CONCRETE AND PREVENTIVE MAINTENANCE INDUSTRIES
TARGET ODOT BUDGET BILL

One of the strategies of the new marketing plan by the American Concrete Pavement Association (ACP A) is to target the political process and enact legislation that would favorably impact its market share. As such, Flexible Pavements had fully expected ODOT’s Bi-Annual Budget Bill to be a lightning rod for this effort. We were not disappointed. However, before ACP A could get out of the gate, the Preventive Maintenance Association was already in line for its piece of the pie.

ODOT’s Bi-Annual Budget Bill, HB 73, was introduced on February 7th, referred to the House Finance and Appropriations Committee who in turn referred it to the Transportation Subcommittee. The Transportation Subcommittee held its first hearing on February 13th at 7:00 p.m. At that hearing a relatively new organization called the Preventive Maintenance Association lined up to ask that $35 million from ODOT’s $300 million pavement line item be set aside for preventive maintenance. Association members from the Novachip and microsurfacing industries explained the importance of pavement preventive maintenance and Mr. Bob Wilke, the past Director of the Michigan Department of Transportation, testified as to how successful a similar set aside program had been in improving road conditions in Michigan. This proposal generated a lot of interest and questions from the subcommittee. Although preventive maintenance is intrinsically good, this proposal was opposed in testimony by both ODOT and the Ohio Contractors Association because of the mandated dollar set aside.

Next up, the ACP A requested HB 73 be amended to: 1) mandate that ODOT implement a life-cycle cost analysis (LCCA) for all pavement projects that exceed $500,000 in cost and that such analysis include user cost, be based on actual historic project maintenance cost and be the basis of designing and awarding projects; and 3) mandate that funding (unspecified amount) be set aside for “long term fixes.” Unlike the preventive maintenance proposal, the ACP A testimony garnered no questions from the subcommittee.

Representatives of Flexible Pavements subsequently met with committee members to apprise them of why both of these proposals were not good public policy. Aided by ODOT’s lack of support for the ACP A initiative and outright opposition to the preventive maintenance proposal, neither proposal was supported by the subcommittee in its report back to the Finance Committee on February 20th.

After this setback, the Preventive Maintenance Association decided to abandon its efforts in the House and wait to try later in the Senate where they felt they had more support. However, the ACP A took another run at it in front of the Finance Committee. During Finance Committee hearings, the ACP A again put forth its proposal. Jerry Wray followed with testimony on behalf of Flexible Pavements of Ohio to explain that policies such as these are best left to ODOT and that ODOT already had, and used, a Pavement Management System and LCCA.

Still proceeding forward, the ACP A had an amendment drafted that included its request for the Pavement Management System and LCCA but dropped its request for set aside funding for “long term fixes.” Again, Flexible Pavements visited members of the Full Finance Committee to bring...
FEDERAL AND STATE GOVERNMENTS SET UP TRANSPORTATION LEADERSHIP

As a new President and the 107th Congress takes the reins of the Federal Government and a new General Assembly moves into the Statehouse, many new faces appear in transportation leadership roles.

At the Federal level there are two committees in each chamber that concern themselves with highways. In the House they are the Transportation and Infrastructure Committee and the House Appropriations Committee; in the Senate they have the Environment and Public Works Committee and the Senate Appropriations Committee. These committees will now be responsible for developing a new highway bill when TEA-21 expires on September 30, 2003.

The most significant change in the House is the resignation of Representative Bud Shuster (R-PA) who had served as Chairman of the Transportation and Infrastructure Committee for the last six years. Representative Don Young from Alaska will now take over the gavel. The ranking Democrat is Representative Jim Oberstar (D-MN). Representative Young (R-AK), a member of the Transportation and Infrastructure Committee since 1995, has reorganized its subcommittees. The New Highways and Transit Subcommittee will be chaired by Tim Petri (R-WI) with Robert Borski (D-PA) as the ranking minority leader. The only Ohio presence is Representative Steven LaTourette who is on both the sub and full committees.

