MINUTES
Task Force 13 Spring 2004 Meeting
George Washington University
Washington, D.C. April 22 and 23

Co-Chairman **Pat Collins** welcomed members to Washington, D.C., to what was to be one of the best-attended TF-13 Spring meetings with some 80 registrants. He thanked **Bud Zaouk** of the National Crash Analysis Center for his work in arranging the meetings on the campus of the George Washington University. (For those who could not attend, the meeting room on Thursday had a magnificent view to the south of Washington's Monumental Core including the Potomac River, the Jefferson Memorial, the Washington Monument, and the Capitol.) Self-introductions of the attendees followed.

Co-Chairman **John Durkos** then offered a memorial to the late Walter Humble, a long-time TF-13 member who passed away last month at the age of 62. **Durkos** then referred to our venue in Washington D.C. as a "place where things happen." He and other ATSSA members had been lobbying Congress to pass the highway bill. **David Reese** advised members that members of Congress really do pay attention to the numbers of telephone calls they receive on a subject, and that now is the time for TF-13 members to support the highway bill by calling their representative and Senators.

Collins recommended that the Minutes of the Fall 2003 meeting, held in New Orleans, Louisiana, be approved. **Durkos** so moved, and the motion was seconded and approved. **Nick Artimovich**, Task Force Secretary, then summarized the subcommittee activity as reported from that last meeting. Note that any member may request an electronic version (MSWord) of the minutes for any or all of the last seven Task Force 13 meetings by emailing nick.artimovich@fhwa.dot.gov . Those meetings were: New Orleans, Fall 2003; College Station, Spring 2003; St. Louis, Fall 2002; Seattle, Spring 2002; Portsmouth, NH, Fall 2001; Sarasota, Spring 2001; and Jackson Hole, Fall 2000.

Collins got right into the business of the Task Force with the subcommittee meetings. He noted that most of the work is done by the subcommittees that now number 8, each having a co-chair from industry and the other from a state Department of Transportation (as does the Task Force, for that matter.) All members present participated in Subcommittee #1.

Subcommittee # 1 – Publications

Nancy Berry and **Matt Leahy** briefed us on the latest version of the proposed Task Force 13 website. Each subcommittee co-chair was given a copy of the webpages in hard copy and on a CD. **Berry's** colleagues in the Virginia DOT took the original version developed by **John LaTurner** and incorporated comments from the subcommittees at the last meeting. VDOT reworked the pages with the FrontPage program, and has agreed to continue updating the pages for the near term. Now, all of the TF's publications are linked from wherever they are mentioned and will open up in PDF format. **Berry** requested that members forward any requested changes to her. **Durkos** noted that NACE ought to be included on the organizational links page.

TTI is still willing to host the Task Force 13 website. **Dean Alberson** recommended that the email addresses of the subcommittee co-chairs should be linked directly from the various subcommittee pages.

There was discussion as to what steps needed to be taken to officially post this web site. **Jim McDonnel** of AASHTO discussed the TF's situation with his organization's staff and noted that as long as AASHTO did not put any funding into the development of the website, it could be posted without voting by the member states. **Art Dinitz** will inform the AASHTO/AGC/ARTBA Joint Committee that the Task Force is posting this information (FHWA's Tommy Beatty is the secretary of the Joint Committee.) **Greg Frederick** related a discussion with AASHTO's Ken Kobetsky that there is a review process involving the states if the AASHTO Seal is used in conjunction with any publication. Links to manufacturers sites would be a problem if AASHTO were to host the TF's website, but since it is being handled by TTI these links aren't a problem. **McDonnel** noted that the AASHTO Standing Committee on Highways (SCOH) would be the review body to approve the use of the seal. He will look for ways to minimize the levels of reviews and discuss this at the SCOH meeting in May.

Durkos said there have been long discussions over the content of the guides. We agreed that proprietary products will be included, but funding of the guides, or fees to be collected from the users and/or the vendors have not been finalized. The cost to get these guides into the proper format for publication, whether electronic or hard copy, will certainly exceed $500 per company whose products are in a particular guide, although this figure may be sufficient for maintenance of the documents once published.

There was also additional discussion at this meeting regarding the need for producing hard copies for sale. **McDonnel** indicated that his office has facilities for "publishing on demand" meaning that a stock of printed copies was unnecessary. Some members noted that consultants and contractors would prefer hard copies, while others noted that most states now have electronic standards and plans and that hard copies are unnecessary. The consensus of the discussion was that the Task Force should only work on producing the electronic version for the website free of charge to any of the many different users that may need this guidance. Anyone who really needed a hard copy could obtain one through AASHTO or produce their own.

Chuck Norton commented that we should not be looking for ways to charge the users for this information as our task is to promote standardization, therefore we should make this info freely available. **Leo Yodock** asked what would be the cost to maintain the website, including posting of updated pages? **Alberson** replied that the job could be handled by one man-year (person – year?) of effort.

