "committee" I mean the Yellow Timing Committee.

16 The committee looked -- the first question we had
17 was, do we need to have two separate yellow timing
18 methodologies in California? One for red light cameras,
19 which are about 420 intersections, growing but still very
20 small, versus the 36,000.

21 For a variety of reasons the subcommittee decided
22 that it's not serving anyone well if we go with two
23 different methodologies. It's going to be confusing. That
24 we really cannot justify it and it's not going to be -- it
25 is going to be confusing to the juries in the cases that are

1 going to be tried. It's not a good practice to begin with.
2 That the yellow timing should be calculated not based on
3 whether people are caught on camera or not but what yellow
4 timing value is best to promote the maximum traffic safety
5 at that location. And that is independent of the existence
6 of red light cameras. So that question was set aside and we
7 decided that we are still going to stay with one methodology
8 for all traffic signals.

9 The second question that the committee dealt with
10 was, do we use the posted speed limit plus something to
11 comply and address the concerns of 731 or do we use the 85th
12 percentile. It was decided to use both. It was decided to
13 use the 85th percentile and also allow the use of the posted
14 speed limit plus something. That plus something ended up
15 being 7.5 miles for speeds over 35.

16 COMMITTEE SECRETARY SINGH: Over 30, over 30.

17 COMMITTEE CHAIRMAN BAHADORI: Over 30.

18 COMMITTEE SECRETARY SINGH: Seven, not 7.5.

19 COMMITTEE CHAIRMAN BAHADORI: Seven. Seven miles
20 over 30 and 10 miles for under 30, which is pretty much only
21 25 miles per hour. So if a posted speed limit is 25 miles
22 per hour you add to it 10 miles per hour. You make it 35
23 and then you go and do your yellow timing. If the posted
24 speed limit is 45 then you add 7 to it and you make it 52.
25 And based on the 52 you use the formula and you do your

1 yellow timing.

2 So that decision -- although there were
3 discussions among some committee members, some even
4 suggested add 8 miles, some said we have to add 10 miles per
5 hour for all the speeds regardless. However, I would say,
6 there was general consensus in the subcommittee that 7 is a
7 good one to settle with as long as when we use the 85th
8 percentile we round it to the highest nearest. So if it's
9 like 43 we go to 45, we don't go to -- if your 85th
10 percentile is 43.5 you use 45. If your 85th percentile is
11 even 42 you still use 45. So regardless, you always go to
12 the highest five mile increment. So there was agreement on
13 that.

14 There was one item that there was not general
15 agreement between all the subcommittee members. That
16 whether these two different methodologies should be given
17 equal weight or they should be given priority. Mostly the
18 representatives from cities and counties wanted to have
19 equal weight so that any jurisdiction will have the choice
20 to either use the posted speed limit plus that certain
21 amount or use the 85th percentile. If the 85th percentile
22 was available they would use the 85th percentile. If the
23 85th percentile was not available or of the agency chose not
24 to, they can always use the posted plus that certain amount
25 of addition, 10 miles or 7, depending where you are.

1 And their argument was that it's easier in the
2 cases that they are going to -- they have to defend in
3 traffic lawsuits, that they have to justify how they
4 calculated the minimum yellow. That if they are not given
5 equal weight they always will end up explaining why is that
6 they didn't use the first method, which is the 85th
7 percentile, and chose to do the posted speed limit.

8 So that is one item for this Committee to decide,
9 whether these two -- of course if the Committee, if our
10 Committee here agrees with the two methodologies to begin
11 with. If you concur with those two methodologies then the
12 question that we need to address is that should they be
13 given equal weight in the language in the MUTCD or one of
14 them should be given priority over the other one?

15 The other item that the subcommittee dealt with
16 and we dealt with last time also is the issue of the turn
17 pockets. And that became rather contentious and there are
18 -- there was a speaker here, I believe Mr. Lissner yesterday
19 as part of public comment said that there is a location in
20 Hawthorne that the left turn pockets get actually most of
21 the traffic signal tickets because the pocket is so long and
22 people are approaching it on the prevailing through speed;
23 and then the yellow time, according to the standard today,
24 can be set at 3 seconds because it's a turn pocket. That's
25 the issue we had to deal with five, six years ago when we

1 looked at this issue. We did not reach a good solution so
2 we just left it alone.

3 Now there was some discussions in the subcommittee
4 on whether the left turn pockets -- or right turn pockets
5 for that matter. Whether the exclusive turn pockets that
6 have protected or permissive signal face, should they be
7 treated the same as through movement and then be reduced
8 under certain condition or should they be given the minimum
9 and then increase based on field conditions?

10 There were suggestions and you can see it in the
11 documents that have come to us, comments from Mr. Beeber and
12 Ms. Suter and the others, that their argument is that if the
13 pocket, the exclusive turn pocket is longer than a certain
14 length, like 100, 150 or whatever, then it should be treated
15 as a through movement when it comes to the yellow timing,
16 except if there are other conditions that you need to lower
17 it.

18 And, for example, if there is a turn pocket that
19 is like 500 feet long or if there is a dual left turn pocket
20 that is 700 feet long and is on an arterial that has a
21 posted speed limit of 45 miles per hour, then the minimum
22 yellow for that pocket should not be set at three seconds
23 the way that the manual says it now. That the yellow time
24 should be treated as 45 plus 7, which is 52, and then the
25 yellow time for that would be according to the through

1 movement because the pocket is so long that when people
2 transition in there, still approaching the signal at the
3 prevailing speed.

4 So that issue for this Committee. For the yellow
5 timing subcommittee did not pretty much reach consensus on
6 that, people were divided on that issue. So that is one
7 item for this Committee to decide.

8 The other item was the issue of the grades. And
9 it is extensively reflected in the documents and comments
10 that Mr. beeber has suggested to you and also Monica Suter
11 in her comments. Ms. Suter was very helpful in giving us
12 formulae and tables and all that for the issue of the grade.
13 Whether grades have an impact and whether grades, especially
14 extended grades over 2-3 percent, which are beyond the
15 typical grade that you do at intersections for drainage
16 purposes, if those grades, if they are extended grades above
17 a certain percentage, if they should be taken into account
18 for calculating the minimum yellow.

19 The subcommittee felt that -- some people, that we
20 should just strengthen the language in the guidance part of
21 the MUTCD. But there were members of the subcommittee that
22 felt that we should actually provide tables, similar to what
23 Mr. Beeber and Ms. Suter have provided in their comments, or
24 similar, in the text and make it more visible and make it
25 more of a requirement that certain grades have to be given

1 weight and be treated equally.

2 Based on these -- let me see if I missed anything.
3 Based on these -- We also took a look at, because there was
4 evidence, there was research evidence that the PIEV time,
5 the Perception Inception -- the reaction time -- should be
6 more than one second or not? The formula that you use now
7 in the CA MUTCD uses the PIEV time, the reaction time of one
8 second. There was some evidence that it might be better if
9 this is increased to 1.4 or 1.6 as some other states -- I
10 believe Florida, they might have changed this. But the
11 subcommittee -- the majority of subcommittee members felt
12 that we don't need to adjust that and leave it as-is. But
13 still it was not the unanimous consent of the subcommittee.

14 So what we have in front of you. There are some
15 decisions that are very simple, like the two methodologies,
16 except if you guys disagree with the subcommittee and you
17 want to change those two methodologies. But the first
18 question in front of us is whether we use -- if you concur
19 with the subcommittee's recommendation of those two
20 methodologies the way that I just explained, 85th rounded to
21 the highest 5 mile increment; and anything over 30 added 7,
22 anything under 30 added 10. If you guys think that those
23 two methodologies are okay.

24 The question that you need to answer is, should
25 they be given equal weight? The language in the agenda

1 gives them equal weight now. But there is a request that
2 the number one be priority and then default -- that's
3 default, and then fall-back is the posted plus something.

4 The second question you need to answer is what do
5 we do with the issue of the turn pockets? I personally
6 think that we need to do something because in cases that you
7 have like 400, 500, 600 foot long dual left turn pockets and
8 we treat them like a 100 foot single left turn pocket and
9 put a three second minimum yellow really doesn't serve
10 traffic safety best. But the question is, how do you
11 address that?

12 And the third and last question, at least in my
13 mind, is the issue of the grades. Do we add something for
14 the grade in there or not?

15 And of course, if you want to address the issue of
16 the reaction time again.

17 So with that, I was hoping that I could do it in
18 10 minutes, maybe I went a couple of minutes over. What I
19 suggest, since this is a rather complex, multi-faceted item,
20 is that if we take the items one at a time rather than a
21 collective one and answer these questions one at a time and
22 move on. Otherwise we are going to be mixing and
23 commingling all these issues together and it may not help
24 the discussion.

25 And if we do that then what I would like to

1 suggest is that maybe we have a discussion here first and
2 then we open it to the public. And after the public comment
3 period is closed we just close it, bring it back to the
4 Committee and then we start answering those questions one at
5 a time. Of course I am open to any other suggestions on how
6 best to have this discussion.

7 Mr. Patterson, I saw you.

8 COMMITTEE MEMBER PATTERSON: Yes. Before the
9 discussion started I thought it would be appropriate -- you
10 kind of down-played your role in this process. And I
11 wanted to thank the Chair for your role in terms of
12 scheduling the phone calls, managing the cats that were
13 being herded, you know, in terms of the direction on this
14 issue, and actually keeping it civil among professionals who
15 might disagree on some of these issues.

16 The other thing I can't help but note is that it
17 was certainly a demonstration of the commitment of this
18 Committee and its subcommittee when you take 12 hours to
19 discuss three seconds. And I think that's indicative of the
20 work that this Committee does.

21 COMMITTEE CHAIRMAN BAHADORI: Thank you. And you
22 definitely contributed significantly to our discussions by
23 not only providing information but talking common sense to
24 us. Mr. Winter.

25 COMMITTEE MEMBER WINTER: I'll simply just second

1 what Larry just said. I think, Hamid, you did a fantastic
2 job of bringing us together to discuss it. I think what I
3 kind of want to acknowledge as we delve into this is that,
4 as we all know, the CA MUTCD is a living document. It isn't
5 published in hard copy, it's literally on the Internet
6 because we know changes are made and tweaking and things are
7 done to it by this Committee and by Caltrans.

8 So while there was an acknowledgement like Hamid
9 mentioned of some factors, we really didn't use or complete
10 the discussion on it in those 12 hours. There was
11 acknowledgement that maybe some further work could be done
12 on those. I think it's kind of the acknowledgement that
13 that further work is just the process that we go through
14 anyway with the manual in general.

15 And we are also looking for some federal
16 leadership. Because while we are talking just about
17 California, this has broader implications beyond our state
18 if it starts to influence maybe how other states view the
19 same topic and how FHWA is going to view it as well.

20 COMMITTEE CHAIRMAN BAHADORI: Yes, you are
21 absolutely correct. Especially NCHRP 731 is being picked up
22 by other states and some other states are -- I already had
23 calls from a few other -- three other states calling to see
24 what we are doing here. So they are watching what
25 California is doing, as we watch some other states like

1 Florida. But like everything else, California is the trend
2 setter for a lot of traffic stuff. And what we do here
3 probably is going to have national -- not probably,
4 definitely it's going to have national ramifications.

5 Okay. Any other discussions on the questions? Do
6 you want to hear from the public first or do you want to
7 have discussions here amongst ourselves on those four
8 specific questions first before we go to the public or do
9 you prefer to have public testimony first before we bring it
10 back? What is your pleasure?

11 COMMITTEE MEMBER PATTERSON: I would prefer the
12 public first.

13 COMMITTEE CHAIRMAN BAHADORI: You would prefer --
14 okay. Okay, seeing no objections. So what we'll do is that
15 we are going to open this item for the public, I know there
16 are a few of you in the audience.

17 By the way, I see Martha over there and Caltrans'
18 staff, Martha and Ahmad were extremely helpful were
19 extremely helpful in working with us and developing language
20 and providing information. I would like to acknowledge them
21 and thank them; thank you very much.

22 So we have a few people in the audience who may
23 want to speak on this issue. What I would like to suggest
24 is that when you get to the podium please introduce yourself
25 and if you have been a member of the subcommittee please

1 identify so. And if you have submitted written comments
2 please refer to the written comments, there is not a need to
3 repeat all that stuff again. We'll take it from there. We
4 have time but we don't want to go overboard so please be
5 concise, do not repeat yourself. And with that we'll start.
6 Who wants to go first?

7 COMMITTEE SECRETARY SINGH: No one, I think.

8 COMMITTEE CHAIRMAN BAHADORI: No one? Then we
9 close the public comments. That's easy.

10 (Laughter.)

11 COMMITTEE CHAIRMAN BAHADORI: That would be easy.
12 Mr. Beeber. Mr. Beeber is the one who gave us a field
13 presentation in the last committee and he has been involved
14 in the subcommittee also and provided a lot of good research
15 material. Mr. Beeber.

16 MR. BEEBER: Thank you. Jay Beeber, Executive
17 Director of Safer Streets LA and Research Fellow with the
18 Reason Foundation.

19 First of all I also want to echo Mr. Patterson's
20 comments about the Chair of the Committee and the job that
21 he did in terms of getting everything done and scheduling
22 and herding the cats and all of that sort of thing; so I
23 want to thank him personally on that. I also want to thank
24 Caltrans because they were instrumental in getting the
25 language that showed up in the agenda package and in the

1 report that was from Mr. Bahadori.

2 There are a couple of things that I just wanted to
3 mention just quickly. And actually the first thing I want
4 to take is the issue of the posted speed versus the 85th
5 percentile, those two methods. And I won't speak about each
6 of them individually, just that those are the two kinds of
7 things and whether they should be equal or not.

8 In terms of what the subcommittee had to say about
9 it, I won't -- you know, I won't read off all the
10 information that is in the documents that I sent to you but
11 there was consensus that the 85th percentile rounded up to
12 the next highest 5 mile per hour would be used -- but if it
13 was not available then the posted plus 7 miles per hour
14 would be the -- it would default to that.

15 Obviously since then there has been some
16 discussion about, you know, whether this opens people up to
17 liability. I would refer you to Dr. Parsonson's e-mail and
18 letter on that subject. He is an expert on this, he is an
19 expert witness in these sorts of things, and it is
20 contention that if the language was strengthened at least a
21 little bit in terms of Caltrans had recommended in terms of
22 saying exactly 85th percentile from where, like as in a
23 traffic and engineering survey or something specific that
24 means something specific. And if that is not available or
25 has not been done or whatever the language of that would be,

1 that would be very clear in terms of whether a jurisdiction
2 would have freedom to then default back to the posted speed
3 limit plus this additional amount.

4 The 85th percentile has traditionally been the
5 gold standard as far as what the speeds are on a roadway.
6 And to simply say to a jurisdiction, well, just, you know,
7 use the posted if you want to plus this additional amount,
8 when they know what the 85th percentile is, doesn't seem to
9 make a whole lot of sense. I mean, if you're going to tell
10 people, go out and do speed surveys, and you know what their
11 85th percentile is, use that if you have it. There is no
12 reason not to use it. If you're going to have to make a
13 change use it because it's there and use it.

14 I'll give you an example of where this actually
15 comes into play. In the city of Beverly Hills there is one
16 particular intersection in which they have an 85th
17 percentile in their speed surveys that are approximately 40
18 miles an hour, it's just under 40 miles an hour. They have
19 set a posted speed limit of 30 miles an hour at that
20 location. They don't do radar enforcement there but they
21 have set their posted speed limit statutorily, the city
22 council voted on it. They want 30 miles an hour. One of
23 the stated reasons is because around the corner from this
24 location there is a school and, you know, there may be
25 school kids crossing the street, it's a signalized

1 intersection, they had some concerns, that they wanted the
2 posted speed limit to be 30 miles an hour.

3 They have -- they have a red light camera at that
4 location so this is just in terms of what the data shows,
5 okay. The data shows that there are about 1200 violations
6 at that location every single month. That puts those school
7 children that they are concerned about at risk every time
8 that walk signal is illuminated for them to cross that
9 street. And they know what their posted -- they know what
10 their 85th percentile is there. They should be using that
11 because the manual says you can go up from the posted speed
12 limit. They refuse to do it, okay, for whatever their
13 reasons are.

