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## Railroad Grade Crossing Committee (and Predecessors) Meeting Minutes

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### I. WELCOME

The meeting was called to order at 10:35 AM EST by Committee Chair Brent Ogden.

### II. INTRODUCTIONS

There were 10 participants assembled in person and an additional 11 who participated through the web meeting:

In Person	
Brent Ogden	brent.ogden@kimley-horn.com
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Mark Avery	mark.avery@onyx-rail.com
lan Barnes	i.barnes@fehrandpeers.com
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Debra (Dee) Chappell	debra.chappell@fra.dot.gov
Eric Rensel	erensel@gfnet.com
Randy McCourt	503.randy.mccourt@gmail.com
By Teams	
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Karen Hankinson	Karen.Hankinson@Railpros.com
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Jason Field	jfield@moffattnichol.com
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Nicole Jackson	njackson@benesch.com
Carmen Talavera	ctelavera@sunnyvale.ca.gov
Gyan Sinha	gyan.sinha@kimley-horn.com





### III. LEADERSHIP TRANSITION

Brent announced that he is stepping down from the Chair role following this meeting. Karen Hankinson will be promoted to Chair and Nicole Jackson will be promoted to Vice-Chair. Brent was thanked for his service and Karen was welcomed. Gyan Sinha will assume the role of Secretary.

### IV. ITE ANNOUNCEMENTS

Doug Noble, ITE Staff Liaison, provided some highlights of recent ITE activities (see attachment):

- ITE is launching a certificate-based blended learning program featuring Safe System Approach theory and practice
- ITE recently published a new Recommended Practice for Vertical Deflection Speed Reduction Techniques (replacing the Speed Hump RP)
- ITE published an Informational Report on Crosswalk Policy
- ITE released a call for data for the update to the Parking Generation Manual
- ITE will launch a TrafficWiki consolidating key resources and manuals
- An updated Traffic Signal Maintenance Handbook is in the works

Doug distributed an announcement of the **ITE Virtual Spring Conference**, which will take place on March 14-15, 2023 (attached). Doug reported that ITE now has some 17,300 members.

The ITE Annual Meeting will take place in Portland, OR, from August 13-16 in conjunction with the Western District Meeting. (There will be a session on grade crossings.)

ITE is encouraging committees to nominate students, young leaders, outstanding professionals or noteworthy projects through the Young Leaders to Follow program and our ITE Excellence in Transportation Awards. Nominations are being accepted through March

Eric Rensel, Chair of the Council Leadership Team, explained that ITE is in the process of reorganizing the councils and committees. There are now 26 groups, with two new groups planned. Our committee will continue to exist, but there will be fewer liaisons between committees and more task forces shared between committees in an attempt to improve collaboration between groups. Essentially, the chairs of ITE standing committees such as ours, will be elevated into the Standing Committee of the ITE Traffic Engineering Council. Also, "Action Plans" will no longer be required of Standing Committees such as the Grade Crossing Committee.





### V. ITE COMMITTEE ITEMS

1. Meeting Minutes

The meeting minutes from October 20<sup>th</sup> virtual meeting were approved by consensus.

2. Annual Conference Session

The Committee had submitted a proposal to ITE indicating two presentations and a third listed as an "alternate". Doug Noble said that one presentation from the call was recommended so the panel would include all three proposed by the Committee plus a fourth from the Call:

- Traffic Signal Preemption for a Combined LRT/RR Crossing Adam Moore, Portland Bureau of Transportation System Management - Presentation will discuss a Portland, OR, crossing in a shared corridor with signalized intersections on either side. The crossing also has challenges due to an unusually long crosswalk and frequent use by articulated express buses.
- Real Time Train Prediction System with Dynamic Motorist Advisory Signs Liliana Quintero, City of Vancouver, BC The presentation will present before and after analysis of a system which was used to advise motorists of projected delays at a crossing where construction of a grade separation would be problematic due to site environmental constraints. The system has avoided the need for building a grade separation at this location.
- Proposal for an Active Another Train Coming Sign Brent Ogden, Kimley-Horn Associates - This presentation will present and assess various passive and active treatments and will suggest testing a U.S. prototype of an active sign which is in widespread use in Japan. This material could provide the basis for a Problem Statement to further advance and test this device.
- Joint Annual Inspections Save Lives: Case Studies from the Midwest Joanna Bush, Mead & Hunt – Presents evidence of the importance of regular inspections of crossing warning systems at locations with preemption of nearby traffic signals.

### 3. NUTCD Report

As is generally known, FHWA has not yet published the Final Rule. The NCUTCD will meet later this week. The technical committees will continue to develop content for the subsequent edition and is "standing by" hoping the new manual will be released sufficiently in advance of the June meeting to allow for comprehensive review. Dee Chappell commented that there will need to be an update to the 2019 Grade Crossing Handbook to bring it into compliance with the new MUTCD and that the US DOT will be bidding out this work effort.





4. Status Report on the Recommended Practice for Preemption of Traffic Signals Near Grade Crossings

The Committee-sponsored Webinar "Part One" covering the Fundamentals of Preemption developed from the RP was presented in November with a large number of participants. "Part Two" covering Queue Management Strategies with case studies will be presented on February 28<sup>th</sup> at 2:30 pm EST. ITE Webinars are free to members this year.

5. Discussion of 2022 Action Plan

Reports were presented on the status of the Deliverables proposed by the Committee.

*ITS White Paper* – Alyssa Phaneuf has been assembling materials for a White Paper on CAVs and grade crossings. She said that there are numerous "threads" in this arena but there has been little substantive results to date. This prompted a long open discussion of various topics including:

- Adequacy of geo-coordinates of crossings in the FRA database
- Lack of GIS-based warning and regulatory sign database
- "Android Auto" providing warnings of upcoming crossings (but no data on occupancy or train arrivals)
- Lack of differentiation of 2-way vs 4-way stop signs (although some maps products now show traffic signals and traffic enforcement camera locations
- Lack of uniform specs for traffic signal controllers

Doug Noble suggested that Alyssa should select which topics to engage upon. There was also a discussion of the work product. Randy McCourt indicated that the Committee needs to determine how the work product would be reviewed and pushed out. Doug Noble listed two options:

- Quick Bites Typically a page or less on a single topic, does not require peer review
- Tech Briefs Can be several pages, and would be peer reviewed

*Bicycle Crossings* – Karen reported that Antonino Genoese is helping develop a draft which will be available shortly.

*ATC Sign* – Brent acknowledged receipt of a markup from Doug Noble's review of a preliminary version of the work product. Doug commented that there "is a lot of good material" in the document and he made suggestions for clarifications of content and flow.





- 6. Liaison Reports
  - Esther Strawder (FHWA) reported that the incentive for crossing closure has been raised to \$100,000 and that in-kind services (such as the railroads may offer) count.
  - Complete Streets Committee Karen attended a meeting at which many persons were involved in advancing numerous work products.
  - Other Councils / Committees An effort is underway to develop a "Linkedin" site encompassing the various ITE Councils. Chuck Huffine is the administrator. Anticipate requests for content.
- 7. Web Page

It was noted that preemption forms provided on the Grade Crossing web page are outdated (especially LADOT). Brent reported the CPUC is using a new version which gives pedestrian advance preemption separately. Karen indicated that this form does not apply to all circumstances and said she would provide a revised version when available.

As reported previously, the direct link to our web page is:

https://www.ite.org/technical-resources/councils/traffic-engineering/joint-rail-grade-crossing-committee/

V. Other Business

No other business was discussed.

- VI. Upcoming Committee Meetings (meeting date and time to be announced)
  - Spring Virtual Meeting Date to be announced.
  - August 13 16, 2023 in conjunction with Joint ITE International and Western District Annual Meeting, Portland OR.
  - Fall Virtual Meeting Date to be announced.
  - January 7 11, 2024 in conjunction with TRB Annual Meeting, Washington DC
- VII. Adjourn

The meeting was adjourned at 12:05 PM EST.





## ITE Virtual Spring Conference

Great Communities: At the Intersection of Planning & Engineering

Day 1 – March 14

Time	Session		Time
11:00 – 12:30	Opening Plenary Session Welcome, Awards, Keynote Speaker	er	11:30
1:30 – 2:30	Session 1 Priorities and Tradeoffs: A Discussion on Roadway Cross Section Reallocation (Complete Streets Council)	Session 2 Applications of Big Data in Safety Analysis (Safety Council)	1:30 -
3:00 – 4:00	Session 3 Speed Management for Urban Roadways (Traffic Engineering Council)	Session 4 Transportation Equity Case Studies (Planning Council)	3:00 -
4:30 - 5:30	Session 5 Rethinking Urban Intersections for All Users (Traffic Engineering Council)	Session 6 Prioritizing TSMO Projects Starting at the Planning Level (TSMO Council)	

Day 2 – March 15

Time	Session	
11:30 – 12:30	Session 7 Pedestrian Safety & Vulnerable Road Users (Safety Council)	Session 8 Electric Vehicle Charging is Parking Policy (Complete Streets Council)
1:30 – 2:30	session 9 Reconnecting Communities (Complete Streets Council)	Session 10 Planning for an Electrified Transportation System: Challenges and Best Practices (Planning Council)
3:00 – 4:00	Closing Plenary Session Keynote, Closing	

# Registration Opening Soon!

There are a lot of great technical activities of interest to ITE members, such as:

- ITE is about to launch a new certificate-based, blended learning program that provides practitioners with an introduction to **Safe System Approach** theory and practice. We are currently accepting names for our waitlist (or future offerings), and the course begins January 18 and continues through March 9.
- ITE recently published a new recommended practice for Vertical Deflection Speed Reduction Techniques, which was an update to a previously published Speed Hump Recommended Practice. And we are getting ready to release a recommended practice for Multimodal Transportation Impact Assessment for Site Development as well.
- ITE also published an information report on **Crosswalk Policy**, developed by the Pedestrian and Bicycle committee, last October 2022. And the Transportation and Health Standing Committee completed work on a **Transportation and Health Resource Hub** that was published in November 2022.
- ITE released a call for data for the update to ITE's **Parking Generation Manual** in September 2022 and is actively soliciting new data for this updated report. It is expected that the 6th Edition of the Parking Generation Manual will be released in August 2023.
- In 2023 we also plan to launch a groundbreaking TrafficWiki, enabling a broader community of traffic planners and engineers to have access to key resources and manuals previously scattered across multiple documents. And an updated Traffic Signal Maintenance Handbook is also in the final stages of development and should be published in early Spring.

Most importantly, we want to remind everyone of two upcoming meetings to put on your calendars:

- The virtual Spring Conference will take place on March 14-15. The program is already developed and will feature 10 exciting sessions that emphasize the value of coordination and collaboration between planners and engineers. These sessions have been organized solely by our technical councils and standing committees. Additional information and registration will be available during TRB-week.
- The ITE International Annual Meeting will take place in Portland, Oregon this year, from August 13-16. Held in conjunction with the Western District Meeting, this annual exhibition features several dozen sessions, networking opportunities, and an opportunity to advance issues of importance across every council and committee. The call for abstracts was last fall, the program is currently in development, and registration will open this spring.

Association Administration

- ITE leadership is announcing this week that 2022 saw our highest membership levels in our history, recently topping the 17,000 mark.
- We want to encourage each of our councils and committees to nominate students, young leaders, outstanding professionals or noteworthy projects through our Young Leaders to Follow program and our ITE Excellence in Transportation Awards. Nominations are being accepted through March.
- Volunteer Council and Committee leaders are adapting to changes installed last fall meant to enhance coordination across the different groups. This has meant some additional volunteer leadership opportunities such as Councils beginning to install two vice chairs, additional delegation of various duties to more volunteers, and stronger reporting to increase communication. The net positive of all these changes has not only been seen within the

individual Councils or Committees themselves – but with increased opportunities for awareness and engagement by ITE's Sections, Districts, and Chapters.

In 2023 we also plan to do a better job tracking action plans and technical products, so that you
the members have a better awareness of all the great opportunities to broaden your knowledge
– expand your networks – and get even more value out of your ITE membership. Look forward
to additional enhanced communication in the coming months!





### I. WELCOME

The meeting was called to order at 9:05 AM PDT by Committee Chair Brent Ogden.

### II. INTRODUCTIONS

There were 15 members and guests who attended the meeting, with an additional 13 who participated through video conferencing.

Allen Clelland	DKS Associates
Brent Ogden	brent.ogden@kimley-horn.com
Douglas E. Noble	dnoble@ite.org
Maryam Hadayati	Transport Canada
Garreth Rempel	Garreth.rempel@Trainfo.ca
Karen Hankinson	Karen.Hankinson@Railpros.com
Shelly Gloeden	Transport Canada
Phil Poichuk	phil.poichuk@gmail.com
Joanna Bush	joanna.bush@meadhunt.com
Pierre Marcotte	Transport Canada
Richard Smith	City of Houston
Esther Strawder	FWHA
Steven Venglar	Texas A&M University
Walter Okitsu	wokitsu@koacorp.com
Tom Lancaster	tom@lancastermobley.com

### III. ITE COMMITTEE ITEMS

1. Debrief 2022 Podium Session held at 2022 ITE Annual Meeting in New Orleans, LA

The Committee's grade crossing presentation session at the New Orleans Annual Meeting and Exhibition was to be held on Wednesday, August 3, at 9 AM, with these presentations:

• A Proposal for the Application of Hybrid Beacons at Rural Railroad Crossings, Dean Tekell, E., PTOE, Principal, Dean Tekell Consulting, LLC, Lafayette, LA





- Union Pacific Railroad Crossing Program, Paul D. Rathgeber, Director Industry & Public Projects, Union Pacific Railroad, Spring TX
- Train Detection System Pilot Project Metarie Road, Jefferson Parish, Louisiana, Herbert "Bert" Moore II, P.E. PLS, PTOE, State Transportation Leader – Louisiana, Gresham Smith, Baton Rouge, LA
- Computer Vision System for Grade Crossing Surveillance John E. D. F. Ayers, Vice President, Operations, Ayers Electronic Systems, LLC, Richmond VA

Comments from the conference call participants:

- Good that UPRR was able to present to provide the railroad perspective and approach to grade crossing safety
- It was noted that some of the computer vision technologies could be used to support detailed analysis of risky behavior and human factors in the vicinity of crossings
- The emerging technology topics are better if they present results from an operating system rather than simply describing prototypes; also of interest would be any installations in the US
- A participant asked if these presentations are available Doug Noble indicated that he has copies and will be uploading them to the ITE Grade Crossing Web page
- 2. Discussion of Possible Topics and Presenters for 2023 ITE Annual Meeting in Portland, OR

Doug Noble stated that the call for abstracts for the 2023 Annual Meeting in Portland will likely be from about Columbus Day to about Thanksgiving 2022. He suggested that for the 2023 meeting, the committee should consider proposing only two or three presentations prior to the call for abstracts, so that additional presentation proposals submitted to ITE can be considered.

Gareth Rempel said that Liliana Quintero, Senior Transportation Engineer with City of Vancouver can present actual before-and-after performance from a system which monitors train movements and posts motorist advisories which have allowed the City of Vancouver to avoid the need to build a grade separation at an environmentally-sensitive location. Possible title would be *Innovative Technologies to Reduce Congestion and Improve Safety at Highway-Rail Crossings*.

Tom Lancaster stated that Adam Moore at the Portland Bureau of Transportation can provide a presentation on preemption of a 4-track shared-corridor crossing with both LRT and conventional railroad trackage, along with bicycle and pedestrian issues.





Tom also said he will work on arrangements for a technical field trip to this location for committee members during the Portland meeting. Doug Noble encouraged Tom to submit this field trip separately from any proposed presentations so ITE can include it in the calendar of events and open it to other participants.

There was discussion about how to accommodate possible topics coming from the ITE call for presentations... One option would be to have an "alternate" presentation included along with two proposed. Then it could be decided later whether to go with the alternate from the committee or a second from the call. (Doug suggested that Brent and Karen coordinate on this.)

Doug said that he would forward the list of presenters and topics as soon as the call closes but before they are ranked to get a sense of how many potential candidates are available.

3. Webinar Updates

Nicole Jackson is coordinating the webinars but was not able to participate so Brent read into the record her status report:

Webinar #1 (first of a two-part series) will be held on November 10<sup>th</sup> at 3:00 – 4:40 pm EST:

- Why Preemption of Nearby Traffic Signals is Necessary
- Determining When Preemption Should be Provided
- Warning Time What is required and issues with excessive warning time
- Simultaneous and Advance Preemption
- Preemption "trap" Countermeasures
- Pedestrians and Advance Pedestrian Preemption
- Overview of readily available preemption calculation forms

Nicole Jackson and Alejandro Chock (from Mott MacDonald) will be the presenters.

Link for registration is open

https://www.pathlms.com/ite/courses/47331/webinars/32433

It is Free! (non-members can register to join the webinar and there is a \$79 registration fee.) A comment was made that you need to log in to the ITE web page to access the registration link. Doug Noble suggested to contact for questions:

Kellyanne Broom Professional Development Director mailto:kbroom@ite.org





4. Transit Committee Liaison Report received from J. Mark Mathis by email:

The Transit Committee met on September 1st. This was the first meeting of the committee in some time. The members discussed ongoing projects they are working on. The committee discussed their efforts to develop a standard for bus only lane treatments, as well as shared bus and bike lane treatments, including recommended changes to the current MUTCD. The project goal is an ITE Journal article. The Transit Committee is also working on a presentation on rail to airport, and other multi-modal integration projects currently underway and lessons learned from those completed.

Future Transit Committee project discussions centered around bus system planning – looking at the system as a hold rather than just at a project level basis. And third possible project was to present research on bus ridership trying to answer the question: has ridership settled back into a standard pattern since the pandemic.

We discussed possible collaboration between the Transit Committee and the Grade Crossing Committee on pedestrian treatments at grade crossings. The Committee members felt like this is an issue that many transit agencies are wrestling with. We discussed how standard pedestrian crossings treatments might fit into a complete street project and might include looking at standard pedestrian rail crossings at or near station platforms. I told the committee chair that I would let him know if that is something the Rail Crossing Committee is interested in working on with them.

### IV. OTHER BUSINESS

Brent announced that ITE has approved Karen Hankinson to become the Committee Chair pursuant to Brent stepping down... This will occur at the January 2023 meeting which will be held in Washington DC concurrent with the TRB Annual Meeting. Congratulations to Karen!

V. UPCOMING COMMITTEE MEETINGS

• January 11 – 13, 2023, in conjunction with TRB, Washington DC.

This meeting will most likely occur on Tuesday to avoid a conflict with the TRB AR080 Grade Crossing Committee meeting.

Doug Noble requested Brent to coordinate with him prior so signing up for a meeting room so he isn't double booked with another meeting.

 August 13 – 16, 2023 in conjunction with Joint ITE International and Western District Annual Meeting, Portland OR.

### VII. Adjourn

The meeting was adjourned at 9:55 AM PDT.





### I. WELCOME

The meeting was called to order at 11:08 AM CST by Committee Chair Brent Ogden.

### II. INTRODUCTIONS

There were 15 members and guests who attended the meeting, with an additional 13 who participated through video conferencing.

Alyssa Phaneuf	Alyssa.phaneuf@kimley-horn.com
Antonino Genoese	antonino.genoese@kimley-horn.com
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Frank Penry	Frank.penry@GHD.com
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Stephen Laffey	Stephen.Laffey@illinois.gov	
Steven Chan	S.Chan@TransoftSolutions.com	
Ted Graef	tgraef@AllTrafficSolutions.com	
Tom Lancaster	tom@lancastermobley.com	

### III. ITE ANNOUNCEMENTS

Brent reported on a recent Traffic Engineering Council meeting chaired by Gordon Meth. A new version of the 2016 Traffic Engineering Handbook will be digital and in a wiki format. Volunteers are being sought for the transition to a wiki. Each ITE committee can contribute to it after it is established. It will include references to other sources. Brent suggested that possibly a chapter could be added for railroad/LRT grade crossings, which could be taken from Chapter 11 of the recently updated Traffic Control Devices Handbook.

Alternatively, the Traffic Control Devices Handbook, last updated in 2016, might also be converted to a wiki format if the Traffic Engineering Handbook is successful. Each committee could contribute to the wiki after it is established.

An update of traffic signal maintenance guidelines is underway, and volunteers are also needed for this project. A project is beginning for guidelines for intersection lay-outs.

ITE is planning on 12 webinars this year. All webinars will be free. When there was a charge for webinars, an attendance of 30 people was considered to be good. The typical attendance at free webinars is 200 to 300 people.

Jeff Lindley, ITE Deputy Executive Director and Chief Technical Officer, will be retiring in October 2022.

Eric Rensel, Chair of the Council Leadership Team, explained that ITE is in the process of reorganizing the councils and committees. There are now 26 groups, with two new groups planned. Our committee will continue to exist, but there will be fewer liaisons between committees and more task forces shared between committees in an attempt to improve collaboration between groups.

There was some concern in ITE that the development of wikis could undermine the integrity of professional license examinations, but strategies will be developed to manage that. ITE staff feels that providing useful information to ITE members is of more importance. Eventually, the entire ITE library may be converted to a digital format.

ITE wants to incorporate transportation planning groups in the technical councils. The number of required action plans will be reduced to make committee work easier. ITE will emphasize the concept of developing trends, which will include issues such as curbside management, automated enforcement, yellow change intervals, a SimCap users group, and vertical deflections (previously known as speed





bumps). Brent mentioned the CurbIQ application which digitizes curbside regulations using open source maps data. Randy McCourt said that he is on a task force which will simplify and reduce the present variety of 18 plaques for pedestrian pushbuttons.

### IV. ITE COMMITTEE ITEMS

1. Meeting Minutes

The meeting minutes from January 11, 2022, were approved by consensus.

2. Annual Conference Session

The Committee's grade crossing presentation session at the New Orleans Annual Meeting and Exhibition was to be held on Wednesday, August 3, at 9 AM, with these presentations:

- A Proposal for the Application of Hybrid Beacons at Rural Railroad Crossings, Dean Tekell, E., PTOE, Principal, Dean Tekell Consulting, LLC, Lafayette, LA
- Union Pacific Railroad Crossing Program, Paul D. Rathgeber, Director Industry & Public Projects, Union Pacific Railroad, Spring TX
- Train Detection System Pilot Project Metarie Road, Jefferson Parish, Louisiana, Herbert "Bert" Moore II, P.E. PLS, PTOE, State Transportation Leader – Louisiana, Gresham Smith, Baton Rouge, LA
- Computer Vision System for Grade Crossing Surveillance John E. D. F. Ayers, Vice President, Operations, Ayers Electronic Systems, LLC, Richmond VA

Doug Noble stated that the call for abstracts for the 2023 Annual Meeting in Portland will likely be from about Columbus Day to about Thanksgiving 2022. He suggested that for the 2023 meeting, the committee should consider proposing only two or three presentations prior to the call for abstracts, so that additional presentation proposals submitted to ITE can be considered.

Tom Lancaster said that he will work on arrangements for a technical field trip to railroad and LRT grade crossings for our committee members as part of the Portland meeting. He will also contact Peter Koonce to see if anyone from the City of Portland or Tri-Met might be interested in a presentation on bicycle or pedestrian crossings of railroads.

Other potential topics for presentations could include new preemption timing forms that have been developed by Oregon DOT, CalTrans, and Los Angeles DOT. Doug suggested that these new forms might also be a good topic for a webinar. There has also been activity in nearby British Columbia with regard to train preemption. Garreth Rempel said that he would contact people there to see if there is any interest in a presentation.





Brent said that he will arrange a follow-up conference call, probably in early October, to further discuss presentations for the Portland meeting.

### 3. NUTCD Report

It is expected that the new edition of the MUTCD will be available in early 2023, with a re-written Part 8. If Part 8 is substantially the same as the recommendations submitted by the NCUTCD, it will be consistent with our revised RP on traffic signal preemption.

It was reported that there were over 20,000 comments on the proposed new edition that must be reviewed by FHWA. Brent commented that the provision requiring use of straight through arrows on signal indications ahead of the tracks did not seem to be appropriate at some locations. Karen Hankinson said that she had submitted a bunch of comments.

4. Status Report on the Recommended Practice for Preemption of Traffic Signals Near Grade Crossings

Brent reported that our newly published RP received the ITE Council Leadership Team Best Project Award. Kudos to Tom Lancaster, especially, and to Karen Hankinson, Rick Campbell, Jason Field, Brent Ogden and Doug Noble, who were all named on the award.

A webinar on the new RP is planned for September 22, 2022. Nicole Jackson, who will cover the second part of the webinar dealing with advance preemption is looking for a co-presenter for the first part of the webinar which will cover preemption fundamentals and simultaneous preemption. Persons interested in supporting should reach out to Nicole.

A second webinar is planned for November 10, 2022. Brent Ogden will discuss queue management techniques at railroad crossings, and Karen Hankinson will present illustrative case studies.

There was a discussion of a possible future webinar of a comparison of the RP with the new MUTCD after it's published.

As was mentioned in ITE Announcements, all webinars are free.

5. Discussion of 2022 Action Plan

Reports were presented on the status of the Deliverables proposed by the Committee.

Alyssa Phaneuf reported on the White Paper on CAVs and grade crossings. She has reached out to others for information on this item but has not yet received any responses. She has found that there are no CAV grade crossing applications at this time, but there is some research underway. She is beginning work on the paper, and it will be based on research, not applications. She stated that more volunteers for this project are welcome. Brent mentioned that





the key to CAV applications at grade crossings is the acquisition of data for transmission to CAVs.

Karen Hankinson reported on the informational report for bicycle/railroad grade crossings. She has been collecting information and guidance from other ITE members. She has found that there is not much consistency in the treatment of bicycle crossings, but there is a lot of interest in the subject. She is looking for more volunteers for this project and will be working with the Bicycle Committee for more input. She is hoping that this project will be completed prior to work on the next MUTCD following the 2023 edition.

Brent Ogden reported on the project for an active Another Train Coming sign. He stated that a working draft has been completed and is undergoing preliminary review. Doug Noble commented that it might be too short for a White Paper and might be more suitable as a Technical Brief. Brent stated that ideally there would be more research on this issue, possibly using the FHWA Transportation Pooled Fund Program.

6. Liaison Reports

Doug Noble reported that the Roundabouts Committee is undertaking a survey of design standards for roundabouts and is studying enforcement requirements and queue management.

The Pedestrian and Bicycle Committee is working on a report of decorative crosswalks.

The Transit Committee is looking at the potential for quick-install improvements for bus stops in order to improve pedestrian and bicycle access.

Gene Russell reported that a draft of a new roundabout design guide is now under review. It includes a discussion of concerns regarding queues across grade crossings, but it does not include much in the way of solutions to queuing problems. The guide is expected to be published by the end of 2022.

### V. Other Business

New preemption timing forms that have been developed by public agencies, particularly the new LADOT form, can be submitted to Doug Noble for incorporation into our web page. Doug suggested that our preemption web page should be reorganized to make it easier to find preemption material.

As reported in the minutes for our previous meeting on January 11, 2022, the direct link to our web page is:

https://www.ite.org/technical-resources/councils/traffic-engineering/joint-rail-grade-crossing-committee/





VI. Upcoming Committee Meetings

- January 11 13, 2023, in conjunction with TRB, Washington DC.
- August 13 16, 2023 in conjunction with Joint ITE International and Western District Annual Meeting, Portland OR.

VII. Adjourn

The meeting was adjourned at 12:26 PM CDT.





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### ITE GRADE CROSSING STANDING COMMITTEE 102-02 Draft Meeting Minutes 2022 TRB Annual Meeting (Web Meeting) January 11, 2022

### I. WELCOME

The meeting was called to order at 3:34 PM EST by Committee Chair Brent Ogden.

