STATE OF CALIFORNIA

DEPARTMENT OF TRANSPORTATION

CALIFORNIA TRAFFIC CONTROL DEVICES COMMITTEE

MEETING OF THE

CALIFORNIA TRAFFIC CONTROL DEVICES COMMITTEE

CALTRANS CORPORATE YARD

220 SOUTH DAISY AVENUE

SANTA ANA, CALIFORNIA

THURSDAY, AUGUST 30, 2012

9:00 A.M.

Reported by: Martha L. Nelson

A P P E A R A N C E S

Committee Members

Michael Robinson, Vice Chairman

Hamid Bahadori

John Ciccarelli

Don Fogle

Mark Greenwood

Bryan Jones

Jeff Knowles

Dwight Ku

Lt. David Ricks

Alternate Committee Members in Attendance

Robert Bronkall

Rock Miller

Bill Winter

Caltrans Staff - Sacramento Office

Devinder Singh, Committee Secretary

Johnny Bhullar

Roberta McLaughlin

Caltrans Staff - Field Offices

Bassem Barsoum
District 12

Peter Caruso
District 12

A P P E A R A N C E S

Also Present

Eric Carlson
Los Angeles County Metropolitan Transportation Authority

Chad Dornsife
Best Highway Practices Institute

John Fisher
Retired

Todd Greenwood
City of Stockton

Sam Morrissey
City of Santa Monica

Michelle Mowery
Los Angeles Department of Transportation

Stephen M. Pyburn
US Department of Transportation
Federal Highway Administration

Adrian Rodriguez
City of Santa Ana

Monica Suter
City of Santa Ana

Ted Vaeches
Traffic Safety Corporation

Sami Wassef
Los Angeles County Metropolitan Transportation Authority

Dustin White
San Francisco Metropolitan Transit Agency

Bill Winter
Los Angeles County Department of Public Works

Zaki Mustafa
Los Angeles Department of Transportation

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1 P R O C E E D I N G S

2 9:12 a.m.

3 VICE CHAIRMAN ROBINSON: Good morning, ladies and
4 gentlemen. My name is Mike Robinson; I am the Vice Chairman
5 of the California Traffic Control Devices Committee. I'd
6 like to call this August 30, 2012 meeting to order.
7 Let's see. We have a number of people to thank
8 for coming, for getting this nice facility for us today.
9 Santa Ana is -- I haven't been through the town and I really
10 enjoyed the drive. I didn't realize it was quite so far off
11 the 5 and so I got to see quite a little bit of the town.
12 And this facility itself, well, well-marked. I
13 want to thank you, Monica, for putting the signs out for us.
14 When I got to the gate the sign said "turn right" but there
15 was a gate there and I'm thinking, well that must be where
16 the employees go, so I continued on down. When I finally
17 realized that we didn't -- that wasn't the place I turned
18 back around and got up to the gate, pushed the button,
19 didn't say a word. The gate opened and I came in and I'm
20 thinking to myself, I wonder if somebody saw me come up or
21 if they just automatically open the gate for anybody. Maybe
22 you can answer the question once we get up there, Monica.
23 (Laughter.)
24 VICE CHAIRMAN ROBINSON: But Monica, thank you.
25 I'd like to introduce Monica, Monica Suter. She works for

1 the City of Santa Ana. She is one of several dignitaries
2 that we have in the audience today. Monica is the
3 International Director of the Institute of Transportation
4 Engineers, Western Group.
5 And also as I am introducing Monica, who is going
6 to say a few words to us, I'd like to acknowledge Zaki
7 Mustafa who is in the audience, our current Vice President,
8 International Vice President, and also Rock Miller who is
9 our current President of ITE. So we are pretty heavily
10 weighted here today.
11 Am I missing anybody? Is there someone, is there
12 anybody else in the audience that I haven't mentioned
13 already?
14 But, Monica, if you have a few words for us.
15 MS. SUTER: Thank you, Michael, and our Vice
16 Chair. I assume soon you'll become the Chair, correct? Or
17 I guess it depends.
18 COMMITTEE SECRETARY SINGH: We don't know.
19 MS. SUTER: Okay, all right. Anyway, welcome
20 everybody to Santa Ana here. I do work for the City, as
21 Michael mentioned. And I want to thank Adrian for getting
22 those signs up. They are not actually compliant with the
23 MUTCD. They are the right colors, not the right font, and
24 they are not retro-reflective. But you are not coming here
25 during the night so I think we're okay.

But anyway, the restrooms are behind; that's very important to know.

Even before you get to the restrooms, the coffee is over there, the water is over there and some doughnut holes. And thank you, Roberta, for bringing those today. Very, very much appreciate that.

And we have a laptop if anybody has a presentation, a couple of people did. And Johnny Bhullar will Caltrans is the person to talk to if you have anything you need to put there.

We have some handouts in the front that show different lunch places depending if we are going to take a lunch or not. So what it does is it gives you an idea of where you might want to go in Santa Ana to, you know, how much time it might take and all of that.

Now some of those restaurants, though, are not all in business still, unfortunately, when we originally created that map. We realized that after we already printed the copies. So to be paper sensitive, it gets you in the right areas. You'll find something to eat in those areas.

In any case, welcome. And if you have any questions -- I will be in and out throughout the day so if there are any questions Devinder has my cell phone so I can be reached and also Adrian will be here a little bit. So we're here to help. Thank you very much, welcome.

1 VICE CHAIRMAN ROBINSON: So, Monica?
2 MS. SUTER: Yes.
3 VICE CHAIRMAN ROBINSON: When that button gets
4 pushed out there is it just opened automatically?
5 MS. SUTER: Well, they know that you guys were
6 coming and I asked them to have it open from about 8:30 to
7 9:30. So I think you got here so early that -- at that
8 point. But they know about this meeting.
9 You're right, we probably should have an arrow
10 that says -- a sign that says "push button if you're CTCDC."
11 But I apologize for that. So welcome everybody and now you
12 know how to get back in. All right, thank you, Michael.
13 VICE CHAIRMAN ROBINSON: Thank you, Monica.
14 At this point I'd like to go through an
15 introduction of our committee and ultimately we'll get into
16 -- because this is going to be a very -- a joint -- we're
17 going to be sharing a lot of communication so I want to know
18 who we're talking to as well.
19 But to start with why don't we go ahead and
20 introduce members of the Committee. We'll start over here
21 with Bryan.
22 COMMITTEE MEMBER JONES: Bryan Jones, non-
23 motorized transportation from the city of Carlsbad.
24 COMMITTEE MEMBER CICCARELLI: John Ciccarelli,
25 non-motorized transportation, bicycle solutions.

1 COMMITTEE MEMBER GREENWOOD: Mark Greenwood, I am
2 the Director of Public Works for the City of Palm Desert and
3 I represent the League of California Cities, the southern
4 half of the state.
5 COMMITTEE MEMBER KU: Dwight Ku, California State
6 Automobile Association, the AAA club for Northern
7 California.
8 VICE CHAIRMAN ROBINSON: And again, I am Mike
9 Robinson. I represent the Southern California Counties.
10 COMMITTEE SECRETARY SINGH: Devinder Singh with
11 Caltrans. I am the Secretary for the Committee.
12 COMMITTEE MEMBER FOGLE: Don Fogle, Caltrans
13 Headquarters, Traffic Operations.
14 COMMITTEE MEMBER RICKS: David Ricks, California
15 Highway Patrol.
16 COMMITTEE MEMBER BAHADORI: Hamid Bahadori,
17 Automobile Club, Southern California, AAA.
18 VICE CHAIRMAN ROBINSON: And we also have Jeff
19 Knowles, who I understand is -- he's here but he's late. He
20 also has a presentation.
21 Yes?
22 COMMITTEE MEMBER BRONKALL: I'm Bob Bronkall,
23 Humboldt County Public Works, Alternate Member for Rick
24 Marshall who apparently is missing in action. So I will go
25 ahead and take his seat.

1 VICE CHAIRMAN ROBINSON: Please come up.
2 Okay. Jeff Knowles is also supposed to be here.
3 I understand he has got a presentation. When we get to his,
4 get to his then we'll go ahead and put it back for as long
5 as we need to until he shows up.
6 Now let's go through our -- oh, we haven't got the
7 staff. Please.
8 MS. McLAUGHLIN: Roberta McLaughlin, Caltrans
9 Office of Signs and Markings.
10 VICE CHAIRMAN ROBINSON: Bill, let's just go on.
11 MR. WINTER: Bill Winter, LA County Department of
12 Public Works. I'm an Alternate Member.
13 MR. MILLER: Rock Miller, already introduced. But
14 I am an Alternate Member representing active transportation.
15 MS. SUTER: Monica Suter, already introduced.
16 MR. RODRIGUEZ: Adrian Rodriguez, intern, Public
17 Works, City of Santa Ana.
18 MS. MOWERY: Michelle Mowery, City of Los Angeles.
19 MR. MUSTAFA: Zaki Mustafa.
20 MR. CARLSON: Eric Carlson, Metro Planning
21 Department.
22 MR. WASSEF: Sami Wassef, Metro Planning
23 Department.
24 MR. T. GREENWOOD: Todd Greenwood, City of
25 Stockton.

1 MR. MORRISSEY: Sam Morrissey, City of Santa
2 Monica and alternate for League of California Cities.
3 VICE CHAIRMAN ROBINSON: Welcome, Sam.
4 (Thereupon, several members of the audience
5 introduced themselves away from the microphone.)
6 MR. DORNSIFE: Chad Dornsife, Best Highway Safety
7 Practices Institute and also (inaudible).
8 MR. CARUSO: Peter Caruso, District 12.
9 MR. WHITE: Hi, I'm Dustin White from the San
10 Francisco Municipal Transportation Agency. We have a
11 request for experimentation later today.
12 MR. BHULLAR: Johnny Bhullar with Caltrans, editor
13 of the CA MUTCD. And if you need anything regarding the
14 laptop or the screen see me.
15 MR. PYBURN: And Steve Pyburn, Federal Highway
16 Administration. The California representative for the MUTCD
17 for (inaudible).
18 VICE CHAIRMAN ROBINSON: Okay, thank you, Steve.
19 Is there anybody that we have missed? So that pretty much
20 gets everyone in the room.
21 We'll go on to -- for everybody to know, the
22 restroom facilities are out the back and to the left.
23 We plan on breaking for lunch somewhere between
24 11:30 and 12:00 depending on where we are with the issues.
25 There is a cafeteria downstairs, am I right? And then

1 Monica has shared with us that there's a number of different
2 places around that can be selected as well.
3 Okay. Why don't we, why don't we go on to
4 election of the Chairman and the Vice Chairman.
5 I would entertain motions for nomination for the
6 position of Chairman for our coming year.
7 COMMITTEE MEMBER FOGLE: I'd like to make a motion
8 to nominate Michael Robinson as Chairman.
9 COMMITTEE MEMBER RICKS: I second the motion.
10 VICE CHAIRMAN ROBINSON: Anyone else care for a
11 nomination for the Chairman? By the way, I warn you, this
12 is my fourth meeting and so this may be a little bit rough
13 for awhile. But if there are no other nominations then I
14 would accept the challenge.
15 Then I guess we can go ahead and vote on the
16 nomination for myself as Chairman. All in favor?
17 (Ayes.)
18 Opposed?
19 (No response.)
20 Thank you. I'll take that as unanimous.
21 The next item would be for nominations for the
22 position of Vice Chairman for the Committee. And as
23 Chairman I would like to nominate Hamid Bahadori from the
24 Auto Club. Anyone care to second?
25 COMMITTEE MEMBER KU: Second it.

1 COMMITTEE CHAIRMAN ROBINSON: Are there any other
2 nominations for the position of Vice Chairman for the CTCDC?
3 (No response.)
4 COMMITTEE CHAIRMAN ROBINSON: Seeing none I would
5 call for the vote. All in favor of electing Hamid Vice
6 Chairman please indicate by saying aye.
7 (Ayes.)
8 And if you're opposed say nay.
9 (No response.)
10 COMMITTEE CHAIRMAN ROBINSON: I think we have
11 another unanimous vote. Congratulations, Hamid.
12 COMMITTEE VICE CHAIRMAN BAHADORI: Thank you, sir,
13 for nomination.
14 (Discussion regarding microphones and
15 projector fan noise.)
16 COMMITTEE CHAIRMAN ROBINSON: Okay. At this point
17 I would entertain any requests for out-of-agenda items or
18 any changes. Anybody prefer to move their item forward or
19 back based on where you see you are on the agenda?
20 If not we'll leave the agenda as it is and move on
21 to approval of the minutes of the May 24th, 2012 meeting.
22 Any comments on the minutes? If not I would
23 entertain a motion to approve.
24 COMMITTEE VICE CHAIRMAN BAHADORI: Mr. Chairman,
25 these are verbatim minutes. I make the motion to approve

1 the minutes as submitted to the Committee.
2 COMMITTEE CHAIRMAN ROBINSON: Thank you. Do we
3 get a second?
4 COMMITTEE MEMBER CICCARELLI: Second.
5 COMMITTEE CHAIRMAN ROBINSON: All right. Any
6 comments based on that?
7 All in favor of approving the May 24th minutes
8 indicate by saying aye.
9 (Ayes.)
10 All opposed?
11 (No response.)
12 The motion carries. Thank you, Hamid.
13 Okay, now it's time for public comments and I have
14 two requests for comments.
15 First I would like to acknowledge Dwight Ku who
16 has a sad message for us. Dwight.
17 COMMITTEE MEMBER KU: Thank you, Mr. Chairman.
18 It's my sad duty to report to the Committee and those
19 attending here today that Rich Shrader, who served as our
20 alternate, passed away suddenly shortly after our last
21 meeting in May. Actually it was May 30 that he passed away
22 unexpectedly. As you know, he was a valuable addition to
23 the Committee. Because of calendar conflicts he began, I
24 think, attending more often than the regular member did.
25 August also marks a particularly special time for

1 us regarding Rich. He would have been with our organization
2 25 years this month. And it was also his birthday month, he
3 would have been 50 years old this month had he survived.
4 He is survived by his wife Miriam who lives in the
5 Weimar area, which is just northeast of Sacramento, and
6 three sons, Larkin, who is 22 or 23, about to go into the
7 SEAL training program for the Navy, his second-oldest son is
8 Austin, who is entering his senior year in Weimar High
9 School up in the Weimar area, and his youngest son Jackson
10 is ten years old. They are having, obviously, a very tough
11 time and everybody's good wishes and kind thoughts and
12 prayers are of a great comfort to them.
13 So I'd like to thank the Chairman for giving me
14 this time to pay tribute to Rich for the amount of work that
15 he has done, not only for our organization but for the
16 Committee itself in the interest of the motoring public as
17 well as those who are non-motorized users of the highway.
18 He has been a valuable addition to the Committee.
19 He has been of tremendous help to me personally, a great
20 friend and someone we should bear in mind as a great
21 contributor to the Committee. Thank you very much,
22 Mr. Chairman.
23 COMMITTEE CHAIRMAN ROBINSON: Thank you, Dwight.
24 Actually Richard was -- actually worked on our committee on
25 the 24th of May and he will be missed. I'd like to have a

1 couple of moments of silence for Richard, if we may.
2 (A moment of silence was observed.)
3 Thank you. I see that we have John Fisher, who
4 has just come in. John, I'd like to acknowledge your
5 presence. Past Chairman of the group. I hope you're
6 enjoying, I hope you're enjoying your retirement.
7 MR. FISHER: Indeed I am, thank you.
8 COMMITTEE CHAIRMAN ROBINSON: Good. I look
9 forward to being there one day myself. (Laughter.)
10 We have another request to speak under public
11 comments and that would be Zaki Mustafa who has brought to
12 my attention an issue that may be of interest to the rest of
13 the Committee and the group.
14 MR. MUSTAFA: Thank you, Mr. Chairman. It's
15 funny, you haven't changed in the last 26 years.
16 (Laughter.)
17 COMMITTEE CHAIRMAN ROBINSON: Except for the hair.
18 A little thinner, a little grayer.
19 MR. MUSTAFA: Looking good. Thank you for the
20 time. I'm with the City of LA Department of Transportation.
21 Under 4D.26 on the yellow clearance time.
22 Although it is clearly stated on the manual in blue it's a
23 support statement and it states: "When used, red clearance
24 interval normally ranges from .1 to 2 seconds."
25 Now we all understand what that means, we being

1 the engineers. It's clear to us that it is a support
2 statement, it's not a "shall" or a "should."
3 But otherwise the other side, the attorneys, they
4 don't see it, they don't understand it. They see it as a
5 statement on the manual and it has caused us some problem
6 with recent cases that we have had.
7 So I would like to see if the Board could
8 reconsider that statement there or be a little more crafty.
9 COMMITTEE CHAIRMAN ROBINSON: Thank you, Zaki.
10 MR. MUSTAFA: Thank you.
11 COMMITTEE CHAIRMAN ROBINSON: Obviously we can't
12 take any action on this today --
13 MR. MUSTAFA: Right.
14 COMMITTEE CHAIRMAN ROBINSON: But we can take it
15 back --
16 MR. MUSTAFA: Bring it up in the future.
17 COMMITTEE CHAIRMAN ROBINSON: Ask staff to take a
18 look at it and if appropriate to agendize it for a future
19 meeting.
20 MR. MUSTAFA: Thank you.
21 COMMITTEE VICE CHAIRMAN BAHADORI: Mr. Chairman,
22 can I make a quick observation on that?
23 COMMITTEE CHAIRMAN ROBINSON: Yes.
24 COMMITTEE VICE CHAIRMAN BAHADORI: And following
25 what Mr. Mustafa was saying. There are intersections that I

1 personally have worked on that have red intervals, clearance
2 intervals of up to five seconds. One case specifically is
3 the intersection of Jamboree and PCH in the city of Newport
4 Beach. That the left turn from southbound PCH onto
5 northbound Jamboree has a read clearance interval of five
6 seconds. So -- and there are intersections that have three
7 or four second intervals, very, very common.
8 So I think that in considering this item we want
9 to get rid of this statement all together. It doesn't serve
10 any purpose. And as Mr. Mustafa said, it just creates a
11 hassle for municipalities in litigation.
12 COMMITTEE CHAIRMAN ROBINSON: Thank you, Hamid.
13 Any other thoughts on the issue at this point? John.
14 COMMITTEE MEMBER CICCARELLI: Not on this issue.
15 COMMITTEE CHAIRMAN ROBINSON: Okay. What we'll do
16 then is ask staff to take a look at this and if appropriate
17 to bring it back in the form of an item.
18 Thank you, Zaki.
19 First off, anyone else in the audience have
20 anything for public communication?
21 (No response.)
22 Seeing none, John.
23 COMMITTEE MEMBER CICCARELLI: First of all I
24 wanted to acknowledge all the LA DOT Bikeways Program staff
25 that's here, good to see everybody.

1 I wanted to let everyone know that right here in
2 Long Beach starting a week from Monday is the every two
3 years conference that is the biggest professional
4 conference, the biggest professional conference in the field
5 of non-motorized planning. And that's the Pro Walk/Pro Bike
6 Conference that's being held in Long Beach.
7 This is actually a conference that was
8 instrumental to me in making my transition out of software
9 into my transportation career. I attended the Pro Walk/Pro
10 Bike Conferences starting in 1994. And just from the
11 conference sessions educated myself and came up to speed.
12 So I recommend it for yourselves or any of your
13 staff that you want to rapidly immerse into the planning,
14 design and other world of non-motorized transportation as it
15 regards roadways, pathways and place design as well. The
16 theme this year is "Pro Place." That is, the role of place
17 in land use in the fostering of non-motorized roads. So
18 Long Beach Pro Walk/Pro Bike.
19 COMMITTEE CHAIRMAN ROBINSON: Thank you, John.
20 Do we have any other off-agenda items that any of
21 the Committee would care to discuss?
22 Seeing none then I would propose that we get
23 directly into the agenda items.
24 With Jeff still not in attendance I will go ahead
25 and take Item 12-14, table updates throughout Part 6 of the

1 CA MUTCD 2012. This was submitted by Caltrans and so I'll
2 turn the mic over to Mr. Fogle.
3 COMMITTEE MEMBER FOGLE: Thank you, Mr. Chairman.
4 If we could all jump to page nine on your agenda, Item
5 12-14, Table Updates Throughout Part 6 of the CA MUTCD.
6 The actual agenda item is a little disjointed so I
7 am going to kind of walk through the various tables and
8 explain why they are in here and what, if any, changes we
9 are proposing.
10 So on Table 6C-1 we show "high speed" and "low
11 speed" for urban in several different ways, "more than 25
12 mph to 40" and "more than 40 mph."
13 In the table below, 6H-3, we show basically the
14 same components under Road Type but now we have reversed the
15 second urban to show "low speed" for "more than 25 mph" to
16 "40 mph."
17 So what we will eventually do when we get back a
18 few more pages is we are going to propose striking "low
19 speed" and "high speed" from any of those descriptors and
20 simply rely on the mph descriptor instead.
21 If we jump to the next page, page 10, Table 3F-1.
22 This is in here as a supporting table for another table
23 we'll talk about in a minute. And basically it shows that
24 there is a spacing cap for delineators on horizontal curves.
25 And we'll be using or proposing a similar concept to

1 address maximum spacing of channelizing devices in a few
2 pages on table CF-101(CA).
3 On page 11 we're back to Table 6C-1, which we had
4 initially started with. And this is now our formal proposal
5 to strike the words "low speed" and "high speed" under the
6 first three lines under Road Type.
7 Mr. Chairman, I don't know if you want to -- want
8 me to stop after each table for any discussion or just
9 continue through the entire list?
10 COMMITTEE CHAIRMAN ROBINSON: What would be the
11 desire of the Committee? Would you prefer for him to go all
12 the way through and then discuss each one as they came?
13 Just go ahead on through.
14 COMMITTEE MEMBER FOGLE: Okay. We don't consider
15 these to be terribly controversial; these are more just
16 technical updates.
17 If we jump to the next table on this page, Table
18 6C-2, Stopping Sight Distance as a Function of Speed. We
19 are proposing to add the words "on Level Roads." And in
20 parentheses to that title, "Used as suggested longitudinal
21 buffer space or location for flagger."
22 We also are proposing to eliminate the note that
23 was at the bottom of that chart shown in blue and that has
24 been incorporated into the title.
25 We think that that's important because on the next

1 page we will be proposing a new table for stopping sight
2 distance as a function of speed on downgrades.
3 So we will now have two different tables, one that
4 explains the distances that correlate with the speeds for
5 level roads and the distances that correlate with speeds for
6 various downgrades, 3 percent, 6 percent and 9 percent.
7 So that takes us to page 12. This is a new table
8 that we are proposing. Let's see. We are also adding a
9 line at the bottom of this table, as we will for some others
10 as we talk about them. The bottom line -- excuse me, the
11 bottom row, where we have added 75 mph to match the federal
12 tables, similar federal tables and the corresponding
13 distances that would go along with that speed.
14 COMMITTEE VICE CHAIRMAN BAHADORI: Mr. Chairman.
15 COMMITTEE CHAIRMAN ROBINSON: Hamid.
16 COMMITTEE VICE CHAIRMAN BAHADORI: Can I ask a
17 question here or a suggestion?
18 COMMITTEE CHAIRMAN ROBINSON: Go ahead.
19 COMMITTEE VICE CHAIRMAN BAHADORI: One quick
20 question, Mr. Fogle, regarding getting rid of the low speed
21 and high speed distinctions. Is that the intention, to do
22 that for pretty much everything in the manual or these
23 specific tables? Is it like -- because there are other
24 places that we are making standards based on high speed and
25 low speed distinction. Are we going to go through the

1 manual later and do that, get rid of that and go to only
2 mph?
3 COMMITTEE MEMBER FOGLE: That wasn't our proposal
4 for today. Today we just simply identified that we had some
5 confusion. We had introduced some confusion with the second
6 urban showing in one location as high and in another
7 location as low. We can certainly take that under
8 advisement, however, but that wasn't today's proposal.
9 COMMITTEE VICE CHAIRMAN BAHADORI: Okay. But as a
10 matter of policy you're thinking that maybe just get rid of
11 that loosely-defined high speed/low speed and go with mph
12 distinctions --
13 COMMITTEE MEMBER FOGLE: Yes.
14 COMMITTEE VICE CHAIRMAN BAHADORI: -- for all the
15 standards.
16 COMMITTEE MEMBER FOGLE: Yes. I think of the
17 Committee recommends the proposal that we are putting
18 forward today then that will take us to the next step of
19 looking at the other items in the MUTCD and make a similar
20 change.
21 COMMITTEE VICE CHAIRMAN BAHADORI: Okay. And on
22 Table 6C-101. One suggestion I have since we are dealing
23 with the stopping distance. And this is again another of
24 those things going back to the item that Mr. Mustafa just
25 brought up about the litigation and all that.

1 If you want to introduce something like this I
2 suggest that as a footnote of the table we very clearly
3 specify the PIEV value that is used for this stopping
4 distance calculation and the braking distance formula that's
5 used for this calculation.
6 Because we are giving for 3 percent, 6 percent and
7 9 percent, so there are no interim values first to begin
8 with. So if you have a 4 percent you don't know. You
9 interpolate or you go and you do calculation on your own.
10 And then the values, we need to know -- since we
11 are making also a reference to AASHTO. And there are some
12 differences between the way we do it in California and they
13 do it and all the issues with regarding to the height of the
14 eye of the driver and stuff like that.
15 We need to clarify all those, that whether this
16 value is calculated based on what is the PIEV value that we
17 have used and what is the braking distance formula and the
18 deceleration rate or friction factors, whatever we have
19 used.
20 Otherwise, when we get into -- or when any
21 municipality gets into litigation they are going to have
22 difficulty explaining -- fighting these numbers and
23 explaining how they were actually calculated.
24 COMMITTEE CHAIRMAN ROBINSON: In fact, Hamid, I
25 think having that ability to calculate will reduce any kind

1 of liability that may be incurred by trying to interpolate,
2 since an interpolation will likely result in a number that's
3 different from the calculation itself.
4 COMMITTEE VICE CHAIRMAN BAHADORI: So any formula,
5 any number assumptions, any factors, friction or PIEV
6 whatever have been used to calculate these values, I suggest
7 we add to the bottom of the table so the numbers in the
8 table can be independently calculated and any intermittent
9 values in those grades can be calculated as well.
10 COMMITTEE MEMBER JONES: Should we also round
11 those numbers? Every other table is rounded in the manual
12 and these are pretty exact.
13 COMMITTEE VICE CHAIRMAN BAHADORI: And that is --
14 Mr. Chairman, that's a good point. Because Highway Design
15 Manual, Chapter 200, has similar tables. I think it's Table
16 201-1 or .1. And they give stopping distances in the
17 Highway Design Manual. so we have to make sure that these
18 numbers also match those numbers. And in the Highway Design
19 Manuals they always round to the nearest fifth -- five,
20 whatever. So 116 will be 115, it will not be 116.
21 And if you make those roundings then we need to
22 also explain that the numbers are calculated and rounded to
23 the nearest five.
24 COMMITTEE CHAIRMAN ROBINSON: Sounds reasonable.
25 Is Caltrans okay with that?

1 MS. McLAUGHLIN: I have a --
2 COMMITTEE CHAIRMAN ROBINSON: Roberta.
3 MS. McLAUGHLIN: Roberta McLaughlin, Caltrans,
4 Office of Signs and Markings.
5 Also we probably should clarify that these are
6 minimum, maximum. Attorneys like to hang their hat on
7 numbers. And if you just put a number and you don't have
8 your flagger right at that number it could cause a problem.
9 COMMITTEE VICE CHAIRMAN BAHADORI: Yeah, but
10 highway -- Roberta, I understand your point and I agree and
11 that's a legitimate point. Highway Design Manual has
12 exactly similar table that says the stopping sight distance.
13 And it is based on mph and they are all rounded.
14 MS. McLAUGHLIN: Understood. But this is, this
15 particular chart is to place something out on the highway at
16 a distance. Stopping -- I understand that the concept of
17 stopping sight distance under ideal conditions, under these
18 assumptions, this is how long it would take you to stop if
19 you see something on the highway. But when you're talking
20 about placing something on the highway in advance of a work
21 zone or --
22 COMMITTEE VICE CHAIRMAN BAHADORI: Mr. Chairman,
23 may I continue?
24 COMMITTEE CHAIRMAN ROBINSON: Please.
25 COMMITTEE VICE CHAIRMAN BAHADORI: Again, you

1 know, the point is that first of all I think it may cause
2 some actual practical confusion in the field when you have
3 two Caltrans documents with two different tables that give
4 you different values for stopping sight distance, say for 20
5 mph or 25 mph, one says 115, one says 116.
6 And even the one in Highway Design Manual really
7 doesn't give you the formula and the friction factor that's
8 used and all that.
9 But if you are going to introduce a new table in
10 the MUTCD we need to make sure other than the fact that we
11 explain all the parameters and the factors, we need to make
12 sure it's consistent with all the other Caltrans documents.
13 COMMITTEE CHAIRMAN ROBINSON: So we're talking
14 about rounding.
15 COMMITTEE VICE CHAIRMAN BAHADORI: Whatever the
16 decision is ultimately we need to make sure that whatever
17 the Highway Design Manual says, MUTCD says the same numbers,
18 same values. Otherwise, I mean, it's a simple question.
19 Somebody is going to ask in a deposition and say, so what is
20 the stopping sight distance for 25 mph? You have two
21 Caltrans documents and they are giving you two different
22 values. Consistency I think is equally important.
23 COMMITTEE CHAIRMAN ROBINSON: Obviously we don't
24 want to provide two different numbers for the same, for the
25 same issue.

1 COMMITTEE VICE CHAIRMAN BAHADORI: For the same
2 speed.
3 COMMITTEE CHAIRMAN ROBINSON: And here we've got
4 three different sets of downgrades with a multitude of
5 possibilities in-between. So it would appear that the
6 prudent action would be to list all of the assumptions that
7 were taken and to ensure that there is consistency in this
8 table with others that exist in the tables.
9 Any other comments relative to this? Johnny.
10 MR. BHULLAR: Johnny Bhullar with Caltrans Office
11 of Signs, Markings & Permits. Before we get too detailed
12 into these discussions and stuff I wanted to point out one
13 thing. This table itself is not new. This table is already
14 part of our current CA MUTCD with these exact same numbers
15 and the table is 6E-101. All we are doing is to be
16 consistent we are also adding it to Chapter 6C.
17 So this table is an existing table, existing
18 policy, nothing new, same values. But we do value the
19 suggestions and of course that doesn't mean we don't at
20 least address those concerns. I didn't want to, at least,
21 everyone go away thinking that this is a brand new table,
22 brand new values that we are adding.
23 COMMITTEE VICE CHAIRMAN BAHADORI: That's good to
24 know. Thank you, Mr. Chairman, it's good to know.
25 Now that it has come to the attention of the

1 Committee I think we have a responsibility to at least bring
2 up the issue and make the suggestion.
3 MR. BHULLAR: Yes, I agree.
4 COMMITTEE SECRETARY SINGH: There will be public
5 comments.
6 COMMITTEE CHAIRMAN ROBINSON: I neglected to
7 identify how we were going to carry this out. Typically
8 what we do is we'll go ahead and get the report. We'll
9 receive comments, initial comments from the Committee, then
10 we'll ask if the audience has particular comments on the
11 issue. We'll bring it back into the Committee for final
12 comments and then we'll vote on it. I'm sorry I didn't,
13 didn't describe that to you earlier.
14 COMMITTEE MEMBER BRONKALL: I'd like to bring up a
15 concern on Table 6C-2. The new language would indicate the
16 words "level roads." And I'd like to suggest that Caltrans
17 may wish to consider adding a definition of level roads.
18 COMMITTEE CHAIRMAN ROBINSON: Any issue with that?
19 COMMITTEE MEMBER FOGLE: We can take that under
20 advisement.
21 And just to let the crowd know what just
22 transpired here from my end. I am the voting member from
23 Caltrans and I am also the presenter of these items but I am
24 not the technical expert for Caltrans on any of these items.
25 And so I rely on my staff to assist me in making sure that

1 the proper and correct information gets disseminated, not
2 only to the Committee Members but to the audience as well.
3 COMMITTEE CHAIRMAN ROBINSON: So Don, I think
4 we're past our point of comments on the last couple of
5 tables, do you want to continue from there?
6 COMMITTEE MEMBER FOGLE: I do have a question with
7 regard to Table 6C-2 based on the comments from Hamid and
8 others. We currently don't show any formulas or anything
9 for level roads either. Is that something now that the
10 Committee wishes to expand for each and every chart in the
11 CA MUTCD that references distances and speed?
12 COMMITTEE CHAIRMAN ROBINSON: I would say my
13 personal opinion would be probably not, since this is level.
14 But where you, where you have a table with different
15 variables and then you have the ability and there's
16 potential for somebody to possibly interpolate between them,
17 that is where you would probably want those, the
18 calculations, the formula.
19 COMMITTEE VICE CHAIRMAN BAHADORI: Mr. Chairman,
20 if I recall correctly, I agree with the common level roads,
21 because different documents define it differently. If you
22 go to Highway Capacity Manual, anything less than one
23 percent is level road. And maybe in the calculations one
24 percent for stopping sight distance is not a big deal, but
25 still we need to have some definition, what's a level road.

1 I think the 6C-2, if I remember correctly, these
2 are the same numbers, the same values that Highway Design
3 Manual gives in Chapter 200. And for these, having them --
4 I always like to see the formula that's used to calculate
5 the value in the table because somebody may want to know,
6 okay, how did you get to this number. Especially on the
7 issues of stopping sight distance because there are so many
8 variables. It's depends what's the PIEV value you have
9 used, is it one second, two seconds, two-and-a-half seconds?
10 How did you come up with that number.
11 But on 6C-101 I'm a little bit more concerned
12 because we are giving such precise numbers, which is unusual
13 in the stopping sight distances. We are saying like 257.
14 the stopping sight distances usually are 250 or 260, we
15 don't say 257 feet. So these are very precise numbers. So
16 if someone looks at this and compares it with Highway Design
17 Manual they need to know how these numbers were calculated.
18 COMMITTEE CHAIRMAN ROBINSON: So I'm hearing that
19 we already have a definition for level road and so using the
20 term should have already been defined.
21 COMMITTEE MEMBER FOGLE: Okay. Moving on, 6C-3 on
22 page 13.
23 MR. FISHER: I had a comment on this table, if
24 this is the appropriate --
25 COMMITTEE CHAIRMAN ROBINSON: John, we'll

1 acknowledge you but after this.
2 MR. FISHER: Okay. I'll do it at the appropriate
3 time. I was just telling you.
4 COMMITTEE CHAIRMAN ROBINSON: Okay, thank you.
5 COMMITTEE MEMBER FOGLE: On that table we are
6 adding a row at the bottom for 75 mph and the accompanying
7 Merging distance, Shifting, Shoulder and Down Stream numbers
8 as well.
9 On page 14, Table 6E-1. This is similar to what
10 we saw on the earlier chart. We are adding "on Level Roads"
11 to the title and then in parentheses "Used as suggested
12 longitudinal buffer space length or location for flagger
13 station." And since we are adding that to the title we
14 would be deleting the blue note at the bottom of that table.
15 Table 6E-101(CA). Stopping Sight Distance as a
16 Function of Speed on Downgrades. (Used as suggested
17 longitudinal buffer space length or location for flagger
18 station)" would be the new title for this chart -- I'm
19 sorry, table.
20 And I would assume that the previous comments that
21 we've received regarding formula and eye height and things
22 like that would also apply to this and we can take that
23 under advisement.
24 Also we have added a row at the bottom for 75 mph
25 to be consistent with the federal tables.