14 In that particular case they could use, if they
15 choose one or the other, they would have to go to a standard
16 of 40 miles an hour if the 85th percentile was the preferred
17 method. If they used the posted plus the additional amount
18 they would use they would go to 37 miles an hour. That is a
19 two-tenth of second difference. In the world it may not
20 seem like a lot but in terms of violations and in terms of
21 whether somebody is stepping off the curb or whatever, that
22 could actually mean something. And it certainly will mean
23 something in terms of the number of \$500 tickets that they
24 give out there.

25 So the reason that we feel that this is really,

1 really important is because if a jurisdiction knows what
2 their 85th percentile is, they should use it. And we feel
3 that that's been the gold standard in terms of setting speed
4 limits or whatever. Certainly if you set a speed limit you
5 can ramp down from there. But we feel that -- we feel that
6 that is a really important thing so we urge you to please
7 seriously consider using that as the preferred method and
8 then defaulting to the posted plus the additional amount if
9 that's -- if they don't have the -- a speed survey. We
10 don't want to make them go out and do speed surveys but if
11 they have them they should use that number.

12 The second issue that I wanted to address is the
13 issue of the turning pockets. And this is a really, really
14 important issue. I presented you with some data from some
15 locations that we collected some information from. And I
16 won't go through all of it but I just want to say, for
17 example, in the city of Santa Clarita they have these really
18 long pockets. They have 20 times as many violations
19 occurring at that -- on the turn pockets it's set at 3.5
20 seconds on a 50 mile an hour approach where, as on their
21 straight through approach, they have almost none every
22 month. I mean, when I say almost none I mean five, okay.
23 Five violations every month, compared to over 100 every
24 month two lanes over. So this is why the turn pocket issue
25 is so important.

1 I think there's been -- I won't go into all the
2 science of it, it's in what I presented to you. But as far
3 as the turn pocket there's a couple of important pieces of
4 information to know about turn pockets. The important issue
5 in terms of the yellow light time is what's the distance
6 that it takes a car to stop? That's the first thing you
7 need to know. The number you need to use to determine that
8 first step is the approach speed.

9 And if somebody is capable of driving at the
10 posted speed limit or near the 85th percentile, that's the
11 number that in the real world determines whether they can
12 stop or not. And that -- and you then have to determine how
13 long does it take them to get across that distance; that's
14 the yellow light time. If you start with a number that is
15 too low you are going to create a dilemma zone and that is
16 what we are seeing in a lot of these locations where they
17 have huge numbers of violations on a 3 or a 3.5 second
18 approach.

19 The world out there says, and again the manual
20 says, look, you know, if you start at 3 you can certainly go
21 up. The problem is not that they can't go up but they are
22 just not doing it. They need more guidance in terms of what
23 to do, especially on these long turn pockets, these long
24 length pockets. It's really important to give more guidance
25 on this and to say, you know, that you need to have

1 something above the 3 seconds.

2 And some turn pockets turn into -- sorry -- turn
3 lanes turn into turn lanes from straight-through lanes.
4 There is no pocket at all, it just turns into a left turn
5 lane. These approach speeds have to be taken into account.

6 As far as the grade is concerned. Obviously we
7 feel that the grade is important if it exists. And as far
8 as the chart that was recommended, this is just more in
9 terms of guidance and giving people more guidance, it's not
10 -- it's not intended to make something mandatory if it's
11 guidance. But just giving them more information and how to
12 do it I think is just a better thing to do. Just giving
13 more information is just more helpful so it's more of a
14 helpful thing.

15 And let me just see if there is anything else real
16 quickly that I wanted to -- no, that's about it. So I want
17 to thank you very much and I really appreciate all the work
18 that's been done on this.

19 COMMITTEE CHAIRMAN BAHADORI: Thank you. Do any
20 of you have any questions for Mr. Beeber before he sits
21 down?

22 Okay, thank you, Mr. Beeber.

23 MR. BEEBER: Thank you.

24 COMMITTEE CHAIRMAN BAHADORI: The next speaker?
25 Chad.

1 MR. DORNSIFE: I was also on the committee. I am
2 Chad Dornsife with Best Highway Safety Practices Institute
3 and I represent the National Motorists Association also.

4 The through movement need to be the 85th
5 percentile. And the default from that, if that's an
6 unknown, needs to be the posted speed limit plus the value.

7 On the posted speed limit plus the value the
8 committee really focused in on the 731 report of 7 miles an
9 hour. But you've got to remember that the people doing the
10 731 report did not do it in the way that, let's say, Federal
11 Highways would have done it. Some of those speed surveys
12 that they used in that report wouldn't even meet the minimum
13 requirements of California.

14 When Federal Highways set up speed surveys and
15 when the researchers do speed surveys they do 24 hour at one
16 hour increments or 34 hour-2 hour pockets. And what they
17 found is as you go through a 24 hour day, the traffic
18 travels at the speed, the designed speed of the road by the
19 nature of the road. So as the friction on the side changes,
20 as the volume changes, as the character of the road changes
21 over a 24 period you see different speeds.

22 The average on the biggest study ever done by
23 federal Highways was 4-8 mile an hour variance in a 24 hour
24 period on the 85th percentile. And when we were having this
25 committee meeting we were down to 7 or 8.5 miles an hour.

1 It's simply not that accurate. If you've got a number that
2 was only done on 30 vehicles, you don't really know what the
3 character of that road was. And the person doing the survey
4 in doing the study didn't understand how important it is to
5 capture this type of data. Even though he was trying to do
6 the numbers on the approach speeds he failed in the
7 methodology that he used to come up with a true, valid
8 number to find out what the real problem is.

9 So we advocated at least 10 miles an hour, which
10 is essentially the posted plus one second, which in
11 particular for the red light cameras, would give enough
12 cushion. So that's why it was 7 or 8 or 10. In my
13 particular case I went for the 10 because I felt that the
14 one second gave enough cushion for safety.

15 On the left turn pockets. All the way back in the
16 '80s there was a hypothesis that the signal timing must meet
17 the safety needs of the traffic. And at that time it was
18 the 97th and 99th percentile of the needs of the traffic and
19 it was the duty of the engineer to make sure that the signal
20 timing met those safety needs. So if you do a turn pocket
21 and you have a long yellow, I would say instead of having a
22 minimum have it at least at the 85th percentile or whatever
23 the through movement is and you can shorten it as long as
24 you can maintain compliance.

25 You don't start off with a minimum that can be

1 abused. You start off with a standard that reflects the
2 actual travel speeds of the public then you reduce it as
3 long as you maintain compliance. If you've got a place
4 where you can shorten it then it's okay as long as you --
5 the engineer makes an engineering judgment that it's okay.

6 The grades. If it's a really steep grade the
7 traffic adjusts. And they do slow down, they use longer
8 approaches. so the guidance on the grade is recommended.
9 Anything more than that is not necessary.

10 The biggest thing is the reaction time of one
11 second. When that was originally formulated 30 years ago we
12 had a different demographic of population and the one second
13 was a mean, meaning that 50 percent of the people were
14 outside of that. So when you start talking about
15 microseconds or a tenth of a second for a \$500 ticket and
16 your reaction time formula already catches 50 percent of the
17 population out, you've got a problem.

18 What happened is, Since then the demographics of
19 our population has aged. And Florida in looking at this
20 decided that it needs to be between 1.4 and 1.6 seconds to
21 at least get up to the 80th or somewhere in that vicinity
22 percentile of the reaction time of the people using the
23 road. So the reaction time needs to be fixed, needs to be
24 adjusted. We have an aging population. And my generation
25 is a significant part of the general population and their

1 reaction times are slower than somebody who is 20 and there
2 needs to be an accommodation for that, number one. And
3 number two is the very definition of a reaction time in a
4 formula, a safety formulation where it catches 50 percent of
5 the motorists out, is problematic. Thank you.

6 COMMITTEE CHAIRMAN BAHADORI: Thank you. And
7 thank you for your contributions to the subcommittee
8 discussion, appreciate it.

9 Anyone else in the audience who wishes to address
10 the Committee on this issue?

11 Well, seeing no one we close that. That was the
12 -- we bring it back. Yes, Mr. Patterson.

13 COMMITTEE MEMBER PATTERSON: And you had asked a
14 question. I don't think we answered your question about
15 whether to go through these one at a time or collectively.
16 My suggestion would be one at a time.

17 COMMITTEE CHAIRMAN BAHADORI: Yes, sure, of
18 course. We are going to go through them one at a time.

19 And one last item that I did not specifically
20 mention, that's the implementation schedule. That after we
21 have some recommendations then we can discuss, you know, how
22 we would like to ask Caltrans in terms of an implementation
23 schedule because there are different approaches on that one
24 also.

25 Okay, let's start as Mr. Patterson suggested, to

1 make it easier, to go through this one item at a time.

2 First let me ask you the first question from the committee
3 and if you can have a motion and a second and go through the
4 process on each of these individually.

5 The first question is that: Do you agree with the
6 subcommittee's recommendation in terms of the 85th rounded
7 to the highest-nearest 5 mile per hour increment and posted
8 speed plus 10 for speeds 30 and under, under 30, and 7 for
9 over 30? Do you concur with those two methodologies?

10 COMMITTEE SECRETARY SINGH: Can I make a comment?

11 COMMITTEE CHAIRMAN BAHADORI: Sure.

12 COMMITTEE SECRETARY SINGH: Mr. Chairman, Martha,
Ahmad and myself were also sitting

14 Based on the subcommittee discussion, Caltrans strengthened
15 the existing language. We used to have option, we made
16 guidance. We strengthened this 85th percentile speed,
17 posted plus 7 and 10. And we -- Caltrans requests the
18 Committee make a recommendation to adopt the language as
19 proposed in the agenda.

20 COMMITTEE CHAIRMAN BAHADORI: Okay, there is a
21 recommendation from Caltrans. And that's true, this
22 language that you see in the draft is reflective of those
23 two methodologies that I mentioned. And as I mentioned, it
24 gives equal weight and order of hierarchy to the
25 methodologies. It leaves it to the discretion of the

1 locals. But that's the second question. For the first
2 question, do you agree with those two methodologies? I
3 should ask this question: Is there anybody here in the
4 Committee who objects to any of those two methodologies?

5 Seeing none, so probably you all agree with that.

6 Now the second question is that should the two
7 methodologies be given equal order of priority or equal
8 weight as it is drafted in your agenda, or the 85th
9 percentile should be the required one? As Mr. Beeber said,
10 the gold standard. And then for reasons that I assume you
11 have to document then you can go and default back to the
12 posted. Mr. Greenwood.

13 COMMITTEE VICE CHAIRMAN GREENWOOD: The way I read
14 the proposed language from Caltrans, the default is the 85th
15 percentile. And it's only if the 85th percentile data is
16 not available that the speed limit can be used. To me that
17 is not giving them equal priority, it's clearly saying, if
18 the 85th percentile data exists you must use it. You cannot
19 use speed limit in place of 85th percentile. The only time
20 you use speed limit is when 85th percentile data does not
21 exist.

22 COMMITTEE CHAIRMAN BAHADORI: You're referring to
23 page 12, the second paragraph in the red.

24 COMMITTEE VICE CHAIRMAN GREENWOOD: Yes, the red.

25 COMMITTEE CHAIRMAN BAHADORI: Okay.

1 COMMITTEE VICE CHAIRMAN GREENWOOD: I'd like to
2 say --

3 COMMITTEE CHAIRMAN BAHADORI: Yes, that's the way
4 that Martha drafted it. Okay.

5 COMMITTEE VICE CHAIRMAN GREENWOOD: I'd like to
6 say that I support that.

7 COMMITTEE CHAIRMAN BAHADORI: You support that?

8 COMMITTEE VICE CHAIRMAN GREENWOOD: But also I
9 just have one editorial comment, which I hate to make. When
10 we say that rounded to the highest nearest 5 mile an hour
11 increment, that will not work. You will get people saying,
12 42 rounds to 40. That is the highest, nearest 5 mile an
13 hour increment. It needs to say, rounded up to the next 5
14 mile an hour increment.

15 COMMITTEE CHAIRMAN BAHADORI: Okay, that question
16 also -- Bob Kahn who is a practicing traffic engineer in
17 Orange County, he sent me an e-mail also and he raised that
18 issue also, that we need to clarify the language so that it
19 says "round up." So, Mr. Devinder and Mr. Bhullar, you are
20 going to be writing this so round up.

21 Thanks for the clarification, Mr. Greenwood.

22 COMMITTEE MEMBER WINTER: Only to second what
23 Mr. Greenwood said.

24 COMMITTEE CHAIRMAN BAHADORI: Okay. So is that
25 fair to say that on this item the language as proposed, with

1 the tables as proposed, with the correction that
2 Mr. Greenwood suggests, is that going to be satisfactory to
3 the Devices Committee as a whole?

4 COMMITTEE VICE CHAIRMAN GREENWOOD: Well I'd like
5 to make a motion to that effect.

6 COMMITTEE CHAIRMAN BAHADORI: Please do.

7 COMMITTEE VICE CHAIRMAN GREENWOOD: I move the
8 staff recommendation with the editorial comment we just
9 made.

10 COMMITTEE CHAIRMAN BAHADORI: There is a motion,
11 is there a second?

12 COMMITTEE MEMBER WINTER: Second.

13 COMMITTEE CHAIRMAN BAHADORI: There is a motion by
14 Mr. Greenwood, the second by Mr. Winters. Discussions?

15 Seeing no discussion, all those in favor say aye.

16 (Ayes.)

17 COMMITTEE CHAIRMAN BAHADORI: Opposed?

18 Abstention?

19 Okay, that question and that motion passes
20 unanimously, which is to adopt the language that is proposed
21 here with the clarification that it is rounded up to the
22 highest and nearest so that there will be no confusion.

23 Mr. Howe, do you have anything to say or are you
24 just there?

25 MR. HOWE: No, I was just going to move the screen

1 to the next item.

2 COMMITTEE CHAIRMAN BAHADORI: Okay, good, yes,
3 thank you.

4 On the other two issues, actually three issues
5 that have been raised in the comments. The issue of the
6 turn pockets. The issue of the turn pockets, the report
7 that I submitted to you is silent. The language, the
8 proposed draft language from Caltrans is silent because we,
9 quite frankly, didn't have consensus in the subcommittee.

10 Does anyone wish to address that question?

11 Mr. Winter.

12 COMMITTEE MEMBER WINTER: I think one element that
13 came to my mind, and I guess I'll speak as an individual on
14 the subcommittee now. In the discussion of this was that,
15 you know, every intersection has slightly different
16 configurations to it. You could have a very wide or skewed
17 intersection. Like the Chair mentioned you could have a
18 very lengthy turn pocket or even a shorter length or dual
19 turn pockets. And I think as a practitioner some agencies
20 may compensate for all these different variables by looking
21 at a red clearance interval and putting that into their
22 controller cabinet. To deal with the potential to minimize
23 any of the vehicle conflicts from occurring is putting in
24 maybe a red clearance interval.

25 So while I understand a lot of the focus on the

1 minimum of three seconds is because the potential to capture
2 a motorist violating under a photo enforcement scenario to
3 violate that. I think, you know, and that's a very valid
4 concern, obviously, not to create a trap to motorists that
5 they are violating. I think from a safety perspective,
6 however, the practitioner looks at it and has that other
7 tool in the toolbox like the, you know, the red clearance
8 interval or some other means of dealing with it.

9 So I think how we landed on it as a group then in
10 the subcommittee and what you see in the agenda packet for
11 Caltrans is it is providing more guidance than currently
12 exists for the practitioner to take into consideration, you
13 know, the factors to actually conduct a site visit, to
14 perhaps even drive the turn lane themselves to get a better
15 understanding of motorist behavior in that dedicated turn
16 lane.

