Meeting Notes FHWA Expert Task Group on Pavement Preservation April 7-8, 2008 Fairmont Hotel Newport Beach, California

Introductions and Welcome

The meeting was called to order at 8:00 am on Monday, April 7, 2008 by Mr. Denny Jackson (Industry Co-Chair). (Attachment - Agenda) Mr. Jackson stated the Mr. Jim Sorenson (FHWA Co-Chair) was unable to attend the meeting for medical reasons, and that Mr. Gregory (FHWA) would address the agenda items that were to be presented by Mr. Sorenson. Mr. Jackson welcomed the attendees and invited guests, and asked that they introduce themselves and make a statement of why pavement preservation is important. Selected comments included Mr. Bob Humer (Asphalt Institute) commenting that pavement preservation is smart maintenance, Mr. Russell Thielke (New York State DOT) stated that pavement preservation is good for the taxpayer and he is a taxpayer, and Mr. Matt Zeller (American Concrete Pavement Association) added that you can not rebuild everything. Mr. Jim Tobin (American Concrete Pavement Association) wanted it noted that preservation is also affiliated with concrete, and Ms. Lita Davis (ETG Friend) stated that pavement preservation is a continuous effort. Mr. Delmar Solomon (Pavement Preservation Systems) added that integrating pavement preservation with pavement management will save taxpayers money. Mr. Jackson ended the introductions by commenting that we don't have the time or the patience to rebuild our infrastructure.

The PPETG Roster was circulated and attendees were asked to update their contact information. (Attachment A)

Mr. Jackson sought approval of the October 29-30, 2007 PPETG meeting notes. Mr. Steve Mueller (FHWA) moved to accept the minutes and Mr. Solomon seconded the motion. With no revisions, the notes were approved.

- Mr. Jackson asked the attendees to state their expectations from the ETG meeting.
- Mr. Luis Rodriguez (FHWA) stated that his PowerPoint presentation on Texas Chip Seal over Geotextile Fabric will benefit the group.
- Dr. Shakir Shatnawi (Caltrans) said he had great expectations from the national group. He extended an invitation to ETG members to attend the California Pavement Preservation Conference (April 9-10) at the Radisson Hotel, directly across the street from the ETG meeting.
- Dr. Gary Hicks (CP2 Center) would like to discuss how to generate political support in order to secure funding. He was disappointed that it was not an agenda item and added that California is trying to get dedicated funding, but added that it should be a coordinated effort with other organizations.
- Mr. Thielke said that he is new to pavement preservation but he is willing to assist wherever necessary.
- Mr. Larry Galehouse (National Center for Pavement Preservation NCPP) stated that the ETG members who are employed by government agencies can not lobby their

- legislatures, but added that the clock is ticking and pavement preservation funding needs to addressed in the Highway Bill.
- Mr. Humer wants a better understanding of surface treatments to ensure that pavement preservation projects benefit California and the nation.
- Mr. Scott Capps (North Carolina DOT) addressed the importance of getting Hot-Mix Asphalt (HMA) contractors to understand pavement preservation strategies, even though the HMA industry collectively doesn't understand the benefits. He asked how to get the mainstream to understand that there is more to pavement preservation than an overlay.
- Mr. Ed Denehy (New York State DOT) suggested that if the HMA industry were required to perform different pavement preservation treatments, they would see the benefits of different methods.
- Mr. David Peshkin (Applied Pavement Technology) stated that the meeting participants should participate as if the meeting were being monitored by Jim Sorenson.
- Mr. Michael Voth (Federal Lands Highway Division) would like items of research on the agenda. He would like continued discussion on getting research into the pavement preservation roadmap.
- Mr. Jeff Forster (FHWA-ND) would like to know what other states are doing.
- Mr. Jerry Geib (Minnesota DOT) stated that Minnesota got bonding money and is using it on the "worst first." Mr. Geib would like advice on open-graded aggregate and how to handle pavements with frost-susceptible materials.
- Dr. Yetkin Yildirim (Texas Pavement Preservation Center) would like to discuss what all the states and centers are doing with pavement preservation. He added that there are other groups that do pavement preservation, and that Texas has several centers that support each other.
- Ms. Tammy Sims (Texas DOT) stated that the Texas DOT is experiencing a huge funding crisis and they are struggling with the legislature and trying to find the best place to put the funding.
- Mr. Francois Chaignon (Colas) stated that he is in the hot-mix industry and they are educating their contractors in Quebec. He added that they can see that the industry is changing and they are preparing them for the future. Mr. Chaignon stated that positive training is very important.
- Mr. Solomon wants a more integrated approach to make sure that all the tools are in place. He added that getting the Asphalt Emulsion Task Group established is part of the process, but noted that we need a task force for the concrete industry. He stated that we need solid data to show the benefits of pavement preservation.
- Ms. Davis stated that she sees the function of the ETG as a form of communication, a
 place to brainstorm ideas, and a way to keep the preservation movement moving and
 changing with technology. She said that it gives the attendees an opportunity to think
 outside of the box.
- Mr. Mueller would like to discuss what the FHWA, AASHTO, and the National Center are doing. He added that FHWA set up FALCON teams (Focus Area Leadership and Coordination) and are lifting up the pavement preservation movement. The information gathered at the ETG meetings has moved forward. He would like to discuss what the PPETG can do to help support the states. He added that we have to fix the roads we currently have before we build more roads.