1 On page 15, Table 6F-101(CA) Maximum Spacing of
2 Channelizing Devices. This actually is where the earlier
3 chart, I believe it was the first or second chart we looked
4 at that capped spacing for channelizers on curves. That was
5 in support of this proposed change.
6 What Caltrans has found is that on high-speed
7 facilities the spacing seems to be a little bit too large if
8 one or two cones gets knocked down in succession and it can
9 lead to some unsafe maneuvers and unplanned entry into the
10 work zones.
11 So we are proposing for any speed roadway higher
12 than 50 mph to be locked in at the Taper/Tangent and
13 Conflict distances that show for 50 mph. So for that
14 remainder of that chart, everything from 50 to the new row
15 of 75, like we've discussed on other charts, the taper feet
16 will be locked at 50, the tangent feet will be locked at 100
17 and the conflict feet will be locked at 25.
18 Table 6H-3. This is one we briefly touched on in
19 the very beginning. Again, as we suggested or proposed
20 before, we'll be deleting any references to low speed or
21 high speed under the Road Type column and simply relying on
22 the speed descriptors to explain when to use the various
23 distances between signs.
24 And then on page 16 we are simply proposing to add
25 a row at the bottom for 75 mph as we proposed earlier.

1 And that concludes our proposal for this item.
2 COMMITTEE CHAIRMAN ROBINSON: Okay, Don, thank
3 you. Hamid, you have a comment?
4 COMMITTEE VICE CHAIRMAN BAHADORI: Mr. Chairman,
5 under Table 6H-4(CA) on page 16 there is a note that is
6 clarifying and I think it is helpful for the other two
7 tables also. And it's the first note that says -- when you
8 say "speed" it clarifies. And it says "Posted speed limit,
9 off-peak 85th percentile speed prior to work starting, or
10 the anticipated operating speed in mph." So it gives
11 clarification. And it helps if you add the same note under
12 the other two tables. So that when somebody looks at the
13 table and sees "speed" he knows that he has the flexibility
14 to use either of the three.
15 COMMITTEE MEMBER FOGLE: And we will also take
16 that under advisement. We had also discussed that
17 internally prior to the meeting so we generally concur with
18 that proposal.
19 COMMITTEE CHAIRMAN ROBINSON: Okay. Other
20 comments from the Committee? John.
21 COMMITTEE MEMBER CICCARELLI: A question for Don.
22 Perhaps this was covered earlier in your presentation.
23 What was the motivation behind moving the phrase about the
24 "longitudinal buffer space length or location for flagger
25 station" from the note up into the title of the tables?

1 COMMITTEE MEMBER FOGLE: Johnny, could you please
2 address John's question.
3 MR. BHULLAR: Yes, Johnny Bhullar with Caltrans.
4 Basically the intent overall of this entire item is that
5 Part 6 of the MUTCD from the National MUTCD has been that
6 the same values -- the same tables have been used but they
7 have been used for different purposes. And when they have
8 been used for different purposes their titles have turned
9 out to be different.
10 And that's why there is a lot of inconsistency
11 between Chapter 6C, which is the General for like traffic
12 control measures, and 6C, which is only for flagger use.
13 And what we are trying to do here is then change the title
14 of the table wherever that same table is appearing, whether
15 it's in Chapter 6C or 6E or 6H that the title indicates
16 clearly rather than a sub-note or something that is lost in
17 the policy text that is not even showing up in the table,
18 what is the intent of this table.
19 So the table is -- for that very reason the title
20 is being changed to say, for example, that this is -- in
21 this case the table is for a stopping sight distance as a
22 function of speed. That is, of course, the real meaning of
23 the table. But it is also used for a longitudinal buffer,
24 it is also used for flagger stations. So we are trying to
25 bring that usage right into the title and make it consistent

1 also in the other chapters when the same table is appearing.
2 Otherwise basically what was happening is that we
3 are saying, this is the stopping sight distance but in text
4 we say, use this for buffer space. In another chapter we
5 are saying, use this for flagger station. And when you get
6 to the table the table titles get to be different and
7 everyone is like, what is the difference between these two
8 tables? They have the same values. The titles are saying
9 stopping sight distance but I don't know. If I can use this
10 one for buffer can I use that one for flagger station?
11 So that's the overall intent behind the scene of
12 trying to have a more standardized approach on these tables.
13 And also, if we are incorporating or duplicating one table
14 and there is a second part of the table, for example level
15 roads. That table, we had in two chapters but only in one
16 chapter did we say, for flagger station for downgrades. We
17 had another table that accompanied it but we did not have it
18 in General, which was in Chapter 6C. So now we are trying
19 to duplicate it and bring it here too.
20 So just trying to be more consistent and uniform
21 in our titling and being descriptive of the usage of the
22 table.
23 COMMITTEE CHAIRMAN ROBINSON: I personally like
24 that. As my eyes get older I hate reading little subtitles
25 underneath. When it's more descriptive -- when you've got

1 the title it's more descriptive as to use. I think it's a
2 little bit easier for everybody to use.
3 MR. BHULLAR: Yeah, Michael. And not only that.
4 In other cases sometimes the usage is lost in the policy in
5 a chapter elsewhere so it's not even in the suffix or in the
6 note down below. That still makes it easy because it's on
7 the table. But when the usage is lost in a different page
8 in the policy, in the narrative paragraph -- so we're trying
9 to make that a little bit more clear.
10 COMMITTEE CHAIRMAN ROBINSON: Thank you. Other
11 comments from the Committee?
12 Seeing none we'll go ahead and take this
13 opportunity to open it up to the community. Actually we'll
14 open up the entire issue to everyone. John, I know that you
15 have a comment.
16 MR. FISHER: Is Table 6C-101(CA) a brand new table
17 or does it replicate a table that was already there?
18 MR. BHULLAR: It's Table 6E-101 being repeated
19 here.
20 COMMITTEE SECRETARY SINGH: On page 14.
21 MR. FISHER: Being repeated?
22 MR. BHULLAR: Yeah.
23 MR. FISHER: Okay. Just exactly as it's written
24 under 6E?
25 MR. BHULLAR: Yes.

1 COMMITTEE SECRETARY SINGH: John.
2 MR. FISHER: Okay.
3 COMMITTEE SECRETARY SINGH: Page 14. It's the
4 same table as page 14.
5 MR. FISHER: Okay. The only thing I would add is
6 I think -- I agree with Mr. Bahadori, I think it would be
7 helpful to identify the assumptions inherent in those
8 distances. Because if you look in the signal chapter under
9 stopping sight distance and detector placement it
10 specifically says the assumed perception reaction time is
11 one second. It explicitly indicates that the braking rate
12 is ten feet per second squared.
13 I know AASHTO may use a different braking rate, I
14 think it's 11.1 feet per second squared or something. And
15 there may be a different perception reaction time because
16 construction zones are more complicated than just watching a
17 signal head, whether it's green or red.
18 So I think it would be helpful and that would, I
19 think, add further clarification to this.
20 COMMITTEE SECRETARY SINGH: Thank you.
21 COMMITTEE CHAIRMAN ROBINSON: Thank you.
22 Yes. Please identify yourself and who you
23 represent.
24 MR. CARUSO: Yes, Peter Caruso, Caltrans Traffic
25 Operations. Two comments on Table 6C-2.

1 One is I too don't like the words level roads.
2 But adding a definition to it would make it even more
3 confusing because you might have upgrades or super
4 elevations. I would recommend saying on all roads except
5 for downgrades. Because then it's pretty clear if you have
6 a -- this is going to be contentious at certain times with
7 -- if there are some -- what level road means.
8 The second comment is at the bottom of this, which
9 might be appropriate for the other chapter, is it says --
10 also for Table 6C-2 as well as for Table 6E-1. It says
11 "Posted speed, off-peak 85th-percentile speed prior to work
12 starting, or the anticipated operating speed." I'd like to
13 see "or the anticipated operating speed" removed as that's
14 completely made up by whomever. Especially for -- is that
15 during construction or after construction. Thank you.
16 COMMITTEE CHAIRMAN ROBINSON: Okay, others?
17 MR. DORNSIFE: Chad Dornsife, Best Highway Safety
18 Practices Institute.
19 A few years ago I was working with a company as a
20 consultant on AFDs, automatic flaggers. And setting that
21 particular piece of equipment to the actual operating speed
22 of the roadway and the actual approach speed saw significant
23 improvements in motorist compliance.
24 So anytime we speak about distances here, if there
25 is any way at all to put into the formula or the comment is

1 that the person is to go on the operating speed of the
2 roadway, if it's known, finding out what that is is pretty
3 simple. I carry something the size of my cell phone in my
4 briefcase that's a radar unit. In ten minutes I can do a
5 survey on any road. So doing that type of analysis isn't
6 that hard to do anymore. Thank you.
7 MR. PYBURN: Good morning, Steve Pyburn, Federal
8 Highway Administration.
9 Two tables, 6C-1 and 6H-3, they mention speed but
10 they don't clarify which type of speed. It could be posted
11 speed or operating speed. And I think that's an important
12 clarification because in a number of locations the operating
13 speed may exceed the posted speed and you may not have
14 adequate sight distance as a result.
15 So at a minimum I would hope that you would add a
16 clarification in 6C-1 and 6H-3 of which speed isn't meant.
17 For example, in 6C-2 there is a clarification, it could be
18 posted or operating, and it's left to the discretion of the
19 traffic engineer. Unfortunately, that's the way the federal
20 language is and I have to support that. Thank you.
21 COMMITTEE CHAIRMAN ROBINSON: Duly noted, Steve,
22 thank you. Others?
23 Then I'll bring the conversation back to the
24 Committee. Steve made an interesting point regarding
25 operating speed or posted speed. Hamid, what's your thought

on that?

COMMITTEE VICE CHAIRMAN BAHADORI: The more I'm thinking -- I've been thinking and listening to the speakers also. Especially now that we are introducing a row for 75 mph, which is not allowed by any stretch of the imagination but you're assuming that the 85th percentile is at 75 or the operating speed is at 75, which is like it happens. I know on I-5 going through Camp Pendleton I go at 79, I never go at 80 because I know CHP sets at 80. I'm kidding.

(Laughter.)

But I'm going at 79 and cars pass me by like I'm stopping. So in places like that or I-5 north of Redding to Shasta or whatever, people are going really in excess of 80. So I understand the need for 75 mph. But since we are introducing that row we need to, as Steve, as Mr. Pyburn said, we need to clarify what is it exactly.

And then, of course, I don't want to get into a little bit of more detail, but then you also need to have some frame of reference that how you actually came up to the idea that people are going 75 mph. Is there some radar survey or you just eyeballed traffic or? But that's the issue for lawyers.

But I support the idea that when you say speed we always need to -- at the bottom we need to clarify what we mean, what kind of speed.

1 COMMITTEE CHAIRMAN ROBINSON: I recognize that a
2 lot of communities post -- go ahead and set according to
3 posted speed because they don't have operating speeds
4 everywhere and not everybody has the devices that they can
5 pull from their pocket and identify that in ten minutes. I
6 know there's a lot of roads in our county that wouldn't,
7 that you couldn't do in ten minutes but fortunately we do
8 have a lot of good surveys.
9 I personally like the idea of going with an
10 operating speed. At least identifying it that way so that
11 those agencies that have been using these charts according
12 to -- as posted speed, they are then fairly warned that
13 that's the case. So I like the idea as well of identifying
14 these charts as operating speed as opposed to posted.
15 Anyone else on this?
16 Okay. I think we're pretty well talked out on it.
17 I would entertain a motion to --
18 COMMITTEE MEMBER CICCARELLI: Mike, I thought you
19 were closing the discussion of the posted speed. I do have
20 one more, it's an edit question for Johnny. That is,
21 whether it would be valuable under each table that is a
22 duplicate of another table but otherwise identical, to note
23 the other tables and acknowledge that they're identical just
24 to save confusion. So if someone says, hey, this looks like
25 that, I wonder if that's an error. It should say, yeah,

1 this is the same as 6C-whatever, duplicated here for your
2 convenience.
3 MR. BHULLAR: Yes, Johnny Bhullar with Caltrans.
4 Certainly that's a good suggestion and we would probably add
5 that, yeah. That will at least remove some of the guessing
6 game that is involved.
7 COMMITTEE CHAIRMAN ROBINSON: Okay, any other
8 comments from the Committee? Then I would -- yes, Hamid.
9 COMMITTEE VICE CHAIRMAN BAHADORI: Mr. Chairman,
10 on a couple of these things Caltrans said that they are
11 going to take it under advisement so it is not clear if
12 Caltrans is accepting the comments or if they are not
13 accepting. Like the issue of rounding to the five in the
14 tables 6C-101 and 6E-101. So will these tables come back to
15 the Committee or Caltrans will just finalize them and
16 publish them?
17 COMMITTEE MEMBER FOGLE: I believe we will
18 finalize them and publish them based on the comments that
19 were received. We didn't commit because the discussion had
20 not concluded so we weren't sure if there were any counter-
21 points or anything to be raised. So --
22 COMMITTEE CHAIRMAN ROBINSON: So then the question
23 is, Caltrans is prepared to make the changes to the tables
24 according to the comments that were received.
25 COMMITTEE SECRETARY SINGH: Correct.

1 COMMITTEE MEMBER FOGLE: Correct.
2 COMMITTEE SECRETARY SINGH: And we want someone to
3 make a motion, subject to these comments.
4 COMMITTEE CHAIRMAN ROBINSON: So the best way to
5 do that would be to find out if there is anybody that is
6 ready to talk about the changes that are going to be, going
7 to be made. John was really good at keeping good notes at
8 all the different changes. The several that I have got here
9 are that each table will have the calculation at which those
10 numbers were derived.
11 COMMITTEE MEMBER FOGLE: For downgrades only.
12 COMMITTEE CHAIRMAN ROBINSON: I thought it was for
13 all of them.
14 COMMITTEE MEMBER FOGLE: No. Well it was my
15 understanding it was not for all of them, it was for
16 downgrades only.
17 COMMITTEE SECRETARY SINGH: For 6C-101, page 12.
18 COMMITTEE CHAIRMAN ROBINSON: Okay. And then for
19 the level conditions they weren't.
20 COMMITTEE MEMBER FOGLE: Right.
21 COMMITTEE SECRETARY SINGH: And then we'll put the
22 appropriate speed note.
23 We are going to be making changes to the titles to
24 pull the subtitles out.
25 What am I missing? I think that's pretty much it.

1 COMMITTEE MEMBER FOGLE: There was a proposal from
2 the audience with regard to "on level roads." To change
3 that to "on all roads except downgrades."
4 COMMITTEE CHAIRMAN ROBINSON: I think we
5 identified that there is a definition for level roads.
6 COMMITTEE MEMBER FOGLE: Okay.
7 COMMITTEE CHAIRMAN ROBINSON: Which would render
8 that moot.
9 COMMITTEE MEMBER FOGLE: Okay.
10 COMMITTEE CHAIRMAN ROBINSON: Does the Committee
11 agree to that? Okay.
12 So then I would entertain a motion to approve this
13 item as just noted, with the changes that were --
14 MS. McLAUGHLIN: One comment before?
15 COMMITTEE CHAIRMAN ROBINSON: Sure.
16 MS. McLAUGHLIN: I'm not sure where to insert
17 this. Roberta McLaughlin, Caltrans Office of Signs and
18 Markings.
19 The operating speed we were discussing I don't
20 believe has been defined in the manual.
21 COMMITTEE CHAIRMAN ROBINSON: Okay.
22 MS. McLAUGHLIN: So I have concern about --
23 granted it's used in the federal language in some of the
24 notes but operating speed, we all kind of have a different
25 understanding. How is it measured?

1 COMMITTEE CHAIRMAN ROBINSON: I'm using 85th
2 percentile in operating speed.
3 MS. McLAUGHLIN: That's not -- they're not -- they
4 are not the same.
5 COMMITTEE VICE CHAIRMAN BAHADORI: If you go with
6 the 85th percentile that's already set. It's set. It says,
7 posted speed or off-peak 85th percentile before the work
8 starts. Then when you say "or operating speed" then
9 operating speed is, by definition, different than both
10 posted speed and the 85th percentile.
11 MS. McLAUGHLIN: Correct.
12 COMMITTEE VICE CHAIRMAN BAHADORI: I agree with
13 Ms. McLaughlin.
14 COMMITTEE CHAIRMAN ROBINSON: Well, then we need
15 to discuss that and get that clear before we vote.
16 COMMITTEE VICE CHAIRMAN BAHADORI: Yeah. If you
17 want to say "operating speed" we need to say, okay, what
18 does that mean. Because if it's 85th or critical speed it
19 already says that. And that's a question for maybe the FHWA
20 also since it's their language.
21 COMMITTEE CHAIRMAN ROBINSON: Well I think I heard
22 from Steve that he didn't necessarily support the way it was
23 described.
24 COMMITTEE VICE CHAIRMAN BAHADORI: I don't recall,
25 probably Mr. Bhullar does, whether operating speed is

1 defined in the MUTCD or not? It's not?
2 MS. McLAUGHLIN: I Just looked.
3 COMMITTEE VICE CHAIRMAN BAHADORI: It's not.
4 MR. DORNSIFE: Chad Dornsife with Best Highway
5 Safety Practices.
6 The operating speed in all the federal highway
7 research from Turner-Fairbank when they were doing their
8 research back in the '80s and '90s was presumed to be the
9 85th. So when you design speed, operating speed, et cetera,
10 they were -- the conversation was based on the 85th.
11 COMMITTEE CHAIRMAN ROBINSON: Thank you. Hamid.
12 COMMITTEE VICE CHAIRMAN BAHADORI: Yeah. Then
13 if --
14 COMMITTEE CHAIRMAN ROBINSON: I've always used
15 that as well.
16 COMMITTEE VICE CHAIRMAN BAHADORI: Because then --
17 COMMITTEE CHAIRMAN ROBINSON: Is there somebody
18 that can illustrate the difference between operating speed
19 and 85th percentile?
20 COMMITTEE VICE CHAIRMAN BAHADORI: Yeah, because
21 then it's redundant. It's like saying, posting the speed
22 limit or posting the speed limit. You have already said it.
23 If it's the 85th percentile you are already saying "posted
24 speed limit, off-peak 85th percentile speed prior to work
25 starting, or the anticipated operating speed." When we

1 introduced the third category as operating speed it means
2 it's different from both posted and 85th. And that, someone
3 is going to ask the question. And if you say it's 85th they
4 say, you already said that. Why do you say the third "or."
5 COMMITTEE CHAIRMAN ROBINSON: Well then maybe we
6 should -- I would think that maybe the best thing to do
7 would be to pull that last operating speed out and leave it
8 according to the first two descriptions.
9 COMMITTEE VICE CHAIRMAN BAHADORI: I don't have a
10 problem with leaving it because we are using pretty much
11 federal language. But it begs the question of what is this
12 third new category. What is operating speed that's
13 different from 85th or the posted?
14 COMMITTEE CHAIRMAN ROBINSON: I don't know why we
15 would want to introduce that. Anybody else have thoughts on
16 that?
17 MR. WINTER: I'm not sure if you want to take
18 public comment real quick. Just one thought on operating
19 speed.
20 MS. McLAUGHLIN: Can you identify yourself.
21 MR. WINTER: My name is Bill Winter, LA County
22 Public Works.
23 Just one thought on operating speed. It does --
24 in the context of Part 6 you might be doing some kind of
25 localized work, you may have a localized geometric

1 condition. Like on a mountain road, for instance, you might
2 have several curves that for that particular area the speed
3 limit isn't -- maybe leading up to the curves is going to be
4 different than what the speed is within that limited area
5 that the work is occurring. So it does give some discretion
6 to kind of those localized conditions to have the judgment
7 to set some type of operating speed in which to then use
8 those tables. So just a thought there.
9 COMMITTEE CHAIRMAN ROBINSON: That's a great
10 point. If we can then define "operating speed" as a speed
11 that would not be consistent with the 85th percentile speed
12 because of curvature, grade, et cetera, then we could
13 incorporate it and I think it would be clear. It will be a
14 clearer instruction for people to use.
15 So then we would need a definition for that third
16 category of operating speed.
17 COMMITTEE VICE CHAIRMAN BAHADORI: I personally,
18 Mr. Chairman, I have no problem keeping the way it is
19 because it's verbatim federal language and we have been
20 using it for a long, long time. Not under all the tables,
21 which I suggested and others suggested also, that we make it
22 uniform for all the tables.
23 But it begs the question that maybe in the future
24 time -- I don't know. At this time I really don't know.
25 With all these explanations I still -- there's a posted

1 speed limit and there is a percentile, whatever that
2 percentile speed limit is. There is no other kind of speed.
3 So it's either the 50th percentile, it's 85th percentile,
4 it's mean speed, it's critical speed. Whatever you say is
5 always tied to a percentile speed or a posted speed.
6 There is no other form of speed. There must be
7 some numeric way to characterize the speed. And if you just
8 say "operating speed" what does that mean? Is that the
9 speed at which what percentile of drivers travel? We can
10 say 50 percentile; that is a new definition. But just
11 saying "operating speed" it means -- and it's so objective
12 -- sorry, it's so subjective. Each person can look at
13 traffic and have a different value for the operating speed.
14 So I don't know if today I am ready to even
15 entertain the idea of introducing a new definition into the
16 manual. But maybe for future meeting if Caltrans feels that
17 they have to define it better they can come up with a good
18 definition.
19 COMMITTEE CHAIRMAN ROBINSON: I'm hearing that
20 you're siding with leaving the two definitions and leave the
21 third operating speed off. Is that my understanding?
22 COMMITTEE VICE CHAIRMAN BAHADORI: Yeah. If you
23 do that I'll be perfectly okay with it. Even if you keep it
24 I think I personally will be okay with it --
25 COMMITTEE CHAIRMAN ROBINSON: Okay.

1 COMMITTEE VICE CHAIRMAN BAHADORI: -- because it's
2 federal language.
3 COMMITTEE CHAIRMAN ROBINSON: Good.
4 MR. CARUSO: I want to comment that for this --
5 COMMITTEE CHAIRMAN ROBINSON: Again, Peter, your
6 name and --
7 MR. CARUSO: Peter Caruso, District 12, Caltrans.
8 I agree with him completely because we have statistics on
9 why we use 85th as being safe, the safest speed to use.
10 Throw in a new definition of operating speed, we have no
11 statistics on what that is or how to use it.
12 And the other part is that since this is Chapter
13 6, this would be construction zone, correct? So what would
14 be the, you know. How are they going to measure it in a
15 construction, you know. I like that this says "prior to
16 construction." That is -- because once construction starts
17 you can't do n 85th percentile anyhow because you are
18 affecting the speed of traffic too much.
19 And one last thing about the level roads is if we
20 do keep level roads is then we're going to get phone calls
21 on what do we do on upgrades, what do we do on super-
22 elevations, what do we do on everything else. And that's
23 another reason why I like keeping -- I was suggesting that
24 other issue about keeping it to be on all roads except for
25 downgrades. Is to avoid adding two or three more charts for

1 every specific road situation. Thank you.
2 MR. FISHER: Good morning again, John Fisher,
3 retired.
4 I think maybe you do need another type of speed.
5 "Operating speed" is a little problematic, what does it
6 mean? The speed limit alone is not adequate. Because as
7 Bill Winter pointed out, in a curve condition you may have a
8 speed limit of 45 but the curve is only traversable at 30
9 mph.
10 The 85th percentile speed alone is not practical.
11 We don't have 85th percentile speeds for every point along
12 a road, only at half-mile distances generally where we
13 conduct speed limit studies.
14 So you need a third category. Maybe a -- the
15 third category you may wish to consider is warning speed.
16 So if you have that 30 mph curve where you warn them with
17 the curve warning sign to travel it at 30 mph with a 30 mph
18 plaque. The speed limit may be 40. You don't know what the
19 85th percentile speed is but you've got the warning speed
20 there. So that may be an option for you rather than using
21 the words "operating speed."
22 COMMITTEE VICE CHAIRMAN BAHADORI: Mr. Chairman, I
23 think there is a definition.
24 MR. BHULLAR: Johnny Bhullar with Caltrans. I
25 just wanted to point out that there is an operating speed

1 definition in the manual currently. Whether we agree with
2 it or not but the definition is there.
3 COMMITTEE SECRETARY SINGH: So we wasted so much
4 time discussing operating speed so we have now done our
5 homework here.
6 COMMITTEE VICE CHAIRMAN BAHADORI: Mr. Chairman,
7 if I may. As long as the manual defines it, that's fine. I
8 mean, just leave it alone. Just keep it, the federal
9 language in the manual defines it.
10 The definition itself, the definition itself is
11 ambiguous because it says, for example, you can use pace.
12 Pace is a range. Pace is not a single, numeric value. But
13 as long as we have an operating speed definition we can use
14 it under the table. And maybe that's an issue for another
15 time to look at the definition of "operating speed." But as
16 long as you have it in the manual it's safe to --
17 COMMITTEE CHAIRMAN ROBINSON: I agree. I think
18 it's approvable as it is but we could probably do some work
19 as to a better identification of what an operating speed is.
20 Okay. Was there nobody else from the audience? I thought
21 I saw somebody else out there that wanted to talk. No?
22 All right. So I think we pretty well beat this
23 one up. (Laughter.)
24 I would entertain a motion to approve this item
25 with the changes that include the table changes, the title

1 changes, inclusion of the calculation for those speeds that
2 are not -- that are variable for the downgrades. Anything
3 else that we need to ensure is included in the motion?
4 All right, I would entertain that motion.
5 COMMITTEE MEMBER FOGLE: I would like to make that
6 motion, Mr. Chairman.
7 COMMITTEE VICE CHAIRMAN BAHADORI: I second the
8 motion.
9 COMMITTEE CHAIRMAN ROBINSON: Thank you. Any
10 final discussion?
11 Seeing none, all in favor of the motion state by
12 saying aye.
13 (Ayes.)
14 Any opposed?
15 (No response.)_
16 The motion carries unanimously, thank you. Good
17 discussion. Good discussion.
18 COMMITTEE VICE CHAIRMAN BAHADORI: By the way, can
19 we start using these tables now in court defending why we
20 are going at 75 when we get a ticket? (Laughter.) Caltrans
21 says it's okay.
22 COMMITTEE CHAIRMAN ROBINSON: You can do that only
23 when you use the definitions that are included.
24 All right. Our next item is Item 12-15, High-
25 visibility safety apparel policy updates throughout Part 6

1 of the CA MUTCD 2012. Again that's submitted by Caltrans.
2 Mr. Fogle.
3 COMMITTEE MEMBER FOGLE: Thank you. If I can
4 direct everyone to page 17 of the agenda.
5 The recommendation is: "Various parts of Part 6
6 contain standards for high-visibility safety apparels, but
7 he standards are not uniform between each section. So
8 various sections in Part 6 need to be updated so they can be
9 uniform." That's the purpose of our proposal.
10 The American National Standards Institute or ANSI
11 publishes revises standards for high-visibility apparel,
12 safety apparel, every five years or so.
13 The current CA MUTCD 2012 policy reflects policies
14 of the 2009 MUTCD. FHWA has issued an official
15 interpretation regarding this and indicated that the phrase
16 "or equivalent revisions" should be added to Section 6D.03
17 and 6E.02. Those revisions will allow state and local
18 agencies and the traffic industry workers, flaggers and
19 others, to use both the 2004 and the 2010 standard safety
20 apparel in compliance with the CA MUTCD. So the specific
21 proposal is shown in the agenda.
22 In Section 6D.03, Worker Safety Considerations,
23 three words "or equivalent revisions" will be added to
24 paragraph 04 and to paragraph 05 as noted.
25 Also for Section 6E.02, High-Visibility Safety

1 Apparel, we will add those same three words "or equivalent
2 revisions" at two locations ion paragraph 01, two locations
3 in paragraph 02 and two locations in paragraph 04 as noted
4 in the agenda.
5 And that's it for this item.
6 COMMITTEE CHAIRMAN ROBINSON: Okay, bringing the
7 discussion in to the Committee. Hamid?
8 COMMITTEE VICE CHAIRMAN BAHADORI: One question.
9 Is this going to have any cost implication on the people who
10 are buying this apparel?
11 COMMITTEE MEMBER FOGLE: I believe that the cost
12 implications are that they can continue to use the existing
13 safety gear that they have already purchased.
14 COMMITTEE VICE CHAIRMAN BAHADORI: Which is, which
15 is good.
16 COMMITTEE MEMBER FOGLE: Yes. So it will reduce
17 them having to change out all their safety gear because the
18 ANSI standard changed.
19 COMMITTEE CHAIRMAN ROBINSON: I concur with that.
20 We're incurring quite a significant implication in terms of
21 increasing cost.
22 A question that I would have, assuming we have --
23 I don't see anybody else commenting. A question, "or
24 equivalent revisions." Is that specific enough to identify
25 our most immediate past specification? I think "or

1 equivalent revisions" kind of opens up the potential for a
2 person's interpretation of what equivalency is.
3 COMMITTEE MEMBER FOGLE: Johnny, could you pull
4 that link up that is in the notes that Gordon had prepared.
5 I, unfortunately, have not reviewed the FHWA letter myself
6 so I can't, I can't explain where "or equivalent revisions"
7 came from. But my staff has indicated that that was an
8 acceptable and a preferred way to make this correction.
9 Johnny, do you have anything further that you could add?
10 MR. BHULLAR: Johnny Bhullar with Caltrans. Let
11 me explain a little bit of background on that before I pull
12 up and -- I am not sure if Monica or staff person is here
13 because I thought in the morning we didn't have Internet
14 access and I might not be able to do that. But let me at
15 least explain.
16 Basically here what has happened is that in our
17 manual we have the 2004 specifically mentioned. And what
18 happened is working with Cal/OSHA here in Sacramento,
19 Cal/OSHA has been also concerned about this.
20 But at the same time the feds, when they were
21 asked this question, the way they are looking at it is that
22 they want the 2004 standard to be the minimum standard but
23 anything above that can be fine. However, ANSI looks at
24 things a little bit differently.
25 In some of the revisions that ANSI, A-N-S-I, the

1 American National Standards Institute has done, in some
2 cases they have gone back a little bit on some of their
3 standards, whether they be for law enforcement or whether
4 they be for the fire. Because of that the FHWA did not want
5 to say anything 2004 or more current will be acceptable.
6 So that is the reason why they carefully chose the
7 words "or equivalent revisions" because they wanted to have
8 that minimum 2004 standards, which they had maintained or at
9 least reviewed, be the minimum. And in cases where ANSI is
10 making changes, and they are making those changes, yes, I'm
11 aware of that.
12 So they, basically what they did is in those cases
13 they said, as long as ANSI makes the changes and they stay
14 equal or higher. So that is the reason behind the wording.
15 and why that's part of this clarification. They did
16 mention and you can see there on page 17 of our agenda in
17 Section -- is it page 17?
18 COMMITTEE SECRETARY SINGH: Page 17, the first,
19 the first paragraph.
20 MR. BHULLAR: Yeah. So Section 6D.03, paragraph
21 number 04 and line number 4. And after the parentheses
22 where you see "(see Section 1A.11)," you see in black text
23 it says "or equivalent revisions." And that is current
24 MUTCD 2009 language.
25 But what it said is clearly that is what they

1 intended even back then in 2008 when they were working on
2 the rulemaking. So they had chosen that word "or equivalent
3 revision" for this very reason behind the scene and added
4 that to their current manual but they forgot to add it
5 elsewhere in the manual. And that's what their now
6 interpretation is coming out to be.
7 So they said, we mentioned it in one place, we
8 forgot about others. But that's what if you -- if you want
9 we can carry that across. And less is the 2010. No one has
10 to buy the 2010. But if someone buys the 2010 and we don't
11 include this language "or equivalent revision" basically
12 they can be out of compliance because Cal/OSHA right now,
13 all they have is 2004. So even if it's 2010 it could be a
14 lower standard so that could throw you out of compliance.
15 COMMITTEE VICE CHAIRMAN BAHADORI: Mr. Chairman.
16 COMMITTEE CHAIRMAN ROBINSON: Hamid.
17 COMMITTEE VICE CHAIRMAN BAHADORI: I remember when
18 this came up and we had discussion and I worked with
19 Mr. Bhullar on this. We had to send memos to thousands of
20 our tow truck vendors because they fall under this category.
21 To tell them -- because for them to be under contract with
22 us they need to comply with all the state and federal law,
23 otherwise they lose their eligibility and they cannot be on
24 the list. So we have to make sure that they comply with
25 this section. And we went and we explained to them in a

1 memo what kind of apparel they must, their tow truck drivers
2 must be wearing when they go tow people. And we said ANSI
3 107-2004.
4 I understand what you are saying but the term "or
5 equivalent revisions" what does that mean? If it's
6 equivalent it's not revision. The idea of revision is that
7 you are changing something.
8 So if I say ANSI 107-2004 and then I say
9 equivalent revision. So in 2010 say ANSI is going to come
10 up and change the high-visibility requirement and they come
11 up with a higher grade material. Then can they still stay
12 with 2004 that they already bought or they have to throw
13 them away and buy new ones?
14 MR. BHULLAR: That is the intent here is that the
15 feds have already included, and that's part of our current
16 manual is the word "or equivalent revision." And that's how
17 they're interpreting that.
18 COMMITTEE VICE CHAIRMAN BAHADORI: Yes, but what
19 is equivalent revision?
20 MR. BHULLAR: Anything that is equal or higher at
21 least in their --
22 COMMITTEE VICE CHAIRMAN BAHADORI: So if it's
23 equal or higher. So you can just leave it alone and say,
24 ANSI 107-2004. And if I have ANSI 107-2004 I'm in
25 compliance.