### II. INTRODUCTIONS

The virtual meeting was hosted on the MS Teams platform in conjunction with the TRB Annual Meeting in January 2021. There were 29 web participants:

Alan Clelland	alan.clelland@dksassociates.com
Brent Ogden	brent.ogden@kimley-horn.com
Brian Gilleran	brian.gilleran@dot.gov
Charles Chung	charles.chung@transoftsolutions.com
Debra Chappell	Debra.Chappell@dot.gov
Douglas E. Noble	dnoble@ite.org
Esther Strawder	Esther.Strawder@dot.gov
Garreth Rempel	Garreth.rempel@Trainfo.ca
Gary Thomas	gthomas@kittelson.com
Gene Russell	geno@ksu.edu
Jason Field	JField@moffattnichol.com
Katie Johnson	Katryn.L.JOHNSON@odot.oregon.gov
Lou Sanders	lou@ae.solutions
Louis Rubenstein	Louisdr24@gmail.com
Mark Mathis	MMathis@lan-inc.com
Marty Amundson	MAMUND@dpw.lacounty.gov
Maryam Hedayati	maryam.hedayati@tc.gc.ca
Nicole Jackson	NJackson@benesch.com
Phil Poichuk	phil.poichuk@gmail.com
Pierre Marcotte	pierre.marcotte@tc.gc.ca
Richard Smith	Richard.Smith2@houstontx.gov
Rick Campbell	RCampbell@benesch.com
Robert K Seyfried	r-seyfried@northwestern.edu





Sanjeev Tandle	sanjeev.tandle@soundtransit.org
Stephen Laffey	Stephen.Laffey@illinois.gov
Steve Venglar	s-venglar@tti.tamu.edu
Tom Lancaster	tom@lancastermobley.com
Vijay Kulkarni	vijay.kulkarni@piercecountywa.gov
Yousheng Mao	Yousheng.Mao@parsons.com

### III. ITE ANNOUNCEMENTS

Doug Noble announced that ITE's technical conference, *Innovations that Work*, will be held virtually March 15 and 16. The International Annual Meeting and Exhibition will be held, in-person, in New Orleans July 31 through August 3, and will include a technical session on railroad crossings.

ITE is now accepting award nominations, with a deadline of March 1. Nominations may be made through the ITE website. There is a particular desire to recognize young leaders.

The ITE Connected and Automated Vehicle group is looking for information on gaps in standards on their eCommunity site.

Karen Hankinson reported via email on her attendance at the ITE Council Leadership meeting on January 8. All ITE webinars in 2022 will be free to members. ITE suggests that we consider having a speaker or a presentation at Committee meetings to assist in attracting new members. ITE also suggests that we have our Committee meetings from 3 to 5 ET to enable attendance by Australia and New Zealand members, although this might not apply to us since we have no members from those countries. Another idea is to use the eCommunity to engage volunteers and speakers.

### IV. ITE COMMITTEE ITEMS

1. Meeting Minutes

A motion to approve meeting minutes from August 2021 was made by Gene Russell and seconded by Brent Ogden and passed by a voice vote.

2. Annual Conference Session

The Committee had previously proposed four presentations for our technical session at the New Orleans Annual Meeting with two alternative presentations. Since then, four additional presentation proposals have been received by ITE. The ten proposed presentations are as follows:





- 1) Union Pacific Railroad Crossing Program (proposed by GC Committee)
- 2) Los Angeles Blue Line Grade Separations (proposed by GC Committee)
- 3) Jefferson Parish Train Detection (proposed by GC Committee)
- 4) Computer Vision for Grade Crossings (proposed by GC Committee)
- 5) Prediction of Highway Delays (alternate proposed by GC Committee)
- 6) Long Island Railroad Crossing Safety (alternate proposed by GC Committee)
- 7) Improving Safety at Grade Crossing (submitted to ITE through call)
- 8) Hybrid Beacons near Railroad Crossings (submitted to ITE through call)
- 9) Comprehensive Approach to Grade Crossings (submitted to ITE through call)
- 10) Roundabouts at Grade Crossings (submitted to ITE through call)

After an extended discussion, the Committee reached a consensus to retain presentations 1, 3, and 4 as originally proposed, add presentation 8 to the session, retain presentation 5 as an alternative, add presentations 2 and 9 as alternatives, delete presentation 6 since it is available only for a virtual presentation, and suggest presentations 7 and 10 as poster sessions.

Gene Russell stated that there is much discussion and some disagreement over the use of roundabouts near railroad crossings and suggested that presentation 10 could potentially be a webinar or a technical paper. Gene also mentioned that there is a database of about 10,000 roundabouts and circles at the roundabout.kittelson.com website. The database can be searched for a number of characteristics, including roundabouts at railroad crossings.

Doug Noble stated that the call for abstracts for the 2023 Annual Meeting in Portland will likely be from about Columbus Day to about Thanksgiving 2022. He suggested that for the 2023 meeting, the Committee should consider proposing only two or three presentations prior to the call for abstracts, so that additional presentation proposals submitted to ITE can be considered.

3. NUTCD Report

Rick Campbell reported that the January 2022 NCUTCD meeting will be in-person, and the meeting in June 2022 in Virginia Beach will also be in-person. The June meeting is expected to be a discussion of future updates to the MUTCD. Rick also reported that Ronnie Bell is leading an MUTCD task force to update the rules of the road section of the Uniform Vehicle Code.

4. Status Report on the Recommended Practice for Preemption of Traffic Signals Near Grade Crossings

A presentation of the new RP was made at the July/August 2021 virtual ITE Annual Meeting. The Committee is currently planning two ITE webinars in 2022 to present the new RP in more detail. The first webinar, to be organized by Nichole Jackson, will present an overview of preemption, with information on where it is needed and how it should be done. The second webinar, to be organized by Karen Hankinson, will discuss queue management techniques.





5. Discussion of 2022 Action Plan

The Committee's Action Plan for 2022 (formally known as The Accountability and Success Checklist) was included with the Agenda for this meeting.

Brent stated that Nicole Jackson has been appointed to the Webinar Committee Liaison position.

Doug Noble reported that the Committee does not have a representative to the Safety Council. Gary Thomas volunteered for that position. We also need a representative to the Transit Council for issues related to LRT (the Action Plan currently shows Brent in this slot).

Brent said that we need to appoint a Webmaster for the Committee. Doug said that he can post any material that is submitted to him. Brent will work with Karen on the submittal of material.

Brent suggested that we should recruit younger members for our Committee, particularly those who might be interested in being active in the eCommunity.

Brent reported that he has found very little information on Another Train Coming signs. Doug asked Brent to submit the information Brent has found to date, and they can discuss it. Doug suggested that a Technical Brief, rather than an Informational Report, might be appropriate if little information is available.

Brent will reconfirm the activities and due dates for the CAV White Paper with Alyssa Phaneuf, and the bicycle crossing Information Report with Karen Hankinson.

Doug Noble asked that our projects, when sufficiently advanced, be announced at the March Technical Meeting, or the New Orleans Annual Meeting, or TRB, or Grade Crossing Safety Month.

Brent suggested that we should consider staggering project due dates sufficiently to allow moving products ahead with limited resources. Doug said that we could ask for volunteers outside our Committee.

As reported earlier in these Minutes, the Committee is planning for two webinars to discuss the new RP on traffic signal preemption. They will be spaced about six to eight weeks apart, possibly in August and October. We will work with Kellyanne Broom at ITE to schedule the webinars. Jason Field volunteered to assist with the webinars as needed.

6. Liaison Reports

Maryam Hedayati, representing Transport Canada, will be involved in the updating of IEEE standard P1570 (*Standard for Interface Between the Rail Subsystem and the Highway Subsystem at a Highway Rail Intersection*).





Gene Russell reported that the TRB International Conference on Roundabouts will be held May 15 – 18, 2022, in Monterey, CA.

There were no activities to report from the Transit, Bicycle and Pedestrian, and CAV liaisons.

### V. Other Business

As discussed previously in these minutes, Doug Noble will post on our web page any material that is submitted to him. The direct link to our web page is:

https://www.ite.org/technical-resources/councils/traffic-engineering/joint-rail-grade-crossing-committee/

VI. Upcoming Committee Meetings

- 2022 ITE International Annual Meeting and Exhibit at the Sheraton New Orleans, July 31 to August 3, 2022.
- January 2023, in conjunction with TRB

### VII. Adjourn

The meeting was adjourned at 4:54 PM EST.





### I. WELCOME

The meeting was called to order at 8:11 AM PDT by Committee Chair Brent Ogden.

### II. INTRODUCTIONS

The virtual meeting was hosted on the MS Teams platform in conjunction with the ITE Virtual Annual Meeting in August 2021. There were twenty-two participants:

First Name	Last Name	Email Address
Kevin	Aguigui	kevin.aguigui@kimley-horn.com
Rick	Campbell	rcampbell@benesch.com
Debra	Chappell	Debra.Chappell@dot.gov
Shayne	Gill	sgill@aashto.org
Brian	Gilleran	brian.gilleran@dot.gov
Karen	Hankinson	karen.hankinson@railpros.com
Nicole	Jackson	njackson@benesch.com
Steve	Laffey	stephen.laffey@illinois.gov
Tom	Lancaster	tom@lancasterengineering.com
J Mark	Mathis	jmmathis@lan-inc.com
Gordon	Meth	gmeth@optonline.net
Doug	Noble	dnoble@ite.org
Brent	Ogden	brent.ogden@kimley-horn.com
Niloo	Parvinashtiani	zparvin@ite.org
Alyssa	Phaneuf	alyssa.phaneuf@kimley-horn.com
Garret	Remple	Garreth.rempel@trainfo.ca
Jason	Rochon	jason.rochon@tc.gc.ca
Gene	Russell	geno@ksu.edu
Esther	Strawder	esther.strawder@dot.gov
Gary	Thomas	gthomas@kittleson.com
Tom	Urbanik	tom.urbanik@gmail.com
Steve	Venglar	<u>s-venglar@tamu.edu</u>

Note: The Teams meeting link did not work; the original Teams invitation was disseminated by email at the outset of the meeting so some regular participants may not have been able to join.





### III. ITE ANNOUNCEMENTS

- Doug Noble announced that there were over 1400 attendees at the 2021 ITE Annual Meeting in July. There will be a National Rural ITS conference in late October in conjunction with a Florida ITE meeting. ITE plans to have a virtual technical conference in spring 2022, but the date has not yet been set.
- The ITE Recommended Practice on Preemption of Traffic Signals Near Railroad Grade Crossings was published in April 2021. A summary presentation of this Recommended Practice was made at the recent 2021 Annual Meeting. A new edition of the Trip Generation Manual will be published soon.
- A Developing Trends Report will be produced this year. There was some question as to whether our Committee had submitted an update for this report, but Gordon Meth confirmed that it was received.

### IV. ITE COMMITTEE ITEMS

1. Approve Meeting Minutes from January 2021

Brent Ogden asked for any corrections or additions to the meeting minutes from January 13, 2021. There were no comments, and the minutes were approved as written by acclamation.

2. Annual Conference Session

The session at the 2021 ITE Annual Meeting sponsored by our Committee was believed to be successful and was well-attended. Doug Noble stated that a recording of the presentations will be available for viewing on the ITE website through October. Brent suggested posting the PowerPoint slides from our presentations on our Committee web page. Doug said that he would assist with that.

There was a discussion of possible presentations for the next ITE Annual Meeting, which is planned to be in-person July 31 to August 3<sup>rd</sup> in New Orleans next year. Doug said that a call for abstracts for proposed presentations will be released in mid-October, and the abstracts will be due about November 30, 2021. Brent will schedule a Committee meeting in October to discuss specific ideas for presentations.

Brent suggested a presentation on guidelines or warrants for grade separations at highway-rail crossings. Doug commented that due to the expense of grade separations, a related topic would be the use of alternatives to or mitigations at grade crossings. Shayne Gill mentioned that the infrastructure bill being debated by Congress might include some money for grade separations. Karen Hankinson mentioned that we had previously scheduled a speaker from Union Pacific Railroad to discuss the evaluation of railroad crossing safety factors, and that he might be





available for the next meeting. Brent said that a previously-proposed speaker from Los Angeles Metro might also be available; perhaps we should verify that both are still willing to participate. Doug suggested that we check with local railroads in Louisiana for their interest in making a presentation, possibly on hurricane resilience. A presenter from Louisiana who had previously been suggested by Bill Shrewsberry of Louisiana DOT and who dropped out when the 2020 meeting went virtual might still be interested as well.

### 3. NCUTCD Report

Rick Campbell reported that the January 2022 NCUTCD meeting is planned to be in-person, although that will ultimately depend on TRB. If the TRB meeting is virtual, then NCUTCD will also be virtual. It seems likely that the Final Rule for the new edition of the MUTCD will not be published by January. NCUTCD Chair Gene Hawkins intends to begin discussions regarding the organization of the next MUTCD.

Brent asked about the comments from some organizations that the MUTCD should be eliminated or drastically changed. Shayne replied that such a change is not being considered by AASHTO. It was pointed out that Part 8, for example, includes much information regarding pedestrians at railroad crossings, and is not for cars exclusively. Currently being planned is a section regarding bicycle grade crossings. Doug stated that ITE's perspective is on the ITE website and is not in favor of eliminating the MUTCD.

Brian Gilleran mentioned that there are some interest groups that are against the truncation of pedestrian signal indications when a traffic signal is preempted by the approach of a train. Tom Lancaster observed that the new Recommended Practice states that the current MUTCD as well as the wording proposed for the new MUTCD permits truncation of the pedestrian clearance interval, but the RP recommends that consideration be given to providing the full clearance interval. Rick Campbell pointed out that providing the full clearance interval could be very expensive at many locations and will often conflict with the AREMA 50-second limitation for preemption time. It was mentioned that the TXDOT preemption forms address this issue. Gordon suggested that the topic might be appropriate for an ITE report. Rick suggested the topic for the 2022 ITE Annual Meeting. Brent suggested that there should be more collaboration with the ITE pedestrian and bicycle committees.

4. Recommended Practice for Preemption of Traffic Signals Near Grade Crossings

A webinar with this RP as the subject is desired, but no date has been set yet. ITE reports that all available dates for webinars through the end of this year have already been taken. Gordon stated that if a date is determined, ITE has a team that will assist with the development and presentation of the webinar.





### 5. 2021 Action Plan

The Committee's Action Plan for 2021 was included with the Agenda for this meeting. Brent presented the Plan and indicated the status of each activity. Activity No. 1, submission of a session for the 2021 Annual Meeting, and Activity No. 2, holding two Committee meetings in 2021, have been completed. Activity No. 3, the preparation of an outline for an Informational Reports on Another Train Coming signs, has also been completed. Brent indicated that the first step would be preparation of a White Paper to frame the issues (portions of the working draft were briefly presented to web participants). The Informational Report will focus on active devices in the vicinity of stations where passenger trains predominate. A second Informational Report on bicycle committees. Activity No. 5, which is preparation of a White Paper for CAVs at railroad grade crossings. With regard to Activity No. 6, which is web activity, Doug Noble stated that he can assist with the posting of White Papers as they are completed as well as posting the PowerPoint slides from our presentations at the 2021 Annual Meeting. Nicole Jackson and Tom Lancaster will work with KellyAnne Broom to schedule Activity No. 7, the RP webinar.

- 6. Liaison Reports
  - Roundabouts Gene Russell reported that he will attend the next ITE Roundabouts Committee meeting. The Roundabouts Committee is cataloging innovative roundabouts. Gene suggests that maybe roundabouts near railroad crossings should also be catalogued. Gene will forward more information on the Roundabouts Committee to Brent.
  - There were no representatives from the Transit or Pedestrian and Bicycle Committees; additional reach-outs need to be accomplished.
  - Other Gary Thomas stated that he would act as liaison to the Expert Witness Committee, which has been renamed as the Transportation Forensics and Risk Management Committee.

### V. Other Business

A question was asked as to the location of the Committee's web page on ITE's website. The direct link is:

https://www.ite.org/technical-resources/councils/traffic-engineering/joint-rail-grade-crossing-committee/





VI. Upcoming Committee Meetings

- October 2021 Web meeting, date to be determined
- January 2022 In conjunction with TRB, date to be determined. Will be in-person or virtual depending upon the format of the TRB meeting
- July 31 to August 3, 2022 Meeting in conjunction with the ITE International Annual Meeting and Exhibit at the Sheraton New Orleans

VII. Adjourn

The meeting was adjourned at 9:25 PM PDT.





### I. WELCOME

The meeting was called to order at 11:04 AM EST by Committee Vice-Chair Karen Hankinson.

### II. INTRODUCTIONS

The virtual meeting was hosted on the MS Teams platform in conjunction with the TRB Virtual Annual Meeting in January 2021. There were thirty web participants:

First Name	Last Name	Email Address
Douglas	Bowron	douglas.bowron@tc.gc.ca
Brian	Gilleran	brian.gilleran@dot.gov
Karen	Hankinson	karen.hankinson@railpros.com
Maryam	Hedayati	maryam.hedayati@tc.gc.ca
Steve	Laffey	stephen.laffey@illinois.gov
Tom	Lancaster	tom@lancasterengineering.com
Pierre	Marcotte	
J Mark	Mathis	pierre.marcotte@tc.gc.ca jmmathis@lan-inc.com
Randy	McCourt	503.randy.mccourt@gmail.com
Gordon	Meth	gmeth@optonline.net
Brent	Ogden	brent.ogden@kimley-horn.com
Jason	Rochon	jason.rochon@tc.gc.ca
Ousama	Shebeeb	ousama.shebeeb@ontario.ca
Richard	Smith	richard.smith2@houstontx.gov
Esther	Strawder	esther.strawder@dot.gov
Philip	Poichuk	Phil.poichuk@gmail.com
Matthew	Smith	Matthew.Smith@mbakerintl.com
Siva	Narla	snarla@ite.org
Steve	Venglar	<u>s-venglar@tamu.edu</u>
Allison	Silverman	
Yousheng	Мао	yousheng.mao@arcadis.com
Esther	Macabare	emacabare@benesch.com
Tom	Urbanik	tom.urbanik@gmail.com
John	Sharkey	jsharkey@benesch.com





Marco	daSilva	marco.dasilva@dot.gov
Kevin	Aguigui	kevin.aguigui@kimley-horn.com
John	Van Hoff	John.VanHoff@aecom.com
Shayne	Gill	sgill@aashto.org
Oscar	Bermudez	bermudezalex875@gmail.com
Raj	Ponnaluri	Raj.Ponnaluri@dot.state.fl.us

### III. ITE ANNOUNCEMENTS

- Siva Narla announced that ITE will have a virtual technical conference on March 23 and 24, 2021. There will be two or three concurrent sessions covering speed management, curb management, pedestrian and bicycle safety, traffic signal performance measures, transportation impact analysis, alternative intersection treatments, and other subjects. Registration is now open, and the advance registration fee is \$125 for ITE members. There might be a reduced fee for public agencies.
- New technical resources from ITE that will become available this year include trip generation, traffic signals, transportation impact studies, right turn on red, allocation of right-of-way, micro-mobility, pedestrian crossings, consultant selection, and traffic signal preemption for trains.

### IV. ITE COMMITTEE ITEMS

1. Conference Session Update

Brent Ogden reported that our committee has selected four topics plus one alternate topic for presentations at the ITE Annual Meeting and Exhibit in Portland, Oregon, the week of July 18, 2021. The topics include an overview of Section 130 funding (Kelly Morton, FHWA), emerging technologies for grade crossings (Marco daSilva, Volpe), Long Island Railroad crossing safety improvements (Loretta Ebbighausen, LIRR), a summary of the ITE recommended practice for signal preemption (Tom Lancaster, Lancaster Engineering), and the alternative session, Los Angeles LRT grade separations (Vijay Khawani, Los Angeles Metro).

### 2. NUTCD Report

Brent reported that the National Committee is conducting virtual meetings this week. The Notice of Proposed Amendments to the MUTCD has been published by FHWA in the Federal Register and is being reviewed by the National Committee. Brent suggested the possibility of a presentation regarding the proposed MUTCD changes at the Portland meeting. John Sharkey mentioned that comments by individuals are also welcome. Esther Strawder stated that a large number of comments are expected, but FHWA hopes to have a new MUTCD published by the end of 2021. The deadline for the submittal of comments is March 15, but both ITE and NCUTCD have requested an extension of this deadline.





3. Status Report on the Recommended Practice for Preemption of Traffic Signals Near Grade Crossings

Doug Noble of ITE, who is orchestrating the approvals process, provided Brent with a written status report which was read to the group: Doug indicated that a Second *Notice of Intent* to adopt the new RP, which was revised in response to appeals after the First Notice, has been published by ITE. The deadline for appeals is January 23. No subsequent appeals have yet been submitted. If there are no appeals, the ITE Board of Direction will vote on adoption of the RP at its February 5, 2021, meeting. A draft of the proposed RP can be purchased from ITE, and the cost will be applied to the purchase price of the final RP when it is published. It is hoped that the RP will be published within a couple of months pursuant to approval by the Board.

4. Discussion of 2020 Action Plan

A proposed Action Plan for 2021 was included with the Agenda for this meeting. Brent provided an overview of the Plan, which includes suggested task leaders and interim deadlines for each activity. Additional participants are welcome to volunteer.

The development of an active Second Train Coming sign will probably initially be an ITE *White Paper* which would provide a synthesis of existing information. As more information becomes available, the product could progress to an ITE *Informational Report*.

The Canadian perspective of this issue is desired, and information from Canadian members of this committee will be sought. Doug Bowron stated that Canada completed a study of Second Train Coming signs, and as a result, a static sign was added to the Canadian manual of traffic control devices. He indicated Canada has produced a survey of signs and a synthesis of research. Brent asked for volunteers for a task force for this activity. Phil Poichuk suggested that this activity could include information specific to pedestrians, bicyclists, and wheelchair users. Karen Hankinson advised that the initial emphasis should be on the design and use of the sign.

With regard to web activity, Karen suggested that the committee should enlist volunteers to post items on the committee's ITE web forum. Gordon Meth suggested using the ITE e-Community to ask for volunteers. Gordon also suggested the possibility of a webinar for the new Recommended Practice. Gordon will send to Brent a link to the ITE outline of procedures for development of a webinar.

5. Liaison Reports

The committee invited representatives from various relevant ITE committees to participate, resulting in two reports:

• Connected and Autonomous Vehicles Steering Committee – Raj Ponnaluri stated that the CAV committee will have a meeting the next day (January 14). They will be asking their members for their interests and are planning an outreach to interested persons. They are





looking at implementation issues, collaboration with AASHTO, and interconnection with railroads. Matt Smith reported that webinars are planned. This is a very wide topic affecting all aspects of transportation, and they want to work with all ITE Councils. The states vary widely in CAV activities, so any webinars will focus on the basic aspects of CAV.

• Roundabouts Standing Committee – Randy McCourt reported that Mark Johnson is preparing a paper on multi-lane roundabouts.

V. Other Business

- Web Page Brent reported that our web page is up-to-date. Revised TXDOT traffic signal preemption forms have been added. Minutes from all of our committee meetings are on the web.
- Brian Gilleran asked if the Grade Crossing Handbook will be updated when the new MUTCD is published. Brent suggested that the Handbook should be reviewed for consistency with the ITE RP on Preemption, once it is finalized.
- Esther Strawder mentioned that quarterly USDOT webinars are continuing.
- Doug Bowron reported that a new Canadian MUTCD will be published in April, and it will contain a reference to the ITE RP.

VI. Upcoming Committee Meetings

A committee meeting date during the ITE 2021 Annual Meeting and Exhibit in Portland, Oregon, in July will be announced at a later date.

VII. Adjourn

The meeting was adjourned at 12:25 PM EST.





### I. WELCOME

The meeting was called to order at 1:00 PM PDT by Committee Chair Brent Ogden.

### II. INTRODUCTIONS

The virtual meeting was hosted on the ITE GoToWebinar platform in conjunction with the ITE Virtual Annual Meeting in August 2020. held at the 2020 TRB Annual Meeting at the Washington Convention Center in Washington, DC. There were thirty participants:

First Name	Last Name	Email Address
Douglas	Bowron	douglas.bowron@tc.gc.ca
Rick	Campbell	rcampbell@benesch.com
Francois	Cournoyer	francois.cournoyer@tc.gc.ca
Shayne	Gill	sgill@aashto.org
Brian	Gilleran	brian.gilleran@dot.gov
Karen	Hankinson	karen.hankinson@railpros.com
Maryam	Hedayati	maryam.hedayati@tc.gc.ca
Nicole	Jackson	NJACKSON@BENESCH.COM
JoNette	Kuhnau	jonette.kuhnau@kimley-horn.com
Steve	Laffey	stephen.laffey@illinois.gov
Tom	Lancaster	tom@lancasterengineering.com
Pierre	Marcotte	pierre.marcotte@tc.gc.ca
J Mark	Mathis	jmmathis@lan-inc.com
Randy	McCourt	503.randy.mccourt@gmail.com
Gordon	Meth	gmeth@optonline.net
Brent	Ogden	brent.ogden@kimley-horn.com
Joe	Ostdiek	jostdiek@dokkenengineering.com
Alyssa	Phaneuf	alyssa.phaneuf@kimley-horn.com
Garreth	Rempel	garreth.rempel@trainfo.ca
Jason	Rochon	jason.rochon@tc.gc.ca
Eugene	Russell	geno@ksu.edu
Louis	Sanders	lou@ae.solutions





Robert	Seyfried	r-seyfried@northwestern.edu	
Ousama	Shebeeb	ousama.shebeeb@ontario.ca	
Richard	Smith	richard.smith2@houstontx.gov	
Esther	Strawder	esther.strawder@dot.gov	
Sanjeev	Tandle	sanjeev.tandle@soundtransit.org	
Gary	Thomas	gthomas@kittelson.com	
Tom	Urbanik	tom.urbanik@gmail.com	
Sujeeva	Weerasuriya	anu.weerasuriya@rsandh.com	

## III. ITE ANNOUNCEMENTS

- Doug Noble reported that ITE has undertaken a comprehensive review of its national policies. Some proposed policy revisions are now available for review by ITE members.
- Doug stated that the ITE Annual Meeting, originally planned to be held in New Orleans the week of August 9, had about 1800 attendees at the on-line meeting.
- Doug also stated that our Committee should adopt a Guiding Principles statement of up to 25 words. Doug will work with Brent on the development of this statement.
- ITE is holding frequent Virtual Meetings as announced on the ITE Community all-member forum. Each meeting discusses a narrow subject for 30 minutes, and typically has an attendance of 20 to 30 people. Anyone can join the meetings. Our Committee could host one of these meetings if we so desire.
- Gordon Meth is the Chair of the Traffic Engineering Council. The two standing committees are the Roundabout Standing Committee and our Joint Rail Grade Crossing Committee. Doug reported that both of these committees are very active.

#### IV. ITE COMMITTEE ITEMS

1. Conference Session Update

Our Committee's on-line session at the International Meeting was on August 5 and was titled *Improving Safety at Rail Grade Crossings*. At the last minute one of our proposed speakers had to withdraw, so three of the four proposed presentations were provided: (1) Real-world issues implementing railroad preemption, (2) Automated acquisition of risky behavior data through computer vision, and (3) Traveler information system for predicting and advising motorists of delays at railroad crossings. There were some 240 on-line participants at our session, representing about 15% of all conference attendees. Unfortunately, technical difficulties with the





webinar platform resulted in termination of the session during the question and answer period at the end (the intention is to forward unanswered questions to the panel for replies.)

Our next presentation session is scheduled for the ITE Annual Meeting and Exhibit in Portland, Oregon, the week of July 18, 2021. Brent presented a table listing 10 presentation summaries which was annotated to indicate which ones were presented on August 5, which ones were deferred to the 2021 meeting, and which ones were declined by the proposed speaker or rejected as having limited learning value. The presentation by Union Pacific Railroad which was cancelled at the last minute could potentially be provided in 2021 if the conference is held live. Another invitation which was declined by Long Island Railroad due to travel budget issues may also be an option; Nicole Jackson will contact the author for confirmation.

A suggestion was made for a presentation on an introduction to the forthcoming revised Recommended Practice (discussed later in these Minutes). A suggestion was also made that a presentation be made on railroad track trespassing and the availability of Section 130 funding. Brent advised that trespassing presentations are normally not included in our sessions because they are not related to highway-rail grade crossings, however a presentation on Section 130 would be welcomed.

#### 2. MUTCD Report

Rick Campbell reported that the January 2021 NCUTCD meeting will be held on-line, as will the January 2021 TRB meeting. It is believed that there is a high probability that a Federal Register Notice of Proposed Amendments for a new edition of the MUTCD will be published before this meeting. The current schedule is to have task force meetings January 4–8, Technical Committee meetings January 11-15, and Council meetings January 18-21, except that January 21 will be reserved for Technical Committee meetings. January 24-28 will be available for additional meetings as needed. All meetings will be held between 1 and 5 PM EST. Registration for the meeting will be required, but the fee will be at a reduced rate.