- Mr. Gregory stated that upcoming transportation bill may make funding more difficult than it already is.
- Mr. Larry Scofield (American Concrete Pavement Association ACPA) is attending to represent the concrete industry.
- Mr. Bill O'Leary (Foundation for Pavement Preservation FP2) stressed the importance of contacting all the necessary people regarding pavement preservation. He added that with the sky-rocketing costs of materials, and budgets being reduced, thin overlays are becoming more common. He added that he gets contacted every day asking what inexpensive treatment can be placed instead of an overlay. He continued by saying that TXDOT does a great job and that they have shifted gears and regularly place thin surface treatments. Mr. O'Leary hears from cities and counties, all with the same issues. They want to know what tools are out there and added that, at times, they are used the way they are intended. Mr. O'Leary would like to find the key people that can make a difference. He displayed the latest issue of the Pavement Preservation Journal, which has a mailing list of 5,000. He would like to see members of the ETG commit to submitting information for publication in the journal. Mr. Mueller added that it's a great opportunity to publish successful methods. Mr. O'Leary concluded by stating the Mr. Tom Kuennen will put the finishing touches on the article.

Based off the expectations of the ETG Members and additional comments, Mr. Jackson added the following items to the agenda:

• How do we get the message of pavement preservation out both politically and in general?

Mr. Mueller reminded the members that the ETG can not lobby the legislature. Mr. Jackson added that there are other groups, like ACPA, NAPA, and FP2 that can lobby the legislature.

• How do we get Hot Mix contractors to buy into pavement preservation techniques?

<u>Subcommittee Updates – Short and Long Term Goals – Denny Jackson, KBA Moderator</u>

Pavement Preservation: Acceptance and Implementation, Jeff Forster, FHWA, ND

Mr. O'Leary wrote an article for the Pavement Preservation Journal entitled Federal Involvement Leverages Pavement Preservation Efforts. (Attachment B) Mr. Forster distributed the Technical Advisory for the Transportation System Preservation Program Support. (Attachment C) They are still soliciting comments. It should be labeled as a draft copy and they haven't updated the references. North Dakota has a roadmap that includes bridges. The committee is still working on QC/QA procedures for SHA's, but hasn't had a group meeting for some time. Mr. Jackson noted that sometimes things move slowly but persistence works, and that the process might not be fast but it's steady.

Support Research Programs – Joe Gregory, FHWA

Mr. Todd Thomas (Asphalt Recycling and Reclaiming Association) was unable to attend. Mr. Gregory reported that there was a response from Linda Pierce at the last PPETG meeting in Seattle, but no formal response has been given by AASHTO regarding pavement preservation in the MEPDG. Ms. Linda Pierce (Washington State DOT) presented the pavement notebook in

Seattle and it covers pavement preservation and recycling. Mr. Gregory reported that Aramis Lopez (FHWA) is the liaison on the panel and Mr. Sorenson is working to get Mr. Gregory on the panel. As a short term goal, Mr. Galehouse and Mr. Thomas are coordinating a list of pavement preservation research as it fits into the roadmap. Mr. Gregory reported that the committee looked at asphalt and concrete roadmaps to determine if pavement preservation was addressed.

Support PP Centers for Excellence and Regional and State Organizations – Lita Davis, ETG Friend

Ms. Davis reported that the committee is surveying LTAP centers regarding pavement preservation training. They are also reviewing Caltrans' center websites. Ms. Davis added that after reviewing a website, they are often asked to revisit a website to confirm that the recommended changes were made. Ms. Davis reported that a long-term goal for the committee is to update the speakers' bureau. There is still a need for photos of HMA and PCC construction. The committee provided the NCPP and FP2 with current website links and PowerPoint presentations. They committee wants a link for pavement preservation on the FHWA Asset Management website. Ms. Davis commented that the FHWA pavement preservation website (www.fhwa.dot.gov/PAVEMENT/) does not address the ETG and its function. Ms. Davis distributed the committee's recommendation for improvements to the FHWA website. (Attachment D.) Ms. Davis stated that the NCPP website (www.pavementpreservation.org) has a great head start with the amount of accessible information. The committee would like a separate tab for the ETG on the NCPP's website and recommends that the FHWA website have a link to NCPP. Mr. Mueller commented that there is a tab for mixtures and three for the asphalt industry. Mr. O'Leary added that all the ETG's are FHWA Committees. Mr. Gregory doesn't think there will be a problem providing a link the NCPP website on the FHWA website.

PP Training and Certification – David Peshkin, APTech

Mr. Peshkin stated that the NHI course contracts have been awarded. The training contracts are for 5 years. The NCPP and Laura Lawndy (FHWA) compiled a list of pavement preservation training. The list is approximately 20 pages and it provides a summary of the content, and length. Cost is not noted. The list has duplication but also provides local training. Mr. Chris Newman (FHWA) is working with Jim Feda (South Carolina DOT) on contractor certification. Mr. Peshkin will provide the ETG attendees a list of pavement preservation training.

