PERPETUAL PAVEMENT TASK FORCE COMPLETES PAVEMENT BUILDUP & DESIGN

The task force set up by the Ohio Department of Transportation to develop specifications and design procedures for the perpetual pavement concept reached another milestone recently. Using mechanistic design models, pavement thickness and buildup have now been established for the US 30 pilot project and can be transferred to other projects around the state.

The thickness of a perpetual pavement is calculated to limit the strain at the bottom of the pavement so that it is less than the fatigue limit of the material. This is a totally different concept than designing the pavement to withstand a specified number of load repetitions before failing as is done today. The task force chose legal load plus 20% as the critical load and 70 micro strains as the limiting strain at the bottom of pavement. Using these criteria, the material properties of the different layers and a linear elastic design model, pavement thickness was calculated for soil strengths measured by CBRs of 4, 5 and 6. Thickness did not vary significantly for these CBRs so a standard overall pavement thickness of 16 1/4 inches was selected to be used for a CBR of 4 to 6. Weaker soils will require a new calculation or soil modification to achieve a 4 to 6 CBR. This pavement is placed on 6 inches of 304 aggregate base.

An AASHTO design for the US 30 pilot project would yield a 13 3/4-inch pavement on a 6-inch aggregate base so the perpetual pavement is 2 1/2 inches thicker than the AASHTO design. Since the thickness of a perpetual pavement does not change with increased volume or axle loadings, this same thickness would be used on a heavy interstate truck route where AASHTO designs are typically 18 to 22 inches. Thus a perpetual pavement would be thinner than an AASHTO design in these cases. If you stop to think about it, this makes sense. AASHTO designs for non-interstate routes use fewer load repetitions which give relatively thinner pave-
Perpetual Pavement, continued from page 1

...characterized, and designs developed for a range of soil strengths. Much of this will be accomplished through research projects that will accompany construction of the US 30 pilot project. While all of this will improve the perpetual pavement design, the bottom line is that we have a perpetual pavement specification and design that can be used today which will eliminate future reconstruction/replacement projects and their accompanying user delay. This will be a tremendous benefit to the traveling public and was the goal that we set out to accomplish when the task force was formed.

FPO would like to thank the Ohio Department of Transportation for their leadership and vision in this effort.
Spurred on by a desire to make good riding pavements even better, the Ohio Department of Transportation is working with Flexible Pavements of Ohio to develop a 2nd-generation smoothness specification. Initially conceived to address heavy traffic 2-lane pavements having overlay thickness falling below existing smoothness criteria, the new specification will be applicable to all overlay thicknesses for any pavement.

A well-known fact among highway professionals is that smooth pavements lead to happy motorists. Surveys by various trade associations throughout the years and the NQI (National Quality Initiative) all confirm that riding comfort is a high priority for today’s motorists. Ohio has acted prudently in seeking to meet this customer desire through the implementation of incentive/disincentive ride quality specifications in the early 1990s. Those ride quality specifications have resulted in superior asphalt riding surfaces and high consumer satisfaction. Unfortunately, the specs. had limitations.

Building on the experience of the asphalt paving industry and utilizing new ride quality measuring tools the Ohio Department of Transportation has crafted a draft specification that addresses previous limitations. The first generation specification was applicable to "thick" overlay projects – typically interstate jobs. Because much of ODOT paving work is non-interstate, or "thin" overlays, the advantages of using a smoothness specification could not be availed for this type of construction. The new specification makes that possible.

A primary concern of pavement engineers with implementing an incentive/disincentive smoothness specification for thin asphalt overlays is how to reckon with occurrences where insufficient opportunities for obtaining smoothness exist. Some pavements, simply, are too rough to begin with to ever achieve the desired ride quality using the specified treatment. The answer to this quandary was a compromise specification. The draft specification adopts the incentive/disincentive pay adjustment philosophy – but with a twist. The incentive portion of the specification is taken from the Department’s current smoothness proposal note. The disincentive portion is taken from Item 401.19 of the ODOT Construction & Materials Specification (C&MS).

Under the new specification two methods of measuring smoothness will be employed. First, the California type profilograph, which is the primary smoothness "measuring stick" used today. The profilograph has served Ohio well but has the limitation of measuring the pavement profile over a relatively short length – approximately 25 feet. Lightweight inertial profiling devices are another tool for measuring smoothness. They make possible the use of the International Roughness Index (IRI). IRI is fast becoming the national standard for measuring pavement smoothness. Using lightweight inertial profilers overcomes the limitations of the profilograph, allowing for even smoother pavements. It is ODOT’s desire to begin using IRI as the smoothness "measuring stick" for all its projects. The drafting of this 2nd-generation specification provides the unique opportunity of incorporating IRI into construction projects.

Piloting the specification is the next step in implementing this new smoothness concept. As this newsletter goes to print, ODOT is honing the IRI criteria for incentive-based payments and seeking projects where the new specification can be piloted. Following the pilot projects the specification will be revisited, adjustments made, smoother pavements built, and happier customers made.

Stay tuned to future issues of Current News as we follow the progress of the 2nd-generation smoothness specification.
In the September, 2001 Ohio Hot-Mix Asphalt newsletter we wrote that Smoothseal (ODOT, SS 854, Fine Graded Polymer Asphalt Concrete) was gaining acceptance by more agencies. We reported on projects that had recently been built by ODOT Districts in Geauga County and near Canfield. Since then the use of Smoothseal seems to have "taken off". We have heard from several other agencies that they have recently bid Smoothseal projects or are planning such projects.

ODOT District 2 has a project, bid last year, under construction on US 6 in Henry County and another recently let on US 20A in Fulton County (Project 39-2002). The US 6 project consists of 3 trial sections. One is a true preventive maintenance candidate, that is, a pavement in structurally sound condition needing only surface maintenance; a second, which requires more extensive maintenance, that will see the SS 854 placed over a leveling course; and a third section, which will be milled before placing the Smoothseal. Randy Fry of District 2 observes that the material laid on US 6 last year looks "gorgeous".

