

**TASK FORCE 13 SPRING 2007
JACKSON HOLE, WYOMING
MAY 21 AND 22**

Task Force “TO DO” list

Find out how many of our publications are sold by AASHTO

FHWA Shall:

Add the designation “350” or “350 update” when posting hardware acceptance letters to the FHWA web site.

TF-13 agenda will overlap the Barrier subcommittee with one or more other from now on.

Discuss with RDG Barrier Chapter Author:

1. What slopes are appropriate immediately in front of barriers
2. SGR 24a-b shows reduced post spacing for w beam guardrail with 7 foot long posts driven at the hinge point. What does this say about the RDG guidance that shows 6-3” spacing with 7 foot long posts? Faller questions whether this RDG system would work.

Send AFB20 meeting announcement to all on Task Force

Add the TO DO review to the end of the agenda.

Durkos will send Chad’s proposal to Alberson who will discuss with TTI IT people for an estimate.

Talk to Pooled Fund states to see if they are interested in kicking a little more \$\$\$ to support TF13.

Pat Collins will summarize the duties of the Pub SubComm for the new co chairs who are Divyang Pathak from PennDot and Steve Kessler from GSI Highway Products.

Barry Stephens will finalize the WZ subcommittee label recommendations.

Consider using the term “post-mounted sign supports” to conform with the latest proposed revisions of the MUTCD.

Meeting Minutes

Co Chair Pat Collins welcomed attendees to Jackson, apologizing for the potential rainy weather, but noting that Wyoming needs it. The Jackson community is very particular about construction projects and makes highway improvements difficult. Recognized **Art Diniz, Chairman Emeritus**, as the inspiration for the Jackson Hole venue. **Diniz** mentioned that his wife, Ellie, was organizing Spouse activities in downtown Jackson. **Collins** also recognized Chery Jefferies, Bernie, and **Gregg Frederick** at the registration table for their efforts at making the arrangements for this meeting. The team received a well-deserved for round of applause. The XX attendees introduced themselves as is our practice.

Collins then asked for acceptance of the Minutes of the Fall 2006 meeting in Toronto which were sent out by TF Secretary **Artimovich** and posted on the website www.aashtoff13.org **Bob Takach** moved to adopt, **John Durkos** seconded. Minutes were approved.

Artimovich summarized the Toronto Subcommittee activities.

Co-Chair Durkos sent a cookie basket to TF member **Karla Polivka** on the occasion of the birth of her baby boy, named "Camber."

Subcommittee Meetings

SubComm #1 Publications Maintenance

Durkos filled in for Publications Maintenance SubComm and showed **Chad Heimbacher's** power point presentation. Heimbacher will no longer be participating in TF activities as part of Bryson Products as he has established himself as a computer specialist. He would like to remain active but it would only be as a funded position. SubComm 1 also needs one or two co-chairs depending on Chad's future participation. (Volunteers came forward at the end of the meeting for these positions.)

VDOT has been handling technical details of updates and TTI is hosting the TF website. **Lance Bullard** noted that a paid service is probably what we need rather than asking for volunteer effort. **Dinitz pushed for one State and one Industry co chair as is typical.** **Jeff Smith** related his experience with setting up a web site on a commercial server for a very low cost, but that would still depend a lot on volunteer effort. **Heimbacher** submitted a proposal that included a dedicated server as part of his package. **Collins** noted that some means of funding was necessary, perhaps through increased registration fees. **Executive Board** will discuss this in our meeting. Funding has always been a problem and we recently got funding for our publications, but continuous funding for our website may be difficult. There is no direct funding of Joint Committee activities in the AASHTO budget. We may have to sustain ourselves from within.

Durkos noted that **Dinitz** kept a decent balance in the TF account, and that has grown with the addition of small overages from registration fees. Heimbacher's proposal would wipe out the entire balance for one year service. Although we have not shopped around, his numbers appear reasonable.

Collins suggested that we can check with AASHTO to see if publication sales can help, but the minimal numbers may not be enough.

SUBCOMM #2 BARRIER HARDWARE

Will Longstreet made a presentation on recent SubComm activities.

Co-Chairmen: Will Longstreet (PENNDOT) and Bob Takach (Trinity Highway Products LLC)

I. Review of Mission Statement:

First order of business was to review Mission Statement. No changes were suggested.

II. Review of SOP:

Reviewed Standard Operating Procedures for drawing submission to "Guide to Standardized Highway Barrier Hardware". Will Longstreet reviewed with the group items that had changed since last meeting.