Collins challenged **Berry** and **Leahy** to distill any outstanding questions and present them to the subcommittee co-chairs. He also said the subcommittees should proceed to finalize all updated documents and get them ready to post while the final questions over funding and approvals are researched.

BREAKOUT SESSIONS

Subcommittee # 2 – Barrier Hardware

Will Longstreet reported that the subcommittee reviewed old business regarding the features of the barrier hardware guide: use of photos, PDF files, isometric views, and other web issues. They also discussed the work to be put out for contract to update the current guide which is dated May 1995. Copies of their PowerPoint presentation were handed out to attendees of this session. The following minutes were submitted by Bob Takach:

Minutes for Subcommittee No 2, Barrier Hardware.

Meeting Location: George Washington University, DC
Date: April 22 and 23, 2004
Co-Chairmen: Will Longstreet (PENNDOT) and Bob Takach (Trinity Industries Inc)

I. Review of Fall 2003 Meeting Minutes, New Orleans Louisiana:

First order of business was to review previous meeting minutes. Minutes were approved and accepted by the Subcommittee.

II. Review Mission Statement:

Second order of business was to review Subcommittee's Mission Statement. No changes were suggested.

III. Review of Publication Page Description of "A Guide to Standardized Highway Barrier Hardware"

Third order of business was to review a description of the "Barrier Guide." This is a brief description of the Guide's use and function. Barrier Guide and other guides and publications are offered by AASHTO-ARTBA-AGC Task Force 13. During discussion of publication description a few items were suggested. Art Dinitz asked that website links be mentioned in the description. It was also suggested that Guide add more information concerning NCHRP Report 350 Testing criteria and results. Both Nancy Berry and Dick Powers disagreed and suggested the Guide is not the proper place for this type of information.

IV. Review of Resolved and Unresolved Items from Previous Meetings and New Items:

Resolved Items are as follows;

a) Guide detail drawings will use dual dimensioning [i.e. Metric (English)]
b) Single photograph of systems may be used to complement detail drawings
c) Adobe .pdf electronic files will be used as the "standard' electronic format for details displayed on Website.

All three resolved items were agreed upon by the group. Multiple photographs were discussed, but it was generally agreed that detail drawings should be primary focus and a single photograph can be used to give overall view of system. Harry Taylor suggested photograph size and format will need to be standardized. Dean

Alberson also suggested we keep ADA (Americans with Disabilities Act) compliance in mind as we proceed with website development.

Unresolved Items are as follows;

a) Website to be used for Paper Guide updates.
b) "Design based" (not marketing) Systems Specifications Page.
c) Informational links to other Websites, or resource page.

Items a) & b) were agreed upon by the group and can be considered resolved. Nancy Berry suggested we remove the word "Paper" from item a), the group agreed. Item c) will require further discussion. We had a general discussion about "pay" or "no pay" to access Guide information. General thought seemed to suggest a "pay" situation would not be advantageous and would significantly limit the number of website "hits".
Harry Taylor reemphasized the need to standardize a page format to be used by the "Barrier Guide" as well as other TF 13 Guides. Development of updated templates for the Guide's, Component Page, System Page and Specification Page will need to be addressed. The use of isometric view with photograph for Systems page was introduced and a few examples were shown for discussion and comments. Heath Valentine suggested a single sheet that would list all the latest revisions to the Guide's drawings would be beneficial.

V. Website Links Embedded in Product Guide Page

The final portion of meeting was devoted to discussing the use of interactive links within the Guide. A sample Specification Page from the Guide was shown to the Subcommittee as an example of how website links could be used. For example, a link could be placed in the FHWA Reference Number area of the Specification Page. This link could either access solely the particular FHWA acceptance letter for the device shown on Specification Page or a list of items that includes this particular device along with other versions of this device and all similar other items. Also discussed were website links that would be placed under "Contact Information" on the Specification Page. Such contacts may be DOTs, highway agencies, and manufacturers. These links could be as simple as accessing the homepage for said agency or be more specific and go directly to a designated contact or a manufacturer's specific product information page. It was generally agreed the more specific a link was, the more likely it would need to be monitored for changes and updates.

Subcommittee # 3 – Bridgerails and Transitions

Roger Bligh reviewed his subcommittee's mission statement for the website. They also discussed the terminal connector, known as an end shoe, and the need to fit thrie- and W-beam rail ends on top of that connector at the bridge approach end. The subcommittee also reviewed the bridgerail document started by the FHWA contractor in California which is about 80 percent complete. It does not meet all the needs of the Task Force, but it is still useful. The subcommittee

will press forward with a modification to their draft RFP to finish the Bridgerail and Transition book. Co-Chair **Mark Bloschock** also showed some slides of heavy vehicle impacts into bridge piers.