Vic Roberts from the City of Englewood dropped us a note to tell us that the City will be bidding an SS 854, type A project very soon.

Bill Davis of ODOT District 8 reports that they are bidding two routes for Smoothseal this summer, SR 177 in Butler County and US 127 in Hamilton County.

Jeff Lohse with the Lucas County Engineers let us know that they are planning a Smoothseal project on Weckerly Road near the Village of Whitehouse.

Jim Setty with ODOT District 9 tells us that they will be bidding an SS 854, Smoothseal, project for US 50 in Ross County between Bainbridge and Bourneville around July 31.

We'll be watching these projects to confirm that they continue the durable, cost-effective performance we have come to expect from Smoothseal.

Elsewhere in this newsletter you will find a technical bulletin on the appropriate application of Smoothseal. This document is intended to assist agencies that are considering Smoothseal projects to choose the proper application, that is, the right treatment for the right conditions and at the right time.

If your agency is planning a Smoothseal project, we'd like to hear about it. Please give us a call, toll free, 888-446-8649 (Ohio only) or e-mail info@flexiblepavements.org and let us know what you're doing. We'd like to share your experience with other agencies that might benefit from it.
Specially formulated for thin applications ranging from 3/4" to 1" thick, Smoothseal has proven very durable in the field and is recognized today as the perfect material for preventive maintenance overlays. It is specified by the Ohio Department of Transportation for use as a hot-mix asphalt overlay (Supplemental Specification 854, Fine-Graded Polymer Modified Asphalt Concrete) and is suitable for any and all preventive maintenance situations.

**SS 854, Fine-Graded Polymer Modified Asphalt Concrete**

SS 854 allows for two non-proprietary mixtures. Mix type A (formerly Supplemental Specification 805) is a heavily polymer-modified sand asphalt formulated with an 8-1/2 percent asphalt binder content. This rich binder content provides outstanding durability leading to extended wearing course life. Mix type B, also a heavily polymer-modified mixture, has a minimum asphalt binder requirement of 6.4 percent and uses 100 percent crushed coarse aggregate, making it the best choice for heavy duty applications.

Both SS 854 mixtures are suited for the most strenuous of environmental conditions, providing superior resistance to surface disintegration. The requirement of 50 percent minimum silicon dioxide content also ensures good skid resistance.

For more information about Smoothseal and the use of thin HMA overlays, contact Flexible Pavements of Ohio at 888-4HOTMIX or visit us at www.flexiblepavements.org.

**At Work Throughout Ohio**

**State Route 20, Ashtabula County**
Paved in 1984, Smoothseal has proven durable, skid resistant and to require very little maintenance during its service life for over 16 years.

**Shelburne Rd., Shaker Heights**
Winner of the 2000 Master Craftsman Award!
Paved in 1973, Smoothseal has withstood long-term exposure without deteriorating during wet or damp conditions for over 27 years.

**U.S. Route 30, Canton**
Smoothseal’s thin and durable surface course has bonded and sealed the existing surface, preventing further deterioration until major rehabilitation can be done.

**Flexible Pavements of Ohio**
37 W. Broad Street, Suite 460
P.O. Box 16186
Columbus, Ohio 43216

An association for the development, improvement and advancement of quality asphalt pavement construction.
Elsewhere in this newsletter is a registration form for the Ohio Center for Asphalt Pavement Education's (OCAPE's) one-day seminar on the subject of Soils and Drainage for Flexible Pavements. OCAPE is repeating this important seminar on September 18, 2002 in Columbus, so that those who may have missed the previous offerings have another chance to participate.

Soils, subgrade and drainage considerations are critical to the successful design and construction of pavements. Soils, subgrade and/or drainage problems have recently resulted in costly change orders on several projects. Engineers, technicians, architects and contractors involved in the design, rehabilitation and construction of flexible pavements should attend this seminar to learn how to economically identify and deal with these soils and drainage issues.

The seminar is conducted by three experts in the subject: Rich Williams, PE, Ph.D., Geotechnical Engineer for BBC&M, Gene Geiger, PE, Geotechnical Engineer for ODOT, and Aric Morse, PE, Pavements Engineer for ODOT. The seminar covers the engineering fundamentals of soils and drainage, especially sub-drainage, that designers and field construction personnel need to know for making proper decisions relative to the design and construction of flexible pavements. Specific topics include what an adequate soils investigation should consist of, including testing and the soils profile, how to identify pavement soil types and choose appropriate design values, when to consider soil improvement, stabilization or under-cutting and design and construction requirements for adequate surface and sub-surface drainage.

For more information on this valuable seminar call OCAPE 888-446-8649, visit the web site: www.flexiblepavements.org or e-mail: info@flexiblepavements.org.

PRESIDENT BUSH LOVES ASPHALT, HATES CONCRETE

During one of President George W. Bush’s recent trips to Ohio, several members of the Flexible Pavements of Ohio Board of Directors had the opportunity to meet with him. Upon being introduced, the President noticed the Flexible Pavements’ association pin in Mr. Jurgensen’s lapel and asked what the initials stood for. After replying they were for flexible pavements, Mr. Jurgensen noticed the puzzled look on the President’s face and clarified by saying asphalt. To this the President enthusiastically responded, "Oh, I love asphalt. It is so much easier on my legs when I jog. I hate concrete." What could be better than an unsolicited endorsement from the President of the United States!
The Ohio Center for Asphalt Pavement Education is pleased to present a school on the subject of Soils and Drainage for Flexible Pavements. The goal of this course is to cover the engineering fundamentals of soils and drainage, especially sub-drainage, that designers and field construction personnel need to know for making proper decisions relative to the design and construction of flexible pavements.