<http://www.aashtotf13.org/Work-in-process.asp>

Will also reviewed a procedure "flow chart".

III. Demonstration of Proboards:

Via internet hookup, Will demonstrated how to get to the "Highway Barrier Hardware Guide Discussion Board" on Proboards. Will urged everyone who has not registered on Proboards to do so soon.

<http://barrierguide.proboards31.com/>

IV. Review of Drawings to be moved from "in progress" to "ready":

Drawings that were presented and reviewed at the Fall Meeting were looked at one more time prior to calling them ready. Just like Malcolm Ray's original procedure; once a drawing is approved by the TF General Session it will then be moved from "in progress" to "ready" status area of the web-guide. Will reviewed with the group some of the previous general comments and corrections. Drawings are; **SGR20a-b, SGR21a-b, SGR22a-b, SGR23a-b, PWE06-07, PDB09, PDB10a-b and PDB11a-b**. These drawings were approved with minor changes by the General Session. Updated drawings will be moved to "ready" status. Some of the pending comments/changes are as follows; Nick Artimovich asked if it was OK for splices to be shown at post on **SGR21 & SGR22**. On **SGR23a-b** Bob Takach asked if curb depicted in elevation view could be simplified rather than using multiple parallel lines. It was suggested to add a note to drawing **SGR23a-b** that dimensions not shown on **SGR23b** are same as **SGR23a**. Dean Alberson mentioned and Nick agreed that reference to FHWA "approval" should be changed to FHWA "acceptance." Roger Bligh suggested that specification page should mention if system was accepted to current 350 or updated 350 testing

V. First Review of New Batch of "In Progress" drawings:

Hard copies of new drawings were handed out to the members for review/comment. These are **SGR24a-b, SGR25, SGR26a-b, SGR27a-b, SWM08 and SWM09**. Some of the comments are as follows:

SRG24a-b

- 1) Why crosshatch at 2:1 slope?
- 2) It was noted that this is not a MGS barrier
- 3) There was some discussion about addressing the slope in front of the barrier. It was generally agreed that this is better addressed in the "Roadside Design Guide" and should not be mentioned on the Barrier Guide drawings
- 4) Move "Section A-A" cut closer to splice since splice bolts are shown in section view.
- 5) Elevation view only shows one lap splice it should show two to indicate 12'-6" rail panels as indicated by the component list on the specification page.

SRG26a-b

- 1) Elevation view only shows one lap splice it should show two to indicate 12'-6" rail panels as indicated by the component list on the specification page.
- 2) Move "Section A-A" cut closer to splice since splice bolts are shown in section view.
- 3) FHWA acceptance letter is not referenced.
- 4) Since this is a nested system, component list on the specification page should show two guardrail panels.

SRG27a-b

- 1) What is 22" dimension on sheet 1 of 6 and 3 of 6 ?
- 2) Missing designations on sheet 2 of 6. (PDE02 & PWE01 should work)
- 3) Cleanup some of the hidden lines on sheet 1 of 6 and 3 of 6. (bottom right of sheet in Section View)

SGR25

- 1) FHWA acceptance letter is not referenced.
- 2) Were templates used to drill thru deck? If so, should it be mentioned on drawing?

SWM08

- 1) FHWA acceptance letter is not referenced.
- 2) Need overall height & width dimensions on enlarged section view on sheet 1 of 6.

SWM09

- 1) Need overall height & width dimensions on enlarged section view on sheet 1 of 4.
- 2) Does traffic side need to be called out on enlarged section view on sheet 1 of 4 ?

Due to time constraints of the meeting this is by no means a conclusive list of comments and corrections. Per SOP, the appropriate Technical Review Groups <http://www.aashtotf13.org/Work-in-process.asp> and the general membership should continue the review process via the Proboards discussion board site.

Other Subcommittee Meetings.

SUBCOMM #3 BRIDGE RAILINGS AND TRANSITIONS: Mark Bloschock

29 members attended the SubComm #3 meeting and began by reviewing their mission statement, followed by a discussion of the on-line bridge railing guide (transitions to be added later.)

Guide funding was obtained from AASHTO SCOH in the form of an NCHRP 20-7 project. The contractor is Dr. Malcolm Ray of Worcester Polytechnic Institute.