1 MR. BHULLAR: Yeah, but if you -- if you have the
2 2010, just because, per se, they are not mentioned in our
3 manual and Cal/OSHA is also -- right now there is a battle
4 happening at Cal/OSHA. They are working on their rulemaking
5 and, of course, they were interested in the outcome today of
6 what our item is going to be.
7 But basically if you don't specifically mention
8 2010 then the 2010 can be legally out of compliance because
9 you only require 2004. The 2010 they have not reviewed, it
10 cannot be complied with, it's not in Cal/OSHA ruling, it's
11 not in our manual.
12 COMMITTEE VICE CHAIRMAN BAHADORI: So we can say
13 ANSI 107-2004 or a more stringent standard.
14 MS. McLAUGHLIN: Or subsequent.
15 COMMITTEE VICE CHAIRMAN BAHADORI: Because then
16 you're saying --
17 COMMITTEE CHAIRMAN ROBINSON: The most
18 immediate --
19 COMMITTEE VICE CHAIRMAN BAHADORI: I don't know, I
20 am just --
21 MR. BHULLAR: No, I hear you.
22 COMMITTEE VICE CHAIRMAN BAHADORI: "Or equivalent
23 revision" the term is confusing. What is equivalent
24 revision?
25 MR. BHULLAR: Well that's the term that the feds

1 have introduced. But I do -- yeah. I do understand your
2 concern.
3 COMMITTEE VICE CHAIRMAN BAHADORI: Yeah. If you
4 say ANSI -- if you say ANSI 107-2004 or a more -- an
5 improved or an upgraded or a more stringent revision,
6 something like that. So we say, if you are complying with
7 2004 you're good enough. but if you have something that's
8 better than 2004 you are still good enough.
9 So it is very clear that these people, because we
10 told them a few years ago -- actually only a couple of years
11 ago. We sent letters to these thousands of tow truck
12 vendors and we said, this is the apparel your tow truck
13 drivers must be wearing. Now this is going to create
14 another confusion and they're going to say, so are you
15 telling us we have to throw away all that stuff and buy new
16 ones?
17 MR. BHULLAR: Hamid, in that case line number six
18 for paragraph number 04, it currently -- already that is our
19 policy because it came from the feds. And they just used
20 the word "or equivalent revisions" so it's already in our
21 manual so how do you deal with that? I'm just trying to
22 share with you.
23 COMMITTEE VICE CHAIRMAN BAHADORI: Yeah, I
24 understand. But I'm just --
25 MR. BHULLAR: I am just trying to tell you their

1 way of trying to --
2 COMMITTEE VICE CHAIRMAN BAHADORI: I don't want to
3 second guess the feds' language, I am just saying
4 "equivalent revision" is an ambiguous term. What does
5 "equivalent revision" mean?
6 COMMITTEE CHAIRMAN ROBINSON: I think we can, I
7 think we can really pick this apart if we wanted to. The
8 intent, and I agree with the intent, is not to cause a
9 significant waste of money on apparel that has the same or a
10 similar effect on safety.
11 COMMITTEE VICE CHAIRMAN BAHADORI: Mr. Chairman,
12 as long as we are keeping verbatim minutes of this meeting,
13 as long as there is a clear understanding in the minutes
14 that Caltrans has clarified that as long as you have 2004
15 compliant apparel you are okay.
16 COMMITTEE CHAIRMAN ROBINSON: Or better.
17 COMMITTEE VICE CHAIRMAN BAHADORI: Or better,
18 you're okay.
19 COMMITTEE CHAIRMAN ROBINSON: I agree with that.
20 Any other comments?
21 Okay. Comments from the public?
22 COMMITTEE SECRETARY SINGH: None.
23 COMMITTEE CHAIRMAN ROBINSON: Seeing none I'll
24 bring it back in to the Committee. I would entertain a
25 motion to approve as written Item 12-15.

1 COMMITTEE MEMBER GREENWOOD: Move approval.
2 COMMITTEE CHAIRMAN ROBINSON: Okay, I've got a
3 motion, do we have a second?
4 COMMITTEE MEMBER FOGLE: Second.
5 COMMITTEE CHAIRMAN ROBINSON: Thank you. It's
6 been moved and seconded to approve Item 12-15 as written.
7 Any comments?
8 Hearing none I will take it to a vote. All in
9 favor indicate by saying aye.
10 (Ayes.)
11 Any opposed? No?
12 (No response.)
13 The motion carries unanimously. Thank you.
14 The next item is Item 12-16, Proposal to Amend
15 Section 3B.18 of the CA MUTCD 2012 to Enhance Uncontrolled
16 Intersection or Mid-Block Crossings, again submitted by
17 Caltrans. Mr. Fogle.
18 COMMITTEE MEMBER FOGLE: Thank you, Mr. Chairman.
19 The recommendation as noted on page 19 is that Caltrans
20 requests the Committee to make recommendations to adopt the
21 amendment to the CA MUTCD Section 3B.18 as shown under the
22 proposal.
23 And I would also like to add, Figure 3B-17(CA),
24 which is not in the agenda. Devinder has passed these out
25 to the voting members. And Johnny, do you know if this is

1 something we could put on the screen?
2 MR. BHULLAR: Yes we can.
3 COMMITTEE MEMBER FOGLE: Okay, Johnny will put
4 this on the screen.
5 I'm going to jump to the Alternatives first before
6 I explain the background, just to explain that the
7 Alternative 1 and Alternative 2 are essentially the same
8 proposal with the exception of three words. "On State
9 Highways" is included at the beginning of Alternative 1.
10 And that is because Caltrans feels very strongly that this
11 is a policy that should be adopted not only by Caltrans, and
12 has been, but also by all the local agencies as well.
13 Caltrans has tried to address how to enhance
14 existing marked crosswalks across uncontrolled roadways
15 where there are four or more lanes and the ADT is 12,000
16 vehicles per day or more and where the speed limit exceeds
17 40 mph. Research shows that marking crosswalks without
18 making additional improvements is associated with higher
19 pedestrian crash rates for the roadway. And that's based on
20 the configuration and operating conditions listed above, ADT
21 of 12,000 vehicles per day, four or more lanes and speed
22 limits that exceed 40 mph.
23 These are suggested as shown in the diagram and as
24 described in the alternatives. These are low-cost
25 improvements that have the potential to reduce the number

1 and severity of pedestrian collisions. This policy raises a
2 "may" condition to a "should" condition for the selected
3 enhancements on roadways that meet the identified roadway
4 configurations and operating characteristics.
5 So I will read the proposed language for
6 Alternative 1. And again, recognize that other than the
7 first three words "On State Highways," Alternative 2 is
8 identical.
9 "Guidance. On State Highways, if a marked
10 crosswalk exists across an uncontrolled
11 intersection or mid-block location or where the
12 speed limit exceeds 40 mph and the roadway has
13 four or more lanes of travel and an ADT of 12,000
14 vehicles per day or greater, advanced yield lines
15 with associated Yield Here to Pedestrian (R1-5,
16 R1-5a) signs should be placed 20 to 50 feet in
17 advance of the crosswalk, Pedestrian Crossing
18 (W11-2) warning signs with diagonal downward
19 pointing arrow (W16-7p) plaques should be
20 installed at the crosswalk, and a high-visibility
21 crosswalk marking pattern should be used."
22 Those are shown on --
23 COMMITTEE SECRETARY SINGH: No, it's not there.
24 COMMITTEE MEMBER FOGLE: Oh it's not there.
25 Sorry.

COMMITTEE SECRETARY SINGH: Everybody has a handout.

COMMITTEE MEMBER FOGLE: Okay, everybody does have a handout. These are shown in the handout. Which handout did you give them, Devinder?

COMMITTEE SECRETARY SINGH: This distributed right now.

COMMITTEE MEMBER FOGLE: Is it this one?

COMMITTEE SECRETARY SINGH: yes.

COMMITTEE MEMBER FOGLE: Okay. So the one that is being passed out to the audience is the unedited version. Yesterday Bill Winter looked at this and gave us some comments on this.

The one that's most obvious, which I will address now because it's obviously in error, is on B - one-way roadway mid-block, it's in the center of the page. And the plaque with the directional arrow is pointing to the wrong direction. So that should be reversed and pointing down towards the crosswalk as opposed to pointing away from the crosswalk.

That's the only thing I wanted to point out on this diagram. If there are any comments or if Bill has anything that he would like to share with the group when the open comment period is, I would appreciate it if Bill would share his thoughts at that time.

1 COMMITTEE CHAIRMAN ROBINSON: I know he has some
2 and I think we'll get to those. Why don't we go ahead and
3 open up comments to the Committee. Hamid?
4 COMMITTEE VICE CHAIRMAN BAHADORI: Mr. Chairman,
5 we have had this discussion about other issues. That if
6 there is anything that goes in the CA MUTCD it's for all
7 highways in California. We don't make distinction between
8 the state highway and other highways. If it's a Caltrans
9 internal policy issue it doesn't belong in MUTCD, they can
10 do it through internal memo. And I support this proposal
11 and I think that we have to go with Alternative 2, which is
12 for all highways in California. I support that. And it's a
13 very good improvement.
14 One suggestion I have for consideration is that we
15 say "if a marked crosswalk exists across an uncontrolled
16 intersection." I suggest we change that "if a marked
17 crosswalk exists across an uncontrolled approach of an
18 intersection." Because if it's a local street with a
19 primary arterial, the local street signs are stop
20 controlled. So technically the intersection is controlled
21 but the approach where you have the crosswalk is
22 uncontrolled. So rather than saying "uncontrolled
23 intersection" we say "on an uncontrolled approach of an
24 intersection." Because the intersection can have traffic
25 control devices, two stop signs, so it's controlled.

1 COMMITTEE CHAIRMAN ROBINSON: Good comment.
2 COMMITTEE VICE CHAIRMAN BAHADORI: With that
3 change I support the concept and I suggest that we consider
4 going with Alternative 2 for all highways.
5 COMMITTEE MEMBER JONES: I second that.
6 COMMITTEE CHAIRMAN ROBINSON: Thank you, Hamid. I
7 also have some other thoughts. Is there --
8 COMMITTEE SECRETARY SINGH: There's a second to
9 the motion.
10 COMMITTEE CHAIRMAN ROBINSON: Yeah. We've got a
11 motion and a second?
12 COMMITTEE SECRETARY SINGH: Yes.
13 COMMITTEE CHAIRMAN ROBINSON: Okay. I know --
14 COMMITTEE VICE CHAIRMAN BAHADORI: Do you want --
15 do you want to hear -- do you want to hear --
16 COMMITTEE CHAIRMAN ROBINSON: I do want to hear
17 other comments that we might have. Anybody else?
18 COMMITTEE MEMBER BRONKALL: I do have a concern on
19 the use of "four or more travel lanes." And it is not
20 necessarily clear if that includes bike lanes in that
21 determination.
22 COMMITTEE CHAIRMAN ROBINSON: I think bike lanes
23 are not normally considered travel lanes in this, in this
24 type of application.
25 Okay. Yes, John.

1 COMMITTEE MEMBER CICCARELLI: I wonder whether
2 four or more travel lanes is the right formulation. What
3 the safety measures are trying to address in part is what's
4 called a multiple threat crash where a motorist in one lane
5 stops and hides a motorist in the other lane, the pedestrian
6 fails to notice. It's a two error thing. That's a
7 characteristic of a multi-lane approach. It could happen on
8 a roadway that has one travel lane in one direction and two
9 travel lanes in the other direction such that part of the
10 crosswalk is subject to the multiple threat crash. So I
11 suppose it could be worded in terms of two or more lanes on
12 either approach to the crosswalk.
13 COMMITTEE CHAIRMAN ROBINSON: That's a very good
14 point. And lanes don't differentiate between turn lanes
15 either.
16 COMMITTEE MEMBER CICCARELLI: That's true.
17 COMMITTEE CHAIRMAN ROBINSON: Do we want to try
18 and isolate more clearly the potential threat and then
19 identify the lanes that would be needed to be described? I
20 think we all understand what the issue is, that we've got
21 cars potentially blocking the pedestrian crossing. But the
22 way it's described, four lanes, may not --
23 COMMITTEE MEMBER CICCARELLI: This is just a
24 guidance and so you could use it for a three lane roadway.
25 COMMITTEE CHAIRMAN ROBINSON: So perhaps changing

1 the terminology to multiple lanes or something like that.
2 COMMITTEE MEMBER CICCARELLI: I feel strongly you
3 need to capture the safety intent for the practitioner.
4 It's really multi -- it's a multi-lane approach. And
5 regarding the turn lanes, I think I would include that as
6 well in the count.
7 I was just thinking of a city I visited about
8 three weeks ago as part of the Pedestrian Safety Assessment
9 Program and it has California 180, a State Highway, five
10 lane configuration, very much like this but with a center
11 turn lane. And people turning left out of the major street
12 onto the minor street are part of the threat. So number of
13 approaching lanes I think is the criteria.
14 COMMITTEE MEMBER GREENWOOD: So in that case
15 language that's more than two lanes would capture that.
16 COMMITTEE CHAIRMAN ROBINSON: Or multiple approach
17 lanes.
18 COMMITTEE MEMBER GREENWOOD: Is a turn lane an
19 approach lane?
20 COMMITTEE CHAIRMAN ROBINSON: I would think so.
21 COMMITTEE SECRETARY SINGH: Okay. Can you repeat
22 your wording so we have it?
23 COMMITTEE MEMBER CICCARELLI: This is a proposed
24 change to the term "has four or more lanes of travel." It
25 would replace that with has -- what did we say? A roadway

1 has four or more lanes of travel. I would say something
2 like "any part of the crosswalk has two or more approaching
3 lanes of traffic."
4 COMMITTEE CHAIRMAN ROBINSON: How about just
5 multiple approach lanes?
6 COMMITTEE MEMBER CICCARELLI: Multiple is good.
7 COMMITTEE CHAIRMAN ROBINSON: Or has -- where the
8 roadway has multiple approach lanes, period.
9 COMMITTEE SECRETARY SINGH: So we want to keep
10 four lanes?
11 COMMITTEE MEMBER CICCARELLI: No.
12 COMMITTEE CHAIRMAN ROBINSON: No.
13 COMMITTEE SECRETARY SINGH: Okay.
14 COMMITTEE CHAIRMAN ROBINSON: "Four or more lanes
15 of travel" would be replaced with "multiple approach lanes."
16 COMMITTEE MEMBER JONES: I'd be willing to make a
17 friendly amendment to the motion.
18 COMMITTEE CHAIRMAN ROBINSON: Thank you, Bryan.
19 The second would agree to that amendment?
20 COMMITTEE MEMBER JONES: I was the second.
21 COMMITTEE CHAIRMAN ROBINSON: Oh, you were the
22 second. The maker? Okay. So as it is proposed the changes
23 would be, "If a marked crosswalk exists across an
24 uncontrolled approach to an intersection." And then further
25 down we would identify "where the speed limit exceeds 40 mph

1 and the roadway has multiple approach lanes and an ADT of
2 12,000 vehicles."
3 With that I think I'm going to open it up to the
4 public.
5 COMMITTEE MEMBER CICCARELLI: Mike, before you
6 open it up to the public I wanted to capture some other
7 things that I'd seen in my colleagues' notes.
8 One is that the figures show only single-sided
9 signs. Devinder?
10 COMMITTEE SECRETARY SINGH: We have a comment
11 sheet, there's a comment sheet on the table.
12 COMMITTEE MEMBER CICCARELLI: Okay.
13 COMMITTEE SECRETARY SINGH: Bill Winter made
14 comments yesterday and we agree with his comments.
15 COMMITTEE MEMBER CICCARELLI: You've already
16 captured that?
17 COMMITTEE SECRETARY SINGH: Yes.
18 COMMITTEE MEMBER CICCARELLI: Okay, good.
19 COMMITTEE SECRETARY SINGH: Yes.
20 COMMITTEE MEMBER CICCARELLI: And then -- I can do
21 this when we come back to the Committee but I have always
22 thought that it would be nice to have a reversed version of
23 the W11-2, that is a right-ward walking pedestrian. Because
24 when you do the two sign approach, which is a sign on either
25 side, or the four sign approach, which is a median sign and

1 a curb sign per approach. I think it makes sense to have
2 the pedestrian walking into traffic as well, not away from
3 traffic, as is true of R1-5, which is always pointing into
4 traffic. So that's a more minor point.
5 COMMITTEE CHAIRMAN ROBINSON: With that comment,
6 would that represent a different sign that we would need to
7 introduce or does a mirror image sign, is it the same sign?
8 COMMITTEE MEMBER CICCARELLI: The -- 3B does not
9 allow modification of the graphic in that fashion. It
10 specifically excludes warning graphic signs.
11 MS. McLAUGHLIN: How about in Section 2?
12 COMMITTEE MEMBER CICCARELLI: 2B, sorry.
13 MS. McLAUGHLIN: 2B, thank you. We're looking it
14 up.
15 COMMITTEE CHAIRMAN ROBINSON: If you can reverse
16 them I think it's a good idea.
17 COMMITTEE MEMBER CICCARELLI: 2C.03, Design of
18 Warning Signs says in paragraph 03: "Except for symbols on
19 warning signs, minor modifications may be made." I'm not
20 sure about the reversals though.
21 MS. McLAUGHLIN: Let's look at that warning.
22 We'll look it up.
23 COMMITTEE MEMBER CICCARELLI: Thanks.
24 COMMITTEE MEMBER FOGLE: Okay. Conceptually
25 Caltrans has no problem with that proposal.

1 COMMITTEE CHAIRMAN ROBINSON: Okay. While you're
2 looking I'll go ahead and go to the audience. Bill Winter.
3 MR. WINTER: Yes, Bill Winter, Los Angeles County
4 Public Works. I think, if I heard Devinder correctly, you
5 probably have my edits in front of you. But for benefit of
6 the audience too that might not have it, just -- the comment
7 I had given is maybe on Condition A and Condition C that --
8 and as John just mentioned, to have some kind of optional
9 statement for that double mounting of a pedestrian warning
10 sign.
11 To also in Condition C, the typical marking of
12 crosswalks, uncontrolled intersection, it's only one of the
13 approaches. And what you see there, at least in what was
14 passed out is, that -- I'll call it the east-west directions
15 of the intersection show both those approaches marked. So
16 my suggestion is just to show the application being -- of
17 one of those approaches being marked.
18 What would then be very helpful is to show --
19 again calling it the eastbound direction -- what is the
20 distance for the yield here to pedestrians sign, because you
21 have that intervening intersection. And of course the
22 intervening intersection could vary in width but it's
23 probably going to be greater than 50 feet. So you'd want to
24 show, perhaps, putting the yield markings in a way that is
25 maybe referenced from the curb line or something from that

1 intervening street.
2 Technically, yes, it's still a legal crosswalk on
3 that west approach if it's unmarked but it's still is
4 something to show. Potentially you could have bus stops. I
5 think other diagrams in Part 3 show an advisory note to --
6 with all attempts to make all -- every attempt to locate bus
7 stops on the far side of an intersection so I don't know if
8 you want to duplicate that as another note here again just
9 as a reminder, to attempt to put your bus stops on the far
10 side of the intersection. Of course, if a bus is on the
11 near side it could block -- traditionally that has a
12 limitation of blocking your pedestrian sign, which is why
13 the double mounting of signs has helped on that too.
14 I do agree with the comment that was made. I
15 think if I heard the Committee's motion correctly that this
16 would apply to all highways, not just limit it to the first
17 option of State Highways. I think it would be good to carry
18 this out for all, all streets and highways.
19 The only other thing, I guess, maybe it's more of
20 just a practitioner's thing to review, is if you have in-
21 road warning lights. I, myself, just sitting here it
22 occurred to me, where the placement of those lights
23 traditionally has been is on the crosswalk lines themselves.
24 I don't know if there's any guidance on in-road lights for
25 placing on a yield line. I can't think of it off the top of

1 my head. But there might have to be some consideration
2 there. But it maybe is more detail than is needed for this
3 particular figure, 3B-17.
4 The only other comment I had is I think in my
5 search of the manual today I don't see a definition of high-
6 visibility crosswalk. So I don't know if there was an
7 interest in updated the other figure, if it was 3B-18, that
8 shows typical crosswalk markings, to just make it very clear
9 which of those are actually high-visibility. Because I
10 think in the manual today there is no definition of high-
11 visibility. The figure condition. You know, each of these
12 crosswalks here, this is one particular type, maybe a
13 ladder-type crosswalk. But some agencies may have a
14 different idea of what a high-visibility crosswalk is.
15 So, just those are my comments, thank you.
16 COMMITTEE CHAIRMAN ROBINSON: Thanks.
17 MR. DORNSIFE: Chad Dornsife, Best Highway Safety
18 Practices.
19 The MUTCD and the federal MUTCD apply to any
20 roadway open to public travel, public or private. So if
21 it's open to public travel then they must meet the standards
22 if there is a standard to be applied. There can be no
23 exceptions.
24 The second thing is that the actual research, the
25 reason the four lanes were mentioned, is that the incident

1 of accidents on four lanes or wider was an actual call-out
2 in the research where the risk was exponential at these mid-
3 block crossings. So the research itself called out four
4 lanes or wider, this is how that came into being.
5 The following thing is it's problematic from my
6 perspective is because when I review streets consistently,
7 if you make a specification that puts a speed limit as the
8 determination if you have to do this treatment or not, then
9 the incentive would be not to do the treatment and keep a
10 lower speed limit.
11 So I would argue that, you know, we can talk about
12 operating speed or 85th percentile speed. But if you have a
13 roadway that has a prevailing speed of traffic greater than
14 40 mph this treatment should be considered. Because the
15 primary people that are killed in these marked crossings at
16 this type of roadway or unmarked crossings are the young and
17 the elderly. The elderly can't judge distance. They step
18 out in front of traffic, don't realize what the closing
19 speed of the traffic is and presume that the traffic sees
20 them, which isn't the case. Which is why the marked
21 crossings actually have higher fatality rates than the
22 unmarked crossings; because they presume they're safe once
23 they enter.
24 So my point is, if you're going to go to this
25 treatment, that this closing speed of higher approach

1 vehicles -- this whole crossing safety thing bothers me a
2 lot because we need to be training the public on the
3 expectation of using crosswalks as much as we need to be
4 doing treatments like this. Because we are failing in that
5 look, cross, whatever -- make sure you see the eyes of the
6 approaching driver.
7 But in this case I would put a proviso that this
8 would be required any time there's multiple approach lanes
9 and the prevailing speed is greater than 40 mph, not the
10 posted. And that would be about it.
11 COMMITTEE CHAIRMAN ROBINSON: Thank you.
12 MR. MORRISSEY: Sam Morrissey, city of Santa
13 Monica. I wholeheartedly agree with all the discussion,
14 particularly about the multiple threat scenarios served by
15 multiple lanes.
16 I just wanted to get some clarification. It
17 appears tat this language is being added as a method to
18 provide for enhancements to cities that already have these
19 crosswalks at existing locations in place. There is clear
20 language in the MUTCD about establishing new crosswalks in
21 mid-block locations and what types of warning devices should
22 be included there.
23 I wonder, when we start to change the definition
24 of lanes, what the implications might be for cities and
25 agencies that have these in existing locations and what

1 would be the cost implications of going back and
2 retrofitting. The Zegeer Study, as far as I understand it,
3 is very explicit on travel lanes and I am not sure it is
4 specific on turn lanes or other types of lanes. I agree
5 with the multiple threat scenario and I agree that that's
6 there but I just express a word of caution about changing
7 that definition based on the Zegeer Study and what those
8 implications might be from a cost perspective.
9 COMMITTEE SECRETARY SINGH: Thank you.
10 MR. MUSTAFA: Zaki Mustafa, Executive Officer,
11 LADOT. I like the layout that you have on this drawing.
12 But all three drawings you've got the distances for the
13 signs as to where they should be but there is nothing about
14 the sight clearance for the red curb. As we are in the
15 process of rotating a lot of our engineers to the district
16 offices I can see them picking up this drawing and saying,
17 Zaki, we don't need a red curb here, it doesn't say anything
18 about it on this drawing. So that's something to consider.
19 MR. FISHER: John Fisher, retired. I agree with
20 the intent here. I agree that it should apply to all
21 roadways, not just state highways.
22 I note that it applies to those roadways with
23 speed limits over 40 mph so that's quite a high speed. And
24 I think some of the studies would show that for speeds that
25 high you probably need signal control or some very positive

1 form of control. But I recognize that is not always
2 practical and it would take a long time to retrofit all the
3 locations with signals that have speeds that high. So I
4 applaud what you're doing.
5 I support what Bill Winter recommended, that you
6 double-face the signs front and back. Because at these
7 speeds pedestrians are particularly vulnerable, particularly
8 vulnerable, and you need all the warning you can get on the
9 right, on the left.
10 I agree with what Zaki Mustafa said, that you
11 probably need to show some -- or probably need to have a
12 statement or have in your drawing some length of no parking
13 or red curb. When I was with the city of LA we had red curb
14 in advance of the crosswalk sufficient so that motorists
15 could see ped standing at the curb. He could see the ped
16 when he was about to step off and therefore had enough sight
17 distance to brake comfortably.
18 I ask that you take this one step further because
19 you recognize that at these speeds pedestrians are
20 particularly vulnerable. I think we've discussed the
21 intersections controls but you need advance warnings as
22 well. The W11 sign should be place in advance of a
23 crosswalk to prepare the motorist to look real carefully as
24 he approaches the intersection.
25 And again, when I was with the city of LA we would

1 install advance warning signs, the W11 sign, and then at the
2 intersection you double-post it, the red curb, the ladder
3 crosswalk, the yield lines, the yield here for pedestrian
4 signing. But we would have advance warning signs and
5 advance pavement messages. So I suggest that you consider a
6 guidance statement which would require the advance warning
7 signs here because at these speeds pedestrians are
8 particularly vulnerable.
9 I'll point out that I think it's still the
10 practice in the city that for any marked crosswalk across a
11 two-lane approach, whether the speed limit is 25 mph or 45
12 mph we apply all this treatment. Because we found that 40
13 percent of all the reported accidents in the city -- excuse
14 me, 40 percent of all the injuries, all the fatalities in
15 the city were pedestrian related and many of them occurred
16 at a controlled crosswalk.
17 So I applaud what you're doing. I just ask that
18 you take it a little bit further.
19 MR. WASSEF: Good morning, Sami Wassef from Metro,
20 LA County Metro. One of the things that I noticed, with all
21 due respect, is that the diagram and the language, even as
22 they stand now, are not really consistent. In the diagram
23 it talks about approaches at the very top, while the
24 language talks about the intersection. And I think that was
25 raised a little bit earlier.

1 The other item was it was talking about four
2 lanes, even in a mid-block crossing, while Item B basically
3 shows three lanes. And I think one of the ways to clarify
4 this, instead of having one sentence, as this does, that
5 tries to put everything in it, is that we can break it down
6 into A, B, C. A talks about intersections, B talks about
7 two approaches to a mid-block and C talks about one
8 approach. And I think that way it would be easier to
9 understand and you can be very specific, especially as it
10 goes to explaining the two-way mid-block versus the one-way
11 mid-block. Thank you.
12 MR. MILLER: Rock Miller with Stantec Consulting
13 and an alternate to the Committee but not a voting member
14 today.
15 I have done a lot of crosswalk safety research
16 that actually dates back to the mid-1990s when I did a
17 fairly comprehensive study here in Santa Ana. As a result
18 of that study I have made acquaintances and had a lot of
19 discussions with a lot of the crosswalk safety researchers
20 that presented the data that you are now acting on. I am
21 particularly excited to see this concept of advanced limit
22 line getting this close to becoming a standard for
23 California.
24 I have traveled up and down the state on behalf of
25 UC Berkeley for the last ten years presenting elements of

1 the manual and recent changes. And I always spend a few
2 minutes in those classes presenting the issues of making
3 marked crosswalks safer.
4 And I have been advocating -- I don't know if I'm
5 supposed to do that with the University or not but I
6 basically have been indicating, this is the low-cost
7 treatment that I think you should really consider using.
8 And I think if a lot of the larger agencies in the state
9 started showing leadership in implementing this treatment
10 we'd start seeing substantial improvements in pedestrian
11 safety. I have been saying that for about ten years. And I
12 just look around at the cities represented behind me and I
13 see a lot of cities here that are now using this treatment
14 as a standard.
15 I am very excited to see us coming this close to
16 making this a standard and I certainly hope we go through to
17 the end and make it a complete standard. And I have no
18 problem if it's binding on all cities and counties as I
19 think it's a good treatment regardless of who owns the
20 crosswalk.
21 I too have a few little comments and suggestions
22 to make on the figure. And not always backed by science but
23 we are talking about high-visibility crosswalks. I
24 personally do believe, without the backing of science, that
25 the zebra crosswalk is just a little bit more visible than

1 the ladder crosswalk. And I have a figure I show my
2 students that demonstrates why it is.
3 If you are not going to say which high-visibility
4 crosswalk to use I'd prefer you use the zebra, also known as
5 the Abbey Road by many people. It is a little bit more
6 visible because the ends of the stripes are as visible as
7 the size of the stripes are.
8 Secondly, as far as this figure, I think there
9 probably is need for a version that shows the median and
10 left turn lanes. It is very unclear how to provide the
11 application if you do have a median with left turn lanes.
12 And when I have told agencies that I think this is a good
13 treatment they generally come back with, how do I treat the
14 left turn lane in the median. I think that it would be
15 appropriate to have guidance.
16 Finally, this is my preference only, but I have
17 never liked to see the continuation of the lane line stripes
18 between the advanced limit line and the crosswalk. I think
19 it detracts from the intent to create an advanced limit line
20 by inviting vehicles to continue along the lane line to the
21 crosswalk. I don't have any science to back this up but I
22 think it would help if it was just marked an optional line,
23 because I think eventually there will be science to back
24 that up.
25 And if you don't understand that I've got it

1 marked up here and I'll be happy to offer it to the
2 Committee for your consideration.
3 COMMITTEE CHAIRMAN ROBINSON: Thank you, Rock.
4 Okay. Anybody else? Steve.
5 MR. PYBURN: Steve Pyburn, Federal Highway
6 Administration. At 40 mph your vehicle is going 60 feet per
7 second. And if you assume three seconds of perception
8 reaction and braking time, plus the 50 feet, that's 230 feet
9 that a driver has to see that pedestrian step off the curb
10 before he can stop at the advanced limit line sign. That's
11 a pretty long distance in an urban environment where you
12 have on-street parking and other obstructions.
13 It may not be, I don't want to say possible, but
14 it may be difficult for drivers to consistently stop behind
15 the advanced limit line sign where the visibility is not
16 that, that good. You may be setting drivers up for not
17 being able to top at the advanced limit line sign. And
18 since that sign is a regulatory sign they's be in violation.
19 I think a very clever attorney might argue that you're
20 trapping drivers in that location.
21 When we had the workshop on compliance with the
22 2009 MUTCD I brought this concern up also that I think 50
23 feet is excessive for an advance limit line sign. I don't
24 think that a closer distance detracts from the safety of the
25 advance limit line sign but would be more effective and get

1 more compliance in having a driver stop 50 feet from the
2 perceived risk.
3 The city of Sacramento uses five feet with very
4 good compliance and those are intersections where typically
5 drivers would stop in the crosswalk at signalized
6 intersections. But now the advance limit line sign, they
7 are stopping five feet before. Thank you.
8 COMMITTEE CHAIRMAN ROBINSON: Thank you. Okay,
9 one last comment, Zaki.
10 MR. MUSTAFA: One last comment. We are in the
11 process of redoing some of our manuals right now, standard
12 drawings, and we are introducing advanced limit lines, and
13 we are going about five feet and we are introducing also
14 high-visibility crosswalks at major, major intersections as
15 well. But advanced limit lines are going about five feet
16 from the intersection.
17 COMMITTEE CHAIRMAN ROBINSON: Okay, now to bring
18 it back to the Committee. There have been a number of
19 issues that have been introduced by the community. Why
20 don't we go ahead and discuss the location of the limit line
21 first. We are showing 20 to 50 feet. That gives the
22 traffic engineer quite a little bit of leeway. Is that
23 really appropriate here? Do we want to, do we want to
24 winnow that down just a little bit. I see that you're back.
25 COMMITTEE VICE CHAIRMAN BAHADORI: Mr. Chairman,

1 before we go into the detail, the technical details, I would
2 like to follow up on what Mr. Pyburn said.
3 We are introducing a regulatory sign on roadway
4 where the driver will be ticketed if he violates. We are
5 telling them, yield to pedestrian at this point. Which
6 means if you don't stop and you pass a law enforcement
7 officer will give you a ticket.
8 Therefore, if you want to introduce this there
9 must be a mechanism in the drawing and in the standard that
10 the driver can, as Mr. Pyburn said, based on his speed, see
11 the pedestrian stepping off the curb. If he does not see
12 the pedestrian stepping of the curb and he doesn't have
13 enough time to stop at that line why is he given a ticket?
14 I am all for this and especially, you know,
15 listening to Mr. Miller who is the authority on this
16 nationally. This is a very good treatment. And a lot of
17 these accidents happen because the driver in lane number one
18 stops and the pedestrian keeps going; and the driver in lane
19 number two thinks that the driver in lane number one has
20 stopped to make a left turn, not to yield to pedestrian. So
21 he keeps on going and then he nails the pedestrian as soon
22 as he clears the stopped vehicle in lane number one.
23 This is a very good treatment and I support the
24 idea. But if you want to introduce a regular treatment. If
25 there is a warning sign, advisory sign, I'm all okay with

1 it, you can put it wherever you want.
2 But if the driver is going to get a ticket if he
3 crosses that line as soon as the pedestrian has stepped off
4 the curb then he must be given visibility that he needs to
5 stop at that point. Which means that there must be a
6 parking restriction associated with this so the driver can
7 see the pedestrian who steps off.
8 If the driver does not see the pedestrian until he
9 is 100 feet from the intersection and the pedestrian steps
10 off the curb and the poor driver crosses the limit line and
11 there is an enforcement officer sitting at the corner and
12 gives him a ticket, that is exactly a trap condition because
13 there was no way he could have seen the pedestrian stepping
14 off the curb to yield to him.
15 So if you want to introduce the regulatory sign I
16 think we need to go with the additional step that you have
17 to give the driver the opportunity to see the pedestrian to
18 yield. And I don't see how you can do that without the
19 parking restriction. If you want to do this type of
20 treatment and expect a driver to come to a full stop at that
21 line then the driver must be given the visibility needed to
22 come to a stop. If he doesn't come to a stop because he
23 didn't have time, that's not his fault.
24 COMMITTEE CHAIRMAN ROBINSON: Thank you. Any
25 other thoughts? John.