Note: The 2021 on-line TRB committee meetings will be held January 5-8 and 11-15. The sessions will be January 21-22 and 25-29. The Exhibits will also be January 21-22 and 25-29.

Rick also reported that several items produced by the Railroad and Light Rail Grade Crossing Technical Committee were approved for submittal to NCUTCD sponsors for comments. These include (1) Considerations for design of railroad crossings in or near roundabouts, (2) Revised pavement markings, including clarification that the markings are in advance of the crossing, (3) Traffic control for bicycle grade crossings, resulting from a joint task force with the Bicycle Technical Committee, including contraflow bike lanes, (4) Traffic control for busways, which includes moving busway-related signs from Part 8 to Part 2, and (5) Operational requirements for electronic displays and blank-out signs (turn prohibitions, TRAIN COMING, etc.)





3. Status Report on USDOT Grade Crossing Handbook

Brent reported that although the Handbook has now been published on-line, some maintenance work will be required. For example, some web links are broken, even though all links were verified prior to publication. If items suitable for an errata list on the Handbook website are discovered, they should be forwarded to either Dee Chappell (FRA) or Esther Strawder (FHWA).

An ITE-sponsored webinar to provide an overview of the Handbook was held on June 24, 2020. There were approximately 260 on-line attendees.

4. Status Report on the Recommended Practice for Preemption of Traffic Signals Near Grade Crossings

There were three appeals filed from the peer review group of the proposed new version of the RP regarding (1) Technical details identified by AREMA, most notably a maximum 50-second warning time for advance preemption, (2) Provisions related to the truncation of the pedestrian clearance interval, and (3) Methods of avoiding the potential preempt trap with advance preemption. The edits recommended by AREMA were accepted with minor revisions. A conference call was held with two of the appellants and some of the RP task force members to discuss the outstanding issues. As a result of the discussion, Doug Noble will incorporate some revisions to the RP which will then be reviewed by the task force, the peer review group, and the appellants. After the appeals have been cleared, approval by the ITE Board of Directors will be required. Doug reported that the target publication date is October 2020.

5. Status Report on Web Page

Brent reported that our web page is now up-to-date. It has been updated with new TTI forms for traffic signal preemption timing.

6. Discussion of 2020 Action Plan (Attached)

A proposed Action Plan for 2020 was included with the Agenda for this meeting. Brent reported that the plan is due September 28.

One of the items on the Action Plan is an Informational Report. Several subjects for an IR have been discussed, with the possibility of receiving attention after publication of the Recommended Practice. Any volunteers for an IP would be welcome. Doug Noble suggested that the Committee should determine the next project and set a timeline. Additional suggestions for an IR included a survey of current practices for traffic control at bicycle or pedestrian crossings, or for warning devices for another train coming.





- 7. Liaison Reports
  - AREMA Jason Field is the liaison was unable to participate at this meeting so there was no report.
  - FRA Brian Gilleran of FRA reported that Problem Statements for new research are due on September 5. NCHRP 17-99, which will update accident prediction models for railroad crossings, is now underway. In response to a question he indicated there currently is no timeline for work on new provisions for railroad quiet zones.
  - CAVs The committee had identified a liaison for this arena and will follow up to identify activities to advance the CAV initiative which has been identified as an Emerging Trend.
- V. Other Business

There was no other business.

VI. Upcoming Committee Meetings

A Committee meeting date in January 2021 will be announced at a later date, probably in mid-November.

There will also be a Committee meeting during the ITE 2021 Annual Meeting and Exhibit in at the Portland Hyatt Regency in Portland, Oregon, from July 18 – 21.

VII. Adjourn

The meeting was adjourned at 2:32 PM PDT.





**INSTITUTE OF TRANSPORTATION ENGINEERS** 

# ITE GRADE CROSSING STANDING COMMITTEE 102-02 Draft Meeting Minutes 2020 TRB Annual Meeting (Washington Convention Center – Washington, DC) January 13, 2020

#### I. WELCOME

The meeting was called to order at 10:33 AM EST by Committee Chair Brent Ogden.

II. INTRODUCTIONS

The meeting was held at the 2020 TRB Annual Meeting at the Washington Convention Center in Washington, DC. There were seven participants in person and seven joining by phone:

#### In Person

- Brent Ogden
- Niloo Parvinashtiani (ITE Staff)
- Lisa Fontana (ITE Staff)
- Kelly Morton (FHWA)
- Brian Gilleran
- Jason Field
- Gene Russell

#### By Phone

- Steve Venglar
- Joe Palsa
- Tom Lancaster
- Karen Hankinson
- Phil Poichuk
- Alyssa Phaneuf
- JoNette Kuhnau

#### III. ITE ANNOUNCEMENTS

This item was held as ITE's liaison was not available at the beginning of the meeting; Lisa was able to join but the long discussion regarding the proposed session for ITE Annual Meeting 2020 used up the available time (see specifics below).

#### IV. ITE COMMITTEE ITEMS

#### 1. Conference Session Update

Brent Ogden reported on our proposed session for the ITE 2020 annual meeting in New Orleans, August 9-12. There have been ten proposals for presentations that have been submitted to us. Five were requested by us, and five were received in response to the open call for presentations.

A summary table showing all ten presentations, the authors, and key differentiators for each was passed out (see attached). After some discussion, it was agreed that two of the committee's original five presentations would be held for next year (Vijay Khawani, on Los Angeles Metro LRT Grade Separations and Marco DaSilva, on recent Volpe Research projects) and the committee would recommend that one of the four received through the call (Chock, on Real World Preemption Implementation) would be recommended for this year.

The committee also discussed the desire to urge three of the "call" proposers (Shriravi, on Use of Computer Vision to Observe Risky Behavior; Shenoda, on Use of Adaptive Traffic Control at Traffic Signals Near Grade Crossings; and Rempel, on Use of Real Time Data to Advise of





**INSTITUTE OF TRANSPORTATION ENGINEERS** 

## ITE GRADE CROSSING STANDING COMMITTEE 102-02 Draft Meeting Minutes 2020 TRB Annual Meeting (Washington Convention Center – Washington, DC) January 13, 2020

Highway Delays) to re-submit through the committee for next year (2021, Portland) when a session on "Emerging Technologies" would potentially be proposed. ITE staff indicated that protocol would be for ITE to invite the proposers not selected for podium presentation to prepare a poster for the poster session; it was discussed that a reach out to these other presenters would be deferred until after ITE has made the invites for the poster session.

In summary, these are the four presentations endorsed by the committee as our proposed session:

- UPRR Grade Crossing Program Paul Rathgeber, Director, Industry & Public Projects, Union Pacific Railroad
- Application of Railroad Preemption: Real World vs Textbook Alejandro Chock, Mott McDonald
- Improving Crossing Safety with Improved Delineation and WAZE Alerts Loretta Ebbighausen, Chief Safety Office, Long Island Railroad
- Jefferson Parish Real Time Train Detection System Bert Moore, Louisiana State Safety Officer, Gresham Smith
- 2. MUTCD Report

Jason Field reported that at the recent MUTCD in Washington DC, there was a discussion in the Railroad/LRT Technical Subcommittee regarding the treatment of closely-spaced railroad crossings. Current practice is to treat crossings as separate crossings if they are more than 100 feet apart. The proposal was to increase that distance to 125 feet which is more practicable given the length of typical semi-trailers with allowance for setback from the MTCD zones at each of the adjacent crossings. However, it was decided to retain the 100-ft criterion, as FRA currently uses the 100-foot distance as the criteria to establish separate USDOT crossing numbers for the FRA Grade Crossing Database. (Note: RR/LRT had previously approved provisions for adjacent crossings which mentions the 100-foot distance.)

Brent reported that there have been requests from the CAV community for wider roadway striping widths and longer broken line stripes to improve detection by automated vehicle cameras. There was a contentious debate in the NCUTCD General Council session as to whether these changes should be recommended now but the group ultimately approved the proposed provisions. Alyssa Phaneuf (Kimley-Horn) was on the phone and is joining the ITE Grade Crossing Committee as our CAV Liaison. She indicated she is familiar with the related technical issues.

3. Status Report on USDOT Grade Crossing Handbook

Kelly Morton, FHWA was present to announce that the new edition of the Handbook has now been published. There will not be a printed version, but it is on-line at the FHWA Office of Safety





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# ITE GRADE CROSSING STANDING COMMITTEE 102-02 Draft Meeting Minutes 2020 TRB Annual Meeting (Washington Convention Center – Washington, DC) January 13, 2020

web site. It can also be located by a web search for "FHWA grade crossing handbook" or similar wording. It can be down-loaded as a printable PDF file. It includes hotlinks to facilitate navigation and access to external information. Brian Gilleran (FRA) pointed out that since this document is not a standard or guidance or recommended practice, the electronic format of the Handbook will be easy to revise or update in the future.

4. Status Report on the Recommended Practice for Preemption of Traffic Signals Near Grade Crossings

Tom Lancaster reported that over 200 comments on the proposed RP were addressed, and a revised RP submitted to ITE in October 2019. ITE sent out a ballot to RP Committee members on January 8. If the RP is approved, ballots will then be sent to the peer review group for approval. If it is approved by the peer review group, ITE will begin the process for adopting and publishing the RP.

5. Status Report on Web Page

Brent reported that our webmaster, Joaquin Siques, has been diligent in keeping our web page up to date. As reported by Tom, there will be references to two preemption timing forms in the new RP. Brent suggested adding additional references to the web page.

6. Discussion of 2020 Action Plan (Attached)

A webinar on the recently published Grade Crossing Handbook was being planned for February 20, however it was learned that this conflicts with the AASHTO Rail Council meeting, so a revised date will be requested from ITE.

There was a discussion on an item in the Action Plan which involves the preparation of an ITE *Informational Report.* Suggestions for topics included additional technical details and case studies of preemption of traffic signals near grade crossings, railroad grade crossings near roundabouts, and bicycle/pathway railroad grade crossings.

Another item in the Action Plan which was discussed was the development of a *Research Problem Statement*. The design of an active ANOTHER TRAIN COMING warning device was suggested as a research project. A more limited version of this project could simply be a survey of existing warning devices. Brent will investigate this possibility. It was noted that there are sigs in place at the platform crossings for the new Denver International Airport EMU service.

7. Professional Development

Nicole Jackson (Professional Development Liaison) was not able to participate. It was noted one webinar has already been scheduled and there may be other topics in the future.





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- V. OTHER BUSINESS
  - 1. Emerging Trends

Lisa Fontana noted that the 2020 Emerging Trends document (about 1-2 pages) is due in Spring. Brent stated that this could be assigned to Karen Hankinson or Nicole Jackson.

2. Engagement

Brent reported that Committee Vice President Karen will preside at the Committee meeting in New Orleans in August 2020.

3. Roundabouts

Gene Russell had suggested roundabouts near grade crossings may be a good future topic for an Informational Report. He indicated that an effort is underway to update NCHRP 03-130, the Roundabouts Informational Guide, Second Edition, but it has become "hung up" at this point. There is an opportunity to engage on the issue of roundabouts near grade crossings.

4. Bicycle Facilities

It was noted there is very little published guidance on bike facilities at or through grade crossings and this another opportunity for liaison or an Informational Report. (This same comment was made at NCUTCD regarding a proposal to put a cycle-track through a crossing in California.)

## VI. UPCOMING MEETINGS

Grade Crossing Committee

- ITE 2020 Annual Meeting and Exhibit, Sunday August 9 through Wednesday August 12, Sheraton New Orleans, New Orleans, Louisiana
- Transportation Research Board Annual Meeting, Washington DC, Sunday January 24 through Thursday January 28, 2021
- ITE 2021 Annual Meeting and Exhibit, Sunday July 18 Wednesday July 21, Portland Hyatt Regency, Portland, Oregon

#### <u>Other</u>

- Southeast Rail Forum, Charlotte, NC, March 25-27
- Northwest Rail Conference, Hood River, OR, April 14-15
- VII. ADJOURN
  - The meeting was adjourned at 11:58 AM EST





## **INSTITUTE OF TRANSPORTATION ENGINEERS**

# ITE GRADE CROSSING STANDING COMMITTEE 102-02 Meeting Agenda Monday, January 13, 2020 / 10:30 AM – 12:00 PM EST Washington Convention Center – Room TBD – Washington, DC Join by Phone +1 (833) 779-7795,,923719822# Join by Skype https://meet.lync.com/kimleyhorn-kimley-horn/brent.ogden/K8831376

## 2020 ACTION PLAN

Activity	Description	Committee	Driceite	Timing
Activity	Description	Lead(s)	Priority	Timing
1. Submit Session for Annual Meeting	Develop session covering best practices consistent with theme of meeting	Brent Ogden Tom Lancaster Karen Hankinson Nicole Jackson	н	Deadline (12/3/19); Status at each committee meeting
2. Hold Committee Meetings	Two physical meetings (with conference/web capability); supplemented with topic-specific conference/web meetings. Vice-Chair to conduct one meeting in 2020.	Brent Ogden Karen Hankinson	н	Winter (January 2020) Summer (August 2020)
3. Prepare Informational Report	Identify a key topic in the field such as an emerging practice and develop information describing same	TBD	м	Identify topic and lead (January 2020) Status Report (August 2020)
4. Liaison with 3 <sup>rd</sup> parties	<ul> <li>Participate in AREMA Committee 36 Gyan Sinha (Kimley-Horn) Jason Field (Moffatt-Nichol)</li> <li>Participate in NCUTCD RR/LRT NCUTCD members</li> <li>Participate in ITE CAVs initiative ???</li> </ul>	Applicable Members	м	Status at each committee meeting Discuss CAVs topic (January 2020)
5.Develop Research Problem Statement(s)	<ul> <li>Another Train Coming active warning sign</li> <li>Emerging crossing gate treatments (in transit)</li> </ul>	B. Ogden T. Lancaster	L	Identify topic and Iead (January 2020) Status Report (August 2020)
6.Web Activity	<ul> <li>Develop postings for ITE Community</li> <li>Maintain committee website         <ul> <li>Annual Meeting presentations</li> <li>Update hotlinks to other sites</li> <li>Update materials on preemption</li> </ul> </li> </ul>	Joaquin Siques (City of Pasadena)	L	New Post(s) (Spring 2020) (Fall 2020) Status at each committee meeting
7. Develop and Present Webinar	<ul> <li>Preemption – Based on RP potentially with training on use of preemption timing sheets and design of queue management techniques</li> <li>Identify Other Topics for Future Webinars</li> </ul>	Nicole Jackson	н	Determine status of RP (January 2020) Agenda Item for Summer Committee Meeting

Committee Sponsored Proposals	Proposals from Call
1. <u>Union Pacific Railroad Grade Crossing Program</u> (Paul Rathgeber, UPRR)	<ol> <li>Application of Railroad Preemption Real World vs Textbook (Alejandro Chock, Mott McDonald)</li> </ol>
<ul> <li>Network-wide approach to grade crossing improvement and elimination</li> <li>At-grade crossings in freight rail environment</li> <li>Multi-State focus</li> <li>Programmatic aspect</li> <li>Presenter from Industry</li> </ul>	<ul> <li>Articulation of preemption implementation issues in complex scenarios</li> <li>Explores situations where standard solutions don't work</li> <li>Identification of implementation issues</li> <li>Problems and resolutions</li> <li>Institutional factors</li> </ul>
<ol> <li>Los Angeles Metro Blue Line LRT Grade Separation Retrofit Study (Vijay Khawani, LA Metro)</li> </ol>	4. <u>Use of Computer Vision to Evaluate Risky Behavior Pre-Empted Crossings</u> (Sajad Shriravi, Miovision Technologies)
<ul> <li>Collision data analysis, prioritization, phased construction, benefits analysis</li> <li>Hazard analysis / prioritization</li> <li>Grade separations in LRT environment</li> <li>Retrofit – maintenance of operations</li> <li>Cost / Benefits assessment</li> </ul>	<ul> <li>Evaluation of traffic preemption effects and video analysis of risky behavior</li> <li>LRT grade crossings</li> <li>Evaluation of traffic impacts of preemption</li> <li>Video surveillance/analysis of risky behavior</li> <li>Pedestrians</li> </ul>
5. <u>Long Island Railroad Grade Crossing Safety Enhancement</u> (Loretta Ebbinghausen, LIRR)	6. <u>Application of Adaptive Traffic Signal Control with Grade Crossings</u> (Michael Shenoda, Farmingdale State College)
<ul> <li>Enhancement of delineation plus TENC-enabled real-time alerting</li> <li>Enhanced passive treatments for at-grade commuter rail crossings</li> <li>Programmatic aspect</li> <li>ITE application</li> <li>Dynamic crossing warning via cell-phone app</li> </ul>	<ul> <li>Potential use of adaptive traffic signal control to route traffic away from crossin</li> <li>Theoretical considerations</li> <li>Evaluation of potential applications</li> <li>Measures of benefit</li> <li>Traffic impacts mitigation</li> </ul>
<ul> <li>Jefferson Parish Real Time Train Detection System         <ul> <li>(Bert Moore, LA State Safety Officer)</li> </ul> </li> <li>Detection and prediction of train movements using off-railroad sensors         <ul> <li>ITS application</li> <li>Off-railroad sensors</li> </ul> </li> </ul>	<ul> <li>8. <u>Use of Real-Time Train Movement Data to Advise of Highway Delays</u> (Garreth Rempel, MORR Transportation Consulting)</li> <li>Detection and prediction of train movements with real-time motorist advisories         <ul> <li>ITS application</li> <li>Before and after results</li> <li>Cost-effective solutions</li> </ul> </li> </ul>
<ul> <li>Detection and prediction of train movements</li> <li>Louisiana project</li> <li>Emerging Technologies Research – (HOLD FOR 2021)</li> </ul>	10. Uses of Synchro to Model Effects of Crossing Closure and Grade Separation
<ul> <li>(Marco daSilva, USDOT Volpe Research Center)</li> <li>Synopsis of completed evaluations of emerging technologies</li> <li>ITS applications</li> <li>Emerging technologies</li> <li>Presenter from USDOT</li> </ul>	<ul> <li>(Chirangivi Bhamidipati, CDM Smith)</li> <li>Prediction of traffic impacts associated with increased train frequency / closure</li> <li>Commuter rail case study</li> <li>Modeling analysis</li> <li>Impact of traffic diversions due to crossing closure</li> <li>Impact of increased train frequencies on traffic using at-grade crossing</li> </ul>





**INSTITUTE OF TRANSPORTATION ENGINEERS** 

# ITE GRADE CROSSING STANDING COMMITTEE 102-02 Draft Meeting Minutes – July 22, 2019 2019 ITE Annual Meeting (Hilton Austin – Austin, TX)

## I. WELCOME

The meeting was called to order at 4:35 PM CDT by Committee Chair Brent Ogden.

II. INTRODUCTIONS

The meeting was held at the 2019 ITE Annual Meeting at the Austin Hilton Hotel in Austin, TX. There were eighteen participants in person and five joining by phone:

#### In Person

- Brent Ogden
- Tom Lancaster
- Douglas Noble (ITE)
- Lisa Fontana (ITE)
- Kelly Morton (FHWA)
- Joaquin Siques
- Rick Campbell
- Nicole Jackson
- Lynn LaMunyon
- Gordon Meth
- Robert Seyfried
- Louis Sanders
- Brian Gilleran
- Kurt Anderson
- Esther Macabare
- Mark Mathis
- Eric Zhao
- Kevin Balke

#### III. ITE ANNOUNCEMENTS

Lisa Fontana reported that a new Trip Generation handbook is being prepared. Data submittals will be accepted through August 2019. A new Parking Generation handbook was published in January 2019. A Recommended Practice for Guidelines for Determining Traffic Signal Change and Clearance Intervals was made available for comments, but the final version of the report has been appealed.

The public comment period for the Recommended Practice for the Preemption of Traffic Signals Near Railroad Crossings has ended. Five sets of comments were received: one from AREMA, two from PUCs, and two from individuals, one of which was the Norfolk Southern Railway.

#### By Phone

- Steve Venglar
- Karen Hankinson
- Dee Chappell (FRA)
- Steve Laffey
- Phil Poichuk





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# ITE GRADE CROSSING STANDING COMMITTEE 102-02 Draft Meeting Minutes – July 22, 2019 2019 ITE Annual Meeting (Hilton Austin – Austin, TX)

## IV. ITE COMMITTEE ITEMS

1. Committee Vice Chair

ITE has requested that this Committee select a Vice Chair. The Vice Chair would substitute in the absence of the Chair and would potentially become Chair if the position becomes vacant. There was a brief discussion of selection procedures during which no sentiment was expressed for a formal process. Brent Ogden stated that Karen Hankinson had expressed interest in the position and asked if anyone else might be interested. No one else indicated interest. The Committee then voted unanimously to appoint Karen as Vice Chair, pending ITE Coordinating Council approval.

2. Liaison to AREMA

Brent suggested that our Committee appoint a representative to AREMA to assist in coordination with them to obtain input from railroad signaling practitioners. AREMA Committee 36 meets twice a year, one in the fall and once in the spring. Doug Noble suggested that, alternatively, AREMA be invited to send a representative to our Committee. Jason Field of Moffatt and Nichol was suggested as a possible AREMA representative because of his experience with highway/rail grade crossing safety. Brent agreed to extend an invitation to Jason.

3. Professional Development Committee

ITE has asked that we appoint a member of our Committee to the ITE Professional Development Committee. The Development Committee assists with evaluating and promoting webinars and meeting presentations. Nicole Jackson expressed interest and was appointed by Brent as our representative to the Development Committee.

4. Conference Session Update

Our Committee's presentations were included along with two others which were highly rated for a session entitled "Railroad Grade Crossings – Safe as They Can Be?" scheduled on Wednesday morning July 24, with Kelly Morton as moderator. Speakers will include Darryl Puckett from Texas A & M, who will speak on automated warning announcements at pedestrian crossings, James Robertson from Lee Engineering who will speak on accommodating pedestrians at preempted traffic signals, Brent Ogden from Kimley-Horn who will speak on the US DOT Grade Crossing Handbook, and Tom Lancaster from Lancaster Engineering who will speak on the ITE Recommended Practice for Preemption of Traffic Signals Near Grade Crossings.

5. MUTCD Report

Rick Campbell reported that a Notice of Proposed Amendment (NPA) for a new edition of the MUTCD is expected late this year or early next year. If it is issued this year, it will probably add an extra day to the NCUTCD meeting in January 2020.





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# ITE GRADE CROSSING STANDING COMMITTEE 102-02 Draft Meeting Minutes – July 22, 2019 2019 ITE Annual Meeting (Hilton Austin – Austin, TX)

There was a discussion of upcoming MUTCD compliance dates regarding railroad traffic control devices, particularly the requirements for Crossbuck Assemblies and retroreflective strips on Crossbuck supports, for which the compliance date is the end of 2019. Nicole will prepare a description of these requirements and their compliance dates for Lisa Fontana, who will publicize them in places such as the ITE Newsletter, the ITE Journal, and our railroad crossing website.

## 6. Status Report on Highway-Rail Crossing Handbook

The technical draft of the Handbook, which will be entitled Highway-Rail Crossing Handbook, Third Edition, has been completed and the document is in pre-production. Kelly Morton reported that there will soon be an announcement regarding the publication date.

Dee Chappell reported that she and Kelly will have a presentation on the new Crossing Handbook. Dee also said that the FRA is asking for comments on blocked crossings (Docket No. FRA-2019-0004-N-10).

# 7. Update of Recommended Practice for the Preemption of Traffic Signals Near Grade Crossings

Tom Lancaster reported that the draft RP was completed and has been through the peer review process; the formal public comment period closed June 26. The RP Task Force is now in the process of reviewing the comments and revising the RP accordingly. The proposed final RP will then go through the peer review process again.

#### 8. Status Report on Web Page

Joaquin Siques reported that our web page is now managed by ITE and the Committee can easily make periodic updates (links, meeting minutes, etc.). Kelly Morton will send the presentations from our presentation session on July 24 to ITE for posting on our web site.

## V. POTENTIAL FUTURE COMMITTEE ACTIVITIES

• <u>Second Train Coming Sign</u>: There was a discussion of the future of the proposed Second Train Coming sign. Any further progress will probably require a research project to develop an acceptable sign symbol and auditory message. A problem statement will be required, to obtain funding for this research, which could possibly involve a driver simulation laboratory. Phil Poichuk stated that in Canada some human factors work has been done and the results favored active blank-out/changeable pictogram signs indicating the direction the train was approaching from.

Rick Campbell stated that the track circuits required for a sign showing the direction of approaching trains would be complicated and expensive unless the railroad is electrified, but notification of the presence of a second train without indicating its direction might be feasible. It was reported that some Second Train Coming signs have been installed as experiments in Elmhurst, IL, but there is no before/after data. There was a discussion





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# ITE GRADE CROSSING STANDING COMMITTEE 102-02 Draft Meeting Minutes – July 22, 2019 2019 ITE Annual Meeting (Hilton Austin – Austin, TX)

regarding the use of PTC to detect trains approaching a crossing. Rick stated that this is not currently possible because PTC is an overlay system which is not "vital" (with regards to fail-safe design) per se and as such would not be appropriate to activate a critical warning sign.

- <u>Use of Alternative Design Road Gates:</u> Brent mentioned that Los Angeles Metro has installed a prototype left-turn gate which uses a conventional parking lot gate to control left-turns from South Flower Street into the Interstate-10 on-ramp (a high collision location). Metro is also piloting installation of a similar gate, or conventional railroad gate to control illegal right-turns-on-red at busway intersections along the Orange Line, which have high violation rates. The collision rate at the South Flower Street location appears to have decreased based upon data to date. Brent wondered if we should publicize this practice. Kelly said that she has some funds for publicizing new ideas such as this.
- <u>Best Practices:</u> Brian Gilleran questioned whether these practices are truly "Best Practices". ITE staff commented that a more defensible term would be "Noteworthy Practices", especially if there is little or no formal before-and-after research or peer review. This led to the suggestion that the reporting of some noteworthy practices could be the topic for a future presentation at an ITE Annual Meeting of emerging guidance and/or applications.
- <u>Delineation:</u> Kurt Anderson mentioned some work that CTC has performed for MTA in New York, including the use of flexible posts to supplement edge lines across railroad crossings. They have some before/after crash data for this work, which might be suitable for an ITE presentation.
- <u>Roundabouts Near Crossings:</u> Another possibility might be a joint session with a roundabout group. Lisa commented that this may be too limited for an entire panel; maybe just add a roundabout presentation to a session on Noteworthy Practices targeted to a larger audience.

Lisa Fontana will advise Brent of the presentation proposal submittal deadline for the ITE 2020 Annual Meeting. Brent will send an email to all Committee members asking for volunteers for presentations at the Annual Meeting. He will also prepare a Developing Trends report for ITE.

#### VI. OTHER BUSINESS

Kelly Morton reported that pursuant to the train-bus collision in Biloxi, the NTSB asked the FHWA to disseminate information regarding "humped crossings". They have done so, but welcome suggestions for additional dissemination. Brian Gilleran noted that due to the wide variety of truck configurations, there is no generally-accepted guideline for geometric vertical alignment design of roadways at railroad crossings that would apply to all vehicles.





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# ITE GRADE CROSSING STANDING COMMITTEE 102-02 Draft Meeting Minutes – July 22, 2019 2019 ITE Annual Meeting (Hilton Austin – Austin, TX)

## VII. UPCOMING COMMITTEE MEETINGS

- Conference Calls TBD
  - Conference Planning Follow-up
  - RP Comments Discussion (if needed)



INSTITUTE OF TRANSPORTATION ENGINEERS

# ITE GRADE CROSSING STANDING COMMITTEE 102-02 Draft Meeting Minutes January 15, 2019

# 2019 TRB Annual Meeting (Washington Convention Center – Washington, DC)

# I. WELCOME

The meeting was called to order at 10:35 AM EST by Committee Chair Brent Ogden.