Subcommittee # 4 – Drainage Products (Minutes as submitted by the Subcommittee)

Adam Neuwald called the meeting to order.
Chair-Rick Foster was not in attendance due to illness.

Neuwald discussed that an effort will be made to recruit volunteers to the Task Force 13 Drainage Hardware Subcommittee. A recommendation was made that we grow the subcommittee with attending TF-13 members, State DOT, municipality and design engineers.

It was determined that the current document [1999 edition] is probably not available in an electronic format. PDFs of the document will be created to distribute copies to the engineering, DOT and municipal communities for review. The committee is to review the current document for new products, updates, etc. The group will then proceed with editing the document after necessary feedback from the industry is received. A suggestion was made that the committee reach out to DOT and municipal authorities for review. Issues were discussed on how to expose the document to the public. It was determined that the document should be available online for free download.

A question was raised as to whether the document had to be approved. It was suggested that the committee would present the document to AASHTO for recommendation and approval. Further discussion was recommended.

The committee must find a way to secure the proper funding for updating and publishing a new document. A discussion was held on the possibility of putting together a problem statement and going state to state to generate interest for contributions. Federal money may be available through the states. It was recommended that the committee talk to the barrier committee for funding information. Other possible sources of funding may come from AASHTO or through a NCHRP project.

It was recommended that the Mission Statement be reviewed. If the committee intends to move forward, we must have the interest and vision of those involved.

Adjourned with the recommendation that the document be reviewed by the fall 2004 meeting.

Subcommittee # 5 – Sign and Luminaire Supports

Mike Stenko discussed the efforts to update this subcommittees two publications. The Guide to Luminaire Support Hardware will be updated via a pooled-fund study coordinated by Wyoming DOT. The RFP was circulated to the participating states and is being rewritten by **Greg Frederick** to include their comments. The Guide to Small Sign Support Hardware is being updated by all volunteer effort. The “St. Louis Six,” a small group of subcommittee members

who met subsequent to the Fall 2002 meeting, has rewritten the guide's opening sections and is ready to move forward with page revisions to the drawings and design details. Once the subcommittee receives the approved page format from the Publications Subcommittee, letters to each sign manufacturer who has received an FHWA Letter of Acceptance will be sent a request to provide updated information in a common format. This same format will be adopted by FHWA for petitioners requesting acceptance of a support, and it is hoped, by the crash test houses for including support details in the crash test reports. This will ease the work of the subcommittee when updating the on-line information in the future. It was noted that the subcommittee, indeed all subcommittees, should consider posting their publications as soon as possible to defer having to make these documents accessible to the visually impaired.

Subcommittee # 6 – Work Zones

Barry Stephens noted that this subcommittee has the advantage of a comprehensive, pre-existing website that deals with work zone safety issues. The National Work Zone Safety Information Clearinghouse (http://wzsafety.tamu.edu) is run by the Texas A&M University with funding from a number of sources. At our Spring 2002 meeting in Seattle, Dr. Gerard Ullman explained the site to the Task Force and we had an opportunity to "test drive" the site. It was clear that a separate Task Force 13 publication on the same topic would duplicate much of the information available through the Clearinghouse. Dr Ullman was receptive to our participation in improving his site and TF-13 members subsequently provided numerous comments to improve the usability of the site from our perspective.

The subcommittee also discussed the issue of labeling of work zone devices, per the proposal by ATSSA. The proposal was intended to be in line with FHWA guidance on the topic, was non-mandatory, and would hopefully avoid each state developing their own unique requirements for labeling devices that meet NCHRP Report 350. The proposal to support the labeling concept for Category 2 devices was approved by the Task Force at the last meeting. **Artimovich** reported that FHWA has received the formal proposal from ATSSA and will, as a minimum, post it on the FHWA Office of Safety FAQ page.

A third issue was Paul Lang's concern expressed at the Fall 2003 meeting in New Orleans that non-crash tested devices that were "grandfathered in" under the 1998 AASHTO/FHWA Agreement (http://safety.fhwa.dot.gov/fourthlevel/memo.htm) were being kept in use by extensive repairs rather than being considered "beyond their normal service life" when virtually destroyed in use. FHWA addressed this concern in their Dec. 24, 2003, memorandum "Trailer Mounted Work Zone Devices (Category IV) and Grandfathering of older WZ devices (Category II)" (http://safety.fhwa.dot.gov/fourthlevel/hardware/workzone/pdf/wz161.pdf) (listed on the FHWA website with the incorrect date 10-24-2003)

Finally, the subcommittee discussed the need to standardize the way in which Water Filled Barriers and Water Filled Longitudinal Channelizing Barricades are marked. The difference is critical, as the Barriers redirect or capture impacting vehicles, per NCHRP Report 350 TL-2 or TL-3. Barricades allow the impacting vehicle to penetrate beyond the line of devices, but without causing excessive occupant impact speeds, ridedown accelerations, occupant compartment deformation, or vehicle rollover. Because some of the plastic units can be used as stand alone

barricades, longitudinal channelizing barricades, or as barriers when retrofit with a crashworthy steel rail or rails, marking the individual units would improperly limit (or exceed) their usability. Clear direction from the manufacturers and vendors of these devices is necessary to insure that barricades are not installed when barriers are warranted.