1 COMMITTEE MEMBER CICCARELLI: Responding directly
2 to Hamid's point. I am in favor of parking restriction if
3 you have no -- let's see, I am actually going to play
4 devil's advocate. Because I can recall configurations where
5 parking is allowed up to the crosswalk but the crosswalk
6 itself has a pocket, so the pedestrian is waiting and
7 watching at the fender line rather than the street curb
8 line. So absent that, though, Hamid's point is very well
9 taken. That's point number one.
10 Point number two, responding to Rock. There is
11 some concern in the expert community around low-vision
12 pedestrians that pedestrians may need the long lines, the
13 long lines from the pedestrian's perspective, of the ladder
14 marking, in order to guide. Because if you rely on contrast
15 -- I've got an email out to Beezy and Janet at Accessible,
16 at their company, they're the experts that show up at the
17 National Pedestrian Committee, to see what the take is on
18 that. But I think it's an open question whether we want to
19 steer people towards the pure zebra or the ladder, which is
20 the zebra with the long lines.
21 With regard to turn lanes. I am certainly
22 sympathetic to not including those in the lane count because
23 the conflict volume is really coming mainly from the through
24 lanes rather than the turn lanes. That's what Charlie
25 Zegeer's study said too.

1 With regard to the figure C. I think it might be
2 worth considering additional variations of Figure C. One
3 significant one that has already been brought up by several
4 commentors is how one should mark and sign a uncontrolled,
5 four way intersection with one crosswalk marked versus two
6 crosswalks marked. I could see, for example, a longer strip
7 in the figure where you depicted two intersections, one with
8 a single crosswalk marked and another crosswalk marked.
9 But there is a third significant variation and
10 that's a T-intersection. At a T-intersection it's useful
11 to, if you are going to mark only one crosswalk you want to
12 try and mark the one that doesn't have a major street left
13 turn because that's where you can situate a median island.
14 I know an island is not a traffic control device but it is a
15 really good place to protect pedestrians and also a good
16 place to put the signs in the middle of the street.
17 And speaking of signs in the middle of the street.
18 To complexify the figure even further I think we might want
19 to consider at least one figure of sub-figure showing the
20 five lane configuration where there is an island in the
21 center turn area. Because none of these figures so far
22 depict a case where the left sign, if you will, of the
23 approach pair, is situated on the median rather than on the
24 far curb.
25 The last comment is that we ought to -- actually

1 two last comments. There's a specific use of the mid-block
2 crossing to convey a shared use path across the street. And
3 I wonder whether we ought to at least mention the W11-15
4 sign which combines the bicycle and the pedestrian symbol on
5 the warning sign for the particular application where the
6 trail is the mid-block intersection.
7 And lastly, even though it's not in the manual yet
8 I wondered whether -- and this is really a Johnny Bhullar
9 question -- can we at least mention the rectangular rapid
10 flashing beacon as a part of the package of enhancements
11 here?
12 COMMITTEE CHAIRMAN ROBINSON: The rectangular
13 rapid flashing beacon, since it's not in there, I don't
14 think we would be able to do that. I don't see, I don't see
15 that. Johnny, correct me if I'm wrong but I don't think we
16 could put that in yet.
17 MR. BHULLAR: You're right.
18 MS. McLAUGHLIN: Roberta McLaughlin, Caltrans
19 Office of Signs and Markings, emphasizing the Markings part.
20 These are mean to be examples. And I understand
21 the concern that we are not illustrating every type of
22 intersection crossing. With this particular example we
23 could go into a lot of those other types of situations. But
24 there are lots of other places in the manual where we do not
25 illustrate every typical kind -- I wouldn't even use the

1 word "typical."
2 But situations where you have different lane
3 configurations, medians, no medians, left turn pockets,
4 right turn pockets. And we're -- at some point we just --
5 we are trying just to use these as generic drawings as
6 possible. And to illustrate every possible situation is
7 going to be cumbersome.
8 It's also going to, I think, limit some of our
9 engineering judgment. And when we put these in there that
10 people -- we mentioned earlier, will go to the manual, pick
11 up that particular illustration and just do it exactly like
12 the illustration without any thought to the particular
13 conditions or their situation. I just want to add that to
14 your -- I understand why there would be a request to add all
15 these other details for other situations but the manual is
16 supposed to be more generic and helpful. And we do have
17 some other guidelines and publications that can help with
18 those different illustrations. And courses as well in
19 trying to decide how to apply these in various situations.
20 COMMITTEE CHAIRMAN ROBINSON: Thank you, Roberta.
21 I agree that this needs to be generic. But I think, I
22 think a little bit of extra instruction that includes a
23 median and a turn lane is still generic and will add to
24 uniformity in the application of this type of device. So I
25 would be in favor of one of these, probably A or -- probably

1 C, including a median and turn lane, to better clarify the
2 condition and the use of the median sign.
3 COMMITTEE VICE CHAIRMAN BAHADORI: Mr. Chairman.
4 COMMITTEE CHAIRMAN ROBINSON: Go ahead.
5 COMMITTEE VICE CHAIRMAN BAHADORI: We are trying
6 to improve an inherently dangerous situation. If the road
7 has multiple lanes, more than four lanes, more than 12,000
8 ADT and people are going at 45, 50 mph, you do not want
9 people to cross at uncontrolled locations, period.
10 But the political reality is what it is. At some
11 places you must allow that. It's inherently dangerous. No
12 matter what you do people are going to get killed at these
13 locations. These are high-speed arterials. People going at
14 50 mph, 20,000, 30,000 cars a day. If you step off the curb
15 you are not watching for the gap, you are not careful, it's
16 a potentially dangerous location.
17 I am all in favor of doing whatever we can to
18 improve it because we have to paint crosswalks at some of
19 these locations. Maybe not because it is good traffic
20 engineering practice but maybe it's community pressure or
21 political reasons, whatever.
22 But if you are doing it -- Again back to my point.
23 You have to do it right. What we are seeing here is
24 equivalent to recommending a two-second yellow time on a 50
25 mph approach speed and then give a ticket to driver for

1 running the red light. You don't give the driver enough
2 time to come to a stop you can't give him a red light -- a
3 red light violation.
4 In this case, if you want to give the driver a
5 ticket for not coming to a full stop at that yield line you
6 must give him the adequate sight distance visibility needed
7 for him to see the pedestrian stepping off the curb. Which
8 is not only fair to the driver who once they get the ticket,
9 but also adds to the safety of the crosswalk.
10 If you can't meet the parking restriction
11 requirement to have the visibility, don't paint the
12 crosswalk. Leave it uncontrolled. Let the people decide
13 based on their own judgment whether they want to drive --
14 whether they want to cross at that location or not.
15 But if you want to do the painted crosswalk, which
16 then I think the next step is a very good one, to do this
17 treatment, then we have to do the treatment right to provide
18 the visibility that both the driver needs to come to a stop
19 and the pedestrian needs to judge whether he can step off
20 the curb or not.
21 You can't allow parking all the way to 20 feet to
22 the crosswalk and then expect a driver to come to a stop at
23 50 mph. How in the world is he going to do that? Because
24 you are saying, 20 to 50 feet from the painted crosswalk.
25 So this yield line can potentially be 20 feet from the

1 crosswalk. How in the world the driver going at 45 mph can
2 come to a stop when he has only 20 feet of visibility? You
3 want to do this, you have to also make it mandatory that
4 they have to do the parking restriction that's needed.
5 COMMITTEE SECRETARY SINGH: Hamid, this is
6 existing language.
7 COMMITTEE VICE CHAIRMAN BAHADORI: I know. I
8 know, sir, I know.
9 COMMITTEE SECRETARY SINGH: It's saying parking
10 should be prohibited.
11 COMMITTEE VICE CHAIRMAN BAHADORI: I know, that's
12 the federal there. And the parking should be prohibited,
13 that's what it says. The manual, the federal manual says
14 parking should be prohibited between the limit line and the
15 crosswalk, that's not the point I'm making. The point I'm
16 making is that --
17 COMMITTEE CHAIRMAN ROBINSON: It's behind that.
18 COMMITTEE VICE CHAIRMAN BAHADORI: Again, I don't
19 want to keep repeating myself. If I am going at 45 mph
20 approaching a traffic signal, you can't give me a two second
21 yellow and expect me to come to a stop and then give me a
22 ticket for running a red light. Because I didn't have
23 enough time to come to a stop. In this case I will not have
24 enough time to even see the pedestrian stepping off the
25 curb. How do you expect me to come to a full stop at 20

1 feet or 30 feet or 50 feet from the crosswalk?
2 COMMITTEE CHAIRMAN ROBINSON: Hamid, your point is
3 well taken. I think there are a number of conditions that
4 can exist there. Obviously you may have a bike lane and you
5 don't have to worry about it. But in a situation where
6 parking could be an issue I think that -- maybe that's
7 something that we should leave to the expertise of the
8 agency. And simply put a note there that visibility of the
9 pedestrian should be taken into consideration in advance so
10 that the driver can make the proper decision. I don't know
11 that we want to try and be specific in that area because if
12 we do we're going to end up tying ourselves up and not
13 getting anything through here.
14 COMMITTEE VICE CHAIRMAN BAHADORI: Yeah, I
15 completely understand. But this is pure definition of trap
16 condition to give ticket to people. Because you are
17 expecting the driver to do something that he cannot humanly,
18 physically, possibly do. He cannot come to a stop when he
19 cannot see the pedestrian stepping off the curb.
20 If you are concerned, as we all are, about the
21 improved safety of the pedestrian, then you've got to do the
22 next step and give the pedestrian time to not hit the driver
23 and come to a stop. It's a double --
24 COMMITTEE CHAIRMAN ROBINSON: Okay. What I'm
25 hearing is that if we were to take this away from being a

1 regulatory sign and make it a warning sign --
2 COMMITTEE VICE CHAIRMAN BAHADORI: If it's a
3 warning sign that's fine. And it's just -- I'm fine.
4 COMMITTEE CHAIRMAN ROBINSON: And you'll --
5 COMMITTEE VICE CHAIRMAN BAHADORI: But what I'm
6 saying is that you are issuing a ticket for a violation of
7 the California Vehicle Code when the driver has no way of
8 not violating. He will be forced into violating because he
9 cannot see the pedestrian stepping off the curb.
10 COMMITTEE MEMBER CICCARELLI: Can we address this
11 by incorporating parking prohibition, including the
12 depiction of a red curb, in the figures and the supporting
13 language?
14 COMMITTEE CHAIRMAN ROBINSON: We can, John, but
15 that may be an awful huge encumbrance on certain issues.
16 MS. McLAUGHLIN: I can add to that. May I add to
17 that? Sorry to interrupt.
18 COMMITTEE CHAIRMAN ROBINSON: Yeah, let me -- go
19 ahead, go ahead and answer it.
20 MS. McLAUGHLIN: Okay. Roberta McLaughlin,
21 Caltrans. To add to that discussion. The illustration does
22 not include a parking area and so that's one reason why the
23 red curb isn't shown there. It started with the federal
24 illustration of the use of the advanced yield line and now
25 we were trying to enhance the package for the crossing. But

1 the illustration doesn't have a space there or indicating
2 that there is even on-street parking in those particular
3 locations.
4 Again, adding some more detail to the drawing we
5 could possibly use a note there. If parking, on-street
6 parking is in these areas then you need to accommodate the
7 clearance in advance of the crosswalk with red curb. Or
8 however you want it. As a note rather than illustrate.
9 But those illustrations weren't meant to show on-
10 street parking. so to add the red curb doesn't really mean
11 anything because then you've got, on that particular
12 illustration then you've got cars parked in the through
13 lane. So we would have to modify that drawing even further.
14 COMMITTEE MEMBER CICCARELLI: I'm sorry, I was
15 speaking in too much shorthand. I just noticed that Figure
16 C has two essentially identical approaches. And it would be
17 easy to add parking to one side of the street, at the top
18 side or the bottom side, in the same fashion as the figures
19 in Part 9 depict many different contact situations,
20 controlled, uncontrolled, parking, no parking, on a single
21 figure. It's 9C -- 9C-1.
22 I think that this is a sufficiently complex set of
23 alternatives that my inclination is to provide more visual
24 guidance to the practitioner than less. To draw an analogy,
25 in Part 9 the bicycle bike way approaching the right turn

1 situation is sufficiently diverse in its potential
2 combinations. You know, option lane, no option lane, right
3 turn lane, no right turn lane, bike lane approach, no bike
4 lane approach, that it already has four or five, if I count
5 correctly, depictions in the various 9C figures.
6 I think since we are making a major attempt to
7 improve the manual's guidance for this very important
8 situation here, we should think in terms of a few more
9 figures rather than put it in notes.
10 You know, what I'm faced with if it's notes, and
11 worse yet if it's in the main prose of the manual, is to try
12 and read tea leaves and visualize a plan view layout from
13 the text. That's difficult for myself and I consider myself
14 a real student of the manual. It's especially difficult for
15 a less-trained practitioner.
16 I have one other comment before we go right back
17 to that point. I wanted to respond to Zaki's comment about
18 five foot limit lines. Zaki, it is my understanding that
19 that's at a controlled approach. And the purpose of the
20 limit line so close to the controlled approach is to ensure
21 that motorists that have responded to the limit line legally
22 and stop their car do not do so by parking part of the car
23 -- stopping part of the car in the crosswalk. In other
24 words, it's a courtesy measure to the pedestrian.
25 That is qualitatively different from this

1 situation where you are trying to get someone to yield from
2 speed in order to open up one or two car lanes, hence 20 to
3 50 feet, so that there is an angled sight line from the
4 pedestrian past the near side car to a far side car, giving
5 them three or four car lengths of warning before they're
6 struck.
7 The situation is not necessarily that both drivers
8 in a multiple threat approach are going to stop. But the
9 driver that stops legally should be far enough back that the
10 driver that is about to violate the yield line and will
11 violate the yield line can be picked up by the pedestrian
12 before the pedestrian makes the contributory error that gets
13 him killed.
14 MR. MUSTAFA: You are correct, it is at the
15 controlled intersections, but we are also looking at
16 uncontrolled intersections. Yesterday we had two fatalities
17 in a marked crosswalk. Two kids in a school crosswalk were
18 killed. So we are in the right direction as you are sitting
19 here making the choices to make it safer for pedestrians.
20 So we have to think about whatever you guys do has a
21 tremendous impact on all of us. So it is at a controlled
22 intersection but we are also looking at uncontrolled
23 intersections to install advanced limit lines.
24 COMMITTEE MEMBER CICCARELLI: My point was not --
25 my point was basically to distinguish the two cases, the

1 controlled case where it is appropriate for the limit line
2 four or five feet back because it's about crosswalk
3 encroachment. Versus this, which is about opening up sight
4 lines in a multiple-threat.
5 MR. MUSTAFA: True. But I would look at it as
6 more of a warning sign rather than a regulatory sign and
7 then having an advanced limit line in front of the crosswalk
8 as well, like Hamid had indicated.
9 COMMITTEE MEMBER CICCARELLI: But you can't place
10 a limit line in an uncontrolled location, right?
11 COMMITTEE SECRETARY SINGH: This is for Committee
12 clarification. This diagram was developed only a few days
13 before this meeting because Bill mentioned to us, hey, you
14 are not showing any typical based on our new proposal.
15 COMMITTEE MEMBER CICCARELLI: Right.
16 COMMITTEE SECRETARY SINGH: So this diagram is not
17 complete. We got a lot of comments and we will incorporate
18 most of the comments. Like you suggested, we should show
19 median lane, we will work on that. And what we will do, we
20 will run a draft to the Committee members so everybody has
21 agreed to what we incorporate. So let's move on. We agree
22 with most of the comments and we will run a draft to the
23 Committee members.
24 COMMITTEE CHAIRMAN ROBINSON: So one of the things
25 that I am looking at is that we are taking the sign as a

1 regulatory sign, which mandates that we provide the proper
2 sight visibility necessary to see the pedestrian.
3 If we take that and make that a warning sign and
4 then make a note on the diagram that reminds the engineer to
5 ensure that sufficient sight visibility is available for the
6 driver to make the proper decision, I think that eliminates
7 both issues.
8 I personally would have a hard time regulating
9 additional parking restrictions in all situations like this.
10 You're talking about many downtown areas, many other areas
11 that need that kind of parking. And for the incremental
12 improvement I think you're going to be -- you're going to be
13 buying other problems.
14 COMMITTEE MEMBER CICCARELLI: I have concerns
15 about making the sign at the yield line yet another warning
16 sign. Because especially in the higher speed approaches,
17 you are going to want the advance warning signs. So you've
18 got three warning signs, one at the crosswalk with a
19 downward pointing arrow, one it advance at that conventional
20 advance location, and now you're going to have yet another
21 yellow sign. I think it's going to detract from the visual
22 sequence. I think we ought to get some help from FHWA
23 because clearly a lot of thought went into this in order for
24 it to be appearing as it is drawn here in various manuals
25 already.

1 COMMITTEE CHAIRMAN ROBINSON: Well we need to
2 remember, though, that the driver is required by law already
3 to yield to the pedestrian in the crosswalk.
4 COMMITTEE VICE CHAIRMAN BAHADORI: Mr. Chairman?
5 COMMITTEE CHAIRMAN ROBINSON: So that is his --
6 COMMITTEE MEMBER CICCARELLI: That's not, that's
7 not the point, okay. The driver is required to yield to the
8 pedestrian at the crosswalk. But if that yield occurs at
9 the crosswalk it opens you up to multiple threat. We're
10 trying to get the packets together so that it directs
11 advanced yielding and that's hopefully enforceable. And
12 somebody has obviously done the homework on this already. I
13 think it's premature for us to go and change this to a
14 warning sign.
15 COMMITTEE VICE CHAIRMAN BAHADORI: Mr. Chairman?
16 COMMITTEE CHAIRMAN ROBINSON: Hamid.
17 COMMITTEE VICE CHAIRMAN BAHADORI: Looking at the
18 practical application of this thing. This thing is not
19 going to be applied in a downtown business district
20 environment. We are talking high-speed, high-volume
21 arterials. We are talking streets that are multiple lanes,
22 speed limits of 45-plus, ADTs of 12,000-plus. These are
23 mostly in like urbanized areas.
24 But again, you know, back to the question.
25 Everybody is for the safety of the pedestrians. Everybody

1 wants to improve the pedestrian safety. If the local
2 community -- for example, city of Los Angeles or any other
3 city or county in California, at this location has such a
4 safety problem and really wants to improve pedestrian
5 safety, then they must give up the precious four or five
6 parking spaces that's needed. You can't have your cake and
7 eat it too, it doesn't work like that.
8 If this is a location where you are forced to put
9 a marked crosswalk, which inherently is not safe because
10 this is a high-speed, high-volume arterial, then you put the
11 painted crosswalk as you are doing, for all the reasons
12 you're doing. Go with this treatment but do the treatment
13 right. Because we can't come back and say, people are
14 getting killed here but we want to put a line and we want to
15 put a sign and it's going to fix it. It is not going to fix
16 it because the driver still doesn't see the pedestrian.
17 That's the problem to begin with.
18 If you want to solve the problem, you really are
19 interested in improving pedestrian safety as we all are,
20 then those precious four or five parking spaces must be
21 given up. You can't go and say, I am going to allow people
22 to park all the way to 20 feet to the crosswalk but then I
23 expect the guy who is driving at 50 mph to see the
24 pedestrian stepping off the curb in the dark hours of ten
25 o'clock at night. It just doesn't work like that.

1 The safety package must be balanced. If we are so
2 serious to improve the safety then we must go and say yes.
3 You want to do this treatment you are going to lose four or
4 five parking spaces. That's the cost of improving
5 pedestrian safety. But putting a line and putting a sign
6 when the pedestrian doesn't see the car, the driver doesn't
7 see the pedestrian, what good does this do? Still they
8 don't see each other. Still they are going to collide and
9 the pedestrian is going to die.
10 We must do something that allows the pedestrian to
11 see the car so he doesn't step off the curb, or the vehicles
12 see the pedestrian so he can come to a stop. This treatment
13 does neither. Still the pedestrian doesn't see the car, the
14 driver doesn't see the pedestrian. It's just a placebo,
15 it's not going to improve pedestrian safety in my opinion.
16 COMMITTEE MEMBER CICCARELLI: It sounds like we
17 need to come back.
18 COMMITTEE CHAIRMAN ROBINSON: Yeah. I have to say
19 that I don't disagree with you on this issue. However,
20 there is a lot of leeway given to the traffic engineer in
21 his decision to place the crosswalk out there. And I think
22 in doing that, in creating that requirement to provide that
23 visibility, you're going to be dissuading the engineer from
24 making that decision. And that's the concern that I have.
25 When you're -- I think we are incrementally

1 improving things by giving that extra information to the
2 driver that there is a crosswalk ahead, first, in advance.
3 And then providing him a place to stop when he does see that
4 pedestrian. That's a distinct improvement over where we are
5 today.
6 COMMITTEE VICE CHAIRMAN BAHADORI: I completely
7 agree with you, this is a step in the right direction. But
8 this is a step that first, in my opinion, doesn't really
9 improve pedestrian safety at all. And two, it creates a
10 trap condition for the driver.
11 So what are we trying to achieve? What is the
12 objective of putting a limit line 20 feet from a crosswalk
13 when the driver is driving at 50 mph? What's he going to
14 do? He still does not even see the pedestrian who steps off
15 the curb. How in the world can he come to a stop? If there
16 is a marked crosswalk like this then regardless of this
17 treatment or not, if you are a good traffic engineer you
18 must restrict parking enough so the driver can see the
19 pedestrian and the pedestrian can see the driver. If they
20 don't see each other and they don't react, all the signage
21 and all the markings in the world is not going to change the
22 physics.
23 COMMITTEE MEMBER CICCARELLI: I don't think anyone
24 on the Committee disagrees with this.
25 COMMITTEE CHAIRMAN ROBINSON: No, there is no

1 disagreement there.
2 COMMITTEE VICE CHAIRMAN BAHADORI: So --
3 COMMITTEE CHAIRMAN ROBINSON: I think we just
4 don't have agreement on how to address it at this point.
5 And I think the best thing to do maybe for this situation is
6 to go ahead and table it.
7 Have staff come back -- understanding the concerns
8 that exist. We've got some good suggestions from the
9 community, from the public. I like a bunch of them. I
10 think we've -- the advance W11s, the double-face signs, the
11 identification of the red curb between the signs,
12 identification of the high-visibility crosswalk issues, the
13 changes that need to occur with some of the diagrams that
14 would show a median.
15 If those were brought back and then some
16 additional thought were put in to the implications of a 50
17 mph car barreling down on a pedestrian and the necessary
18 warning that they would need. That's the piece that I think
19 needs to be thought out a little bit more and then brought
20 back to us.
21 COMMITTEE MEMBER CICCARELLI: Um.
22 COMMITTEE CHAIRMAN ROBINSON: Go ahead.
23 COMMITTEE MEMBER CICCARELLI: I'd like to ask
24 Hamid whether -- we've had a lot of things suggested,
25 including by myself. I am very sympathetic to the statement

1 so forcefully made that parking must be restricted if that's
2 the only way to get the pedestrian to be visible in order to
3 make the decision by the driver safe and legal. And if
4 Caltrans decides to add a parking context to part of the
5 figure, certainly such parking prohibition should be
6 depicted and noted in that part of the revised figure.
7 But going beyond that, I wonder whether some sort
8 of statement in the text should specifically address the
9 enforceability of the R1-5, the Yield Here to Pedestrians
10 sign. Saying that -- addressing Hamid's point that sight
11 lines must be available for the motorist to make the yield
12 decision. That's a suggestion.
13 MS. McLAUGHLIN: Chair Robinson?
14 COMMITTEE CHAIRMAN ROBINSON: Yes, go ahead.
15 MS. McLAUGHLIN: Roberta McLaughlin, Caltrans.
16 Regarding the regulatory versus warning sign in the advance
17 position. That particular sign -- I would like some
18 clarification. The particular sign shown there is a
19 regulatory sign. It would not be a matter of just changing
20 it to a black on yellow sign. So the advance warning sign
21 is the pedestrian sign without the arrow.
22 I just wanted to make that clear that if we're
23 talking an advance warning sign it takes on a different
24 nature. It does not have the regulatory effect with the
25 yield line, limit line, and the use of the sign, which is a

1 whole different flavor of what we are trying to accomplish
2 here.
3 COMMITTEE CHAIRMAN ROBINSON: Thank you.
4 COMMITTEE VICE CHAIRMAN BAHADORI: Mr. Chairman?
5 If you are going to discuss this and if Caltrans is going to
6 look at this and if you are going to look at it, let's --
7 people don't hit -- drivers don't hit pedestrians because
8 pedestrians are not prudent or drivers are bad people who
9 want to hit pedestrians. Drivers hit pedestrians because
10 they do not see each other in time to react. Not all the
11 signage and all the markings in the world is going to change
12 that physics, that dynamics.
13 To improve pedestrian safety we must create zones.
14 When the pedestrians are crossing they can see the vehicles
15 approaching so they don't step off the curb or the driver
16 sees the pedestrian stepping off the curb in time to stop.
17 This approach improves the condition that we have
18 today, I completely agree with you, but it doesn't solve the
19 problem. If you are approaching this, which I think we
20 should, then I think we need to take that additional step
21 and force the agencies to actually give up those parking
22 spaces to create clear zones where people can see each other
23 and they don't hit each other. That's the point that I was
24 trying to make.
25 COMMITTEE MEMBER KU: Mr. Chairman?

1 COMMITTEE CHAIRMAN ROBINSON: It's pretty -- go
2 ahead.
3 COMMITTEE MEMBER KU: Mr. Chairman, I just want to
4 -- we have touched on a lot of great ideas and I am not
5 opposed to having more figures depicting various scenarios.
6 But the concern I have is if it gets too detailed and
7 someone follows them as a formula and it doesn't really
8 solve the problem, then we're right back where we started
9 from.
10 And I think you touched upon it, which is
11 something I wanted to emphasize. If the Department is going
12 to look at it and come back with additional suggestions in
13 the guidance -- the gentleman who spoke a couple of seconds
14 ago mentioned this. Make the key, visibility.
15 You could eliminate all the parking spaces in the
16 world. But if it's a tree that imposes upon the visibility
17 between the car and the pedestrian what have you done?
18 Nothing. Let's not get fixated on parking spaces. There
19 may be a myriad of scenarios that prohibits the visibility
20 between the pedestrian and the motorist.
21 So I think what we should encourage the Department
22 to do is to come up with a narrative that requires or wants
23 an engineer to pay particular attention to the visibility of
24 the motorist, of the pedestrian and the pedestrian of the
25 motorist.

1 So, you know, one example we say, well what if,
2 what if there's a turn lane. And someone mentioned, there
3 may be an island that's a little bit in the street itself.
4 So the pedestrian goes to that island. He can see perfectly
5 well all the motorists that are approaching.
6 We can't cover in either diagrams or anything like
7 that all the various scenarios that exist. So let the
8 guidance be that there has to be visibility and let's not
9 get fixated on whether it's parking spaces or not.
10 I think it's a mistake to say cities for whatever
11 reasons don't want to compromise the number of parking
12 spaces. That's not the key. I think everybody here, we
13 have already said it, is concerned. The primary objective
14 is the safety of the pedestrian. Forget about the number of
15 parking spaces. That's what you want to do. But you want
16 to make sure that if you prohibit the parking spaces it
17 actually achieves the goal that you are trying to achieve.
18 COMMITTEE CHAIRMAN ROBINSON: Absolutely, thank
19 you, thank you for that.
20 You have been standing up here for a long time, go
21 ahead.
22 MR. DORNSIFE: Simply in this particular scenario,
23 particularly with the high speeds involved, this regulatory
24 sign doesn't belong. To get it large enough for somebody
25 driving 50 mph to get advanced warning of its location and

1 its implication and its legal effect, especially a yield
2 sign which is already small in surface area on a white
3 background, the sign would have to be six feet in diameter.
4 In other words, for a 50 mph road.
5 I would say that we need to look at a warning sign
6 or put the limit line where you want the traffic to stop in
7 advance of the crosswalk. But the regulatory sign itself is
8 implied within the law, it doesn't need to be there. It
9 serves no function except a legal confusion.
10 COMMITTEE CHAIRMAN ROBINSON: Thank you.
11 MR. DORNSIFE: Thank you.
12 COMMITTEE CHAIRMAN ROBINSON: Rock.
13 MR. MILLER: A couple of things, real short. I
14 heard a statement a couple of times that this treatment
15 might not be the solution. This treatment has been tested
16 in a lot of locations and they have consistently gotten very
17 substantial accident reductions from this treatment. So I
18 don't like to leave a statement that this treatment might
19 not work when it's actually be proven to work.
20 I am very sympathetic to the desire and need to
21 improve sight lines for pedestrians in crosswalks but
22 actually the intent of this treatment is to improve sight
23 lines for pedestrians around vehicles that are moving and
24 are stopped in the first lane the pedestrian is going to
25 cross so they can see the second lane.

1 I really think the issues are quite divisible.
2 And if there is a desire to further look at the way we
3 approach handling visibility for crossing I think we could
4 look at that but I really don't think it's as closely tied
5 to this issue as some of the deliberations suggested.
6 Because this is really a multiple threat treatment, not a
7 visibility around parked cars treatment.
8 I meant to also say, the researcher actually found
9 the optimum distance for this was 30 feet, which isn't that
10 much when compared to the stopping sight distance. So I
11 think if we actually applied the line as close to the
12 optimum location as possible I think the issue of whether
13 the stopping distance to the sign that says "stop here for
14 pedestrians" versus the actual crosswalk is really a fairly
15 minimized issue.
16 COMMITTEE CHAIRMAN ROBINSON: There's been some
17 pretty good discussion on this and I think it's probably
18 about time to get off the snide (2-3823) on it. I think it
19 would be important to take into consideration everything
20 that's been said.
21 Obviously the diagrams that we have now are not
22 what anybody would agree to. I am going to recommend that
23 we -- that we -- that we table this item for right now.
24 That we actually -- that we schedule to have it back at our
25 next meeting. And that we put together a committee. Let's

1 see, did Hamid leave?
2 COMMITTEE SECRETARY SINGH: Not a committee; we
3 want volunteers.
4 COMMITTEE CHAIRMAN ROBINSON: A group of folks who
5 would volunteer to look at this in a little bit greater
6 detail. Rock, if you wouldn't mind volunteering for that,
7 that would be wonderful.
8 MR. MILLER: Sure.
9 COMMITTEE CHAIRMAN ROBINSON: John, I think, I
10 think you would be great if you don't mind.
11 COMMITTEE MEMBER CICCARELLI: Sure.
12 COMMITTEE CHAIRMAN ROBINSON: And I'd like to talk
13 Hamid into that as well. To working with Caltrans staff o
14 put together a new set of instructions as well as diagrams
15 for the Committee to take back up next time. So is anybody
16 willing to make a motion that we table and do that?
17 MS. McLAUGHLIN: We have a motion on the floor,
18 don't we?
19 COMMITTEE CHAIRMAN ROBINSON: Is there a motion on
20 the floor?
21 COMMITTEE SECRETARY SINGH: We don't need a
22 motion.
23 COMMITTEE CHAIRMAN ROBINSON: Do we already have a
24 motion on the floor?
25 COMMITTEE SECRETARY SINGH: Yes, we have a motion

1 on the floor.
2 COMMITTEE CHAIRMAN ROBINSON: Okay. So we'll --
3 first we need to act on the motion. And it has been
4 seconded, as I recall. And the mover of the motion has
5 left.
6 COMMITTEE SECRETARY SINGH: He first moved the
7 motion to adopt this.
8 COMMITTEE CHAIRMAN ROBINSON: Yes.
9 COMMITTEE SECRETARY SINGH: And then he started --
10 COMMITTEE CHAIRMAN ROBINSON: Yes, and then we
11 started. I think he -- I think that means that he would
12 have pulled his motion. But the seconder would probably
13 need to agree with that.
14 COMMITTEE MEMBER JONES: I'm okay.
15 COMMITTEE CHAIRMAN ROBINSON: So I am going to
16 anticipate that Hamid no longer agreed with his original
17 motion. And so with the pulling of the second and removal I
18 don't think we need to, I don't think we need to vote on it.
19 I think it's just, I think it just dies.
20 COMMITTEE SECRETARY SINGH: You can ask Don, you
21 know. Because since he brought this item we need to check
22 with Don.
23 COMMITTEE CHAIRMAN ROBINSON: We'll do that. But
24 my suggestion is that it be tabled and that we take the
25 volunteers who have been so gracious to raise their hands on

1 this, to work with Caltrans. Don, does that, does that work
2 with you?
3 COMMITTEE MEMBER FOGLE: I just wanted to clarify
4 that, again, conceptually that's a fantastic idea. But I
5 just want to make sure that it's productive. And so if
6 there are any objections now that people think can't be
7 overcome, because I have heard some comments about how this
8 will never work or isn't worth the effort, I don't want to
9 expend the effort on this if, in fact, we can't come to
10 something that people can vote yes on. So if there is
11 anyone on the Committee who has strong opinions that this
12 isn't going to work I would like those people to identify
13 themselves.
14 COMMITTEE CHAIRMAN ROBINSON: I think I identified
15 those people who have some strong opinions and that was,
16 that was why I did. I know that where we are right now
17 would not pass. And so I think everybody agrees that the,
18 that the issue is a worthy issue for this, for this
19 Committee to tackle. And the best way to do that is simply
20 to take it back and work based on the information that the
21 group has right now.
22 So if you bring this back to the Committee and
23 it's still in a state where there is a lot of discord then
24 ultimately it will just fail and we'll move on. But at this
25 point I don't think anybody is ready to give up on it.