The intent of the guide is to be an electronic reference for crashworthy bridge rail systems with photos and drawings. The features of the web site will include:

- Guide navigation bar at left of page
- Search capability
- Reorganize by categories with a click on the heading
- Acceptance status
 - Not approved
 - Submitted to TF-13
 - FHWA Accepted
 - AASHTO
- Test specification
- Additional drawings plus simplified cross sections.
- Thumbnail photos linked to full sized pics.
- Room for brochures
- Room for AVI thumbnails, click to run video.
- Mounting type
 - Deck
 - Side mount
 - Curb
 - Parapet
- Material Type
 - Concrete
 - Timber
 - Steel
 - FRP
 - Other
- Other characteristics
 - Aesthetic
 - See-thru
 - Retrofit
 - Combination (traffic & ped)
 - View history of comments.
- Web viewer can provide feedback by email (address given)

To be added to the guide:

- Polymer concrete as material type? (May not be enough rails with this type.)
- Type of overhang
 - Concrete
 - Timber
 - FRP

Steel bridge grate
Temporary use category as a mounting type
Browse feature for test level to be added to navigation bar.
Weight per foot (for total rail weight) (150 pcf for concrete, report weight from deck up.)

SUBCOMM #4 DRAINAGE HARDWARE

Attendees:

Nathan Paul ABT, Inc. Chairman of Subcommittee #4, Tom Simon ABT, Inc., Paul Davies CALTRANS, Chuck Patterson VDOT, Divyang Pathak PENN DOT & Pat Collins WYDOT

Meeting:

The subcommittee as a group reviewed the draft survey presented at the previous Task Force 13 meeting. Requests for additional questions were made to include: 1) What Drainage guide(s) are you currently using? 2) What would make this Task Force 13 document more useful for you? A brief discussion on the attempt to post the survey on the Task Force website, allowing us to track results and push more traffic to the website ensued. Evidently the Task Force website is not currently capable of supporting the survey, however AASHTO had made an offer to do so which we will now pursue.

A suggestion was made to contact the various associations which represent concrete, aluminum, plastic and corrugated steel drainage products. Each association or industry group would be responsible for helping recreate and updating applicable product drawings for inclusion in the online document. Some of the attending DOT's were willing to submit their current drawings for use in the document as well.

A discussion on funding to assist with the updating process ensued. It was suggested to contact the AASHTO Drainage Committee. Funding would be easier to achieve if the group had a sponsor on the AASHTO Drainage Committee. It was also suggested to determine if the AASHTO Drainage Committee is doing any work on stormwater treatment. It would likely be easier to obtain funding through a group like NCHRP if a research project on stormwater treatment systems was incorporated into the updating process. Pat Collins had suggested that we have a "Scope of work" assessment made.

Some members of the subcommittee have suggested that the Drainage Hardware subcommittee should run the entire time of the subcommittee breakout sessions. The drainage guidebook is grossly different than the other publications and is attracting different "drainage specialty" subcommittee members that have no interest in the other subcommittee's publications (with exception to subcommittee #1).

**As a side note the Subcommittee was slotted for a one hour meeting, but because other subcommittees ran long, we were only able to meet for half an hour.

Action Items:

Meeting review Email to be sent to current subcommittee roster- Nathan Paul
Make revisions/ add questions to survey- Nathan Paul
Have survey posted on AASHTO and Task Force 13 websites- Nathan Paul

Conference call to be held to first week of August- Nathan Paul
Contact applicable trade associations informing them of the project and inviting them to the spring 2007 meeting- Nathan Paul
Everyone on active roster to review current publication (available electronically to Task Force 13 website) - Subcommittee #4 roster
Everyone on active roster to review AASHTO's Model Drainage Manual- Subcommittee #4 roster

SUBCOMM #5 SIGN AND LUMINAIRE SUPPORT HARDWARE Gregg Frederick
AASHTO Task Force 13 Meeting Minutes

Subcommittee Number 5

May 21, 2007

Jackson, Wyoming

Chairman Fredrick opened the subcommittee meeting and circulated a sign in sheet. He noted that Vice Chairman Stenko was unable to attend.

The group discussed three points in their meeting. First, Chairman Fredrick provided a brief overview on the pooled fund study to update "A Guide to Standardized Highway Lighting Pole Hardware." He noted that the Wyoming Department of Transportation received five very good proposals to complete this work. A selection committee was established, and they have ranked the proposals. The Wyoming Department of Transportation is working on the agreement language and negotiations with the contractor will begin shortly.

