Carbon Footprint

How Does HMA Stack Up?
THE PERFECT FIT.

WE’RE LIKE YOUR FAVORITE CAP. Well worn. Comfortable. A trusted friend. That was true when you knew us as CMI. It’s still true now that we’re Terex. New name. Same core values. New vision. Same goal: working right along with you to help you deliver every job on time, on budget, every time. Call 1.888.TEREXRB. It’s you and us, together all the way.

TEREX® E225P or E275P ASPHALT PLANT

Not only are our E225P or E275P Asphalt Plants compact, lightweight and portable, they are versatile too, incorporating the latest in counterflow technology to improve mix quality and lower costs per ton.

- Capable of producing 225 or 275 tons per hour
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- Advanced impulse-control system by Terex
- Quick, one-day breakdown — no cranes required
Table of Contents

Between the Lines 3
Warm Mix Asphalt Conference 4
Maxwell Supply Celebrates 50 Years 5
Welcome New Members 5
Carbon Footprint: How Does HMA Stack Up? 6
Smooth Talk 8
OAPA Conference & Awards Banquet 9
Registration Form 10
Member Spotlight 11
New OAPA Website Unveiled 12
Did You Know? 13
Asphalt Quality Task Force Minutes 14
Membership Listing 16

Calendar of Events

DECEMBER
10 Asphalt Task Force Meeting
10 OAPA Board Meeting
24-26 Office Closed for Christmas
31 Office Closed at Noon

JANUARY
1 Office Closed for New Year’s
17-21 NAPA Annual Meeting
28 LTAP Seminar; Oklahoma City
30 LTAP Seminar; Tulsa

FEBRUARY
3 OAPA Awards Banquet
4 OAPA Asphalt Conference
25 HTCB Meeting

APRIL
23-26 OAPA Annual Meeting

COVER PICTURE:
2008 Rural Overlay Award Nominee (T&G Construction, Inc.)
From Your OAPA Staff

As 2008 comes to a close, we would like to take this opportunity to thank all of our members for their continued participation and support.

We wish you and your family a Very Merry Christmas and a Prosperous New Year!

Connie Rozean-Pruitt
Nicole Smith

in conjunction with

presents

UNDERSTANDING ASPHALT PAVEMENT WORKSHOP

January 28, 2009
Oklahoma City

January 30, 2009
Tulsa

For more information, visit ltap.okstate.edu

NAPA 2009 • 54th Annual Meeting

San Diego, CA • Keeping Our Promise

Committee Meetings: JANUARY 17 – 18
Program: JANUARY 18 – 21
Welcome to Greensville......

In support of “America Recycles Day” (November 15, 2008), OAPA hosted a recycling poster contest for elementary students in the Oklahoma City metro area. The winner, Quinlan Parrish, used the theme, “Welcome to Greensville, Lead the Road to a Greener Earth”. For her poster, Quinlan drew a picture of an asphalt road which led the way to a recycling city called, “Greensville”.

Like Quinlan so simply illustrated, the Asphalt Industry has been leading the way to a greener, more environmentally conscious world for some time now. Our product is 100 percent recyclable. This not only saves precious resources, but recycling asphalt roads saves American taxpayers more than $300 million each year. However, recycling is not the only way that the Asphalt Industry is environmentally conscious.

Our industry has spent millions of dollars to develop the most advanced technology to keep the environments in our communities clean. Asphalt plants have adopted stringent emission standards that exceed those of the EPA. Between 1960 and 1999, while production of asphalt pavement material increased by 250 percent, total emissions from our operations decreased by 97 percent. Emission control systems also trap and remove fine sand and dust particles. As a result, the EPA has deleted asphalt plants from its list of major sources of hazardous air pollutants. Our industry also strives to be on the cutting edge of new technologies like Warm-Mix Asphalt.