Students will learn:
> What an adequate soils investigation consists of, including testing and the soils profile
> How to identify pavement soil types and choose appropriate design values
> When to consider soil improvement or under-cutting
> Design and construction requirements for adequate surface and sub-surface drainage.

Who Should Attend?
This course is intended for engineers, architects, contractors and technicians involved with the design and construction of Flexible Pavements

Instructors: Rich Williams, PE, Ph.D., Geotechnical Engineer, BBC&M, Gene Geiger, PE, Geotechnical Engineer, and Aric Morse, PE, Pavements Engineer, ODOT. Contact Hours of Instruction: 6

Date, Time & Location
Wednesday, September 18, 2002, 8:30 a.m. to 4:00 p.m. at the Ramada Plaza Hotel and Conference Center, 4900 Sinclair Rd. (I-71 and Morse Rd.), Columbus, Ohio, 614-846-0300

Registration Fee (Early Bird Deadline — September 2, 2002)
The early bird registration fee is $80 per person for member agencies, firms and companies of Flexible Pavements of Ohio (FPO), $90 per person for government agencies not members of FPO and $100 per person for others. Standard rate after September 2, 2002 is $100 per person for FPO member companies and government agencies, $120 per person for others. Student rate for university engineering students is $50. Registration will be on a first come-first served basis. The registration fee payment method must accompany registration. Fee includes continental breakfast, luncheon, breaks and reference materials. Questions can be directed to OCAPE at 1.888.4HOTMIX (888.446.8649) or by e-mail at info@flexiblepavements.org.

Substitutions & Cancellations
Substitutions are permitted. Cancellations may be made up to 4 working days before the seminar and are subject to a $20.00 administration fee. Refunds will not be made to "no shows." OCAPE reserves the right to cancel the seminar if insufficient interest exists.

Early Bird Rate, Deadline September 2, 2002 — The early bird registration fee is $80 per person for member agencies, firms and companies of Flexible Pavements of Ohio (FPO), $90 per person for government agencies not members of FPO and $100 per person for others. Standard rate after September 2, 2002 is $100 per person for FPO member companies and government agencies, $120 per person for others. Student rate for university engineering students is $50. Payment may be made by check or credit card (MC/V/AE/DSC/DNRS).

Provide the following information for credit card payment:
Name on the card ______________________________, Card # ___________________________, Exp. Date _____
Amt. to be charged _____________, billing address and zip ______________________________________
Signature ______________________________   If paying by check, make payable to Flexible Pavements of Ohio.

Payment method must accompany registration. Government agencies and member companies may submit purchase order and be invoiced. Detach registration form and return with your payment method to: Flexible Pavements of Ohio, P.O. Box 16186, Columbus, OH 43216-6186. Registrations with credit card or PO may be faxed to 614-221-0394.
Increased traffic and increased noise means increased pressure to lower the decibel levels emanating from the highways of America. Some highways are quieter than others, and studies are showing hot mix asphalt is the best alternative for eliminating excess noise from our roadway environment.

Highway noise is caused largely by the friction of tire against pavement. Creating "quiet pavement" is one way to significantly reduce noise. Several states have performed studies in recent years to see how different pavement types compare in noise generation.

Ohio DOT Finds Asphalt Quieter
In March 1999, Ohio’s Department of Transportation (DOT) released a study that reported PCC (Portland Cement Concrete) generated as much as 6.7 decibels (dBAs) more noise than asphalt (specifically OGFC, or open-graded friction courses). The researchers used the pass-by method for 12 different pavement types with varying ages. Even a seven-year-old dense-graded asphalt road produced 2.5 less dBAs than a one-year-old PCC-random and transverse grooved pavement. PCC pavements produced between 87 and 89 dBAs, while the asphalt mixes produced 82.2 to 86.8 dBAs.

Texas Study Supports Asphalt’s Wider Use
A 1999 Texas study concluded that differences in noise reduction based on pavement type are significant, and that fact should be taken into account when deciding what pavement to use in various road projects. The Texas tests were designed to minimize as many variables as possible: they used the same vehicle, tire, speed (62 mph), and distance from the roadway for noise measurement. On average, jointed concrete roadways produced 84.8 dBAs as compared to open-graded asphalt’s 79.5 dBAs.

More Evidence Points to Asphalt
A recent Arizona Transportation Research Center report compared HMA and PCC pavements for tire-pavement interface noise and once again, asphalt produced less noise in every case – as much as 5.6 dBAs less. The report noted a decrease of 3 dBAs is significant, having the same effect as doubling the distance from the noise.

A 1999 Colorado Asphalt Pavement Association (CAPA) report reviewed all of the noise studies and recommended that the Colorado Department of Transportation evaluate the effect of new asphalt pavement surfaces on noise prediction models. With so much empirical evidence pointing to cost-savings and noise-reduction with HMA, it makes sense for Colorado – and every state – to consider asphalt’s qualities when planning roads and highways, according to the report.

International Results Are the Same
Other countries have already taken advantage of the noise-reducing qualities of asphalt. In the U.K., it was reported that porous asphalt roads reduce noise by 4 dBAs in dry conditions and up to 8 in wet conditions. That’s equal to cutting the volume of traffic in half. Researchers in South Africa have developed an open-graded asphalt pavement called "Whisper Course" that showed a noise reduction of 9 dBAs over a single seal surface and as high as 11.7 dBAs over a grooved surface (Feb. 1991). Other countries, such as France, are using low noise porous road surfaces (OGFCs), which have the ability to attenuate noise. French researchers found this asphalt mix reduces both the generation and propagation of noise by 3 to 5 decibels. They report even greater noise reductions are possible by optimizing the surface design.

Reprinted from the Summer 2001 issue of Centerline from the Asphalt Pavement Association of West Virginia.