Second, the subcommittee reviewed the contact list and letter sent to companies that produce breakaway sign supports and components. The letter requested drawings, specifications, intended use, and contact information for components to be included in "A Guide to Small Sign Support Hardware." The letter and contact list had been generated by Stenko and Artimovich. Fredrick thanked them for their effort to get this completed. All manufacturers present were either contacted via email or supplied contact data to Fredrick at the meeting. Following the meeting, Fredrick passed the contact information of those who did not receive the letter to Stenko.

Finally, a majority of the subcommittee time was a review of the draft web document by Ray. Ray stressed that drawings, specifications, contact information and photographs are still needed for the document. Ray noted that the web page is similar in layout and content to the railing guide. The web page contains the navigation bar, and search criteria which includes, the type, number of legs, approval, crash tested specification and manufacturer. It was noted that the type should include wedged, socketed, and direction systems. There was some discussion to include sign size and wind loaded area. Other discussion areas included whether or not the sign substrate should be included in the manual as sign panels affect breakaway characteristics of small sign supports. These were not resolved. The committee also discussed including mounting height as an acceptance criteria. This was dismissed, as it is not an issue except in work zone hardware. Ray indicated that the site would be public in the next week or so.

The subcommittee meeting was adjourned.

**AASHTO-AGC-ARTBA TASK FORCE 13
JACKSON HOLE, WY
SPRING MEETING, MAY 21, 2007**

WORK ZONE COMMITTEE NO. 6 MINUTES

1. The meeting was called to order by Co-chairman, Barry Stephens at 12:30 pm.
2. An attendance roster is attached for further reference. Approximately 20 people attended the meeting.
3. The mission statement for the committee was reviewed along with the minutes from the Fall 2006 meeting held in Toronto. No changes were made to the minutes.
4. Barry Stephens informed the committee that the proposed warning labels for barriers and
and barricades had not been sent to ATSAA for review due to issues with the nomenclature regarding barricades.
5. Barry Stephens briefly reviewed a presentation given at the last ATSSA meeting entitled "Plastic Water – Filled Barriers vs. Barricades". This presentation defined the characteristics of barricades (which allow vehicle penetration) and barriers (which do NOT allow vehicle penetration). Several photo examples of various barricades were presented including fencing, water filled devices, plastic paddles, etc. The difference between barriers and barricades needs to be recognized and made known, given that both systems often look very similar and are sometimes confused in the product literature. In addition, the word "barricade" is often misleading in that it brings to mind devices that are, according to the MUTCD, installed perpendicular to traffic and not used as channelizing devices.
6. The committee then proposed new names for these channelizing barricades and narrowed the list down to three options which were then put to a vote. Three (3) committee members favored calling the barricades by their existing name, "Longitudinal Channelizing Barricades". Four (4) members voted to change the name to "Continuous Channelizers". However, with a majority of twelve (12) votes, it was decided to call them "Longitudinal Channelizing Devices". This new name can now be recommended to ATSAA and used with the proposed labels for the barriers and other channelizing devices.
7. The committee also discussed putting labels on barriers to indicate their deflection. However, it was decided that instead of labeling the barriers, the deflections should be listed in the Hardware Guide as a reference for contractors and project engineers (and should match the National Work Zone Clearinghouse information.)
8. The meeting was adjourned at 2:00 pm.

SUBCOMM #7 LAB ACCREDITATION

Minutes By:

Jeff Shewmaker – Safe Technologies, Inc.
Sub Committee Co-chair

A quick review was presented from the sub-committee meeting in Toronto.

Nick Artimovich gave an update on the posting in the Federal Register of the FHWA requirement that testing labs be accredited to ISO 17025. A June 8 deadline is set for comments and an adoption date seems to be in the late 2009, early 2010 time frame. Labs will have 2 years from the adoption date to become accredited.

Commander Artimovich then gave a brief report on the new test reporting submittal process utilizing a contractor to screen the submission materials before FHWA review. The process seems to be working well and further enhancements are being considered to accelerate the review/acceptance process.

Dr. Ron Faller then gave the group an overview of NCHRP 350 re-write status on behalf of Dr. Sicking. Many topics were covered including the requirement that the new trucks have a minimum CG of 28" and how that will be achieved by the labs. Most, if not all of the labs are to some extent, experiencing difficulty in achieving the mandated CG height requirement. New tires and front spring replacements may be necessary to meet the criteria resulting in significant cost increases to prepare the vehicles. There was also discussion about the new occupant deformation criteria and other topics. The review was quite interesting and informative. A special thanks to Dr. Faller for his contribution.