1 COMMITTEE MEMBER FOGLE: Okay.
2 COMMITTEE CHAIRMAN ROBINSON: All right?
3 COMMITTEE MEMBER FOGLE: Yes.
4 COMMITTEE CHAIRMAN ROBINSON: So now do we need a
5 motion to table the item or we can just table it?
6 COMMITTEE SECRETARY SINGH: No we don't.
7 COMMITTEE CHAIRMAN ROBINSON: Okay. So no need to
8 -- so we'll just table this item and move on to the next.
9 It's ten minutes to 12:00. Do we want to go ahead
10 and take --
11 COMMITTEE SECRETARY SINGH: The first item.
12 COMMITTEE CHAIRMAN ROBINSON: Take the first item.
13 We believe that Mr. Knowles is not going to be
14 here today. The first item, 12-13, was a proposal to amend
15 speed hump signs based on an experiment conducted by the
16 city of Stockton with area signs.
17 COMMITTEE SECRETARY SINGH: I can just say for the
18 Committee information, we agree with the city of Stockton's
19 proposed language. If a Committee Member has some different
20 opinion they can provide their input. But we as Caltrans
21 are okay with the proposed amendment.
22 COMMITTEE CHAIRMAN ROBINSON: The issue in this
23 particular case was replacement of a series of -- actually
24 the beginning sign in a series of speed humps that would
25 ordinarily be signed, with a sign that says "speed hump

1 area." And the idea was that this type of sign would be a
2 better indication of what is to come and would allow for
3 better reaction to the various different signs and humps
4 that they approach. At this point the recommendation is
5 that we go ahead and endorse the Speed Hump Area sign as the
6 first in a set of speed humps.
7 And with that we'll go ahead and open to
8 discussion with the Committee.
9 Seeing no discussion at the Committee we'll go
10 ahead and open the issue up to the public. Anyone in the
11 public wish to discuss this?
12 MR. T. GREENWOOD: Todd Greenwood, city of
13 Stockton. We were the agency that prepared and conducted
14 the experiment and did a comprehensive evaluation of the two
15 different signs. I'd like to just clarify your explanation
16 on it. It's actually the Speed Humps Ahead sign would be
17 applied to a series along a segment and then the Speed Hump
18 Area is for a limited -- where you have a neighborhood where
19 there's limited access points.
20 The six segments in six neighborhoods. And we've
21 continued to apply these types of signs to these conditions
22 and we have had real good success. Real good neighborhood,
23 citizen feedback on it. We have been able to reduce the
24 sign pollution in the neighborhoods and not see really any
25 measurable changes in collision or speed.

1 And so my recommendation is that these, that these
2 two additional options, that we ask for your support
3 including these two options. They still leave open the
4 ability to either put the marking in advance of the vertical
5 device or continue to put signs in front of those in
6 conjunction with these.
7 So with that again I'd just ask for your support
8 to pass this proposal. Thanks.
9 COMMITTEE MEMBER KU: Before -- Could I ask a
10 question, Mr. Chair?
11 COMMITTEE CHAIRMAN ROBINSON: Sure.
12 COMMITTEE MEMBER KU: I think I'm familiar with
13 the Speed Humps Ahead signage, it's just in advance of the
14 series. Just wondering if with the new sign you have some
15 experience with it. No confusion by the, by the motorists
16 in the area or the residents in the area?
17 MR. T. GREENWOOD: Not that we could tell, no. I
18 mean, currently we're doing Speed Hump with the 15 mph
19 advisory speed under it. And so just having a slightly
20 different wording to indicate that there's multiple vertical
21 devices coming up, we haven't seen any confusion with that.
22 And again, when we do that, in our case we're
23 putting the Bump legend at those downstream locations. So,
24 you know. To answer your question, we haven't had confusion
25 over that.

1 COMMITTEE CHAIRMAN ROBINSON: And I have a follow-
2 up question. Did you do any counts after the installation?
3 My gut tells me that the Speed Hump Area sign, which would
4 be in a series of roads, could have, could be a detractor to
5 those vehicles that may be using an area as a through area,
6 not intending to be any destination there.
7 MR. T. GREENWOOD: No, we pretty much focused on
8 the collision history and the -- we did some speed survey.
9 You know, came up with 85th percentile comparison at those
10 locations. Really the area is a -- you know, for a small,
11 internal network and I wouldn't anticipate that, you know,
12 that there would that much difference between traffic
13 volumes.
14 COMMITTEE CHAIRMAN ROBINSON: Dwight, you had a
15 question?
16 COMMITTEE MEMBER KU: I just had one, quick
17 follow-up question.
18 COMMITTEE CHAIRMAN ROBINSON: Go ahead.
19 COMMITTEE MEMBER KU: The way you described it,
20 this sign would appear on the access to a number of internal
21 roads that would have speed humps; is that right?
22 MR. T. GREENWOOD: Correct.
23 COMMITTEE MEMBER KU: Okay.
24 COMMITTEE CHAIRMAN ROBINSON: John.
25 COMMITTEE MEMBER CICCARELLI: Actually Bryan had a

1 comment.
2 COMMITTEE CHAIRMAN ROBINSON: Bryan.
3 COMMITTEE MEMBER JONES: Being a native of
4 Stockton I have seen the great work that the city of
5 Stockton is doing up there with their speed humps. I grew
6 up in Lincoln Village West and we used to have to walk about
7 a half-mile to school and it was hard to keep the speeds
8 down under 35, 40 mph on this, on this collector kind of
9 residential street, Cumberland, and they put in a series of
10 speed bumps up there. The whole area, you know, it's all
11 residential people that are accessing this area and it works
12 very well, you know.
13 They do have a lot of signs up there because they
14 put a sign and so it -- reducing some of those signs. It's
15 pretty evident with their speed bump legend that there's a
16 bump coming up. I have never had a, I have never had an
17 issue of hitting a bump. And I can remember the first time
18 I came back to my parents' house and the bumps were
19 installed while I was gone and it was pretty evident that
20 you have speed bumps ahead. So it was, it was well-done.
21 So I would support the city of Stockton on this.
22 COMMITTEE CHAIRMAN ROBINSON: John.
23 COMMITTEE MEMBER CICCARELLI: One of the earliest
24 nationwide surveys of practice in traffic calming, which
25 this is traffic calming, was Reid Ewing's excellent

compendium called *Traffic Calming: State of the Practice*. It's an ITE publication, it's on their website. It dates back to '99 but it's still my first place to go to for a look at this.

In his Chapter 4, Engineering, he addresses specifically marking and signing practices for speed humps and speed tables. He surveyed six communities around -- seven communities around the nation in various states. And even at that time all of these jurisdictions were going away from signing individual humps to where it's advanced signing either at the first hump or in advance of the first hump. However, they all marked every hump with pavement marking. So what Stockton is proposing is supported by practice at least a decade back. Thank you.

MR. T. GREENWOOD: Thank you.

COMMITTEE CHAIRMAN ROBINSON: So do I take that as any sort of a motion?

COMMITTEE MEMBER JONES: I'll make a motion to support the city of Stockton's request to do Speed Humps Ahead and Speed Hump Area to reduce the sign pollution in their residential neighborhoods.

COMMITTEE MEMBER CICCARELLI: Second.

COMMITTEE CHAIRMAN ROBINSON: Okay. We have a motion and a second. And the recommendation is part of clean-up efforts, various tables in Part 6 need to be

1 changed or updated --
2 COMMITTEE SECRETARY SINGH: No, no, no, no, no,
3 no.
4 COMMITTEE CHAIRMAN ROBINSON: Sorry. Am I missing
5 that?
6 COMMITTEE SECRETARY SINGH: Just the language. I
7 need the language then for the action that's literally being
8 taken, the recommendation.
9 COMMITTEE SECRETARY SINGH: Here it is.
10 COMMITTEE CHAIRMAN ROBINSON: "If a series of
11 speed bumps exists in close proximity, an optional SPEED
12 HUMPS AHEAD sign may replace the first SPEED HUMP sign in
13 the series, provided additional warning of speed humps are
14 provided through signs or pavement markings at the speed
15 humps."
16 And then a similar situation for SPEED HUMP AREA.
17 So that would be a change to the manual as it
18 relates to speed humps.
19 And we've got a motion and a second. Any
20 additional comments?
21 And then we'll put it to a vote. All in favor say
22 by saying aye.
23 (Ayes.)
24 Opposed, nay.
25 (No response.)

1 The motion carries unanimously.
2 We'll note that Jeff Knowles just walked in and
3 that Hamid Bahadori left at about a quarter to 12:00.
4 Congratulations, Jeff, your motion, your item just
5 passed.
6 (Laughter.)
7 COMMITTEE MEMBER KNOWLES: As long as I didn't get
8 volunteered for anything.
9 COMMITTEE CHAIRMAN ROBINSON: We're saving that
10 for later.
11 I think this is a good time to break for lunch;
12 12:00 o'clock straight up. Isn't that normally what we
13 would try to do?
14 And then we will accomplish the remaining issues
15 at -- we'll start at 1:00 o'clock, that gives us an hour.
16 All right. So we'll go ahead and conclude the
17 morning and then return at 1:00 o'clock.
18 (Off the record at 11:56 a.m.)
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1 A F T E R N O O N S E S S I O N

2 1:05 p.m.

3 COMMITTEE CHAIRMAN ROBINSON: We're ready to get
4 started again. Okay, it's 1:05 and we will reconvene our
5 CTCDC meeting with the next item on the list which is Item
6 12-17, Adopt an Interim Approval issued by the FHWA for the
7 optional use of an alternative design for the U.S. Bicycle
8 Route (M1-9) Sign. Don, do you have anything to say about
9 that one?

10 COMMITTEE MEMBER FOGLE: Yes. Okay, this is on
11 page 21. I'll read the recommendation for this item.

12 Caltrans requests that the Committee make a
13 recommendation to Caltrans to seek statewide blanket
14 approval to adopt Interim Approval IA-15 issued by the FHWA
15 for the Optional Use of an Alternative Design for the U.S.
16 Bicycle Route M1-9 sign. The blanket approval of the IA=15
17 in California will eliminate the need for individual
18 agencies to seek approval from the FHWA.

19 Basically this item is on the agenda because
20 Caltrans has a policy, it's on page 103 of the CA MUTCD,
21 which states that whenever FHWA issues an interim approval
22 the CTCDC will discuss it in their upcoming meeting.

23 And then if the CTCDC recommends that California
24 should adopt this interim approval then Caltrans will
25 request a blanket approval for the whole state from FHWA.

1 The blanket approval will help local agencies not have to
2 seek individual approvals from FHWA.
3 If the CTCDC rejects this interim approval and
4 Caltrans agrees with the CTCDC recommendations then local
5 agencies will be put on notice that they will have to seek
6 -- excuse me. And they won't seek approval from FHWA. They
7 won't be allowed to use the device.
8 So basically what we are trying to do here is to
9 get blanket approval for everybody. That will streamline
10 the process for everyone.
11 And I am not sure how many areas are interested in
12 the U.S. Bicycle Route M1-9 sign but it is another tool in
13 the tool box for people who are interested in its use. And
14 that is all I had to say.
15 COMMITTEE CHAIRMAN ROBINSON: Okay, thank you,
16 Don. So we will open this item up to Committee discussion.
17 I understand, I understand that this sign is an
18 optional use, it's nothing that's mandatory. So any
19 comments from the Committee? John.
20 COMMITTEE MEMBER CICCARELLI: I'm on the national
21 committee, the Bicycle Technical Committee, so this has come
22 through our Committee.
23 I just want to point out that it already is in the
24 CA MUTCD, the standard M1-9 sign, which is an acorn shaped
25 graphic with black on white on black. Sort of regulatory

colors. I don't recall the history of that.

The proposed alternative sign is guide colors, which works just as well from my standpoint, and it uses a low triangle instead of the acorn. Other than that it's pretty much the same.

But it does say U.S. which I think is a small but significant improvement. Because people can say, oh, that's a U.S. route.

I have no other comments on it, it's a good proposal.

COMMITTEE CHAIRMAN ROBINSON: Thank you. Anyone else?

All right, seeing none we'll invite comment from the public.

MR. MILLER: Very little to offer other than I'm sure most of you know there is actually a map of the U.S. that shows the system of numbered U.S. bicycle routes. And there are communities out there that are very interested in posting those routes and more will probably be encouraged to do so as communities discover bicycle tourism is a good form of revenue. So I think it's a good step.

COMMITTEE CHAIRMAN ROBINSON: Okay, anyone else?

We'll come back to the Committee. Any other comments? Or if not I would entertain a motion.

COMMITTEE MEMBER CICCARELLI: Move approval.

1 COMMITTEE MEMBER JONES: Second.
2 COMMITTEE SECRETARY SINGH: Sorry, who moved?
3 COMMITTEE CHAIRMAN ROBINSON: Okay, it was moved
4 by John and seconded by?
5 COMMITTEE MEMBER JONES: Bryan.
6 COMMITTEE CHAIRMAN ROBINSON: Bryan. Okay, we've
7 got a motion and a second. Any comments following that?
8 Okay, calling for the question. All in favor of
9 the motion indicate by saying aye.
10 (Ayes.)
11 Any opposed?
12 (No response.)
13 I'll note that the motion passed unanimously,
14 thank you.
15 Okay, moving on we are going to get into requests
16 for experimentation. We have Item 12-18, a request to
17 experiment with red colored transit-only lanes; this was
18 submitted by San Francisco. And Jeff Knowles, do you have
19 any comments relative to this?
20 COMMITTEE MEMBER KNOWLES: Only that San Francisco
21 has prepared a short presentation on their proposed
22 experiment.
23 COMMITTEE CHAIRMAN ROBINSON: Thank you. Please
24 come on up.
25 MR. WHITE: Good afternoon, Committee Members. My

1 name is Dustin White from the San Francisco Municipal
2 Transportation Agency. I would like to thank in particular
3 Mr. Knowles for agreeing to sponsor this request for
4 experimentation.
5 COMMITTEE CHAIRMAN ROBINSON: Is that on?
6 MS. McLAUGHLIN: I think you need to -- the switch
7 on the top.
8 MR. WHITE: Is that better?
9 (Affirmative responses.)
10 MR. WHITE: Okay, it's picking up, sorry.
11 Once again, my name is Dustin White, representing
12 the San Francisco Municipal Transportation Agency.
13 We are here before you with a request to
14 experiment with red colored transit-only lanes. Ultimately
15 if adopted, this would impact Chapter 3D of the MUTCD,
16 Markings for Preferential Lanes.
17 Just by way of background, the SFMTA is a fairly
18 unique agency in California and in the United States in that
19 we both operate a transit system, the Muni system, the
20 seventh-largest transit system in the U.S., but also manage
21 all of the surface transportation in the city including
22 maintenance and installation of marking, signage, management
23 of on-street parking and also bicycle and pedestrian
24 improvements.
25 Transit-only lanes are one of our measures for

1 using, we have been using for many years actually to try to
2 give priority to transit vehicles on our streets.
3 And as this map shows, the city of San Francisco,
4 which is a fairly small city, only 49 square miles, has
5 currently about 15 miles of existing transit-only lanes in
6 various configurations.
7 The red lines on this map show lanes that are in
8 operation at all times. The lighter orange lines show part-
9 time transit-only lanes; they are generally in effect during
10 peak commute hours. And the blue lines indicate locations
11 where we have plans to expand the network of transit-only
12 lanes. And that's one of the reasons we are bringing this
13 request forward at this time is that there is an interest as
14 we continue to expand the network to make these lanes
15 operate more efficiently.
16 So very briefly, what are the issues? Well, we
17 have a lot of double parking and driving that occurs within
18 transit-only lanes with current --
19 (Microphone malfunction.)
20 We are currently struggling with deploying enough
21 enforcement to adequately enforce the moving violations.
22 We have had some success enforcing parking
23 violations through a program where we have installed cameras
24 on many of our transit vehicles that are able to photograph
25 double parking violations and issue citations. But the

1 moving violations continue to be a real challenge for us.
2 And there is certainly a need, we feel, to improve
3 compliance. To help make these lanes effective. So when
4 there is a double parked vehicle or cars using the lanes
5 because of congestion their purpose in reducing transit
6 delays is defeated and that's what we are seeking to
7 overcome.
8 This is a very basic schematic of what we are
9 proposing. There are a number of different individual
10 street configurations that would vary, but they would all be
11 based on this general premise that existing MUTCD compliance
12 pavement markings and longitudinal markings for the transit-
13 only lanes would remain in place. The only change would be
14 the addition of a red color treatment for the full width of
15 the lane that we are interested in enhancing.
16 Color transit lanes have been used in a number of
17 international cities. We are only aware of one location in
18 the United States that is using them and that is New York
19 City, which completed last year an FHWA-sponsored
20 experiment, a before and after study on their use.
21 The study did find that the addition of red
22 treatment to the transit lanes reduced the illegal motorist
23 use of those lanes, both driving and standing by vehicles
24 parked for less than 30 minutes.
25 They also found that the lanes did not have

1 impacts on legal parking maneuvers, particularly when their
2 lanes were not in effect. So many of the lanes in New York,
3 similar to ours, operate just peak periods. And as part of
4 their study they wanted to make sure that when the lanes
5 were not in effect the red color was not resulting in folks
6 not parking along the curb; it had not had that effect.
7 They also looked at right turn behavior in
8 intersections and found no impacts there. So motorists
9 continued to legally enter the transit-only lanes as they
10 approached intersections in preparation for a turn.
11 One of the challenges of the New York study and in
12 discussions with FHWA we have learned that the scope was
13 quite limited. And in fact they found no significant
14 changes in the transit travel times along these lanes, and
15 obviously that's one of the reasons to do this. And we
16 believe the reason for that is simply the limited data
17 collection that was performed.
18 FHWA has indicated that they consider this study
19 to have some positive results but it's certainly not robust
20 enough to recommend a change to the MUTCD at this time. And
21 that's why we are interested in adding to the body of
22 knowledge. To add more data and see if indeed these warrant
23 a potential change.
24 One of the great things that came out of New York
25 City's efforts is their extensive testing of different

1 material types looking at both the friction, the durability,
2 the life cycle costs, installation challenges with various
3 coatings. And they ultimately recommended three different
4 material types. I have one of those material samples with
5 me today; you're welcome to take a look at it. This is an
6 epoxy-based paint treatment. We have actually used this
7 product to color bicycle lanes in San Francisco and it is
8 one of the products we are interested in potentially testing
9 through this effort.
10 And this is what we are proposing and I think this
11 is where we are especially interested in getting your
12 feedback and advice on how the experiment should be carried
13 out.
14 The first item surveys we think is going to be
15 important to get an understanding of both motorists and
16 folks who are riding the busses and also our transit vehicle
17 operators. To just get a perception of what they think this
18 treatment means. What does a red lane mean on the street.
19 And then there's the hard data collection, before
20 and after data that we are proposing. And that includes
21 volumes of traffic, the rate of the illegal motorist use of
22 driving with the transit-only lanes as well as parking
23 within the transit-only lanes.
24 Similar to New York we think it is important that
25 we look at the parking occupancy or parking behavior

adjacent to the transit-only lanes to make sure that there is not any impact on legal parking behavior.

Illegal turning behavior, again, at intersections. We want to make sure that there is not a safety issue arising from people feeling that they can't enter these lanes to make turns as they approach an intersection.

Collision data is something we would look at before and after.

And then transit travel times. I think that's a real key item for us to see. Is this treatment effective at actually getting busses through a corridor more quickly?

Briefly, the time line. We would propose to spend the next several months doing our before data collection as we continue some research into material options and then procure materials.

Installation at a number of sites next year in the spring, followed by the collection of after data in a similar time of year as we collected the before data, so next fall.

Then aiming for a final report on the effectiveness the following summer.

Your agenda packet includes several photos of transit-only lanes in San Francisco and I am just going to flip through three or four here just to give you a sense of the different types of layouts we could potentially use in

1 this experiment.
2 The first is Mission Street in downtown San
3 Francisco. We have transit lanes between 11th and Main
4 Streets on a relatively flat roadway. The transit lanes are
5 on the right side of the roadway but adjacent to on-street
6 parking with varying hours of operation there. Some
7 segments of Mission Street where the restriction is in
8 effect 7:00 a.m. to 7:00 p.m. and there are certain segments
9 where the restriction is only in effect during peak hours,
10 7:00 to 9:00 and 4:00 to 7:00 p.m.
11 This is a street with very frequent bus service.
12 Peak period headways on the order of every two to three
13 minutes.
14 This is another location, Judah Street between
15 20th Avenue and La Playa where we run the N Judah Light Rail
16 Service on the surface. In this case the transit-only lane
17 is center running. Although generally flat it does include
18 a few blocks that go as steep as about 8 percent. And this
19 segment includes a transit-only restriction at all times.
20 So a fairly typical transit-only layout we have in
21 downtown San Francisco. This is Third Street between Market
22 and Townsend. Again, a relatively flat street. And this is
23 a one way street with a transit-only lane running along the
24 right side of the street.
25 In some blocks the transit-only lane is directly

adjacent to the curb. In others, such as the location shown here, there is either on-street parking adjacent to the curb or right turn pockets approaching intersections.

Geary between Market and Jones, another downtown location with very frequent transit service. Another transit lane on a one way street on the right side of the street and generally adjacent to on-street metered parking.

Lastly, I just wanted to highlight a proposed pilot project pending approval from this Committee and the FHWA we are interested in pursuing. This is Church Street where we run both light rail vehicles and busses along a segment of Church Street. And you can see in this photo the recently completed construction and there is a brand new concrete surface along the light rail tracks.

And this is not restricted in any way right now to transit so motor vehicles are permitted to use this segment. But we are interested in creating a new transit-only lane here and potentially in testing the durability, the visibility, the installation procedures for a red surface treatment.

This location in particular is a unique one because of the concrete surface, which is atypical of our roadways. And there's not been a lot of experience that we have been able to find that agencies have had with applying a color treatment onto a concrete surface as opposed to an

1 asphalt surface.
2 And we think this might be a good, a good material
3 test location for us, although it would not enable us to do
4 before and after data collection in terms of the
5 effectiveness of restricting motorists because, of course,
6 it's not in fact a transit-only lane currently.
7 That's all I have and happy to entertain
8 questions. I do have with me copies of the FHWA experiment
9 that was completed by New York. I'm happy to help guide you
10 through what came out of that experiment if you're
11 interested. Thank you.
12 COMMITTEE CHAIRMAN ROBINSON: Okay, first why
13 don't we entertain questions from the Committee. Jeff.
14 COMMITTEE MEMBER KNOWLES: In your before and
15 after data will you be installing basically the same legends
16 that are there today?
17 MR. WHITE: Yeah, that's a great question. Our
18 intent is to try to minimize the variables beyond the
19 installation of the color so existing signs and existing
20 markings would remain in place.
21 We haven't gone to the level of specifying exactly
22 which transit-only lanes we should conduct the test on. And
23 I think that might be a good, a good parameter for us to
24 consider because not all of the transit-only lanes in San
25 Francisco have received up to date MUTCD markings. That is,

1 the text markings as opposed to the diamond symbols. So
2 that might be something we should take into consideration in
3 selecting sites.
4 COMMITTEE MEMBER KNOWLES: And I was also
5 wondering -- I noticed in all of our discussions about
6 striping yesterday we spent a lot of time talking about
7 bicycle lanes and bicycle striping, the red lanes. I assume
8 bicycles are allowed to use those lanes.
9 MR. WHITE: I might defer to some of our non-
10 motorized experts on the Committee. But my understanding is
11 that state law in California permits the designation of
12 transit-only lanes for mass transit use and therefore does
13 not actually permit their use for bicycles.
14 COMMITTEE MEMBER KNOWLES: So even though you are
15 going to basically be restriping this roadway you are not
16 going to do it in a way that you are creating bike lanes. I
17 mean, it looks like you kind of sacrifice bicycle capacity.
18 Because even these lanes are quite narrow to allow motor
19 vehicles to be passing bicycles at the same time.
20 And it just seemed like if this was an under-
21 utilized lane, if only ten percent of the busses even use it
22 and you have this massive bicycle population, then I was
23 hoping that you'd be collecting bike data to even see
24 whether, you know. Since you're kicking all the motor
25 vehicles out of it except for taxis and busses it seems

1 rather ideal for cyclists other than where you've got tracks
2 in the street. And I'm curious as to how they would deal
3 with that.
4 But on these busy streets with no other bicycle
5 facility it seems like a pretty nice spot to ride one's
6 bicycle. The material that you shared with us, a nice rough
7 surface. It seemed like there would be good, you know,
8 friction there for cyclists, though sometimes they are in
9 the middle of the roadway. So you are not going to be
10 collecting any bicycle data because bicycles basically are
11 prohibited from using these lanes.
12 MR. WHITE: We certainly could. But just to
13 clarify, through the experiment we are not proposing to
14 create new transit-only lanes. It's more to look at our
15 existing transit-only lanes and see if the red treatment
16 enhances compliance. So bicycles are currently not
17 permitted to use them and would not, would not be permitted
18 in the after condition either. Although perhaps collecting
19 the data to see if bicycle use increases would be a good, a
20 good thing.
21 COMMITTEE MEMBER KNOWLES: Because usually when I
22 restripe a roadway I try to bring it up to all the current
23 standards, which includes adding bicycle facilities where
24 they don't currently exist. And here you're -- you're
25 spending a lot of money to restripe a road. I know you're

1 not changing lane widths; you're adding a major surface
2 treatment. And I was hoping you could enhance the bicycle
3 facilities at the same time and then collect data on what
4 effect it had. But it wouldn't apply, I guess, if you are
5 going to prohibit bicycles from using these lanes.
6 That's all the questions I had. But I did want to
7 point out that I am very happy that San Francisco is
8 experimenting with this because they are very keen on
9 pedestrian modes of travel and bicycle modes of travel.
10 It's a good multi-modal test location. And with their
11 weather, generally, if they can solve coefficients of
12 friction issues and all those kinds of things with no
13 pedestrian slippage or bicycle problems, it is a very good
14 test site. You know, if it can work here it can work most
15 anywhere on the roadways they're testing it on.
16 COMMITTEE CHAIRMAN ROBINSON: Thanks, Jeff. Any
17 other questions, comments from the Committee? All the way
18 down.
19 COMMITTEE MEMBER BRONKALL: I have a fairly
20 general question. At some point there may be a right hand
21 turn lane that becomes available for non-transit vehicles to
22 go ahead and merge into. And the question I have is, is
23 there going to be any differentiation in the red pavement
24 appearance to indicate to vehicles when it's appropriate to
25 cross over that to get into that right hand turn pocket?

1 MR. WHITE: I think that's something we are open
2 to advisement on. Generally my assumption has been that we
3 would follow fairly closely what New York did. And what
4 they did was to use a solid treatment throughout the length
5 of those transition areas and then use the longitudinal
6 pavement markings to indicate where it's appropriate to
7 enter the transit-only lane to make a right turn.
8 COMMITTEE MEMBER CICCARELLI: You mean they dotted
9 the pavement marking?
10 MR. WHITE: That's right.
11 COMMITTEE CHAIRMAN ROBINSON: Okay, John.
12 COMMITTEE MEMBER CICCARELLI: With regard to that
13 same point. The interim approval for using green color in
14 bike lanes specifies that the green be used to enhance
15 existing white markings. So if San Francisco were to break
16 the red marking into a series of bands coming up to a right
17 turn permitted area, that would be a little different from
18 the federal approval for the green color. Not that that
19 necessarily has to track. That's a really kind of a wonky
20 point.
21 I'm sympathetic to the collection of bicycle data
22 but I am kind of cautious because I ride those lanes myself.
23 And it's an ideal place to ride. I get out of the way if
24 there's a bus. If I can see a bus in my rear view mirror I
25 easily vacate the lane. But I think it would be useful to

1 see whether there is a change in behavior on the part of the
2 bicyclists.
3 I think the San Francisco Bicycle Coalition would
4 probably say that a shared bus/bike lane is not meeting
5 their Age 8 to Age 80 criteria for attracting a lot of
6 bicycles on the street. But existing street cyclists in San
7 Francisco routinely use these lanes with what seems to be
8 the tacit blessing of the SFPD. So I am neutral to positive
9 on the collection of the bicycle data.
10 COMMITTEE CHAIRMAN ROBINSON: i have a question as
11 well and I think maybe to help clarify the right turn issue.
12 Can I assume that you're talking about staying solid with
13 the red all the way to the intersection but that the white
14 markings on either side would then identify where, where it
15 became appropriate for a right-turning vehicle to cross
16 through the transit lanes; is that correct?
17 MR. WHITE: That is correct, yes. So the existing
18 white pavement markings would not change but the addition of
19 a solid band of red would be added.
20 COMMITTEE CHAIRMAN ROBINSON: I think I saw that
21 the solid, the solid white went all the way. They do, they
22 go all the way up to the intersection.
23 MR. WHITE: They do definitely in situations where
24 right turns are not permitted. We do have a grid of one way
25 streets downtown where that's a fairly common feature. But

1 I believe if right turns are permitted we have been, we have
2 been dashing the transit-only lane marking.
3 COMMITTEE CHAIRMAN ROBINSON: Look at page 37.
4 Yeah, I can see on 37 they're dashed. If you look at page
5 33 it looks like there is a dedicated right turn lane. And
6 a vehicle is given opportunity to merge into that lane, it
7 looks like 150 or so feet back from the intersection. So
8 whatever is white out there right now would remain, it
9 wouldn't change any, it's just the addition of the red.
10 MR. WHITE: Correct, yeah. We're hoping to really
11 draw the attention of motorists to make it very clear,
12 particularly in an urban environment where sign clutter is a
13 serious issue and I think folks genuinely are confused as to
14 whether or not they should be in thee lanes or not
15 sometimes.
16 COMMITTEE CHAIRMAN ROBINSON: One other comment
17 from me and I'll hand it back to the group if they have
18 other questions. Putting the red in there. My gut tells me
19 that there may be a tendency for the driver to think of that
20 as a wall that they can't cross and that there could be some
21 confusion that develops, especially in these right turn
22 conditions or where a car needs to merge over to make this
23 turn.
24 Do you propose to perhaps develop some information
25 that might help to determine if there is any confusion

1 created? In other words, whether there is confusion now in
2 this right turn pocket for a vehicle to merge over and get
3 into the right turn pocket, versus when the red is there if
4 there is any additional confusion created.
5 MR. WHITE: Yeah. I think particularly with the
6 turn issue we would collect counts of trans vehicles by
7 approach lane, you know. To determine, okay, the existing
8 configuration, are motorists making the turn from the
9 transit-only lane or are they actually cutting across that
10 lane and making the turn from the outside lane and does that
11 behavior change with the addition of a color treatment?
12 That's how we have laid out the data collection now. I
13 think if there's other suggestions on how to get at that
14 issue we're certainly open to those.
15 COMMITTEE CHAIRMAN ROBINSON: You know, my thought
16 was that it's probably not as bad to see a car merging over
17 maybe a little bit too late. But I can envision a car in a
18 through lane trying to make that turn without moving all the
19 way over into the right turn lane and then potentially
20 getting into conflict with the car that's in the proper
21 lane.
22 MR. WHITE: Yeah, I think that's something we
23 would love to have confirmation on through the data
24 collection.
25 COMMITTEE CHAIRMAN ROBINSON: Any other questions

1 or comments from the Committee? Jeff.
2 COMMITTEE MEMBER KNOWLES: Well since you will
3 ultimately be bringing after data back to the Committee I'd
4 recommend shooting some peak hour video at these right turn
5 movements so you can clearly show us how motorists chose to
6 get into those right turn lanes.
7 And also again, in looking at the photographs and
8 that there is tacit approval of bicycles sometimes using
9 these lanes. And New York City's experience was the fairly
10 low transit use of those lanes.
11 I would strongly recommend considering the use of
12 sharrows in these lanes where it represents the right-most
13 travel lane for motor vehicles, as opposed to putting the
14 bicycle then basically two lanes out from the curb. You
15 know, that would literally put them in the curbside lane in
16 a fairly under-utilized facility. Where otherwise they're
17 mixing it up with other motor vehicles in lanes that are too
18 narrow to allow motor vehicles and bicycles to pass. It
19 just seems like even if you broke your test period into two
20 phases, with and without sharrows. I mean, it just seems
21 like in that facility it might be a very valuable test.
22 MR. WHITE: I want to stress that, if my
23 understanding is correct, we cannot legally permit bicycles
24 to use these lanes according to the CVC right now. But the
25 idea of a later phase where maybe that approval is granted

is an interesting one. Data collection is not an issue but I think, you know, placing a marking in the lane to indicate that it's a preferred bicycle travel lane would be challenging right now.

COMMITTEE CHAIRMAN ROBINSON: Jeff, that type of an experiment might be good for a future experiment as opposed to combining them right now. Maybe we can find out how things work with the red and then later on find out through an experiment that might add sharrows if it's possible.

COMMITTEE MEMBER KNOWLES: I just hate creating a bus lane that only ten percent of the busses even bother to use and then prohibiting virtually everybody else from using it when there is tremendous demand in that city for bike lanes.

COMMITTEE MEMBER CICCARELLI: Jeff, based on my knowledge of double parking --

COMMITTEE MEMBER JONES: Please speak up.