Minutes submitted by the Subcommittee:

The following are the key points that were discussed during Subcommittee 6 – Work Zone Hardware:

1. The attendees agreed to continue to support the Work Zone Clearing House as an on-line source of information for WZ hardware.
2. Briefly discussed voluntary marking of NCHRP 350 compliance Category II and III devices. The markings should include the 350 test category, the name of the manufacture, and the number of the assigned FHWA acceptance letter.
3. Discussed the "normal service life" of work zone products relating to a presentation by Mr. Paul Lang (Lang Products) at the previous TF-13 meeting in New Orleans. During this discussion it was mentioned that an FHWA memorandum exists that addresses this topic. The group felt that for proprietary devices, end-users should follow manufacturer's recommendations relative to allowable limits of repair.
4. New Topics:
    a. TMA standard attachment – this was brought up as a potential area of standardization. It was mentioned that this topic was previously reviewed and a recommendation was forwarded to the TRB Equipment Maintenance committee.
    b. Water-Filled Barriers versus Barricades (Channelizers) – concern was expressed that some of these devices look very similar and a high potential exists for incorrect application in work zones. Standardization ideas to help minimize incorrect use included: distinguishing color such as orange/white for Barriers vs. yellow/gray for Barricades (not workable because existing standards call for orange and white, and at least one product can be upgraded from a barricade to a barrier by adding a steel frame), standardized product warning labeling, and standardize wording in marketing campaigns that do not confuse end-users. The group agreed that standardizing warning labeling might be a good idea. Energy Absorption and Yodock were given the assignment to work together to develop a suggested Warning label that could be placed on barriers and barricades. (Note: after the subcommittee meeting Energy Absorption and Yodock also discussed recommending to the principle contractor responsible for re-writing NCHRP 350 that he should consider adding testing criteria for Longitudinal Barricades (Channelizers).

Subcommittee # 7 – Certification of Crash Test Facilities

La Turner restated the subcommittee's goal of improving the quality and consistency of information provided by the crash test houses. Most of the meeting was spent discussing the NCHRP Report 350 rewrite. The current Inter Laboratory Comparisons will continue in anticipation of FHWA's requirement for laboratory certification. The subcommittee also hopes to harmonize reporting and documentation procedures with the Europeans; and look forward to the day when test data can be input directly into the acceptance process. There was discussion among the Task Force regarding the importance of weather (snow and ice build up) and soil conditions on crashworthiness. As these factors may already be considered within the guidance of Report 350, the Roadside Design Guide would be a better place to discuss these warranting conditions.

Subcommittee # 8 – Rail Highway Crossing Hardware

Rick Mauer reported that the subcommittee worked on reviewing the proposed web site. Because rail crossing hardware is already the subject of AREMA standards, TF-13 will limit its activity to publishing contact information that highway agencies and hardware manufacturers can use to coordinate with FRA, the railroads, and vice versa. This list of contact information is nearly complete and ready for posting. (Note that Brian Gilleran of FRA has just been added to the TF-13 mailing list.)

The following was submitted by the Subcommittee:

Proposed Mission Statement: "Our mission is to foster communication between DOT's, Designers of Grade Crossing & Industry and to centralize a source for design materials & hardware related to the design of Grade Crossings"

- Get Nancy our word smithed web site subcommittee mission statement & get her our contact list.
- Ask for a slot on an FRA committee that address the RR Xing issues. – Not been done yet. Was hoping to have Brian Gilleran clue us in to the specific committee.
- Ask FRA to come to our next meeting. Specifically Brian Gilleran who is considered the resident FRA HW Engineer. – I spoke with him on the issue and he wanted specifics on our taskforce bonifidies as well as specific question on our issue. Emailed him with invitation to this meeting.
- Check out and attend a TRB subcommittee that addresses the RR Xing issues. – Did not happen.
- Submitted our RR Contact document to AASHTO to determine if it will be an issue if we post it on the TF13 web site. We need to get their blessing on putting the document on the web. ASHTO response is not. According to Jim McDonnell.

Action Items to be accomplished before next meeting:

- Write letter to FHWA formally asking for a response to our crossing issue.
- Email everyone on listing to make sure that they are still the person to be contacted
- Follow up with Mike on TRB Sub Committee
- Find a friendly at FRA - Mike will be doing this.
- Forward the mission statement and the RR Crossing guide to Nancy Berry

FHWA ISSUES

Dick Powers addressed three items of interest to Task Force members.