<table>
<thead>
<tr>
<th>Decibel Level</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>Quiet library, soft whispers</td>
</tr>
<tr>
<td>40</td>
<td>Living room, refrigerator, bedroom away from traffic</td>
</tr>
<tr>
<td>50</td>
<td>Light traffic, normal conversation, quiet office</td>
</tr>
<tr>
<td>60</td>
<td>Air conditioner at 20 feet, sewing machine</td>
</tr>
<tr>
<td>70</td>
<td>Vacuum cleaner, hair dryer, noisy restaurant</td>
</tr>
<tr>
<td>80</td>
<td>Average city traffic, garbage disposals, alarm clock at two feet</td>
</tr>
</tbody>
</table>

The following noises can be dangerous under constant exposure:

| 90            | Subway, motorcycle, truck traffic, lawn mower |
| 100           | Garbage truck, chain saw, pneumatic drill    |
| 120           | Rock band concert in front of speakers, thunderclap |
| 140           | Gunshot blast, jet plane                     |
| 180           | Rocket launching pad                         |
Congress will consider a new highway bill next year to replace the current Transportation and Efficiency Act for the 21st Century, better known as TEA-21, which expires September 30, 2003. In preparation, congressional leaders and interest groups alike are starting to put forth their ideas for shaping the new legislation.

Senator Max Baucus (D-MT), who is the Ranking Democrat on the Environment and Public Works Committee, (Committee Chairman is James Jeffords, an Independent) has announced that he will be introducing a series of eight bills on the reauthorization. The first of these, introduced this month, is called the MEGA TRUST Act. Its provisions would: 1) place the revenue from the 2.5 cents/gallon tax on gasohol in the Highway Trust Fund rather than the General Fund (would mean $50 million more for Ohio), 2) reimburse the Highway Trust Fund for the 5.4 cents/gallon tax reduction on gasohol (would mean $110 million more for Ohio), 3) credit the Highway Trust Fund with the interest earned on its balance (presently deposited in the General Fund), and 4) extend the Federal Highway User Taxes and Trust Fund so that they do not expire.

While Senator Baucus’ first bill does not address the overall program total, several interest groups have put forth their ideas on this issue. The American Road and Transportation Builders Association (ARTBA) has proposed a $50 billion/year program funded by a possible user fee increase and indexing to the Consumer Price Index. The Associated General Contractors (AGC) proposal calls for a $40 billion to $44 billion/year program that also increases indexing user fees but no fee increase. The American Association of Highway and Transportation Officials (AASHTO) plan includes $41 billion for highways and $10 billion for transit funded by a tax credit scenario similar to Fanny-Mae’s.

In addition to funding, another issue that seems to be coming to the forefront is an increase in the size and weight of trucks. The original TEA-21 mandated that the Transportation Research Board (TRB) conduct a study and make recommendations on the size and weights of trucks. That study, released May 16th, recommended increasing the weight for a six-axle truck to 90,000 pounds from its current 80,000 pound limit and to allow double trailer configurations with each trailer up to 33 feet long. Earlier this month, in a Capitol Hill News Conference attended by House Transportation and Infrastructure Committee Chairman Don Young (R-AK), a proposal from the "think tank" Reason Foundation was unveiled that calls for the construction of set aside truck lanes built on existing right-of-way. They would be separated from car lanes by a concrete barrier, accommodate long double and triple trailer combinations, and be financed by tolls. While not totally supporting the idea, Chairman Young felt it had merit.

The next 18 months will be very interesting as the new transportation bill takes shape. We will keep you posted.
GOVERNMENT’S 30-YEAR HATE AFFAIR WITH THE CAR

The following is excerpted from an address by Senator McClintock to the California Asphalt Pavement Association in Los Angeles on January 24th. The complete text may be found at www.tommcclintock.com.

California policy makers have conducted a 30-year hate affair with the automobile, to the detriment of our economy, our safety, our environment, and our quality of life. And it is time – it is long past time – that Californians kicked them out of office and demanded the highways that we have paid for.

During the past 30 years, we have suffered the derisive and condescending campaign against "Californians’ love affair with their cars." California’s highway system was not due to an irrational love affair with a machine. It was the simple fact that the individualized transportation made possible by the automobile offers advantages that no mass-transit system could ever begin to duplicate: high-speed, low-cost, doorstep-to-doorstep, 24-hour a day on call service in safety, convenience and comfort, offering infinite flexibility in travel schedules and routes. It was this efficient, adaptable system that made 20th Century commerce possible – and it is the foundation upon which our ability to socially and commercially interact now rests.

But it is not popular with big government. Those who have lectured Californians that they have become too dependent on the automobile would rather make them dependent on government-managed mass transit. The only problem is that the masses don’t use it. And there’s a reason. It is inconvenient, it is enormously time-consuming, and most of all, if it wasn’t heavily subsidized, it would be cost prohibitive. Take the Los Angeles Metropolitan Transportation Authority for example. Last year, the MTA consumed $2.7 billion: $5,900 annually for every passenger it carried. Last year, they had a 32-day strike. There was no appreciable increase in traffic congestion. There was actually a decrease in air pollution. Shifting just the MTA’s mass transit subsidy funds to road construction – at Century Freeway prices – would mean four new lanes on the San Diego Freeway from the Ventura Freeway to the Century Freeway in the first year of savings alone. Within ten years, 170 miles of congested freeway routes in the Los Angeles area could have four lanes of angioplasty done, for the MTA’s net operating subsidy for mass transit. Our plight is not for lack of money. In 1990, we doubled the excise tax on gasoline – and promised that money would be used for road construction.

In the decade that followed, the miles driven by Californians increased another 30 percent, our lane mileage increased just ONE percent. So let me offer these politically incorrect suggestions:

★ First, restore highway revenues for highways. I first proposed dedicating our sales taxes on gasoline for our highways three years ago. Today, a similar measure is before us as Proposition 42, and it is a start.