Subcommittee Reports and Progress on Task Force Items

Progress on Task Force Items

Mr. Jackson asked the ETG attendees to review the action items from the Seattle meeting. (Attachment 1)

Pavement Preservation: Acceptance and Implementation

Mr. Rodriguez presented a PowerPoint presentation on the FHWA FALCON Teams
(Focus Area Leadership Coordination Teams). Refer to presentation for details.
(Attachment 2 and E) He pointed out that the FALCON team consists of members from the Office of Pavement Technology, Office of Asset Management, Infrastructure Research and Development in Turner-Fairbanks, NHI, and FHWA Resource Centers.

Mr. Gregory is the secretary for surface characteristics. Mr. Rodriguez highlighted the FY08 Funded Activities as an effort to develop guidelines for service life and how to develop a comprehensive asset management program for pavements. Mr. Rodriguez will provide Mr. Galehouse with a list of all the FALCON members. Mr. Mueller added that FALCON teams are internal to FHWA and the process brings together all the different components of the industry and they work together rather than independently.

- Mr. Rodriguez pointed out that 32 states have participated in the NCPP appraisals, and they hope to have 100% participation.
- He stated that the ETG is promoting and was involved with the Pavement Preservation Research and Development Roadmap.
- Mr. Gregory stated that there is a kick-off meeting in May 2008 and that the purpose of the FHWA System Preservation and Maintenance is to provided the FHWA field offices with information and direction. They are internal documents with an emphasis on their role in maintenance and system preservation. It will be written for the Division offices, where Mr. Forster, Mr. Newman, and Mr. Voth are on the team
- There was some discussion regarding the Highway Performance Monitoring System (HPMS). (Attachment F) Mr. Rodriguez discussed some of the challenges in available performance data and stated that there are gaps in the HPMS. Mr. Scofield noted that the HPMS is the only real performance data, but others questioned if it's accurate data.
- Mr. Peshkin stated that there is not one right way to do pavement preservation, but that there are 50 right ways. Mr. Peshkin stated that FHWA is trying to mandate what is pavement preservation, but that states have their own methods for pavement preservation. Mr. Rodriguez acknowledged that there is an effort to push technology, but stated that FHWA realizes that states have specific needs to address.
- Ms. Janice Williams (Louisiana Department of Transportation and Development) added that Louisiana does things differently, and it's been a challenge trying to compare to other states. She stated that the way Louisiana measures success is not necessarily applicable to other states. Ms. Williams stated that without a national system to determine what is acceptable, there is no incentive to change. In order to promote change, Ms. Williams stated that there must be proof that there is value in change.
- Mr. Scott Capps stated that each of the 14 Divisions in North Carolina rates preservation differently. He would like to see the FHWA Roadmaps used a guideline, so the Division offices will accept the procedures. He briefly discussed North Carolina's Strategic Highway Corridors Program (SHC). (Attachment G)
- Mr. Capps also stated that they will be doing a test track for data collection and analysis vendors in May and June 2008 and stated that there will be 75-80 opportunities for different companies to test their products and methods.

AEMA Emulsion Specification

Asphalt Emulsion Manufactures Association (AEMA) will be updating their emulsion specification with regards to polymerized asphalt emulsion. Through testing and research, the update will address when and where to use a polymer. The next step will be to get a uniform test and write a specification for surface treatments (chip seal, slurry seal, and microsurfacing) and to determine best practices. FHWA provided the funding, which started with a literature research which showed that there were different ways to determine how asphalt polymers should be incorporated. They had to adopt a true application for adding

asphalt emulsion. During the Asphalt Recycling and Reclaiming Association (ARRA) meeting in Mexico the challenges were discussed. There was a Task Force formed to determine the direction for polymer asphalt emulsions. For example, to get a test run through AASHTO, the emulsion should be able to use Superpave equipment. The polymer depends on the crude source. The suppliers know what the dosage rate should be, depending on preor post-blend, but it depends on each plant. The group is trying to establish an order, doing a test on how to retain asphalt residue. Mr. Voth stated that that there was one finding showing that polymers are beneficial and worth the small additional cost. They don't know the percentage, but it is clear that polymers are beneficial. Mr. Galehouse stated that a group of chemists met in St. Louis and stated that there is no difference between medium and rapid set. If a state agency uses a polymer, only two emulsions should be used with a chip seal, CRS-2P and HFRS-2P. He added that a chip seal should not be used without a polymer and that more information will be available soon.

TSP2 Update

Mr. Galehouse gave a brief overview of the TSP2 program. (Attachment H)