17 I fully understand too that if more research comes
18 along, and I think even the Report 731 was acknowledging
19 maybe, you know, further research on this particular element
20 would need to be conducted. I do foresee that somebody will
21 pick that up and we may very well be having a deeper
22 discussion of this at some time in a future time.

23 But at least I saw this step that you see in your
24 agenda packet today as getting us a little further along in
25 the process, putting it in the mind of the practitioner that

1 you -- you know, as you consider the yellow time and you
2 make a decision on that and you know there's those other
3 elements in the tool box like the red clearance interval or
4 other things that, you know, it's moving you closer to
5 something more than just accepting, well, let's use the
6 minimum of 3 seconds.

7 COMMITTEE SECRETARY SINGH: Mr. Chairman, if you
8 look at your agenda packet, before we had option language
9 and so now we are making it into guidance. And we are
10 saying, if you look at page 13, the last sentence, engineers
11 have to drive through. So they may -- it may require to
12 lengthen the left turn and right turn movement, the minimum
13 yellow, change the interval time. So we are making it from
14 an option to guidance.

15 COMMITTEE CHAIRMAN BAHADORI: That's true.

16 Mr. Patterson?

17 COMMITTEE MEMBER PATTERSON: I think given the
18 information we have and given the number of variables
19 related to turn lane that could affect the actual speed in
20 those lanes, I think leaving it in the guidance and the
21 option as in the staff -- in the report is my preference.

22 COMMITTEE CHAIRMAN BAHADORI: Any other members
23 who wish to speak on that item?

24 Let me share just my thoughts on that. Maybe
25 because of the communities where I live and I work, I live

1 in Irvine and work in Costa Mesa so I drive a lot in so-
2 called South Orange County, which is rather new development
3 mostly. Some of those cities didn't exist even 30 years ago
4 when I started working down there, now they are full-grown
5 cities.

6 A lot of those communities, they have these
7 awfully long left turn pockets. They have left turn
8 pockets, dual left turn pockets, like on MacArthur and on
9 Jamboree and on PCH even, that they go for like 700 feet,
10 800 feet, 1,000 foot long. And people just get into that
11 transition and the intersection is still 800 feet away and
12 you are just going at 40, 45 miles an hour until you get to
13 the intersection. So for all practical purposes you are
14 driving at the prevailing speed because the transitions are
15 150 foot long transitions also. You don't even need to slow
16 down to get into those left turn pockets.

17 So you're going at this speed and you're
18 approaching the intersection. And then the intersection
19 minimum yellow is set at 3 seconds. So that is like -- I,
20 frankly, don't want to focus too much on the red light
21 cameras because as awful as it is if development uses it for
22 entrapment, that is not my concern, my concern is the 36,000
23 traffic signals, not the 400. And if we have these long
24 left turn pockets, which I saw even in Foster City here,
25 they have pretty long left turn pockets, and in some places

1 in San Mateo. And they just --

2 So somehow if we can raise it to the attention of
3 the practitioner. And I understand we are going from option
4 to guidance and that's a big improvement. That when you
5 have a 700, 800 foot long dual left turn pocket, you
6 shouldn't put a 3 second yellow time on that left turn
7 phase. Regardless if there is a camera or not, that is not
8 the issue. That is not just good traffic engineering
9 practice, it's not really a safe operation of a traffic
10 signal.

11 I have been struggling with it. There is a
12 proposal from Ms. Suter that, if you have read her comments,
13 that she says that if you ask for the left turn pockets to
14 be timed according to the prevailing speed of the through
15 movement except if the pocket is a certain length, which is
16 a short pocket. I like that proposal but I don't know if I
17 have support here in the Committee. But I am just pretty
18 much speaking my personal opinion that I think if we can do
19 something to enhance it it's better but that's the language
20 we have. Mr. Patterson.

21 COMMITTEE MEMBER PATTERSON: Well I was thinking
22 because I read that as well. I just don't think I have
23 enough information to be able to kind of move that far. So
24 it might be something we want to take a look at.

25 But I was wondering as you were describing your

1 concern, which I think is valid. And in San Mateo here we
2 have very few long so it's not as much of an issue as it
3 might be in Orange County.

4 COMMITTEE CHAIRMAN BAHADORI: Yes.

5 COMMITTEE MEMBER PATTERSON: But I wondered if
6 there is an opportunity to maybe expand the guidance section
7 to indicate that -- to emphasize that where exclusive turn
8 lanes exceed 100 feet in length that particular attention
9 should be paid by the practitioner using the tools that are
10 listed in the guidance so far to make sure that an
11 appropriate speed has been used in setting the yellow time
12 for these long, exclusive turn pockets.

13 COMMITTEE CHAIRMAN BAHADORI: I would certainly
14 support something along that to enhance the language without
15 making it onerous and mandatory and get them all in trouble
16 with lawsuits and all that. But somehow to raise it to the
17 attention.

18 COMMITTEE MEMBER PATTERSON: Yes.

19 COMMITTEE CHAIRMAN BAHADORI: Mr. Jones.

20 COMMITTEE MEMBER JONES: Is 100 feet the length
21 or, you know, is it 200 or 250 feet?

22 COMMITTEE CHAIRMAN BAHADORI: I'm open to the
23 number but --

24 COMMITTEE MEMBER JONES: You know, how fast can
25 you get going in a 200 foot --

1 COMMITTEE CHAIRMAN BAHADORI: Yes.

2 COMMITTEE MEMBER JONES: -- 200 foot long left
3 turn pocket versus -- I mean, I understand the 700 or 800 or
4 1,000 foot left turn pockets that you have down in your
5 over-built roadways there. But --

6 (Laughter.)

7 COMMITTEE MEMBER PATTERSON: You're not being
8 helpful.

9 COMMITTEE CHAIRMAN BAHADORI: We would like to
10 call them adequately designed.

11 (Laughter.)

12 COMMITTEE MEMBER JONES: Adequately designed.

13 But, you know, a majority of the intersections
14 probably, you know, 250 foot left turn pockets are probably
15 the maximum. And then, you know, where these bigger
16 intersections are then they get longer. But I think, you
17 know, unless you're at a Caltrans intersection where you
18 have to do the storage-plus everything and they're going to
19 have some pretty big left turn pockets.

20 COMMITTEE CHAIRMAN BAHADORI: I am not necessarily
21 married to the 100 foot but what I am saying is that if
22 there is some language that we can kind of say that if your
23 pocket is longer than this 200, 250, whatever that might be,
24 you need to give special attention to it. So that at least
25 they know that, hey, my pocket is a long pocket, I can't

1 just treat it like a typical 150 foot downtown pocket.

2 COMMITTEE MEMBER JONES: Right.

3 COMMITTEE CHAIRMAN BAHADORI: Slap a 3 second
4 minimum yellow.

5 COMMITTEE MEMBER JONES: Exactly.

6 COMMITTEE CHAIRMAN BAHADORI: I need to do special
7 attention.

8 COMMITTEE MEMBER MARSHALL: Mr. Chairman?

9 COMMITTEE CHAIRMAN BAHADORI: Any other -- yes,
10 Mr. Marshall.

11 COMMITTEE MEMBER MARSHALL: The language on the
12 screen of page 13, was that part of the subcommittee's
13 discussion or did it get prepared subsequent to that?

14 COMMITTEE CHAIRMAN BAHADORI: The subcommittee
15 members were of different opinion on that?

16 COMMITTEE MEMBER MARSHALL: But did they see this
17 language?

18 COMMITTEE CHAIRMAN BAHADORI: Of course, yes.

19 COMMITTEE MEMBER MARSHALL: Okay. So it was --
20 this was the thing they were having differing opinions bout.

21 COMMITTEE CHAIRMAN BAHADORI: The difference in
22 opinion is that whether like some people were of the opinion
23 that it should be as even part of the standard. And some
24 were of the opinion that there should be like very specific
25 language in terms of the table saying, if your left turn

1 pocket is this long this is the minimum yellow and so on and
2 so forth. And then there was, in my mind, a compromise
3 alternative solution or suggestion to say that if your
4 pocket is longer than a certain number of feet then you
5 should give it special attention. Actually the suggestion
6 from Ms. Suter is that if you go over 100 feet use the
7 through movement as the standard for yellow timing.

8 COMMITTEE MEMBER MARSHALL: Right.

9 COMMITTEE CHAIRMAN BAHADORI: But as Mr. Patterson
10 suggested, is that maybe we can massage this language and
11 say that if you go over a certain length the you should give
12 special attention. And that length can be anything, 100,
13 200, 250 whatever.

14 COMMITTEE MEMBER MARSHALL: Okay.

15 COMMITTEE CHAIRMAN BAHADORI: Anyone else who
16 wishes to speak on this issue?

17 COMMITTEE SECRETARY SINGH: Mr. Chairman.

18 COMMITTEE CHAIRMAN BAHADORI: I'm sorry, let
19 Mr. Greenwood go first.

20 COMMITTEE VICE CHAIRMAN GREENWOOD: I wonder how
21 we ever came to separate turning movements from through
22 movements when it comes to yellow timing. It seems to me
23 that there is a pretty significant percentage of traffic, if
24 you look at all the traffic signalized intersections in
25 California, there's a significant amount of traffic that

1 turns left and does so at the speed limit or at the 85th
2 percentile. These free flow, suburban intersections that
3 are not congested because they're adequately designed.

4 (Laughter.)

5 COMMITTEE VICE CHAIRMAN GREENWOOD: And kind of
6 keying off Mr. Dornsife's comments that, you know, we
7 shouldn't be dealing with the lowest common denominator or
8 even average here. We're supposed to be dealing with the
9 majority of traffic and I think the 85th percentile is a
10 good measure of that. I think one easy way that we solve
11 this is just by striking the word "through" out of the
12 language we just approved and just say "traffic movement"
13 not "through traffic movement."

14 COMMITTEE CHAIRMAN BAHADORI: Then we need to
15 actually do a little bit -- If that suggestion gets hold
16 then you're suggesting that the left turn pockets or right
17 turn pockets be pretty much treated the same as through
18 movement.

19 COMMITTEE VICE CHAIRMAN GREENWOOD: Yes.

20 COMMITTEE CHAIRMAN BAHADORI: Then we need to do,
21 actually, clarifying language probably elsewhere also
22 because that is not the current practice in California.

23 COMMITTEE SECRETARY SINGH: And we might not go
24 along with that. Caltrans would probably oppose that.

25 COMMITTEE CHAIRMAN BAHADORI: Mr. Jones.

1 COMMITTEE MEMBER JONES: And I can hear what
2 you're saying on the left turn movements versus the through
3 movements but I'm just starting to say, well, if we have all
4 these eight phase traffic signals what's that going to have
5 an impact on our cycling and our ability to move traffic as
6 well. So I think there's some balancing there that is going
7 to have to go on because if you start -- instead of 3
8 seconds it's now 7 seconds and you do that by four protected
9 left turn movements, that could be 14 to another 20 seconds
10 of delay. And we already know motorists that are waiting
11 too long have a tendency to start running red lights if the
12 intersection has too much delay so I'm trying to get my head
13 around all the coordination that a lot of the traffic
14 signals also have on corridors.

15 COMMITTEE CHAIRMAN BAHADORI: Any others?
16 Mr. Patterson.

17 COMMITTEE MEMBER PATTERSON: Yes. I understand
18 the -- I guess what I appreciate is the variation that you
19 can have in the design of intersections as we have been
20 lobbing back and forth. And it kind of for me just
21 strengthens my opinion that this is really something that
22 should remain in the guidance section and not go back and
23 make the change in the actual wording of the -- the section
24 that we just approved.

25 And the reason I used 100 feet, by the way -- and

1 it could be 150. I don't think it's 200 or 250 because I
2 think the characteristics of the traffic behavior, the
3 driver behavior does start to change. But it's simply that
4 it's set at a fairly low threshold for when you don't need
5 to worry about it, I think. So say 100, 150 feet is a place
6 where with a 75 or 100 transition is not a place where you
7 are going to approach and get in dilemma zone in that left
8 turn pocket if you set a 3 second sort of yellow.

9 So I think it's just a matter of alerting the
10 professional to do what we should be doing and making sure
11 we have adapted our signal timing to reflect the actual
12 field conditions and driver behavior. And that being done
13 in the guidance section rather than more specific language
14 in the actual section we just approved.

15 COMMITTEE CHAIRMAN BAHADORI: And especially those
16 shorter left turn pockets are typically in downtown settings
17 or arterials that have very low speeds anyway to begin with.

18 COMMITTEE MEMBER PATTERSON: Right.

19 COMMITTEE CHAIRMAN BAHADORI: So the difference is
20 going from maybe 3 to 3.5 seconds, something like that.

21 COMMITTEE MEMBER PATTERSON: Yes, yes.

22 COMMITTEE CHAIRMAN BAHADORI: It's not like you
23 put a 100 foot left turn pocket on an arterial that has like
24 a 50 miles per hour speed limit. That's typically not what
25 we do.

1 COMMITTEE MEMBER PATTERSON: And San Mateo is a
2 good example of a place where most of ours are in that 100
3 feet, maybe, 150 almost exclusively throughout the town.
4 Having had the foresight to build complete streets, you
5 know, 50 years ago.

6 COMMITTEE CHAIRMAN BAHADORI: Or as we call them,
7 inadequately designed.

8 (Laughter.)

9 COMMITTEE CHAIRMAN BAHADORI: Mr. Ciccarelli.

10 COMMITTEE MEMBER CICCARELLI: I am pleased to have
11 so many municipal traffic operations experts on the
12 Committee because I am pleased to defer to my colleague
13 Bryan who has the experience that I don't have as a signal
14 operations engineer. So I want to commend the work of the
15 subcommittee but I have been listening and not giving input
16 for a good reason here. I think the work has been done
17 well.

18 COMMITTEE CHAIRMAN BAHADORI: Great, thank you.

19 COMMITTEE MEMBER PATTERSON: If we're ready for a
20 motion I would attempt one.

21 COMMITTEE CHAIRMAN BAHADORI: I would love to see
22 if someone has a motion on the issue of the turn pockets so
23 we can get a second and actually have a good discussion.
24 Go.

25 COMMITTEE MEMBER PATTERSON: Okay. I would move

1 the language as provided on page 13 of the agenda packet for
2 both the guidance and the option, with the only change being
3 additional language to be prepared by Caltrans that would
4 emphasize the need for the practitioner to pay particular
5 attention to exclusive turn lanes that are 150 feet or more
6 in length. So if they are more than 150 feet we are just
7 calling attention to them and asking for those tools to be
8 used to evaluate appropriate settings for yellow times at
9 intersections.

10 COMMITTEE CHAIRMAN BAHADORI: There is a motion.
11 Is there a second?

12 COMMITTEE MEMBER WINTER: I'll second.

13 COMMITTEE CHAIRMAN BAHADORI: There is a motion
14 and a second. Now discussion. Devinder, you had your hand
15 up.

16 COMMITTEE SECRETARY SINGH: I think we can work on
17 that. It's not changing too much but we can --

18 COMMITTEE CHAIRMAN BAHADORI: Yes. Because you're
19 basically using the -- it still keeps the language under
20 guidance, it doesn't change it either to option or standard,
21 keeps it in the guidance. But where it says "and actually
22 driving the protected left-turn or protected right-turn
23 movements to assess the need for longer yellow change
24 intervals." We'll insert the language specifically for
25 pockets that are longer than 150 foot, something like that.

1 So that it gives it more visibility, a higher order of
2 visibility. That if your pocket is longer than 150 foot you
3 really need to pay attention. And that excludes a whole
4 bunch of left turn pockets that you don't need to worry
5 about because it deals with low speed arterials and more
6 downtown settings. Mr. Winter.

7 COMMITTEE MEMBER WINTER: And I agree with that.
8 I think now I will be maybe a little editorial with what is
9 actually in here. If I could suggest then the term
10 "consider appropriate engineering" instead just say
11 "exercise engineering judgment." The term "appropriate"
12 seems a little judgmental.