★ Second, let’s ask that MTA and all the other mass transit systems pay for themselves through their own fareboxes, just as we expect highway users to pay for their highways through their gas taxes.

★ Third, fire the social engineers at CalTrans, update the blueprints for the highway system that we were supposed to have today and then, where it is still economically possible to do so, re-purchase the land and get to work.

To do so, we have to change public opinion. We have to confront the mass transit lobby. We have to remove from office an entire generation of Luddites who have an utterly irrational abhorrence for the automobile and a blind faith in 30 years of failed transportation policy. And that ain’t easy. Changing governing agendas is never easy.

The good news is that the public will exercise solid judgment once they are in possession of all the facts. The problem is, all they currently hear
is the propaganda of the mass transit lobby.

Are you prepared to educate every Californian that in the decade since our road taxes doubled and our driving increased 30 percent, our highways have increased just one percent? Are you prepared to confront the MTA and its clones over the misuse of our highway money? Are you prepared to pursue initiatives, back candidates, and undertake a steady drumbeat of data until every voter is as aware as each of us in this room of the condition of our highway system and how we got there?

What I can promise is that I will continue to press these issues at every opportunity. And every voice that is raised will bring us closer to the day when all Californians can again enjoy high-speed transportation that is perfectly individualized to meet their precise needs – that picks them up at their doorsteps and whisks them to their destinations in safety and comfort – whenever they need to go, wherever they need to go.

Reprinted from the January/February 2002 issue of the California Asphalt Pavement Association’s newsletter.

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**FLEXIBLE PAVEMENTS ACCEPTS PUBLIC AGENCY MEMBERS**

As of March 2002, Flexible Pavements of Ohio, the trade association for the hot mix asphalt industry in Ohio, accepts membership from public agencies. At its March 2002 meeting the Board of Directors of the association approved changes to the by-laws to provide for a category of membership for political subdivisions of Ohio at annual membership dues of $100.

This action was in response to an inquiry, last year, from Cincinnati, as to whether the city could become a member of Flexible Pavements of Ohio. At the time the association's bylaws had no provision for membership for public agencies. But, the association’s Board of Directors agreed that it was a good idea; and, the result was the recent action to provide for a class of membership for public agencies.

Bill Brayshaw, Hamilton County Engineer, was the first to join FPO as a public agency member. We asked Ted Hubbard, Chief Deputy County Engineer, how the county engineer’s office expected to benefit from membership in the association. Hubbard explained that it is the philosophy of the Hamilton County Engineer’s office to maintain a close working relationship with the construction industry in order to stay abreast of new developments and technology; so as, ultimately, to insure that the public receives the benefit of the best products, practices and services available. He commented that the involvement of the private sector has been beneficial in finding innovative solutions to special problems, when they have been encountered.

Public agency members can look forward to benefits stemming from periodic notification of issues affecting the industry and discounts on training seminars and conferences. Members have broad access to information as a result of the association's close ties to industry and academic organizations; such as, the National Asphalt Pavement Association, the National Center for Asphalt Technology, the Asphalt Institute, and eight universities throughout the state that participate in the association's asphalt education and scholarship program.

FPO looks forward to public agency participation as well. FPO's position of advocacy for adequate transportation funding may be enhanced by the support of public agency members. The perspective of the public agencies may improve the work of association committees, such as, the education, annual meeting and technical committees. Partnerships with public agencies as envisioned by the Hamilton County Engineers will undoubtedly help advance the association in its mission of continuously improving the quality of asphalt pavements in Ohio.

For information on becoming a member of Flexible Pavements of Ohio, call 888-446-8649 (toll free in Ohio) or e-mail: info@flexiblepavements.org.
Brothers John and Doug Spielberger have been business partners since high school. "We’ve never had an argument," said John Spielberger, president of C and S Limestone, of his brother Doug. Could these be the first brothers in history never to scrap over a favorite toy or perhaps the last pork chop? Doug guffawed when told of the claim made by his brother. He did concede, however, that they have made excellent business partners and get along very well in running a thriving business.

In 1963 George Cross founded C and S Limestone, Inc., in Columbia Station, Ohio. John Spielberger and his brother Doug were kids at the time. The Spielberger brothers would grow up to found a company called West Asphalt Paving, selling it in 1989. A year later John Spielberger bought C and S Limestone from George Cross.

Doug Spielberger remained with West Asphalt Paving until 1994 as a partner with the new owners, teaching them how to run the company. In 1994 Doug sold his shares of West Asphalt to the new owners and joined his brother John as co-owner of C and S.

John was happy to hand over many of the management duties to his brother. His time had been stretched between C and S and the other businesses he owns, including a real estate company, a petroleum business and an assisted living nursing home. Doug became vice president and the Spielberger brothers were glad to be partners again.

Located at 13315 Hawke Rd. in Columbia Station, C and S Limestone sells paving and aggregate materials direct to local contractors. C and S products include limestone, gravel, slag and Hot Mix Asphalt.

The Spielberger brothers have turned C and S Limestone into a healthy business that has doubled in size since they took it over a little more than a decade ago. The company’s truck fleet has tripled in size over the same period. C and S has built on its success by increasing its volume and passing on the savings to customers. Growth has come...
from reinvesting profits in new equipment and technology.

Asphalt makes up about half of the company’s business, a number that is growing. C and S operates one batch plant. It also operates a drum mix plant in a joint venture with The Osterland Company. Production volumes have increased every year. Municipalities and private contractors from surrounding areas such as Cleveland, Lorain and Medina are the company’s customers.

"We do not lay asphalt," John Spielberger said. "That helps us because small contractors don’t have to worry about giving business to a company that might bid against them. "Customer satisfaction means owner satisfaction," he adds. "If the customer is happy, that’s our reward. Contractors are rewarded by seeing the finished product (a new or refurbished road). Our reward comes from seeing satisfied customers."