- The TSP2 website, http://www.tsp2.org/, will provide a bulletin board where states can post questions and post information. It will be driven by the state agencies.
- Mr. Galehouse stated that they are looking for specifications and that they want to see other states' specifications.
- Ms. Davis added that Caltrans has standard special provisions on their website.
- Mr. Galehouse stated that there is a LISTSERV option on the website, which some state agencies prefer. There is also a library and they have started to expand the bridge library. He added that there is quite an expansion under the TSP2 initiative and trying to reach out with pavement preservation.
- Mr. Galehouse stated that of the 32 states that have participated in the technical appraisals, none of them have enough funding for pavement preservation. He added that pavement preservation must be done throughout the nation and it must be supported by local officials.
- Mr. Mueller noted that of the roads throughout the nation, 77% are local, 3% are federal, and the remaining 20% are owned by state agencies. He added that in the east coast, PM funding is being funneled to maintaining their bridges.
- Mr. Galehouse views bridge preservation and pavement preservation as two separate activities.
- Mr. Galehouse stated that the Southeast Pavement Preservation Partnership consists of 13 states and will meet on May 6, 2008 in Atlanta, Georgia. The Rocky Mountain Pavement Preservation Partnership will meet on April 29, 2008 in Denver, and consists of 9 states. He added that these partnerships are for pavements and that the bridge divisions will create their own partnerships.
- He stated that the bridge divisions met and want an association for industry members, similar to ARRA, AEMA, and ISSA. They want an industry group for pavement preservation. Mr. Galehouse stated that what would be best for the nation would be to have bridge partnerships patterned after the pavement preservation partnerships.
- Mr. Mueller stated that the bridge industry has tracked their projects better than the pavement industry. He added that the bridge partnerships will compliment the pavement partnerships.

• Mr. Rod Birdsall (All States Asphalt) stated that, from a national perspective, the Administration may view pavement and bridges as one entity, but they are two different organizations.

Caltrans Pavement Preservation Innovation Program Update

Mr. Shakir Shatwani (Caltrans) distributed two handouts on Caltrans' Pavement Preservation Innovation Initiative. (Attachment I) He stated that there are 20 projects underway using the new Microsurfacing specification. This specification was a result from a \$1.5 million pooled fund study. He added that since 1998 there has been a moratorium on fog seals. Caltrans is evaluating the performance on a European quiet mix and will be writing a report on the performance results. Mr. Shatwani added that asphalt rubber is the premium strategy for open graded recycling.

Support Research Programs

Texas Chip Seal over Geotextile Fabric Project

Mr. Rodriguez provided a PowerPoint presentation on Texas Chip Seal over Geotextile Fabric Test Sites. Refer to presentation and progress report for details. (Attachments J & K) He stated that the Texas DOT is willing to host an international tour similar to the 2004 tour. He said that this presentation was prepared after evaluations in the summer of 2007 and he asked the ETG to review the findings. They used six different sites with various traffic levels. He felt that the base failures were caused by heavy rains. He spoke with people that had experience with geotextile fabrics and was told that the fabric must be overlapped. He added that the fabric needs to be installed by experienced workers. There were issues on curved road sections and that you could see the fabric wrinkling. Mr. Galehouse stated that in most states, when there are high points of the fabric they are peeled off by snowplows. Mr. Denehy stated that in the northern climates the agencies wouldn't use it and that the chip seal is too thin. Mr. Rodriguez stated that raveling is an issue with chip seals and in Texas they precoat the chips before placing them. Mr. O'Leary suggested precoated chips with hot binders. Ms. Davis noted that it's not an application for every state but suggested interlayers with chip seals. Mr. O'Leary stated that when there is raveling and loss of material around the centerline, he felt it was caused either by the contractor neglecting to cover the stone with oil or they used too much rock in comparison to too little oil. Ms. Davis added that the fabric must be sprayed beyond the sides of the fabric because dry geotextile fabric doesn't have enough emulsion to hold the chip. She added that there is additional work and expense in correctly placing the fabric. The University of Texas wants to continue to evaluate and perform research on the geotextile test sites. Mr. Jorge Prozzi (University of Texas) has been given the information and Mr. Joe Leidy (Texas Department of Transportation) is working on the Texas Action Items. Mr. Rodriguez will complete the report and present it to Mr. Sorenson. Mr. Peshkin asked how findings from a test section in Waco, TX can be applicable to northern states. Mr. Rodriguez would like to duplicate the study in northern states and felt the results obviously supported that geotextile fabric extended the life of pavement.

SHRP 2 R26 Preservation Approaches for High Traffic Volume Roadways (Attachment L)

Mr. Peshkin stated that Applied Pavement Technology was awarded this project and had a kick-off meeting in February. The project is to conduct a review of agency practice with pavement preservation on high traffic roadways, through a literature search and a questionnaire. The goal is to develop guidelines on pavement preservation strategies for high traffic volume roadways that can be implemented by public agencies. The questionnaire will take 1 to 2 hours to complete and a DRAFT questionnaire is being distributed. Mr. Peshkin solicited participation from the ETG members. He added that the concrete industry, agencies, and international resources will be surveyed. There was some discussion regarding what is considered high traffic volume but that will not be defined in this study. Mr. Peshkin added that the most important factor is what treatment can be performed in the amount of time that you can close a road. Mr. Birdsall, among others, feels that it is important that high volume roads be defined. Mr. Peshkin suggested that it might be beneficial for the individual that is completing the survey to provide their own definition. Ms. Williams thought that adding a range might be more beneficial rather than labeling the volume as high or low. Mr. O'Leary commented that additional factors to consider are heavy traffic, high speeds, curves, or straight line traffic. Mr. Galehouse reiterated that the issues with certain kinds of treatments may be contractor-related instead of the application performed for certain types of treatments. Mr. O'Leary stated that the design issue is separate from the construction issues whereas Mr. Galehouse see them as the same issue. Mr. Birdsall agreed that workmanship is an issue but there is also the issue of traffic flow and treatment times. Some techniques can be performed quicker than others. Mr. Mueller said that he spent a week teaching an asphalt course and used Superpave to define traffic levels. The question was posed whether or not contractor certification is based off high traffic or low traffic, and how does that affect any warranty issues. Ms. Davis described a scenario of when a contractor has experience with chip seal on overlays but not over fabric. If the contractor is licensed and bonded but doesn't have the experience, does the agency cancel the contract or waive the warranty? As the contract is currently written, the contractor must have experience. Mr. Thielke added that there are issues with contractor availability and that contractors refuse to accept the set parameters. Mr. Peshkin stated that this is a good opportunity to promote good practice versus summarizing existing practice. He added that the results may vary from state to state and also between agency and industry. Dr. Shatnawi added that ESALs should be addressed since they provide the most damage and that pavement loads effect cracking.