13 COMMITTEE CHAIRMAN BAHADORI: Yes. Yes.

14 COMMITTEE MEMBER WINTER: So if it could just say
15 "should exercise engineering --"

16 COMMITTEE CHAIRMAN BAHADORI: That is a very good
17 suggestion. So the suggestion is rather than saying
18 "consider appropriate" just delete "consider appropriate"
19 and just say "exercise."

20 COMMITTEE MEMBER WINTER: "Exercise engineering
21 judgment." And then at the end of that same sentence to
22 just strike "to the extent feasible" since that seems to
23 also give the practitioner a little bit of an out.

24 COMMITTEE CHAIRMAN BAHADORI: Yes.

25 COMMITTEE MEMBER WINTER: And we are really

1 telling them, we don't want you to take that out, we expect
2 you to follow the next statements that are made in that.

3 COMMITTEE CHAIRMAN BAHADORI: So just to delete
4 "consider appropriate" replace with "exercise." And also
5 after the comma where it says "to the extent feasible"
6 delete that and we'll change that comma to period.

7 COMMITTEE MEMBER PATTERSON: I would modify --

8 COMMITTEE CHAIRMAN BAHADORI: Do you consider
9 modifying your motion?

10 COMMITTEE MEMBER PATTERSON: I would modify the
11 motion, yes.

12 COMMITTEE SECRETARY SINGH: Larry, could you
13 please e-mail me your language that you want to insert.

14 COMMITTEE MEMBER PATTERSON: Sure. Sure.

15 COMMITTEE SECRETARY SINGH: Thank you.

16 COMMITTEE CHAIRMAN BAHADORI: Okay, so there is a
17 motion that has been amended, friendly. It says the
18 practitioner should exercise rather than "consider
19 appropriate" engineering judgment. And also delete "to the
20 extent feasible" and stop the sentence at the end of
21 "Interval." And also add 150 foot to the part of the
22 paragraph that says actually driving the protected left-turn
23 and protected right-turn movement. The motion has been duly
24 seconded; is there any more discussion?

25 COMMITTEE SECRETARY SINGH: No.

1 COMMITTEE CHAIRMAN BAHADORI: Seeing none, all
2 those in favor say aye.

3 (Ayes.)

4 COMMITTEE CHAIRMAN BAHADORI: Opposition?
5 Abstention?

6 Seeing none that motion passes unanimously also.

7 Okay, to the third item, the issue of the grades.
8 The language you have in front of you is pretty much silent,
9 we haven't done any changes to what it says other than
10 moving it from option to the guidance. Do we want to do
11 anything more with the grades? There are a host of
12 recommendations, some going very detailed like what Monica
13 Suter provided with a table and all that and I think
14 Mr. Beeber also submitted a table that is very much in
15 detail.

16 MR. BEEBER (FROM THE AUDIENCE): It references ITE
17 (inaudible).

18 COMMITTEE CHAIRMAN BAHADORI: Yes. And there is a
19 methodology to it and all that.

20 Do we want to -- okay, is there anyone who wants
21 to have a discussion on that?

22 Yes/no? We just leave it as is?

23 Okay, I don't see any interest on the Committee to
24 even discuss the issue of the grade so --

25 COMMITTEE SECRETARY SINGH: Just a minor comment.

1 Before we were not even talking in the option for the grade
2 but now we included it under the guidance.

3 COMMITTEE CHAIRMAN BAHADORI: Under the guidance.
4 That gives it more visibility. Guidance are things -- the
5 difference between guidance and option, guidance you really
6 need to take a look at and then say why you didn't consider
7 it. Okay, so we don't deal with the issue of the grade.

8 On the issue of the reaction time. The current
9 manual uses one second. There are some research that go to
10 1.4, 1.6 in some states that have considered it. Do we want
11 to look at the issue of the reaction time?

12 I don't see any interest. If there is no interest
13 it means I am not going to have seven votes to change
14 anything so I am not going to go there.

15 On the issue -- let's see. Okay. By the way,
16 these tables and the calculations, Caltrans' stuff,
17 especially Martha, you're here. We would like to make sure
18 that these numbers are double-checked, triple-checked and
19 all that so that before we go to print that the calculations
20 are done properly. I know that Mr. Rastegarpour, you were
21 out of office, he was very helpful putting this stuff
22 together and sent it to me to meet the deadline. But just
23 to make sure that we double-check the calculations and all
24 that. Okay.

25 The last item I think that I have is the

1 implementation schedule. On the implementation schedule
2 there were some discussions in the subcommittee, not a whole
3 lot. Initially we thought that maybe 12 to 18 months should
4 be adequate but then Caltrans' stuff came back to me and
5 said that, well, we are doing a similar thing on the issue
6 of the 4 second and 3.5 second for ped crossing time. And
7 it takes much longer than you think and it's going to be
8 challenging to do all these in 12 months. And I figured
9 that, well, if Caltrans with all their resources, they can't
10 do it in 12 months then it's probably going to be a pretty
11 onerous requirement to put it on a city that don't even have
12 their own traffic staff and they are relying on consultants
13 to get it done.

14 So there was a suggestion to maybe do a two tiered
15 kind of approach. To give it a longer, general
16 implementation time of maybe about three years that Caltrans
17 suggested but have a shorter implementation time for
18 locations that have a red light camera or cities that have
19 only a few traffic signals. On the cities that have few
20 traffic signals, I don't know if it's actually good or not
21 because those are the cities that really need the longer
22 time because they don't have their own staff, they have to
23 hire a consultant to do it for them.

24 So on that if there are any thoughts in any
25 direction you can provide to Caltrans.

1 MR. BEEBER: Mr. Chair?

2 COMMITTEE CHAIRMAN BAHADORI: Yes.

3 MR. BEEBER: I'm going to --

4 COMMITTEE CHAIRMAN BAHADORI: I'm sorry, it's
5 closed for the public.

6 MR. BEEBER: Can I just ask a quick question then?

7 COMMITTEE CHAIRMAN BAHADORI: Sure.

8 MR. BEEBER: Since that was not mentioned prior to
9 opening --

10 MR. BHULLAR: To the podium, please.

11 COMMITTEE CHAIRMAN BAHADORI: We are going to make
12 an exception on this but when we close the public hearing we
13 don't hear from the public except staff.

14 MR. BEEBER: But my question was, since that item
15 was not brought up prior to opening the discussion for the
16 public --

17 COMMITTEE CHAIRMAN BAHADORI: That's true.

18 MR. BEEBER: I was wondering if you would
19 entertain kind of one moment of public comment?

20 COMMITTEE CHAIRMAN BAHADORI: Fair point. Please
21 go ahead.

22 MR. BEEBER: Thank you so much.

23 So in terms of the implementation schedule. I had
24 presented the Committee with a suggestion that was based on
25 what Florida did when they increased their yellow light

1 times based on an additional four-tenths of a second
2 reaction time. And I think it makes reasonable sense to
3 give for generalized intersections however much time
4 Caltrans feels is a good time for cities.

5 In the meantime, there are locations that maybe
6 only have one place with red light cameras but they're
7 giving out thousands and thousands of tickets because as we
8 have decided here today that the yellow light time might not
9 be exactly appropriate. And in those places, you know,
10 there is a real world implication of \$500 tickets for people
11 every single day that this is happening.

12 So I would urge the Committee to please consider
13 moving up the time frame for those locations. And that,
14 there's a chart that I had presented to you that you can
15 look at. You can see how many cities have how many red
16 light camera intersections so you can see what the relative
17 effect was. My recommendation was for the ones with fewer,
18 six months or so, maybe nine months, whatever. Cities with
19 larger amounts like, you know, maybe over 15 or whatever,
20 then -- there's not that many that fall into that category.
21 Then give them, you know, a little bit longer, say up to a
22 year. But give them a metric halfway through so they don't
23 just wait until the end of the year to get it done.

24 And that was my recommendation. Thank you so much
25 for adding the -- allowing me to comment.

1 COMMITTEE CHAIRMAN BAHADORI: Thank you. And just
2 thing to remind us is that AB 612, should it have been
3 passed this year, Governor Brown would have signed it in
4 September. And if it had an urgency clause attached to it,
5 which I don't think the bill had, it would have been
6 effective right as soon as he signs it. But otherwise it
7 would have become effective January 1st, 2015. So the red
8 light cameras would have added yellow timing January 1st,
9 2015 if the bill would have passed both chambers and if the
10 Governor had signed it.

11 So anyway, on the issue of the implementation I
12 would like to hear from the rest of you. Mr. Winter.

13 COMMITTEE MEMBER WINTER: And more, I guess, of a
14 question then to Caltrans and my colleagues from the
15 counties and cities. Our actions here, I mean, still are
16 subject to approval by the Caltrans Director.

17 COMMITTEE CHAIRMAN BAHADORI: Absolutely.

18 COMMITTEE MEMBER WINTER: And that is going to
19 take a period of time, I suppose. And then at some point
20 once the changes are accepted, assuming the changes are
21 accepted by the Director, we don't typically do this, do we,
22 that it's communicated out by Caltrans to all the cities,
23 all the counties. But maybe in this circumstance we might
24 want to factor that in that it's communicated out,
25 especially to those cities that seem to have been pre-

1 identified as having locations with photo enforcement.

2 COMMITTEE CHAIRMAN BAHADORI: On this one the way
3 that it works is that once we make a recommendation to the
4 Caltrans Director, obviously the Director is the vested
5 authority according to the vehicle code to make the change.

6 Now we do it two ways. If it's something that we
7 want to get implemented right away the Caltrans Director
8 issues a policy directive, like we did with the speed limits
9 and like we're doing with the red light camera and all that.
10 And I think and my hope is that this is going to be
11 processed as a policy directive. If it is not something
12 urgent like some --

13 COMMITTEE SECRETARY SINGH: May I?

14 COMMITTEE CHAIRMAN BAHADORI: You will get your
15 turn, hold your horses. Hold your horses, don't worry. I
16 saw your hand, you don't need to --

17 Then if it's not a policy directive then the
18 changes are incorporated in the next revision of the MUTCD
19 whenever we typically do compliance with the federal manual
20 at some time.

21 So in this one if the Director approves the
22 recommendations then it's at the discretion of the Director
23 when he wants to issue his policy directive. And then
24 usually in the policy directive it says what is the
25 effective date and what is the implementation schedule. So

1 if you have any recommendations about the implementation
2 schedule the staff can take it to the Director.

3 COMMITTEE MEMBER WINTER: Yes. And I guess I'm
4 talking just how it's communicated.

5 COMMITTEE CHAIRMAN BAHADORI: Yes.

6 COMMITTEE MEMBER WINTER: I'm not down there to
7 that discussion yet but just how it's communicated out.

8 COMMITTEE CHAIRMAN BAHADORI: Yes.

9 COMMITTEE MEMBER WINTER: Because I certainly know
10 when we approved the 2012 changes to the manual there were
11 other factors regarding signal timing that changed. And
12 clearance intervals for pedestrians. We have been and a lot
13 of agencies are dealing with bicycle detection and so there
14 may be some changes that are being made to traffic signals
15 to account for the need for bicycle detection that we are
16 implementing.

17 COMMITTEE CHAIRMAN BAHADORI: Absolutely.
18 Mr. Singh.

19 COMMITTEE SECRETARY SINGH: In this case we will
20 not issue a policy directive because it takes too long.
21 Since we are going to update the CA MUTCD in June, June of
22 this year, so we will include this policy in the CA MUTCD.

23 And about the implementation. We suggest -- I
24 talked with Martha. We recommend 12 months for the red
25 light cameras and 3 years for the overall. And I will ask

1 Johnny to explain. We usually put that at the beginning of
2 the CA MUTCD, implementation schedules.

3 COMMITTEE CHAIRMAN BAHADORI: Mr. Bhullar.

4 MR. BHULLAR: Johnny Bhullar with Caltrans.
5 Basically I just want to think -- help the Committee in
6 terms of the time line and make their decision as to how
7 they are going to proceed. Right now we are up against our
8 June 13th deadline for issuing the revision to the manual.
9 So anything either that gets recommended at this meeting or
10 the next meeting we will have time to incorporate it on or
11 before June 13th as the official policy for California. And
12 I would say if we pursue the traffic operation policy
13 directive route it might take longer. So at least that's
14 the opportunity that is there.

15 And regarding the implementation dates, once the
16 implementation dates are determined, yes, in the direction
17 part we have a table with compliance dates and that's where
18 we would normally add this. Up front so that it doesn't get
19 lost in the pots or later on in the text of the large
20 document.

21 COMMITTEE CHAIRMAN BAHADORI: Johnny, so June
22 13th. So the one year will start from June 13th, 2014 and
23 the red light cameras will have until June 13th, 2015 to
24 comply?

25 COMMITTEE SECRETARY SINGH: Correct.

1 MR. BHULLAR: No, I am just talking about the June
2 13th date as the date when we are going to issue the
3 revision to the manual. I'll let the Committee decide as to
4 what time frame and the gaps you want for the
5 implementation. Whichever dates you tell us and recommend
6 to Caltrans and it's agreed upon here, that's the date. It
7 could be a January 1st date, 2015, you choose the date.

8 COMMITTEE CHAIRMAN BAHADORI: Okay, thank you for
9 the clarification. So we are not going to go the route of
10 the policy directive. We are going to put it in the manual,
11 assuming that the Caltrans Director concurs with our
12 recommendation. Which in all my ten years here only once he
13 has not concurred with the recommendation of the Committee.
14 So it is going to be in the manual.

15 So let's address two questions. What day, the
16 specific date do we think is appropriate to make a
17 recommendation to the Caltrans Director to put it for
18 compliance with the new requirement for red light cameras;
19 and what specific date do we think is appropriate to put for
20 all signals>

21 COMMITTEE SECRETARY SINGH: Mr. Chairman.

22 COMMITTEE CHAIRMAN BAHADORI: Yes.

23 COMMITTEE SECRETARY SINGH: Since this policy is
24 going to be effective in June 2014, so if you are going to
25 give 12 months then it's going to be June 2015.

1 COMMITTEE CHAIRMAN BAHADORI: We don't have to
2 give 12 months. I am asking the Committee what is your
3 preference in terms of the specific date recommendation that
4 is both reasonable and it also addresses Assemblyman
5 Nazarian's concerns and guarantee so that he doesn't need to
6 pursue his bill any further. Mr. Marshall.

7 COMMITTEE MEMBER MARSHALL: I can only imagine the
8 scenario for large agencies because I have only worked in
9 small ones. But if this might represent any kind of budget
10 implication for a large agency with a lot of intersections,
11 June is hitting right at the wrong time in the budget cycle.
12 So it really wouldn't be reasonable to try to have a new
13 rule take effect in June and be required to be implemented
14 by the following June because it would just absolutely miss
15 the timing for getting it in the fiscal year budget. So it
16 needs to extend a little while into the fiscal year, I
17 think.

18 COMMITTEE CHAIRMAN BAHADORI: So your comment
19 applies to general intersections. And I agree with you and
20 that's why we were thinking about maybe even three years.

21 COMMITTEE MEMBER MARSHALL: Well no, I was
22 thinking for anybody that might be in the scenario of only
23 needing -- of only getting 12 months. I think it needs to
24 be more like 15 or 18.

25 COMMITTEE CHAIRMAN BAHADORI: For red light

1 cameras I personally feel very uncomfortable giving them
2 that much time. Because red light cameras, there are only
3 420 of them in California anyway and they are all by
4 agencies that have a staff that can just get out there and
5 do it June 14th with really budget ramification.

6 COMMITTEE MEMBER MARSHALL: Okay.

7 COMMITTEE CHAIRMAN BAHADORI: Because it's
8 salaried staff. They don't need to hire a consultant, they
9 just get out there and change the yellow timing, I don't
10 mean to sound unreasonable by exaggerating and saying June
11 14th but technically they can do it if they want to.
12 Mr. Bhullar.

13 MR. BHULLAR: Johnny Bhullar with Caltrans. Just
14 a quick comment on that, the date. I would recommend not to
15 go with the June 13th type of date because in the past the
16 California=created compliance dates that we did create in
17 the past, they have been January 1st as the CVC dates go.