Another Interlaboratory comparison (ILC) was conducted with all labs participating. All labs processed a data set from a crash test and reported the results. The data was very tightly grouped and will be posted on the web site. Lab participation in an ILC program is a requirement of accreditation. Labs must participate in at least two of these ILC's each year to meet the requirement.

Future areas of research topics for the sub-committee were also discussed including instrument mounting, data processing, occupant compartment deformation measurement and the measurement of vehicle center of mass.

We would like to thank Nick Artimovich and Dr. Ron Faller for their contributions.

SUBCOMM #8 RAIL HIGHWAY CROSSING HARDWARE No meeting – Will meet again at the fall meeting in Seattle.

MARKETING: No report. **Collins** noted that AASHTO should add a link from their website to ours.

NEW STANDARDIZATION AREAS: There has been a lot of activity dealing with cable barriers recently. **Frank Julian** reported that we have much more information on cable barriers now than we did at our last meeting. Many answers are coming forward on some small items and some larger ones. The AASHTO TIG website will include info on Cable Barriers. This info will be transferred to FHWA web site, with updates, for long term availability. Dean Alberson's 22-07 (Task 210) cable barrier study is nearly

complete and the final draft is with the Panel for review. A lot of info will be coming out to help address cable barrier questions. We won't have all the answers immediately, but we are making progress.

Dinitz: reported on his service on the AASHTO Technology Implementation Group which takes new technologies and tries to get them implemented. New title is Tech. Impl. Group Executive Committee as it is comprised of many state CEOs. **Dinitz** hears little about roadside safety hardware except for cable barrier systems. "Proprietary" had been a dirty word with the TIG as most states favor generic products as they are seen as less expensive. Since one manufacturer was allowed to put in a proprietary cable barrier system, you have had the other competitors who have developed improved cable barrier systems. **Dinitz** plead for any members to bring new technologies to the TIG and apply for their support.

Executive Committee Meeting

4:55 pm

Collins proposed an informal agenda to discuss Task Force Name, Funding, What would we like from our website, CoChairs needed, and Where to hold 2008 meetings.

Do we need to change the TF13 name? We are part of an AASHTI/AGC/ARTBA Joint Committee Subcommittee, and not directly part of AASHTO. This was also discussed in Toronto and no compelling reason came forward to replace "Task Force 13." Perhaps a logo for TF13 is in order as a form of name recognition?

Funding: TTI is currently hosting our site on a volunteer basis with VDOT handling updates. Asked **Alberson** how goes it? TTI hadn't heard there were any issues, like not being able to post Nathan's survey. TTI is hosting TF13 web presence for free for now but no one has raised an eyebrow over the current situation. As far as costs, they don't have a good feel of the hours needed.

Heimbacher had prepared a proposal for both hosting and handing the Task Force 13 website. His breakdown showed minimal \$\$ for hosting, but 120 hours annual for effort for maintaining the site, coordination, data base administration, plus \$8000 lump sum for publications development and maintenance including gatekeeper, etc, for a grand total of a little over \$20K. Also included was website hosting, server storage, web site generation, porting, updating committee info and all other TF info, function as single point of contact, etc, etc.

Collins suggests TTI remain the stable host. The TF considers the stability, security, and safety of TTI to be paramount, whereas a private concern is questionable. **Alberson** will check with TTI IT people and see what they can do to provide this service. **Durkos** will send the website proposal info to **Alberson** and he can check it out.

How do we come up with funding to professionally host and support the site? If we add \$100 to registration fee per meeting for \$200 x 80 = \$16,000 may be expected.

Longstreet has proposed Penndot run a pooled fund study to do this on a continuing basis. **Dinitz** believes TF needs continuing funding for continual maintenance and updating of publication. AASHTO charges \$400 +/- for registration fees. The extra \$100

should not be a problem. Industry should also contribute towards the addition of their link to the Guides. Assume a ballpark of \$1000 per year for the link, based on the number of products / links each manufacturer has in the guides. We should find out what it costs us and what we should charge to keep the website funding in house.

Roger Bligh suggested that the TF could possibly tag onto MWRSF (7 states) and TTI's pooled fund efforts which include states very knowledgeable on roadside hardware and they see the value of doing this. **Longstreet** talked to **Albin** about this and agreed that this would also be a good mechanism for bringing in more state participation in TF13.