1) The NCHRP panel for project 17-14(02) has received the report "Median Barrier Warrants." FHWA has polled the states, asking them to review their cross-median crashes and plot them against median width. FHWA will compile this information, which will be discussed at the AASHTO Technical Committee on Roadside Safety at

Irvine, CA, this fall (the follow-on meeting to the TF-13 Fall meeting.) A significant increase over the existing minimum 30 foot median warrant is expected.

2) NTSB has recommended that FHWA issue guidelines for the design of bridges to withstand the impact of large trucks. FHWA is putting together a position paper on what the states should do.
3) In our travels across the country, teaching the Roadside Design Guide Course among others, we get a chance to observe real world installations. One of the most common problems is W-beam guardrail terminals – they are rarely, if ever, installed in accordance with published guidance. FHWA will prepare and distribute additional guidance on proper terminal installation. A draft memo was distributed to the states and terminal manufacturers in attendance.

EXECUTIVE BOARD MEETING

After Thursday's adjournment, the Executive Board, consisting of the co-chairs of the Task Force and of all the subcommittees, the secretary, and the chairman emeritus, met. In attendance were **Collins, Durkos, Artimovich, Art Dinitz, Alberson, Berry, Leahy, Mauer, Bligh, Bloschock, Stephens, Stenko, Frederick, Longstreet, Bob Takach,** and **Neuwald. McDonnel** was also invited to participate.

Artimovich asked if the current timing and arrangement of the subcommittee breakout sessions was working for everyone. The same pairings have been made since the Spring 2000 meeting in Savannah meaning that the same topics always overlap. **Durkos** applauded the work of the subcommittees and all agreed that the schedule worked well, providing just about the right amount of time for necessary business.

Discussion then turned to publishing the products of the subcommittee work. It appears that TTI will be able to host and maintain the Task Force's site for the near future. The TF will post the documents we have available and then continue work on revising them. **Alberson** said they can be posted now with password protection. We will then work on the protocols necessary to get the site approved for public consumption. **Berry** will send a letter to **McDonnel** indicating that the TF intends to post the site as soon as possible. **McDonnel** indicated that it will have to go through SCOH but that should not be a major stumbling block. **Dinitz** will ask for similar approval through the Joint Committee. **Berry** noted that the subcommittees still need to develop an estimate of costs needed to update their publications.

McDonnel also noted that NCHRP has money available for quick turnaround projects under Project 20-7. One-page proposals to update one or more publications should be prepared and submitted to Bob Reilly of NCHRP, then they go to SCOH. **McDonnel** intends to offer these proposals to SCOH at their upcoming meeting at St.George, Utah. **Dinitz** mentioned the Technical Implementation Group (TIG) of SCOH charged with bringing new technologies into use. The TIG knows about the Joint Committee and the work of the Task Forces. AASHTO would be more willing to support funding for these efforts if AGC and ARTBA also showed support. **McDonnel** had discussed funding with **Brad Sant** of ARTBA who seemed receptive.

Collins asked if the Barrier Guide should be the first one posted. **Bligh** agreed to post the current guide, at which time revisions could begin. The Bridgerail and Transitions document development would be a new start, but that $100,000 probably would not be enough to finish the work. **Mauer** said the Small Sign Support Guide could be ready soon, but that we need to send letters to the manufacturers as soon as a common page format is agreed upon. **Leahy** agreed to distribute that format in 8.5 x 11 and 11x17 sizes.

Collins then requested that a $100,000 funding proposal be drafted for the Barrier Guide, Bridgerail and Transitions Guide, and the Small Sign Support Guide. **McDonnel** advised that the proposals emphasize that others would be handling web site maintenance, and that the placement of the publications on the web would allow the subcommittees to do their own updates. Also note that we may have great need for additional updating once NCHRP Report 350 is superceded, and being able to do this from existing web pages would be a great benefit.

Finally, the location of the Spring 2005 meeting was discussed. Potential sites are Sarasota Florida, Columbus Ohio, Lincoln Nebraska, and Savannah Georgia. The Executive Committee decided to put Sarasota and Columbus to the membership and get a sense of their interests.

FRIDAY APRIL 23

Friday morning opened with a presentation by **Zaouk** about the crash test planned for the afternoon at the FOIL, and **Powers** discussed the reason for the test. North Carolina DOT has installed a great many miles of conventional three-cable median barrier to cut down on their severe cross-median crash problem. Subsequently they experienced a number of incidents where automobiles penetrated the barrier. Finite Element Modeling of the NCDOT installations, where the cable barrier is located four feet off the ditch bottom, shows acceptable performance under Report 350 conditions. However, when the same FEM runs are made using autos like those in the North Carolina crashes (Ford Crown Victoria) the barrier fails to redirect the vehicle. The test at the FOIL will be a Crown Vic impacting the median cable barrier at 100 kmh at an angle of 25 degrees.