18 COMMITTEE CHAIRMAN BAHADORI: Okay.

19 MR. BHULLAR: The June 13th date comes from the
20 feds. And I might issue the manual a little bit before that
21 so I don't want at least that date to be tied to something.

22 COMMITTEE CHAIRMAN BAHADORI: So is that -- just
23 for purpose of discussion, I am not making a motion at this
24 point. And I usually don't like the Chair making a motion
25 anyway so I wouldn't. But just for purpose of discussion is

1 that reasonable if we suggest January 1st, 2015 for red
2 light cameras and then go January 1st, 2017 for all the
3 signals, which gives them about 2.5 years.

4 COMMITTEE MEMBER WINTER: I think that seems
5 reasonable. The reason I was asking about my colleagues
6 from, say, the League of Cities and then us from the
7 counties is, you know, certainly we should be in
8 communication now.

9 COMMITTEE CHAIRMAN BAHADORI: Sure.

10 COMMITTEE MEMBER WINTER: Even leaving today as we
11 leave this meeting to let our member agencies know that this
12 is perhaps coming and to give them some anticipation to
13 start planning for it.

14 COMMITTEE CHAIRMAN BAHADORI: Because that is a
15 very good suggestion by Mr. Winter. And if we push it to
16 like January 1st, 2017, that gives everybody ample time.
17 That's like two budget cycles, so even if they have to do
18 some consultant services they can put it in their budgets.

19 COMMITTEE MEMBER MARSHALL: So if I may just say,
20 I appreciate the distinction that I overlooked in my earlier
21 comments and I am fine with what you are suggesting.

22 COMMITTEE CHAIRMAN BAHADORI: Mr. Greenwood.

23 COMMITTEE VICE CHAIRMAN GREENWOOD: I would like
24 to make a motion to mirror the Chair's suggestion that the
25 implementation be January 1st, 2015 for intersections

1 equipped with red light cameras, January 1st, 2017 for all
2 other signalized intersections.

3 COMMITTEE CHAIRMAN BAHADORI: There is a motion,
4 is there a second?

5 COMMITTEE MEMBER PATTERSON: I second.

6 COMMITTEE CHAIRMAN BAHADORI: There is a motion
7 and a second. Any discussion on the motion?

8 Seeing none, all those in favor say aye.

9 (Ayes.)

10 COMMITTEE CHAIRMAN BAHADORI: Opposition?

11 Abstention?

12 Seeing none the motion passes unanimously. So the
13 recommendation to the Director is to have a deadline of
14 January 1st, 2015 for red light cameras, January 1st, 2017
15 for all signals. Is that okay, Mr. Bhullar?

16 MR. BHULLAR: Yes.

17 COMMITTEE CHAIRMAN BAHADORI: Okay, thank you.
18 Well I think we are done with that item. There is nothing
19 else --

20 COMMITTEE SECRETARY SINGH: Congratulations.

21 COMMITTEE CHAIRMAN BAHADORI: Pardon?

22 COMMITTEE SECRETARY SINGH: Congratulations.

23 COMMITTEE CHAIRMAN BAHADORI: Thank you.

24 Thank you all for your participation in the
25 subcommittee and all that.

1 Do we want to break now? Let's have a 15 minute
2 break and we'll come back. Thank you.

3 (Off the record at 10:10 a.m.)

4 (On the record at 10:26 a.m.)

5 COMMITTEE CHAIRMAN BAHADORI: We are on the
6 record. Let's call the meeting back to order, please.

7 We are going to start with the remainder of the
8 agenda. Mr. Singh, we are going to go to Item 14-05. That
9 is the Adopt Interim Approval issued by FHWA for Optional
10 Use of a Bicycle Signal Face. This is a Caltrans item and
11 there has been some communication between the Caltrans staff
12 and the Caltrans Bicycle Advisory Committee, CBAC.

13 Mr. Singh, what is the status on that?

14 COMMITTEE SECRETARY SINGH: Mr. Chairman, John
15 Ciccarelli wanted a discussion on this item, however, we
16 will not take any action today, we want to do that at the
17 next meeting. It will be on the agenda for the next meeting
18 but John wanted to have some discussion for this meeting.

19 COMMITTEE CHAIRMAN BAHADORI: The reason that you
20 don't want any action by the Devices Committee, is that
21 because of the CBAC request not to make a decision or there
22 is another reason?

23 COMMITTEE SECRETARY SINGH: CBAC wanted -- instead
24 of adopting interim approval they want to -- they are
25 preparing some sort of language which we can include in the

1 CA MUTCD. Instead of -- we already have bicycle signal face
2 guidelines in the CA MUTCD so we do have s standard right
3 now. However, the federal language is very, very loose,
4 there is no requirement. So anybody can put wherever they
5 want a signal face -- a bicycle signal face. So CBAC is
6 coming up with some sort of language which marries to our
7 existing language and the FHWA language. So they said they
8 don't have time to give us the language by this meeting but
9 they definitely have something by the next meeting.

10 COMMITTEE CHAIRMAN BAHADORI: Okay,
11 Mr. Ciccarelli.

12 COMMITTEE MEMBER CICCARELLI: Thank you. I'd like
13 to use some of the Committee's time to bring you up to
14 speed. This is turning out to be a more complicated issue
15 than just an up or down vote on adopting the Federal
16 Highway's Interim Approval 16. So I want to spend some time
17 going over the history very briefly of bicycle signals in
18 California and then bring you up to the current date and
19 what's happening, especially in the last few months and as
20 we approach not only Johnny's deadline for changes to the CA
21 MUTCD in that interim, sort of a mid-course change, but also
22 the federal time line towards the 2016, probably 2016 US
23 MUTCD, which then becomes the CA MUTCD in something like 20
24 days.

25 The background here is that bicycle signals, or

1 more specifically bicycle signal faces - I learned some
2 terminology myself - are usable in California but on a very,
3 very restricted way. A bicycle signal in California MUTCD
4 can only consist of bicycle shaped indications of signal
5 terminology. We think about a signal as the thing we face
6 when we approach an intersection but a signal is the whole
7 assembly that faces all approaches. The part that faces our
8 approach is called a face and a face is composed of one or
9 more sections, also known as indications. Although
10 indication is really what the section shows. A section is
11 the thing that shows the indication. So a conventional
12 traffic signal with three shapes, red, yellow and green, is
13 a face, facing me, and I see three indications.

14 Now, faces can be more complicated than that.
15 They can have arrow indications, they can have multiple
16 columns of sections. They may have back plates, they may
17 have visibility-limiting devices if there was an indication
18 it might confuse a motorist or a user in an adjacent lane or
19 set of lanes. There's complicated combinations that can
20 result, as you will quickly find out if you read Part 4 of
21 the MUTCD, the signals part.

22 In California currently the use of bicycle signal
23 faces, which are called "bicycle signals" in the CA MUTCD,
24 is very, very restricted. It's only a three section head, a
25 three section face, and the faces -- the indications

1 themselves may only be bicycle shaped symbols. So
2 prohibited or not even addressed are cases where you might
3 want to restrict or control the turning movement of a
4 bicyclist by use of an arrow section. Or possibly use a
5 circular indication to control both motorist movements and
6 bicycle movements.

7 So the interim approval goes into all this detail.
8 Its level of detail and complexity and nuance is very
9 similar to the existing content in the signals part of the
10 MUTCD so it's really bringing bicycle signal faces up to
11 full, first class citizenship in Part 4. There are some
12 things that it prohibits, and I'll get back to that, but it
13 really is an attempt to bring bicycle control and the
14 signals part up to speed with the rest of the signals part.

15 So it goes beyond California in a couple of ways.
16 It allows four and five section heads, it allows doghouse
17 heads, doghouse faces like the upper right hand one where
18 you've got both a through indication and a turning control
19 indication.

20 Also it introduces something that is not often
21 seen in US signal practice. It's allowed but it's more
22 relevant to bicycle practice. A hear side supplemental
23 indication. If you have a big intersection and it's hard to
24 see across the intersection to see the bicycle indication
25 it's allowable under the interim approval language to also

1 add a supplemental indication on the near side corner. So
2 the bicyclist approaching the intersection can see before
3 they enter a big intersection and perhaps get caught out
4 there without sufficient clearance time.

5 So interim approval is something that Federal
6 Highway doesn't do very often. It's only done where there
7 is a perceived urgency and a demonstrated or satisfied
8 feeling that this device is immediately useful and shouldn't
9 have to wait for application until the next MUTCD, which as
10 we know can take several years to happen.

11 Recent interim approvals that were relevant to my
12 specialty include IA 11, which was the rapid flashing
13 beacon. This is a highly effective device for conveying
14 pedestrians to cross the street without having to use a full
15 signal. And that was ultimately approved by this Committee
16 once there were multiple vendors and some other issues were
17 resolved.

18 Interim Approval 14. By the low number of
19 approvals you can tell that they don't do this a lot.
20 Interim Approval 14 was for the use of green pavement color
21 in the specific context of bike lanes, what we call the
22 Class II facilities, but not for bike boxes and not for
23 shared lane markings. And that was seen as non-contentious
24 and adopted.

25 With any interim approval the Federal Highway

1 issues a memo, an interim approval memo, and the memo offer
2 locals agencies the ability to apply on an individual agency
3 basis to get permission from Federal Highway. So it doesn't
4 say go ahead and apply it, it says you may apply to use it.

5 In that same memo the state DOT is offered the
6 option of either applying to Federal Highway use on all
7 state facilities or for all agencies statewide. And that
8 was the course that Caltrans took with the other two interim
9 approvals that I mentioned.

10 So what is before us or will be before us is
11 whether to follow the same course here in California. I ran
12 this by some of my colleagues in the non-motorized world,
13 including the Caltrans District 4 Bicycle Advisory
14 Committee, which is a group of professionals and advocates
15 who advise District 4 on matters in the greater San
16 Francisco Bay Area. And also the state Bicycle Advisory
17 Committee, which had a hand in the language that is
18 currently in the CA MUTCD.

19 And a couple of issues came up. One was that the
20 interim approval, although it really expands the usability
21 of the bicycle single face and makes possible certain
22 applications that are not possible right now, it also has
23 beneficial effect in that it doesn't have the very
24 restrictive warrants that are in the CA MUTCD. It doesn't
25 introduce any warrants beyond what is already in the signals

1 part. So those would seem to be good things.

2 But it specifically prohibits the use of bicycle
3 signal faces to augment pedestrian hybrid beacons. Why is
4 that? Well, a pedestrian hybrid beacon, for those of you
5 that don't apply these a lot, is a signal light device that
6 is used to convey pedestrians across a major street, at a
7 location where you don't want to incur the delay penalty of
8 a full-on traffic signal. It can be used with a median
9 refuge to create two half-crossings that have much higher
10 performance for the arterial than a full-on signal. It's in
11 part 4F of -- in Chapter 4F of the MUTCD, so this is an
12 adopted device.

13 What's happening is that cities such as Berkeley,
14 well many cities actually, want to use this device but also
15 convey bicyclists across the big street at the same
16 location. It gets tricky, though, because the indication
17 shown to the pedestrian on the minor leg is a conventional
18 pedestrian head. There is a solid hand for "don't start
19 across" and a flashing hand combined usually with a
20 pedestrian countdown for "okay, the clearance interval has
21 begun. If you are already in the crossing continue
22 crossing; if you are not in the crossing don't start
23 crossing" okay.

24 During the clearance phase the motorist on the
25 major street or the driver on the major street, it could be

1 a bicyclist, is seeing a flashing red indication. Two
2 flashing red indications. So from a legal perspective, that
3 is a stop sign. It says, you may stop and proceed if there
4 is nobody to conflict with.

5 So if you imagine what the bicyclist is trying to
6 decide as they approach the minor street leg or the mid-
7 block leg, they're seeing a countdown signal, okay. So
8 they're saying, this is a pedestrian signal, I can -- i've
9 got time, I can make it across. But if they enter the
10 crossing the motorist on the conflicting leg is getting a
11 stop sign indication saying, okay, I didn't see anybody, I
12 can proceed.

13 There is potential safety conflict there. So it
14 is not at all clear how you would combine a bicycle signal
15 face and transition the indications of the bicycle signal
16 face to do the right thing from a safety perspective when
17 combined with the pedestrian signal indication. Eric at the
18 city of Berkeley thinks he's got a phase sequence that works
19 but it's not at all clear that this is going to get
20 compliance or be understood so there's a question mark
21 there.

22 Another use that's prohibited in the interim
23 approval is the use of bicycle signal faces to create what's
24 called a scramble phase. A scramble phase is something that
25 is used at pedestrian-intensive intersections where all

1 other traffic is held off with a red indication, including
2 turning movement, typically, while pedestrians are allowed
3 to go, either on the four conventional crosswalks or even
4 diagonally cross the intersection. I don't have a lot of
5 strong feelings either way about the need for bicycle
6 scrambles. I think that there are very few intersections,
7 except perhaps in Davis, where you'd see that kind of
8 bicycle intensity. Well, I should say San Francisco too.
9 But that's not as big a thing as, in my mind, the pedestrian
10 hybrid beacon.

11 So because -- I'd say largely in part because the
12 pedestrian hybrid beacon is a desirable device to combine
13 this thing with, there has been resistance in the California
14 bodies I've talked with to following the same course or
15 requesting that CTCDC request Caltrans to follow the same
16 course as with these other interim approvals, namely to just
17 go ahead with blanket approval statewide.

18 So I wanted to explain what activity is going on
19 and the time line for that activity and then bring this back
20 with more information at our next meeting.

21 The long time line goes back to Item 90-07 before
22 this committee. That would be 1990 so it's 24 years ago.
23 The city of Davis brought a request to experiment. And the
24 reason they thought they needed this device was because of
25 UC Davis. There is enormous bicycle traffic coming in and

1 out of campus on the top of a T intersection at Richards and
2 Sycamore, if I recall correctly. I've probably got the
3 names wrong.

4 Anyhow, there is so much bike traffic there was a
5 lot of conflict and it was felt that by signaling
6 bicyclists across the intersection exclusively the safety
7 could be greatly improved, and it was. That turned into a
8 request to experiment and the experiment proceeded through
9 1996, was deemed successful. Warrants were developed for
10 the use of this device.

11 The fear was that cities and counties would
12 willie-nillie apply bicycle signals not to make it easier
13 for bicyclists but to restrict their movements in the
14 general sense. So the California Bicycle Advisory Committee
15 was very concerned about that and participated in the
16 development of what turned out to be rather restrictive
17 warrants.

18 There are three conditions in the CA MUTCD for the
19 application of a bicycle signal. The first one is a volume
20 condition. The product of the peak hour entering volume of
21 motorists -- motor vehicles, multiplied by entering
22 bicyclists must exceed 50,000. That's a lot of motor
23 traffic and a lot of bicycles.

24 The second condition, which can be used in
25 combination with the volume condition, is a collision

1 warrant. Basically you have to have a collision history.
2 Well, this kind of gets into the chicken or the egg situation
3 because at a lot of these potential intersections for
4 application you don't have a device yet. So how do you have
5 a collision history when you don't have experience?

6 And the third one is a geometric warrant. It's
7 stated as a warrant currently but it really reads a lot like
8 conventional MUTCD language as to what kinds of intersection
9 topologies this device should be considered for application.
10 I don't have a lot of heartburn with that one, I think that
11 sort of belongs in a signals chapter.

12 The net result has been because of the volume and
13 collision warrants these haven't been applied a lot. In the
14 last decade, however, there has been a concerted effort to
15 look to devices that have been in use in Northern Europe in
16 highly bicycle-successful countries and cities and bring
17 that innovation to the United States. You may have heard
18 the term NACTO, National Association of City Transportation
19 Officials. Specifically, the NACTO Urban Bikeway Design
20 Guide has really done an end run around the MUTCD as a
21 design guide and popularized the use of such facilities as
22 cycle tracks on major streets in downtowns.