Durkos: Industry funding may seem to advertise proprietary products, whereas pooled funding would be seen as impartial. **Dinitz:** all products would be listed but funding by industry would only mean a link and logo would be put on the drawing.

Barry Stephens suggested that we only charge manufacturers extra \$100, but not TCRS or other state DOT members.

Mark Bloschock and Longstreet concurred that the extra \$100 shouldn't faze the state folks. The current TF13 fees are so low as to be laughable. Need to make sure that TCRS members are not charged this fee. This can be worked out with TCRS Chair Keith Cota or on our own form.

Dinitz: Any new projects? Yes, drainage guide will need another \$250K for this major effort and this would be a separate pooled fund project.

Some concern expressed about the TF \$\$\$ concerning the IRS – **Dintz:** we are a quasi governmental non profit organization. **Longstreet** mentioned Mac Ray needed to do more work on the Barrier on line guide to bring it into same format as other guides. – needs an extra \$10K. **Collins** suggested it be scoped as a 20-7 project.

Co Chairs: Publications: [See below for note on volunteers.] **Michael Hare** of quick curb wants to work on RXR SubComm. **Alberson**, how about a researcher? **Paul** says they have some potential state dot people for his co chair.

Spring 2008 meeting suggestions:

Longstreet volunteered to host the meeting in Hershey PA or Lancaster PA.

Chicago is still a potential but need a firm date. Suggest they look for the cheapest date and settle on that.

San Antonio TX, and Lincoln NE are open invitations.

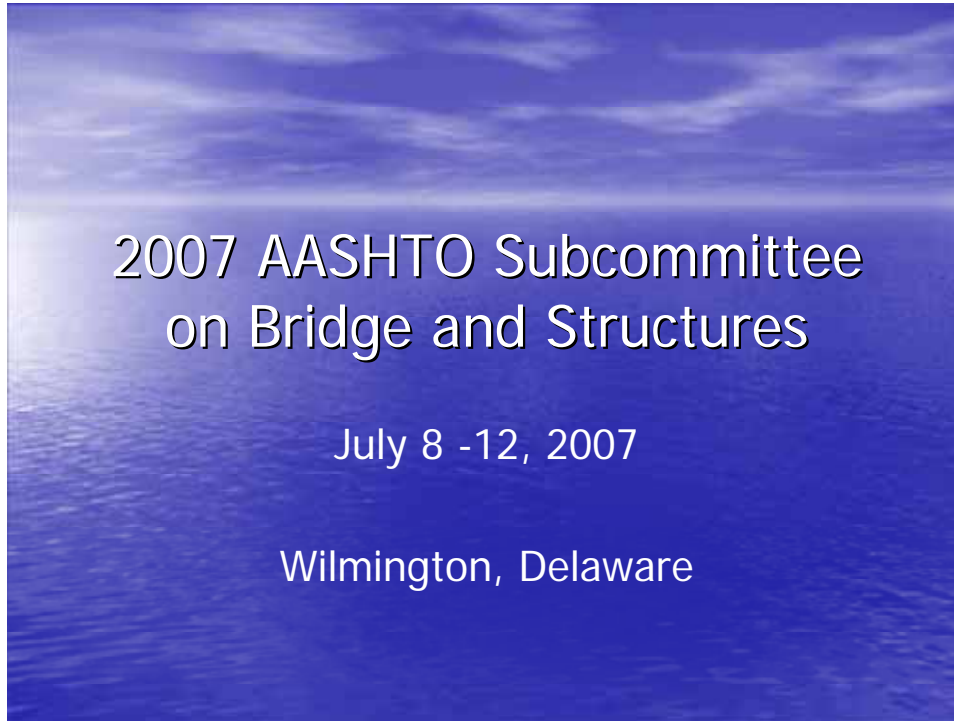
Collins brought up name change again. To change us from a TF to a separate subcommittee of the Joint Committee would not get any airtime with the JC. Our current status allows us to be all inclusive of state, industry, research, private participation. Need a logo and tag line?