COMMITTEE MEMBER CICCARELLI: Based on my knowledge of double parking activity in New York City, it's a whole different animal even compared to San Francisco. I would want to know where the ten percent figure was coming from. Not that it wasn't a valid number but what was causing it. Because I saw rampant double and triple parking in Manhattan when I was researching some stuff there for

1 bicycle reasons. It wouldn't surprise me if the busses were
2 avoiding the bus lane because the taxis and the deliveries
3 were making it unusable. But that's just conjecture based
4 on a couple of experiences in Manhattan.
5 COMMITTEE MEMBER KNOWLES: Well could I point out
6 then, since we don't know what we might do in the future, if
7 your before data collection could at least include some
8 bicycle data before there is any surface treatment. That
9 way if we decide to do any further follow-up -- even if
10 bikes aren't allowed but they use it anyway. There may be
11 an improvement even if you don't provide any markings that
12 actually say you can use it. So a right turn video I'd
13 strongly recommend with regards to your after study and then
14 also bike data in your before study. Because you won't be
15 able to collect it later and we might be able to use later.
16 COMMITTEE CHAIRMAN ROBINSON: I think it's a good
17 idea and it really won't cost you any more time. It's just
18 one more column in your, in your sheet.
19 MR. WHITE: Yeah, we're happy to do that. If I
20 can just also confirm John's experience in New York. In
21 talking with the planners there they did, in fact, indicate
22 that was one of the downsides of their test because there
23 does seem to be a culture among their transit operators to
24 just not even use the right-most lane because they know it's
25 likely they are going to run into an obstacle. You know,

1 that's just an unfortunate reality they dealt with through
2 their test. I don't think we'll have that same degree of
3 difficulty.
4 COMMITTEE CHAIRMAN ROBINSON: Roberta.
5 MS. McLAUGHLIN: Roberta McLaughlin, Caltrans. As
6 you recall, we have made some major changes in striping for
7 preferential lanes; specifically it was in conjunction with
8 our HOV car pool lanes out on the freeway. However, the
9 manual includes bus lanes and preferential lane treatment so
10 what I would advise is that you also look at the striping.
11 Because currently a single, solid white stripe is
12 discouraging crossing but double, solid parallel lines are
13 prohibiting crossing. So when somebody is going into a
14 right turn lane, technically with that single stripe up at
15 the intersection, somebody could pull into that right turn
16 lane at the very last second, crossing over the preferential
17 lane. So please refer to the striping for preferential
18 lanes as well.
19 COMMITTEE CHAIRMAN ROBINSON: I think because of
20 the fact that two lines prohibit that it would be -- because
21 right now you've got a single line out there. That you
22 identify where you have the traffic. And video will tell
23 you that real easily, where you have traffic that's jetting
24 across as opposed to moving over where you've got the dashed
25 lines. So if you can identify a percentage or numbers of

1 vehicles that are doing that it would be good to know.
2 I think if you can record that kind of
3 information, like Jeff was saying, this is the time that you
4 can get it. Once you put the red out there you are not
5 going to know just exactly what you have affected. So I am
6 not recommending that we put the double lines out now but
7 that might help us to know whether or not they need to be
8 there. John.
9 COMMITTEE MEMBER CICCARELLI: Another question for
10 Dustin. I am intrigued by the notion of somehow phasing the
11 experiment, the application of the red color, to get more
12 intelligence on how it affects people moving across it into
13 the right turn area.
14 Unfortunately the sequence wants to be, no red,
15 red everywhere but the right turn transition area, and then
16 full red. To do it in that sequence you'd have to -- I
17 won't go into practicalities. But to kind of reality check
18 that I took a look at the aerials of San Francisco for one
19 of the segments that you had in the photographs, namely
20 Third Street near Harrison.
21 And what I expected to see was solid striping on
22 both sides of the transit lane as you came up to the
23 intersection and then dashed back where there is a
24 transition area and then solid again at the proceeding
25 intersection. But instead what I see between Bryant and

1 Harrison, which is it's two long blocks under the Bayshore
2 Freeway elevated structure, is that the dashed right line --
3 not dashed -- the broken right line goes all the way back to
4 Bryant. So I was curious why that is, if you know why that
5 is? Because it informs my suggestion about the experiment
6 phasing.
7 MR. WHITE: I am not familiar enough with the
8 location to know why that is. My speculation is that it
9 might have to do with the fact that there is metered parking
10 along that block perhaps and the right turn lane is only a
11 part-time red peak hour right turn lane.
12 COMMITTEE MEMBER CICCARELLI: Okay, I think you're
13 right, you're right. The parking condition may change after
14 you're north of the freeway. Interesting.
15 Anyhow, the potential suggestion would be to
16 insert another phase into the experiment whereby you start
17 with no color and then you -- if it makes sense in the terms
18 of the right turn lane context at the next intersection, to
19 then go to color from the start of the preceding block, the
20 preceding intersection, to where the right turn transition
21 area would be. Then break the color or omit the color and
22 then pick the color back up again in the storage area where
23 everybody should have made their lateral moves. And then
24 come back and in a third phase you'd basically be what your
25 current final phase proposes to be, which is a solid band of

1 color from one intersection to the next.
2 However, I wonder whether that would be the right
3 sequence in terms of human psychology. Rather, you'd want
4 to maybe start with no color then go to full color and then
5 back off on the color. But that means ripping up street
6 print so I don't know how that would work. Because I wanted
7 to lay that possibility out there but acknowledge the
8 possible impracticality.
9 COMMITTEE CHAIRMAN ROBINSON: Comments from anyone
10 else? Go ahead.
11 COMMITTEE MEMBER GREENWOOD: A couple of questions
12 about the procedure for the experiment itself. You're
13 wanting to start right away here this fall. So you have
14 funding for this project already in place?
15 MR. WHITE: We have, I believe it's FTA funding
16 for a very general concept of improving transit travel
17 times. It's not specific to a particular capital project
18 and we're hoping to use some of that funding to apply the
19 experimental treatments.
20 And I should clarify that we'd be collecting the
21 before data, we're hoping this fall, and then doing the
22 installation sometime next year with the exception of this
23 three block segment of Church Street. And we are interested
24 in doing an installation there in the very near term, mostly
25 to take advantage of an ongoing construction project where

1 we could really get some cost efficiencies if we put the
2 material down now, despite it being -- it would not enable
3 us to collect sort of before and then after data in that, in
4 that instance.
5 COMMITTEE MEMBER GREENWOOD: And then assuming the
6 experiment was successful, would MTA then do the maintenance
7 of this colored treatment or is that your public works
8 department or street department?
9 MR. WHITE: As it stands now it would be the MTA.
10 Our public works department maintains the actual pavement
11 and oversees all of our paving construction work in the city
12 but the MTA applies and maintains all pavement markings.
13 COMMITTEE MEMBER GREENWOOD: So your --
14 MR. WHITE: So it would fall under our, our shop.
15 COMMITTEE MEMBER GREENWOOD: Your budget would
16 bear that maintenance from now on, assuming success?
17 MR. WHITE: It would have to, yeah, and I think
18 that's, you know, that's a discussion that our policy makers
19 still need to have. Is this -- you know, depending on the
20 success of the experiment and the benefits we see from it,
21 are they worth the ongoing operational cost of this type of
22 -- because it would, it would be a fairly extensive
23 maintenance operation.
24 COMMITTEE MEMBER GREENWOOD: And then the counter
25 to that, assuming that you decide for whatever reason not to

1 go forward, not to carry this on into the future, would
2 there be money available? How are you going to remove this
3 pavement treatment? How is that funded?
4 MR. WHITE: That's a very good question that I
5 can't answer with confidence. Obviously, if the experiment
6 doesn't work the material will have the come up. How that
7 happens, I am not totally clear.
8 COMMITTEE MEMBER GREENWOOD: Thank you.
9 COMMITTEE CHAIRMAN ROBINSON: Jeff.
10 COMMITTEE MEMBER KNOWLES: I would submit that to
11 request this experiment you need to be pretty clear about
12 how you would fund the removal because it's the last part of
13 your Request to Experiment is to remove the material after
14 the experiment. So we definitely need to make sure there's
15 funding available for that removal.
16 MR. WHITE: Yeah, that's something we can look
17 into.
18 COMMITTEE MEMBER CICCARELLI: I mean, that's
19 what's in your report is removal of the red pavement.
20 COMMITTEE SECRETARY SINGH: Basically he can't
21 answer the question now, you know. They probably have
22 something.
23 COMMITTEE CHAIRMAN ROBINSON: Well, I think
24 approval of this experiment would be with the assumption
25 that SFMTA will be taking care of removals if it is found

1 not to be effective. And so we would need some --
2 MR. WHITE: That makes sense, yeah.
3 COMMITTEE CHAIRMAN ROBINSON: We would need some
4 confirmation from you that that would be the case.
5 COMMITTEE MEMBER BRONKALL: I have another
6 question when time permits.
7 On the photograph on page 40, Stockton Street
8 looking toward Sutter. I'm not sure if it's an optical
9 illusion in the photograph but it appears that the transit
10 lane has some sort of a taper in it. Maybe it's going from
11 a substandard width to a full width as it approaches the
12 intersection?
13 MR. WHITE: Yes, Stockton Street, yeah. So this
14 photo was taken shortly after the transit -- right really
15 where the transit lane begins. There is sort of a gore
16 pattern that expands between two travel lanes and creates a
17 third, a third travel lane that is a transit-only lane.
18 COMMITTEE MEMBER BRONKALL: And I'm wondering if a
19 similar sort of feature might come into play when you are
20 going to have right turn pockets where you could essentially
21 have two parallel diagonal lines that would create an area
22 of black pavement that's not textured to signal motor
23 vehicles that it's all right to pull into the right turn
24 pocket. And then the red pavement would stop on both sides
25 of it.

1 COMMITTEE MEMBER JONES: That's kind of what John
2 was suggesting.
3 MR. WHITE: Just to confirm that I follow what
4 you're saying. Prior to the appearance of a right turn
5 pocket, sort of a break in the colored treatment?
6 COMMITTEE MEMBER BRONKALL: The transition period
7 where you would -- I'll give you a sketch.
8 MR. WHITE: Okay.
9 COMMITTEE CHAIRMAN ROBINSON: We need to move on
10 on this one. But just to kind of come back on this, for
11 this Committee to approve the request we would be expecting,
12 in addition to what you're promising in your before and
13 after study, to look at bicycles in the lane and identify
14 their behavior. to look at right turners' behavior, where
15 they're making the turns, whether going over into the right
16 turn pockets that exist. And then also you're agreeing to
17 remove all of the markings should they be determined to be
18 ineffective by either this Committee or FHWA.
19 MR. WHITE: Just so I understand procedurally, the
20 request as submitted does contain a commitment to remove the
21 markings if problems are found to be attributable to the
22 experiment. Are you seeking also a letter of some sort
23 indicating there is funding available to commit to that
24 removal or what would be necessary at this point?
25 COMMITTEE CHAIRMAN ROBINSON: No, you sounded like

1 you were a little less sure than the application identified.
2 If you're not, if you're certain that this will apply then
3 we're happy with it.
4 MR. WHITE: Okay.
5 COMMITTEE CHAIRMAN ROBINSON: Okay, any other
6 comments? Then I would entertain -- Rock.
7 MR. MILLER: Just a brief comment. I do have a
8 lot of experience with requests to experiment. The letter
9 from FHWA will include a paragraph indicating that the
10 applicant will be required to remove the improvement if in
11 the judgment of FHWA there is a problem; it's usually done
12 in the case of safety.
13 If it's not a successful but not a failure the
14 agency will be in limbo regarding whether they should have
15 to remove it or just led it fade to nothingness. But the
16 FHWA would likely order it removed if they saw a problem
17 with accidents, safety or operations or something like that.
18 The only other comment I would like to advise the
19 applicant is that if it was FHWA money they probably
20 wouldn't allow it to proceed with an experimental treatment.
21 Being as it's FTA money it's very possible that they would
22 be willing to let it go with the understanding that it would
23 have to be removed, potentially also with their money. But
24 I definitely have to sympathize that the potential need to
25 remove would be a significant issue in deciding to undertake

1 the cost.
2 COMMITTEE CHAIRMAN ROBINSON: John.
3 MR. FISHER: John Fisher, retired from LADOT. I
4 think in their letter they have indicated if it doesn't work
5 out they'll remove it. I think we need to take them at
6 their word. Whether they'll use some sort of solvent to
7 take off the paint or water blast it or just let it wear out
8 through the tire tracks alone remains to be seen. But I
9 think they will figure that out. In my opinion, that
10 shouldn't be an issue.
11 I support the concept of allowing the experiment
12 for the red transit lane. I have seen them in London and it
13 really distinguishes that lane from the other lanes.
14 But I would ask this. I would ask that a
15 condition of your approval of the experiment be that they
16 take care of the right turn treatment at intersections. And
17 a solid line all the way to the intersection, in my mind,
18 would not be appropriate. A solid line indicates
19 "discourages," discourages crossing the line. At the
20 intersection you want to give a clear and unambiguous
21 message that crossing that line is allowed to make right
22 turns. So take, for example, bicycle lanes. As they
23 approach an intersection they are dashed on the approach.
24 For the new transit lane markings that were
25 approved in the new manual there's a dashed line where they

may enter. And I think we need to clearly communicate to the motorist the point at which he may enter, and the beginning of the dashed line would tell them that. Not too far upstream so that he's compromising the use of the transit lane, not too short downstream so that he doesn't have time to enter. So I would ask that that be a condition of your approval.

Also I note on page 37, the top drawing. You had indicated that they have a dashed line there. The only reason it's dashed in that drawing is not because of the right turns, it's because the bus lane is only in effect two hours in one direction and four hours in the other direction, so it's primarily a general purpose lane.

And that brings up another kind of minute point. We probably shouldn't put pavement markings that say "bus only" when 22 hours of the day it's not for busses only. Use signs to convey that. And if taxis are allowed in the bus lane then the sign needs to clearly indicate "bus and taxi only 7-9 and 4-6" because the pavement markings really don't match what the signing says.

So again, those are just little things but I ask that you consider requiring the dashed treatment on the approach to intersections where right turns are allowed.

MR. BARSOUM: My name is Bassem Barsoum; I'm with Caltrans. I'm the area traffic engineer with traffic

1 operations in District 12.
2 I just had a couple of comments, mainly on the
3 picture on page 36, the bottom picture. Yo have two-use
4 basically, the transit as well as the bus. So the comment I
5 have is, when you are applying this type of treatment I am
6 envisioning a bus that is using this lane and trying to
7 maneuver around, like change. Obviously you have a slower
8 transit that is moving in front of a bus, say. I'm assuming
9 there is another avenue, other locations that are probably
10 not showing the picture where a bus would be allowed to
11 change lanes to bypass a transit. So in the treatment maybe
12 some consideration to be looked into this.
13 My other comment is on page 33, again the right
14 turn. The treatment that is solid for the edge of the bus
15 lane then it's dashed for the right turn. Again, if it's
16 similarly dashed at the same spot to allow the GP lane
17 vehicle to enter into the bus lane that probably solves --
18 to encourage people, this is the time that you are allowed
19 to enter into the right lane. So basically this is an item
20 that would clearly send a message to the driver with less
21 confusion. Thank you.
22 COMMITTEE CHAIRMAN ROBINSON: Can we get the
23 gentleman from SFMTA back up, please. The issue of the
24 turns, is it possible to go ahead and make those changes
25 that John mentioned? Going ahead and dashing in the areas,

1 for instance, where there is a curb adjacent, right turn
2 need, and there is not a dedicated right turn pocket? That
3 you would dash that in the proper distance in advance.
4 I'm seeing on page 33 where you have a right turn
5 pocket. It looks like there is dashing that occurs in
6 advance of the pocket, intending that there would be some
7 storage for right turns there. Can I assume that there is
8 no right turn there perhaps or something like that? The
9 signal requires on right turn on red?
10 MR. WHITE: Yeah. I'm not familiar with that
11 particular location but I do think John's suggestions would
12 strengthen the experiment and we'll be happy, happy to
13 include them.
14 COMMITTEE CHAIRMAN ROBINSON: And then the issue
15 of the two hours where the lanes are dedicated to bus and
16 taxi. Were those intended to be painted red as well?
17 MR. WHITE: I've included, really, pictures in the
18 request of all of our transit-only lanes. And I think we do
19 have actually some work to do now, moving forward,
20 identifying which location would be most ideal for an
21 experiment. And those may not be because of the time issue.
22 COMMITTEE CHAIRMAN ROBINSON: Okay, any other
23 questions or comments? Jeff.
24 COMMITTEE MEMBER KNOWLES: In following up to the
25 previous comments. I mean -- and maybe Caltrans can help me

1 out here. Isn't a diamond lane a preferential lane? And
2 then quite often we explain by signs what the preference is.
3 By that means on the freeway we can put in time of day, you
4 can list what vehicles, three or more, two or more, busses,
5 motorcycles, up/down to bicycles, up/down and sideways for a
6 preferential lane.
7 Now I realize this isn't a bike symbol but I am
8 just saying, instead of trying to put in taxis and busses
9 and time of day all in pavement legends, what if you did red
10 pavement with the preferential lane diamond legend. Then on
11 the side of the street you use the black on white sign that
12 explains, these are the vehicles that can use it and your
13 time of day restrictions. Then that way you don't anywhere
14 use "bus only" as a pavement legend, which might apply only
15 two hours a day.
16 I mean, that's the way we do it on the freeways,
17 preferential lane. And even in San Jose also I have seen
18 some of their lanes where the signs explain who is allowed
19 to use it and when.
20 MR. WHITE: I think we might have some work to do
21 collectively on this portion of the MUTCD because as I
22 understand it when a preferential lane is given to a
23 particular class of vehicles then we do have to place a word
24 message in the lane. As opposed to the old, the old version
25 of the MUTCD which permitted the use of the diamond symbol.

1 COMMITTEE MEMBER KNOWLES: I don't think I see
2 carpool legends on pavement on the freeway anymore, I think
3 I just see the diamond.
4 MS. McLAUGHLIN: It actually says HOV.
5 COMMITTEE MEMBER KNOWLES: Pavement legends still
6 or just diamond?
7 COMMITTEE SECRETARY SINGH: They are not required.
8 It's the first time but then there were not -- it's not
9 required.
10 COMMITTEE MEMBER KNOWLES: Right, right. I know
11 the official legend is the diamond with the sign explaining
12 what the preferential use is.
13 COMMITTEE SECRETARY SINGH: Even diamond when
14 it's, you know, worn out, it's not required to replace.
15 COMMITTEE MEMBER KNOWLES: Is that right?
16 COMMITTEE SECRETARY SINGH: Yes.
17 COMMITTEE MEMBER CICCARELLI: That's actually not
18 how I read 3D.01. I'm sorry, I'm just going to do it
19 without the mic. 3D.01, markings for preferential lane, the
20 Support statement.
21 Actually the Standard statement says HOV lane may
22 be a diamond shape or the word message HOV.
23 The others are text and it says, "Other type of
24 preferential lane-the preferential lane-use markings shall
25 consist of a word marking appropriate to the restriction."

1 And then there's paragraph 07. "If tow or more
2 preferential lane uses are permitted in a single lane, the
3 symbol or word marking for each preferential lane use shall
4 be installed." So I think there is an opening there for the
5 addition of the word "taxi" which you may already be doing
6 and possibly "bike" later.
7 MS. McLAUGHLIN: It's a shall statement?
8 COMMITTEE MEMBER CICCARELLI: It's a shall
9 statement. So that matches your understanding.
10 I wanted to go back to the right turn area for
11 just a minute and clarify Mr. Fisher's suggestion. And
12 that, as I understand it, was to dot the left line of the
13 transit lane, right?
14 COMMITTEE MEMBER JONES: Correct.
15 COMMITTEE MEMBER CICCARELLI: To indicate that a
16 motorist could mass from a lane to the left of the transit
17 lane, across the transit lane into the right turn area.
18 COMMITTEE CHAIRMAN ROBINSON: Okay, I think we're
19 to a point now where we need to make a decision based on the
20 comments that we have given and received as to whether or
21 not we should approve this.
22 MR. PYBURN: I'm sorry, did you close public
23 comments?
24 COMMITTEE CHAIRMAN ROBINSON: No, I have not.
25 MR. PYBURN: Okay.

1 COMMITTEE CHAIRMAN ROBINSON: Go ahead.
2 MR. PYBURN: Thank you.
3 COMMITTEE CHAIRMAN ROBINSON: I didn't know you
4 were back there, Steve.
5 MR. PYBURN: Steve Pyburn, Federal Highway
6 Administration. My concern is not in the color and the use,
7 et cetera, although I have some reservations. This is being
8 reviewed by our office in D.C. They are going to determine
9 if this experiment should go forward, that's out of my
10 purview.
11 However, the comments I want to make is that
12 you've had a lot of discussion about the what-ifs. What are
13 you going to do at turn lanes, what are you going to do with
14 bike lanes. I think an experiment to be effective and meet
15 somewhat the spirit of the MUTCD, those what-ifs should be
16 known. There should be examples of how you are going to
17 turn -- treat right turn lanes. Is the experiment
18 appropriate for non-24 hour transit lanes? And if you put
19 red out there on a non-24 hour transit lane what does it
20 mean? The public may not know. It's not defined in the
21 MUTCD or the CVC. Red means don't. Red means stop. It's
22 prohibit or stop. Is that the appropriate message?
23 So there are some details in this experiment that
24 maybe need to be fleshed out a little bit more for clarity,
25 specifically with the right turn lanes preventing conflicts

1 that you might want to consider requiring before it goes
2 ahead.
3 One other comment. I also observe that SFMTA, in
4 speaking with transportation planners, may not have
5 jurisdiction over city streets. This also needs to have the
6 -- may also need to have the blessing of the city engineer
7 or city traffic engineer. They may have different comments
8 on how the experiment should be conducted.
9 COMMITTEE CHAIRMAN ROBINSON: Thank you, Steve.
10 And I am also going to point out that in order for
11 this to go forward it needs to have the blessing of FHWA.
12 So we need to, we need to make sure that the applicant knows
13 that that needs to take place before anything can be
14 started.
15 I think we have already got agreement that there
16 won't be any red in situations where the lanes are used only
17 temporarily. This is going to be only in lanes where it's
18 100 percent use by transit. Correct? I understand that to
19 be the case and that's -- I think that's the way we would be
20 approving this.
21 Any final comments from anyone? Then I will ask
22 for a motion to approve or deny the request for
23 experimentation.
24 COMMITTEE SECRETARY SINGH: Just for the
25 Committee's clarification, the motion, if we authorize it,

needs to be subject to the FHWA approval. So this Committee can authorize subject to the FHWA approval.

COMMITTEE MEMBER KNOWLES: Because I had a question for the applicant.

COMMITTEE CHAIRMAN ROBINSON: We'll reopen it since we haven't voted. I'm happy to do that. I asked if there were any other comments and I didn't hear anything. So Jeff, if you have a final question.

COMMITTEE MEMBER KNOWLES: One question. It relates to dealing with Long Beach on a green bike lane, for example. Do we have any timing constraints if we were to ask for additional clarification on the right turn treatment so you could actually provide us with a diagram of what that would look like? Are you about to do an overlay? Are you about to do a slurry sealer? Do we have a quarter? Do we have three months that we can work with here to actually clear up some details before we go to implementation?

MR. WHITE: I would say we generally have time, with the exception of our desire to do an installation as part of the upcoming construction project on Church Street. However -- I'm trying to think it through in my head. I don't think there are any turns permitted along that portion of that street so we wouldn't really be dealing with an issue of right turns. In fact, those are center running transit-only lanes. It would be a little bit different.

1 COMMITTEE MEMBER KNOWLES: Because we are pretty
2 much facing the situation right now where there may a
3 leaning towards approving an experiment but only being able
4 to authorize it where it's a 24/7 bus lane and not where you
5 have a right turn lane. So unless you want us to design it
6 as a Committee I think we need, at least, to postpone this a
7 meeting while you prepare a right turn detail for us. Would
8 you strongly have a problem with that?
9 MR. WHITE: Can I offer that we treat turns
10 exactly as they are treated in the MUTCD as written?
11 COMMITTEE MEMBER KNOWLES: Would you propose to
12 dash it red the same places we dash the white line to make
13 it clear that the red lane is broken there?
14 MR. WHITE: No, I would propose to only dash the
15 white markings.
16 COMMITTEE MEMBER KNOWLES: So solid red with the a
17 dashed white line. I have no further questions.
18 COMMITTEE CHAIRMAN ROBINSON: Nobody else? Then I
19 would entertain a motion to approve or deny the request for
20 experimentation.
21 COMMITTEE MEMBER CICCARELLI: Move approval
22 subject to FHWA approval.
23 COMMITTEE CHAIRMAN ROBINSON: John has moved to
24 approve the request for experimentation subject to approval
25 of FHWA. Is there a second for that motion?

1 Okay, hearing --
2 COMMITTEE MEMBER KNOWLES: Do we offer friendly
3 amendments before or after seconding the motion?
4 COMMITTEE CHAIRMAN ROBINSON: If you'd like to
5 offer --
6 COMMITTEE MEMBER KNOWLES: I'll second it for the
7 purpose of offering a friendly amendment.
8 COMMITTEE CHAIRMAN ROBINSON: All right.
9 COMMITTEE MEMBER KNOWLES: Okay. So even with the
10 provision that it's subject to the FHWA's approval to
11 experiment, I would modify the applicant's request such that
12 we would not be approving it for any lane that has a time of
13 day restriction and subject to dashing the left-most transit
14 lane adjacent to right turn only lanes and also requiring
15 the FHWA's approval to experiment.
16 COMMITTEE CHAIRMAN ROBINSON: So that adds more
17 detail --
18 COMMITTEE MEMBER KNOWLES: Yes.
19 COMMITTEE CHAIRMAN ROBINSON: -- to what was
20 discussed. And it actually memorializes what I thought we
21 had agreement on.
22 COMMITTEE MEMBER KNOWLES: That's my intent.
23 COMMITTEE CHAIRMAN ROBINSON: Is that friendly
24 modification agreeable?
25 COMMITTEE MEMBER CICCARELLI: With one minor

1 niggle. And that is that the sequence of developing a right
2 turn lane ends with the storage area where people should
3 have moved into place already and that's appropriate to have
4 solid lanes in that area. Back of that there's a transition
5 area. In the complex case of San Francisco, the reason for
6 the dashing, at least on the right side, seems to be because
7 there are time of day parking lanes.
8 So I think to soften the request a little bit for
9 the dotting it would be dotting of the left side line,
10 subject to -- I don't know how to phrase it. I just want
11 you guys to do the right thing with regard to, you know,
12 mid-block transition and storage area. It's not appropriate
13 that you break the left side line all the way up to the
14 intersection if you are not going to allow the right turn
15 transition movement all the way up to the intersection. So
16 I'd like to do the right thing in that case.
17 If with that proviso, clearly not well-worded at
18 this point, I would accept the friendly amendment.
19 COMMITTEE MEMBER KNOWLES: And I would propose
20 that -- and I am not sure of the detail number, but the
21 elephant track from the beginning of the eight inch skip
22 through the eight inch solvent, simply because in common
23 practice the vehicles will change lanes even late in that
24 movement.
25 And so I would actually recommend in terms of

1 implementation and clarity to the drivers that are dealing
2 with this brand new red lane that we skip the left-most
3 transit lane from the beginning of the skipped eight inch
4 all the way to the intersection. That's my second --
5 COMMITTEE MEMBER CICCARELLI: I have to disagree.
6 This would vary -- this would vary from how bike lanes are
7 done, for example. When a bike lane is brought to the
8 intersection there is a transition area which may be
9 stripeless or it may be dotted but after a certain point you
10 have a solid line on both sides. And I feel pretty strongly
11 that the transit lanes should do the same unless for that
12 particular intersection the agency feels that it can and
13 should allow the transition movement to occur all the way up
14 to the limit line.
15 COMMITTEE CHAIRMAN ROBINSON: I see this
16 situation, if you want to look at page 33, as a right turn
17 pocket. It creates a pocket. And the reason why the turkey
18 tracks or the elephant striping is below that is because
19 that is where the transition is supposed to occur. There is
20 obviously some storage that needs to be accomplished for
21 those right turns. And for that purpose I see the solids
22 are okay. If there is no right turn pocket and we have the
23 striping all the way up to the intersection, then for right
24 turns they would need to be dashed up at the intersection.
25 COMMITTEE MEMBER CICCARELLI: Which happens to,

1 happens to coincide with how bike lanes are done, yes.
2 COMMITTEE CHAIRMAN ROBINSON: That's what I would
3 be looking for is similarity, conformance, the same as the
4 bike lanes.
5 COMMITTEE MEMBER KNOWLES: Well, the bike lanes
6 are dashed all the way to the intersection. I could not
7 support it --
8 COMMITTEE MEMBER CICCARELLI: They aren't
9 dashed -- they aren't dashed --
10 COMMITTEE MEMBER KNOWLES: Bike lanes are dashed
11 to the intersection.
12 MS. McLAUGHLIN: That's correct.
13 COMMITTEE MEMBER CICCARELLI: No, the turn lane --
14 MS. McLAUGHLIN: That's correct. When -- on a
15 right turn when there is no right turn lane, you have a bike
16 lane. You dash it at the intersection so the vehicle can
17 move as far over to the right --
18 COMMITTEE MEMBER CICCARELLI: Right.
19 MS. McLAUGHLIN: -- into the bike lane to make the
20 right turn.
21 COMMITTEE MEMBER CICCARELLI: But when there's a
22 right turn lane then there are solid lines.
23 MS. McLAUGHLIN: When there is a right turn lane,
24 and this is an issue that we're dealing with with bike lanes
25 in transitioning with a right turn lane, the same very

1 issues we're talking about with this bus lane, is how do you
2 stripe it, where do you put the dash? A lot of different
3 details.
4 I feel quite uncomfortable supporting anything
5 where we don't have some details ahead of, ahead of
6 approval. It's my personal opinion. Because we all have
7 this concept in our mind where the broken stripe/solid
8 stripe should be. But when we add the colored pavement in
9 there it also complicates to the driver, can I cross the
10 red, the red pavement? Can I cross the red pavement to get
11 into a turn lane? Or if there is no turn lane, can I move
12 into that red pavement to make my right turn? Otherwise
13 you're making a right turn in front of the transit lane.
14 COMMITTEE MEMBER KNOWLES: It also assumes that
15 the lost tourist already knows, 200 feet prior to this
16 intersection, what the darned street is. I mean, usually
17 with everything I'm dealing with with traffic, I am also
18 searching for street name signs. And when I finally see
19 that street name sign, you're telling me now I can't turn
20 right there because I can't move over.
21 So I'm saying, from a practical standpoint unless
22 you really upgrade your advanced street name signing, most
23 of the tourists -- not everyday commuters but most of the
24 people like myself that are trying to find their way through
25 the system that are now dealing with this red paint, don't

1 know that that's the street I want to turn right on until
2 I'm there. And I'm going to look over my shoulder, I'm
3 going to be careful, but I can only support this if the dash
4 goes all the way to the intersection, just as a practical
5 matter in driving on San Francisco streets.
6 COMMITTEE CHAIRMAN ROBINSON: You're the maker?
7 No, you seconded.
8 COMMITTEE MEMBER KNOWLES: I would not second it.
9 If it's solid to the intersection I can't support it.
10 COMMITTEE MEMBER KNOWLES: I cannot accept that
11 friendly amendment with that proviso because it goes against
12 everything I know about designing a storage area.
13 COMMITTEE CHAIRMAN ROBINSON: So then is there
14 another second to John's motion?
15 (No response.)
16 Hearing none I would entertain another motion.
17 COMMITTEE MEMBER KNOWLES: Well, I would forward
18 the motion as I amended it. That I would support this
19 experiment if we dashed the eight inch skip line the
20 duration of the right turn pocket. That's from the right
21 turn lanes, dashed eight inch, through the right turn lane,
22 solid eight inch. Again, this is an experiment so we'd see
23 how this operates. But to help facilitate the right turn
24 vehicle trying to make it into that right-most lane, it is
25 dashed. The red pavement there is warning that the transit

1 could be to the right. There's a lot of things to the right
2 that you need to be watching for. But in this very busy
3 environment what if you don't recognize that this is the
4 street you need to turn on until you're right on top of it
5 and you need to be able to move over.
6 COMMITTEE CHAIRMAN ROBINSON: Okay, so you have --
7 COMMITTEE MEMBER KNOWLES: So that's my motion.
8 COMMITTEE CHAIRMAN ROBINSON: You have a motion to
9 approve subject to --
10 COMMITTEE MEMBER KNOWLES: Time of day, all the
11 other things I named before.
12 COMMITTEE CHAIRMAN ROBINSON: -- the turn
13 striping, time of day is out.
14 COMMITTEE MEMBER KNOWLES: Right.
15 COMMITTEE CHAIRMAN ROBINSON: And the turn lane
16 striping, the dashed line goes all the way up to the
17 intersection.
18 COMMITTEE MEMBER KNOWLES: Yes.
19 COMMITTEE CHAIRMAN ROBINSON: Is there a second to
20 that motion?
21 (No response.)
22 I hear no second, the motion dies. So at this
23 point --
24 COMMITTEE MEMBER BRONKALL: I would like to make a
25 motion.

1 COMMITTEE CHAIRMAN ROBINSON: Before you I think
2 I'd like to hear from John.
3 MR. FISHER: I agree with both John and Jeff but I
4 think you're talking too different things. John, as you
5 point out, you need a solid line when you have a dedicated
6 right turn lane. And preceding that solid line you should
7 have a dashed line along the transit lane to allow entry
8 before that solid line.
9 COMMITTEE MEMBER CICCARELLI: For discussion could
10 we call up page 33 on the screen, the top image? Because I
11 think that's what we are all talking about.
12 MR. FISHER: On page 33 it shows a dashed line
13 leading into a solid line for the right turn lane. I think
14 you need a dashed line on the left-most line that delineates
15 the bus lane so that you may cross it.
16 COMMITTEE MEMBER CICCARELLI: Terminating where
17 the first of the queued cars is.
18 MR. FISHER: Right. So I think your motion would
19 want to incorporate two concepts. John's concept that the
20 left-most lane of the transit lane needs to be dashed in the
21 transition area leading up to the solid right turn lane
22 line.
23 COMMITTEE MEMBER CICCARELLI: But if I understand
24 Mr. Knowles' friendly amendment proposal, he would also dash
25 that left line of the transit lane along the queue of cars

1 all the way up to the intersection.
2 MR. FISHER: I think he is talking about a
3 different situation.
4 COMMITTEE MEMBER CICCARELLI: I don't think he is.
5 COMMITTEE MEMBER KNOWLES: No. In this particular
6 case what I am saying is, where you're proposing to put the
7 dash. I don't even know that this is the street I'm going
8 to turn on. And so if you're really prohibiting me from
9 changing lanes as I get closer and can finally see the
10 street name sign, I am stuck.
11 And so I know that we discourage lane changes over
12 a solid white but it's not illegal to change lanes there and
13 many people continue to changes lanes over the solid white.
14 So it is discouraged but it's legal. And to come back to
15 the fact we've got solid red all the way to the intersection
16 I would dash the eight inch on the left side only all the
17 way to the intersection.
18 And that's why we're a Committee. I mean, that's
19 just my personal opinion.
20 MR. FISHER: I think we could look at the bike
21 lane striping for guidance. And how does the bike lane
22 striping handle a dedicated right turn lane with a bike lane
23 next to it?
24 COMMITTEE MEMBER CICCARELLI: Solid/solid.
25 MR. FISHER: As a solid/solid. And on the

1 approach it has dashes so you know in what distance you're
2 able to enter. The bike lane striping also tells us that on
3 an approach where you do not have a dedicated right turn
4 lane but you have -- you allow vehicles to cross it in order
5 to make right turns, it's either dark or it's dashed. And I
6 would think you would want to follow that same guideline for
7 the transit-only lanes.
8 COMMITTEE MEMBER CICCARELLI: I agree.
9 MR. FISHER: And that would be, I think, the
10 simpler way to go.
11 COMMITTEE MEMBER KNOWLES: And I find it's a
12 different animal when I have been following for blocks this
13 red pavement that says "bus and taxi only" and I'm debating
14 how and when do I cross this thing, and then I have a very
15 narrow window when I am not even sure that the next street
16 is the one that I want to turn on. So all I'm saying is I
17 wouldn't approve the experiment this way.
18 COMMITTEE CHAIRMAN ROBINSON: That would not be
19 consistent with the way we handle our bicycles.
20 COMMITTEE MEMBER KNOWLES: True.
21 COMMITTEE CHAIRMAN ROBINSON: And I would agree
22 that we want to try and be consistent with some accepted
23 standard as it is. So I think I'm going to -- is it okay
24 for the Chairman to make a motion?
25 COMMITTEE SECRETARY SINGH: Yes.