23 A cycle track is basically a largely physically
24 separated bikeway on a street or adjacent to a street where
25 the bicyclists are then brought to an intersection and

1 conveyed through the intersection in an exclusive or semi-
2 exclusive fashion. To do that safely you need something
3 like a bicycle signal face. So the restrictions in the CA
4 MUTCD and the complete absence of bicycle signal faces in
5 the federal MUTCD is now a hindrance to the adoption of
6 cycle tracks, which have worthy applications in many city
7 contexts.

8 So Federal Highway has been getting pressure on
9 this and has considered the matter and decided that rather
10 than wait for 2016 that they would go ahead with interim
11 approval. That's really what is, to my understanding,
12 driving the interim approval. Those same pressures to get
13 cycle tracks and bumpered bike lanes and that standardized
14 in the United States are causing interest in that same thing
15 at District 4 BAC and California BAC. So it's a hot topic.

16 So it comes down to what should be done now that
17 Federal Highway has issued Interim Approval 16. One option
18 would be just to issue blanket interim approval or request
19 blanket interim approval.

20 The other wild card here is that the Federal --
21 excuse me. The national technical committees that form the
22 volunteer advisory brain trust that advises Federal Highway
23 through what's called the National Council on Uniform
24 Traffic Control Devices, the two committees responsible for
25 such content, which will be the Bicycle Technical Committee

1 and the Signals Technical Committee. They have been working
2 close with Federal Highway at the national level to: A,
3 advise Federal Highway on the content of what became Interim
4 Approval 16. And then now in the present day, to respond to
5 what Federal Highway put out and craft draft MUTCD language
6 for the 2016 -- I'm just going to call it 2016 MUTCD.

7 That is actively underway and there is a ballot,
8 an electronic ballot draft out right now produced in ready-
9 to-go form by Bicycle and Signals Technical Committee
10 jointly. That's going into electronic balloting between now
11 and the June meeting of the NTCDC. If it passes the
12 committees, as I hope and believe that it will, the next
13 step would be also before the June meeting to send it out to
14 sponsors.

15 Now the process at the national level is that
16 after a technical committee or technical committees jointly
17 create a piece of MUTCD content it's run by agencies and
18 sponsors such as AAA, such as AASHTO, such as the League of
19 American Bicyclists and the Association of Pedestrian and
20 Bicycle Professionals. This is called the sponsor comment
21 loop. Once it comes back from the sponsors, some of those
22 sponsors may say, I liked it, I didn't like it, others may
23 say, have you considered this.

24 And so those things are resolved with another
25 short round of technical committee work. That has already

1 been scheduled for the June meeting so it's expected that if
2 this voting draft is voted electronically and goes out to
3 sponsors that there will be time at the June meeting to
4 resolve sponsor comments and take it to the next step, which
5 is the National Council.

6 The National Council is the other thing that
7 happens at these semi-annual meetings where proposals that
8 have been brought out of the technical committee either
9 prior to their run-through sponsors or after their run-
10 through sponsors, are then blessed by the larger body for
11 sending on to FHWA. If it passes out the National Council
12 in June it's on its way to adoption in the 2016 MUTCD.
13 Federal Highway still gets to weigh in and there is still a
14 round of public comment at the national level called the
15 Notice of Proposed Amendment. But more or less it's on a
16 glide path to the 2016 MUTCD.

17 So the people that have been working on it, myself
18 in league with Eric Anderson, City of Berkeley, Michelle
19 DeRobertis who is on the Bicycle Technical Committee and is
20 active in the Bay Area and the folks at the California BAC
21 have been trying to formulate something that can get into
22 the CA MUTCD sooner than 2018, 2018 being two years after
23 the expected federal release.

24 With Caltrans's deadline of June 13th for input
25 into the CA MUTCD it's looking kind of dicey, to tell you

1 the truth. because the National committee doesn't meet
2 until the latter part of June, so we won't have the benefit
3 of what comes out of national. But what we will have is the
4 raft that comes out of the electronic balloting and possibly
5 what comes back from sponsors to inform possible parallel
6 California action that might get in under our current state
7 MUTCD revision deadline.

8 If it sounds complicated, it is. There is a
9 combination of urgency and this willingness and interest in
10 doing something other than blanket adoption of the Federal
11 Highways approval.

12 I haven't formulated my own decision on this.
13 Originally I thought it was a good idea not to go after
14 federal interim approval because of the pedestrian hybrid
15 beacon thing because I really do think that is a very
16 legitimate application. But the more I look into the
17 phasing sequence that would be needed to really do the right
18 thing from a safety perspective and a compliance
19 perspective, it's not straightforward. So I am keeping an
20 open mind while the District 4 track works its way and the
21 CBAC track works its way and stuff comes back from national.
22 And I hope to, with Bryan and others, form more of a
23 position over the next few months but I wanted to bring you
24 all up to speed on what's happening.

25 One response would be, why bother? Why don't we

1 wait for the federal manual to contain this? And the
2 response there is, there is a fairly urgent need to have
3 something more than what we have in the current CA MUTCD.
4 More flexible, more applicable sooner. Because of leading
5 pedestrian interval -- leading bicycle interval, which is
6 not possible now because of the need for arrows, et cetera.
7 So I am going to stay on top of the topic and hopefully
8 continue to be a resource on this and bring it back at a
9 future meeting.

10 We do have input from California BAC saying that
11 they would urge this Committee at this meeting to defer any
12 sort of motions for adoption of the interim approval. That
13 aligns with my thinking on this as well. Thank you,
14 Mr. Chair.

15 COMMITTEE CHAIRMAN BAHADORI: Okay, thank you,
16 Mr. Ciccarelli. Very good, thorough report on the item.
17 Any questions or any discussions on that? There is a draft
18 also that was shared with you from the Caltrans District 4
19 Bicycle Advisory Committee. I hope you have had a chance to
20 look at it. And as it was mentioned, CBAC has also
21 requested that this be deferred. But since it is on the
22 agenda and John gave us such a good, thorough discussion, if
23 you have any thoughts or suggestions you want to share with
24 him or with Caltrans' staff about this issue this might be a
25 good time to do it. Any discussions or questions?

1 COMMITTEE MEMBER CICCARELLI: Mr. Chair, I should
2 provide some comment on what came up from District 4 BAC.

3 COMMITTEE CHAIRMAN BAHADORI: Pardon?

4 COMMITTEE MEMBER CICCARELLI: I should provide
5 some comments on what we just had distributed to us.

6 District 4 BAC, the working group that I have been
7 involved with has been taking kind of a different tack. And
8 that is, trying to craft language that starts with the
9 current CA MUTCD language and modifies it, rather than
10 starting -- using as a starting point the interim approval
11 language. My personal feeling is that I am not sure that's
12 the right approach but that's what you have before you in
13 the memo from District 4 BAC, is something that uses as its
14 starting point current California language and tries to
15 modify it into something better.

16 COMMITTEE CHAIRMAN BAHADORI: Sure. Any questions
17 or suggestions?

18 One question I had was that on the warrants -- of
19 course on the accident probably you're going to go with
20 whatever the vehicle accident warrant, which is 5. And I
21 have always been asked through my career how many kids do we
22 have to get killed at this intersection before we put the
23 signal there. And sometimes I'm tempted to say, well, the
24 manual says 5. But no, I'm just -- I never say that.

25 (Laughter.)

1 COMMITTEE CHAIRMAN BAHADORI: But that's really,
2 you know, that's the approach on the accident warrants.
3 That you need to have documented a problem before you do
4 something there. And whether you agree with it or not
5 that's what you --

6 On the volume of the vehicle, the signals for
7 vehicles, When we do the warrants based on volume, those
8 volumes are the pick out volumes. They are the eight hours
9 that we do and then the (indiscernible) of flow that we do.
10 Those volumes are actually calculated based on gap
11 availability and gap -- what you call gap availability and
12 gap acceptance.

13 So they are basically based on what the high-rate
14 capacity manual does for the gap being there or not being
15 there. And then we use that rule of thumb, 100,000 for the
16 left turn signal with the through movement and the left turn
17 -- conflicting left turn, when we look at it. Again, based
18 on the gap availability and gap acceptance. Do you and your
19 committees look at the volume warrants for the bicycle
20 signals based on the same principles?

21 COMMITTEE MEMBER CICCARELLI: I think with regard
22 to bicycle signals, it's generally not going to be the case
23 that a bicycle signal will be the first installation of a
24 signal at a given location. The bicycle signal face is
25 going to be something that augments an existing signal --

1 COMMITTEE CHAIRMAN BAHADORI: Okay.

2 COMMITTEE MEMBER CICCARELLI: -- when you add a
3 cycle trap or something.

4 COMMITTEE CHAIRMAN BAHADORI: But what I am saying
5 is that, for example, if you want to decide, if you want to
6 tell the practitioner when it is time to look at the need
7 for the bicycle signal phase and you mention the 50,000
8 number, are those numbers being driven also based on the
9 same principles that you do for the traffic signals for
10 vehicles, which is basically gap availability and gap
11 acceptance.

12 COMMITTEE MEMBER CICCARELLI: I have to go back
13 and talk with the people that -- and I did quite a bit of
14 research on this, on the history going back 24 years in the
15 CTCDC minutes and asking my colleagues at CBAC, some of
16 whose own history goes back quite a ways. The best I got
17 was that Dave Pelz and the city of Davis folks were
18 instrumental in the warrant thing.

19 My take on the existing California MUTCD volume
20 warrant for bicycle safety is that it is an attempt to get a
21 conflict volume number. You know, if you have a lot of cars
22 intersecting with a lot of bikes you're going to have a lot
23 of conflicts so they want to set the conflict bar really
24 high.

25 COMMITTEE CHAIRMAN BAHADORI: Okay,

1 COMMITTEE MEMBER CICCARELLI: I think if you look
2 at the federal interim approval, that basically -- that
3 special condition that we have in California would go away
4 and revert to any warrants, if any, that would apply from
5 the existing signals part. I think that's a good approach
6 because the third warrant i California is geometric and it
7 reads like an MUTCD guidance statement. I think that's what
8 really should apply, engineering judgment suitably guided by
9 some guidance language. And make it pretty clear when you
10 should consider one of these things.

11 COMMITTEE CHAIRMAN BAHADORI: Now, just the reason
12 I brought it to your attention is that the signal warrants,
13 quite frankly they are set very low. So what happens is
14 that jurisdictions usually end up with like 70 -- depending
15 on the size of the jurisdiction they end up with tons of
16 intersections that qualify for a signal if you use the
17 signal -- if you use the straight signal warrant they
18 qualify for one warrant or another. And they simply do not
19 have resources to put in all those signals. So what they do
20 is that they come up with a priority list and so many other
21 factors. And when the money becomes available or a
22 development comes in they ask for a signal to be installed.

23 So with this thing you may want to think that when
24 it comes to warrants, you know, a lot of intersections may
25 qualify but then the agencies will not have the money to do

1 the bicycle signals and then they are going to be pushed
2 into a priority system.

3 COMMITTEE MEMBER CICCARELLI: I would like to see
4 the volume warrant go away, I'd like to see the collision
5 warrant go away, and just revert to the standard safety
6 practice. Also the interim approval, I think the draft
7 language coming up through National both disallow the use of
8 this device when the approach is a shared condition.

9 COMMITTEE CHAIRMAN BAHADORI: Okay.

10 COMMITTEE MEMBER CICCARELLI: So it's only going
11 to be bike lanes, it's only going to be buffered bike lanes,
12 cycle tracks, that sort of level of intensity of the bikeway
13 anyway, before this would be considered.

14 COMMITTEE CHAIRMAN BAHADORI: Okay.

15 COMMITTEE MEMBER CICCARELLI: They explicitly
16 disallow a shared lane condition. That's causing some
17 heartburn amongst the California practitioners too. That's
18 probably something that's considered --

19 COMMITTEE CHAIRMAN BAHADORI: Okay.

20 COMMITTEE MEMBER CICCARELLI: Leading them to
21 consider a separate California approach. But that is in the
22 federal language.

23 COMMITTEE CHAIRMAN BAHADORI: Thank you very much.

24 Any questions for John?

25 Hearing none. As this is on the agenda I have to

1 open it to the public. Are there any members of the public
2 -- Mr. Kenney.

3 MR. KENNEY: I do ride my bike to work so I feel
4 qualified to ask, am I going to be able to make a left turn?

5 COMMITTEE CHAIRMAN BAHADORI: Do you want to
6 introduce yourself for the record.

7 MR. KENNEY: I'm sorry. Mike Kenney, County of
8 San Diego, Traffic Engineer. Can I make a left turn on my
9 bike from the bike lane with a bike signal phase?

10 COMMITTEE MEMBER CICCARELLI: This bike lane, is
11 it a bike lane for through movement?

12 MR. KENNEY: Yes, a Class II, it's on the right
13 side of the road.

14 COMMITTEE MEMBER CICCARELLI: Okay. You're
15 allowed under the vehicle code to make a left turn like a
16 car makes a left turn.

17 MR. KENNEY: I don't want to do that. It's a six
18 lane prime, I hate doing that.

19 COMMITTEE MEMBER CICCARELLI: Okay.

20 MR. KENNEY: I want to make a left turn from the
21 bike lane with the bike signal phase. Can I do that?

22 COMMITTEE MEMBER CICCARELLI: This is why the
23 federal interim approval includes arrow indications in the
24 bicycle signal phase. So yes, this is one reason why you
25 might want to consider the use of this expanded definition

1 of the bicycle signal phase.

2 MR. KENNEY: That would be different.

3 COMMITTEE CHAIRMAN BAHADORI: So when the roadway
4 gets intense enough, most people are not going to merge
5 across several lanes of traffic on their bicycle to get into
6 a vehicular left turn lane, it's too scary. I'm an
7 instructor; I will often do that, but there are some roads
8 that are just too hairy for me. So if we are going to serve
9 a broad swath of the cycling public, or the public that
10 wants to consider cycling, sometimes we're going to need to
11 separately signalize the left turn movement by bicycles.
12 There's more to it than that but yes, this is one reason why
13 you'd want to consider --

14 MR. KENNEY: That's good to hear. Don't get rid
15 of the warrants. As a traffic engineer if I don't have
16 warrants I am never going to install that because it's just
17 horrible for traffic. So make sure you have some warrant in
18 there. I appreciate that it puts some limit on when you can
19 use it but without it I have no -- I have no threshold to
20 use it. So be careful with that. Thank you.

21 COMMITTEE MEMBER CICCARELLI: The current warrant
22 -- the current warrant in the bicycle section of the MUTCD
23 for California is not so much something to say when to use
24 it. It's so restrictive that it's when not to use it.
25 Otherwise, it would be used indiscriminately.

1 MR. KENNEY: Well scrapping the warrant system is
2 not going to help implement this. Set it where you need to
3 set it to make it useful for the community. But if there is
4 nothing then it just won't get implemented at all. Thank
5 you.

6 COMMITTEE CHAIRMAN BAHADORI: Mr. Morrissey.

7 MR. MORRISSEY: Sam Morrissey, City Traffic
8 Engineer, City of Santa Monica. Just a point of
9 clarification. So this is a discussion regarding whether or
10 not the Committee will take the FHWA interim approval. I
11 want a point of clarification because our city, Santa
12 Monica, is going to be coming to this board sometime this
13 year or next year with an experiment to utilize some bicycle
14 signal applications with arrows. And we don't want this to
15 impact our ability to do that experimentation and at the
16 same we would prefer to experiment only at the state and not
17 through the FHWA process. So I am wondering if I could get
18 some clarification on how this discussion would impact
19 future experimentation with bicycle signals?

20 COMMITTEE CHAIRMAN BAHADORI: Mr. Bhullar, you
21 want to opine on the whole interaction between our approvals
22 and FHWA interim approvals in general and how it affects
23 this one.