Tuesday, May 22, 2007

Chuck Niessner updated us on recent NCHRP Roadside Safety related projects with this PowerPoint presentation (<http://www.aashtotf13.org/pdf/NCHRPstudies.ppt>)

Affiliated Committee/Activity Reports

Frederick reported on the AASHTO Subcommittee on Bridges and Structures annual meeting to be held July 8-12 in Wilmington Del. There is a link to the meeting's web site at www.deldot.gov. Click here to see the presentations at this meeting: <http://cms.transportation.org/?siteid=34&pageid=2397>



Jim McDonnell of AASHTO HQ was unable to attend. **Artimovich** made the following report on the AASHTO Technical Committee on Roadside Safety

The TCRS met in Wood's Hole Massachusetts May 15 and 16 and reviewed Dean Sicking's Final Draft Report. The committee made some minor edits and requests for additional information but no major requests for revisions.

Once Dr. Sicking returns the "Final Final" report the TCRS will take its final vote, looking for 100 percent approval, and then it will be balloted to the AASHTO Subcommittee on Design. In the September 2007 meeting in Seattle, where TCRS will meet right after Task Force 13 the Committee will review the comments received from the states, make any necessary revisions and send it to the Standing Committee on Highways for final approval. That could happen any time between October and the SCOH spring meeting in April or May.

Almost as important as the report itself is the AASHTO / FHWA implementation plan that will be circulated with the new test criteria. This implementation plan will spell out just what is expected when the new document hits the street.

As drafted, the implementation plan states that all existing 350 accepted hardware may not only remain in place, but the states may continue to install 350 hardware indefinitely. There will be no requirement to “re-certify” hardware under the new criteria. However, any new devices that begin testing must follow the new criteria immediately upon publication. If, on the date of publication you have hardware in a 350 test matrix you may continue under 350 as long as the request for acceptance is received by FHWA within 24 months.

In addition to the AASHTO balloting, the new test criteria and the implementation plan have to go through the Federal Register process because they are considered major guidance. They will not be incorporated into the Code of Federal Regulations like the MUTCD or the AASHTO Green Book are, but there is still need to inform the public of what FHWA is doing.

Report from ATSSA made in absentia by **Durkos** .

PPT PRESENTATION HERE

Durkos also reported on the TRB AFB20 annual meeting and proposed Summer meeting in Rapid City SD that will deal with cable barrier systems. July 8-11. The registration package was forwarded to all TF13 members in May 2007.

Collins reviewed Executive Committee activity. He brought up one new item, the WZ Subcommittee has worked for years to develop guidelines for labels for longitudinal channelizing barricades and water filled barriers. Is that something that we should post on the TF13 web site? It should also be submitted to the National Work Zone Safety Information Clearinghouse, but should go on TF13 website, too. **Dinitz**: we can get that highlighted when posted as the NWSIC is hosted by ARTBA. ATSSA has put the ball in TF13 court and we will now tell ATSSA . FHWA should host link, too.

Industry sponsors have come forward to volunteer to host events at future TF activities.

Technical Presentations.

Will Longstreet “Development and Testing PennDOT Modified Structure Mounted Guiderail”. Design and testing conducted by TTI. Guardrail directly attached to the curb at the edge of the box culvert. Wanted TL3 designation and did FEA first with 4 variations. Simulation of existing design showed great potential for pocketing on 3’3 ¼ inch post spacing. Got TL3 to work but wanted to go on with TL-4 design. Railing includes two rectangular steel tubes are behind the w beam.

Click here for Will’s PowerPoint:

<ftp://ftp.dot.state.pa.us/transfer/TF13%20Spring07/PENNDOT%20Modified%20Structure%20Mounted%20Barrier052207A.ppt>

78 foot long test section crash tested. Truck rolled over after it came off of the test installation. Test passed as the vehicle did not penetrate nor vault. Cracking only affected the upper curb and did not extend into the deck itself. **Bloschock** asked if asphalt overlays could cause a problem and **Longstreet** said yes, but crews have been made aware of this and mill prior to resurfacing.

Ron Faller Recent testing at MWRSF. COPY PPT PRESENTATION [HAVE]

MGS at edge of 2:1 fill slopes 7 foot post length with full post spacing. Used 350 Update criteria for heavy vehicle. Test 1 used 9 ft long posts 27 degrees and truck went over. System stiffness caused by 9 foot posts led to pocketing and override. Then reran the test with a 31 inch height. The reduction in the amount of post in the soil helped reduce the pocketing.. Ochoa maintains that the “improved release mechanism” caused by pulling the posts out of the ground led to better performance. Ron believes that all three improvements led equally to the improved performance.

Ken Opiela PPT

Update on TFHRC and NCAC activities.