1 COMMITTEE CHAIRMAN ROBINSON: As the Chairman I'm
2 going to make a motion.
3 COMMITTEE MEMBER KNOWLES: Okay.
4 COMMITTEE CHAIRMAN ROBINSON: I'm going to move
5 that we approve t he request for experimentation subject to
6 elimination of those that are time limited lanes.
7 And then with the instruction that on situations
8 where there are right turn lanes, to follow the same
9 guidance as provided by -- in the bicycle section.
10 And in the section where there are no turn lanes,
11 to follow that same guidance. Basically where there would
12 just be dashed lines all the way up to the intersection.
13 COMMITTEE MEMBER JONES: I'll second that.
14 COMMITTEE CHAIRMAN ROBINSON: That's my motion.
15 COMMITTEE MEMBER JONES: I'll second that.
16 COMMITTEE CHAIRMAN ROBINSON: Seconded by Bryan.
17 Okay, no further comment from the public at this
18 point. Is there -- Roberta, you were up. You had something
19 from the staff point of view?
20 MS. McLAUGHLIN: And Steve may have the same
21 comment. Roberta McLaughlin, Caltrans. By treating it the
22 same way as a bike lane, that means if there is no dedicated
23 right turn lane you have a dashed line up towards the
24 intersection. Can the vehicle enter that red diamond lane
25 to make their right turn?

1 COMMITTEE MEMBER KNOWLES: Yeah, because that's my
2 question. If you have two solid, parallel white lines at
3 that point is it then illegal and enforceable that you
4 cannot legally cross two parallel white lines?
5 MS. McLAUGHLIN: The question is, if we treat this
6 like the bike lane, no dedicated right turn lane, and we
7 dash that left hand lane next to the red pavement -- that's
8 how we do a bike lane.
9 COMMITTEE MEMBER CICCARELLI: It's dotted, not
10 dashed. That's important.
11 MS. McLAUGHLIN: Dotted.
12 COMMITTEE MEMBER CICCARELLI: Yes.
13 MS. McLAUGHLIN: But a bike lane. We are allowing
14 the vehicles to enter the bike lane as far right as they can
15 to the curb to make their right turn.
16 Here we have a red transit-only lane. Can the
17 vehicle enter that red transit-only lane to make their right
18 turn?
19 COMMITTEE MEMBER CICCARELLI: Roberta, it's no
20 different from a situation that's already on the ground in
21 San Francisco where -- and this is subject to FHWA's interim
22 approval for green pavement color to enhance bike lanes.
23 Where if a bike lane were brought up to the intersection
24 when there is no right turn dedicated lane. The way it
25 would be colored under the green interim approval is that

1 wherever there is a white element of the dotted line, there
2 and only there would be a green band, okay. I think that
3 MTA's proposal for the red transit lane -- (coughing in
4 background) -- suggested modification that I think is on the
5 table right now would differ in that the red band would be
6 continuous and the only thing that would skip would be the
7 white marking in that case.
8 MS. McLAUGHLIN: Understood. So the question --
9 COMMITTEE CHAIRMAN ROBINSON: And the issue here
10 would be --
11 MS. McLAUGHLIN: My interpretation, solid red for
12 the bus transit lane, broken stripe or dotted. Can the
13 vehicle enter that red area?
14 COMMITTEE MEMBER CICCARELLI: The red area is not
15 currently described as a prohibition color anywhere. Red is
16 allowed as a color in the marking section but the only
17 mention of red is in the context of red raised pavement
18 markers. So this is actually a new application of red.
19 MS. McLAUGHLIN: So that's my main concern is the
20 legality of a vehicle being in that lane. The red is meant
21 to prohibit other vehicles other than the busses.
22 COMMITTEE MEMBER CICCARELLI: That's a common,
23 that's a common knowledge of it. After you finish your
24 comment I want to make sure to go back to the white line
25 issue.

1 MS. McLAUGHLIN: So --
2 COMMITTEE CHAIRMAN ROBINSON: What you are saying
3 is that the red -- when the red is down no vehicle should
4 ever be allowed in there.
5 MS. McLAUGHLIN: Other than the busses.
6 COMMITTEE CHAIRMAN ROBINSON: Other than busses.
7 MS. McLAUGHLIN: That's my concern is that that's
8 the message I thought we were trying to portray with this
9 experiment is to limit busses only to this lane by painting
10 it red.
11 COMMITTEE CHAIRMAN ROBINSON: Except that if we
12 were going to run according to I think what Jeff was talking
13 about; a car would still be crossing the red.
14 MS. McLAUGHLIN: Crossing the red and using the
15 red are two different concepts here.
16 COMMITTEE MEMBER GREENWOOD: Question. Isn't the
17 red pavement just an enhancement to the other markings? It
18 does not override the other markings, it's just an adder.
19 COMMITTEE CHAIRMAN ROBINSON: That's the way I see
20 it too.
21 COMMITTEE MEMBER GREENWOOD: And so the fact that
22 you had solid red and skip white, the white is what you --
23 MS. McLAUGHLIN: So without the red the diamonds
24 are the ones that tell you that it's only for transit.
25 COMMITTEE MEMBER GREENWOOD: Right.

1 MS. McLAUGHLIN: And the text legend on the
2 pavement.
3 COMMITTEE MEMBER GREENWOOD: This is just to bring
4 attention to those other markings, which are the true
5 guidance.
6 MS. McLAUGHLIN: I'm thinking that the normal
7 driver isn't going to make that distinction.
8 COMMITTEE MEMBER GREENWOOD: Actually that's -- to
9 bring it back to the interim approval for green. There is a
10 way to resolve this and that would be to follow the guidance
11 that's in the interim approval for green bike lanes. Which
12 would be, wherever there's a skip stripe don't have a solid
13 band but instead put the band of color intermittent in the
14 same pattern as the skip stripe. That would be, that would
15 be completely consistent with the green bike lane interim
16 approval and would be something at least worth discussing.
17 MS. McLAUGHLIN: Definitely and it's not something
18 that's been incorporated into this Request for Experiment.
19 So each time we add a little bit different detail --
20 COMMITTEE CHAIRMAN ROBINSON: Okay. I like what
21 was said there.
22 Go ahead, Steve, come on up.
23 COMMITTEE SECRETARY SINGH: Just one second. Just
24 for the Committee information. We need to break at 3:30 and
25 we still have two items more. So we need to take time into

1 consideration.
2 MR. PYBURN: Steve Pyburn, Federal Highway
3 Administration.
4 I think the proposed dashed bus lane would not be
5 defined under the MUTCD. We currently could not support
6 that. And just advising that that's not a defined marking.
7 The skipped bike lane is specifically for a bike
8 lane, that is defined. Applying that skip to a bus lane, in
9 my opinion right now, is that's not appropriate or not
10 included in the MUTCD.
11 I want to iterate that, reiterate, the red -- I
12 agree with Roberta that the red next to a white is ambiguous
13 to the driver, whether it's a broken white, broken red, et
14 cetera. What are you telling the driver? We know that if
15 it's not retro-reflective it has no traffic control value
16 but the driver wouldn't know that distinction. Stopping the
17 red at the transition to the right turn lane, while not
18 ideal in the applicant's standpoint, removes the ambiguity
19 of, can you transition to the right turn lane or not.
20 COMMITTEE CHAIRMAN ROBINSON: Thank you.
21 COMMITTEE MEMBER KNOWLES: If I could ask. Like
22 on the exhibit on page 39 at the top where the bus lane is
23 adjacent to the curb. Is it actually the intent for the
24 right turn to be made from the right-most position or is it
25 the intent that the right turn for a non-bus would actually

1 be made from the second lane from the corner?
2 COMMITTEE CHAIRMAN ROBINSON: I get it.
3 COMMITTEE MEMBER KNOWLES: Because what we were
4 proposing was to dash the white as if it were a bike lane
5 and you could pull to the right into the red lane to turn
6 right. But is that really the intent when that is bus-only?
7 Is the car really supposed to? You know, I'm not clear
8 now. Because if the FHWA is saying there is no dashed bus
9 lane, it's got to be solid, then are we in fact saying that
10 red lane is bus and taxi only and a right turn vehicle needs
11 to turn right from the non-bus lane.
12 COMMITTEE CHAIRMAN ROBINSON: Yeah. What Steve
13 said struck a nerve and I think I'm going to make a change
14 to my motion. But first I want to hear from John.
15 MR. FISHER: I think the point that Steve made is
16 that the manual doesn't currently show a dashed line for a
17 bus lane. I thought, though, our California standard shows
18 a dashed line for HOVs.
19 COMMITTEE MEMBER KNOWLES: HOV, preferential.
20 MR. FISHER: Right. But that's the purpose of the
21 experiment, to try something new and see if it works and to
22 handle the situation. I advise that you not get too hung up
23 on the color because the color has no regulatory value and
24 is not a traffic control device. The only thing that will
25 be regulatory in this is the signing that goes up that says

1 "busses, taxis and right turns only," or "right lane busses,
2 taxis and right turn only," and the pavement markings that
3 supplement that sign. And maybe a condition of your
4 approval is that appropriate signs be strategically placed
5 to clarify where right turns can be made. It will be the
6 signs that regulate the use of the lane. The color of the
7 lane is simply there to make it more obvious to users.
8 COMMITTEE MEMBER JONES: Chairman, I think it's up
9 in like Portland or Seattle or something like that, they
10 have what's called BAT lanes, business and transit access
11 lanes. So they have a bus lane that runs adjacent to
12 driveways that have access to businesses but you can turn
13 across the bus lane to get into the businesses and turn out
14 of the business and across that bus line. They put up
15 similar signage there. I've seen that through a couple of
16 the bus/rapid transit design projects that are going on in
17 the nation.
18 COMMITTEE CHAIRMAN ROBINSON: Okay.
19 MR. FISHER: It's the signage that's going to
20 regulate what is allowed.
21 COMMITTEE CHAIRMAN ROBINSON: One final comment
22 before I make a modification.
23 MR. WHITE: I just wanted to bring to the
24 Committee's attention Figure 3D.3 within the CA MUTCD, which
25 does show a schematic of a bus lane with a solid white line

1 and a dotted white lane where crossing is permitted for a
2 right turn.
3 COMMITTEE MEMBER CICCARELLI: Do you have a page
4 number?
5 MR. WHITE: This is page 795 of the CA MUTCD 2012
6 edition. The bottom-most portion of this figure.
7 COMMITTEE MEMBER CICCARELLI: I have a
8 clarification question for FHWA on that when you're done,
9 Dustin.
10 Using what Dustin just had us put up on the
11 screen, if red were added to that layout would Federal
12 Highway require that the red not extend into the dotted area
13 and thus a short segment would not be a preferential lane?
14 How would that be conceptualized?
15 MR. PYBURN: First I want to -- I appreciate
16 Dustin bringing this to our attention. Apparently I blocked
17 out the three days we spent in this room talking about this
18 item. That's a really tough question because the message, I
19 believe, still is ambiguous. That if you, with a solid red,
20 what does the driver perceive that to be, the average
21 driver? If it were broken in the pattern of the skip I
22 think that's more amenable to me as a traffic engineer than
23 a solid red next to a broken white. Stopping it at the
24 broken right is clearer altogether. I think that's a really
25 tough question to answer but I'd have to side with driver

1 perception of what does that mean. And we -- I think
2 there's enough debate in this room among educated people
3 that focus on this manual that we haven't defined it very
4 well. What does red against white mean?
5 COMMITTEE CHAIRMAN ROBINSON: Based on the last
6 few things that have been said my motion is going to stand.
7 Having seen what's up there, seeing that vehicles are
8 allowed in bus areas, I am going to leave my motion as is
9 and we'll ask the seconder to agree or disagree.
10 COMMITTEE MEMBER CICCARELLI: Say that one more
11 time?
12 COMMITTEE CHAIRMAN ROBINSON: My motion as
13 originally stated stands. That we approve the request for
14 experimentation; this is an experiment. That we eliminate
15 any of the lanes that are time-limited. That we provide the
16 same type of striping as are used in bus lanes -- I'm sorry,
17 as bike lanes at intersections. If there is a right turn
18 pocket than a solid stripe would extend back for the pocket
19 length and then the transition area would occur. If there
20 is no right turn pocket then the dashed line would occur up
21 at the intersection.
22 COMMITTEE MEMBER JONES: I second that.
23 COMMITTEE SECRETARY SINGH: You second?
24 COMMITTEE CHAIRMAN ROBINSON: I think --
25 COMMITTEE SECRETARY SINGH: Bryan did.

1 COMMITTEE CHAIRMAN ROBINSON: Bryan had already.
2 COMMITTEE MEMBER CICCARELLI: Question about the
3 motion?
4 COMMITTEE CHAIRMAN ROBINSON: The last question
5 about the motion.
6 COMMITTEE MEMBER CICCARELLI: Certainly. Just to
7 be clear. I fully support what you've said so far. Are you
8 suggesting that the applicant also continue the red color
9 through the --
10 COMMITTEE CHAIRMAN ROBINSON: The red color
11 continues all the way up to the intersection, solid.
12 COMMITTEE MEMBER CICCARELLI: Thank you for the
13 clarification.
14 COMMITTEE CHAIRMAN ROBINSON: Okay, call for the
15 question. All in favor of the motion indicate by saying
16 aye.
17 (Ayes.)
18 MS. McLAUGHLIN: Show of hands.
19 COMMITTEE CHAIRMAN ROBINSON: Show of hands.
20 (Show of hands.)
21 COMMITTEE CHAIRMAN ROBINSON: All opposed?
22 (Show of hands.)
23 COMMITTEE CHAIRMAN ROBINSON: Okay, motion fails.
24 COMMITTEE MEMBER KNOWLES: Can I make an
25 alternative motion?

1 COMMITTEE CHAIRMAN ROBINSON: Please do.
2 COMMITTEE MEMBER KNOWLES: I agree completely with
3 your motion so eliminate the time of day portions. Stripe
4 it as we've seen in this exhibit. Where right turns are
5 allowed to dash it as is shown in this exhibit. And not use
6 the red treatment adjacent to right turn only lanes or in
7 the last 100 feet preceding the intersection where right
8 turns are allowed but there is no right turn lane.
9 COMMITTEE CHAIRMAN ROBINSON: Okay.
10 COMMITTEE MEMBER KNOWLES: Just as we would a bike
11 lane. So that preferential lane red paint terminates prior
12 to -- adjacent to right turn only lanes and in the last 100
13 feet preceding an intersection. That right turn lane -- but
14 where right turns are permitted.
15 COMMITTEE CHAIRMAN ROBINSON: Good. Do we have a
16 second for that?
17 COMMITTEE MEMBER BRONKALL: I second it and I'd
18 like to make a friendly amendment suggestion.
19 COMMITTEE MEMBER KNOWLES: Help me out here.
20 COMMITTEE MEMBER BRONKALL: And that's when you
21 have a dedicated right hand turn lane?
22 COMMITTEE MEMBER KNOWLES: A dedicated right. Or
23 in this example there is no dedicated right. But like a
24 bike lane it's still permitted so we dash it from 100 to 200
25 feet. So whether it's 100 feet we don't paint it red or 200

1 feet we don't paint it red, I'm open to either. You know,
2 for 100 to 200 feet we don't paint it red.
3 COMMITTEE MEMBER BRONKALL: What I'm getting at is
4 adding additional gaps where the red would not be installed
5 where vehicles are intended to maneuver into a right hand
6 turn lane.
7 COMMITTEE CHAIRMAN ROBINSON: I think you're
8 recommending that the red ends wherever the transition
9 begins; is that correct?
10 COMMITTEE MEMBER KNOWLES: I'm saying not adjacent
11 to the right turn lane. Consistent from where the elephant
12 track starts, the skip eight inch, all the way to the
13 intersection I would not paint it red.
14 COMMITTEE CHAIRMAN ROBINSON: Okay. And a right
15 turn pocket?
16 COMMITTEE MEMBER KNOWLES: I would not paint it
17 red adjacent to a right turn pocket, apparently creating a
18 barrier to the driver. I don't want that visual barrier.
19 COMMITTEE CHAIRMAN ROBINSON: All the way up?
20 COMMITTEE MEMBER KNOWLES: Now I should point out
21 as an experiment, if you don't do this red pavement for the
22 last 200 feet or adjacent to a right turn lane you have the
23 ability to extend the experiment to do that later. But if
24 you start out from day one painting it red all the way to
25 the intersection it's much more expensive to slurry that out

later to experiment with, having not extended it to the intersection.

COMMITTEE CHAIRMAN ROBINSON: So to make sure that everybody understands, the red paint ends at the beginning of wherever anybody is to transition into either a pocket or to move over to make a right turn.

COMMITTEE MEMBER KNOWLES: In this example the red paint would end where the skip stripe begins. So the red paint would have existed adjacent to that solid transit line but in that skip, which I would propose like a bike lane, is 100 to 200 feet from that intersection. Where right turns are permitted, recognizing San Francisco has one way streets where sometimes right turns aren't permitted. So only at public streets. I'm not saying driveways or anything like that. But the same places we would skip a bike lane I assume they would skip this transit lane to allow right turners in there, I would not paint that red.

COMMITTEE CHAIRMAN ROBINSON: And the only thing that I am not clear about is where you've got a right turn lane and you've got a bus lane adjacent to it.

COMMITTEE MEMBER KNOWLES: I would not paint it lane adjacent to a right turn lane.

COMMITTEE CHAIRMAN ROBINSON: Okay, now it's clear. So the red stripe ends at the beginning of a transition, either side. Okay, everybody is clear on that?

1 We've got a motion and a second. Calling for the
2 question. All in favor of the motion raise your hand.
3 (Show of hands.)
4 All opposed?
5 COMMITTEE SECRETARY SINGH: Let me, let me count
6 first.
7 COMMITTEE CHAIRMAN ROBINSON: In favor. In favor
8 raise your hand.
9 COMMITTEE SECRETARY SINGH: I need one more. No,
10 I need three more at least.
11 COMMITTEE CHAIRMAN ROBINSON: Keep your hands up,
12 folks.
13 COMMITTEE MEMBER BRONKALL: You would have my vote
14 if you'd put paint next to a right turn pocket.
15 COMMITTEE SECRETARY SINGH: It failed again.
16 COMMITTEE CHAIRMAN ROBINSON: Okay.
17 COMMITTEE MEMBER CICCARELLI: I want to make one
18 last attempt to get Mr. Knowles approval. And that is,
19 Jeff, I am very sympathetic to the lost tourist
20 consideration, having been lost myself in other cities. But
21 I submit that the way to resolve that is not to dilute the
22 discouragement of lateral movement into the storage area of
23 an intersection but rather to do the right thing, which is
24 to add the advance street name signage that you mentioned
25 earlier. And I would hope that for the sake of SFMTA's

1 experiment, that we could preserve the semantics of storage
2 lanes and allow them to go red in the storage area.
3 COMMITTEE MEMBER KNOWLES: You know, I'd actually
4 support that if the person bringing the experiment forward
5 would post an advance street name sign at the beginning of
6 the right turn transition. So the motorist -- the lost
7 tourist clearly knows if the next street they're approaching
8 is the street they want to turn right on. And they're
9 seeing that soon enough to make that transition prior to the
10 beginning of the solid right turn lane.
11 COMMITTEE MEMBER CICCARELLI: I would support
12 that.
13 COMMITTEE MEMBER KNOWLES: I would support that.
14 Because I'd support anything that, you know, installs
15 advance street name signs in San Francisco.
16 COMMITTEE CHAIRMAN ROBINSON: Okay, we have a new
17 motion.
18 COMMITTEE MEMBER CICCARELLI: We do. I will make
19 the same motion that I think Steve -- the Chair made
20 earlier. With the additional proviso that the applicant
21 install, where they are not already present, advance street
22 name signage at the suitable location for such signage,
23 which is typically the middle of the block. It may or may
24 not coincide with the beginning of the transition area. But
25 the advance street name signage is already well described in

1 the MUTCD as to how to do it to serve the purpose, which is
2 to guide the unfamiliar user. Is that acceptable, Jeff?
3 COMMITTEE MEMBER KNOWLES: Well actually I think
4 it's clearer to amend what I proposed because he had paint
5 going all the way to the intersection, where in the example
6 on the screen right now, I had not put the red adjacent to
7 the skip stripe. So what we are proposing, I believe what
8 we are agreeing on is in this particular case you would not
9 do red, the red pavement treatment, adjacent to this skip
10 mark, roughly 100 to 200 feet in advance of this
11 intersection, public intersection, where you can turn right.
12 COMMITTEE MEMBER CICCARELLI: That we agree on.
13 COMMITTEE MEMBER KNOWLES: Now where you have a
14 left turn pocket --
15 COMMITTEE MEMBER BRONKALL: A right turn pocket.
16 COMMITTEE MEMBER KNOWLES: A right turn pocket,
17 you would not paint it red in the eight inch skip portion.
18 COMMITTEE MEMBER CICCARELLI: Yes.
19 COMMITTEE MEMBER KNOWLES: But you would put an
20 advance street name sign in advance of that transitional
21 area. And then you would do read adjacent to the solid
22 right turn striping.
23 COMMITTEE MEMBER CICCARELLI: Yes.
24 COMMITTEE MEMBER KNOWLES: That's what we were
25 agreeing to.

1 COMMITTEE MEMBER CICCARELLI: Yes.
2 COMMITTEE MEMBER KNOWLES: So you would not paint
3 it red in this particular case adjacent to the dash. Or
4 where you have a right turn only lane you wouldn't paint it
5 red adjacent to the skip markings in advance of the right
6 turn lane but you would put an advance street name sign at
7 the beginning of that transition.
8 COMMITTEE MEMBER CICCARELLI: that is the motion.
9 COMMITTEE MEMBER KNOWLES: Then I would second
10 that or first it, whichever.
11 COMMITTEE CHAIRMAN ROBINSON: Okay. John, do you
12 have anything that might add to this motion and the second?
13 MR. FISHER: Well, if you've got momentum and
14 you're about to approve it I don't want to stand in the way.
15 But I don't know that you're going to approve it because
16 you've got no more than five votes on it.
17 But I think this points out why sometimes you need
18 to let the feds take the first shot at it before you
19 agendize it for the CTCDC meeting. Because maybe the feds
20 could deliberate this whole thing among themselves as to
21 where the red paint should end and put in those requirements
22 and then it comes to you and your task would be only to put
23 the little fine icing on the cake, so to speak. So if your
24 motion doesn't pass I would suggest you let the feds review
25 it, because it's been submitted to the feds. Determine how

1 they want to handle it. And then I think your task will be
2 easier if it comes back to you.
3 COMMITTEE MEMBER JONES: Why can't we be
4 innovative in California, though, before the feds.
5 COMMITTEE MEMBER KNOWLES: Well the original
6 motion --
7 MR. FISHER: You've got to be consistent with what
8 the feds --
9 COMMITTEE MEMBER KNOWLES: The original motion was
10 subject to FHWA's approval of the experiment.
11 MR. FISHER: I know. But now we're adding all
12 sorts of things that make conflict with what the feds might
13 say. So it's just --
14 COMMITTEE MEMBER KNOWLES: I understand. But the
15 applicant will have to modify their application to the feds
16 to reflect what we're approving.
17 MR. FISHER: The only thing I'm pointing out is
18 the feds could deliberate these details that you're
19 discussing and resolve them before it gets to you. To save
20 you time. Just a thought.
21 COMMITTEE MEMBER KNOWLES: Maybe outside of the
22 staff report that you haven't seen we have seen emails
23 between the applicant and the feds kind of tentatively
24 approving the concept of the experiment in follow-up to the
25 New York study.

1 So do I need to clarify my motion or do we --
2 COMMITTEE MEMBER CICCARELLI: I think we've got
3 it.
4 COMMITTEE CHAIRMAN ROBINSON: Please clarify
5 because we've gone through --
6 COMMITTEE MEMBER KNOWLES: Okay. So subject to
7 FHWA's approval of the experiment I am proposing that we
8 grant approval to experiment with the following
9 modifications to the application: that the red paint would
10 not be used where there is a time of day restriction, the
11 red pain would not be used where right turns are allowed.
12 And I would actually propose where MTA or the
13 transit system is not already skip striping like this prior
14 to a right turn at a public intersection that they use this
15 for at least 100 feet prior to this intersection like we do
16 a bike lane.
17 And that the red paint not be -- the red pavement
18 treatment not be adjacent to the skip stripe prior to a
19 right turn where it is not an exclusive right turn lane.
20 And that the red pavement treatment not be used
21 adjacent to the skip eight inch stripe that we use prior to
22 a right turn only lane.
23 And that an advance street name sign be installed
24 in advance of the transitional area into a right turn only
25 lane.

1 COMMITTEE CHAIRMAN ROBINSON: And no red --
2 COMMITTEE MEMBER KNOWLES: No red adjacent to the
3 skip eight inch stripe. But there would be red adjacent to
4 the solid white stripe adjacent to a right turn only.
5 COMMITTEE CHAIRMAN ROBINSON: Adjacent to a right
6 turn only.
7 COMMITTEE MEMBER KNOWLES: Correct, yes.
8 COMMITTEE CHAIRMAN ROBINSON: All right. And is
9 the second good on that?
10 COMMITTEE MEMBER CICCARELLI: Yes.
11 COMMITTEE CHAIRMAN ROBINSON: Okay. Call for the
12 question. All in favor of that motion raise your hand.
13 (Show of hands.)
14 COMMITTEE SECRETARY SINGH: Motion passed.
15 COMMITTEE CHAIRMAN ROBINSON: All right. All
16 opposed raise your hand.
17 (Show of hands.)
18 COMMITTEE CHAIRMAN ROBINSON: Congratulations, we
19 got approval. Don't you dare come up here and ask any
20 questions about what we just approved.
21 MR. WHITE: No, I just wanted to offer thanks for
22 a very educational discussion. I think it'll probably take
23 me four or five times reading the minutes to understand what
24 we have just approved but that's quite all right. Thank you
25 very much.

1 COMMITTEE CHAIRMAN ROBINSON: All right, moving
2 right along. We have two more items that we need to have
3 completed in 45 minutes. The next item is 12-19.
4 COMMITTEE SECRETARY SINGH: There's one more.
5 COMMITTEE CHAIRMAN ROBINSON: We've got three more
6 items. We've got 15 minutes per item.
7 12-19, a request to experiment with highlighted
8 shared lane markings, the City of Los Angeles. And Hamid is
9 not here.
10 COMMITTEE SECRETARY SINGH: You can call the city
11 to present it.
12 COMMITTEE CHAIRMAN ROBINSON: Please.
13 MR. MUSTAFA: Good afternoon, Mr. Chairman. You
14 guys have got to give yourselves a round of applause. You
15 guys have done a fantastic job. It's only three o'clock and
16 it shows how dedicated you are.
17 Well the city of LA Department of Transportation
18 has been living in a silo over the years. But just recently
19 we're thinking about and we're doing what others are doing
20 and we're thinking out of the box and we're being creative.
21 This last year we have installed over 75 miles of
22 bike facilities in the city. We've installed two miles of
23 green bike lanes in one weekend. We've installed over 20
24 miles of sharrows in one weekend, so anything is possible.
25 But it wouldn't have been possible if we didn't

have our bicycle coordinator, Michelle Mowery. She has been the key person that's really moving us in the right direction. She has been very innovative also. What she has done is brought in a lot of our interns to our city to help us out with all this work.

Now we have Kathleen King from Cal Poly Pomona, we have JoJo -- pronounce your last name, JoJo. (Inaudible). Now they're looking for jobs and they're great workers. So if you have any openings, see them.

But now Michelle will tell you what we are proposing, thank you.

MS. MOWERY: Thanks very much, everybody, thanks for your patience. I think my presentation is going up now. I wanted to open my presentation by saying that I do have Dodger tickets tonight. The game does start at 7:00 in Los Angeles so --

(Laughter and Go Giants, Go Dodgers colloquy.)

So I hope I can figure out how this works. So what we are proposing is to -- I passed around, I think there are five copies. I wasn't sure how many members but there are five copies of our original sharrow study that are floating around on your area.

A couple of years ago we actually went out and started evaluating the standard marking because we really wanted to understand how motorists perceived the sharrow.

1 Most of the earlier work that had been done to date had
2 showed that bicyclists do move out of the door zone and
3 position themselves well but what we didn't know is how
4 bicyclists respected motorists with the sharrow marking.
5 And so when we did this study what we really did
6 is evaluated how motorists treated bicyclists once we put
7 the sharrow in there. So we studied before we put the
8 sharrow in and then exactly the same conditions in the AM
9 and PM peak. We studied how motorists treated the
10 bicyclists afterwards. And in most conditions generally we
11 saw about a foot better spacing in each scenario. I can't
12 remember if we checked five or six locations and in each of
13 those locations we had very differing roadway conditions.
14 So currently the sharrows -- we're allowed to put
15 it in in white like this. You guys all know this. It helps
16 with bicyclist lane positioning. We know that motorists now
17 respect bicyclists when the marking is out there.
18 And what we are proposing to move forward is
19 expand on this. Which basically the current MUTCD, the CA
20 MUTCD allows us to back the sharrow with black. This isn't
21 actually backed, it's just a pavement condition, but it's
22 essentially to pop it, and we want to do that with green.
23 So this is our problem. When we were doing the
24 sharrow study the first time around and we were putting them
25 out on some pretty faded pavement what we were hearing from

1 motorists anecdotally is they couldn't see the thing in
2 certain conditions. In the PM in dusk conditions they were
3 really getting lost so we started looking at ways to be able
4 to deal with this.
5 And we entertained the idea of blacking it. But
6 when the FHWA approved green we started looking at green.
7 And we know our friends in San Francisco are actually
8 looking at this now.
9 And I'll orient you to where we are but this is
10 very close to where we are proposing testing them now and we
11 are looking northbound towards UCLA on Gayley.
12 COMMITTEE MEMBER JONES: How far are those out
13 from the curb face?
14 MS. MOWERY: We are installing at 12 feet,
15 centered at 12 feet. We looked at the California standard
16 minimum of 11 feet. We actually -- in the original study we
17 looked at -- we did some pre-testing on our own before we
18 sent everybody out on a test. But we did pre-test it at 11,
19 12, 13 and then we went back and looked at 12.5.
20 We had a lot of varying conditions. We talked
21 about whether or not we would try them at differing
22 placements from the curb face and then the whole idea of
23 having field crews put things in at the same place every
24 time in a very large city. So we settled on 12, which
25 seemed to work very well. At 13, especially in very heavy

1 traffic conditions, on roadways that were posted 35 but the
2 motorists were moving a lot faster, we did feel encroachment
3 a lot from the motorists. So we felt -- 12 was where we
4 settled and that's what we're using right now. That was
5 probably way too much information.
6 COMMITTEE MEMBER JONES: I was just curious if
7 they were in the tire tracks or not being worn down faster.
8 MS. MOWERY: Actually we are having really good
9 success with them. We did -- on the first test we did one
10 location in paint to see how the paint held up. Everything
11 else we did in thermal and the thermal is holding and so
12 it's working really, really well.
13 And I should mention we had proposed doing this in
14 thermal and our original request says to do this in thermal
15 with a green back and a white thermal sharrow. We might
16 want to test in paint. As some of you may know, we're
17 working with a green bike lane right now. We have had some
18 problems with our paint and we are running a new test and
19 we're having some success with some of the material so we
20 may want to test in paint on this experiment.
21 I think I've covered everything in this slide so I
22 am going to move forward.
23 So this is where we are looking at doing this. To
24 orient you again, north is up here, the UCLA campus is up
25 here. That slide that you saw where we couldn't see the

1 sharrow very well on the roadway, that line of sharrows is
2 here and we want to test this.
3 So the way we will do this is the same way we did
4 it the last time. We went out and tested the conditions.
5 We put a van at each end of the zone of interaction. We
6 call this a zone of interaction. And before we put the
7 sharrows down we put a van here and we put a van here. We
8 would take some mark-out paint and mark locations of --
9 We'd center the bicyclist so the bicyclist would
10 be our control and will be in the same place every time.
11 And we sent bicyclists out before the platoons of motorists
12 to see how they acted. We videotaped from behind, we
13 videotaped from the front. We will probably just use a
14 videotape from the front this time. Our videotape from
15 behind did not work very well. We could not see how the
16 motorist was encroaching after they had already passed that
17 van so we just didn't get really good results.
18 As they moved forward, as the bicyclist moves
19 forward in the zone of interaction we've got a van right
20 here videotaping that. We also have folks with clipboards
21 who can hear audible. You'd be shocked at what people yell
22 at bicyclists before we had this marking down. So we could
23 tell if folks were honking, if they were yelling at the
24 bicyclists, if they were physically encroaching on their
25 space or if they passed very close to the bicyclists. And

1 those are things that we mark down as we're moving through
2 the study as well.
3 This talks, again, a little bit about how we're
4 doing this. I mentioned we'd probably do video at each end
5 but we know we didn't get good results from the video at the
6 van at the very end of the scenario. We would record the
7 situation as we went forward and we actually then evaluate
8 all the video once we've got it and record the data as we
9 move on.
10 This is our proposed schedule. I did see one
11 mistake because we're probably going to take this Stage 1,
12 we're going to do this in two parts where we do it without a
13 sharrow and where we do it with a green-backed sharrow or a
14 highlighted sharrow. But basically this is what we're
15 talking about and we do intend to take this to FHWA and get
16 FHWA approval if you give us permission to move forward with
17 this.
18 We'll do the same thing. We'll collect the data
19 and analyze it from the video. We'll give you guys
20 quarterly reports and FHWA quarterly reports and a final
21 report three months after we're done.
22 And if you want us to we will remove them if
23 there's a problem. And we will grind them out, there's no
24 issue with that. We're actually changing a lot of
25 configuration of the roadways now and are grinding stuff out

1 all the time so it works for us.
2 And I think that's it. That is. Questions?
3 COMMITTEE CHAIRMAN ROBINSON: Thank you very much.
4 From the Committee, if there are any really significant
5 questions or comments then please answer them. But limit
6 them, if you will, because we are getting very short on
7 time.
8 MS. MOWERY: Those Dodger tickets --
9 COMMITTEE MEMBER CICCARELLI: Michelle, I
10 apologize for being absent the last five minutes but I want
11 to make sure that I heard you correctly the last 30 seconds.
12 That is that there will be an initial no-build before and
13 then SLMs only and then a green SLM?
14 MS. MOWERY: No, we are actually going to take out
15 the middle section with the SLM so it will be nothing and
16 then the green-backed.
17 COMMITTEE MEMBER CICCARELLI: And I obviously
18 missed this part of the discussion but why not have the SLM
19 only, otherwise how can you resolve what they green effect
20 was?
21 MS. MOWERY: Some of it is time. We know
22 visibility is an issue in all conditions. So we are
23 choosing to take this out because we know visibility will
24 get better. We want to see if people treat it different
25 than the regular sharrow. We think we will see a little bit

1 better improvement and we do already have results on the
2 regular sharrow. So we think we already have enough with
3 that data.
4 COMMITTEE MEMBER CICCARELLI: But in this
5 particular location with this particular set of people
6 passing through that intersection, don't you want to compare
7 what they would do with an ordinary sharrow before you add
8 the green? I don't get it.
9 MS. MOWERY: Possibly.
10 COMMITTEE MEMBER CICCARELLI: Okay.
11 MS. MOWERY: Are there questions or concerns?
12 COMMITTEE CHAIRMAN ROBINSON: Any other questions?
13 Jeff.
14 COMMITTEE MEMBER KNOWLES: We've done bike boxes
15 and bike lanes. How are we going to standardize the green?
16 So what are we doing so that you're really using an
17 official green rather -- because this green looks very
18 different than a green curb, for example, for limited
19 parking. Different than what Long Beach used for their
20 green bike lanes. What green are you using? It seems like
21 we need to be moving towards --
22 MS. MOWERY: FHWA actually does have approved
23 standards for color and I'll -- he's not here, is he.
24 COMMITTEE MEMBER KNOWLES: Because that's the
25 easiest way to move this --

1 MS. MOWERY: FHWA does have a chart and there is a
2 zone within the chart that you are allowed to use. That's a
3 color of green. We recognize that a lot of other people are
4 using a lot of other colors. We are using the FHWA-approved
5 green.
6 COMMITTEE MEMBER KNOWLES: Okay.
7 MR. MUSTAFA: Isn't it the same as the green lane,
8 the bicycle lane?
9 MS. MOWERY: Yes, it's currently the same color
10 we're using on our green bicycle lanes.
11 COMMITTEE MEMBER KNOWLES: So it's darker than
12 this.
13 MS. MOWERY: What's that?
14 MR. MUSTAFA: The city of LA Department of
15 Transportation's green lanes are that color.
16 COMMITTEE MEMBER KNOWLES: Are that color.
17 MR. MUSTAFA: And it falls within the spectrum of
18 the FHWA guidelines.
19 COMMITTEE CHAIRMAN ROBINSON: Okay, another
20 questions?
21 Any questions, comments from the public?
22 If not I would entertain a motion.
23 COMMITTEE MEMBER FOGLE: I make a motion to
24 approve.
25 COMMITTEE CHAIRMAN ROBINSON: Anyone interested in

1 seconding the motion to approve the request for
2 experimentation?
3 COMMITTEE MEMBER GREENWOOD: I'll second.
4 COMMITTEE CHAIRMAN ROBINSON: A motion and second.
5 Any comments? John.
6 COMMITTEE MEMBER CICCARELLI: I would find it hard
7 to support the experiment as proposed without the stage
8 where you compare the sharrow to the no sharrow condition
9 before going to the green sharrow. Because you're trying to
10 identify the contribution of the sharrow and the
11 contribution of the green and you can't do it by putting
12 them down at the same time. That's my comment.
13 MS. MOWERY: We'll put it back in.
14 COMMITTEE CHAIRMAN ROBINSON: Can you agree to do
15 that?
16 MS. MOWERY: Yeah, we'll do it.
17 COMMITTEE CHAIRMAN ROBINSON: Okay. Does that
18 change the motion and the second?
19 No changes? Okay, thank you, John. Any other
20 comments? Jeff.
21 COMMITTEE MEMBER KNOWLES: Is this subject to
22 FHWA's approval of the experiment?
23 COMMITTEE CHAIRMAN ROBINSON: It is subject, is it
24 not?
25 MR. MUSTAFA: Yes.