Warm-Mix technologies lower the temperature during production at the plant, thereby reducing fuel usage and emissions. This technology allows the mix to be placed on the roadways at a reduced temperature without compromising the integrity of the pavement.

Asphalt pavements have been used for many years to enhance water quality. Asphalt liners have been used at landfills to keep contaminants from leaking into groundwater. Porous asphalt also aids in improving water quality by reducing runoff, promoting infiltration, protecting streams and replenishing aquifers. This results in land development plans that are more harmonious with natural processes, while promoting sustainability.

Got Asphalt? By paving black, you’re choosing to be green!

Congratulations to Quinlan Parrish winner of the OAPA Poster Contest!

Quinlan is a 5th grader at Nichols Hills Elementary and was awarded a 2009 season pass to Frontier City for her winning design.

Her teacher, Mrs. Lacey Burroughs, also won $100.

Thank you to all of this year’s participants!
Lanham, MD – A gathering of asphalt pavement technologists and contractors in Nashville last week may have a huge impact on the way America lives and travels. The International Conference on Warm-Mix Asphalt attracted nearly 700 people, including 70 international attendees. This was the largest single-subject conference ever for the asphalt pavement industry; in fact, attendance was so far beyond expectations, the organizers had to turn people away. A live Internet feed extended the reach of the conference to hundreds more around the globe.

Warm-mix asphalt technologies promise to reduce greenhouse gas emissions, conserve fuel, extend the paving season, and improve a number of aspects of the construction process. The National Asphalt Pavement Association (NAPA) was recognized for its leadership in bringing these technologies to the U.S. NAPA’s partnership with all of the key stakeholders has brought about an unprecedented momentum, with warm mix being used in numerous key projects across the country.

At the start of the program, participants heard from the leadership of Federal Highway Administration (FHWA), National Institute for Occupational Safety and Health (NIOSH), the labor unions, and U.S. Environmental Protection Agency (EPA) on the importance of this technology. King Gee, an Associate Administrator of FHWA, emphasized the usefulness of warm mix in the reuse and recycling of asphalt pavements.

Congressman Bart Gordon, Chairman of the House Science and Technology Committee, said, “Warm-mix asphalt is a success story resulting from an investment in transportation R&D. If widely deployed, the reduction in mix temperature could save fuel and money and help cut greenhouse gas emissions.” Congressman Gordon praised the asphalt pavement industry for its unprecedented efforts to make pavements green and sustainable.

The meeting was rich in content with attendees hearing presentations on materials; mix design; state, contractor and international experience; and plant operations. Contractors and agency representatives remarked that their experience with warm mix has been very positive and they believe that warm mix is fast becoming the industry standard for asphalt pavements.

Dale Rand of the Texas Department of Transportation discussed how his state will use around 400,000 tons of warm-mix asphalt in 2008, and the prospect for 2009 is that much more will be used in that state. While Texas is acknowledged as a leader in warm-mix implementation, numerous other states are also moving in the direction of issuing permissive specifications, which would allow contractors to use warm mix in place of hot mix as long as the resulting pavement met the specifications for the project.

Contractors and DOT representatives from Virginia to Tennessee to Colorado to California gave their experiences with warm mix. Research and contractors from France and Germany also presented their perspectives on the technologies.

The Warm-Mix Asphalt Technical Working Group, co-chaired by Matt Corrigan (FHWA) and Ron White (Superior Paving Corp., Virginia), was recognized for advancing mix-design methods, product approval, and performance testing.

The conference was underwritten in part by the Federal Highway Administration under the International Scanning Program, in cooperation with the National Cooperative Highway Research Program and the American Association of State Highway and Transportation Officials.

In closing remarks, NAPA President Mike Acott thanked all of the technology providers for rising to the challenge. He also thanked the state DOTs and contractors who were the early adopters of this technology, and have helped make possible many of the refinements in warm-mix use. For some EPA officials who attended the conference, this was their first experience of an asphalt industry event, and they were clearly impressed by the industry’s proactive approach to environmental stewardship and sustainability.