II. INTRODUCTIONS

The meeting was held at the 2019 TRB Annual Meeting at the Washington Convention Center in Washington, DC. There were thirteen participants:

In Person

- Brent Ogden
- Gene Russell
- Lynn LaMunyon
- Leanna Belluz
- Gordon Meth
- Scott Knebel

# By Phone

- Steve Venglar
- Kelly Morton
- Tom Lancaster
- Lisa Fontana
- Steve Laffey
- Jason Field
- Leah Russell (for Karen Hankinson)

# III. ITE ANNOUNCEMENTS

Lisa Fontana-Tierney provided a brief synopsis of key ITE activities:

- The new Parking Generation Manual, 5<sup>th</sup> Edition should be available by the end of January. About 60 percent of the data is new and it includes more urban data. It will be available in an electronic format including a web-based app.
- ITE is working with FHWA to develop a series of workshops on speed management. A workshop will be held at the ITE Annual Meeting this summer.
- A recommended practice for traffic signal change intervals should be available this spring.

# IV. ITE COMMITTEE ITEMS

1. Conference Sessions Update

The ITE 2019 Annual Meeting will be in Austin, Texas, from July 21 to July 24. Lisa Fontana has proposed a technical session for our Committee which would include presentations on the Grade Crossing Handbook (by Brent Ogden) and the Preemption Recommended Practice (by Tom Lancaster) as well as two other grade crossing-related topics for which abstracts have been submitted. Lisa will send copies of the two abstracts to Brent. Lisa asked that Brent suggest a moderator for our session. Kelly Morton of FHWA was mentioned as a possibility.

Traffic Engineering Council









## INSTITUTE OF TRANSPORTATION ENGINEERS

# ITE GRADE CROSSING STANDING COMMITTEE 102-02 Draft Meeting Minutes January 15, 2019

The committee will need to develop topics for the 2020 Annual Meeting (New Orleans) at the summer meeting which will most likely be held in Austin.

## 2. MUTCD Report

At the NCUTCD meeting last week (January 9 to 11), FHWA reported that a Notice of Proposed Rulemaking (NPRM) for a new edition of the MUTCD might be forthcoming this year but did not provide any dates. Because it is early in the inter-government review process, suggestions for additional revisions to the MUTCD are still possible for a limited time.

If the NPRM is issued after the NCUTCD meeting in June 2019, comments by the NCUTCD to the document might have to be formulated based on email and telephone discussions, depending on when the comment docket is closed. If the NPRM is not published before the 2020 elections, the next version of the MUTCD may be significantly further delayed.

Brent reported that the Railroad/Light Rail Transit Technical Committee discussed the definition of Right-of-Way Transfer Time (RWTT) and decided to recommend a revised definition. The new definition will specify how the transfer time is calculated, rather than referencing the "worst case" condition.

The RR/LRT Technical Committee discussed the use of dimensions for the height of the crossbuck sign. There were comments that the height should be provided in AREMA guidance rather than an MUTCD standard.

The RR/LRT Committee also discussed guidelines for the maximum allowable gap between the ends of gate arms, which is not currently specified by MUTCD nor FRA requirements, even though "90 percent" of roadway and/or "2 feet between gates / 1 foot to median" are nominally considered.

Gene Russell initiated a discussion regarding roundabouts near grade crossings. He reported that in Europe there are many grade crossings within and adjacent to roundabouts. He said that there is a French report discussing the operation of roundabouts near grade crossings, and it is available in English as well as French. Gene said he will try to obtain copies of the report and distribute it to the Committee.

The RR/LRT Committee discussed the use of the Low Ground Clearance sign and the use of a standard or guideline for roadway grade profiles at crossings to reduce the possibility of vehicles becoming stuck on humped crossings. Comments were made that due to the extremely large variation in vehicle designs, it would be difficult to develop a universal profile standard. It was reported that AASHTO has a profile guideline, but it is so conservative that a large proportion of existing crossings could not meet the guideline. Research materials regarding road profiles was distributed to the RR/LRT Committee members for consideration.





INSTITUTE OF TRANSPORTATION ENGINEERS

# ITE GRADE CROSSING STANDING COMMITTEE 102-02 Draft Meeting Minutes January 15, 2019

3. Status Report on Highway-Rail Grade Crossing Handbook

Brent reported that a final version of the Handbook incorporating all the review comments has been submitted to FHWA. Kelly Morton stated that preparation of the Handbook for publication is proceeding as planned, but at this time there is no specific date set.

4. Update of Recommended Practice for the Preemption of Traffic Signals Near Grade Crossings

Tom Lancaster reported that responses to comments on the RP draft have been completed, and a final draft submitted to ITE. ITE has indicated it may publish the proposed RP in February 2019 in the ITE Journal, inviting comments from any ITE member. After that, it can proceed to publication.

## V. WEB PAGE

Brent reported that our Committee's web page is generally up-to-date and includes the presentations from the Annual Meeting in Minneapolis. There was a short discussion regarding the use of a LinkedIn page for our Committee – it could be used to direct attention to the ITE page but may not be able to host materials for download. Brent will talk with Joaquin Siques about increasing our use of the ITE Community, particularly regarding the Recommended Practice. Scott Knebel committed to increase our activity on social media and will keep Brent informed.

#### VI. POTENTIAL FUTURE COMMITTEE ACTIVITIES

Brent suggested that potential topics for future activities could include Another Train Coming (ATC) signs, left-turn gates at LRT crossings, and more information on preemption including queue cutters and pre-signals, and roundabouts. Potential venues for these activities includes Informational Reports (IRs), Fact Sheets, ITE Journal Articles, Webinars, and Task Force driven research.

It was suggested that a Webinar might be an appropriate way of distributing information regarding preemption, and a mini-guidebook or fact sheet might be useful as a summary of the upcoming Recommended Practice. Jason Field said that he has a previously-prepared 45-minute presentation on preemption issues and indicated he would be willing to develop a webinar.

Gordon Meth explained that it typically costs \$149 to view an ITE webinar, because ITE relies on these as a source of revenue. (However, the price is "per site" which means that a group can view the presentation provided the site is enrolled.) Typically, a brief outline of the webinar objectives is prepared and submitted to ITE about six to eight weeks in advance of the webinar, and an agreement is signed. A few days before the webinar, the presentation slides are sent to ITE. The webinars are typically scheduled for Tuesdays or Thursdays from 3:00 to 4:30 EST. It is advisable to publicize a webinar to potentially interested people in addition to the usual





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announcements by ITE. There is usually no charge for using an ITE webinar to host a Committee meeting.

Brent discussed the use of parking-garage type automatic gates across left-turn lanes to prevent vehicles from turning across LRT tracks when an LRT vehicle is approaching. Los Angeles Metro has deployed a prototype at a high-accident location where there is a left-turn across the tracks into a freeway on-ramp. A loop detector is used at the stop line in the left-turn lanes to detect the presence of vehicles. If a vehicle is detected on the stop line, the gate is not lowered to avoid damage to the vehicle and the gate. Brent reports that after about a year there have been no collisions at this location. This might be a good subject for an Informational Report. Brent stated that Metro has the relevant data for this pilot study.

It was suggested that a meeting session topic could be Emerging Technologies, which could include left-turn lane gates.

Brent reported that there was considerable discussion in the NCUTCD RR/LRT Committee regarding the Another Train Coming sign, but there was no consensus on the best approach. Brent mentioned that both he and Tom Lancaster have observed technology commonly used throughout Japan to warn drivers of a second train coming. When the first train approaches, a red arrow is illuminated indicating the direction of the train. When the train has passed, the arrow is extinguished. If a second train approaches before the first train has passed, a second red arrow is illuminated indicating the direction of the second train, and the frequency of the crossing bell increases. This provides both a visual and audible warning of a second train, and indicates the direction of the second train, providing an effective warning for both drivers and pedestrians.

A comment was made that information regarding roundabouts near grade crossings was difficult to find. Gene Russell offered to provide information for committee members to review. It was suggested that this might be a good topic for an Informational Report, possibly including information from the French publication.

It was mentioned that our web page can include links to YouTube videos on this or other subjects.

A question was raised regarding the issue of wheelchair wheels being caught in track flangeways. No one is aware of any work done on this by ITE. There have been experiments using rubber strips as flangeway covers, but they require frequent maintenance, particularly in cold climates. Bicycle crossings also have the same issue. More research on this subject is needed.

#### VII. OTHER BUSINESS

Gene Russell reported that there is an ASCE Transportation Conference in Alexandria, Virginia, June 9 to June 12, 2019. They are looking for speakers on "smart grade crossings". If anyone is interested, they should contact Gene directly: <u>geno@ksu.edu</u>





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## VIII. UPCOMING MEETINGS

- Spring (Conference Call) April or May (Date TBD)
- Joint ITE International and Texas District Annual Meeting and Exhibit, Sunday July 21 Wednesday July 24, 2019 at the Hilton Austin (Austin, TX)
- Transportation Research Board Annual Meeting, Sunday January 12 Thursday January 16, 2020.





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**Traffic Engineering Council** 

# INSTITUTE OF TRANSPORTATION ENGINEERS

# ITE GRADE CROSSING STANDING COMMITTEE 102-02 Draft Meeting Minutes August 21, 2018

# 2018 ITE Annual Meeting (Hilton Minneapolis Hotel – Minneapolis, MN)

## I. WELCOME

The meeting was called to order at 2:48 PM CDT by Committee Chair Brent Ogden.

II. INTRODUCTIONS

The meeting was held at the 2018 ITE Annual Meeting at the Hilton Minneapolis Hotel in Minneapolis, MN. There were eighteen members and guests who participated:

## In Person

- Brent Ogden
- Tom Lancaster
- Brian Gilleran
- Karen Hankinson
- Bob Seyfried
- Nicole Jackson
- JoNette Khunau
- Siva Narla
- Josh Cotter
- Mike Meeks
- Dillon Turner

#### III. ITE ANNOUNCEMENTS

Siva Narla (ITE staff) reported on two ITE-related items:

- ITE staff is looking forward to completion of the Recommended Practice for the preemption of traffic signals near railroad crossings. It is hoped that it can be published by April 2019.
- Siva discussed the new One ITE program. The objective is to more closely connect the ITE Districts and Sections. As part of the concept, there are proposals to change some district boundaries, including the division of the Western District into two separate districts.

## IV. ITE COMMITTEE ITEMS

1. Conference Sessions Update

The Committee's ITE Annual Meeting session scheduled for August 22, 2018, is entitled "Implementing Best Practices to Provide Safe Integration of Rail Transport". The four presentations will be:

# <u>By Phone</u>

- Dee Chappell
- Steve Venglar
- Gene Russell
- John Van Hoff
- VJ Kulkarni
- Stephen Laffey
- Joe Palsa





## INSTITUTE OF TRANSPORTATION ENGINEERS

## ITE GRADE CROSSING STANDING COMMITTEE 102-02 Draft Meeting Minutes August 21, 2018

- Designing New Features to Control Right Turns on Red (Naree Kim, Iteris)
- Green Line LRT Transit Mall (Dan Soler, Metrotransit)
- Blue Line LRT Extension in Shared Corridor (Jim Alexander, Metrotransit)
- Use of New TxDOT Preemption Procedures and Forms (Nicole Jackson, CTC)

There was a discussion of potential 2019 ITE Annual Meeting topics. The meeting will be in Austin, TX, July 21 – 24. Possible topics could include the Highway–Rail Crossing Handbook and the preemption Recommended Practice, both of which should be newly published by then, and the transit system in Austin.

#### 2. MUTCD Report

Brent reported that an ANOTHER TRAIN COMING sign was approved by the Rail-road/LRT Technical Committee after much discussion and many sponsor comments, and then approved by the Council in June 2018. It will now be forwarded to FHWA for possible inclusion in the next edition of the MUTCD.

A new warning sign for bicycles at railroad crossings was presented to the Railroad/LRT Committee by the Bicycle Committee, and then sent out for sponsor comments.

There is a Roundabout Committee composed of several members of MUTCD Technical Committees. The Roundabout Committee has a task force, headed by Tom Lancaster, the RR/LRT representative on the Committee, to determine if revisions are needed to Section 8C.12 of the MUTCD, "Grade Crossings Within or in Close Proximity to Circular Intersections".

There is no information yet regarding a possible publication date of a new edition of the MUTCD.

3. Status Report on Highway-Rail Grade Crossing Handbook

The second draft of a Third Edition of this handbook was submitted by Brent Ogden, and hundreds of comments were received. Brent is now responding to the comments and will submit the results to ITE on August 24. The proposed handbook will be reviewed by FHWA and FRA. In the future, regular updates to the handbook are planned.

# 4. Update of Recommended Practice for the Preemption of Traffic Signals Near Grade Crossings

Tom Lancaster reported that responses to a draft of the proposed updated RP have been received from a review panel, and responses are being prepared. The next steps are to publish a summary of the proposed RP in the ITE Journal and ask for comments, respond to the comments, submit the revised RP to a Committee vote, submit the revised RP to a review panel vote, and submit the revised RP to an International Board of Directors vote.





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# ITE GRADE CROSSING STANDING COMMITTEE 102-02 Draft Meeting Minutes August 21, 2018

As a part of the preparation of responses to the review panel comments, there was a discussion of several of the comments:

- It was the Committee consensus to use the term "Preemption Clearance Interval" as a replacement for "Clear Track Green Interval" because some-times the track clearance interval is other than green.
- The Committee determined that a publication date should be associated with each reference in the RP, because there might be subsequent revisions to the references.
- It was decided that a comparison of preemption timing worksheets should not be made, because they are examples, not recommendations.
- The Committee suggested the use of the term "highway traffic signal" rather than "traffic signal" or "traffic control signal" or "highway traffic control signal".
- The Committee recommended the use of the term "stop line" except where there might be confusion as to whether the stop line is located at the railroad crossing or at the downstream highway intersection.

## V. OTHER BUSINESS

Possible future activities for this Committee could include the presentation of webinars for the upcoming new editions of the railroad crossing handbook and the preemption RP. Articles could also be prepared for the ITE Journal regarding these new publications. Siva stated that ITE would promote any webinars on these subjects, and that typically a webinar would be held shortly after publication of the new documents.

Although an ANOTHER TRAIN COMING sign has been approved by the MUTCD council, it does not indicate the direction from which the train is coming. Additional research is needed for enhancements to the sign to provide an audible indication, train direction, and a train symbol. The task force from the sign will continue its work.

#### VI. UPCOMING MEETINGS

- Transportation Research Board Annual Meeting, Washington DC, Sunday January 13 through Thursday January 17, 2019, at the Washington Convention Center
- ITE Annual Meeting and Exhibit, Austin, Texas, Sunday July 21 through Wednesday July 24.

## VII. ADJOURN

The meeting was adjourned at 4:11 pm.

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# 2018 TRB Annual Meeting (Washington Convention Center – Washington, DC)

#### I. WELCOME

The meeting was called to order at 3:10 PM EST by Committee Chair Brent Ogden. This is a twopart meeting to cover key TENC 102-02 topics as well as allow time for a presentation of "Markup #1" of the revised USDOT Grade Crossing Handbook.

## II. INTRODUCTIONS

The meeting was held at the 2018 TRB Annual Meeting at the Washington Convention Center in Washington, DC. There were eighteen members and guests who participated:

#### In Person

- Brent Ogden
- Lisa Fontana Tierney
- Debra Chappell
- Randy McCourt

#### By Phone

- Steve Venglar
- Kelly Morton
- Brian Gilleran
- John Van Hoff
- Joaquin Siques
- Stephen Laffey

#### III. ITE ANNOUNCEMENTS

Lisa Fontana (ITE staff) reported on several ITE-related items:

- ITE is in process on evaluating conference session proposals for the upcoming Annual Meeting in Minneapolis. The current timeline calls for selection of successful proposals by February.
- On March 21, 2018, ITE will be conducting a "Virtual Career Fair"
- ITE is working with the Joint Program Office (JPO) to provide support services for Rural ITS applications which will feature materials developed by the Transportation Safety Working Group which addresses topics such as Emergency Medical Services as well as Fire and Rescue
- There will be an Arizona joint ITE / IMSA Spring Conference from February 27 to March 1
- ITE continues to pursue the Vision Zero initiative; it was suggested that there could be a contribution on Rail Crossing Safety possibly updating and condensing Brian Gilleran's piece on "Why to Preempt" grade crossings adapted for a broader audience
- The 10<sup>th</sup> Edition of Trip Generation is now out; it is an electronic, web-based version in which all the out-of-date data has been purged





- ITE is working on release of guidance on Self-Enforcing Roadways over the next month or two
- IV. ITE COMMITTEE ITEMS
  - 1. ITE Grade Crossing Web Page

Joaquin Siques reported that the web page is us to date and does not have broken links.

2. Update of Recommended Practice for the Preemption of Traffic Signals Near Grade Crossings

The RP is moving forward. The next step will be to establish a Review Panel comprised of about 6 to 8 persons. It was pointed out that this is NOT primarily intended to delve into the details of the guidance; rather it is to determine that the product meets professional standards and to verify that an inclusive process has been used to develop the document.

3. Conference Sessions Update

Brent reported that a proposal was submitted to ITE for the Minneapolis meeting, August 20-23 which includes four topics:

- Development of Pedestrian Transit Mall along Metro Transit (Minneapolis) Green Line through University of Minnesota East Bank Campus
- Development of Shared Corridor LRT for Metro Transit (Minneapolis) Blue Line Extension
- Report on Experience of Implementing Revised Preemption Timing Calculation Sheets and Procedures (TxDOT)
- Development of Criteria for Prioritizing Grade Separations of Light Rail Transit

## V. USDOT GRADE CROSSING HANDBOOK WORKING GROUP MEETING

- This is a follow-up meeting to the prior meeting held at NCUTCD on January 5<sup>th</sup>
- Working Group members should download MARKUP #1 materials from the ShareFiles site; this version is a "scanned" product
- The Handbook has been extensively reorganized; key changes include:
  - o Background Materials have been moved into three Appendices





- Provisions approved by the General Council of NCUTCD since the 2009 MUTCD have are recognized and the guidance for each topic which is affected will reflect the new material
- The treatment of preemption of traffic signals near grade crossings is updated based upon the working draft version of the new ITE Recommended Practice
- A Task Force has been formed to update the Technical Working Group guidance which was formerly in-lined into the 2007 version
- There is a new section on pedestrian treatments which incorporates material which was formerly presented as part of the LRT "Special Topic" as well as new provisions for pedestrian treatments which were added to MUTCD 2009
- LRT-specific materials have been moved into Chapter 2 which presents Active Devices
- Working Group Members are being asked to review the document and identify any topics which are missing or which are archaic and should be excised
- There is an electronic version of the old text separately available for those who wish to suggest specific edits in track changes format
- Comments are due by January 19<sup>th</sup>; new materials should be submitted by March

## VI. UPCOMING MEETINGS

- National Committee on Uniform Traffic Control Devices, Summer Meeting, June 20 22, Denver, Colorado
- ITE 2018 Annual Meeting and Exhibit, August 20 23, Minneapolis, MN
- Transportation Research Board Annual Meeting, January 13 17, Washington DC

## VII. ADJOURN

The meeting was adjourned at 4:45 pm.





# 2017 TRB Annual Meeting (Washington Convention Center – Washington, DC)

## I. WELCOME

The meeting was called to order at 1:05 PM EST by Committee Chair Brent Ogden.

II. INTRODUCTIONS

The meeting was held at the 2017 TRB Annual Meeting at the Washington Convention Center in Washington, DC. There were eighteen members and guests who participated:

- Brent Ogden
- Tom Lancaster
- Phil Olekszyk
- Gene Russell
- Brian Gilleran
- Dee Chapell
- John Van Hoff
- Steve Laffey
- Casey Murdie

- JoNette Kkunau
- Lisa Fontana
- Phil Poichuk
- Darin Kosmak
- Alexandre Nolet
- Steve Venglar
- Benjamin Sperry
- Bruce Friedman
- Kelly Morton

#### III. ITE ANNOUNCEMENTS

Lisa Fontana (ITE staff) reported on several ITE-related items:

• ITE has a contract with FRA and FHWA to produce a new grade crossing handbook. The existing 2007 handbook was an updated version of the 1986 handbook, but the new handbook is intended to be a new document. Dee Chappell stated that the Office of Safety and Office of Operations at FHWA would both be involved. The new handbook will be applications-based, possibly in volumes, and will be a guideline rather than a standard or requirement. This is in recognition of every grade crossing being different, with no single set of standards applicable to all. A working group will be assembled as a resource. Kelly Morton and Bruce Friedman of FHWA and Brian Gilleran of FRA will be involved. An accompanying guidebook on preemption of traffic signals near railroad crossings is intended to be a high-level overview of preemption issues, not a technical handbook.

Brent stated that in addition to comments and critiques, the contribution of content to the new handbook will be welcome. The handbook will likely include a discussion of grade crossing hazard prediction models, although he noted that no hazard prediction models are currently available for light-rail crossings.

Benjamin Sperry, Ph. D. and professor of Civil Engineering at Ohio University who participated in the meeting indicated he could develop content on risk formulas.





- *Vision Zero* is a strategic focus area for ITE. A toolbox handbook is expected to be published in about two months.
- The *Trip Generation* handbook will be updated this year. The focus will be on urban persontrips rather than vehicle-trips.
- ITE will publish a report on self-enforcing roadways this Spring.
- A Recommended Practice for traffic signal change and clearance intervals, which has been in development for a long time, is expected to be available this year.
- It is hoped that there will be a session on railroad grade crossing at the ITE Annual Meeting in Toronto in August.

#### IV. ITE COMMITTEE ITEMS

1. Prior Action Items Review

All action items from the previous meeting are closed, although activity continues with postings to the ITE Community.

2. ITE Grade Crossing Web Page

Brent reported that the web page is now up-to-date, and railroad-crossing-related sessions from the 2016 Annual Meeting have been posted. There is one dead link on the site, and Brent stated that he would remove it.

If more visibility for our web page is desired, more postings on the ITE Community would be beneficial, particularly if they are related to a topic that the readers find interesting. Joaquin Siques has been helpful in implementing Community postings. Completion of the Recommended Practice on traffic signal preemption should result in some postings.

3. Update of Recommended Practice for the Preemption of Traffic Signals Near Grade Crossings

Tom Lancaster reported that a draft of the Recommended Practice was submitted to ITE in September 2016. The next steps will be for ITE to send the draft out to the RP Task Force for a formal vote, assemble a review panel to assess the draft and note any conflicts with other standards, and publish the draft as a proposed RP for a 60-day comment period. This process is expected take four to six months.

4. MUTCD Items

Brent reported that at the meeting of the National Committee on Uniform Traffic Control Devices the previous week, no railroad-related items were submitted for a vote. There was a discussion





within the Railroad/Light Rail Transit Technical Committee of suggested changes to the Uniform Vehicle Code related to railroads and light rail.

There was an extensive discussion at the NCUTCD meeting on connected and autonomous vehicles. One speaker reported that fully autonomous vehicles are not expected to be in widespread used until about 2075 due to the complications involved in assuring a high level of safety and reliability.

The FHWA discussed interim MUTCD approvals, and reported that an interim approval of the Clearview sign font has been rescinded, although that decision will be reconsidered. Also, an interpretation is likely to be issued soon that will indicate that continuing pavement edge lines through railroad crossings is permissible. On January 18, FHWA will host a free webinar which will discuss the MUTCD.

5. Second/Another Train Coming Task Force

Brent Ogden reported that the MUTCD RR/LRT Task Force concluded that the development of a second train coming traffic control device will require human factors research, but identifying available research funding has been difficult.

Brent mentioned that reliable track circuitry has been reported as a technical challenge in certain rail environments.

Steve Venglar stated that it would be helpful to know the frequency of incidents related to a second train coming, but reliable and complete data is not available. Brent suggested that as an alternative, a description of a few improvements that have been successful in reducing these incidents could be helpful.

6. Conference Sessions Update

Brent reported that a proposal has been submitted for a conference session related to railroad crossings for the August 2017 ITE Annual Meeting in Toronto. The proposed title is "Toward Vision Zero – Railroad Grade Crossings". The proposed presenters include Karen Hankinson on technical issues in the Recommend Practice on preemption, Kevin Balke on the new Texas preemption timing guidelines, Jay Rieger, Chief Engineer, Signals and Crossings, Transport Canada on the Canadian railroad grade crossing handbook, and Brent Ogden on the upcoming new railroad grade crossing handbook.

7. Texas Transportation Institute review of Texas Preemption Policies

Steve Venglar reported that the revised preemption timing worksheets and instructions for TxDOT are expected to be completed in February. He stated that the work is focused on TxDOT typical state practice, and no comparison was made to LADOT or other agency preemption worksheets. Brent stated that a comparison of worksheets from several agencies might be included in the new grade crossing handbook. Tom Lancaster stated that the draft Recommended





Practice on preemption includes references to the TxDOT and LADOT worksheets, but does not include a discussion of them.

8. NCHRP Project 20-15, Topic 47-15: Synthesis of Traffic Signal Preemption near Highway-Rail Grade Crossings

Tom Lancaster reported that a draft of this Synthesis has been completed and submitted, but because the new Recommended Practice for preemption has not been approved, a discussion of it will not be included in the Synthesis.

## V. OTHER BUSINESS

Brent stated that because ITE does not promote committee meetings during the ITE Annual Meeting, finding a meeting room for this Committee can be difficult. The consensus of a discussion was that it is probably not necessary to have a meeting and conference call during the Annual Meeting. Brent will consider having a conference call meeting after the meeting, possibly after Labor Day. Brent noted that there was good attendance at the unofficial railroad crossing field trip sponsored by RailPros during the Anaheim Annual Meeting. The field trip included observations of pre-signals and queue-cutter signals.

#### VI. UPCOMING MEETINGS

- ITE 2017 Annual Meeting and Exhibit, Sunday, July 30 Wednesday, August 2, 2017, Sheraton Centre, Toronto, Ontario, Canada
- Transportation Research Board Annual Meeting, Washington DC, Sunday, January 7 Thursday, January 11, 2018
- ITE 2018 Annual Meeting and Exhibit, Monday, August 20 Thursday, August 23, Hilton Minneapolis, Minneapolis, MN

#### VII. ADJOURN

The meeting was adjourned at 2:15 pm.





#### I. WELCOME

The meeting was called to order at 12:05 PM PST by Committee Chair Brent Ogden.

## II. INTRODUCTIONS

There were sixteen members and guests who participated:

- Brent Ogden
- Tom Lancaster
- Doug Noble
- Gene Russell
- Brian Gilleran
- Dee Chappel
- John Van Hoff
- Joseph Palsa
- Joaquin Siques
- JoNette Khunau
- Lisa Fontana
- Phil Poichuk
- Robert Seyfried
- Alexandre Nolet (for Russell Brownlee)
- Steve Venglar
- Douglas Bowron

#### III. ITE ANNOUNCEMENTS

Doug Noble and Lisa Fontana of ITE reported on several ITE-related items:

- The deadline for the submittal of abstracts for presentations at the ITE Annual Meeting in Toronto in August 2017 is December 9.
- An ITE Board of Directors meeting was held last weekend. Results of the meeting are not yet available.
- The development of a new highway/rail crossing handbook is currently underway. Kimley-Horn has been contracted by ITE for this work, which is being funded by FHWA and FRA. As discussed by Dee Chappell, it is anticipated that the hand-book will be a new publication rather than an update of the old handbook. It might be broken into volumes, and will be a guidance handbook, not a policy or standards manual. It will include a section on the basics of traffic signal preemption which will be oriented toward an overview of preemption rather than a technical discussion. The first task will be a literature review. There will be significant involvement by stakeholder organizations. A final draft version of the handbook is expected in about a year.





- ITE is in the process of developing a new edition of the TRIP GENERATION manual.
- A Vision Zero toolbox is being developed by Andy Kaplan.
- A traffic calming primer has been developed by ITE and has been submitted to FHWA.
- ITE is planning a series of webinars in cooperation with TRB for the new edition of the HIGHWAY CAPACITY MANUAL which has just been published.
- A letter was sent from ITE to FHWA expressing support for MUTCD Interim Approvals, and FHWA has stated that they will work with ITE on this issue. Interim Approvals have been issued for bicycle intersection traffic control devices.
- ITE is preparing a series of four webinars, starting in December, which will discuss the process and details of MUTCD Interim Approvals.
- ITE is working on guidance for self-enforcing rural roadways.