The location of the next two meetings was then discussed. The Fall 2004 meeting will be on October 11 and 12 in Irvine, California. The cities of Sarasota, FL, and Columbus, OH, were offered, with an open invitation for anyone else to sponsor the meeting in the Spring of 2005. **Heath Valentine** noted that Ohio would be a good location for drawing state DOT people from the east and Midwest. The presence of a crash test lab in Columbus was also seen as a draw. There was no strong consensus from the membership on which location to choose. The Executive Board will make an Executive Decision and determine the location.

UPDATE ON RELEVANT NCHRP PROJECTS

Chuck Niessner did his usual excellent job in summarizing the current roadside related studies. He noted that, for the first time in a long time, there will be no "new-starts" of NCHRP projects related to the roadside, and that the Task Force ought to develop some proposals. Those of you viewing the electronic version of these minutes should be able to click on the project number below and be linked directly to the NCHRP page describing the project. Otherwise you may go to http://www4.trb.org/trb/crp.nsf and look for NCHRP.

Project #	Project Title
16-04	Design Guidelines for Safe and Aesthetic Roadside Treatments in Urban Areas (Active)
17-11	Determination of Safe/Cost Effective Roadside Slopes and Associated Clear Distances (Active)
17-14(02)	Improved Guidelines for Median Safety (Active)
17-22	Identification of Vehicular Impact Conditions Associated with Serious Ran-Off-Road Crashes (Active)
17-24	Use of Event Data Recorder (EDR) Technology for Roadside Crash Data Analysis (Active)
22-12(02)	Guidelines for the Selection, Installation, and Maintenance of Highway-Safety Features (Completed)
22-13(2)	Expansion and Analysis of In-Service Barrier Performance Data and Planning for Establishment of a Database (Completed as NCHRP Report 490)
22-14(02)	Improved Procedures for Safety-Performance Evaluation of Roadside Features (Active)
22-15	Improving the Compatibility of Vehicles and Roadside Safety Hardware (Completed as Web Document 61)
22-17	Recommended Guidelines for Curbs and Curb-Barrier Combinations (Active)
22-18	Crashworthy Work-Zone Traffic Control Devices (Active)
22-19	Aesthetic Concrete Barrier and Bridge Rail Designs (Active)
22-20	Development of AASHTO LRFD Design Methodology and Load Transfer Mechanism for MSE Walls with Top-Mounted Traffic Barrier/Anchor Slab Under Vehicular Impact Load (In negotiation)

AFFILIATED COMMITTEE ACTIVITIES

Brad Sant of the **American Road Builders Association** made his presentation on Thursday due to a schedule conflict. He heads the Traffic Safety Industries Division. ARTBA is a federation of 8 transportation groups:

Traffic Safety Industries Division
Public-Private Ventures (toll roads)
Planning and Design Division (consultant engineering firms)
Contractors Division (3000 +/- members)
Education and Research Division (major universities)
Materials and Services Division (insurance, aggregate producers, etc.)
Equipment Division
Transportation Officials Division (mostly county engineers)

One of ARTBA's principal functions is to lobby for increased highway funding every six years. The three highway bills under consideration this year are the Administration's bill at $256 billion; the House bill at $375 billion, reduced to $275 billion; and the Senate bill at $318 billion. We are now waiting for the Congress to appoint a conference committee to reconcile the differences. ARTBA, of course, is promoting the Senate version. It is unlikely that any highway bill will be ready by the end of the current extension (April 30,04) an additional one- or two-month extension is expected.

Sant's job is to try and get those in the traffic industry to talk to those in the safety industry. He also works with the International Road Federation to promote infrastructure improvements and make highways safer globally. He is also working to develop tools to help teenagers drive safely through work zones. ARTBA was also asked to research how the "10% Safety Funds" are being spent, as over $1billion was carried over in unobligated funds for safety improvements. ARTBA, has a task force working with AASHTO and FHWA to deal with the increasing costs of steel.

Frederick noted that the **AASHTO Subcommittee on Bridges** will meet on June 20-25 in Orlando, Florida. Technical committees of interest to TF-13 include T-7 on Guardrail and Bridgerail, T-12 on sign supports, and T-13 on culverts. More information is available at www.dot.state.fl.us/structures Revisions to the Sign Specifications, for example, will be minimal, and will include an increase in the minimum number of anchor bolts to provide additional redundancy. Research into fatigue continues and may result in moderating the big jump in pole sizes noted by states implementing the 2001 specifications.