A meeting of asphalt industry leaders with representatives of EPA and the Green Highways Partnership was also held during the conference.

More information about warm mix is available at www.warmmixasphalt.com, the official Web site of the Warm-Mix Asphalt Technical Working Group.
Maxwell Supply began in 1958 in Oklahoma City. It has grown to three locations: 3300 W Reno in Oklahoma City, 1719 N Sheridan in Tulsa, and 1809 SW 11th Street in Lawton. Maxwell Supply is a one-stop shop providing site work products for commercial concrete construction, as well as highway construction tools and accessories.

Maxwell Supply owner Jerry Thomason said, “My partners and I have tremendous people working for our company in Oklahoma City, Tulsa, and Lawton. They have the knowledge, and the products to get the job done. Most of our business is with Oklahoma contractors and builders.”

It has been a banner year for Maxwell. October 3rd the company celebrated its 50th anniversary with 1000 customers, vendors, and friends at the nearby Oklahoma State Fairgrounds. Oklahoma Governor Brad Henry declared it “Maxwell Supply Day” in the state, noting Maxwell’s exceptional service to its contractors, architects, engineers and builders, as well as the company’s commitment to the community through supporting organizations like Habitat for Humanity and the Oklahoma City Food Bank.

Much was needed of Maxwell Supply in the days following the bombing of the Oklahoma City Federal Building. The truck bomb sheared off the side of the Alfred P. Murrah Federal Building, killing 168 people and wounding hundreds more. Hours after the blast on the morning of April 19, 1995, the state’s largest contractors were mobilized on site to assist in stabilizing the building. They needed supplies around the clock. “We were open 24/7 for a week,” Thomason remembers. “The need for supplies was immediate and overwhelming. Contractors needed everything from gloves and rain suits, to chain hoists. We had it shipped in from all across the country.” “Maxwell Supply helped to define what we call the Oklahoma Standard,” said Gary Marrs, Oklahoma City Councilman, who was the Chief of the Oklahoma City Fire Department on April 19, 1995. Thomason, a graduate of Oklahoma City University School of Business, who just celebrated his 70th birthday, is looking forward to Maxwell’s future. “Oklahoma City has had its ups and downs in the past 50 years, and we have ridden those waves with it, from the oil bust of the 80’s and the failure of Penn Square Bank to the building boom we are seeing today. I am extremely optimistic as we head with our vendors and customers into our next half century of business.”
CARBON FOOTPRINT: How Does HMA Stack Up?
by Brian Prowell, Ph.D., P.E.

In the past, agencies and contractors determined pavement type selection by evaluating performance and cost. In the near future, a new factor may be considered – sustainable development.

Sustainable development can be defined as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” Sustainable development considers environmental impacts, such as greenhouse gas production and depletion of non-renewable resources, such as fossil fuels.

The term “carbon footprint” generally refers to the total amount of all greenhouse gas emissions (generally CO₂) caused directly and indirectly by a given process, product, or event. When looking at the carbon footprint of asphalt pavement, for example, one can envision summing the amount of CO₂ emissions from the extraction of aggregate at a quarry and the production of bitumen binder at a refinery, plus those associated with transporting raw materials, processing raw materials into finished pavement, constructing the pavement, and other miscellaneous activities associated with pavement production and maintenance.

A number of studies compare the energy consumption, waste produced, and environmental impacts from different pavement materials. These studies use environmental life-cycle assessments to make meaningful comparisons over the design life, taking into account raw material acquisition, manufacture, transportation, installation, and waste management.