## IV. ITE COMMITTEE ITEMS

- 1. Prior Action Items Review
  - Railroad crossing sight distance in Canada: new grade crossing regulations were passed in Canada two years ago, and a new regulations document is now available. It is generally consistent with US standards. The sight distance regulations are based on the road design speed rather than operating speed or the speed limit, and include methodologies for adjusting sight distance requirements for roadway grades.
  - Links from the ITE Grade Crossing Web Page to the two documents above have been added.
  - The ITE Survey of Guidelines Used to Select Sidewalk Locations does not provide any content applicable to grade crossings.
  - Information about the Grade Crossing Committee panel discussion from the August 2015 ITE meeting in Hollywood, FL, has not been posted within the ITE Community Forum. (Postings on the Forum have not been effective in getting people to look at our web page.)





- 2. ITE Grade Crossing Web Page
  - Brent suggested that all links on our web page be checked to be sure that they are active. At least one is not.
  - Joaquin Siques suggested that news about railroad crossings or questions about railroad crossing safety issues should be posted on the Community Forum, with references to our web page. This would be more effective in getting increased views of our web page than simply making announcements. Any such items should be posted in both the all-member forum as well as the Traffic Engineering Council Community. Any comments related to safety can be tied to the Vision Zero movement.
- 3. MUTCD Items
  - As discussed under ITE Announcements, ITE has been working with FHWA to promote the use of Interim Approvals until a new edition of the MUTCD is published.
- 4. Update of Recommended Practice for the Preemption of Traffic Signals Near Grade Crossings
  - Tom Lancaster reported that a draft of the RP was submitted to ITE in early September 2016. Doug Noble reported that the necessary process documentation was being prepared prior to submittal of the draft to Task Force members for a formal vote. This is expected to occur in November 2016. Following that will be a peer review panel, then public comment. The goal is to have the new RP published in the first quarter of 2017
- 5. Second/Another Train Coming Task Force
  - Brent Ogden reported that the Task Force concluded that producing an understandable and effective message is a "human factors" issue. A presentation was made to the MUTCD Research Committee in January 2016, and FHWA indicated an interest in picking up and funding a research project. Brent will follow up on this.
  - Phil Poichuk reported that based on research in a 2006 Volpe report, Canada has approved a standard for a passive sign for second train coming.
- 6. Conference Sessions Update
  - There were some comments regarding the use of a focus session rather than a standard presentation listing for the session on grade crossings at the Anaheim meeting in August 2016. It is believed that listing focus sessions separately from the presentations in the meeting schedule resulted in a lower attendance at our focus session. Doug Noble explained that focus sessions were used when attendance was expected to be 20 to 40 people and a smaller room would be appropriate. He said that for the Toronto meeting, they would consider including the focus sessions with the listing of presentations.





- There was a discussion of possible topics for a grade crossing session at the July 2017 Toronto ITE meeting. It was suggested that in Canada, traffic signal preemption, grade separations, and the draft Transport Canada Grade Crossings Standards handbook are currently of great interest.
- Steve Venglar reported that the TTI traffic signal preemption worksheets prepared for TXDOT are being revised and will be completed within a few months.
- Gene Russell reported that NCHRP 288 included a methodology for determining when grade separations are warranted.
- The consensus was that sessions on traffic signal preemption (particularly the new Recommended Practice), the revised TTI preemption worksheet, the new Canadian grade crossing handbook, and the new US grade crossing handbook would be appropriate session topics. Warrants and considerations for grade separations could be an alternative topic. Brent will follow up on obtaining speakers and writing abstracts for these topics. NCHRP Project 20-15, Topic 47-15: Synthesis of Traffic Signal Preemption near Highway-Rail Grade Crossings
- Brent suggested that when our *Recommended Practice* is finalized, we should bring the document to the attention of the Project leaders.
- 7. Texas Transportation Institute Review of TXDOT Preemption Policies
  - As discussed in the previous section, Steve Venglar reported that the revised preemption timing worksheets will be completed within a few months. The worksheets are now focused on preemption timing for existing crossings rather than new crossings. The fundamentals of preemption timing will be consistent with the LADOT worksheets. Some of the trailing sections of the worksheets which apply to special situations will be removed because they are not often used. There will be a new section which addresses the issue of trucks turning left at an intersection toward a crossing where there is insufficient storage space between the intersection and the crossing.
- 8. NCHRP Project 20-15, Topic 47-15: Synthesis of Traffic Signal Preemption Near Highway-Rail Grade Crossings
  - Tom Lancaster will check on the timeline of this project and determine if the upcoming Recommended Practice can be included in the Synthesis as a reference.

## V. OTHER BUSINESS

• No other business was brought before the committee.





## VI. SUMMARY OF ACTION ITEMS

- Joaquin Siques will verify that all web links in our web page are active.
- Brent Ogden will pursue the possibility of FHWA sponsoring a research project for second train coming signs.
- Brent Ogden will find speakers and prepare abstracts for a grade crossing session at the 2017 Toronto meeting.
- Tom Lancaster will determine whether the upcoming *Recommended Practice* can be included in the NCHRP 20-15 Synthesis as a reference.

## VII. UPCOMING MEETINGS

- Transportation Research Board Annual Meeting, Washington DC Sunday, January 8 Thursday, January 12, 2017 (at Washington Convention Center)
- ITE 2017 Annual Meeting and Exhibit Sunday, July 30 – Wednesday, August 2, 2017, Sheraton Centre, Toronto, Ontario, Canada
- Transportation Research Board Annual Meeting, Washington DC Sunday, January 7 – Thursday, January 11, 2018
- ITE 2018 Annual Meeting and Exhibit Monday, August 20 – Thursday, August 23, Hilton Minneapolis, Minneapolis, MN

## VIII. ADJOURN

The meeting was adjourned at 1:18 PM.





# 2016 TRB Annual Meeting (Washington Convention Center – Washington, DC)

## I. WELCOME

The meeting was called to order at 3:20 PM EST by Committee Chair Brent Ogden.

#### II. INTRODUCTIONS

The meeting was held at the 2016 TRB Annual Meeting at the Washington Convention Center in Washington, DC. There were eleven members and guests present at the meeting and four joined by conference call:

#### Meeting at ITE Conference

- Brent Ogden
- Tom Lancaster
- Doug Noble
- Gene Russell
- Brian Gilleran
- Dee Chapell
- John Davis
- Jeff Warner
- JoNette Khunau
- Dan Soler
- Pam Fischhaber
- III. ITE ANNOUNCEMENTS

Doug Noble (ITE staff) provided the ITE report (synopsis pending).

## IV. ITE COMMITTEE ITEMS

- 1. Prior Action Items Review
  - Brent will contact Doug Bowron to check his progress on comparing the ITE Informational Report on Sight Triangle and Corner Clearance Policies at Intersections and Driveways to the new Canadian guidance for calculating sight distance at railroad crossings.
  - Brent will check to see if links from the *ITE Grade Crossing Web Page* to the two documents above have been added.
  - Doug Noble will confirm whether the ITE *Survey of Guidelines Used to Select Sidewalk Locations* provides any content applicable to grade crossings.

#### Conference Call

- Steve Venglar
- Steve Laffey
- Bob Seyfried
- Casey Murdie





- Brent will verify that material from the Grade Crossing Committee panel discussion from the August 2015 ITE meeting in Hollywood, FL, has been posted within the *ITE Community Forum*. He will also see if notice of LADOT's revised preemption signal timing spreadsheet can be posted on the *Forum*.
- 2. ITE Grade Crossing Web Page
  - There was a discussion about taking steps to promote the web page. A suggestion was made to promote interest by developing postings to the ITE Community on-line forum. It was suggested that Joaquin Siques, who is he committee webmaster" can follow up.
- 3. MUTCD Items
  - JoNette Khunau reported that the MUTCD RR/LRT Technical Subcommittee had two items approved by the National Committee for proposed inclusion in the next edition of the MUCTD. The first item involves a requirement that edge lines be extended through railroad crossings, and permits the edge line to be supplemented by raised pavement markers or tubular markers. The second involves the placement of Stop Lines at railroad crossings.
  - In the RR/LRT Subcommittee there was a discussion of possible reformatting of the FRA Railroad/Highway Grade Crossing Handbook, and the addition or deletion of some subject matter.
  - There was a discussion in the Subcommittee on the use of DO NOT BLOCK THE BOX pavement markings at grade crossings to discourage drivers from stopping on the tracks. No action was taken on this item.
  - Gene Russell reported that action may be taken soon on ADA guidelines for pedestrian crossings at two-lane roundabouts.
  - Brent will arrange for posting information regarding the two proposed additions to the MUTCD and the possible reformatting of the Grade Crossing Handbook on the ITE Grade Crossing web page.
- 4. Update of Recommended Practice for the Preemption of Traffic Signals Near Grade Crossings

Tom Lancaster reported that work is well underway on the RP update. A draft was circulated to the RP Committee in October, and the results of that review will be incorporated in a new draft that will be circulated later this month (January 2016). After any necessary revisions, the new draft will then be ready for peer review.

5. Second/Another Train Coming Task Force





Brent is leading an MUTCD task force on this topic. He reported that there appears to be a consensus at this point that passive signs are largely ineffective. An FHWA-sanctioned experiment in Riverside, CA, found little or no benefit from passive signs at that location. The task force will focus on the use of active signing. One possibility is of an active sign (with an audible message) that warns of a second train, and a second possibility is an active sign providing specific information regarding the location and direction of the second train. To facilitate experimentation, the task force might work initially with signs at LRT crossings. Brent asked that anyone with additional information regarding Second Train Coming signs or with an interest in joining the task force to please send an email to Brent.

6. Conference Sessions Update

Proposed session title for the ITE meeting in Anaheim in August 2016: State-of-the-art and High-Technology Applications to Grade Crossing Safety. The proposed presentations and the tentative authors are:

- Updated Electronic Grade Crossing Database and Reporting Requirements (Brian Gilleran, FRA)
- Status Report on Volpe Test of a ROW Trespass/Intrusion Detection and Warning System (Marco DaSilva, FRA)
- Use of Quiet Zone Calculator and Formulation of Quiet Zones (Juan Diaz, JMD Consulting)
- State-of-the-Art Queue Management Applications (Karen Hankinson, Railpros); potentially with associated field trip to view pre-signals and queue cutters in Orange County
- Current and Potential Future Applications of Serial Data Interface (John Sharkey or Rick Campbell, CTC)
- 7. Texas Transportation Institute review of Texas Preemption Policies

Steve Venglar reported that there has not been much progress yet on this review, but the work is underway. Steve will report on this activity again in August 2016.

8. NCHRP Project 20-15, Topic 47-15: Synthesis of Traffic Signal Preemption near Highway-Rail Grade Crossings

Brent suggested that when our *Recommended Practice* is finalized, we should bring the document to the attention of the Project leaders.

#### V. OTHER BUSINESS

No other business was brought before the committee.





## VI. SUMMARY OF ACTION ITEMS

- Brent Ogden will email Doug Bowron regarding the ITE sight distance report.
- Tom Lancaster continue work on the Preemption RP and report back in August 2016.
- Doug Noble will review ITE sidewalk survey.
- Brent Ogden and Karen Hankinson will finalize the August 2016 conference session and field trip.
- Brent Ogden will obtain information on the CA PUC crossing inventory update and send it to Brian Gilleran.

## VII. UPCOMING MEETINGS

- ITE 2016 Annual Meeting and Exhibit Sunday, August 14 – Wednesday, August 17, 2016, Anaheim Marriott, Anaheim, CA
- Transportation Research Board Annual Meeting, Washington DC Sunday, January 8 Thursday, January 12, 2017 (at Washington Convention Center)
- ITE 2017 Annual Meeting and Exhibit Sunday, July 30 – Wednesday, August 2, 2017, Sheraton Centre, Toronto, Ontario, Canada
- Transportation Research Board Annual Meeting, Washington DC Sunday, January 7 Thursday, January 11, 2018
- VIII. ADJOURN

The meeting was adjourned at 4:34 PM.





## 2015 ITE Annual Meeting (Westin Diplomat – Hollywood, FL)

### I. WELCOME

The meeting was called to order at 11:05 AM (EDT) by ITE Committee Chair Brent Ogden.

II. INTRODUCTIONS

The meeting was held at the 2015 ITE Annual Meeting at the Westin Diplomat Hotel in Hollywood, Florida. There were six members and guests present at the meeting and seven joined by conference call:

#### Meeting at ITE Conference

- Brent Ogden
- Tom Lancaster
- Doug Bowron
- Gene Russell
- Dee Chapell
- Graduate Student

### Conference Call

- Steve Venglar
- Brian Gilleran
- Karen Hankinson
- Steve Laffey
- Dee Chappell
- Phil Poichuk
- Joaquin Siques

#### III. ITE ANNOUNCEMENTS

Doug Noble (ITE staff) provided the ITE report:

- A proposed Recommended Practice for traffic signal clearance intervals (*Guidelines for Determining Traffic Signal Change and Clearance Intervals*) has been issued, and last Friday (July 31) was the last day for comments. There were comments from 27 individuals and agencies comprising over 100 pages. In particular, clearance intervals for left turns had many comments. ITE will move forward with this RP, and the technical committee will attempt to resolve the comments. Traffic signal preemption timing was not covered in this proposed RP. There will be a session at this Annual Meeting on clearance intervals.
- An Informational Report on *Sight Triangle and Corner Clearance Policies at Intersections and Driveways* has been published. Brent Ogden suggested that it might be applicable to railroad and LRT grade crossings. Doug Bowron stated that Canada has a new document for calculating sight distances at railroad crossings. Doug will compare the Canadian document to the ITE document and report back to this Committee. Brent suggested that a link be added to our railroad crossing web page for both the ITE publication and the Canadian document.
- ITE has published a *Survey of Guidelines Used to Select Sidewalk Locations*. Brent Ogden asked if it included railroad crossings. Doug Noble said that he would check.





- Integration of Safety in the Project Development Process and Beyond: A Context Sensitive Approach has been published by ITE.
- Publication of *Recommended Design Guidelines to Accommodate Pedestrians and Bicycles at Interchanges* is now on hold due to comments from ITE Board of Direction members.
- ITE is writing a request for proposals for integrating all of the current ITE context-sensitive reports.
- This Committee is now classified as a Standing Committee.
- ITE has re-arranged its website. There is now a library look-up feature that includes reports that have been presented at ITE meetings as well as ITE publications.
- ITE has a task force for reviewing appropriate traffic lane widths for various situations.
- The new executive director of ITE, Jeff Paniati, will begin work at ITE in mid-October.
- A replacement for Peter Frentz, retired ITE Deputy Executive Director, has been hired.

#### IV. ITE COMMITTEE ITEMS

1. ITE Grade Crossing Web Page

Brent reported that the links are working on our railroad grade crossing website, which is part of the ITE site. Presentations from previous ITE meetings have been posted except for Seattle, but the Seattle presentations are expected to be posted soon. It was suggested that Joaquin post some of the material at appropriate locations within the ITE Community Forum.

2. MUTCD Items

It was reported that the latest advice is that the Notice of Proposed Amendment for update of the MUTCD is "tentative" for June, 2018.

It was noted that links from the ITE Grade Crossing Web page to the proposed revisions to the MUTCD chapters on traffic signal preemption are working.

3. Update of Recommended Practice for the Preemption of Traffic Signals Near Grade Crossings

Tom Lancaster reported that work on the revision of the RP is continuing, and is now awaiting completion of work tasks by some of the committee members. It is hoped that the revised RP will be ready for review and approval of task force members by mid-fall.





4. Second Train Coming Task Force

Brent is leading an MUTCD task force on this topic. He has put together a database, and is considering placing the topic on an ITE Community Forum to obtain additional information.

- 5. Conference Sessions Update
  - Brent Ogden reported that there will be a session this afternoon (August 3) at the current ITE Annual Meeting on busways. The presentations will include MUTCD Busway Provisions by Tom Lancaster, Los Angeles Orange Line Busway by Edward Yu, Miami – South Dade Busway by Isabel Pardon, and Cleveland Health Line BRT by Ken Sislak.
  - Doug Noble suggested that a focus could be placed on ITE District Meetings for presentations of local issues.
  - A comment was made that light rail transit systems are not required to include their crossings in the FRA database, but are encouraged to do so.
  - Possible future presentation topics could include an emphasis on technological issues or enforcement techniques. Potential presentations could discuss the interaction of railroad crossings with positive train control and automated vehicles, and the use of Google maps to highlight railroad crossings.
  - Brian Gilleran stated that he would be willing to assist in finding resources for technical presentations, particularly those related to databases.
  - By mid-October, ITE wants to have content ideas for the 2016 Anaheim meeting. It was mentioned that there are several crossing-related sites in the vicinity of Anaheim that might be suitable for a field trip. Karen Hankinson suggested a visit to queue detector installations in Orange County. Doug Noble stated that if we want to have a tour as part of the meeting, it should be arranged at an early date in order to encourage maximum participation. It was mentioned that Monica Suter might be of assistance in organizing a tour and finding sites of interest.
  - Doug Noble suggested that presentations on Recommended Practices could be made at District meetings during the public comment period.

## V. OTHER BUSINESS

- Steve Venglar reported that TXDOT has asked TTI to review the Texas preemption policies, which are now more than ten years old.
- There will be a national grade crossing workshop presented by TTI in Arlington, Texas, November 1 – 4, 2015.





- Phil Poichuk suggested that committee members should review the proposal for the Synthesis of Traffic Signal Preemption near Highway-Rail Grade Crossings (NCHRP 20-05, Topic 47-15). This \$45,000 project is scheduled to begin in fiscal year 2015, and the TRB contact is Donna Vlasak. The topic panel includes:
  - o Paul Zebell, City of Portland
  - o Joanna L. Bush, Wisconsin DOT
  - Dennis Eyler, SRF Consulting
  - o Raj V. Ponnaluri, Florida DOT
  - Aleksandar Stevanovic, Florida Atlantic University-Civil, Environmental & Geologic Engineering
  - o Adam Lough, Utah DOT
  - Brian Vercruysse, Illinois Commerce Commission
  - Eddie Curtis, Federal Highway Administration
  - o James Dahlem, Federal Highway Administration
  - o Tarek Omar, Federal Railroad Administration, US DOT
  - o Richard A. Cunard, Transportation Research Board

#### VI. UPCOMING MEETINGS

- 1. Transportation Research Board Annual Meeting, Washington DC Sunday, January 10 – Thursday, January 14, 2016 (at Washington Convention Center)
- ITE 2016 Annual Meeting and Exhibit, Anaheim, CA Sunday, August 14 – Wednesday, August 17, 2016 (at Anaheim Marriott Hotel)
- 3. Transportation Research Board Annual Meeting, Washington DC Sunday, January 8 – Thursday, January 12, 2017 (at Washington Convention Center)
- 4. ITE 2017 Annual Meeting and Exhibit, Toronto, Ontario, Canada Sunday, July 30 Wednesday, August 2, 2017 (at Sheraton Centre)

#### VII. ADJOURN

The meeting was adjourned at 12:27 PM.





## 2015 TRB Annual Meeting (Washington, DC)

### I. WELCOME

The meeting was called to order at 10:30 AM (EST) by ITE Committee Chair Brent Ogden.

### II. INTRODUCTIONS

The meeting was held at ITE Headquarters, 1627 I Street NW, Washington, DC. There were five members and guests present at the meeting and three joined by conference call.

#### Meeting at ITE

- Brent Ogden
- Tom Lancaster
- Courtney Day
- Brian Gilleran
- Dee Chapell

#### Conference Call

- Steve Venglar
- Lisa Fontanta-Tierney
- John Van Hoff

## III. ITE ANNOUNCEMENTS

Courtney Day (ITE staff) and Brent Ogden provided information on several items:

- Tom Brahms will retire in December 2015 as Executive Director of ITE. Work is now underway by ITE to develop a search process for a replacement.
- A new Recommended Practice for traffic signal change intervals will be completed and made available for comments in late January or early February 2015.
- A new Informational Report on Sight Triangle and Corner Clearance Policies at Intersections and Driveways was published in August 2014. Lisa Fontana Tierney will send a copy to Brent and he will see if there is any application of this report to railroad or LRT crossings.
- The comment period for a new Recommended Practice on bicycle facilities has ended, and publication is expected in a couple of months.
- The Traffic Engineering Handbook is in final editing, and publication is expected in about three months.
- ITE is continuing the ITS standards development program under a cooperative agreement with the US DOT.
- A workshop on urban street design was presented by ITE in cooperation with NACTO in November 2014 in Washington DC.





- The Recommended Practice on Designing Walkable Urban Thoroughfares: A Context Sensitive Approach was published in 2010, and can be viewed and downloaded from the ITE website. A report on the safety aspects of CSS will be published in May.
- The administration of the Technical Councils by ITE has changed. A revised organizational chart was distributed by Courtney. ITE members may join as many Councils as they wish. Councils can be joined by clicking on buttons on the ITE Community.
- The ITE website will be reorganized to resemble a series of brochures. The new format will allow ITE members to post documents and blogs to the ITE library.

### IV. ITE COMMITTEE ITEMS

1. ITE Grade Crossing Web Page

There was a discussion of the procedural issues involved in having our web page be a part of the ITE Community while still being accessible to non-ITE members. Courtney stated that references and blogs can be posted in the Community. To maintain access to our web page by nonmembers, it might be necessary to keep it separate from the Community while including pointers in the Community to our web page.

Some of the links on our web page might be out of date. Brent will work with Joaquin Siques to assure that the links are working and to add pointers to our web page from the Community.

Brent suggested that material from the NCUTCD web page for the Railroad and LRT Technical Committee could be added to our web page. Brent also mentioned that there have been no comments left on our web page from any viewers.

2. MUTCD Items

Brent reported that the FHWA hopes to publish the Notice of Proposed Amendment for the new MUTCD in May 2015, but there is a question as to whether or not the NPA will result in a significant economic impact. If the answer is affirmative, then the NPA will probably be delayed by about six months.

Brent also reported that at the January 2015 meeting, the Railroad and LRT Technical Committed approved revised material for the MUTCD section on four-quadrant gates. The emphasis of the section will be changed from four-quadrant gates to exit gates. Although it is too late so submit this material through the formal process for the new MUTCD edition, it is hoped that the FHWA will consider it as a comment on the NPA.

3. Grade Crossing Handbook

Brent stated that it would be desirable to update the Traffic Control Devices Handbook after publication of the new MUTCD and the revised Recommended Practice. If it is not updated, it might be desirable for this Committee to update Chapter 11 and distribute it independently.





4. Update of Recommended Practice for the Preemption of Traffic Signals Near Grade Crossings

Tom Lancaster reported that it is planned to reorganize the order of the material in the current RP. Work is underway on the reorganization as well as the addition of new and revised material. It is hoped that a draft will be available by June 2015.

5. Conference Sessions Update

Our presentation session at the ITE meeting in Hollywood, Florida, will focus on bus rapid transit crossings. Brent reported that there are commitments from people to speak on the Eugene BRT, the Los Angeles Orange Line, the Miami BRT, the Cleveland BRT, and the similarities of traffic control devices for LRT and BRT.

Brent discussed the possibility of a field trip to the Miami BRT as part of the ITE meeting, possibly based from the AECOM office in Coral Gables.

## V. OTHER BUSINESS

- Brian Gilleran reported that APTA is re-starting activity on setting standards for BRT grade crossings. Charles Joseph will be leading the effort. Brian will be the FRA liaison to the APTA committee.
- There was a discussion of the need for guidelines for the use of grade separations for LRT and railroad crossings, particularly with regard to high-speed rail.
- There was a discussion of the best turn-prohibition blank-out signs to use at railroad and LRT grade crossings. Brent mentioned that there is a TCRP report that investigated this issue. It could be the subject of an ITE informational report.
- The FRA grade crossing inventory program update is expected to be finalized by March 2015. It will require more coordination between railroads and highway agencies. Transit agencies will be encouraged to participate in the inventory. In response to a question Brian stated that the only way for a citizen to report an incorrect crossing inventory item is to work through either the railroad or the highway agency or the FRA.

#### VI. UPCOMING MEETINGS

The next Committee meeting will be held in conjunction with the ITE Annual Meeting in Hollywood, Florida August 2 - 5, 2015. The following meeting will be scheduled in Washington, DC during the Transportation Research Board Annual Meeting, January 10 - 14, 2016.

### VII. ADJOURN

The meeting was adjourned at 11:34 AM.





# 2014 ITE Annual Meeting (Seattle, WA)

### I. WELCOME

The meeting was called to order at 3:30 PM (PDT) by ITE Committee Chair Brent Ogden.

#### II. INTRODUCTIONS

The meeting was held at AECOM, 710 Second Avenue, 10<sup>th</sup> Floor, Seattle WA. There were three members and guests present at the meeting and two additional persons who participated by phone.

#### Meeting at AECOM

- Brent Ogden
- Tom Lancaster
- Karen Hankinson

## III. ITE ANNOUNCEMENTS

Lisa Fontana-Tierney provided the ITE report, key points as follows:

- John Kennedy was elected as the new ITE president.
- A contract has been awarded to a consultant to update the *Traffic Engineering Handbook,* and work will begin soon.
- A report on the treatment of bicycles and pedestrians at interchanges will be published by the end of the year.
- An ITE traffic engineering primer, consisting of 14 modules, will be finalized by the end of this year. It is a joint product of ITE and FHWA, and will be available free on the ITE website.
- The Traffic Control Devices Handbook was published in February 2013.
- The FHWA announced a decision that the *MUTCD* will not be split into two or more separate volumes due to comments that were largely in opposition.
- The *ITE Recommended Practice on Traffic Signal Clearance Intervals* will go out to ballot this Fall; with possible publishing by the end of the year.
- Work on a sustainability handbook is still in progress.

#### **Conference Call**

- Steve Venglar
- Brian Gilleran





- An ITE Informational Report on Speed Management is available on the ITE website.
- IV. ITE COMMITTEE ITEMS
  - 1. ITE Grade Crossing Web Page

Brent reported that our railroad grade crossing website, which is part of the ITE site, is up to date.

Brent Ogden stated that the *Technical Working Group* (TWG) report on traffic control devices at railroad crossings that was produced as a result of the 1995 train-bus collision in Fox River Grove is largely out of date. Most of the material in the report has either been incorporated into other documents or has been superseded, and probably is no longer needed.

To ensure that the available information on railroad crossings is current, the relevant documents must be kept up to date. There will soon be a new MUTCD and a new Recommended Practice. This will create a need for a new Traffic Control Devices Handbook, and a revised Grade Crossing Handbook.

Brent suggested that our committee could update Chapter 11 of the Traffic Control Devices Handbook and distribute it independently if funds are not available for a revision of the entire Handbook.

2. MUTCD Items

Brent Ogden reported that an extensive revision and expansion of the MUTCD Part 8 section on preemption of traffic signals at railroad crossings was passed by the NCUTCD at the June 2014 meeting. The revision was a cooperative effort of the Signals and Railroad/LRT MUTCD Technical Committees. The revision will now be forwarded to FHWA for its approval for inclusion in the next edition of the MUTCD.

A new section of Part 8 regarding traffic control devices for busways was also approved by the NCUTCD at the June 2014 meeting, and will be forwarded to FHWA.

There was a discussion regarding the advisability of including the new NCUTCD preemption material in our railroad crossing website. It would be important to note that the material is subject to review and approval by FHWA, and could be changed substantially before it appears in the next MUTCD. Also, it is not certain whether this material is considered to be in the public domain and would be appropriate to publish on our website.

Brent Ogden agreed to discuss with Bruce Friedman of FHWA the issue of whether we should publish proposed preemption material on our website, and to also obtain the tentative publishing schedule for the next MUTCD. Tom Lancaster agreed to obtain a copy of the proposed preemption material.





3. Update of Recommended Practice for the Preemption of Traffic Signals Near Grade Crossings

Tom Lancaster reported that work on the revision of the RP will now resume based on the passage of the new preemption material approved by the NCUTCD. Even though the material could be changed by the FHWA before incorporation in the next MUTCD, approval of the material by the NCUTCD does provide an indication that it represents what is considered to be appropriate practice.