John Spielberger sees continued growth in the future for the aggregate business. The company aims to double its business again over the next 10 years.

"A customer can call any time of the day and get a bid immediately," said John. "Our job site is right here where our office is, so we can take care of them right away. We are straight with people and give them quality service and a product that is competitively priced. I’d rather service customers than be their competitor."

The C and S Truck Fleet - Delivering quality materials and customer satisfaction.

C and S HMA Manufacturing Facilities service customers from many locations, including Cleveland, Lorain and Medina.
$350,000 for the rubblize and roll item and $2,950,000 for the 7-year warranty asphalt pavement. Drainage was bid at $350,000. There was also $450,000 of non-warranty asphalt and $350,000 of 10 inch concrete pavement on the project.

John Skidmore of the Shelly Company reports that soft subgrade conditions were encountered on the project that precluded breaking the concrete pavement to the extent specified. The project called for replacing all the original underdrains and additional underdrains were added. Todd Moore, ODOT project engineer, noted that the degree of rubblization was the minimum considered acceptable and that in some areas voids in the broken concrete were filled with fine crushed limestone aggregate. The Shelly Company had the project checked with deflection testing which indicated the thickness was underdesigned, however, ODOT decided to stay with the original overlay design.

The final pavement build-up was 3 inches of surface and intermediate courses both with a PG70-22, polymer modified binder, (to meet the requirements of the warranty specification) on 9 and 1/4 inches of asphalt concrete base.

Skidmore notes that this project was partnered between ODOT and the design-build team and that they experienced a very good relationship that contributed to the successful completion of the project. Moore also thought the project went very well.

This project demonstrates that the favorable economics of rubblization as a rehabilitation alternative for concrete pavement works well with the design build process and that partnering is the icing on the cake.
This year’s National Collegiate Asphalt Mixture Performance Competition was won by The Ohio State University who defeated University of Wisconsin at Platteville for the title. This is the second time in the three years the national competition has been held that Ohio has won. Last year, Ohio University represented Ohio and brought home the title.

Judging was done by the National Center for Asphalt Technology (NCAT) at Auburn University, Alabama.

The Ohio State University had previously won the Ohio HMA Mixture Performance Competition earning the right to represent Ohio at the national level. They were honored at the FPO Annual Meeting Banquet for this accomplishment along with Youngstown State University who won second place and Ohio Northern University who placed third.

The goal of the competition is to introduce students to HMA mix design, identifying those parameters that differentiate a good HMA mix. All teams are supplied the same aggregates, however, they are free to combine them as they see fit and use fibers or other synthetics. They are also free to use any binder or additives such as polymers, shingles, etc. The teams are judged on the rut resistance of their mix, a written report, including a cost benefit analysis and an oral presentation.

Our congratulations to The Ohio State University and all the teams who participated. In reality, it’s the knowledge gained from the experience that really counts and that makes everyone a winner.

WHEN DOES A ROAD BECOME A SCENIC BYWAY?

ANSWER: When a road, or collection of roads, with special intrinsic qualities is nominated by its community and recognized by the Ohio Department of Transportation for scenic byway designation. Ohio currently has 14 Scenic Byways that crisscross the Buckeye State and connects its rich historic, cultural, recreational, natural and scenic resources. Four of these Byways, as well, have been recognized as National Scenic Byways by the Federal Highway Administration. All of Ohio's Scenic Byways are constructed of flexible pavement materials. Perhaps there is a special correlation between flexible pavements and Ohio’s Scenic Byways.

In an effort to enhance, and promote Ohio's Scenic Byways, Ohio River Trails, Inc. (ORT—a 501 C-3 non-profit organization) has initiated a vehicle/equipment tax driven donation program. ORT is the founding sponsor of the 465-mile Ohio River Scenic Route - Ohio, the nation's longest National Scenic Byway (through 14 counties along the Ohio River). Donations of this type meet with IRS approval and a company may donate in value up to 50% of its adjusted net income in any given year. You may even direct the benefits of your donation to the Ohio Scenic Byway of your choice, or to the statewide Ohio Byway Links organization which benefits all Ohio Scenic Byways. All details are handled by Ohio River Trails.

We encourage Flexible Pavements members to support your Ohio Scenic Byway system by favorably considering ORT's vehicle/equipment donor program. By doing so you will participate in a much needed form of Heritage Tourism economic development. For more details, call Richard "Dick" Thomas, Executive Director of ORT at 740-423-7233.
The Ohio Turnpike was recently presented with the William W. "Bill" Baker award for their efforts in advancing the practice of asphalt pavement construction. The highest honor bestowed by Flexible Pavements of Ohio on behalf of the Ohio Hot Mix Asphalt Industry, the Award was presented to the James W. Shocknessy Ohio Turnpike for its customer focus, demand for excellence, and innovative spirit.

Constructed prior to the Interstate Era, the Ohio Turnpike was the first major freeway facility built in Ohio. Its original construction followed the predominant practice of the day and it was built as a rigid pavement. However, as repairs and maintenance were needed, the Turnpike turned to Hot Mix Asphalt to provide its customers a surface that was the quietest, smoothest and most cost effective available. When the time came to increase its capacity, the Turnpike made the hard decision to raise the necessary revenue and then chose deep-strength asphalt for its lane additions. In its use of Hot Mix Asphalt, the Turnpike quickly established a reputation for its insistence on quality. Talk to any asphalt paving contractor who has ever worked on the "Pike" – as HMA contractors affectionately call it – and the conversation will include the Pike's legendary demand for excellence.

Innovation has always been at the forefront in the Turnpike's use of Hot Mix Asphalt. It was one of the first highway agencies nationally to adopt the use of polymer modified asphalt cement as a standard specification. Development of rut resistant mix designs produced superior performing asphalt pavements, which have been dubbed as "Black Concrete" by those associated with the Turnpike. As an innovator, the Turnpike was also quick to adopt the economic and environmental benefits of cold-milling and recycling.