Representative Bill Young (R-FL) still remains as Chairman of the House Appropriations Committee with Representative Dave Obey (D-WI) as the ranking Democrat, also unchanged. There are now three committee members from Ohio: Ralph Regula, David Hobson and Marcy Kaptur. The Appropriations Subcommittee for Transportation is now chaired by Representative Harold Rogers (R-KY) with Representative Martin Sabo (D-MN) as ranking minority leader. As of press time, subcommittee membership had not been put together so we do not know if anyone from Ohio will be represented.

On the Senate side, Senator Bob Smith (R-NH) remains Chairman of the Environment and Public Works Committee with Senator Harry Reid (D-NV) as the new ranking Democrat. The Transportation and Infrastructure Subcommittee Chairman is now Senator James Inhope (R-OK) who replaces Senator George Voinovich from Ohio. Senator Voinovich still serves as a member of the full Environment and Public Works Committee as well as the Transportation and Infrastructure Subcommittee and is Ohio’s only presence. Max Baucus (D-MT) is the ranking subcommittee Democrat.

The Senate Appropriations Committee leadership remains the same with Senator Ted Stevens (R-AK) as chairman and Senator Robert Byrd (D-WV) as the ranking Democrat. Senator Mike DeWine from Ohio is one of the committee’s 28 members. The Appropriation Subcommittee on Transportation keeps Richard Shelby (R-AL) as its Chairman with Patty Murkay (D-WV) as the new ranking minority leader. No one from Ohio is represented on the Subcommittee.

President Bush has appointed Ex-Congressman Norman Mineta as Transportation Secretary. Secretary Mineta, a Democrat, had served as Chairman of the House Transportation and Infrastructure Committee prior to Representative Bud Shuster. The President has just released his 2002 fiscal year budget (see President Bush Unveils 2002 Fiscal Year Transportation Budget, page 5).

At the State level, term limits have put a lot of new faces in the Legislature and leadership positions. On the House side, Representative Rex Damschroder chairs the 14 member Transportation and Public Safety Committee with Jeanine Perry as the ranking Democrat. The Finance and Appropriations Committee has 32 members and is now chaired by Representative John Carey with Charles Calvert as the Vice-Chairman and Peter Jones is the ranking Democrat. Its Transportation and Justice Subcommittee has 6 members, 4 Republican and 2 Democrat, and is chaired by Dave Evans from Licking County.

The State Senate is organized differently in that they do not have a separate Appropriations Committee. All transportation related issues go through the nine member Highways and Transportation Committee, which is now chaired by Jeffry Armbruster. Ron Amstutz serves as Vice-Chairman and Mark Mallory is the ranking

Leadership, continued on page 9
EMISSIONS STUDY CLEARS THE AIR

It’s not uncommon for an asphalt plant to be put on the defensive by a community. Temporary or portable asphalt plants built for specific projects can generate public concern when constructed near neighbors who are not used to living near a manufacturing facility. Despite the fact that asphalt plants emit low amounts of pollution, some neighbors won’t accept that these facilities are mostly non-intrusive. The recent public outcry against a temporary facility on I-271 in Granger Township is an example of this exaggerated concern.

Situations like the one in Granger Township prompted the National Asphalt Pavement Association (NAPA) to commission a study to dispel a common myth plaguing the industry: asphalt facilities create excessive air pollution. NAPA hired Clayton Group Services, Inc., a respected national research firm, to document air emissions from the “typical” asphalt plant, for comparison with common emissions sources present in most communities.

The results were no surprise to the asphalt industry, which has known all along that air emissions from properly operated asphalt facilities are relatively low. Some accusatory community leaders may be surprised to learn that the fireplace in their house, the barbecue grill in their back yard, and the lawn mower in their garage may be causing as much pollution as the asphalt plant down the road.

The benchmark for this study was a "typical" hot mix asphalt plant, which Clayton defined as a batch plant with an annual production rate of 100,000 tons. The study compared air emissions from a facility of this size to those of residential fireplaces, residential wood stoves, bakeries, gasoline filling stations, lawn mowers, barbecue grills and fast-food restaurants -- all consumer-oriented sources present in almost every community. Emissions levels for each of these sources were determined through U.S. Environmental Protection Agency (EPA) resources as well as other respected third-party authorities.