Pavement Preservation and the MEPDG, 20-07 Project

Mr. Peshkin reported that he has a 6-month project to write a pavement preservation chapter for the MEPDG. The project is to review, identify elements that could be incorporated, develop an outline, Draft, and prepare a chapter. The first step was to review the existing design guide. Mr. Peshkin stated that the guide doesn't have much pavement preservation incorporated in it and added that it's a description of the models and where they came from. So far, it will be difficult to incorporate pavement preservation when the models used didn't have pavement preservation treatments. The guide's models are based on an analysis of pavements' performance that hadn't had any preventive maintenance treatments. Dr. Hicks added that they used existing data to create new data. Mr. Scofield said that ACPA did a small evaluation on concrete joints that were sealed and unsealed. He will provide the data

to Mr. Peshkin and Dr. Shatnawi. Mr. Peshkin stated that maybe an appendix would be the place to address pavement preservation. Additional comments included that the MEPDG guide should provide a proactive approach rather than a reactive approach, that cost effectiveness for pavement preservation should be included, and that the "Green" benefits of pavement preservation should be included. Discussion continued and the general consensus was that the elected officials' perception is that a 50-year concrete design will last 50 years without any additional work. Mr. Peshkin stated that we have to demonstrate and prove that pavement preservation is incorporated in the design. Mr. Scofield added that pavements designed with the MEPDG will fail functionally before it will fail structurally.

Environmental Effects of Pavement Preservation

- Mr. Mueller discussed how pavement preservation is "green" by conserving energy and reducing greenhouse gases. He added that the "green" initiative has been incorporated into the FALCON (Focus Area Leadership and Coordination) teams. (Attachment 3)
- Mr. Mueller stated that the 3- R's for the EPA are to reduce, reuse, and recycle. Warm mix asphalt (http://warmmixasphalt.com/) reduces the amount of greenhouse gases by being placed at lower temperatures. It also extends the paving season.
- The Recycled Materials Resource Center (RMRC) has solicited a pooled fund study on increasing the use of recycled materials in roadway construction and maintenance. (Attachment M) The RMRC also had a Earth Day Webinar.
- Mr. Mueller said that the transportation industry creates 30% of the greenhouse gas
 emissions. Mr. Mueller provided Mr. Kent Hansen's (National Asphalt Pavement
 Association) PowerPoint presentation on Recycled Asphalt Pavement: Strategies to
 Increase the Use of America's Most Recycled Material. Refer to the presentation for
 details. (Attachment N)
- The First Western States Regional In-Place Recycling Conference will be held in Salt Lake City on June 3-5, 2008:
 (http://www.pavementpreservation.org/recyclingworkshop/pdffiles/inplacerecyclingflyer.pdf)
 (Attachment O)
- Mr. Chaignon prepared a report on The Environmental Road of the Future: Energy
 Consumption and Greenhouse Gas Emissions. (Attachment P) The report described the
 contribution made by road construction to energy consumption. The principal road
 construction techniques are analyzed. The different road pavement structure are
 examined and compared to the total traffic these structures must withstand over a 30-year
 service life.

Crack Sealant Consortium Pooled Fund Study

This was an international consortium, including Canada, and the work was originally performed by Virginia Tech and subsequently by the University of Illinois. The intent was to develop testing methods and specifications regarding crack sealant. The project is completed and the final report has been delivered. Mr. Mueller stated that one of the outcomes of the research was the development of a new adhesion test for crack sealant. Using Superpave testing equipment, a blister test was developed to see how the sealant adheres to the surface.

FDR Design for MNRoad Section

Three MnROAD test cells will be constructed to evaluate the properties and performance of three variations of full-depth reclamations using asphalt emulsion stabilization. The results will be used to develop the best-cost design procedures to achieve the strength and flexibility needed for a pavement. This is a partner project with SEM Materials. (Attachment Q)

Support PP Centers for Excellence and Regional and State Organizations

Northeast Pavement Preservation Partnership

Mr. Denehy presented a PowerPoint presentation on the Northeast Pavement Preservation Partnership (NEPPP). Refer to presentation for details. (Attachment R) The Crack Sealant Consortium is complete and the final report is being edited by Virginia Tech. There is a possibility of a second phase to evaluate the field performance of the new tests.