4. Conference Sessions Update

Brent Ogden reported that on Wednesday morning at the current ITE Annual Meeting there will be a session on railroad preemption. Presentations will be made by Karen Hankinson, Peter Koonce, and Joaquin Siques. A fourth paper was to be presented by Jim Hanks, but Jim had to return home for personal business. Brent said that he would make Jim's presentation.

There was a discussion of hosting a session at the August 2015 ITE Annual Meeting. Suggestions included presentations on the following items:

- The proposed new material on railroad preemption
- The proposed new material on busways, along with examples of traffic control devices at existing busways
- High-speed rail projects, possible focusing on the Illinois project and on the use of Intelligent Transportation Systems and Positive Train Control applications to high-speed rail crossings
- New rule-making for revisions to the railroad crossing inventory and incident reporting process, and how that could assist safety analyses at railroad crossings

#### V. OTHER BUSINESS

It was noted that long-time member Phil Poichuk of Transport Canada has retired. There was no other business before the Committee.

### VI. UPCOMING MEETINGS

The next Committee meeting will be held in conjunction with the Transportation Research Board Annual Meeting in January 2015 in Washington DC. The next ITE Annual Meeting will be in Hollywood, Florida, August 2 - 5, 2015.

#### VII. ADJOURN

The meeting was adjourned at 4:48 PM by Chair Brent Ogden.





## ITE GRADE CROSSING COMMITTEE 102-02 Meeting Agenda Tuesday January 14, 2014 / 10:30 AM – 12:00 PM ITE Headquarters – 1627 I Street NW – Washington, DC – Conference Room Dial In 866-203-6896 – Conference Code 8734-911#

- I. WELCOME
- II. INTRODUCTIONS
- III. ITE ANNOUNCEMENTS
- IV. ITE COMMITTEE ITEMS
  - 1. ITE Grade Crossing Web Page
  - 2. MUTCD Items
  - 3. Update of Recommended Practice for the Preemption of Traffic Signals Near Grade Crossings
  - 4. Grade Crossing Handbook
  - 5. Conference Sessions Update
- V. Other Business

### VI. UPCOMING MEETINGS

- ITE 2014 Technical Conference and Exhibit , Miami FL March 9 – 12, 2014 (no committee meeting planned)
- NCUTCD Summer Meeting, Minneapolis MN June 25 – 28, 2014 (extended one day due to 2016 MUTCD)
- ITE 2014 Annual Meeting and Exhibit, Seattle WA August 10 – 13, 2014 (committee meeting and possible panel & training session)
- Transportation Research Board Annual Meeting, Washington DC January 11 – 15, 2015 (TRB will be at Convention Center near ITE)

### VII. ADJOURN

Take Metro to Farragut North station; walk south along Connecticut Avenue to Farragut Square; walk through park on diagonal from K Street to 16<sup>th</sup> Street & I Street; head east along I Street ¼ block to ITE





# 2013 ITE Annual Meeting

### I. WELCOME

The meeting was called to order at 3:35 PM by ITE Committee Chair Brent Ogden.

II. INTRODUCTIONS

The meeting was held at the AECOM office, 66 Long Wharf, Boston, MA across town from the convention center. There were nine members present at the meeting and six additional persons who participated by phone.

### Meeting at AECOM

- Brent Ogden
- Tom Lancaster
- Karen Hankinson
- Bob Seyfried
- John Van Hoff
- Brian Gilleran
- Gene Russell
- Rick Campbell
- Mike Lzbicki

# III. ITE ANNOUNCEMENTS

Lisa Fontana-Tierney provided the ITE Report:

- John Kennedy was elected as the new ITE president.
- A contract has been awarded to a consultant to update the Traffic Engineering Handbook, and work will begin soon.
- A report on the treatment of bicycles and pedestrians at interchanges will be published by the end of the year.
- An ITE traffic engineering primer, consisting of 14 modules, will be finalized by the end of this year. It is a joint product of ITE and FHWA, and will be available free on the ITE website.
- The Traffic Control Devices Handbook was published in February 2013.
- The FHWA announced a decision that the MUTCD will not be split into two or more separate volumes due to comments that were largely in opposition.
- The ITE Recommended Practice on traffic signal clearance intervals will go out to ballot this fall, with possible publishing by the end of the year.
- Work on a sustainability handbook is still in progress.
- An Informational Report on speed management is available on the ITE website.

# Conference Call

- Alan Danaher
- Lisa Fontana-Tierney (ITE staff)
- Steve Venglar
- Steve Lafferty
- Phil Poichuk
- John Sharkey





## IV. ITE COMMITTEE ITEMS

- 1. ITE Grade Crossing Web Page
  - The web page has been updated to include minutes from prior meetings as well as the presentations from panel discussions.
  - The prior version of the Recommended Practice Preemption of Traffic Signals Near Crossings has been posted as a downloadable PDF.
  - The grade crossing web site is available from several locations within the ITE web site:
    - (1) Technical Information/Transportation Safety (under Grade Crossings topic)
    - (2) Technical Information/MUTCD (under "Resources")
    - (3) ITE Councils (under Traffic Engineering on right side banner)

#### 2. MUTCD Items

Rick Campbell discussed several proposed MUTCD revisions. A proposed extensive rewrite and expansion of the railroad preemption section of Part 8, which has been underway since 2008, has been sent out to NCUTCD sponsors for comments. The sponsor comments will be discussed at the January 2014 NCUTCD meeting and revisions made as appropriate. The revision will then be sent out again to sponsors for additional comments. It is hoped that the revision will be approved at the June 2014 NCUTCD meeting and sent to FHWA so that it can be included in the next MUTCD which is planned for 2016. Rick stated that as many sponsor comments as possible are desired.

Alan Danaher commented that the Transit Council wishes to comment on the revision. Lisa Fontana-Tierney replied that the current draft is for internal use of the NCUTCD and that the normal time for comment by the public would be after preliminary notice is published in the Federal Register by the FHWA, but that the Transit Council could include its comments as part of ITE's comments. Brent mentioned that the proposed revision is highly technical. Lisa will send a comment form to Brent for distribution to interested persons. Lisa noted that the deadline for the submission of comments to ITE is September 6.

Bob Seyfried stated that the formatting of the proposed revision seemed to indicate that very little of the preemption section would change. Rick replied that nearly all of the section would change, and that the revisions should be compared directly with the existing MUTCD to determine the extent of the changes.

Rick reported that extensive revisions to the section of Part 8 regarding pedestrian crossings have been approved by the NCUTCD and forwarded to the FHWA. It includes substantial revisions involving sidewalks, ADA requirements, and traffic control devices.

Work on the addition of a new chapter to Part 8 regarding traffic control for busway crossings is underway.





3. Update of Recommended Practice for the Preemption of Traffic Signals Near Grade Crossings

Tom Lancaster reported that the revision of the RP is in hiatus until late January 2014. At that time, based on comments received by NCUTCD sponsors, we will have some direction regarding the proposed MUTCD revisions. The RP can then be updated accordingly. Items that are not likely to be included in the MUTCD because they are too detailed can be included in the RP.

4. Conference Sessions Update

Brent reported that on Tuesday morning at the current ITE Annual Meeting there will be a fourhour training session presented by Rick Campbell on traffic signal preemption at railroad crossings. There are 24 people who have said that they will attend. The Committee's sponsored session on pedestrian issues will be Wednesday morning at 10:15. It will be hosted by Brent and will include presentations by Brian Gilleran on the FRA perspective, Tim Huya on MUTCD guidelines, John Van Hoff on Utah standards, and Tom Lancaster on LRT crossings.

There was a discussion of possible presentations for the 2014 ITE Annual Meeting. Rick suggested a panel discussion of upcoming revisions to the MUTCD regarding traffic signal preemption and busway crossings.

## V. OTHER BUSINESS

There was a discussion of a possible webinar on traffic signal preemption by ITE, and of possible FHWA support for preemption training workshops. These issues can be pursued when more information is available.

## VI. UPCOMING MEETINGS

- 1. January 12-16 2014, Transportation Research Board Annual Meeting, Washington, DC
- 2. March 9-12 2014, ITE Technical Conference, Miami, FL (no session proposed)
- 3. August 10-13 2014, ITE Annual Conference, Seattle, WA (grade crossing session proposed)

#### VII. ADJOURN

The meeting was adjourned at 4:36 PM.





# Meeting during 2013 TRB Annual Meeting

### I. WELCOME

The meeting was called to order at 8:06 AM by ITE Committee Chair Brent Ogden.

II. INTRODUCTIONS

The meeting was held at ITE Headquarters on I "Eye" Street in Washington DC. Most of the participants used the conference line. There were 16 participants on the call:

**Conference Call Participants** Brent Ogden Natalia Vlasov (ITE staff) Lisa Fontana Tierney (ITE staff) Tom Lancaster (Secretary) **Bob Seyfried** Phil Poichuk Andy Davis Dee Chappell John Van Hoff Brian Gilleran Steve Venglar Ray Lewis Gene Russell Joe Palsa Kurt Anderson

It was noted that the designated time slot was too early for persons to participate from the western US, in the future, meetings will be scheduled during normal business hours across the country to the extent practicable (e.g., between 8 am - 2 pm Pacific / 11 am - 5 pm Eastern).

Lisa Fontana Tierney discussed some of the difficulties involved in setting a meeting time at ITE Headquarters for our committee. She said Monday of TRB week is typically not available, but Sunday, Tuesday, and Wednesday usually are.

#### III. ITE ANNOUNCEMENTS

Lisa Fontana-Tierney provided the ITE Report:

• Implementation of SHRP is now well underway. The program extends from 2005 to 2015, and focuses on safety, capacity, reliability, and renewal. It also includes freight modeling. Additional information is available on the SHRP website:

http://www.trb.org/StrategicHighwayResearchProgram2SHRP2/Blank2.aspx





After 2015 when funding ends, SHRP will probably migrate to FHWA.

- ITE is in the process of updating a strategic plan for the organization.
- The Traffic Engineering Council is working on a study to determine the optimum width for traffic lanes.
- Six new roundtable sessions have been added to the Technical Conference pro-gram at San Diego in March due to their popularity with members. There will be three at a time (with possibly also a regular presentation session). Each roundtable will include a facilitator and a note taker, and will be open to all attendees.
- Legislative update: Proposed restrictions on travel for federal employees were not passed by Congress, but Congress did pass a program for reimbursement of up to \$240 per month for parking and commuting for federal employees.
- ITE and FHWA have been working with the Access Board on issues involving pedestrians in roundabouts.
- Phil Poichuk stated that meeting costs are important in obtaining government approval to attend ITE conferences. He suggested that committee members should get a discount on meeting fees.
- Proposed Recommended Practice on the accommodation of pedestrians and bicycles at interchanges has been completed and will soon enter the review and comment period. Brent suggested that the proposed version should be in electronic format rather than a hard copy. Lisa said that most of them are, and this one probably will be.
- An informational report is being prepared on separated bikeways, which has proven to be somewhat controversial.
- A Recommended Practice on clearance intervals is being prepared. It was prepared once before, but it did not survive the review and comment process.
- A school planning and design information report is underway.
- A speed management report was published last year, and is on the FHWA and ITE web sites.
- A Recommended Practice on urban roadway systems has been through the approval process and will be published soon.
- A report on sustainability is being prepared.
- The 2009 Traffic Engineering Handbook will be updated again. ITE will hire one person as a project manager. After completion of the draft there will be a review and comment period.





- An ITS primer is being prepared under contract with the US DOT. It will be a series of 14 modules for use in classrooms and by professionals. It is intended to provide an interactive experience. The draft is due in February and there have been many reviewers. There has been a lot of interest in this project.
- IV. ITE COMMITTEE ITEMS
  - 1. ITE Grade Crossing Web Page

The grade crossing web site is now available from several locations within the ITE web site: The website can be accessed from the ITE website through Technical Information/Transportation Safety or Technical Information/MUTCD.

Some presentations from 2011 and 2012 are now on the web site. Brent will submit some additional presentations for inclusion in the site. He is not sure if videos embedded in the presentations can be included.

It was stated that it will be important to maintain the site and keep it current.

Brent suggested that a link to the *Recommended Practice for the Preemption of Traffic Signals Near Railroad Crossings* be included in the site. There is apparently an existing link to purchasing the document. Lisa said she will check to see if it is possible to offer the RP as a downloadable PDF document.

2. Status of Traffic Control Devices Handbook

The new Traffic Control Devices Handbook has been completed and will be published in February. Bob Seyfried stated that it will include new chapters on changeable message signs and traffic control devices on private property. The price is not yet available.

3. MUTCD Items

Brent reported on the NCUTCD meeting that was held the previous week in Crystal City, Arlington.

The FHWA has requested comments on a proposal to split the MUTCD into two sections. Some people believe that the MUTCD is getting to be too big, and updating the document is too cumbersome because every change must go through the formal rule-making process. Alternative A is to keep all the Standards in one document, and move everything else into a companion document. Alternative B is to keep the Standards and the important Guidance and Option items in one document, and move everything else into a second document. In both cases, the second document would not be subject to rulemaking.

Gene Hawkins prepared a response to the proposal for the NCUTCD stating that the proposals are premature at this time because the strategic plan process for the MUTCD is not yet





completed. The response also raised the question as to who would maintain the companion document, and whether it would be recognized by FHWA.

Lisa stated that the FHWA proposal has been posted on the ITE web site, and encouraged ITE members to comment on it. She said that March 12 is the deadline for comments.

Tom Lancaster stated that two sections of the MUTCD relating to active control devices at LRT grade crossings have been simplified and combined into one section, and the proposal has been approved by the NCUTCD and sent to the FHWA for approval.

Brent stated that the joint work project by the Railroad and Signals committees on traffic signal preemption continues on development of a proposal for substantial additions to the MUTCD section on preemption at railroad crossings.

Work also continues on revisions to the MUTCD for traffic control at pedestrian crossings.

4. Update of Recommended Practice for the Preemption of Traffic Signals Near Grade Crossings

Tom Lancaster reported that last section of updated material is expected to be received in February. When this material is received, the full draft will be sent out to all task force members for review and comment. When there is a consensus on the draft, the formal ITE approval process for the Recommended Practice will begin.

Lisa stated that the approval process for an RP is as follows:

- a. Committee reaches consensus on draft revision to RP.
- b. Committee has formal vote on draft.
- c. ITE submits draft to Review Panel
- d. Review Panel reviews and votes on draft.
- e. If approved by Review Panel, ITE publishes proposed revised RP and solicits comments.
- f. Committee revises RP based on comments.
- g. Committee votes on revised RP.
- h. If approved by Committee, Review Panel again votes on RP.
- i. ITE reviews approved RP draft, publishes proposed RP for review and comment.
- j. ITE Board of Direction votes on adoption.

Brent suggested that having the proposed RP available for review and use by practitioners during the review process could help in the discovery of any items or procedures in the RP that might not be accurate or practical.

5. Conference Sessions Update

Brent stated that the proposed training session on signal preemption had been planned for the March 2013 meeting in San Diego, and the session on traffic control for non-motorized users at grade crossings was planned for the August 2012 annual meeting in Boston. ITE has now





tentatively scheduled the training session for August, and there is no railroad session scheduled for San Diego.

Rick Campbell has agreed to lead the training session, but he has requested that it be described as an overview of issues rather than training so that people who attend the session do not expect that they will be proficient in preemption. Phil Poichuk stated that describing a program session as "training" assists in obtaining approval for attendance.

It was stated that having a preemption session in August was a good idea because it could help attendance, and it will be important to get this information out to ITE members. Brent said he would work on promotion of the session. Brent also suggested that having a longer session on the Sunday prior to the meeting, and charging a fee, would also be an option. Brian Gilleran agreed that charging a fee would be acceptable. He also said that the sooner the meeting program is set, the easier it is for Federal employees to get approval to attend.

### V. OTHER BUSINESS

There was no other business before the committee.

#### VI. UPCOMING MEETINGS

- 1. March 5, 2013, 10:30 AM 12 PM, ITE 2013 Technical Conference and Exhibit, San Diego.
- 2. August 6, 2013, 11 AM 12:30 PM, ITE 2013 Annual Meeting and Exhibit, Boston.
- January 13, 2014, 11 AM 12:30 PM, Transportation Research Board Annual Meeting, Washington DC. (This date is subject to change due to limitations on the use of the conference room at the ITE Headquarters).

#### VII. ADJOURN

The meeting was adjourned at 9:35 AM.





# Conference Call following 2012 ITE Annual Meeting

### I. WELCOME

The meeting was called to order at 10:30 AM by ITE Committee Chair Brent Ogden.

#### II. INTRODUCTIONS

There were 16 participants on the call:

**Conference Call Participants** Brent Ogden Tom Lancaster Joaquin Siques Karen Hankinson Bob Sevfried Lisa Fontana Tierney (ITE staff) Phil Poichuk Andy Davis Dee Chappell John Van Hoff Brian Gilleran John Sharkey Steve Venglar **Ray Lewis** Gene Russell Joe Glinsky

### III. ITE ANNOUNCEMENTS

Lisa Fontana Tierney reported that the attendance at the accessibility session at the Atlanta Annual Meeting was well attended, with about 75 people present

#### IV. ITE COMMITTEE ITEMS

1. ITE Grade Crossing Web Page

The grade crossing web page is now in a staging format at

HTTP://staging.ITE.org:800/gradecrossing/

It is expected that the page will go live very soon.





There are several possible locations for the grade crossing at the ITE website; e.g., *Councils/Technical Councils/Traffic Engineering, Technical Information/MUTCD/Resources,* or both. Brent suggested adding a link from the grade crossing web page to the *Recommended Practice for the Preemption of Traffic Signals Near Railroad Crossings.* 

Brent also suggested that a link be established between the grade crossing web page and the ITE Community. Between now and January, Brent and Joaquin Siques will attempt to establish this link and will use it to invite ITE Community members to the grade crossing web page.

Joaquin suggested that presentations related to grade crossings from previous ITE meetings be posted on the grade crossing website. Lisa stated that live video and large files were precluded from our previous temporary web page, but they can now be hosted by ITE. It was suggested that the title *Previous Meeting Minutes* on the grade crossing home page be expanded to read *Previous Meeting Minutes and Presentations*.

### 2. Status of Traffic Control Devices Handbook

Bob Seyfried reported that the draft of the new edition of the handbook is now in the hands of the ITE staff and is being prepared for publication. The target date is the end of this year. The handbook will be printed in black and white to reduce costs.

#### 3. MUTCD Items

Tom Lancaster reported that a substantial amount of new material related to traffic signal preemption is likely to be added to the next edition of the MUTCD. The *Railroad / LRT Technical Subcommittee* and the *Traffic Signal Technical Subcommittee* are working together on development of the new material.

Phil Poichuk reported that in Canada there will be a proposal for the addition of the equivalent of the US MUTCD *Traffic Signal Warrant 9* (Intersection Near a Grade Crossing) to the Canadian MUTCD.

John Sharkey discussed an issue relating to the clearance distance from the track to the traffic control device. The dimension should be to the center of the traffic control device, not to the near edge.

Brent reported that the FHWA is in the preliminary stages of investigating a different format for the MUTCD. One proposal is to place all Standards into a separate manual. The FHWA is now assessing interest and opinions in a reformatting.





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# ITE GRADE CROSSING COMMITTEE 102-02 Meeting Minutes August 28, 2012

4. Update of Recommended Practice for the Preemption of Traffic Signals Near Grade Crossings

Tom Lancaster reported that drafts of the proposed revisions have been received from all but one of the task force members. When the draft of the final section has been received, all the proposed revisions will be reviewed by all the task force members. When there is a consensus on the draft, the formal ITE approval process for the Recommended Practice will begin. It is hoped that the approval process will be completed by the end of 2012.

#### 5. Conference Sessions Update

There was an extensive discussion by Committee members regarding presentations for the 2013 Technical Conference in San Diego and the 2013 Annual Meeting in Boston. The discussion for the San Diego meeting focused on the concept of a preemption training seminar, possibly extending over more than one session. Karen Hankinson mentioned that her company has been involved in a recent project which included improvements at 13 grade crossings in the San Diego area, and that a tour of the project might be possible. A possible format would be to have the first session as a general discussion of preemption and a second session as a description of preemption as implemented in San Diego. Another possibility would be to have a separate workshop or training session for traffic signal preemption.

For the Boston meeting, the discussion centered on the use of grade crossings by non-motorized users, particularly pedestrians. Suggested presenters included Tim Huya for traffic control devices for pathways, John Van Hoff for crossing design and control standards in Utah, TriMet in Portland for pedestrian control devices, and Dee Chappell for trespassing. Tom agreed to contact TriMet for a speaker, and Brent was to contact Dee. Phil Poichuk stated that there was no new activity related to pedestrians at grade crossings in Canada.

#### V. NEXT MEETING

The next meeting of this Committee will be held during the TRB meeting in January 2013 in Washington DC. Based on the favorable experience from the meeting in January 2012 and on the expense of holding teleconference meetings at the meeting hotel, Brent stated that he would arrange for the use of teleconferencing facilities at ITE headquarters.

### VI. ADJOURN

The meeting was adjourned at 11:35 AM.





## 2011 ITE Annual Meeting America's Center – Room 240 St. Louis, MO

#### I. WELCOME

The meeting was called to order at 10:30 AM by ITE Committee Chair Brent Ogden.

### II. INTRODUCTIONS

There were 6 ITE participants present plus 6 who participated by telephone:

Present Brent Ogden Tom Lancaster Gene Russell Joe Palsa Brian Gilleran Lisa Fontana Tierney (ITE staff)

Teleconference Steve Venglar John Sharkey Rick Campbell Ray Lewis Joaquin Siques Dee Chapell

### III. ITE ANNOUNCEMENTS

Brent Ogden reported that Session 10 on High-Speed Rail Grade Crossings was held at 8 AM this morning as part of the Annual Meeting. Presentations were made by Brian Gilleran, Brent, and Michael Garcia. Tom Lancaster was the presider.

Lisa Tierney announced that the 2012 Technical Conference will be in Pasadena, California, on March 4 to 7. The 2012 Annual Meeting will be in Atlanta, Georgia, on August 12 to 15. The submittal date for proposed presentation sessions is August 31, 2011, for both meetings.

#### IV. ITE COMMITTEE ITEMS

1. ITE Grade Crossing Web Page

Joaquin Siques stated that the maximum file upload size for our web site is 10 mb, which complicates the addition of Annual Meeting presentations to the site.





Joaquin also reported that there are some technical difficulties in transferring the material on our web site to the ITE web site. Brent suggested that it might be easiest to abandon our web site and re-create the material on ITE's web site. Lisa Fontana Tierney will investigate this possibility, and Joaquin will work with ITE staff Zack Pleasant on resolving this issue. If the required work to transfer the material to the ITE site proves to be substantial, a proposal might be required for this work. Lisa is hopeful that this will probably not be the case.

Joaquin stated that no messages have been posted to our grade crossing web site, possibly because it is difficult to find unless the address is known. Guan Xu has not responded to ITE's request for an FHWA review of the material, so we are assuming that FHWA has no objection to any of the material. As noted previously, the current web site address is:

www.wix.com/jsigues44/ite-rxr-handbook

### 2. Traffic Control Devices Handbook

Bob Seyfried is the editor for the new document. He was not present at this meeting, but has reported to Brent that the work is progressing.

Sight Distance Revisions: Brent is updating the Introduction, which includes updating the references and confirming the accuracy and applicability of mathematical formulas and tables. Brent found that there is an error in at least one sight distance formula, although the results of the formula as shown in a table are correct. Brent noted that the table shows that the required sight distance at uncontrolled grade crossings decreases as vehicle speeds approach 30 mph, then increases at higher speeds. Although this result might be unexpected, it is correct and is due to the critical factor in the formula changing from the train speed to the vehicle speed as vehicle speeds exceed 30 mph. Brent will add text to the Handbook explaining this apparent anomaly.

There was some discussion as to our expectations of driver responsibility and actions as related to the sight distance triangle at uncontrolled grade crossings (crossings with YIELD signs). Expecting drivers to note the vehicle speed and location and estimate the train speed and location and use that data to quickly and accurately determine whether it is necessary for the driver to stop might be unrealistic. The driver's task is complicated by train speeds that vary at the crossing. A more reasonable expectation might be that if a driver sees a train, the driver should prepare to stop at the crossing unless the driver can determine that the vehicle can cross safely before the train arrives. This type of operation will require that adequate sight distance (as shown in the sight distance table in the Handbook) be provided at each uncontrolled crossing assuming the maximum permitted speeds of the vehicles and the trains.

Brent will send his proposed revisions to the Handbook Introduction to Committee members for comment.





### 3. MUTCD Items

Rick Campbell discussed his effort to include more technical detail in the MUTCD regarding traffic signal preemption design and operation as Chair of the NCUTCD Technical Subcommittee on Railroads and LRT. This effort is based on his observation that signal preemption is often implemented incorrectly, resulting in operation that might result in safety deficiencies. He will continue discussing his proposed revisions to the MUTCD with members of the NCUTCD Technical Subcommittee on Traffic Control Signals. In any case, it would probably be appropriate to add much of this proposed material to the Handbook and to the Recommended Practice. Rick also reported that based on his discussions with FHWA, information on diagnostic teams will probably be included in the next edition of the MUTCD.

Brent stated that the updated Handbook would be based on the 2009 edition of the MUTCD, but the Handbook will probably not be finished before the Recommended Practice update is finished. Any new material regarding traffic signal preemption that is added to the Handbook but is not in the MUTCD will be treated as recommended practice but not as a requirement.

4. Other Handbook Concerns

Ray Lewis stated that he has concerns regarding legal aspects of crossings in the Handbook. In particular, he is concerned about the location of detectable warnings on the approaches to crossings; the distance of six ft from the tracks as specified in the proposed Department of Justice ADA rules might be too close. Ray added that he also has concerns regarding the sight distance triangle. He suggests either deleting the sight distance triangle or adding text stating that the triangle must be available at uncontrolled crossings for the maximum permitted vehicle and train speeds.

5. Update of Recommended Practice for the Preemption of Traffic Signals Near Grade Crossings

Tom Lancaster reported that the proposal to update the Recommended Practice has been approved by ITE. Authors have been selected and topics assigned. It is hoped that the Recommended Practice can include ADA requirements if the rules are finalized before completion of the draft. Brian Gilleran and Joe Palsa agreed to serve as peer reviewers as the draft is developed. The schedule calls for completion of the update in late 2012.

6. Conference Sessions Update

Joaquin Siques suggested that a walking tour of LRT grade crossings in Pasadena be organized for the Technical Conference in Pasadena. Lisa Fontana Tierney said she would provide ITE contact information to Joaquin for setting up a technical tour. There is an ITE proposal form for this purpose. It might also be possible to provide a presentation regarding LRT crossings prior to the field tour.





After some discussion, it was the consensus of the Committee that a session on ADA rules be proposed for the 2012 Annual Meeting. It could include presentations on ADA rules as they apply to grade crossings, to roundabouts, and to traffic signals. Brent will contact Scott Windley of the US Access Board for assistance with development of this session. It was noted that Scott will be presenting a webinar on ADA rules in late August 2011.

### V. Other Business

Brent will send an e-mail to all Committee members with a link to the presentations from Session 10 at this ITE meeting. A link will also be posted on our railroad grade crossing web site.

#### VI. NEXT MEETING

The next meeting of this Committee will be held during the TRB meeting in January 2012 in Washington DC.

### VII. ADJOURN

The meeting was adjourned at 11:35 AM.





#### I. WELCOME

The meeting was called to order at 10:00 AM by ITE Committee Chair Brent Ogden. The meeting minutes from the last meeting were approved.

#### II. INTRODUCTIONS

There were 12 ITE members participating plus two friends and two ITE staff persons. Four persons participated via conference call:

Present: Brent Ogden Tom Lancaster Andy Davis Gene Russell Rock Miller Ray Lewis Ray Davis Zaki Mustafa Conference Call Phil Poichuk Steve Venglar John Van Hoff Joe Palsa

Steve Laffey (friend) Richard Mather (friend)

Philip Caruso (staff) Lisa Tierney (staff)

III. APPROVAL OF MINUTES

The minutes of the August 10, 2010 meeting in Vancouver BC were approved without comment.

IV. ITE ANNOUNCEMENTS

Ray Davis and Zaki Mustafa, both candidates for ITE Vice President, each made a short statement discussing their ideas for future ITE activities.