The study looked at multiple types and groups of pollutants as a basis for comparison:

- Total Organic Compounds (TOC) – Refers to any compound containing a carbon atom.
- Volatile Organic Compounds (VOC) – All organic compounds that contribute appreciably to the formation of tropospheric ozone. This includes most organic compounds except methane, ethane, and a handful of halogenated compounds that have a negligible effect on ozone formation.
- Particulate Matter (PM)
- Toluene
- Benzene
- Polycyclic Aromatic Hydrocarbons (PAHs)
- Benzo(b)fluoranthene
- Benzo(a)pyrene
- Fluoranthene
- Pyrene

The results of the study truly bring this issue into perspective. The following scenarios represent emission levels that are comparable to annual releases from a typical hot mix asphalt plant:

- VOC emissions from two residential fireplaces during the course of one year
- VOC emissions from one bakery operating for two days
- TOC emissions from three gas filling stations over one year
- TOC emissions from five fast-food restaurants during the course of one year
- Total PAH emissions from 10 residential wood stoves
- Benzene emissions from one gas filling station operating for five months
- Toluene emissions from one gas filling station operating for two months
- Xylene emissions from 10 gas filling stations operating over one year.

The study concluded emissions from hot mix asphalt plants are comparable to many consumer-oriented source categories for a number of pollutants. A useful comparison of air emissions can be based on either the VOC or TOC emissions, since all the sources reported either TOC or VOC. The VOC emissions from a "typical" hot mix asphalt
Concrete and Preventive, continued from page 1

them up to date on the downside of this proposal. Apparently sensing they did not have the votes, the ACPA changed their strategy at the last minute, as the amendment was never proposed. The bill cleared the Finance Committee on February 27, and subsequently the House on February 28, without the provisions supported by either the Preventive Maintenance Association or the ACPA.

At press time the Ohio Senate was just getting ready to start proceedings on the bill. All indications are that we will face a stronger challenge in the Senate Transportation and Public Works Committee. Check our next newsletter for “the rest of the story.”

Tech Bulletin Discusses Proper Tack Coat Application

Flexible Pavements of Ohio is pleased to announce the second in its series of Technical Bulletins – Proper Tack Coat Application.

The proper application of tack coat material is a key component of a quality asphalt paving project. Tack coat provides the necessary bond to underlying layers and maximizes the strength of the pavement structure. It prevents delamination and it ensures long-term performance and lasting ride quality to the highway user. This technical bulletin examines the necessary procedures for ensuring proper tack coat application.

Discussed in the Tech Bulletin are: equipment requirements, the importance of uniformity, application rate and how it relates to surface condition, dilution and how it might be beneficial, tracking, and maintenance of traffic considerations.


Some Compactors Are Trying To Jump On The Superpave Bandwagon. We’ve Been Pulling It For 20 Years!

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These days, it seems all compactors are claiming to be “Superpave Approved”. But no other line of compaction equipment can hold a shovel to HAMM’s HD line. That’s because we’ve been compacting mixes such as Stone Matrix Asphalt (SMA) and Open Friction Course (OFC) in Europe for 20 years. In fact, we can safely say our technology has contributed significantly to the development of superpave.

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Over 50 Years
The Michigan Department of Transportation has announced that following the completion of an innovative alternate bidding process, Hot-Mix Asphalt has been determined to be the lowest cost alternate. The Thompson-McCully Company of Belleville, Michigan, is the apparent successful bidder to pave M-6, a new 4.7 mile, limited access 4-lane freeway, between I-96 and M-37 near Grand Rapids. Thompson-McCully submitted a bid of $7,467,542, which was converted to a "Life Cycle Cost" bid of $13,572 per lane kilometer. The second lowest bidder was Ajax Paving Industries, who submitted a bid of $7,984,164, for a non-reinforced concrete pavement. This equaled a "Life Cycle Cost" of $14,071.76 per lane kilometer. The winning alternate was determined on a life cycle cost basis, which included initial construction costs plus the cost of future maintenance, over the service life of the pavement. Pavement Service Life is expected to be 26 years for asphalt and 27 years for concrete.