Always focused on the customer, the Turnpike uses no excuse completion dates and does not allow lane closures during the summer vacation season, what would normally be considered the heart of the asphalt construction season.

It is this customer focus, demand for excellence in asphalt pavement construction, and innovative spirit that has set the Turnpike apart. And, it is for these qualities that the James W. Shocknessy Ohio Turnpike was recognized through the awarding of the William Baker Award – the Ohio Asphalt Paving Industry's most coveted award.

**William W. “Bill” Baker Award**

This award was established in memory of Mr. Bill Baker who served as FPI President and Executive Director from 1976 until his death in 1991. It represents the highest honor bestowed by Flexible Pavements of Ohio on behalf of the Ohio Hot Mix Asphalt Industry and is symbolized by the American Eagle. The recipients have made a significant and positive impact on the Asphalt Paving Industry and display those qualities synonymous with Mr. Baker and the American Eagle.

Past Recipients:
1993  John T. “Ted” Kirkby
1995  Fred H. Deering
1996  Don E. Mill
1997  Jean E. Snyder
1998  Charles G. Rauh
1999  Willis “Gib” Gibboney
2000  William B. Burgett
2002 ANNUAL MEETING
AND THE WINNER IS . . .

The 40th anniversary of Flexible Pavements’ founding was not the only event to celebrate at this year’s annual meeting. Many contractors had a lot to hoot about after having received a quality paving award. Awards were presented by the Ohio Department of Transportation and Flexible Pavements of Ohio for exemplary asphalt construction on Ohio’s road system. The coveted Ecological Award for producers who have overwhelmingly exhibited responsible environmental stewardship and positive community involvement was also presented. This year’s Master Craftsman Awards again demonstrated that asphalt pavements can be trusted to provide excellent service to Ohio’s motorists with up to 25 years of uninterrupted pavement surface life.

“The future of our industry is Perpetual Quality Pavement – a true lifetime pavement!

Quality Hot Mix Asphalt pavements are user friendly, cost efficient, environmentally friendly, smooth and quiet.

To continue to be the pavement of choice, QUALITY must be the keystone of our industry.

Hot Mix Asphalt Pavement accounts for over 98% of all Ohio paved roads, and by consistently building quality Hot Mix Asphalt pavements we will insure that Hot Mix Asphalt continues as the market leader in Ohio.

Today we salute those companies that have been leaders in helping our industry achieve a Commitment to Excellence as we prepare for the future – a future of PERPETUAL QUALITY HOT MIX ASPHALT PAVEMENTS.”

With these words by FPO’s Chairman of the Board, Paul L. Scala, the awards ceremony began. Presenting awards for the Ohio Department of Transportation were Assistant Director Mary Ellen Kimberlin and Leonard Brown, Administrator for the Ohio Division of the Federal Highway Administration.
NEW FULL-DEPTH ASPHALT CONCRETE PAVEMENT
State Route 16 Northeast from Fairall Rd. to Old Riley Rd., Muskingum County
Project 606(1999)
PAVING CONTRACTOR:
Shelly & Sands, Inc.
Zanesville, Ohio

MINOR REHABILITATION AND WIDENING OF FLEXIBLE PAVEMENT USING ASPHALT CONCRETE
Interstate Route 71
North from S.R. 161 to U.S.R. 36 / S.R. 37
Franklin and Delaware Counties
Project 722(1999)
PAVING CONTRACTOR:
Kokosing Construction Company
Fredericktown, Ohio

MINOR REHABILITATION OF RIGID PAVEMENT USING ASPHALT CONCRETE
U.S. Route 30
East from S.R. 60 to the Mohican River,
Ashland and Wayne Counties
Project 302(2000)
PAVING CONTRACTOR:
Kokosing Construction Company
Fredericktown, Ohio

MAJOR REHABILITATION OF RIGID PAVEMENT USING ASPHALT CONCRETE
Interstate Route 271
From the IR 71 interchange to 2 miles north of the Medina / Summit County Line,
Medina and Summit Counties
Project 3002(2000)
PAVING CONTRACTOR:
Kenmore Construction Company
Akron, Ohio
SPECIAL USE PAVEMENT
PROJECT:
Roy Mott and Ron Drager / Toledo Speedway,
Toledo, Ohio

PAVING CONTRACTOR:
Gerken Paving, Inc.
Napoleon, Ohio

AIRPORT PAVEMENT
NEW CONSTRUCTION
PROJECT:
Grimes Field – Urbana Municipal Airport
Construction of Runway 2-20

PAVING CONTRACTOR:
Northwood Stone & Asphalt, Inc.
Belle Center, Ohio

PROJECT:
Toledo Express Airport, South Parallel
Taxiway D

PAVING CONTRACTOR:
S. E. Johnson Companies
Maumee, Ohio

AIRPORT PAVEMENT
REHABILITATION
CATEGORY
PROJECT:
Rickenbacker International Airport,
Runway 5L-23R

PAVING CONTRACTOR:
The Shelly Company
Thornville, Ohio

COMMERCIAL PARKING
FACILITY – NEW
CONSTRUCTION
PROJECT:
LOWE’S Home Centers Distribution Facility,
Findlay, Ohio

PAVING CONTRACTOR:
Miller Bros. Construction, Inc.
Archbold, Ohio
COMMERCIAL PARKING FACILITY - NEW CONSTRUCTION
PROJECT: Norwalk High School Parking Facilities
PAVING CONTRACTOR: Erie Blacktop, Inc.
Sandusky, Ohio

COMMERCIAL PARKING FACILITY – OVERLAY
PROJECT: Headlands Beach State Park
PAVING CONTRACTOR: Burton Scot Contractors
Burton, Ohio