Horvath and Hendrickson² performed an economic input-output-based life-cycle assessment to compare an 11.8-inch thick HMA pavement with an 8.7-inch thick continuously reinforced concrete pavement (CRCP) placed on the same subgrade. The four-lane pavements were designed to carry 10 million equivalent single axle loads (ESALs). The study estimated that it takes approximately half of the energy per mile to produce the HMA pavements compared to the equivalent CRCP pavement (0.93 million kW hr versus 1.85 million kW hr).²

Other studies have used the life-cycle approach recommended by the Society for Environmental Toxicology and Chemistry (SETAC) and the U. S. EPA. This method tracks environmental flows or impacts upstream. For example, HMA would be tracked to stone quarrying and asphalt binder production, and asphalt binder would be tracked to impacts from recovering and transporting crude oil.

A Swedish study using this method indicates that it takes 36 percent more energy to produce a PCC than a comparable HMA pavement.³ A similar study conducted in the U.S. found that using the same pavement sections used by Horvath and Hendrickson the HMA pavement required 21 to 92 percent less energy than the CRCP pavement, depending on the estimate used for the energy required to produce the asphalt binder.⁴⁻⁵ Why the big deal about energy use? Simply put, the more energy that is used, the more greenhouse gases are produced and the bigger the carbon footprint. This is the same concept used with warm-mix asphalt (WMA) where fuel savings from lower temperatures result in reduced carbon dioxide (CO₂) emissions.

The energy consumed to produce an HMA pavement deserves a closer look. Asphalt production consumes 39 percent (using the high estimate) of the energy used to produce an HMA pavement, while heating, drying, and mixing the aggregates and binder uses 49 percent. All of the studies noted that a significant advantage of HMA pavements is the fact that they can be readily recycled. The use of RAP in a mixture reduces the virgin asphalt demand and therefore reduces energy consumption. Recycling rates for CRCP pavements are much lower, in some part due to the difficulty in removing the reinforcing steel. WMA technologies also have the potential to significantly reduce the energy required to construct an HMA pavement.

The studies also cited the need for a method to make routine comparisons. One such method is BEES® 4.0 – Building for Environmental and Economic Sustainability – developed by the National Institute of Standards and Technology (NIST).

BEES allows economic and environmental life-cycle comparisons for a variety of parking lot options. Figure 1 shows a comparison of the carbon emissions between HMA with conventional maintenance, PCC, and PCC with 15 percent of the cement replaced with fly ash. The comparison is based on typical PCC and HMA construction practices. The environmental impacts for the HMA are based on a 15 percent RAP content.⁶ Maintenance for the HMA parking lot includes a 1.5-inch overlay every 15 years.
All comparisons used a haul distance of 20 miles.

Based on Figure 1, the PCC pavement options produce significantly more CO$_2$, even when fly ash is substituted for cement. In the BEES analysis, HMA is preferred both economically and environmentally on a life-cycle basis.

Although the differences between HMA and PCC are significant during the construction of the pavement, construction impacts as a whole are dwarfed by the energy used and greenhouse gases emitted by traffic. One study determined that traffic levels of only 5,000 cars per day used 10 times more energy over a 40 year period than that used to construct the pavement.$^3$ The inclusion of RAP and the potential fuel savings from WMA technologies allow for even greater reductions in the carbon footprint of HMA pavements.

REFERENCES

“The OAPA provides all its members, but in this case its Associate Members, the opportunity to participate in an industry association dedicated to sharing knowledge, and its passion and vision to build safe, efficient highway surfaces for every citizen in Oklahoma.

At the same time, each Associate Member is provided an opportunity to share and demonstrate their particular product features, benefits, and innovations with the entire membership. The OAPA is and has been a prime example of an efficient, well-guided industry association not only for the well-being of its members, but also for all the citizens of Oklahoma.”

Glenn Deppe
Warren CAT
Tuesday & Wednesday, February 3-4, 2009
Clarion Meridian Convention Center
Oklahoma City

• 5 PDH HOURS AVAILABLE •

Rooms are available at the Clarion Meridian at the OAPA discounted rate of $68. For reservations, please contact the hotel at (405) 942-8511 & ask for the OAPA room rate.