Mr. Denehy said it took approximately 15 working days to establish the NEPPP. There was no local agency involvement due to travel restrictions and funding issues.

Pavement and Bridge Preservation Research Roadmap

Mr. Galehouse reported that the roadmap is a combined effort with the bridge industry and is printed and is also available for download at http://www.tsp2.org/roadmap/index.php. There are 38 research roadmap problem statements. (Attachment S) The research needs statements were a combined effort from FHWA, local transportation industry, industry, academia and AASHTO. Mr. Galehouse added that the states may be able to get funding through pooled funds.

National Center for Pavement Preservation (NCPP)

Mr. Galehouse reported that 20,000 copies of the publication, *At the Crossroads: Preserving our Highway Investment*, have been distributed. He extended his thanks to the Foundation for Pavement Preservation for their contributions. There have been state agencies that ask their staff to read the book and have incorporated it in their pavement preservation program. The future is in the maintenance area versus construction. Mr. Galehouse stated that at some point the book will be updated, but funding hasn't been determined. They would like to address the issues in the Highway Reauthorization Bill and any changes or additions to the book would go through peer review and an editor. The book is given to agencies, but is also sold to non-agency groups for \$15.00 per copy.

The NCPP received approximately 2 millions internet hits per year. There is great interest in incorporating the green movement into pavement preservation. Mr. Galehouse stated that elected officials are also interested in the benefits of the green movement.

Mr. Galehouse reported that 32 states have signed up for technical appraisals. There are 11 topic areas in the review, and it takes approximately a week to conduct the reviews. The State agencies get a detailed report that is approximately 31-50 pages long. The reports are on the NCPP website and are user name and password secured. The NCPP has asked NACE to attend their regional partnership meetings.

California Pavement Preservation Center (CP2) Update

Dr. Gary Hicks presented a PowerPoint presentation on the CP2 Center. Refer to presentation for details. (Attachment T) In addition to his presentation, Dr. Hicks noted that the conference presentation are posted on the centers website, http://www.techtransfer.berkeley.edu/pavementpres/. The ETG members received the March 2008 issue of the CP2 Center newsletter. (Attachment 5)

PP Training and Certification

ARRA Seminars

Mr. Gregory stated that the First Western States Regional In-Place Recycling Conference will be held in Salt Lake City on June 3-5, 2008. (Attachment 6) Mr. Steven Muncy is the main contact for ARRA.

Dr. Yildirim stated the Texas Pavement Preservation Center has taught the chip seal course to 100 Texas Department of Transportation employees in College Station, Dallas-Fort Worth, and Austin. They will be teaching it in Lubbock at the end of April. There are free presentations on the Center's webpage. Their newsletter is available on their website, http://www.utexas.edu/research/tppc/news/index.html, and it is emailed to TXDOT employees. Hard copies of the newsletter are sent to the District Offices. The Texas Center is funded by the state. Mr. Mueller added that Caltrans is involved with the pavement preservation group and he will help get local funding for the Texas Center. Ms. Sims added that by providing training opportunities, local industry will get interested in the Center.

Maintenance Technical Advisory Guide (MTAG)

Dr. Shatnawi distributed the Development and Training Plans Technical Fact Sheet. (Attachment U) Caltrans' Division of Maintenance, with assistance from the Pavement Preservation Task Group (PPTG), have revised the MTAG with the addition of several new chapters, including rigid pavement treatments. Along with these revisions, they have developed training modules for each chapter. The revised MTAG will soon be available on Caltrans' website. There was some discussion regarding the availability of funding to provide training to state and local agencies. Mr. Mueller stated that the local LTAP Centers are funded by FHWA and DOT's and provide an alternative resource for training versus providing funding for travel. He added that NACE and APWA are also valuable resources. Mr. Colin Durante suggested that the APWA be linked to the FHWA Center's website. Dr. Yildirim stated that he has made presentations based off a question rather than presenting a complete course. Mr. O'Leary stated that during the Texas asphalt meeting a seminar was presented on chip seals. Throughout the year, TX DOT staff accumulated email questions, and the 12 advisory committee members conducted a panel discussion based off the questions. This is a good source to determine what information and training opportunities will benefit the local agencies. Mr. Howard McCann (Texas Engineering Extension Service) has made presentations to the LTAP groups, based off of NHI course material and presentations.

The California Pavement Preservation Center is hosting their 3rd Annual conference. The previous year conference had 350 attendees which were from local, industry, and Caltrans.

Due to budget constraints, they expect 300 participants for the 2008 conference. (Attachment 4)

FHWA/NCPTC Concrete Pavement Preservation and Rehabilitation Workshop Mr. John Roberts (IGGA/ACPA) reported that FHWA funded a Concrete Pavement Preservation Workshop. It was developed for FHWA through the National Concrete Pavement Technology Center at Iowa State University. It was presented on December 13-14, 2007 in Oklahoma City, OK.