Donna Clark brought us up to date on the many activities of the **American Traffic Safety Services Association.** The Guardrail Installers Training Course has been very popular, and the follow on course, Longitudinal Barrier Systems Training Course is now being scheduled into the first quarter of 2005. They have also developed a Guardrail Inspection Checklist. The Guardrail Services Division will be meeting at the ATSSA Midyear on August 19-21 in Chicago. The next ATSSA Annual Meeting and Traffic Expo will be in Phoenix beginning February 27, 2005.

Other highlights of ATSSA activities include National Work Zone Awareness Week (April 2004), the National Work Zone Memorial Wall (for scheduling contact lisak@atssa.com), the video production "In The Zone" about safe driving through work zones, featuring race car driver

Todd Bodine, and the ATSSA Fly-In. This week ATSSA members lobbied their elected representatives in favor of passage of the highway bill. The Administration's bill features a Core Highway Safety Program which was a result of ATSSA influence with the US DOT.

Anthony Giancola , Executive Director of the **National Association of County Engineers** joined us to learn about TF-13 and to brief us on his organization. NACE (http://www.countyengineers.org/) is an affiliate of the National Association of Counties (http://www.naco.org/) The stated aims of NACE are to Speak, Learn, Deal with common problems, and Present a message. There are 3066 counties in the USA and 2400 have roadway responsibilities. NACE has no chapters, but has 30 affiliated organizations.

NACE, the National League of Cities, National Conference of Mayors, etc., all support a six year highway bill. The structure of the House and Senate bills are very different from one another. The Senate bill includes the Core Highway Safety Program. The House bill includes the Rural Road Safety Program promoted by NACE. **Giancola** advises members to establish relationships with their elected representatives early and stress the importance of continued highway funding. Approximately 25000 fatalities occur on rural two-lane roads (both state and local).

County governments and their engineers vary across the country. Some large counties have large engineering departments. Some small counties, particularly in Oklahoma and Mississippi, do not have their own departments, but use the services provided by consultant engineers who oversee operations in two or three counties. He noted that at their 2004 annual conference 378 members were in attendance. Medicino County, California, reported that they reduced crashes by up to 40 percent through signal improvements alone. Rudy Umbs of FHWA addressed the NACE conference and told them that FHWA is converting key documents into products that are useable by local agencies.

Giancola asked all in the highway industry to promote National Transportation Week in May, and asked FHWA to promote the LTAP Safety Circuit Riders program which brings training to local agencies. He also noted that NACE members and Task Force 13 ought to get to know each other better. He showed us the NACE publication "Local Roadside Safety Guide" that most TF members were unaware of. It is out of print and needs revision, as are many of our guides. NACE is also pushing Road Safety Audits.

TF-13 asked for copies of the NACE guide so that we can discuss it at our Fall meeting. Finally, **Giancola** invited us to participate in the next NACE annual meeting in exciting Bismarck, North Dakota, April 17-23, 2005. NACE is willing to work with the Task Force towards our mutual goals of safer roadsides.

In a discussion of NACE and TF-13, **Powers** noted that the Roadside Design Guide has a chapter on local road issues. **Stevens** asked what priority did roadside safety have with local agencies – it seems to be about as important an issue as it is with state highway agencies. Counties generally have to follow their state standards when it comes to highway design, and there is really only a problem on roads where no additional right of way is available and the state does not have low-volume road standards.

McDonnel representing the **American Association of State Highway and Transportation Officials** noted that "most of what I had to say was already dragged out of me." Truthfully, the Task Force is very pleased to have AASHTO representation, and the open discussions at this meeting have gone a long way towards clearing up misunderstandings that TF-13 had, and has given us reason for optimism. **McDonnel** works for the AASHTO Standing Committee on Highways Task Forces, now Technical Committees, including the Technical Committee on Roadside Safety. He works closely with Ken Kobetsky and Tony Kane, two very experienced engineers. He has conducted detailed reviews of the highway bills with an eye towards emphasizing the importance of measures that improve the bill from the states' perspective are retained, and those that merely generate paperwork are dropped.

McDonnel again noted that the Task Force may proceed with posting our documents on line, and that AASHTO can offer Print on Demand once the publications are updated and available through the AASHTO site. He also emphasized the need for new topics for roadside safety research, and that the TF should go through a state or the TCRS. He will carry the proposals for funding the revision of TF-13 publications to the SCOH meeting in May.

McDonnel also discussed the steel price issue briefly. Some states can renegotiate contracts while state law prohibits others from doing so. The AASHTO Standing Committee on Highway Construction is working with FHWA to figure out how to get jobs done without a lot of contractors going bankrupt. Finally, he discussed the AASHTO strategic highway safety plan, NCHRP 500, which covers 21 areas. Seven have already been published, with seven more this year, and the final seven to be published next year. They continue to seek pilot states to implement these program areas.