If you have any questions regarding the Conference, please contact the OAPA office at (405) 524-7675.

This year’s Conference will feature an EXHIBIT HALL.

For booth information, please contact Nicole Smith at (405) 524-7675 or oapa@sbcglobal.net.

The Exhibitor Prospectus and Contract can be downloaded from our website, www.okhotmix.com.
REGISTRATION
OAPA Asphalt Conference &
Awards Banquet
REGISTRATION DEADLINE: JANUARY 26, 2009

February 3-4, 2009 • Clarion Meridian Convention Center • Oklahoma City, OK

Company Name (please print): __________________________________________________________
Mailing Address: ___________________________________________________________________
City: __________________________________ State: __________________ Zip: ________________
Phone: __________________ Fax: ___________________________ Email: _____________________

NAME(S) OF ATTENDEES

PLEASE PRINT CLEARLY. This list will be used to prepare name badges. Use additional sheets if needed.

ATTENTION: PLEASE CHECK EITHER “TWO DAY REGISTRATION” OR “AWARDS BANQUET ONLY” FOR EACH ATTENDEE.
Please indicate if a PDH Certificate is Requested by checking the box.

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BILLING INFORMATION

TWO DAY REGISTRATION (includes ALL events for Tuesday & Wednesday)
$95 - ODOT, City, County, Municipal, Tribal & University Attendees
$125 - All Other Attendees

AWARDS BANQUET ONLY (includes Awards Banquet & Cocktail Reception)
$35 - ODOT, City, County, Municipal, Tribal & University Attendees
$55 - All Other Attendees

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PLEASE MAIL OR FAX REGISTRATION TO:
Oklahoma Asphalt Pavement Association • 3500 N. Lincoln Blvd. • Oklahoma City, OK 73105 • (405) 524-7677 fax

CONFERENCE EVENT SCHEDULE

TUESDAY
5:30 pm - Cocktail Reception in Exhibit Hall
6:30 pm - Awards Banquet

WEDNESDAY
7:30 am - Registration/Exhibit Hall
8:30 am - Conference Opens
10:00 am - Break/Exhibit Hall

10:30 am - Conference Resumes
11:30 am - Lunch/Exhibit Hall
1:30 am - Conference Resumes
3:00 pm - Break/Exhibit Hall
3:30 pm - Conference Resumes
4:00 pm - Conference Ends

REGISTRATION ALSO AVAILABLE ONLINE AT www.okhotmix.com
Member Spotlight

KIRBY-SMITH MACHINERY

Kirby-Smith Machinery, Inc., was established in 1983, by veteran equipment salesmen, H. E. (Ed) Kirby, Jr., and Freddy R. Smith (now retired). From a small rented office in Oklahoma City, Kirby-Smith Machinery has expanded to a regional equipment distributor with over 230 employees, serving Oklahoma, North Texas, Kansas, Missouri and southern Illinois.

Customers include contractors in the oilfield and gas related industries, bridge and road builders, quarries, steel erectors and crane rental companies, heavy construction & utility contractors, site developers, landscapers, warehouses and governmental agencies.

Kirby-Smith Machinery selects equipment brands to distribute based on the quality of the products and product support the manufactures provide. They currently include: Komatsu, Bomag, Broce, LeeBoy, Rosco, Dressta, National Crane, Manitowoc, Grove, SkyTrak, Gradall, Trail King and others.

But it’s more than just machines. A long-time motto at Kirby-Smith Machinery has been “Professionally We Serve, Personally We Care” – which appropriately illustrates Ed Kirby’s customer service philosophy. Kirby has demonstrated his commitment to serving the contractors by developing programs to attract and maintain the best technicians in the country. Special incentives are offered to employees that increase retention and recruitment. These efforts have received national recognition and acclaimed by leading manufacturers.