24 MR. BHULLAR: Johnny Bhullar with Caltrans. Yes.
25 Generally speaking, the way we work, at least

1 procedurally on the interim approvals is as most of you are
2 familiar. Basically the feds, when they issue an interim
3 approval their intent is that they do not want to have any
4 further experimentation by any agency throughout the nation.
5 Their mind is pretty much made up and that they have all the
6 information that they need and they are also indicative of
7 that they are pretty much ready to make this policy official
8 in the next version of the manual. However, they are not
9 that far yet and also that they don't want to have the
10 manual as a moving target so they issue an interim approval,
11 meaning, no more experimentation. And within these rules
12 any agency, it's okay for them to start using it.

13 However, in California what we do is as a matter
14 of state law, which is California Vehicle Code 21400 and
15 401, we still have an -- in this case Caltrans as the
16 gatekeeper, so to speak, and this committee pretty much the
17 venue through which we run all our changes to traffic
18 control device policies, rules and regulations. And that
19 way we consult not only with the cities and the counties but
20 as well as the public.

21 So what we try to do is anytime the feds issue an
22 interim approval we, rather than having the agency's request
23 effectively to use a device under the interim approval
24 directly we say that we want to first take a look at it.
25 Does it violate any state law, any vehicle code, any other

1 current policies that we have in California? And if it does
2 then we want to restrict or modify the interim approval. If
3 not then we request directly for the entire state a blanket
4 approval so that this gives us an opportunity at least to
5 take a look and review. And that's, I think, what is
6 happening right here, which is really good.

7 So that we will, as one entity, pretty much the
8 entire state, go ahead with making sure when the interim
9 approval comes into play, in this case for the bicycle
10 signal faces, how does California want to proceed further?
11 And of course ultimately it will end up as official policy
12 in the CA MUTCD, but in the meantime that's the reason why
13 we have it on the agenda. And either we will say we are
14 against the interim approval or modify it for California use
15 or accept it as is and get a blanket approval for any agency
16 that wants to use it in California.

17 COMMITTEE CHAIRMAN BAHADORI: So do you see any
18 value in a city like Santa Monica coming with an independent
19 experimentation request this year?

20 MR. BHULLAR: Well basically if the city of Santa
21 Monica wants to come in with an experiment -- see, right now
22 we are in that small window where we have not as a committee
23 either chosen to agree with the federal interim approval or
24 disagree. So in the meantime, yes, I would say that they
25 can probably request directly from FHWA to seek use of the

1 blanket approval. But if they do that, since we have not
2 taken a decision here yet, it will still be up to the
3 Committee and they should run it parallel to the Committee.
4 But once we reach a decision here then probably you will be
5 under the same rules and you don't have to go through an
6 experiment.

7 COMMITTEE CHAIRMAN BAHADORI: Thank you.

8 COMMITTEE MEMBER CICCARELLI: Johnny, question.

9 MR. BHULLAR: Sure.

10 COMMITTEE MEMBER CICCARELLI: So one outcome
11 conceivable could be that this Committee decides to advise
12 Caltrans not to seek statewide interim approval. But if
13 that decision were made, and I am not necessarily saying I
14 am in favor of that or that we should be in favor of that.
15 Supposing that course were taken would individual local
16 agencies such as Santa Monica still be free to apply for
17 single agency approval under the interim approval?

18 MR. BHULLAR: Devinder, you want to --

19 COMMITTEE SECRETARY SINGH: John, in the CA MUTCD
20 we clearly mention an individual agency cannot request
21 interim approval from the FHWA. Because what happens
22 tomorrow if the city of Santa Monica is using this device
23 and a year from now this committee says we are not going to
24 adopt this device in California? So we want to be
25 consistent. If any agency is going to use in California

1 then Caltrans has to request a blanket approval after the
2 recommendation of this committee. So from now until, you
3 know, this committee makes any decision, no agency should
4 seek blanket approval from the FHWA. And FHWA is denying
5 their request. They say, check with the CTCDC.

6 COMMITTEE CHAIRMAN BAHADORI: Okay, thank you.

7 Anyone else?

8 Okay, we close the public hearing part of it,
9 bringing it back to the Committee. Are there any more
10 thoughts, suggestions you want to share with John?

11 Okay, seeing none, so the item is moved for
12 whenever you bring it back, whenever you're ready, next
13 meeting or --

14 COMMITTEE SECRETARY SINGH: Just for the
15 Committee's clarification. Our Signal Operation Committee
16 did not have any problem asking blanket approval as issued
17 by the FHWA. However, we definitely do to the CBAC request.

18 COMMITTEE CHAIRMAN BAHADORI: Okay, great, thank
19 you. We are done with our public hearing items for the day,
20 we are going to -- we are done with the request for
21 experimentation also, done by National City. We are going
22 to the discussion items, Items 14-07 and 14-08. Mr. Singh.

23 COMMITTEE SECRETARY SINGH: The reason I put this
24 item on the agenda -- I appreciate Jim Lissner, he always
25 brings some good stuff to the Committee's attention. So I

1 will ask Jim Lissner to share his thoughts and concerns with
2 the Committee and ask if the Committee has any thoughts on
3 his concerns.

4 COMMITTEE CHAIRMAN BAHADORI: Which item is this?
5 This is 14-07?

6 MR. LISSNER: Yes.

7 COMMITTEE CHAIRMAN BAHADORI: This is 14-07.

8 MR. LISSNER: Hi, I'm Jim Lissner. This idea got
9 started maybe six months ago from observing a red light
10 camera intersection in Walnut, California. Walnut is in the
11 eastern edge of LA County. And they have an intersection
12 there which is posted "NO RIGHT TURN ON RED," it has a red
13 light camera, and yet they have a continuing large number of
14 violations there. It's also -- the intersection is also on
15 the corner of where there is a very large community college,
16 a community college with 36,000 students. So an ever-
17 changing population of drivers in the area. Every two
18 years, of course, you're going to have a pretty thorough
19 turnover.

20 And it occurred to me that if the City of Walnut
21 really wanted to stop people from making that right turn.
22 And I agree with them, they need to stop people from making
23 that right turn on the red because it is in conflict with a
24 double left turn that turns into just two lanes available.
25 So if you make that right turn at the wrong time you're

1 going to have two lanes of left-turning people coming down
2 on you and no room to spare at all. Not even -- I don't
3 think there is even a bike lane there. No room to spare.
4 So they need to stop people from making that right turn at
5 the wrong time. And the aluminum signs that they have, the
6 printed signs, are not working.

7 In the town where I live we started using lighted
8 signs that say "NO RIGHT TURN ON RED" using the
9 international symbol and it occurred to me that maybe Walnut
10 should do the same thing.

11 So that idea was on my mind when on January 1st I
12 was out on the western end of the San Fernando Valley and I
13 drove up along part of the busway route. The busway is a
14 street level dedicated route, it's along an old, abandoned
15 railroad track that they've paved, and large articulated
16 buses go along in it. And the eastern edge of the busway is
17 east-west, that's the older part. And then the newer part
18 they built, starting a couple of years ago, it's pretty much
19 brand new, is north-south.

20 In other words, if you're proceeding along the
21 busway in a westward direction eventually you get to a 90
22 degree turn and it runs north-south next to Canoga Avenue,
23 which is a very popular shopping street. It's basically the
24 western-most shopping street in the San Fernando Valley so
25 people come down from all the hills around there, everywhere

1 around there to shop. It has large stores like Nordstrom
2 and places like that that everybody wants to go to.

3 The busway alignment along Canoga Avenue is about
4 -- and again, Canoga Avenue runs north-south; the busway is
5 about 50 feet to the east of Canoga Avenue. And it's on the
6 same level as Canoga Avenue and it doesn't have overhead
7 wires or things like that like a light rail might have, it's
8 just some pavement with maybe a couple of six inch curves
9 and you could miss it.

10 And evidently that's been a problem. The problem
11 has been that people going -- driving north along Canoga
12 Avenue mistakenly make the right turn, which immediately
13 within 50 or 100 feet, puts them in the middle of a busway.
14 And of course if there is a bus coming that's a big
15 accident.

16 So MTA to try to stop people from making those
17 right turns put up some lighted signs. Lighted signs that
18 are two-foot square, they come on and they flash rapidly and
19 they have a picture -- they have kind of a dot matrix
20 picture of a bus on it and the word "bus," B-U-S, on it, in
21 English.

22 My first encounter with those signs was on January
23 1st and it was at night and when the sign came -- when I saw
24 the sign for the first time what I wasn't expecting was that
25 -- I thought I was expecting a sign that would have the no

1 right turn symbol, the universal no right turn symbol, and I
2 wasn't expecting it to flash.

3 That startled me and it occurred to me that
4 somebody who didn't know that the busway was there 50 feet
5 away would see that sign and it would tell them basically,
6 take action. It wouldn't tell them what kind of action to
7 take but it would tell them, take action, something is
8 coming, you know, something is going on here. They're
9 unique signs. You wouldn't encounter that sign anywhere
10 else that I know of in California.

11 And it occurred to me that somebody could try to
12 dive out of the street, get off the street because they
13 think there is something coming down the street, a large
14 fire engine or something and they could then make that right
15 turn, the right turn which everybody was hoping they would
16 not make, the idea of putting up the sign. That's the idea
17 of changing those signs to a sign that would tell people
18 what not to do, the universal no right turn sign and I would
19 also suggest that it not flash.

20 Anyway, there's seven of these locations along
21 Canoga Avenue. The graph up there compares -- in the right
22 hand column the number of tickets per month for the right
23 hand turn and in the left hand column is the number of
24 tickets for the other camera at the same intersections,
25 which is for a straight through, westbound. You can see

1 that the straight throughs have been -- And by the way,
2 October 2012 was the -- they started the operation of the
3 cameras. You can see that the straight throughs have
4 remained consistent over time. The right hand turns that
5 started out high went down and now they're going back up. I
6 don't know why. But it's clear that what they have right
7 now is not effective and there's still an enormous number of
8 violations in that shopping district there.

9 Why are we having to do something about that here?
10 Namely -- I called LA City about this because these
11 intersections are in the city of LA. The busway is operated
12 by Metro so it's kind of a shared operation but the
13 intersections actually belong to the city of LA. And I
14 called them about this and they said that their group that
15 was initially dealing with that experiment from 2009 that
16 you guys have in front of you has been disbanded and it's
17 now all Metro.

18 I didn't try to chase down the people at Metro
19 that are dealing with this because I just didn't have the
20 time and also I kind of knew what I would get, which is
21 basically that they are not doing anything. It's evident
22 they're not doing anything. They have a five year old
23 experiment with this group that is not going anywhere.

24 I mean, they have a lot -- Metro -- to their
25 credit, Metro is doing a lot of other stuff. They're

1 building new rail lines, they're building the extra lanes on
2 the freeway going over the -- on the 405 going over the
3 mountains, that's a big deal. So they probably have too
4 many irons in the fire.

5 My suggestion anyway is that somebody needs to
6 step in and do something about this because they have this
7 continuing high number of violations. It's a public safety
8 hazard both in Walnut and along the Metro lines.

9 I don't think that we should worry about their
10 ability to change the faces along the Metro line or to put
11 up the sign in Walnut. They are, after all -- I mean, if
12 this was restricted to red light camera locations we could
13 look at the fact that, for instance, in Walnut they're doing
14 300 tickets a month, which is \$150,000 worth of fines. They
15 can clearly afford -- they should be able to afford to do
16 that. And clearly it must be a high safety consideration
17 for them because they did put up the sign saying NO RIGHT
18 TURN ON RED and then they did put in the camera.

19 COMMITTEE CHAIRMAN BAHADORI: Mr. Lissner.

20 MR. LISSNER: Yes.

21 COMMITTEE CHAIRMAN BAHADORI: This is all good
22 information. However, I am still trying to see what is it
23 you exactly ask the Committee to do. Because I still don't
24 hear anything that this Committee has any jurisdiction over.

25 MR. LISSNER: Right. That's in my letter. And

1 I'm basically asking the Committee to make it the standard
2 that if you have a NO RIGHT TURN ON RED enforced by a red
3 light camera that you shouldn't use a lighted sign.

4 COMMITTEE CHAIRMAN BAHADORI: The Committee does
5 not have jurisdiction to change the regulations for
6 intersections that have red light cameras in terms of what
7 to put in or not to put in not to put in. That needs to be
8 through legislation. We can't go and pick on red light
9 camera intersections and say, we had the same discussion,
10 say for example, for yellow timing. There's one set of
11 standards that goes pretty much for all the intersections.

12 If there is language that there is somebody in the
13 Legislature that is interested to introduce and say --
14 similar to AB 1022 which was passed in 2004 that says, if
15 you are having an intersection with a red light camera then
16 you should use a lighted "NO RIGHT ON RED" or whatever then
17 that can be done. But the Committee here doesn't have the
18 jurisdiction to do that.

19 MR. LISSNER: Okay.

20 COMMITTEE CHAIRMAN BAHADORI: That's a great
21 suggestion and I agree with you. But what I'm saying is
22 that this Committee is not the right venue to do it because
23 we don't have authority to do it.

24 MR. LISSNER: Okay. I think that the Committee
25 actually is the right venue because the MUTCD tells what

1 kind of signs to use if you're prohibiting a right turn on
2 red, right now, and right now it allows a sign in English.
3 My suggestion is that the standard be changed. That if you
4 have -- you know. If the intersection, if the problem has
5 risen to such -- to one of such importance where it
6 required, you know, where you deemed it important to put in
7 a red light camera or taken the measure of putting in a red
8 light camera that the standard should then be that --

9 COMMITTEE CHAIRMAN BAHADORI: I'll defer that to
10 Caltrans. Mr. Bhullar, you are the ultimate expert on the
11 national and California MUTCDs. Does this Committee or
12 MUTCD have jurisdiction to make such changes?

13 MR. BHULLAR: Johnny Bhullar with Caltrans.
14 Basically here what is being discussed is the use of
15 activated blank-out signs, so to speak. Right now there are
16 five activated blank-out signs we have in the CA MUTCD but
17 they are optional. And they are very similar to the static
18 sign so we leave it up to the jurisdiction when they want to
19 go from a static sign to an activated blank-out sign being
20 option. However, I think if I hear correctly, Jim is
21 probably requesting that the option may be made into a shall
22 or a should. So I think that will be up to probably to the
23 Committee for us to modify that if we choose to.

24 COMMITTEE CHAIRMAN BAHADORI: No, his specific
25 question or suggestion is for specific intersections that

1 have a red light camera. That these signs become a
2 mandatory requirement.

3 MR. BHULLAR: At any given location or out in the
4 field, the manual does not speak to a given location. Right
5 now the manual speaks of only optionally having a static
6 sign of the five types that we have to make it into an
7 activity blank-out. And I am not clear on what the proposal
8 is but, yes.

9 COMMITTEE CHAIRMAN BAHADORI: The proposal is that
10 if an intersection has a red light camera enforcement that
11 these signs, the lighted signs "NO RIGHT ON RED" be a
12 mandatory requirement as part of the installation at that
13 intersection. Can this Committee make such a change to the
14 CA MUTCD making those signs mandatory at any location where
15 there is a red light camera?

16 MR. BHULLAR: Yes. I would say in that case then
17 any time the existing policy can be made more stringent -
18 and that's I think, what is being intended here - yes, the
19 Committee will be --

20 COMMITTEE CHAIRMAN BAHADORI: If that's for the
21 Committee, Mr. Lissner, give me a proposal in writing, I
22 will sponsor it for the next meeting.

23 MR. LISSNER: Okay.

24 COMMITTEE CHAIRMAN BAHADORI: Thank you.

25 MR. LISSNER: I just want to clarify something in

1 case there is some discussion. This idea would be just for
2 red light camera intersections where they're posting it "NO
3 RIGHT TURN ON RED." A regular red light camera intersection
4 where they haven't found that there is a hazard, a
5 particular hazard with the right turns during the red phase,
6 they shouldn't have to spend the money for this.

7 COMMITTEE CHAIRMAN BAHADORI: So the locations
8 such as Canoga parallel to the Orange Line in LA, right?

9 MR. LISSNER: Yes.

10 COMMITTEE CHAIRMAN BAHADORI: Okay.

11 MR. LISSNER: And that one in Walnut. Because
12 they figured out that there is a real hazard there. You
13 don't want to get hit by a bus.