1 MS. MOWERY: Yes.
2 COMMITTEE CHAIRMAN ROBINSON: Yes it is.
3 MS. MOWERY: And I should add we may need a little
4 more time. If we are going to need to put an extra segment
5 of sharrow in we may need more time in our schedule.
6 COMMITTEE CHAIRMAN ROBINSON: And can I ask that
7 that, the subject to the approval be made into the motion
8 and the second?
9 COMMITTEE MEMBER FOGLE: Yes.
10 COMMITTEE MEMBER GREENWOOD: Yes.
11 COMMITTEE CHAIRMAN ROBINSON: Okay, all of that is
12 together. Any final comments?
13 Seeing none we'll call for the question. All in
14 favor of approving the request for experimentation please
15 raise your hand.
16 COMMITTEE SECRETARY SINGH: Okay, unanimous.
17 COMMITTEE CHAIRMAN ROBINSON: Unanimous.
18 MS. MOWERY: Thank you very much.
19 COMMITTEE CHAIRMAN ROBINSON: Okay. Next we're
20 going to take one slightly out of line and it is the request
21 to experiment with In-Roadway Warning Lights. That is a
22 system that would supplement existing traffic signals along
23 the Metro Gold Line. This is something that was submitted
24 by the LA County Metro. And to add some detail to that is
25 Eric Carlson from LA County Metro.

1 MR. CARLSON: Great, thank you, good afternoon.
2 Thank you for including us on your agenda today. I am Eric
3 Carlson. I am here with Sami Wassef and Zaki Mustafa from
4 the City of Los Angeles. We are here with a Request to
5 experiment with the -- can you put it up to the full screen
6 and then move it to the next one? Thank you.
7 So as a point of orientation, this is on the Metro
8 Gold Line. That's a 20 mile system. The point we are
9 focused on today is the Eastside Extension, which starts at
10 Union Station. It runs south to Little Tokyo before heading
11 east and running along First Street in the city of Los
12 Angeles to Indiana and then transitions to Third Street in
13 the county of Los Angeles.
14 That's a six mile alignment. The middle two miles
15 are in a tunnel, there are four miles at surface. During
16 that surface we have 24 at-grade intersection crossings.
17 And where those crossings occur, vehicle traffic and train
18 movements are controlled by traffic signals, train signals,
19 signage and striping. The trains operate at a posted speed
20 limit and no faster than 35 mph and they do not receive full
21 preemption throughout the corridor. So if they miss their
22 train signal phase they have to stop and wait at the
23 intersection just as vehicle traffic do.
24 We did an 18 month comprehensive evaluation of
25 this within a month of the line opening. Our Metro Board

1 redirected us to go and reevaluate the line and see if we
2 needed to address any of the active grade crossings with
3 crossing gates.
4 The study determined a couple of things. One, the
5 countermeasures, the existing countermeasures were working
6 effectively. Pedestrians and motorists were stopping and
7 generally obeying the warning signs and warning devices. We
8 found that -- we did identify left turn violations as the
9 main cause of train vehicle incidents that were occurring on
10 the line and we recommended a number of alternatives in lieu
11 of crossing gates that focused on reducing left turns.
12 So just to point out, the locations along the line
13 where we have experienced train/vehicle incidents. The line
14 has been open for 33 months now; we have had 17 incidents.
15 Fourteen of them have been turn violations that have
16 occurred in front of the train and these arrows represent
17 those intersections where those have occurred and also the
18 movement that the vehicle was making when it violated the
19 red light. In addition to this we have had one cross-
20 traffic red light violation and then we have had a
21 pedestrian and a bicyclist that crossed in front of a train.
22 But we have had no fatalities to date, we have had only
23 minor injuries resulting.
24 The improvement strategy has been focused on
25 reducing left turn violations by reinforcing existing

1 counter measures. And this has included adjusting the
2 traffic signal heads to maximize the visibility distance,
3 improving the advance train detection along the Third Street
4 corridor, refining pedestrian signal timing at certain
5 locations to further separate pedestrian movements from the
6 turn movements, additionally installing audible pedestrian
7 signals, and then finally, identifying a trial demonstration
8 of internally illuminated raised pavement warning lights.
9 Now we are not calling these pavement markers,
10 although they come on in a red, steady light. They only
11 come on for 35 to 45 seconds at a time so we have not
12 committed to calling them pavement markers, we have been
13 still calling them warning lights.
14 The progress to date in our third year of
15 operations, our incident rates have dropped, are down 60
16 percent from the first two years. Our violation, our turn
17 violation rate is down 34 percent, and that should say from
18 the first year. It's dropped a little bit each year but
19 from the first year to the third year we have reduced about
20 34 percent. And we attribute that to our safety education
21 programs as well as the public's growing familiarity with
22 the crossings as well as all the counter measures that have
23 been set in place.
24 We believe there is further opportunity to reduce
25 the left turn violations though by applying these raised

1 pavement lights at these ten intersections in the following
2 manner: We are placing them parallel to the railroad tracks
3 and immediately adjacent to the tracks for the width of the
4 intersection and going through each of the north/south
5 crosswalks. The lights would be placed angled in two
6 directions. They would be angled towards the eastbound and
7 westbound left turn pockets and they would also be angled
8 perpendicular to the tracks so they are facing the north and
9 south cross-traffic.
10 These lights would be tied to the Train
11 Approaching sign, which comes on only when the trains get
12 the signal to traverse through the intersection. So unlike
13 a previous experience that we have attempted in the city of
14 Los Angeles where we placed lights on the stop bar for the
15 left turn lanes and we have tied them to the traffic signal
16 and they have come on during every red light, whether there
17 was a train there or not, these will only come on when a
18 train is detected as approaching the intersection and they
19 will hold for the period the train goes through the
20 intersection and then has cleared the intersection.
21 This will illustrate. So this first slide we're
22 looking westbound. You can see the red left turn arrow
23 indicating no left turn. No train has been detected as
24 approaching the intersection. At this point the train has
25 entered the intersection. It's received the green train

signal phase. Our Train Approaching light has also come on at the moment the train is getting its signal phase and this Train Approaching light, it comes on and it blinks. So it will blink for the entire time that the train has the green signal phase. It reinforces the red left turn arrow. It generally comes on approximately 20 seconds prior to the train reaching the intersection, it holds for the 5 to 10 seconds the train crosses through the intersection and then it holds for about another 10 seconds after the train has cleared the intersection before it turns off.

Our proposal is in addition to this Train Approaching sign is to install the raised pavement lights along here that would come on in a red, steady light and they would hold for the exact same time frame that the Train Approaching sign comes on. So these will also be tied to the train signal versus the traffic signal. So they would come on 20 seconds prior, they would hold for the time it takes the train to cross through the intersection and then for approximately 10 seconds after it's cleared the intersection.

This kind of reiterates that. We talked about the point of warning lights versus pavement markers. These aren't flashing so they don't qualify as in-roadway warning lights. As pavement markers they do only come on for 35 to 45 seconds at a time and then they go off again. At all

1 times when there is no train in the vicinity or during times
2 when the train is not operating they don't come on at all so
3 the existing traffic signals continue to control traffic.
4 As far as measuring the effectiveness to see if we
5 can statistically reduce or significantly reduce the left
6 turn violations we are going to rely on our photo
7 enforcement camera data. We have had photo enforcement
8 cameras in place at 15 of the 24 intersections since the
9 line opened and these cameras are just focused on he
10 eastbound and westbound left turn lanes. So they are really
11 looking at our monthly turn volumes and as well the monthly
12 violations. And they also indicate the instances where an
13 emergency vehicle that's coming through and violating the
14 signal.
15 This is a map of our location. Each black dot
16 represents one of the 24 at-grade crossings. And then the
17 black dots with the red D indicate the locations of our
18 proposed demonstrations and those have been selected for a
19 variety of factors. And that's our last slide so happy to
20 take any questions.
21 COMMITTEE CHAIRMAN ROBINSON: Thank you, Eric.
22 Questions of the Committee?
23 I'll ask one. Eric, you indicated earlier that
24 the violation rate is trending down already. And I'm
25 assuming that that data is coming from your red light

1 cameras.
2 MR. CARLSON: Right.
3 COMMITTEE CHAIRMAN ROBINSON: So how do we know
4 that the lights that you are putting in is having an effect
5 on that downward trend? How do you intend to calculate
6 that?
7 MR. CARLSON: Well, we first started implementing
8 some of these improvements going back almost a year. And
9 one of the conversations we had with the PUC was, implement
10 these and wait for a period before you do the other so that
11 you can show results and separate that out.
12 These improvements have been in place since June
13 of this year and we will -- I think the soonest we would be
14 implementing these with approvals would be March of 2013.
15 So we'd have a little period of separation and we would be
16 tracking the monthly violation rates throughout that. If
17 they continue to move then we will have to look at that and
18 find a way to, to kind of separate out the benefits of which
19 countermeasures are bringing those results. but I think
20 we'll see possibly a little bit of leveling off after this
21 first round of improvements and be able to mark what the
22 trajectory of those monthly violations is after, after
23 installing the lights.
24 COMMITTEE CHAIRMAN ROBINSON: Okay. I still
25 didn't understand how you are going to differentiate the

1 continuing effect of the red light cameras versus the red
2 lights.
3 MR. CARLSON: I think we will be looking at, we
4 will looking at the violation rates that we have had over
5 time and this year prior to the red lights going in place.
6 And if we can measure, you know, a measurable reduction in
7 left turns after the red lights went on -- because the
8 cameras have been in place for close to three years now. So
9 I think if we can show an additional reduction with the
10 addition of these lights we would attribute that to the in-
11 pavement lights.
12 COMMITTEE CHAIRMAN ROBINSON: So rather than a
13 declining trend you would expect to see an increasing, a
14 greater increase in the trend as a result of the red lights?
15 MR. CARLSON: Right.
16 COMMITTEE CHAIRMAN ROBINSON: Okay.
17 MR. WASSEF: I think one thing from my experience,
18 in the past I used to work for LADOT so I've observed the
19 relationship from two different perspectives, from the
20 City's perspective as well as Metro's perspective. Metro
21 has a group, a bureau called Corporate Safety. And a lot of
22 the improvements that we see along the metro rail lines have
23 started as experiments. And I know John Fisher and Zaki
24 were around when Metro experimented with the train coming
25 sign; and now it's become a standard in the operations and

1 designs of Metro. So everything that happens that there is
2 an observable improvement, especially with regard to safety,
3 gets adopted over time and becomes a standard in the next
4 line of operations. So everything that you see has been an
5 experiment.
6 And now this is an additional experiment that will
7 hopefully improve the safety by just making people a little
8 more aware of the train. And that's kind of the idea behind
9 it. And like Eric said, usually when you have a new line
10 people do not know their surroundings as much as they used
11 to so there's accidents. But after a while they go down and
12 they plateau for awhile. And what I am hoping to see is --
13 because we are going to have the same data, we'll keep
14 measuring -- is that after they have plateaued for awhile,
15 now they are going to increase some more.
16 COMMITTEE CHAIRMAN ROBINSON: Any other questions?
17 John.
18 COMMITTEE MEMBER CICCARELLI: Does the agency
19 collect for the violations information on train direction
20 relative to motor vehicle violator direction? Is the train
21 coming from behind or -- here's the question, from behind or
22 from ahead, number one. And number two, the timing of the
23 violation relative to train movement. Are they really
24 making a sudden last minute move or is it well in advance?
25 Anything like that?

1 MR. CARLSON: I think I understood, is the agency
2 collecting information about the type of infractions.
3 COMMITTEE MEMBER CICCARELLI: Specifically train
4 behind versus train ahead.
5 MR. CARLSON: Well, we've always believed it's
6 more train behind. And in the sheriff's reports we have
7 received along this Gold Line we have been looking at them
8 to see, is it always the car that is, you know, making a
9 left in front of the train and is it the train approaching
10 from behind. We have had some incidents where it's been the
11 train, the train has been coming from straight on too and
12 people have made that turn so it's not 100 percent.
13 Also a number of our sheriff's reports just --
14 they get there and it's not clear which direction -- or it
15 doesn't state which direction so we don't have a perfect
16 record. But we believe it is predominantly from behind that
17 the train -- that most cars make their turn. They see there
18 is no train coming up, they don't hear the train approaching
19 from behind them and they want to make a turn. So this was
20 one of the ideas of the light was an additional prompt to
21 let them know, don't make that turn now.
22 MR. WASSEF: May I add one thing? One of the
23 reports that we found really helpful, and Sam Morrissey
24 hopefully will support me on this, we will get the report
25 that Santa Monica did. And even though their application

1 was different because they did not have a train and
2 basically was at mid-block, at crosswalks in general, that
3 there was, there were certain areas that there was a
4 tremendous drop in, I don't want to say accidents but
5 observability or potential for accidents. And that was
6 because there's like one more thing that motorists would
7 look at. And that's what we're hoping for is that motorists
8 will look at.
9 Santa Monica's report looked at the various types
10 of markers that are there in terms of durability and
11 maintenance and all of that and we will be looking at that.
12 And with the help of Santa Monica's report, to something
13 that will be a useful -- but we will also continue to look
14 at that and see, hopefully we will be able to increase the
15 information available to that.
16 COMMITTEE MEMBER KU: Quick question.
17 COMMITTEE CHAIRMAN ROBINSON: We had Jeff over
18 here next.
19 COMMITTEE MEMBER KNOWLES: Was this August 7th
20 application to the FHWA your first contact with them on this
21 experiment? Because I am very concerned about in-pavement
22 flashers at a traffic signal because of all the overkill the
23 public wants from us at signals. I mean, this is definitely
24 a place where I'd like to take John Fisher's recommendation
25 to really follow the FHWA in this experiment. If you just

1 asked for this August 7th, I assume you haven't heard back
2 from them.
3 MR. CARLSON: No, we have not heard back from them
4 yet.
5 COMMITTEE CHAIRMAN ROBINSON: Dwight.
6 COMMITTEE MEMBER KU: Quick question. Have you
7 contemplated or engaged in also an educational campaign
8 along with this experiment? Because I think folks are used
9 to whether or not a train is approaching these things come
10 on and this is a dramatic change from that. It's only -- we
11 really mean it now because it only goes on when there's a
12 train approaching. Just to get them away from that mind set
13 that even though a train is not coming these lights come on.
14 You know, just to get them away from that mistaken
15 impression.
16 MR. CARLSON: You know, we have rail ambassadors
17 and we do have an ongoing safety education program in the
18 community.
19 Also, these recommendations came out of this study
20 where we held 20 public meetings. We went through the
21 impacts of installing crossing gates, the benefits of
22 installing crossing gates. We looked at different ways we
23 shared the results in the way the line was operating to date
24 and at the time we proposed these recommendations we had a
25 great consensus from the community that yeah, it's working,

1 we just need refinements. They liked the idea of the light.
2 They thought that would help people, just grab their
3 attention. So there has been a process to date with the
4 community looking at these recommendations and these were
5 recommendations they supported. And then we do have ongoing
6 safety education. Thank you.
7 COMMITTEE CHAIRMAN ROBINSON: Zaki. Anybody else?
8 Okay, open it to public comments and questions.
9 MR. MUSTAFA: Mr. Chairman --
10 MR. CARLSON: One additional comment, Zaki.
11 You know, we have tested a set of lights along the
12 orange line in a similar fashion that would run along here
13 and has also helped in a similar fashion where we have seen
14 some results. We didn't have enough results to identify
15 that they were --
16 MR. MUSTAFA: We're still experimenting at the
17 orange line with the same type of treatment.
18 COMMITTEE CHAIRMAN ROBINSON: Okay. Mr. Winter.
19 MR. WINTER: Bill Winter, LA County Public Works.
20 Just for the record to let you know, actually our signature
21 appears on the letter, but the LA County Public Works
22 doesn't have any objection to the experiment moving forward.
23 I think, as it was alluded to, we provided, along with city
24 of LA, a lot of technical input into this and we have seen
25 that LA County Metro has taken that input into account as

they have put this proposal together for you today.

COMMITTEE CHAIRMAN ROBINSON: Thank you. Anyone else from the public? Monica.

MS. SUTER: Yeah, Monica Suter, City of Santa Ana. We have used in-pavement flashing crosswalks in the city also and did some before and after and got approval through this Committee several years ago now. But Houston is also doing something on these lights in a similar fashion so I wanted to share that with these fine folks.

And the other thing is, I'm curious how you are going to have the lights come on at the same time as the traffic signal. Because we have four-quad gates and we have pre-signals and cue-cutter signals for railroad tracks, this is new stuff for cuing at railroad tracks and so on. And one thing that's tough to do is to get the lights to all be on the same time. So the red light, the flashing red lights for the railroad tracks are not on at the same time as the traffic signals and that can be very confusing to the motorists and we have trouble with compliance at locations like that. So I guess the question I have is, how are they going to work together because there's probably going to be some sort of delay, just realistically.

But in any case, you know, I don't see any reason not to try this. These roadway lights, though, can be a bit of a challenge to maintain, what you embed them in, and

1 making sure that they are visible and the kind that aren't
2 going to sink down into the ground and so on. And also
3 water getting into the electronics, that can be an issue.
4 So those are some thoughts to share with the Committee and
5 these folks. But, you know, I don't see any reason not to
6 try it.
7 COMMITTEE CHAIRMAN ROBINSON: Thank you. First, I
8 understand that these are not flashing, these are solid red.
9 MR. CARLSON: Right.
10 MR. MUSTAFA: Yes.
11 COMMITTEE CHAIRMAN ROBINSON: And that they would
12 be wired to the train sign so that they would be on at the
13 exact same length as the train sign.
14 MR. CARLSON: Correct.
15 MR. MUSTAFA: They'll be coming on exactly when
16 the train sign comes on.
17 COMMITTEE CHAIRMAN ROBINSON: Any other comments
18 from the public?
19 Seeing none I'll bring it back to the Committee.
20 Any final questions or comments? Yes.
21 COMMITTEE MEMBER BRONKALL: Just a quick point of
22 clarification. So when the red lights that are parallel to
23 the tracks come on there would not be a conflicting green
24 signal for cross traffic that would be going across the road
25 at that point?

1 MR. CARLSON: No.
2 COMMITTEE MEMBER BRONKALL: It would be --
3 MR. CARLSON: No. Right now the signal phase, you
4 have a red for the north/south cross traffic. They have a
5 red at that same time as well as both left turn lanes have a
6 red in order for the train to get its green signal. So all
7 those have been held and that's a requirement for the train
8 to get its green signal. When the train gets the green,
9 that's when that Train Approaching light comes on, that's
10 when these lights would come on. And once that signal phase
11 has been passed, that's when they would go off.
12 COMMITTEE MEMBER BRONKALL: Right. I just want to
13 make sure they work.
14 MR. CARLSON: It works from all angles.
15 COMMITTEE MEMBER BRONKALL: Talking to each other.
16 MR. CARLSON: Yes.
17 COMMITTEE CHAIRMAN ROBINSON: Okay. Anyone else?
18 Jeff.
19 COMMITTEE MEMBER KNOWLES: Just for discussion
20 purposes I want to make it clear that because rail is so
21 critical, the collisions are so severe and needs to be
22 understandable no matter what city or state you're in, that
23 I'd strongly recommend that we follow the FHWA's lead in
24 this experiment and not take the lead of taking any action
25 until FHWA, you know, approves the experiment.

1 COMMITTEE CHAIRMAN ROBINSON: And would you be
2 interested in making a subject to approval motion?
3 COMMITTEE MEMBER KNOWLES: There's two -- if we
4 thought red bus lanes had details, this has so many fine
5 details that need to be worked out. And you're pressed for
6 time. Let the FHWA take the lead on the critical analysis
7 of this experimentation report.
8 I mean, it's only existed since the 7th of this
9 month. I mean, it's awfully quick to try to take action
10 putting new electrical devices at a traffic signal. I'd
11 just highly recommend against this unless the FHWA really
12 moves forward with the experimentation approval.
13 MR. WASSEF: May I address that?
14 COMMITTEE CHAIRMAN ROBINSON: Actually I was
15 looking for Steve, is Steve around? Steve, I'd be
16 interested in your comments at this point.
17 MR. PYBURN: Steve Pyburn, Federal Highway
18 Administration.
19 Per our standard procedures, requests for
20 experimentation go right to our headquarters office.
21 Unfortunately, I don't even see the experiment -- well, I
22 can't say that. I usually see the experiment when it's
23 approved. Occasionally we are asked for an opinion, that's
24 not been the case here so I don't have an opinion at this
25 time. I would defer -- I strongly -- I really like Jeff's

1 suggestion.
2 MR. CARLSON: I will say that we were asked by
3 FHWA to submit to your committee prior to submitting to them
4 and so that was their -- they said, make sure you submit it
5 to the California committee and then submit it to us.
6 MR. WASSEF: However, while I agree completely
7 with --
8 COMMITTEE CHAIRMAN ROBINSON: Actually our
9 comments are limited now up here to the Committee. I think
10 I understand where you are.
11 MR. WASSEF: Okay.
12 COMMITTEE CHAIRMAN ROBINSON: Any other questions
13 or comments relative to this request for experimentation?
14 Seeing none I would entertain a motion to approve
15 or disapprove the request.
16 COMMITTEE MEMBER KNOWLES: I'm prepared to make a
17 motion that we table this item and invite the applicant back
18 after they hear back from the FHWA and get their approval
19 for the experiment.
20 COMMITTEE CHAIRMAN ROBINSON: Okay, there is a
21 motion to table the item until FHWA approves this for
22 experimentation. Is there a second to that motion?
23 (No response.)
24 Okay, seeing none the motion dies. Is there an
25 alternative motion?

1 COMMITTEE MEMBER FOGLE: I make a motion to
2 approve.
3 COMMITTEE CHAIRMAN ROBINSON: Okay, we have a
4 motion to approve the experimentation as it was originally
5 stated.
6 COMMITTEE MEMBER FOGLE: Yes.
7 COMMITTEE CHAIRMAN ROBINSON: Would that be
8 subject to approval of FHWA?
9 COMMITTEE MEMBER FOGLE: Yes.
10 COMMITTEE CHAIRMAN ROBINSON: Okay. So there's a
11 motion to approve the experimentation subject to approval of
12 FHWA. Is there a second to that motion?
13 COMMITTEE MEMBER CICCARELLI: Second.
14 COMMITTEE CHAIRMAN ROBINSON: We have a second,
15 that's John.. Okay, is there any comments relative to the
16 motion and the second?
17 Hearing none -- Jeff.
18 COMMITTEE MEMBER KNOWLES: Just as an operations
19 engineer I'd be very careful about adding any in-pavement
20 devices at traffic signals. Even the Santa Monica example,
21 my understanding is those were at non-traffic signal
22 locations. So it's really an apples and oranges type of
23 application. You're putting in-pavement items at
24 electrified traffic signal control devices. So that's why I
25 will be voting against the proposal as it has been put

1 forward.
2 COMMITTEE CHAIRMAN ROBINSON: Thank you, Jeff.
3 Any other comments?
4 Then I'll call for the question. All in favor of
5 approving the request to experiment with the in-pavement
6 lights signify by raising your hand.
7 (Show of hands.)
8 COMMITTEE SECRETARY SINGH: Motion passed.
9 COMMITTEE CHAIRMAN ROBINSON: Okay. All opposed.
10 (Show of hands.)
11 COMMITTEE CHAIRMAN ROBINSON: Okay, the motion
12 carries.
13 All right. Our final item today is an information
14 item, FHWA's 2009 MUTCD Revisions 1 and 2, Engineering
15 Judgment & Compliance Dates. Don.
16 COMMITTEE MEMBER FOGLE: I'd like to ask Johnny
17 Bhullar to go over this for the sake of brevity.
18 MR. BHULLAR: Johnny Bhullar with Caltrans, Office
19 of Signs, Markings.
20 Basically for this time around we are having it
21 only as a one page informational item. But the intent here
22 is, of course, that next time around we will bring this in
23 as a full agenda item and it will be like probably 10, 12
24 pages long.
25 The brief summary or history of this is that the

1 standard protocol is any time the feds issue an official
2 change to their manual and it becomes effective nationally.
3 The states are given two years within which we have to
4 officially have our official manual be modified. So not as
5 a proposal but the official manual within those dates be
6 modified and become official.
7 So here what has happened is that the feds have
8 issued two revisions, Revisions 1 and 3, on May 14th of this
9 year, and they became effective June 13th of this year for
10 the states if they were willing to go with it. However, the
11 way it works for our state is, as of June 13th of this year
12 we have two years of a period that has automatically kicked
13 in. So meaning June 13 of 2014 or before we will have to
14 have our official CA MUTCD manual be revised to reflect this
15 particular change.
16 And this change is basically -- that's why this
17 time around being informational I just provided the links.
18 But in a nutshell, the change is in two pieces. One is the
19 definition of the word "shall" or the standard. And most of
20 you are familiar with the issue so I won't go into the
21 details.
22 And a portion of it we had already actually worked
23 with the feds. And through their previous webinars and
24 other discussions we had agreed to so we had already
25 included that in our CA MUTCD, even though they have only

1 made it official as of May. But we had deleted that
2 sentence. So that's how one of the statements, which is
3 Revision 1, is almost just for a little bit of wording
4 changes, already reflected in our manual.
5 The second piece to that is the Compliance Dates
6 and that applies to a number of items. There are about 58
7 items that the feds have compliance dates on. And in a
8 summary from 58 they have now narrowed it down to only 12,
9 on which they will have compliance dates. Otherwise a lot
10 of compliance dates are being deleted, the reason being for
11 fiscal responsibility. And in this recessionary environment
12 they did not want to have agencies be subjected to a lot of
13 dates by which out in the field devices have to be changed
14 to reflect the current manual.
15 However, out of those 12 that are remaining, that
16 is how we are going to be changing the manual. In
17 California it's a little bit different, that all 58 dates
18 never applied anyhow. There were less than that. And the
19 only one that I have a question for the Committee as well as
20 probably for the people in the audience is there's one date
21 that is going to be coming -- a little bit important. Which
22 is, the date of January, I believe, 22, 2012, which has come
23 and gone. That was the date by which the agencies were
24 required to have a method in place for measuring the sign
25 retro-reflective and just the method being in place.

1 And us in terms of timing-wise when we are going
2 to adopt and make our official revision. The feds have now
3 extended that date by two years to 2014. So that's the only
4 issue that could, at least -- if it is a big issue we might
5 want to act earlier.
6 But my intent here is that at the next meeting I
7 want to bring this as a full agenda item and at that time we
8 will discuss the details on those compliance dates and how
9 they are going to be changed from the current California
10 MUTCD. And once we get a recommendation from the CTCDC on
11 these two revisions we will make that revision to our
12 manual.
13 In addition to that, all the other items from the
14 past CTCDC meetings that have been sitting in the pipeline,
15 so to speak, will also be amended into the CA MUTCD and
16 other minor editorial errata stuff that has been, at least,
17 piling on since we issued the CA MUTCD 2012 edition.
18 So my target is at the next meeting, and probably
19 in a few minutes we'll know when the next meeting is going
20 to be. Once we get the recommendations then probably
21 sometime early next year is when I plan to then change the
22 manual, of course, if we do get the CTCDC recommendation to
23 do that.
24 So that's the intent, without going into too many
25 details here. At the next meeting we will have the full

1 detail, about 10, 12 pages of what changes in the manual,
2 what is current and what is being changed. If any questions
3 I'll be willing to entertain them.
4 COMMITTEE CHAIRMAN ROBINSON: Thanks, Johnny. Any
5 questions of him?
6 No? Thank you very much for the information.
7 Our next item on the agenda is our next meeting.
8 We have, we have completed three meetings for our calendar
9 year and so I am going to inquire if this Committee would be
10 interested in holding a fourth. And it's not against the
11 rules, to be held the first week in December. Would that be
12 acceptable to everybody for us to have a fourth meeting in
13 this calendar year?
14 (Committee Members nodding affirmatively.)
15 I'm seeing a bunch of heads going up and down,
16 okay. So we'll go ahead and schedule a meeting for the
17 first week. What's the first Thursday in December?
18 COMMITTEE MEMBER KNOWLES: The 6th.
19 COMMITTEE SECRETARY SINGH: The 6th.
20 COMMITTEE CHAIRMAN ROBINSON: The 6th. Does that
21 sound right for everyone? Okay. So location. It would be
22 a Northern California location. Would anybody like to
23 volunteer? I'm not seeing any volunteers.
24 COMMITTEE SECRETARY SINGH: I will figure out the
25 location and --

1 COMMITTEE CHAIRMAN ROBINSON: Our Secretary will
2 decide where we get to meet on December 6th in Northern
3 California.
4 COMMITTEE SECRETARY SINGH: Do we want a workshop
5 the day before?
6 COMMITTEE CHAIRMAN ROBINSON: By the way, thank
7 you all for participating in the workshop. I understand it
8 was very --
9 COMMITTEE SECRETARY SINGH: The Chair needs to be
10 present.
11 COMMITTEE CHAIRMAN ROBINSON: The Chair needs to
12 be present, yeah. The Chair needs to do a little bit better
13 job of managing his time in order to get to this.
14 COMMITTEE SECRETARY SINGH: So we will have a
15 workshop the day before. And we can set up the time so you
16 can travel the same day. Workshop day, stay the night and
17 come back the next day. So I will figure out where we want,
18 where we are going to have meeting and workshop.
19 COMMITTEE CHAIRMAN ROBINSON: Perfect. All right.
20 With that we're down to adjournment. I would take
21 a motion to adjourn.
22 COMMITTEE MEMBER FOGLE: Motion to adjourn.
23 COMMITTEE CHAIRMAN ROBINSON: And a second?
24 COMMITTEE MEMBER KU: Second.
25 COMMITTEE CHAIRMAN ROBINSON: And we'll cast our

vote. All in favor say aye.

(Ayes.)

Opposed?

(No response.)

We're adjourned. Thank you very much.

(Thereupon, the meeting of the California Traffic Control Devices Committee was adjourned at 3:32 p.m.)

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CERTIFICATE OF REPORTER

I, Martha L. Nelson, 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 13th day of September, 2012.

/s/ Martha L. Nelson
MARTHA L. NELSON, CERT*367

CERTIFICATE OF TRANSCRIBER

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.

RAMONA COTA, CERT**478

September 13, 2012