Ed Kirby remains active at the corporate office in Oklahoma City. The Tulsa branch was in the original start in 1983. Other branch offices were added in St Louis and Ft Worth in 2001. A new facility was built in Ft Worth in 2006, and a new facility is being added in Kansas City, Kansas. Kirby has assembled a team of professionals who bring experience and dedication to the business. Glen Townsend VP and General Manager; Ben Graham, VP and Crane Div Manager; Kelly Littlefield, VP and Heavy Equip Manager; David Baker, VP and Product Support Manager; Randy Coffey, General Rental Manager; Chris Kirby, Used Equipment Manager; Bob Williams, General Parts Manager; Lonnie Kilgore, Retail Finance Manager; and Keith Tippett, VP and CFO. Combined, this management team has over 200 years of crane and heavy construction experience.

Mission Statement developed and adopted by employees: “Our mission is to work for the success of the people we serve, by exceeding expectations with continuous improvement, integrity & profitability.”

NASH CONSTRUCTION

by Bill Nash

I started in this industry in 1975, when I joined my father in-laws company, Kavanaugh Engineering Company d/b/a Hopo Paving Company. We had a small company that eventually grew to do some pretty large projects. We did the removal of the Classen Traffic Circle, and the ten lane bridge on Shields over I-240 and widening of Shields Boulevard. We also did much of the work (asphalt paving) on the original I-44 jobs with Guy James Construction. Ed Kavanaugh retired and sold out in 1986, (should have bought him out, hindsight is always 20/20).

In 1987 I spent a year as General Superintendent at Shawnee Asphalt, before taking a job with Mr. Don Rheudasil at Rudy Construction. We were in the process of completing Remington Park for David Sewell and the DeBartelo family. That was a sweet 120,000 ton job, on some days laying 1500 to 1800 tons delivered from Gary Lohne’s Norman Asphalt Company, (now owned by Haskell Lemon Construction Co). With Mr. Rheudasil’s leadership and our hard work, Rudy Construction Co. became a leader in the State on various types of Asphalt and Concrete Paving and Streetscape projects.

I was with Rudy Construction Co. for eleven years, before leaving to Partner with Fred Krapff in 1999, at Krapff-Reynolds Construction Company in starting a paving company where I would have a larger ownership position. We successfully built work for several years, building the paving company from 500,000 per year in 1999 to 6,000,000 per year in 2002. In 2003, Fred and Fran allowed me to buy their portion of the paving company.

Nash Construction Company incorporated in 2003, and began in March of 2004. We focus on small asphalt and concrete paving projects, and our goal is to remain small enough to give the customer the extraordinary service that we hope no one else can give.

Nash Construction Company has seen a lot in the almost five years we have been in business. We have seen what I consider to be substantial changes to the standards of the industry. We have seen Liquid Asphalt double in cost this year. We have seen the petroleum industry change how it prices and quotes their product, to the detriment of all those in the Paving Industry whose lives depend on the production and placement of the smoothest and equally as durable to concrete pavement, (not to mention the savings and impact of recycling).

We as an industry face hard times, not the least of which is the total economic condition of our nation, so horribly impacted by the actions of greedy and uncaring people. We must all stand firm together to promote the use and value of our Asphalt Pavement Products, not only for our own interests, but more so, because it is good for our Nation.
NEW OAPA WEBSITE UNVEILED
Visit www.okhotmix.com to see the changes yourself!

At the end of October, the Oklahoma Asphalt Pavement Association went live with our newly redesigned website. The new site not only features a new look, but also expanded technology.

On the front page, you are linked directly to some of the most visited sites pertaining to the Asphalt Industry, as well as a direct link to read Oklahoma Asphalt online and information useful to the public on how to avoid an asphalt scam.

Also now available is an updated calendar of events, and the ability to register and pay online for OAPA events. You can also subscribe to the online version of Between the Lines, written by Executive Director Connie Rozean-Pruitt. She will keep you abreast of the latest in Industry news.