14 COMMITTEE CHAIRMAN BAHADORI: Then you and I,
15 let's work it off-line and see if we can come up with
16 language and I'll sponsor it and then we'll see if the
17 Committee has the willingness to support.

18 MR. LISSNER: Thank you very much.

19 COMMITTEE CHAIRMAN BAHADORI: Thank you.

20 Anyone else? Yes, Mr. Beeber. Very briefly.

21 MR. BEEBER: Very brief, yes.

22 COMMITTEE CHAIRMAN BAHADORI: Please do not repeat
23 what Mr. Lissner has already shared.

24 MR. BEEBER: The reason that I wanted to speak on
25 this item is because tangential to what Mr. Lissner is doing

1 I have also been speaking to the city council members in Los
2 Angeles as far as having them ask Metro to do something
3 about these particular locations and putting in a sign
4 similar to what he's suggesting.

5 And for me it may not necessarily have to do
6 specifically with the red light camera locations, just this
7 is where the data that where these NO RIGHT TURN ON RED
8 signs, just the regular ones are present, we have a lot of
9 data that they are not being followed. So maybe that's also
10 happening in other places, whether there's a red light
11 camera there or not.

12 But I actually have a couple of specific questions
13 then for the Committee or for anybody who can answer
14 regarding this which is, the bus blank-out sign that
15 Mr. Lissner described, is that an approved sign for the
16 state of California? If not, are they still allowed to use
17 it for whatever reason?

18 COMMITTEE CHAIRMAN BAHADORI: Mr. Howe.

19 MR. HOWE: I'm Don Howe from Caltrans. To my
20 knowledge that is not an approved or standard activated
21 blank-out sign that has been described to me.

22 COMMITTEE MEMBER WINTER: Could I?

23 COMMITTEE CHAIRMAN BAHADORI: Mr. Winter.

24 COMMITTEE MEMBER WINTER: Just a clarification to
25 its operation. I know on light rail and I think

1 Mr. Lissner's letter describes this, there is a blank-out
2 sign notifying motorists of a light rail operation. So how
3 it's described in the letter, the only difference between
4 that sign, which I believe is approved - for the train, it
5 basically says "train" - is you in this case have something
6 that says "bus." And if I understand the Canoga operation,
7 the Orange line operation, maybe there was -- At one point
8 in time Metro had thought about operating a train but now
9 it's actually a bus. So it sounds like -- if I'm getting
10 that wrong let me know but it sounds like they essentially
11 have a bus that operates like a light rail train so perhaps
12 they took this sign and used it for that similar purpose.
13 Am I close?

14 MR. BEEBER: I don't know what their thought
15 process was behind it but just for the sake of
16 clarification, they use these signs when you're approaching
17 to -- approaching the crossing of the bus. So when the bus
18 is coming across your path there is a sign there and I think
19 it is very helpful to let people know that there is a bus.

20 What Mr. Lissner is also saying is that there is a
21 sign as you are going north not to make a right turn because
22 there is a bus to your side. That's a little bit more
23 confusing because, you know, is the bus coming across your
24 path or whatever. So that may be just a confusing use of
25 the same sign that they are using for, you know, going --

1 facing it straight through.

2 That sign I just was wondering whether it was
3 approved as a use. Because my second question was, the type
4 of blank-out sign that says "NO RIGHT TURN ON RED" is that
5 approved for use in the state of California? And if, for
6 example, the city council of Los Angeles made a request or
7 something stronger than a request for them to put up such a
8 sign at these locations would that be -- would that request
9 be something that was already approved for them to do and
10 that they would be running into a problem with requesting
11 something that wasn't approved?

12 COMMITTEE CHAIRMAN BAHADORI: I think the question
13 is clear. Mr. Bhullar or Mr. Howe, do you have any
14 information if that sign that is referred to is an approved
15 sign for use in California?

16 MR. HOWE: The activated blank-out sign that is
17 the international symbol, circle/slash of no right turn
18 permitted, is a standard sign and is optional.

19 COMMITTEE CHAIRMAN BAHADORI: Okay. So they are
20 in compliance with MUTCD.

21 MR. BEEBER: And the final question because this
22 was brought up just now is that if the Legislature of the
23 state of California passed a law that aid as part of the red
24 light camera law saying, if you have a no right turn on red
25 you have to use one of these signs. Now that may be similar

1 to the yellow light question which is, at these locations
2 you're going to do something maybe different than in other
3 places, even though it's optional. Would this Committee see
4 or Caltrans see this as a usurpation of this body's
5 authority or would that be something that the Legislature
6 would freely do without a whole lot of objection?

7 COMMITTEE CHAIRMAN BAHADORI: Based on what I
8 heard from Mr. Bhullar, this committee can make those signs
9 mandatory where there is a red light camera, we don't need
10 legislation.

11 MR. BEEBER: So the appropriate place to do that
12 if it was desired to have that be done would be through this
13 committee; is that correct?

14 COMMITTEE CHAIRMAN BAHADORI: That is my
15 understanding --

16 MR. BEEBER: Okay.

17 COMMITTEE CHAIRMAN BAHADORI: -- based on what
18 Caltrans staff are telling us.

19 MR. BEEBER: Thank you very much, appreciate it.

20 COMMITTEE CHAIRMAN BAHADORI: Thank you.

21 Mr. Morrissey.

22 MR. MORRISSEY: Sam Morrissey, City Traffic
23 Engineer, City of Santa Monica. Just a really quick comment
24 because we are dealing with this as we build a light rail
25 system in Santa Monica.

1 We find that these instructions for the
2 installation of these signs is driven primarily by the
3 California Public Utilities Commission so this discussion
4 might actually be more appropriate for the California Public
5 Utilities Commission. They are directing us to post
6 extinguishable "NO RIGHT TURN" signs adjacent to the light
7 rail line; they are directing us to post the extinguishable
8 "LIGHT RAIL VEHICLE PRESENT." The same concept applies for
9 the Orange line which is an exclusive right-of-way running
10 bus system which runs just a light rail system. So perhaps
11 the omission of the extinguishable "NO RIGHT TURN ON RED"
12 sign is something just to bring before the California Public
13 Utilities Commission as they review the crossings.

14 COMMITTEE CHAIRMAN BAHADORI: Thank you very much.
15 I am not sure if CPUC has authority over busways but they
16 have authority over any kind of rail, including light rail.
17 But that's a good point you brought up. I don't know if
18 they looked at the Orange line design. But that is good
19 also because Caltrans works with CPUC staff very closely.
20 They might want to bring it to their attention.

21 Okay, anything else? So we close it and bring it
22 back. Any more discussion on this issue? We'll see if they
23 want to pursue it later. From a discussion item it might
24 become an action item in a future meeting.

25 What about the use of a blue curb as a loading

1 zone in LA City.

2 COMMITTEE SECRETARY SINGH: Yes. Mr. Chairman, no
3 one is here to have discussion with the Committee so we can
4 move on.

5 COMMITTEE CHAIRMAN BAHADORI: Okay, so Item 14-08
6 is tabled in case they come back.

7 We go to -- we are done with our discussion items.
8 We go to information items, which says "none" but there is a
9 14-09, so there is --

10 COMMITTEE SECRETARY SINGH: That's my mistake.

11 Don wanted to share Caltrans' efforts on the gore
12 signs so I will leave it to Don to share his thoughts with
13 the Committee.

14 MR. HOWE: Thank you, Devinder. Mr. Chair and
15 members of the Committee, my name is Don Howe from Caltrans.

16 We are working on a proposal to request
17 experimentation to look at eliminating or moving the exit
18 gore sign to the far right hand shoulder. The predominant
19 location of exit gore areas in California is on the right
20 hand side. We do have some left hand side exit gore areas
21 where we will have the exit sign on the left but often
22 that's more association with HOV-to-HOV connectors or HOV
23 exit lanes and so for the most part we speak in terms of the
24 right hand side.

25 But the background is that we have gone through a

1 process and we posted our preliminary investigation results
2 on-line for your information. To see what the state of the
3 practice is for other states and we wanted to find out if
4 any of the other 49 states that operate freeways also share
5 the same concerns we have about a most-often knocked down
6 freeway sign, which is the exit gore sign. And typically
7 this is a single-post, 48-inch high by 54-inch wide sign
8 that basically says "EXIT", it has a number if it's to the
9 current standard with an arrow that points in the
10 approximate direction of where that exit ramp is going.

11 For all the apparent reasons of what our
12 maintenance staff tells us, this sign gets replaced often
13 because it's often knocked down by last moment folks that
14 are exiting from the freeway realizing, oh, I'm at my exit,
15 I've got to go; and oh, by the way, here's a sign and I'm
16 getting -- it's being knocked down now.

17 So one of the concepts that the maintenance folks
18 have brought us is can we either move this deeper into the
19 gore and put a larger sign. And of course the E5-1-1A
20 Federal Highway sign series does allow for that. It's a
21 much larger sign. It's a two-post sign that gives the same
22 information but being a sign deeper in the gore,

23 There's two good benefits to that. We can do it
24 tomorrow, it's well within our ability to do and we maintain
25 the mandatory placement of an exit gore sign. We have a

1 sign standard for it. The thing is it costs a lot more.
2 But if you bank on the concept that the one that's closer to
3 the departure point gets knocked down a lot, you've got to
4 replace that and after awhile the inherent, more expensive
5 sign is not getting knocked down as much. So we're looking
6 at that.

7 And then also we're looking at something that came
8 up in our preliminary investigation. The state of Texas is
9 looking at locating that exit gore sign on the far right
10 hand shoulder, which was very interesting to us. So we're
11 looking at petitioning the FHWA to conduct an experiment and
12 for -- just for possibility we may team up with other states
13 that want to look into this as well.

14 But we wanted you to be aware. This is an
15 information item that we will give you more information at a
16 later meeting of how this progresses.

17 COMMITTEE CHAIRMAN BAHADORI: Thank you. Do you
18 have any suggestions or comments since this is on the agenda
19 anyway? So as they are doing their investigation they take
20 that into consideration.

21 The one thought I have, Mr. Howe, is that moving
22 the sign deeper in the gore, you may want to look at some
23 criteria. Because a lot of -- because the gore area is
24 technically like a use it if you want or if you miss the
25 exit. I see a lot of people, and we all see them, that they

1 use that gore area, especially if it's paved, to get into
2 the ramp last minute. So you don't probably want to
3 introduce another obstacle in that area. But if the gore,
4 the pavement stops and then there is a slope usually or
5 there's unpaved surface then I don't see a problem. But with
6 the areas that are paved you may not want to have those
7 obstacles introduced there.

8 MR. HOWE: It's interesting. The other faction
9 amongst Caltrans that wants to eliminate that sign
10 altogether are our landscape architect folks.

11 COMMITTEE CHAIRMAN BAHADORI: Because it looks
12 ugly?

13 MR. HOWE: If they do put a pavement it's usually
14 not a load-bearing pavement but it's usually a weed
15 mitigation type covering of a thin lift of perhaps asphalt
16 or some other hard surface. And they see a benefit in
17 removing that sign as well.

18 COMMITTEE CHAIRMAN BAHADORI: Yes. I'm just -- my
19 view is traffic safety and not having that obstacle for the
20 last minute sneaker who has missed the exit and wants to use
21 the gore area. Any other suggestions or comments?

22 COMMITTEE SECRETARY SINGH: Mr. Chair, I have hard
23 copies of the preliminary investigation. If anybody is
24 interested, you know, they can take it.

25 COMMITTEE CHAIRMAN BAHADORI: If you're willing to

1 pay extra charges you can take that on the plane and read
2 it. Okay, thank you.

3 COMMITTEE SECRETARY SINGH: That's all.

4 COMMITTEE CHAIRMAN BAHADORI: Tabled items. We
5 are done with the information items. Tabled items. We have
6 12-20, which is FHWA 2009 MUTCD Revisions 1 and 2 -
7 Engineering Judgment and Compliance dates.

8 COMMITTEE SECRETARY SINGH: We'll just share what
9 we plan to do next meeting.

10 MR. BHULLAR: Johnny Bhullar with Caltrans. Just
11 to share with the group here. We have already had the
12 official recommendations from the Committee to Caltrans on
13 the engineering judgment as well as, on this item, the
14 compliance dates so both of those we are pretty much ready
15 to make them official on or before the June 13th revision.
16 So for the time being we have just tabled them because we
17 are working on a number of other recommendations from the
18 Committee as well.

19 And also as you will notice, for the next meeting,
20 whatever recommendations up until the next meeting that we
21 get from this Committee, we will be issuing that into the
22 revision. So that's the reason why we are holding off on
23 the compliance date and the engineering judgment, even
24 though we have had formal recommendations from this
25 Committee already so we don't need anything further.

1 COMMITTEE CHAIRMAN BAHADORI: Okay, thanks for the
2 update, appreciate it.

3 We are done with our agenda items. Now on to the
4 next meeting. There are some suggestions to look at the
5 week of the -- look at your calendar. If you look at the
6 week of May 12th.

7 COMMITTEE SECRETARY SINGH: The 12th to 16th.

8 COMMITTEE CHAIRMAN BAHADORI: May 12th through
9 16th. Do you have any preference? Or better to say, is
10 there anyone who has a scheduling conflict for the week of
11 May 12th that will prevent you from attending a meeting?

12 COMMITTEE SECRETARY SINGH: The reason we want it
13 in May is so whatever the Committee recommends we can
14 include it in the June update.

15 COMMITTEE CHAIRMAN BAHADORI: Please, if you have
16 any -- if you do not then maybe we want to suggest May 15th,
17 a Thursday. May 15th, Thursday, anyone has a conflict? No.
18 Seeing none --

19 MR. LISSNER: What town will it be in?

20 COMMITTEE CHAIRMAN BAHADORI: Pardon me?

21 MR. LISSNER: What town?

22 COMMITTEE SECRETARY SINGH: Southern California.

23 COMMITTEE CHAIRMAN BAHADORI: Sorry. Probably
24 it's going to be Southern California.

25 MR. LISSNER: What town in Southern California?

1 COMMITTEE SECRETARY SINGH: We don't know. I have
2 to find a meeting location. So wherever is available. I
3 will find out in a week or so, so it will be posted on the
4 website in a week or so. Most probably San Diego or LA.

5 COMMITTEE CHAIRMAN BAHADORI: May 15th is a
6 tentative date.

7 COMMITTEE SECRETARY SINGH: May 15th.

8 COMMITTEE MEMBER JONES: We have a big --

9 COMMITTEE CHAIRMAN BAHADORI: May 15th is a
10 Thursday.

11 COMMITTEE MEMBER JONES: We have a big legislative
12 event on May 15th.

13 COMMITTEE SECRETARY SINGH: The 14th?

14 COMMITTEE MEMBER JONES: The 15th.

15 COMMITTEE CHAIRMAN BAHADORI: How is 14 for you?

16 COMMITTEE MEMBER JONES: That could work.

17 COMMITTEE CHAIRMAN BAHADORI: Twelve, 13, 14?

18 COMMITTEE MEMBER JONES: The 14th could work.

19 COMMITTEE CHAIRMAN BAHADORI: Okay. So we are
20 going --

21 COMMITTEE SECRETARY SINGH: May 14.

22 COMMITTEE CHAIRMAN BAHADORI: Okay. So we are
23 scheduled for May 14th and it is going to be somewhere in
24 the Southern California region. Once Mr. Singh finds a
25 facility that is going to host we are going to let you know

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I, John Cota, an Electronic Reporter, do hereby certify that I am a disinterested person herein; that I recorded the foregoing California Department of Transportation, California Traffic Control Devices Committee meeting; that it was thereafter transcribed.

I further certify that I am not of counsel or attorney for any of the parties to said meeting, nor in any way interested in the outcome of said matter.

IN WITNESS WHEREOF, I have hereunto set my hand this 18th day of March, 2014.

JOHN COTA

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I certify that the foregoing is a correct transcript, to the best of my ability, from the electronic sound recording of the proceedings in the above-entitled matter.

March 18, 2014

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