LOCAL ROAD OR STREET – NEW CONSTRUCTION
PROJECT: Second Street
From Stadia Drive to Riley Boulevard,
Franklin, Ohio
PAVING CONTRACTOR: John R. Jurgensen Company
Cincinnati, Ohio

LOCAL ROAD OR STREET - OVERLAY
PROJECT: Springmill Street
Mansfield, Ohio
PAVING CONTRACTOR: Kokosing Construction Company
Fredericktown, Ohio

PROJECT: County Road 25A
From SR 219 to Cridersville,
Auglaize County
PAVING CONTRACTOR: Barrett Paving Materials,
Midwest Central Region,
Dayton, Ohio

LOCAL ROAD OR STREET – MINOR REHABILITATION
PROJECT: Clifton Avenue
From Ludlow Ave. to W. McMillan St.
Cincinnati, Ohio
PAVING CONTRACTOR: Barrett Paving Materials,
Midwest South Region
Cincinnati, Ohio
MASTER CRAFTSMAN AWARDS

PROJECT:
Interstate Route 70
Milepost 0.00 to 3.41, Franklin County
ODOT Project 61(1985)

PAVING CONTRACTOR:
Shelly & Sands Inc.
Zanesville, Ohio

PROJECT:
Eastgate Boulevard (CR 341), between
S.R. 32 and Old 74,
Clermont County
Constructed in 1984

PAVING CONTRACTOR:
John R. Jurgensen Company
Cincinnati, Ohio

PROJECT:
State Route 15
Wyandot and Hancock Counties
ODOT Project 306(1975)

PAVING CONTRACTOR:
S. E. Johnson Companies – Ohio
Engineering Division
Maumee, Ohio
Wyandot Dolomite, Inc.
(Material supplier to Ohio
Engineering Company)
Carey, Ohio

ECOLOGICAL AWARD

Shelly & Sands • Mar-Zane Inc.
HMA Mixing Facility Plant No. 2
Marietta, Ohio
"FAIRNESS IN CONSTRUCTION CONTRACTING" ACT

The Fairness in Construction Contracting Act (O.R.C. §4113.62) applies to contracts dated September 30, 1998 or thereafter. This statutory change is of great interest to the construction industry and represents the most dramatic changes to Ohio Construction Law since the Prompt Payment Act and the Mechanic's Lien Law changes almost a decade ago.

This Act, sponsored by Ohio's construction industry, was designed to remedy certain inequities in construction contracting created by adverse court decisions or unfair practices within the industry, and contains the following elements:

1. Prohibits as Against Public Policy:

A. Waiving Bond Rights By Contract Without Payment

At least one unreported Court of Appeals decision has found that mechanic's lien rights may be waived by contract in advance, even if payment is not received for the work. This has caused some contractors to insert language in their subcontracts waiving bond rights as well. While one recent Common Pleas Court has decided that such a waiver of bond rights by contract was void and unenforceable as against public policy on a public project, the Ohio law in this area remained uncertain. The legislature has now decided that such a waiver without payment is contrary to public policy and unenforceable.

B. Waiving Pending Claims by Final Payment

Many owners and contractors have begun inserting clauses in their contract documents which state that all pending claims are waived through the receipt of final payment. This has caused many claimants to inadvertently lose their rights through accepting the undisputed final payment on a project, or in the alternative, sophisticated claimants have reserved their rights by only requesting part of the payment indisputably owed at the end of the job. The legislature has addressed the unfairness of such a practice by stating that these contract provision will not be enforced when the owner or contractor has notice of the claim prior to final payment.

C. "No Damage for Delay" Clauses (When the Delay is Caused by the Owner's or Contractor's "Actions or Inactions")

This provision attempts to codify (and perhaps broaden) existing Ohio case law, which provides that "no damage for delay" provisions are generally unenforceable when the delay is caused by the owner's active interference or was unforeseeable at the time that the contract was entered into. It recognizes that a time extension, without additional compensation, is often inadequate to make a contractor or subcontractor whole when the cause of the delay is caused by the owner or contractor. This change gives highway contractors the opportunity to assert delay claims when the cause of the delay was ODOT's (or its agents) "actions or inactions" regardless of what the contract says.

2. Allows Subcontractors and Suppliers to File Mechanic's Lien and Bond Claims Within the Deadlines Provided by Law, Despite the Existence of Contingent Payment Clauses. This will Prevent "Pay-if-Paid" Clauses From Interfering With the Filing of Lien and Bond Claims Which are Necessary to Secure Payment.

Lien claimants who have signed "pay if paid" or other contingent payment clauses are placed in the "Catch 22" situation of having to certify that money is "due and owing" on their mechanic's lien or bond claims when these monies are not technically due until such time as the owner pays the contractor. In the interim, the lien claimant may be losing the security of their lien and bond rights due to the passage of time. This provision will still allow lien claimants to perfect their lien or bond rights, even if the money is not technically due yet.

3. Requires Subcontractors and Suppliers to Provide a Notice of Furnishing to Preserve Bond Rights (as is the Current Law for Mechanic's Lien Rights) When the Contract is for $30,000 or More. This Will Prevent "Hidden Bond Claims" and Make Bond Claims Consistent with Mechanic's Lien Claims.

Many prime contractors complain of "hidden bond claims" from suppliers who have failed to serve a notice of furnishing on the project, but nevertheless were able to recover against the payment bond. The law has been revised now to prevent hidden bond claims of a significant amount when the remote tier subcontractor or supplier fails to properly serve a notice of furnishing on the project. If a notice of furnishing is provided, it will preserve both lien and bond rights.

The Fairness in Construction Contracting Act was designed to help prevent subcontractors and contractors from inadvertently giving up important legal rights by virtue of one-sided contract language hidden in the fine print of lengthy and generally non-negotiable construction contracts.

The Act should cause a more equitable sharing of risk in the construction process by encouraging the party most able to manage or control that risk to remain responsible for it.

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