As the website is further developed, OAPA welcomes all input. If you have suggestions or comments, please contact the office at (405) 524-7675 or oapa@sbcglobal.net.
“It was like magic”

Laura Ingalls Wilder, author of the beloved Little House on the Prairie, tells of her first encounter with an asphalt pavement. She was on a wagon journey with her parents in 1894 that took them through Topeka.

“In the very midst of the city, the ground was covered by some dark stuff that silenced all the wheels and muffled the sound of hoofs. It was like tar, but Papa was sure it was not tar, and it was something like rubber, but it could not be rubber because rubber cost too much. We saw ladies all in silks and carrying ruffled parasols, walking with their escorts across the street. Their heels dented the street, and while we watched, these dents slowly filled up and smoothed themselves out. It was as if that stuff were alive. It was like magic.” (Reprinted from the NAPA website www.hotmix.org, Nov 2008)

More Asphalt History....

The first bituminous mixtures produced in the United States mixes were used for sidewalks, crosswalks, and even roads starting in the late 1860s. In 1870, a Belgian chemist named Edmund J. DeSmedt laid the first true asphalt pavement in this country, a sand mix in front of the City Hall in Newark, New Jersey. DeSmedt’s design was patterned after a natural asphalt pavement placed on a French highway in 1852.

DeSmedt went on to pave Pennsylvania Avenue in Washington, DC, a project that included 54,000 sq. yds. paved with sheet asphalt from Trinidad Lake Asphalt. The durability of this pavement proved that the quality of the asphalt found in the Americas was as good as that imported from Europe. (Reprinted from the NAPA website www.hotmix.org, Nov 2008)
MINUTES OF SEPTEMBER 10, 2008 MEETING Submitted by Gary Evans, ODOT

A sign-in list of members and visitors present was distributed at the meeting and will be placed in the official file. My interpretation of the information presented and conclusions reached, both during and subsequent to the meeting, is as follows:

1. Oklahoma Transportation Center. The OTC, which includes OU, OSU and Langston, has recently hired its first permanent Executive Director, Tony Dark, replacing Neal McCaleb, interim Director. Tony has been a consulting engineer for many years. OTC is now one of ten national University Transportation Centers. At least for now, the Center will be located in Tulsa. While Tony failed to mention the overwhelming difficulties in developing the new Center, he is fully aware of them. But he is also aware of the tremendous potential. He will need all of our help to realize it.

2. Status of Electronic Plans. ODOT’s ultimate goal is to make complete proposals available electronically. Most, if not all, of Industry enthusiastically supports this. Recognizing the time involved in completing the task, we will proceed incrementally. ODOT intends to put out plans for three projects (one PC, one AC, and one Bridge) in pdf format in November. They will be unofficial and cannot be used for bidding purposes. In the meantime, we will continue to develop the entire electronic distribution procedure. As suggested by Mike Lipps, we will swallow our pride and follow the lead of Texdot and others.

3. Warm Mix Asphalt. Several warm mix asphalt projects are under construction in Texas. Craig Parker will monitor their progress and performance and report to the Task Force. Also, he will, in the near future, discuss with Danny Gierhart ODOT projects to be awarded this spring to identify candidates for trial projects.

4. Subgrade Treatment. Proposed changes to OHD L-50 (Soil Stabilization) and OHD L-51 (Soil Modification) test procedures were distributed. (Some percentages of admixture were increased.) These were still and are intended as guidelines. So let Materials Division know of any problems. Revisions to the new specification were also made to address cure time of treated subgrade and tolerances of the thickness of treated soil.

5. Selection PG Grades on Low Volume Roads. Industry suggested that higher than necessary grades of asphalt are often specified for low volume roads. The general rule is 64-22 for up to three million ESALs, 70-28 for three to ten million ESALs, and 76-28 for over ten million ESALs. However, regardless of traffic count the grades may be increased to accommodate heavy truck traffic such as oil field equipment. Overall, we are probably too conservative and are definitely inconsistent. Since the meeting our designers and Field Division Engineers have been advised to put thought into grade selection. Everyone concerned should, before Pre-bid, report to Office Engineers any apparent incorrect grades.