Lisa Tierney announced that a new *ITE Community* (collaborative website) is expected to be operational within a few months. As part of the ITE web page, it will have a community board for each ITE technical committee which will allow the posting of information and comments. The board for the Grade Crossing Committee could include the information that is now on the Committee's web page. There are still some issues to resolve in the design of *ITE Community*, such as whether non-ITE members will be allowed access to none, some, or all of the Community.





### V. ITE COMMITTEE ITEMS

### 1. ITE Grade Crossing Web Page

As a result of efforts by Joaquin Siques of the City of Pasadena, the Committee's web site is now live. The address is:

www.wix.com/jsiques44/ite-rxr-handbook

There are six tabs across the top of the home page of the web site. The *Home Page*, which is the first tab, displays the mission statement for the home page and a link to the Grade Crossing handbook, and includes new items, meeting agendas, and meeting minutes. The second tab, *About Us*, presents the uses of this web site and talks about the purposes of the TENC Committee. The third tab, *Preemption Material*, lists "Seven Points Every Traffic Engineer Should Know About Rail Preemption Installations" and links to two web sites which assist in the development of preemption signal timing (LA DOT and TX DOT). The fourth tab, *Reference Docs and Links*, includes links to an ITE Journal article on pre-signals, hazard index calculations, sample diagnostic team evaluation reports, and several railroad-related traffic engineering publications. The fifth tab, *Provide Comments*, provides a location where comments can be posted for visitors to see. The sixth tab, *Contact Us*, permits viewers to upload material or ask questions, and lists the committee volunteers.

Joaquin Siques, as the Administrator, will review comments posted and materials or questions submitted and will route candidate submissions to the panel of moderators. Brian Gilleran reminded that he agreed to serve on the panel of moderators.

Zaki Mustafa commented that it is critical that when comments are submitted to the site, they are read and responded to immediately. He also stated that if every Committee member accesses the site twice a day, it will move the website to the top of the list when Google searches for "Railroad crossings" or related topics.

Comments were made that it would be desirable to have our website linked to the ITE website. Lisa Tierney stated that the link should be possible as a short-term connection until the ITE Community is up and running. There were also comments that some of the pages of our website should be available to the public. Ideally, when hosted by ITE Community, the site should allow wiki-type subject developments as well as continuous discussions as new threads are started.

A link to the TRB Railroad Committee website will be added to our page.

#### 2. Recommended Practice for the Preemption of Traffic Signals near Railroad Crossings

At the last Committee meeting, a consensus was reached that most of the materials presented in the Recommended Practice (RP) is generally applicable today so there is no urgent need to develop a wholly new version. However, based on comments, it is believed that the RP should be updated to reflect recent technological developments as well as new methods for determining signal timing at preempted signals.





As a result, Committee Chair Brent Ogden appointed a Task Force, with Tom Lancaster as Chair, to produce the updates to the RP. The Task Force will invite Stan Milewski, Ray Lewis, Rick Campbell, and LA DOT representative, and others to participate on the Task Force. The Task Force will complete an ITE project proposal, review the topics which need to be updated, produce the updates, and guide the updated RP through the ITE approval process. Lisa Tierney stated that it is possible that the new version of the RP could be electronic rather than printed.

Ray Lewis stated that accessibility at preempted traffic signals is an important topic. Issues include walking speeds across the crossing, detectable warnings, pedestrian clearance times as gates are lowered, and the time to travel from the pushbutton location to the street.

#### 3. Conference Sessions Update

A panel to discuss grade crossing safety has been accepted for the Lake Buena Vista ITE Technical Conference in Florida from April 3 through 6. Tentative speakers include Tom Lancaster (presiding), Bill Baranowski (Roundabouts with Grade Crossings), Brent Ogden (Recent Developments in Pre-Signals and Queue Cutters), John Ciccarelli (Recent Developments in Bicycle and Pedestrian Safety at Grade Crossings), and John Van Hoff (Current Issues and New Tools for Intersections near Grade Crossings).

It was noted that the 2011 Technical Conference will be Saturday through Tuesday. Comments were also made that out-of-state travel may be difficult for some invited speakers. Some states have prohibited all out-of-state travel by state employees.

A panel has also been proposed for the ITE Annual Meeting in St. Louis from August 13 – 16. The proposed speakers for this panel include Brent Ogden (presiding), Brian Gilleran (FRA Requirements and Guidance for High-Speed Rail Grade Crossings), Ed Boni (Operation of High-Speed Rail Crossings on Amtrak Northeast Corridor), R. Davis (Barrier Gate Technology and Possible Application to High-Speed Rail Grade Crossings), and Stan Milewksi (Grade Crossing Protection Features of Chicago – St Louis High-Speed Rail Corridor).

It was suggested that a web seminar on high-speed rail crossings might be useful since this seems to be a popular topic. Suggestions for panel topics for 2012 ITE meetings included high-speed rail crossings, a progress report on the RP update, an RP conversation circle, and crossings near roundabouts. The 2012 Technical Conference will be in Pasadena, and the 2012 Annual Meeting will be in Atlanta.

## 4. Webinars / Net Meetings / Collaborative Web Site

Using the internet for Committee meetings was suggested by several people. Lisa Tierney stated that web conferencing facilities at ITE meeting hotels are typically very expensive, costing hundreds of dollars. Lisa said that the January 2012 Committee meeting could be held at ITE headquarters using their video conferencing equipment. The Grade Crossing Committee meeting will probably be held on Monday of TRB week (January 23, 2012) at 10:30 or 11:00 AM. Lisa will follow up on this possibility. Zaki Mustafa volunteered to assist with the technical aspects.





Steve Laffey, Chair of TRB AHB60, said that his committee is sponsoring a web briefing on traffic signal preemption in the fall of 2012 and that participation by ITE members would be welcome. He suggested that it could possibly be accomplished as a joint TRB/ITE effort.

## VI. OTHER BUSINESS

Steve Venglar of TTI mentioned a study currently underway involving improvement priorities at low-volume grade crossings. The study is examining low-volume crossings in Texas that have a crash history. The objective is to determine priority for crossing improvements for passive devices and for improvements from passive to active devices. Good crossing sight distance data is available for use in the study.

Lisa Tierney stated that ITE is looking for new volunteers to provide ITE sponsor comments to the National Committee on Uniform Traffic Control Devices regarding proposed changes and revisions to the MUTCD.

### VII. NEXT MEETING

There may be a Committee meeting at the ITE Technical Conference in Lake Buena Vista in April 2012, and there may also be an informal meeting of the Recommended Practice Task Force for those members who are able to attend.

The next Committee meeting will be in St Louis at the ITE Annual Meeting.

#### VIII. ADJOURN

The meeting was adjourned at 11:53 AM.





## 2010 ITE Annual Meeting Vancouver Convention Center – West 105/106 Vancouver, BC

#### I. WELCOME

The meeting was called to order at 10:43 AM by ITE Committee Chair Brent Ogden. The meeting minutes from the last meeting at TRB were approved.

### II. INTRODUCTIONS

There were 9 participants present plus two who participated by telephone:

Brent Ogden Linda Mosch Tom Lancaster Phil Poichuk Joe Palsa Rock Miller Gene Russell Doug Noble (ITE staff) Phil Caruso (ITE staff) Steve Laffey (friend, by telephone) Anya Carroll (friend, by telephone)

#### III. APPROVAL OF MINUTES

The minutes of the January 12, 2010, meeting in Washington DC were discussed, and approved with two clarifications:

- 1. In Item IV (a), fourth paragraph, there is a discussion of material that could be posted on the Committee's web site relating to the Grade Crossing Handbook. The minutes should state that this information would be considered as supplemental rather than as an addition to the Handbook, and would not have to go through a formal balloting, public comment, and ITE Board approval process.
- 2. In Item IV (b), last paragraph, the word "as" should be "ask".

### IV. ITE ANNOUNCEMENTS

Doug Noble announced that on August 23 ITE will close its existing Washington DC office and move to its new office, reopening on August 30. The new location is 1627 I Street NW, near the Farragut Square Metro station. It will have better teleconferencing facilities. There will be a member reception at the new location during the TRB meeting in January 2011.





Doug stated that ITE has formed an association with the International Association of Fire Chiefs (IAFC) to provide information about traffic calming techniques. The IAFC has added a new section to its model code that requires approval of the fire chief before traffic calming devices can be installed on any street. ITE hopes to provide guidance to the IAFC as to traffic calming techniques that will not unduly impact fire engine travel times.

Doug also stated that a statement from our Committee to the Traffic Engineering Coordinating Committe is needed reaffirming that the material in the Recommended Practice for the Preemption of Traffic Signals Near Railroad Crossings is still appropriate.

Rock Miller mentioned that that the ITE Board's first strategic goal is safety, which is the same as our Committee.

There was a discussion of the use of teleconferencing with video for Committee meetings. Video teleconferencing is expensive, but the use of conference calls with only audio might be a good alternative. One possibility is to use the regularly scheduled Committee meetings for informal strategic discussions, but holding official business meetings by conference call at other times.

The next ITE meeting will be the Technical Conference April 3 - 6, 2011, in Lake Buena Vista, Florida, and the topic is safety. The International meeting will be August 13 - 16, 2011, in St Louis. Requests for sessions for both meetings are due August 23, 2010.

## V. ITE COMMITTEE ITEMS

#### 1. ITE Grade Crossing Web Page

Brent Ogden reiterated some of the comments made at the January 2010 meeting regarding the Committee's web site. Joaquin Siques, the site's webmaster, has developed a template for the web site, but more work needs to be done. Brent encourages individuals to submit information to the web site. He state that he expects previously submitted material to be posted to the web site before the end of this year. The Los Angeles DOT spreadsheet for traffic signal preemption timing was cited as a good example of material that would be appropriate to the web site. Submittals can be made to Brent at Brent.Ogden@aecom.com. It will also be desirable to have a comment and discussion board on our web site.

The temporary location of the site is www.wix.com/jsiques44/ITE-RXR-Handbook. A third party is now hosting the web site, but it would be desirable to bring it to ITE. Phil Caruso stated that ITE could provide a link to our web site from the ITE web site. ITE could also host the site, but would require that the data be kept current. A request for ITE hosting should be sent to Lisa Tierney, with a copy to Phil.

#### 2. Maintenance of US DOT Grade Crossing Handbook

As discussed at the committee meeting in January 2010 at TRB, updating the Handbook is a separate issue from maintaining our web site. Information related to the Handbook that is added





to our web site will be supplemental to the Handbook, and will not be changes or revisions. The web site review panel will moderate supplemental Handbook information.

As part of the Handbook supplemental information, a list of topics for revision or addition for the next update to the Handbook could be maintained. These could include the distinction between pre-signals and queue-cutter signals, the implementation of Warrant 9 from the MUTCD, and the impact on railroad crossings of queuing from roundabouts.

3. High-Speed Rail Provisions

A new task force for traffic control devices at high speed rail crossings was established at the MUTCD meeting in June, 2010, in Chicago. The FRA has adopted some general guidance for HSR crossings, but this does not include traffic control devices.

4. Conference Sessions Update

Brent stated that HSR would be a good topic for the ITE meeting next year in St Louis. Anya Carroll suggested that pedestrian crossings are important. Tim Huya, who is the chair of an MUTCD task force on pedestrian crossings, was suggested as a possible speaker on this topic.

Gene Russell mentioned that France has many roundabouts with railroad crossings, and that Bill Baranowski presented a paper on this subject at the recent Vail conference. Phil Caruso suggested a session on this topic because it could integrate the issues of roundabouts, railroad crossings, context sensitive design, and safety.

A suggestion was made that a conversation circle regarding roundabouts might be appropriate for a session at the 2011 Technical Conference, with presentations of more technical information at the 2011 International meeting.

Phil Poichuk suggested that the basic assumption should be that there should be no crossings in the vicinity of roundabouts if at all possible. Brent suggested that a session theme could focus on queuing and pedestrians. Anya suggested that the topic could include the use of ITS to integrate modes, and could include high speed rail.

5. Webinars

Brent had no new information to present on this subject. Steve Laffey commented that a webinar for the basics of railroad crossings will be present by TRB on September 16 at 2 PM EST. The site registration fee will be \$99 for sites not affiliated with TRB.

VI. Other Business

The January 2011 TRB meeting will be the 40th anniversary of the TRB Railroad Committee. There will be a session on the history of railroad crossing research, a session of the future of





research, and a reception for current and previous members of the committee. There is also a possibility of a poster session for the railroad committee.

#### VII. NEXT MEETING

The next meeting of this Committee will be held during the TRB meeting in January 2010. The TRB meeting will be January 23 - 27, and it is hoped that the Committee meeting will be on Monday of that week.

There is a possibility of an informal interim Committee meeting this fall, but more likely it will be held sometime next spring.

#### VIII. ADJOURN

The meeting was adjourned at 12:10 PM.





## ITE GRADE CROSSING COMMITTEE 102-02 Meeting Minutes January 12, 2010

## 2010 TRB Annual Meeting Marriott Wardman Park Hotel – Taft Room Washington, DC

#### I. WELCOME

The meeting was called to order at 11:10 AM by ITE Committee Chair Brent Ogden. The meeting minutes from the last meeting at TRB were approved.

#### II. INTRODUCTIONS

There were 19 participants present (see attached sign-in sheet).

#### III. ITE ANNOUNCEMENTS

There were no ITE announcements provided at this meeting.

#### IV. ITE COMMITTEE ITEMS

a. ITE Grade Crossing Web Page / US DOT Grade Crossing Handbook Update

A draft of a website for grade crossing information has been developed by Joaquin Siques of the City of Pasadena. The temporary location of the site is www.wix.com/jsiques44/ITE-RXR-Handbook. Photos of some of the pages at the site were distributed. The site includes a link to the Grade Crossing Handbook. It is hoped that the site can be transferred to a site hosted by ITE.

There was an extensive discussion of the relationship between the website and ITE and FHWA and FRA, particularly with regard to updates of FHWA's Grade Crossing handbook. The Committee reached a consensus that the preferred site location would be with ITE, partly because information could be posted on the site without the potential for extensive delays due to a formal review process.

All information submitted to the site will first be reviewed by a subgroup of this Committee to assure that the information is useful and appropriate. Submissions should be directed to Brent Ogden (Brent.Ogden@aecom.com) or Joaquin Siques (JSiques@CityofPasadena.net).

FHWA has made two minor changes to the on-line (PDF) version of the Grade Crossing Handbook, and FRA will probably propose additional changes. The Committee's web site will not attempt to document completed or proposed changes to the Handbook; only supplemental information that is related to the Handbook and might be of interest to practicing engineers will be posted. The information would be similar to an ITE Informational Report rather than a Recommended Practice, and as such, a review by ITE prior to posting will not be necessary. It is hoped that this supplemental information will be of use to FHWA when the Handbook is next





## ITE GRADE CROSSING COMMITTEE 102-02 Meeting Minutes January 12, 2010

updated, which might be as soon as 2012. Also, if FRA wishes to have its proposed changes to the Handbook reviewed by this Committee, the Committee will do so.

A proposal was made to include a page within the website for discussion topics. This would allow for users to post questions or comments that could be discussed by other users. The Committee believes that this could be a useful function.

A proposal to include a "wiki" page within the website was also discussed. An example of such a page is www.ite.org/pbwiki. The proposal was disapproved because it would permit the posting of material that would not have been reviewed by the Subcommittee review panel.

b. Maintenance of ITE Publication Recommended Practice for the Preemption of Traffic Signals near Railroad Crossings

The Committee believes that the information in this Recommended Practice is not wrong or out of date, so there is not a strong need at this point to update the document. However, new information related to traffic signal preemption does need to be distributed to practitioners. The Committee's website is a good mechanism for doing this.

Brent distributed a list of "Seven Things Every Traffic Engineer Should Know About Rail Preemption Installations" for discussion. The intent of the list is to serve as a reminder to persons who design and operate preemption systems that it is a complicated task, and should be undertaken and reviewed only by knowledgeable and experienced people. The list, written by Brent, is a candidate for posting on the Committee's website. The list will be e-mailed to all Committee members. Brent requested that the list be reviewed by Committee members and comments be submitted by the end of January. Rock Miller said that he would work with Lisa Tierney to investigate the possibility of publishing the list in the ITE Journal.

Ray Lewis suggested that the list include references to the need for closed circuits, and also that if a grade crossing is being designed and there is the potential for the installation of a nearby traffic signal at some time in the future, the track circuitry should be designed to accommodate the future installation of train detection.

John Sharkey said that AREMA might as the Committee for suggestions for testing procedures when preemption timing changes are made at grade crossings.

c. Conference Sessions Update

A panel to discuss grade crossings has been proposed for the Vancouver, BC, ITE meeting in August. Letters of invitation are expected to be sent by ITE on January 31.

d. Webinars

Due to the effort in preparing the Committee's website, little attention has been given to developing and webinars, but suggestions for webinar topics are welcome. Also, it is sometimes difficult to find a person who is willing to develop and present a webinar.





## ITE GRADE CROSSING COMMITTEE 102-02 Meeting Minutes January 12, 2010

#### V. OTHER BUSINESS

No other new business was brought before the committee.

VI. NEXT MEETING

There will probably not be a committee meeting at the ITE Technical Conference in Savannah in March 2010 due to travel restrictions that apply to many of the Committee members. The next committee meeting is expected to be in Vancouver, BC, from August 8 to 11 in conjunction with the ITE International Meeting.

A suggestion was made that a conference call be initiated at Committee meetings for the benefit of members who could not attend. Lisa stated that hotels typically charge a very large fee (\$500 to \$1000) for setting up the equipment for a conference call, making it infeasible. Conference calls are possible, however, at ITE's headquarters office.

VII. ADJOURN

The meeting was adjourned at 11:50 AM.

## Institute of Transportation Engineers

## Joint Rail Grade Crossing Committee Attendance Listing

Date: January 12, 2010

Meeting Location: Taft **Time:** 10:30 AM - 12:00 PM

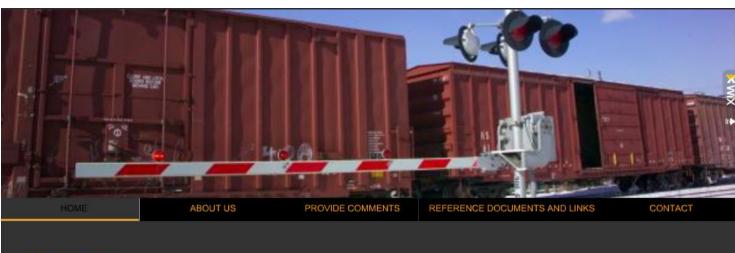
I acknowledge having read the Institute's conflict of interest and antitrust policy that is printed on the backside of this form and agree to abide by these policies during my participation in this meeting.

Print Name	Signature	Title/Employer	Email
BRENT OGDEN	Butolza	VP AECOM	brent.ogden@gecom.com
PHIL POLCHUK	Muchal	RAIL SAFETY, TRANSPORT CANADA	phil. porchuke togeta
gener Russell	Eugene pl pussell	Professor Emeritus	geno @KSU, edu
Roch Miller	Well Mito	VP KOA CORPN VP KOA CORPN VP KOA CORPN	Rmiller@ KoAcorp.com
Libby Jones	M	Assoc. Professor Univ. of Nebroska-Lincoln	éjones 1 e un l'edu
DIEGO FRANCA	DA	TRANSP. ANALYST KITTELSON AND ASSOCIATES, JAC	DFRANCA @ KITTELSON - COM
PHIL CARUSO	All Constr	OD for Technical Pargrand	PCARUSE @ ITE ORG
STARL LAFFRA	17	12411 April Safer Special ST 11410015 Commission	SLAFFEY RICE. LUDOIS, GOV
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JOHN SHARKEY	JSharling	VP-Technology CAMpbell Technology Corp	
Tom Lancaster	TRE	Lancaster Engineering CROSSING INTENTOR PROG)MER	
THOMAS WOLL ,	Fromas PUd	CROSSING INTENTOR TROG MGR PEDERAL RAILROAD ADMIN	tom, woll @ dot.gov

# Institute of Transportation Engineers

# Joint Rail Grade Crossing Committee Attendance Listing

Date: January 12, 2010		Meeting Location: Taft	<b>Time:</b> 10:30 AM - 12:00 PM
I acknowledge having read the Institut		st and antitrust policy that is printed on the during my participation in this meeting.	e backside of this form and agree to abide
Print Name	Signature	Title/Employer	Email
DR. Joseph PALSA P.E.	Aut	MARCTON, CLARY COMP., TAINS HAM	SPALSA @ CLARY. CAM
ALL TASHAM ASHRAF.	Allanar	Project Manager / Certial Signal	aashraf@Centrial Sig.com
Luc MASSé	Jani-	chief sbc/TRANSPORT CANA	
RAY DAVIS <	Engle Sh	BODS CONSULTING	RAN M ITE & GMAIL. COM
BRIAN GILLERAN (	Balle.	US DOT-FRA	brian Sitleran @ Sot. gov
Anya Carroll	Cuy Cased	US DOT/RITA/Volge	anya. rakkalle dot.gov
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## Who We Are

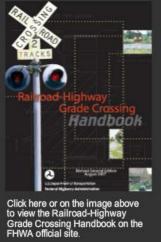
The purpose of this web-site is to provide a location where members of the Institute of Transportation Engineers can access the Highway Rail Grade Crossing Handbook and provide input for proposed changes, research results and updates on treatments implemented at highway rail grade crossings, thus creating a living document where moderated updates and other technical resources can be provided.

News

This website was created.

Read more





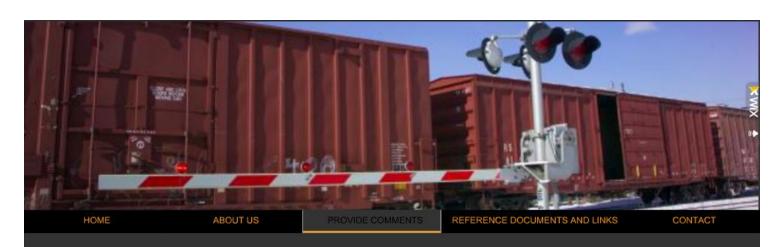
Meeting Minutes for the January 13, 2009 ITE Grade Crossing Committee Meeting in Washighton DC have been posted and are available through the following link.

The Januuary meeitng of the ITE Grade Crossing Committee (TENC 102-02) will be held on Tuesday, January 12 in the Taft Room at the Marriott Hotel from 10:30 am to noon.



After 20-years, the Railroad Highway Grade Crossing Handbook, Second Edition has been revised.

This website was created using Wix.com GO! Make your own website - it's free



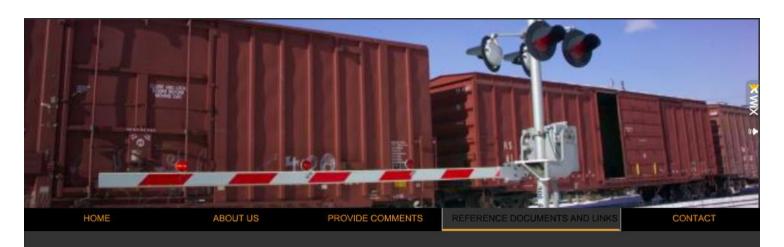
## Your Input is Important

The purpose of this site is to provide a location where ITE members can access the Railroad Highway GRade Crossing Handbook and provide input for proposed changes, research results and updates on treatments implemented at highway rail grade crossings, thus creating a live document. Your input is critical to updating the Railroad Highway Grade Crossing Handbook and keeping other current on progress in the safety of highway rail grade crossings.

You can provide comments below, or upload material to the web-site moderator who will post the material on the site. To upload material, please contact Joaquin Sigues at jsigues@cityofpasadena.net.

## **Provide Comments**

1 comment	+add comment
1. joaquin test does this comment field work	19 days ago



## Traffic Signal Preemption Spreadsheets

A brief description of the traffic signal preemption spreadsheets and a link to the spreadsheets can be included here....

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#### Hazard Index Calculations

A brief description of Hazard Index Calculations and links to worksheets can be included here  $\ldots$  .

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#### Sample Diagonstic Team Evaluation Reports

A brief description of Diagnostic Team evaluation reports and links to sample reports can be included here ...

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- Railroad Highway Grade Crossing Handbook
- Manual on Uniform Traffic Control Devices
- ITE International
- FHWA Safety Program
- · Federal Motor Carriers Safety Program
- Operation Lifesaver

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## Contact Us

Thank you for your interest in the Railroad-Highway Grade Crossing Handbook. For additional information, please contact Brent Ogden at (xxx) xxx-xxxx or via email at brent.ogden@aecom.com

If you would like to upload documents to the site or provide news or information to be posted on the site, please contact Joaquin Sigues at jsigues@cityofpasadena.net

# brent.ogden@aecom.com

# jsiques@cityofpasadena.net



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## 2009 ITE Annual Meeting Henry B. Gonzalez Convention Center – Room 006D San Antonio, TX

#### I. WELCOME

The meeting was called to order at 11:10 AM by ITE Committee Chair Brent Ogden. The meeting minutes from the last meeting at TRB were approved.

#### II. INTRODUCTIONS

There were 11 participants present:

Brent Ogden Tom Lancaster Phil Poichuk Eugene Russell Brian Gilleran Robert Seyfried Steven Venglar Joe Palsa Rick Campbell Rock Miller Philip Caruso	AECOM Lancaster Engineering Transport Canada Kansas State University (Emeritus) Federal Railroad Administration Texas Transportation Institute Clary Corporation Campbell Technologies KOA Corporation	Chair Secretary Participant Participant Participant Participant Participant Participant Participant Participant	ITE Fellow ITE Fellow ITE Fellow ITE Member ITE Fellow ITE Member ITE Member ITE Member ITE Fellow
Philip Caruso	ITE	ITE Staff	ITE Staff

#### III. ITE ANNOUNCEMENTS

#### a. ITE Publications

Lisa Tierney, who could not attend, was represented by Phil Caruso of ITE. Philip noted that the Traffic Signal Timing Manual, the Transportation Planning Handbook, and the Traffic Engineering Handbook were published in March 2009. The Traffic Signal Maintenance Handbook is scheduled to be published in the second quarter of 2010; the draft chapters will be submitted in September 2009. The Parking Generation Manual (4th Edition) is still accepting data for regression analysis and will be published in 2010. The Geometric Design Manual for Rural Highways, the Introduction to Transportation Studies, and the Traffic Engineering Studies manual will all be published in 2010. A new MUTCD is being prepared by FHWA, with a likely publication date of early 2010. The Trip Generation manual is also being updated, and will likely be published in 2010.

#### b. ITE Conferences

The ITE Technical Conference will be in Savannah, GA, from March 14 to 17, 2010, and the ITE annual meeting will be in Vancouver, BC, August 8 to 11, 2010.





#### IV. ITE COMMITTEE ITEMS

#### a. ITE Grade Crossing Web Page

No significant progress has been made on the establishment of a rail-road crossing web page. Further progress is pending a meeting between ITE and FHWA to clarify the relationship between the two agencies with regard to a web page, and to clarify the relationship of the web page to the Grade Crossing Handbook.

The committee had previously agreed that there is a need for this website whether or not it is supported by FHWA. The committee had also been advised that an ITE web-site not supported by FHWA would need to have a disclaimer stating that the materials had not been reviewed or approved by FHWA. Also, in the absence of balloting, the web-site could be considered only as informational, not as a recommended practice. Brent suggested that the committee should proceed to develop the site even if it is not initially hosted by ITE, and move it over to ITE when ITE is prepared to accept it. There was further discussion of suggested content and people who might be recruited to maintain the site.

#### b. Maintenance of ITE Publication Recommended Practice for the Preemption of Traffic Signals near Railroad Crossings

There have been many changes in traffic signal preemption since the publication of the RP, including more mature technology and new traffic signal timing tools. In contrast to the time when the RP was published, nearly all of the available traffic signal hardware can now address most of the requirements of signal preemption implementation and operation. Also, there are now signal preemption timing templates and state standards that are available to perform signal timing computations which don't require converting the theoretical information in the RP into application methodology.