TECHNICAL PRESENTATIONS

Matthew Shorb of R.E.H. Holdings, Inc. (L.S.Lee & Elderlee) speaking on behalf of **ARTBA** was invited to discuss his knowledge and experience in dealing with the states and FHWA to provide some relieve to contractors who were caught by surprise when the price of steel skyrocketed over the last few months. At the end of February **Shorb** and others met with FHWA and the AASHTO executive board and explained the problem. The demand by China for scrap steel to fuel their economic boom has driven up the price of US steel to an unprecedented degree. Contractors who bid projects last fall are in danger of going bankrupt if they are forced to fulfill the contract requirements without some consideration of the tremendous price increases. Yes, they could default and let the state use the bid bond, but ARTBA would prefer to avoid drastic measures such as this, and keep contractors solvent.

All parties are interested in cooperating, but FHWA issued a ruling to the effect that we could not participate in such monetary relief efforts. ARTBA has a draft proposal of the highway industry solution. This proposal does not address future contracts, as the increased risks are now common knowledge. The proposal is to adjust existing contracts bid prior to March 1, 2004, and would apply to all steel products invoiced after January 1, 2004. Numerous unpredictable and one-time events combined to cause the demand for steel to soar in early 2004. The ARTBA draft is based on actual invoices, not an index related to scrap steel prices as scrap and finish prices do

not track very well. **Don Johnson** noted that very few contractors will be willing to show their invoices as that is information most consider proprietary.

As noted, FHWA does not support price escalation, and most states are waiting to see what others do first. In some states where price escalation is prohibited , it is because of court rulings and legal precedent in lieu of law. ARTBA is pushing contractors to contact their legislators to ask them to act so as to prevent many contractors, large and small, from shutting down. **Durkos** asked for an executive summary of the issue for these minutes. More information on the steel situation may be found at www.scrapemergency.com

Durkos of **Road Systems, Inc**. described the design and testing of end terminals for the Midwest Guardrail System. The MGS differs from conventional w-beam barrier in that the rail splices are set between the posts, the height of rail is at 31 inches, and the blockout is 12 inches deep. The FLEAT and SKT terminals were adjusted to accommodate the MGS and crash tests were conducted. Road Systems had four tests conducted that they feel covers the modifications, and will qualify both terminals. Testing has been completed, but the terminals have not yet been submitted to the FHWA for acceptance.

Norton of **Trinity Industries** described the installation of the CASS (CAble Safety System) on I-15 in Utah. The CASS uses three cables that are pre-stressed, and tensioned after installation. The cables fit into a wavy slot in the top of a C-shape post that can be driven, or inserted into a prepared foundation. Video of crash testing and of the repair process was shown.

Fabrizio Oliva of **SPM Engineering** in Italy showed a TL-5 steel barrier. The barrier has passed the EN-1317 with a heavy goods vehicle. This test was used in the submission to FHWA for acceptance letter B-123. The barrier is a steel safety-shaped barrier made in 6 meter long segments. It has a steel pipe rail on top of the 1-meter tall segments. The barrier is blocked out from the posts with a safety-shaped blockout.

Bruce Hartman showed his company's plastic endwall units which can be used to replace poured concrete units. They can be filled with concrete, aggregate, ground rubber, or dirt to hold them in place. As they have not been crash tested they may only be used outside the clear zone, or on low speed residential streets.

TRIP TO TURNER – FAIRBANK HIGHWAY RESEARCH CENTER AND THE FEDERAL OUTDOOR IMPACT LABORATORY CRASH TEST

The Task Force adjourned at approximately 12 noon and shuttled across the Potomac River to the FHWA research center in McLean, Virginia. See http://www.tfhrc.gov/safety/foil/foil.htm The NCAC had arranged for box lunches that the Task Force members enjoyed picnic-style (fresh air, warm sun, damp grass, ants, etc.) The test set-up was described earlier in these minutes. It was unusual in that failure of the barrier due to under ride was expected. This was done in order to validate the finite element analysis of the real-world failures experienced in North Carolina. The test vehicle, a Ford Crown Victoria, was accelerated towards the barrier, dipped slightly into the ditch, and slid under all three cables. Although the researchers applied the brakes, the vehicle skidded on the grass until it reached the end of the run-out area. It then attempted to climb the wooden stairs leading up the embankment at the perimeter of the test site. Not having legs necessary for climbing, the vehicle struck the stairs, obliterating them. Unable to escape from the test site, the vehicle departed this life perched atop the embankment.

NEXT MEETING – OCTOBER 11 AND 12 IN IRVINE CALIFORNIA

Just see http://www7.nationalacademies.org/beckman for info on the meeting site and many links to Orange County. On Tuesday, October 12, we will be joined by many of the members of the AASHTO Technical Committee on Roadside Safety who will continue to meet until Friday, October 15.