6. Report on Pavement Improvement Committee. The Committee met on August 22nd. The following asphalt related topics were discussed:

a. Recycled Asphalt. Shortages and high prices of binders have forced renewed interest in recycling. However, the Committee did not feel comfortable in further relaxing the specifications recently revised by Materials Division. Fortunately, the price of oils has dropped since the meetings.

b. Amendments to Subgrade Treatment. This topic is covered as Topic 4 above.

c. Prime Coat. The volatility of oil prices makes the availability of prime coat questionable. Also, its effectiveness is questionable. At best, it helps the subgrade retain the moisture present at the time of prime coat application. Steve Cross will furnish ODOT further information on the subject and possible options.

7. Hot in Place Recycling. OTA recently completed a hot in place recycling project on the Turner Turnpike near Weldon. Haskell-Lemon was the contractor. The train operation of millers, heaters and new materials, resulted in about thirty percent savings over a standard mill and inlay. The project has an estimated life expectancy of ten to fifteen years. So far, OTA is pleased with the results.

8. Status of New Standard Specifications. Several minor changes are being incorporated, especially in Section 500 (Bridge). We do not intend to do any more internal reviews, but will put them out for general comment electronically. The purpose of this review is to catch obvious errors. Introducing new issues or rehashing old ones will not be considered. Publication before end of 2008 appears to be unlikely.

9. Asphalt Price Index Bi-monthly. Industry would like ODOT to consider the Index twice rather than once a month. (Suppliers publish index values weekly.) However, if Industry can help us develop a language to include in the special provision for a bi-monthly index, we will consider it. In the meantime, recent revisions to our present special provision were distributed for comment.

10. Alternate Bids on Asphalt or Concrete Pavements. Because of extra design time and cost and difficulty in making fair and equitable comparisons (life cycle costs, etc.), ODOT remains reluctant to allow alternate bids for pavements. However, the extreme volatility of asphalt prices...
make such procedures necessary. The design life will be equal and the use of the asphalt binder price adjustment clause will probably not be used when the alternate bidding is used.

11. Status of NCAT Test Sections. Recently, NCAT sponsored a meeting where they highlighted interim results of testing many sections on their accelerated loading track. One of their findings was that transverse cracks tend to be bottom up cracking and longitudinal cracks tend to be top down. This can be important when considering measures to extend pavement life. ODOT’s ten inch and fourteen inch sections have been subjected to 8.4 million ESALs in the last two and a half years. We plan to conclude the test after ten million ESALs. So far, the fourteen inch section is performing well as a perpetual pavement; the ten inch, is not performing as well (7mm ruts and some cracking has developed). Perpetual pavement is defined as one that with periodic surface repairs can last forever. It is important to note that both sections were constructed on well prepared subgrade. Without this even the fourteen inch section may have already failed.

12. Use of Shingles in Highway Pavements (not on original agenda). On September 22 – 23, Reynolds Toney and Danny Gierhart attended a conference in Joplin, Missouri, on use of old composition shingles in new asphalt pavements. Certainly as conservation and environmental measurements the practice will be pushed by FHWA. Like the use of discarded tires, the success or failure will depend on the effort we all put into it. (Which, in turn, will probably depend on the price of oil.)

13. I-35 Research Project Near Purcell (not on original agenda). This joint NCAT, OU and ODOT project is to evaluate low volume road design under accelerated loading condition. Sophisticated procedures for monitoring strain are being utilized. So far, no conclusions have been reached. Stay tuned.

14. Schedule Next Meeting. The next Task Force meeting will be at 1:30 p.m. on Wednesday, December 10, 2008 at OAPA.
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