At the recent Volpe Center Research Needs Workshop it was noted by a state official that a recent review of crashes at railroad crossings identified the presence of a nearby traffic signal as a key indicator. Disseminating and/or updating information on preemption implementation remains a high priority, both near term with respect to publicizing the concerns as well as longer term with a possible update to the ITE Recommended Practice. Phil Caruso stated that ITE does not like to update RPs unless the information in the current RP is obsolete. There was considerable discussion generally concluding that it is not that the current RP is no longer valid but that there is some new information and there are tools which have been developed since it was developed.

For short-term update information, Rock reports that the Traffic Engineering Council Newsletter would accept an article on preemption, and the ITE Journal might also. The information could be in the form or a quiz to raise awareness of and interest in preemption issues.

There was some discussion of whether the requirement in the proposed new MUTCD for a back-up power supply at preempted traffic signals should be a "should" condition or a "shall" condition.





The committee agreed that more examples of preemption timing may be needed, as well as information as to when advance preemption is appropriate. If the Recommended Practice is revised, it should probably include less theory and more "how-to" information with photographs and drawings of examples. Examples could be included in articles sub-mitted to the TE Council Newsletter. Also, the committee should have a representative at the Traffic Engineering Council meetings.

Brent will send suggestions and outlines to Rock of short articles that would be appropriate for the TE Council Newsletter. One suggested issue is that some agencies are not investigating the possibility that queues may extend over a crossing even if the crossing is more than 200 ft from a signalized intersection, and some are not examining the potential for queuing even when the intersection is closer than 200 ft.

The committee would like to have input on other ITE publications if information on railroad crossings is included. Phil Caruso will assist with this.

c. Conference Sessions Update

A session at 2 PM this afternoon at the ITE International Meeting will include Rick Campbell on the use of gate-down detection to avoid potential problems with advance preemption, Brian Gilleran of FRA highlighting the issues and potential approaches to dealing with roundabouts near grade crossings, Tom Lancaster regarding proposed revisions to Part 8 of the MUTCD, and Tim Huya of BNSF discussing the railroad perspective on pedestrian treatments for crossings.

The possibility of a different presentation format for a presentation at next year's ITE International Meeting in Vancouver was discussed. A site visit is a possibility, al-though that has the potential for creating legal problems if safety issues are found. Other possibilities include a session on diagnostic teams or high-speed rail, or an interactive roundtable discussion rather than PowerPoint presentations. Brian noted that the FRA believes that there is an absence of information regarding requirements for crossings with train speeds between 79 and 110 mph. The presentation could include LRT (crossings as well as street running), urban and rural crossings, and the use of queue-cutter signals.

There were some concerns expressed that attendance at next year's meeting in Vancouver could be lower than usual due to decreased funding for out-of-state and out-of-country travel for both US and Canadian members.

#### d. Webinars

There have been no railroad crossing webinars in the last year. There is not sufficient information available yet for a webinar on railroad crossings near roundabouts. Another potential topic is the treatment of railroad crossings for pedestrians, but this topic should await the publication of the new MUTCD as well as the development of other new information.





Brent suggested that until some of these issues are resolved, the development of new railroad crossing webinars should be delayed and efforts concentrated on the web page and preemption issues.

#### V. OTHER BUSINESS

#### a. Traffic Signal Maintenance Manual

Based on the earlier discussion of railroad preemption issues, the committee asked Phil Caruso if the committee could provide input to the pending Traffic Signal Maintenance Manual. Phil agreed to send draft copies of Chapter 7 to committee members for review. Comments should be sent to Tom or Brent for forwarding to Phil. Phil noted that the manual is proceeding toward publication, so any comment submittals should be expedited.

#### VI. NEXT MEETING

The next committee meeting will be in conjunction with the Transportation Re-search Board meeting at Washington, DC in January 2010.

#### VII. ADJOURN

The meeting was adjourned at 12:30 PM.





## ITE GRADE CROSSING COMMITTEE 102-02 Meeting Minutes January 13, 2009

## 2009 TRB Annual Meeting Marriott Wardman Park Tower – Suite 8219 Washington, DC

#### I. WELCOME

The meeting was called to order at 8:05 AM by ITE Committee Chair Brent Ogden.

#### II. INTRODUCTIONS

There were 11 ITE members and guests present:

Brent Ogden, AECOM Tom Lancaster, Lancaster Engineering Anya Carroll, Volpe Center Phil Poichuk, Transport Canada Andy Davis, Quixote Transportation Safety Bill Browder, AAR Eugene Russell Ray Lewis Steve Laffey, AHB60 Chair John Sharkey, Campbell Technologies Lisa Fontana-Tierney Chair Member Friend Member Friend Member Friend Friend ITE Staff

#### III. ANNOUNCEMENTS

- a. Lisa Tierney discussed ITE resources that are being updated: The Traffic Engineering Handbook and the Transportation Planning handbook are expected to be released in the first quarter of 2009. A geometric design guide for urban roads and the 8th Edition of the Trip Generation Handbook have recently been published. The Signal Maintenance Handbook is scheduled to be published by the end of 2009. It will include information on battery back-up systems, but it is not certain if there will be any information on railroad preemption. Lisa will send an outline of the handbook to Brent. The focus of this handbook will be on hardware rather than software or signal timing.
- b. There is an ITE web seminar program currently being prepared. There will be seminars on traffic engineering fundamentals, planning fundamentals, and safety fundamentals. Each seminar will be a series of eight sessions. They are expected to be completed in Spring 2009.
- c. The ITE Technical Conference will be in Phoenix at the Phoenix Convention Center from March 22 to 25. The theme will be transportation operations. The ITE annual meeting will be in San Antonio August 9 to 12.





## ITE GRADE CROSSING COMMITTEE 102-02 Meeting Minutes January 13, 2009

#### IV. ITE COMMITTEE ITEMS

#### a. Conference Sessions Update

The railroad session at the ITE annual meeting in Anaheim in August 2008 was well-attended with a fully-occupied room. A railroad session has been approved for the ITE annual meeting in San Antonio. Tentative presenters are Rick Campbell of Campbell Technology to discuss the gate-down circuit, Brian Gilleran of FRA to discuss grade crossings in or near roundabouts, Tim Huya of BNSF to discuss advances in pedestrian safety treatments at grade crossings, and Joaquin Siques of the City of Pasadena to discuss the proposed MUTCD updates for railroad crossings...

b. US DOT Grade Crossing Handbook / Web Page

A request has been submitted to ITE for a web page that, as discussed in previous meetings, could be used by this committee to post information on grade crossings, including information to supplement the Grade Crossing Handbook. It has been suggested that the page have an individual domain and a descriptive name so that it would be easy to find from the ITE web site and could be readily found by a Google search. ITE would probably cover the annual cost of domain registration. Potential topics to be included on the web page include revised accident prediction calculations, handbook errata, pre-signal design and operation updates, changes to the MUTCD, updates to the Rail Safety Act, and other statutory or regulatory changes affecting grade crossings.

Lisa said that a web page would be considered informational rather than a recommended practice. A recommended practice contains guidance which requires review and balloting by two separate ITE committees.

There was a lengthy discussion regarding possible problems with including updates or supplements to the Grade Crossing handbook on the site. Brent and Lisa will meet with FHWA to discuss the potential relationship of the site to the handbook. If FHWA wishes to sanction this page as an official site for updates to the handbook, FHWA could be asked for funding.

c. Webinars

The issue of railroad crossings in or adjacent to roundabouts was suggested as a topic for a future webinar, but it will be necessary to find a presenter. The issue could be raised at the next ITE Roundabout Committee meeting. Mark Morrison of Wisconsin DOT might be another source of information. Other possible webinar topics could include the planned ITE railroad crossing web page or temporary traffic control at railroad crossings. Bruce Friedman is the FHWA staff person for Parts 8 and 10 of the MUTCD. A more general topic which could include several crossing issues would be a review of problems and mitigations of queuing at railroad crossings.





## ITE GRADE CROSSING COMMITTEE 102-02 Meeting Minutes January 13, 2009

#### V. OTHER BUSINESS

a. Bill Browder stated that NCUTLO (National Committee on Uniform Traffic Laws and Ordinances) has been abolished, and no work has been done on the model traffic code since 2000. Bill questioned why FHWA has not become involved in this work, as it is critical to the support of the MUTCD. The absence of a model traffic code organization has been discussed at the National MUTCD committee. Bill asked if ITE should become involved in this work. AASHTO sells copies of the last version of the model traffic code, but there have apparently been few sales, partly because it is outdated.

It was suggested that NTSA (National Traffic Safety Association) might be the most logical group to take over the model traffic code. Another possibility might be IACP (International Association of Chiefs of Police). ITE's role would likely be limited to re-viewing the sections of the model traffic code pertaining to railroad crossings. Lisa will discuss the issue with other ITE staff.

- b. Brian Gilleran stated that Section 201 of the Rail Safety Act requires the FRA to develop guidance material on four topics relating to railroad crossings: auditory warnings, visual warnings, pedestrian crossings, and methods to prevent pedestrians from crossing tracks. Brian asked that any photos or information that anyone has on these topics be sent to him. It was mentioned that CalTrain has pedestrian crossing standards for station areas, and Canada also has pedestrian crossing standards. Gene Russell has a French grade crossing standards handbook. The Blue line in Los Angeles has a pedestrian safety study.
- c. Ray Lewis stated that there are new ADA standards for pedestrian crossings that might conflict with the upcoming revisions to the MUTCD.
- d. Bill Browder distributed a list of upcoming railroad-related meetings and conferences.
- e. Anya Carroll stated that FRA Research and Development plans to have a research needs workshop around the time of the MUTCD meeting in New Hampshire in June 2009 at the Volpe Center in Cambridge.
- f. Stephen Laffey (Illinois Commerce Commission) is the new chair of the TRB Railroad Committee (AHB60).

#### VI. NEXT MEETING

The next committee meeting will be at the ITE 2009 annual meeting in San Antonio, possibly on Tuesday morning August 11.

#### VII. ADJOURN

The meeting was adjourned at 9:35 AM.





## 2008 ITE Annual Meeting – Anaheim, CA Anaheim Convention Center – Room 202B

#### I. WELCOME

The meeting was called to order at 11:00 am by Tom Lancaster, who was appointed by Brent Ogden lead the meeting.

#### II. INTRODUCTIONS

There were 13 ITE members and guests present:

Tom Lancaster, Lancaster Engineering Linda Mosch, NJ Transit Rock Miller, KOA Corporation Scott Booker, Campbell Technology Corporation Phil Poichuk, Transport Canada Andy Davis, Quixote Transportation Safety Russell Brownlee, Giffen Koerth Forensic Engineering Joaquin Siques, City of Pasadena Chris Laface, City of Orange Amir Farahani, City of Orange Lisa Fontana Tierney, ITE Sean Skehan, City of Los Angels DOT	Chair Member Member Member Member Member Friend Member ITE Staff Member
Sean Skehan, City of Los Angels DOT Brian Gilleran, USDOT – FRA	Member Member

#### III. ANNOUNCEMENTS

There were no announcements from ITE.

#### IV. ITE COMMITTEE ITEMS

a. Conference Sessions Update

The Technical Session "Advances in Highway-Rail Grade Crossing Safety" was attended by over 80 people, exceeding the capacity of seats in the room. Rock Miller presided for Brent Ogden, who was unable to attend the conference.

b. US DOT Grade Crossing Handbook / Web Page

The development of a highway rail grade crossing web page was discussed at the meeting. The web site would allow ITE members to review the Highway Rail Grade Crossing Handbook and provide input for proposed changes, research results and updates on treatments implemented at highway rail grade crossings, thus creating a living document where moderated updates and other technical resources can be provided.





Joaquin Siques will be the facilitator, and the following ITE members will be moderators for the site; Brian Gilleran (USDOT-FRA), Tom Lancaster (Lancaster Engineering), Ray Lewis (West Virginia DOT), John Sharkey (Safetran Systems).

To date the following information has been received and are proposed to be posted on the website: 1) Update to Legal Considerations Section of the Grade Crossing Handbook (prepared by Ray Lewis) and 2) Preemption Timing Spreadsheet (prepared by Sean Skehan).

#### V. NEW BUSINESS

#### a. Web Page Next Steps

The application for web page was completed and submitted to ITE.

Joaquin asked if there are any specific web templates or guidelines which need to be adhered to for a site that is linked to the ITE site. Lisa referred the committee to Zack Pleasant (ITE staff) to obtain web design template. Joaquin will contact Zack. The Council Project Proposal Form (to officially create the web-site and link to ITE) will be submitted to Lisa Tierney.

Lisa Fontana Tierney (ITE) recommended that the committee obtain approval from FHWA to provide the information as a web document. Based on a discussion at the meeting, it seemed that the FHWA was already in favor of this and would not have any objections. Brent Ogden will be asked to follow up with FHWA.

For the record, there was prior discussion at the January 2008 meeting on content as follows: The site could include reports and presentations such as the grade crossing handbook, grade crossing handbook supplements, preemption timing spreadsheets, and other publications along with errata for those publications. It could also include links to related material, such as the MUTCD, the TWG report, railroad crossing conference schedules, and others. Tom Lancaster suggested that an abstract accompany each link to assist people who are looking for specific items.

#### b. Webinars

This committee is interested in hosting additional webinars through the ITE Professional Development Program Web Seminar series. Lisa Tierney (ITE) encouraged the committee to propose topics. Three topics were discussed:

- i. *RR preemption.* Sean Skehan is interested in conducting a webinar on railroad preemption based on the paper he presented at this year's meeting. This would be the first of two webinars that could be presented on the topic.
- ii. *Gate Down Circuit*: Supervised interconnect versus a 2-wire interconnect. This webinar would be a more detailed look at railroad preemption and discuss the use of the supervised circuit. Rick Campbell and Sean Skehan were proposed as





presenters for this topic. Before this topic is presented as a webinar, Lisa suggested that a article on the topic be prepared for the TENC newsletter. Sean volunteered to prepare the article.

iii. Roundabouts: Brian Gilleran (USDOT-FRA) suggested a webinar on the topic of Roundabouts near highway rail grade crossings. This may be addressed through a presentation at the ITE San Antonio meeting before it becomes a webinar topic. See "Other Activities" below.

Training proposal forms for ITE webinars can be found at the following link:

http://www.ite.org/education/RFI.asp

c. Upcoming ITE Meetings

Based on the large turnout at the technical session that occurred at this meeting, the committee discussed the possibility of proposing a panel for the 2009 Annual Meeting in San Antonio, Texas (August 9-12, 2009). Topics for the session are due on August 25, 2008 and will be submitted via the website by Joaquin Siques. The proposed panel topic is "Advances in Highway-Rail Grade Crossings Safety" with Brent Ogden presiding and the following speakers presenting:

- i. Traffic Signal Preemption / Utilizing the Gate Down Circuit Rick Campbell. Campbell Technology Corp.
- ii. Grade Crossings in Roundabouts: Brian Gilleran, FRA
- iii. Advances in Pedestrian Safety Treatments at Grade Crossings Tim Huya, BNSF
- iv. MUTCD Updates for Grade Crossing Treatments Sean Skehan, LADOT

#### VI. OTHER BUSINESS

#### a. MUTCD

Tom Lancaster reported on the current status of the MUTCD including proposed revisions to Chapter 8 and Chapter 10. A major modification may be the re-organizing of Chapter 10 to separate light rail transit, streetcars and potentially bus rapid transit. A draft of the revised chapter will be prepared for review by the January 2009 ITE meeting.

#### VII. NEXT MEETING

The next ITE committee meeting will be at the TRB Annual Meeting in Washington, DC, held on January 11 - 15, 2009.

#### VIII. ADJOURN

The meeting was adjourned at 12:00 pm by Tom Lancaster.





#### **Traffic Engineering Council**

Chair:

Brent D. Ogden, PE, PTOE Vice President, Manager – Planning West DMJM Harris 155 Grand Ave., Suite 700 Oakland, CA, 94612 <u>brent.ogden@dmjmharris.com</u> (510) 763-2929 telephone (510) 763-2796 fax Co-Chair: TENC 102-02 Jurisdiction & Warrants Robert K. Seyfried, PE, PTOE Director, Transportation Engineering Division Northwestern University Center for Public Safety 405 Church Street Evanston, IL, 60204 r-seyfried@northwestern.edu (847) 491-3431 telephone (847) 491-5270 fax Chair: TENC 102-05 Active Devices Rock E. Miller, PE Principal Katz, Okitsu & Associates 17852 E. 17th St., Suite 102 Tustin, CA 92780 Rmiller49@compuserve.com (714) 573-0317 telephone (909) 890-9694 fax Chair, TENC 102-06 Passive Devices Joaquin T. Siques, TE Associate Traffic Engineer City of Pasadena Department of Transportation 221 E. Walnut St., Suite 210 Pasadena, CA 91101 jsiques@cityofpasadena.net (626) 744-6900 telephone

## ITE COMBINED GRADE CROSSING COMMITTEES MEETING AGENDA TRB 2008 MEETING – WASHINGTON, DC MARRIOTT WARDMAN PARK HOTEL Park Tower Suite 8219 JANUARY 14, 2008 – 4:30 PM / 6:00 PM

#### I. WELCOME

The meeting was called to order at 4:30 PM by ITE Committee Chair Brent Ogden.

#### II. INTRODUCTIONS

There were 16 ITE members and guests present:

Brent Ogden	Chair
Anya Carroll	Friend (Chair of AHB-60)
Tom Lancaster	Member
Phil Poichuk	Member
Andy Davis	Member
Bill Browder	Friend
Suzanne Horton	Friend
Gene Russell	Member
Ray Lewis	Member
Lisa Fontana-Tierney	ITE Staff
Gene Wilson	Friend
Paul Eng-Wong	Friend
Steve Laffey	Friend
Gary Carr	Friend
John Sharkey	Friend
Rick Campbell	Friend

## Meeting Minutes ITE GRADE CROSSING COMMITTEE MEETING At TRB 2008 ANNUAL MEETING – WASHINGTON, DC JANUARY 14, 2008

#### III. ANNOUNCEMENTS

Lisa Tierney announced that new Traffic Engineering and Transportation Planning hand-books would be published by ITE in 2008. There will a geometric design guide for urban roads published in 2008, and a geometric design guide for rural roads in 2009. These will complement the geometric design guide for freeways which was published in 2007. A traffic signal maintenance handbook and the 8th edition of the TRIP GENERATION handbook will be published in 2008. ITE expects to update the traffic control devices handbook in 2009. ITE will also undertake a traffic signal change interval recommended practice.

#### IV. ITE COMMITTEE ITEMS

a. Conference Sessions Update

Brent Ogden stated reported that a railroad crossing session was proposed for the ITE International meeting in Anaheim in August 2008. Notification of acceptance of the proposal will not be made until the end of January 2008. The meeting program, including the railroad crossing session if the proposal is accepted, will be on the ITE web site at the end of January, and in the ITE Journal in March. There will be a Committee meeting in Anaheim, but not at the ITE Technical Meeting in Miami.

b. US DOT Grade Crossing Handbook Webinar

The first webinar based on the new Grade Crossing Handbook was held on December 12, 2007, with Brent as the instructor. There were 38 sites that were signed up, including two in Canada. Lisa said that, given the technical nature of the webinar, the turnout was good. There was discussion regarding repeating the webinar, possible with a supplemental webinar with in-depth discussions of some of the topics.

Possible future webinar topics could include: (1) railroad crossing quiet zones; (2) traffic signal preemption. Potential instructors include Sean Skehan, Rick Campbell, and Peter Koonce. Bill Browder reported that the FHWA is considering the development of a webinar on traffic signal preemption for its internal use. Lisa will send a form to Brent for a new webinar proposal.

#### V. NEW BUSINESS

#### a. Web Page

Brent proposed that the Committee establish a page on the ITE website that would be dedicated to railroad crossing information. The site could include reports and presentations such as the grade crossing handbook, grade crossing handbook supplements, preemption timing spreadsheets, and other publications along with errata for those publications. It could also include links to related material, such as the MUTCD, the TWG report, railroad crossing conference schedules, and others. Tom Lancaster suggested that an abstract accompany each link to assist people who are looking for specific items.

It was noted that ITE prefers proposals which address keeping the site current and monitoring items posted. In response to a request for volunteers to serve as moderators, a committee including Joaquin Siques, John Sharkey, Ray Lewis, and Tom Lancaster was appointed. The duties of the committee will be to examine the web page every month or two to be verify that it is current, and to review all submissions to the web page. The moderators can suggest revisions to the authors of submittals if appropriate. The actual posting of material will be handled by ITE.

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Lisa can make a key-word search to pull up and post ITE Journal articles relating to railroad crossings. Brent will complete an ITE form for a web page application.

b. Termination of Separate Committees

ITE has requested the termination of separate committees (TENC 102-05 Active Devices and TENC 102-06 Passive Devices.) It was noted that there is technically a committee which Bill Alroth had established prior to his passing away which has never met ("Operations"). The chairs of the Active and Passive committees have been contacted and concur with the consolidation of committees.

c. Other Activities

Bill Browder reported that in general, railroad business in the US was down last year. However, crossing safety has improved, including trespassing accidents. The AAR has contracted with the FRA to conduct research on suicide prevention. APTA has developed standards and practices for light rail crossings which is available on its web site.

Andy Davis reported that Operation Lifesaver is beginning a program to allow non-railroad volunteers to learn more about the railroad industry.

Lisa Tierney reported that a new traffic signal warrant is being proposed for the MUTCD which provides for the installation of traffic signals at intersections adjacent to railroad crossings under certain conditions. Also, there is an upcoming FHWA webinar in February which will discuss changes proposed for the MUTCD.

John Sharkey reported that he will be prepared to present a webinar on four-quadrant gates in a year or so. It would be a joint project of AREMA and Safetran.

Gene Russell reported that the National Roundabout Conference will be held in Kansas City, Missouri, from May 18 to May 21, 2008.

Rick Campbell reported that the NPA (Notice of Proposed Amendments) for the MUTCD has been published by the FHWA. Numerous substantive changes have been proposed, and a new MUTCD is expected to be published in 2009. The comment period for the NPA closes on July 31, 2008. Some of the proposed changes include the mandatory use of Stop and Yield signs at all passive railroad crossings (the Yield sign is the de-fault control) and requirements for back-up power at traffic signals preempted by trains. There are also new sections for pathway crossings of railroad and LRT tracks. Traffic control devices for quiet zones that had previously been proposed for inclusion in the new MUTCD were deleted, but comments will be submitted to FHWA requesting a restoration of that material.

VI. NEXT MEETING

The next ITE committee meeting will be at the ITE International meeting in Anaheim, CA, on August 17 to 20, 2008.

VII. ADJOURN

The meeting was adjourned at 6:09 PM.





#### Traffic Engineering Council ENGINEERS

#### Chair:

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**INSTITUTE OF TRANSPORTATION** 

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## ITE COMBINED GRADE CROSSING COMMITTEES MEETING AGENDA ITE 2007 MEETING – PITTSBURGH, PA DAVID L. LAWRENCE CONVENTION CENTER Room 308, Level 3 AUGUST 7, 2007 – 3:30 PM / 5:30 PM

### I. WELCOME

The meeting was called to order at 3:32 PM by ITE Committee Chair Brent Ogden. This is a special, first-time combined meeting with TRB Committee AHB60 Chaired by Anya Carroll of Volpe Transportation Center.

## II. INTRODUCTIONS

There were 20 ITE and TRB members and guests present; plus ITE and TRB staff:

Brent Ogden	<u>ITE</u> Chair	TRB
Anya Carroll	Onali	Chair
Tom Lancaster	Member	Friend
Kurt Anderson	Friend	Friend
Phil Poichuk	Member	Member
Scott Booker	Friend	Friend
Andy Davis	Member	Friend
Bill Browder	Friend	Friend
Ken Rouse	Friend	Member
Brian Gilleran	Member	Friend
Suzanne Sposato	Friend	Young Member
Hal Millegan	Friend	Friend
Gene Russell	Member	Emeritus
Rock Miller	Member	-
Robert Seyfried	Member	-
Joseph Palsa	Member	
Charles Lewis	Member	Member
Libby Jones	Friend	Friend

### Meeting Minutes ITE COMBINED GRADE CROSSING COMMITTEES MEETING With TRB AHB60 At ITE 2007ANNUAL MEETING – PITTSBURGH, PA AUGUST 7, 2007

Lisa Fontana-Tierney ITE Staff -Richard Cunard - TRB Staff

#### III. ANNOUNCEMENTS

## IV. ITE COMMITTEE ITEMS

a. US DOT Grade Crossing Handbook Maintenance

Chair Brent Ogden reports that the updated Handbook is now posted on the ITE home web page. It is available in both HTML and pdf format, and is 327 pages in length. A publication date has not yet been announced by FHWA, but it is in the process of being printed. It is likely that few copies will be printed; distribution of the Handbook will be primarily electronic. New information up through late 2006 and early 2007 was included in the revised Handbook. A dedication to Hoy Richards was submitted as part of the Handbook, but FHWA rules pre-vent publication of dedications.

Brent suggested that a process for maintaining the Handbook in electronic format be created. Brian Gilleran, Ray Lewis, Bill Browder, Gene Russell, Andy Davis, and Kurt Anderson agreed to assist in maintaining the Handbook. Brent will set up the process, which will include method to moderate and vet suggested revisions. Lisa Tierney stated that ITE will create an errata page on the ITE web site with links to related sites so that technical mistakes can be corrected immediately. Errata should be sent to Lisa.

b. Webinars

Brent agreed to preside in an ITE webinar on December 12 to explain the revisions to the Handbook. He needs some assistance with structuring the webinar. Lisa explained that anyone can sign up for the webinar. It is not necessary to be an ITE member. Typically, a fixed fee is charged for each participating site, with no limit to the number of people who watch it. The audio is provided through a phone link, and the visual is provided through the internet. Bill agreed to assist in distributing notices of the webinar. Anya Carroll reported that TRB is now moving toward webinars, and that the Handbook webinar might be repeated by TRB.

c. Conference Topics

Brent reported that abstracts and suggestions for ITE presentations are now submitted on-line. The deadline for submissions for the spring meeting in Miami and the summer meeting in Anaheim is August 15, 2007. Brent has submitted a presentation proposal for a session. It will tentatively include Brent speaking on the revised Handbook, Sean Skehan speaking on preemption timing, Tom Lancaster speaking on revisions to the LRT chapter in the MUTCD, and Phil Poichuk speaking on grade crossing standards in Canada.

The FRA and the Illinois Commerce Commission have published a report on railroad crossing education and enforcement. Suzanne Sposato, the author, will submit an abstract to ITE.

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Brent suggests finding a multimodal issue for an ITE presentation that would attract a wide audience of people rather than only those interested in railroad crossings. Charles Lewis suggests that pedestrian crossings might be an issue that would interest many people. Many organizations have pedestrian committees, including NCUTCD, AAR, ITE, Access Board, and TRB.

In an attempt to coordinate and resolve issues for the committees working on parallel efforts, there could be an ITE or a TRB pedestrian session, which could be a panel session involving audience comments. Brian Gilleran has a compilation of pedestrian studies, but it has not yet been published. Brian also mentioned that the series of FRA public hearings on private railroad crossings has been concluded.

Other possibilities for sessions that would attract more people include a discussion of Safetea-LU or traffic signal timing, including railroad preemption.

The Far West railroad crossing conference will be held in Orange County in Southern California in May 2008.

#### V. TRB COMMITTEE BUSINESS

The TRB committee has 25 members, but this meeting did not have a quorum. The committee needs two new members, including one Young Member (under 32). Anyone interested can contact Anya.

Four railroad crossing papers have been submitted for the next TRB meeting. The committee has one three-hour meeting at every TRB session.

The FHWA has a presentation on in-pavement lights at railroad crossings. In-pavement lights at railroad crossings could be the subject of a research problem statement. A research statement could borrow from the TRB synthesis on pedestrian crossing in-pavement markings which is currently nearing completion.

Brian Gilleran mentioned that another possible research problem statement could be the use of uninterrupted power supply (UPS) at traffic signals that are preempted by railroads. Joseph Palsa stated that his company sells UPSs, and discussed the usage of UPS.

#### VI. NEXT MEETING

The next TRB committee meeting will be at the annual TRB meeting in Washington DC, January 13-17.

The next ITE committee meeting will be during the TRB meeting, most likely on Tuesday, January 15<sup>th</sup>.

## VII. ADJOURN