Discussion Items

State of the States

- Mr. Mueller presented two articles, *DOT Must Change Mission, Not Structure* and *Highway Repair Plan Stalled in Political Traffic.* (Attachment 7)
- There was discussion regarding the "fix it first" movement and securing dedicated funding for pavement preservation.
- Dr. Shatnawi stated that training is an integral part of pavement preservation and that there is a need to show how much money can be saved using a pavement preservation strategy. Decision makers need to be educated and shown that legislative money is needed for pavement preservation centers to promote the message.
- Mr. Jackson noted that the legislative body is often replaced in the next election and that the decision makers need to contact experts in their field of pavement preservation. As an example, he pointed to Ms. Pierce, WSDOT, and Ms. Sims, TXDOT as experts in their fields of pavement preservation.
- Mr. O'Leary presented the "miles for the dollar" scenario and stated that it isn't necessary to explain the complete picture and logic of pavement preservation to the legislature.
- Ms. Sims stated that the legislature needs to realize that if they don't fund pavement preservation, they will lose miles of roadway which will impact capacity. The legislature needs to see actual graphs showing the financial benefits of pavement preservation.
- Ms. Williams commented that pavement management is fixing the roads before they are broken, not fixing them after they're broken. There aren't facts and figures available to convince the decision makers.
- Ms. Katie Zimmerman (Applied Pavement Technology) stated that pavement preservation is an integral part of a complete pavement management system.
- Mr. Denehy stated that it is easier to see a deteriorated bridge, and added that when a bridge collapses, previously dedicated funding is funneled to bridge preservation.
- Mr. Galehouse added that Neal Lunderville, Vermont's Transportation Secretary, is a proponent of pavement preservation and organized a tour for reporters to show how the roads have deteriorated without pavement preservation techniques.

There was additional discussion regarding how to best communicate the benefits of pavement preservation to legislatures. There is a fine line between government and education, and the ETG can not lobby. The general consensus is that pavement preservation is the ultimate "green" project, especially when the whole picture is taken into consideration, i.e. trucking in

materials, environmental benefits. Dr. Hicks feels that more universities need to teach courses on pavements.

There was discussion regarding how to convince industry that pavement preservation is beneficial. The overall picture is that agency funding drives the pavement preservation methods. There are other barriers: if one contractor does a poor job with a particular pavement preservation treatment, the method is incorrectly labeled as ineffective. And many HMA contractors have a huge capital investment in the equipment and are reluctant to purchase additional equipment for an "unproven" treatment.

Mr. Butch Wlaschin, FHWA's Director of Asset Management, joined the ETG meeting, and made a few remarks. He started with a brief update on Mr. Sorenson's status. He understands the importance of having a proponent of pavement preservation spearheading the cause and acknowledges that there is a struggle for every dollar. There is a need for more funding than will never be available and no one wants to impose a gas tax. Options need to be addressed regarding state, federal, and pavement preservation partnerships. There is a commission to evaluate the highway industry, including asset management, and system preservation is a part of that commission. It is important to invest in the short term for long term benefits. Mr. Wlaschin stated that you start with a design and incorporate pavement preservation techniques to protect the design. A pavement design of 30 to 40 years will only last that long if pavement preservation techniques are applied. We must be able to prove the cost benefits of pavement preservation. States want system performance measures. The methodology is that there is new information everyday. Mr. Wlaschin discussed the Minnesota I-35 bridge collapse and the possibility of stockpiled materials on the bridge contributing to the collapse. He added that highway commissions, boards, and legislatures all want to know how pavement preservation extends the tax dollars.

Mr. Jackson stated that knowledge is power and that Mr. Wlaschin is a powerful advocate.

Update on the Asphalt Emulsion Task Force

Mr. Roger Hayner (Colas) did a presentation on the formation of the Asphalt Emulsion Task Force. (Attachment V) The Asphalt Emulsion Task Force will meet in conjunction with the Pavement Preservation Expert Task Group and Mr. Hayner and Mr. Franco are Co-Chairs. Attachment – Membership Roster They had an organizational conference call on March 19 in preparation of the ETG meeting in Newport Beach. The task force formed subcommittees and established deliverables due within two weeks.

- The Expert Task Group has a link on the National Center for Pavement Preservation, http://www.pavementpreservation.org/, and a link to the Asphalt Emulsion Task Force will be added.
- Mr. Mueller would like the best practices added to the website. The Kyoto Protocol's
 objective is reduce greenhouse gasses that cause climate change and has been ratified by
 137 countries.
- Dr. Amy Epps Martin (Texas A & M University) would like the issue of the green movement addressed by the PPETG and not the Asphalt Emulsion Task Force.

• Mr. Chaignon will provide Mr. Hayner with the US data on greenhouse data. The Department of Energy does a report on greenhouse gases and the source of the gases, including the CO2 in asphalt. BASF has also complied data.

New Subcommittee on PCCP Pavement Preservation

Mr. Roberts wants to propose the formation of a Concrete Expert Task Group for Pavement Preservation. The concrete industry has been involved with the preservation movement since 1972, when Georgia mandated preservation to extend the lives of pavement. Mr. Roberts stated that the concrete industry has been overlooked in the pavement preservation movement and would like to showcase their preservation techniques through the ETG. As an example, Washington has a 40-year old pavement that is finally undergoing preservation techniques which will enable it to last for another 40 years. He feels that the formation of a Concrete Expert Task Group will benefit the pavement preservation movement as a whole. Mr. Jackson solicited participation in the Portland Cement Concrete Pavement group. The brief discussion was favorable of the formation of the new task group and Mr. Jackson officially welcomed them to the Expert Task Group.