- Actions resulting from 9/2006 external lab assessment:
 - Continue testing at FOIL
 - Continue FE Modeling and Crash Simulation
 - Improve Outreach
 - Enhance Library
- Model Building and Validation has begun to have vehicle models ready for analyzing 350 Update impacts and/or to develop revised or new hardware designs.
- Guardrail Height Analysis effort has been completed – Results indicate that guardrails below the standard height (27 inches) may be unacceptable because there is a greater likelihood that pick-ups and SUVs will vault over the barrier. Failing to overlay the shoulder creates a bounce effect which may also cause major problems depending upon the amount of drop and location of the barrier from the travel lane..
- Cable Median Barrier Research (Phase 1) for three-strand, low tensions system (i.e., North Carolina design) has been completed. The results indicate that placement has a major effect. Four cable designs may be useful to retrofit existing installations and/or increase the effectiveness in capturing various types of vehicles. Second phase analyses of cable barrier design and placement for a broad range of median configurations is nearing completion.

There is a long list of other activities underway.

Mark Bloschock PowerPoint <http://www.aashtotf13.org/pdf/MClite.ppt>

Motorcyclist Advisory Council delivers advice and recommendations to the FHWA/DOT. Motorcycle Crash Data MC fatals are 10 percent of annual, yet mileage is only 0.3 percent. 35 times more likely to die in a crash than vehicle occupants. Showed various countermeasures for pavement surfaces, signing, and barriers.

Dr. Carl Ochoa PPT [HAVE, but too large]

Discussed new insights into guardrail design and the development of the GMS guardrail system. Key is optimized release of the posts from the rail.

Jeff Shewmaker PPT

Testing at Safe-Tech Done for Highway Care LTD in England, Barrier Guard 800 with T Top Gate section.

CRASH TESTING OF THE CALIFORNIA ST-20 BRIDGE RAIL and MODIFICATIONS USING FINITE ELEMENT ANALYSIS



From reports authored by
Robert Bocchieri, PhD (ARA)
and **John Jewell, PE (Caltrans)**

Gary Gauthier
TASK FORCE 13
Spring 2007 Meeting
May 22, 2007



S1SP ARA0127-1

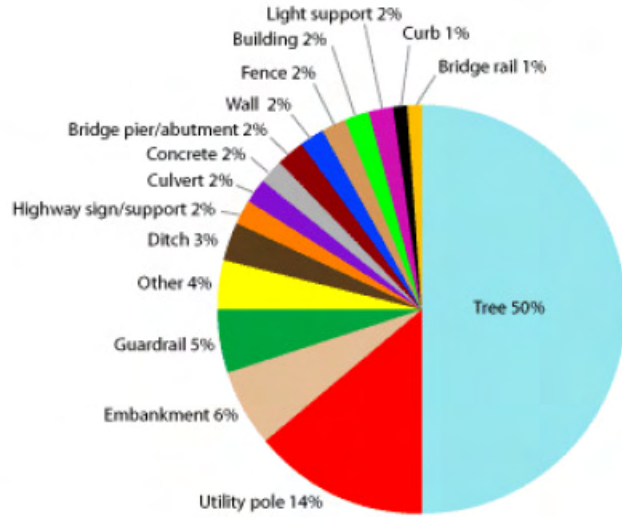
Gary Gauthier

ARA Associates, formerly of Caltrans. Testing of California ST-20 Bridgerail and modifications through modeling and testing. Testing showed hood snagging with marginal performance of the buckled hood. Did not cause windshield damage, but did concern Caltrans so the steel rectangular tubes were extended further away from the upright. Modeling of the new design showed improved performance. Adjourned at 12:30.

Frank Julian subsequently forwarded info on tree crashes which is shown on the subsequent page:

- Trees are the most common fixed object struck. Fifty percent of deaths in fixed object crashes in 2005 involved a vehicle striking a tree. Utility poles and embankments were the next most common objects struck, accounting for 14 and 6 percent of deaths, respectively.

Percent distribution of fixed object crash deaths by object struck, 2005



Deaths in fixed object crashes by object struck, 2005

Object struck	Num	%
Tree	4,573	50
Utility pole	1,223	14
Embankment	567	6
Guardrail	451	5
Other	364	4
Ditch	261	3
Highway sign support	226	2
Culvert	220	2
Concrete	214	2
Bridge pier/abutment	171	2
Wall	164	2
Fence	163	2
Building	158	2
Light support	131	2
Curb	91	1
Bridge rail	80	1
Total	9,057	100