Break out into Subcommittees

Mr. Jackson asked the subcommittee update the strategic plan and that the Chairs email Mr. Jackson and update by April 14, 2008. (Attachment W- Updated Strategic Plan)

Pavement Preservation Acceptance and Implementation

Jeff Forster submitted the subcommittee's updates to the strategic plan.

Support Research Programs

Mr. Gregory presented the updated subcommittee goals. This includes reviewing the TSP Research Roadmap for possible refining and reprioritizing and following up on the implementation on past research projects. Also, provide support in reviewing papers for the TRB Pavement Preservation Task Force in late summer.

Support Pavement Preservation Centers and Regional and State Organization

There was discussion regarding the long-term goal of updating the ETG Speakers' Bureau list. Maintaining the speakers' bureau list is very time consuming and the committee can't justify the amount of time it takes to update it without any active demand. Groups that need a speaker will contact either the National Center for Pavement Preservation or the Foundation for Pavement Preservation.

- Mr. Galehouse added that the local LTAP centers should be a viable resource but is skeptical how they will promote pavement preservation.
- Mr. O'Leary would like to target the LTAP Centers and make it an Action Item.
- Mr. Mueller stated that the LTAP survey has been prepared and will be web-based.
- Mr. Galehouse added that the LTAP centers have Road Scholar programs, specific training, with several optional and mandatory courses. He added that, depending on the center, there may or may not be training on pavement preservation.

Pavement Preservation Training and Certification

There was some discussion regarding contractor certification. Mr. Gayle King (GHK, Inc.) stated that certification should be mandatory. Mr. Peshkin stated that a performance-based warranty may provide a better end product. There is cost associated with certification and it is uncertain how the industry will respond. One option would be to incorporate certification in the technical training and college programs. Ms. Davis suggested that the industry would take note if their contract stated that they would receive a bonus for successful performance. It was noted that the Code of Federal Regulations (CFR) requires that in the expenditure of federal funds the contractor must be trained and well qualified, but it does not mention certification.

Portland Cement Concrete Pavement Committee

Mr. Craig Hennings (American Concrete Pavement Association) will provide the ETG a task force member roster with contact information. Mr. Mueller suggested that the PCCP committee work with the IA State Center and Ms. Davis' committee to integrate them into the concrete pavement preservation subcommittee. Mr. Roberts would also like Dale Harrington (Snyder & Associates) involved with the committee.

Other Information and New Business

Upcoming Meetings

Mr. Gregory stated that FHWA is working with ARRA and the NCPP on the June 3-5, 2008 First Western States Regional In-Place Recycling Conference in Salt Lake City. There will also be a site visit to the 20 miles of a cold in-place recycling project on I-80 in Nevada. (Attachment 8) There will also be a webinar on April 22, and if anyone is interested in attending, please contact Ms. Patte Hahn (National Center of Pavement Preservation).

Dr. Hicks distributed a flyer on the First International Conference on Pavement Preservation. (Attachment X) There will be a meeting at the Radisson on Friday, April 11, 2008, and all ETG members were invited to attend. If any ETG members are available as a technical reviewer, organizing a committee, or interested in assisting in fund raising, please contact Dr. Hicks. The conference sponsors are looking for an industry sponsor.

Mr. Solomon invited the ETG members to attend the November 11-14, 2008 AEMA workshop at the Sheraton Indianapolis.

The 2008 APWA Congress will meet on August 17-20, 2008 in New Orleans, LA.

Next Meeting

There was discussion regarding the next PP ETG meeting dates and location. The current PPETG contract has expired. It was determined that the next meeting will be held in the Washington, DC area. Contingent upon funding, it will be held sometime between Mid-October and Mid-November, avoiding November 4, Election Day.

Last Words

Mr. Jackson solicited closing comments and possible agenda items for the October 2008 meeting.

- Mr. Solomon would like to discussion certification. There are many industries that have an approved supplier list and it is fully integrated.
- Mr. Chaignon would like to discuss the European specifications on chip seal and Microsurfacing. He would also like to discuss certification on performance-based products.
- Ms. Williams, along with other members, would like to pursue "green" efforts. She also added that photos that are submitted need to show the correct use of safety equipment.
- Mr. Galehouse stated that they continue to look for ongoing research to add to the research database.
- Mr. Rodriguez reminded the members that NHI #131110, *Pavement Preservation Treatment Construction*, is a free web-based training program. Also, NHI #131116, *Pavement Management Systems: Characteristics of an Effective Program*, is an instructorled, free, web-based training.
- Dr. Hicks would like to discuss how to establish the framework to secure funding for research and the roadmap. There is a need for a statewide coordinated message for pavement preservation.
- In addition to "green" benefits, Dr. Shatnawi would like to address the economic benefits of pavement preservation. He would also like to discuss hot in-place recycling and certification programs.
- Several members would like to discuss pooled fund partnerships and securing funding from states and industry.
- Mr. King would like to discuss performance specifications for pavement preservation.

Mr. Jackson thanked everyone for their time and effort for making these meetings successful.

The meeting adjourned at 12:00 pm on Tuesday, April 8th.