MDOT pavement engineers, based on local soil conditions, commercial traffic volumes, cost considerations and engineering judgement, have traditionally determined pavement selection for road construction projects. Additionally, MDOT is required, by law, to use a comprehensive life-cycle cost analysis, which takes into account both initial costs as well as future maintenance and user delay costs. According to Steve Earl, MDOT’s Grand Region Engineer, this new process recognizes recent improvements in pavement technology, encourages competition, conforms with Michigan law, and includes pavement acceptance specifications and warranties.

M-6, a 20-mile long, limited-access freeway, will one day connect I-96 with I-196 through southern Kent County, cutting travel time by an estimated 50 percent. Phase I, from I-96 west to M-37, is scheduled to open by 2002. Phases II and III, from M-37 west to US-131 and from US-131 to I-196, are scheduled to open by 2005. The original construction schedule has been shortened by three years, thanks to Governor John Engler’s build Michigan III funding program. MDOT intends to continue the use of the alternate on the remaining phases of the project.

**PRESIDENT BUSH UNVEILS 2002 FISCAL YEAR TRANSPORTATION BUDGET**

President Bush on February 28 submitted the broad outlines of his FY2002 budget to the Congress. A more detailed budget will be submitted to Congress on April 3rd. The good news is that President Bush’s budget fully funds the highway and airport program. Highlights of the transportation budget include the following:

**TEA-21 Funding**

TEA-21 provides $27.3 billion for the core highway program. The President’s budget provides $27.3 billion plus an additional $4.5 billion in extra gas tax revenues that are allocated to the states by formula for their highway programs. Overall funding for the core highway program totals $31.8 billion in FY2002.

**AIR-21 Funding**

AIR-21 provides $3.3 billion for the Airport Improvement Program (AIP), of which approximately 54% is used for pavement related projects. The President’s budget provides the full $3.3 billion for the AIP program.

**New Budget Item**

The President’s budget provides $145 million to fund a new “Freedom Initiative”. This new program would fund innovative transportation projects and provide grants to promote transportation for Americans with Disabilities. The budget does not specify how this new program is funded but it is assumed to be funded out of the Highway Trust Fund.

**Funding Cuts**

The overall transportation budget received a funding cut of $2.1 billion (11.4%) bringing total funding for the DOT’s discretionary budget to $16.3 billion. The $2.1 billion cut was from the elimination of "special projects" (i.e., Woodrow Wilson Bridge) that were funded last year in the Appropriation bill but which has already been spent.

Like all presidential budget proposals, Bush’s plan will be subjected to substantial rewriting by Congress but this is an excellent start.
Today, recycling is a standard practice in most projects involving asphalt pavements. Those who were involved in the road construction business prior to the 1980s know it hasn’t always been this way. It took a contractor willing to break the norm and step outside of "how it’s always been done" to show Ohio that recycling was the future. That contractor was Thomas Asphalt Paving Company.

In 1980 a project in Canal Fulton seemed to Gail Thomas to be the perfect opportunity to demonstrate the benefits of asphalt recycling, which up until then had only been done in western states. Gail Thomas, president and founder of Thomas Asphalt Paving, had been itching to show Ohio what he’d seen on a trip he’d taken to Colorado to observe an asphalt recycling project.

And show Ohio he did, building Ohio’s first asphalt recycling plant to recycle asphalt from St. Rt. 93 in Canal Fulton, a job negotiated with the state. ODOT was so impressed with the savings in Canal Fulton that it let its first recycling project, Cleveland Avenue in Stark County, soon after. There were seven bidders for this project, 3 bidding on the basis of recycling, 4 bidding on the basis of using virgin materials. The 3 recycling contractors bid nearly 30 percent lower than the virgin material contractors.

Thomas was the lowest, saving the state over 30 percent (nearly half a million dollars) on the project using a mix of 50 percent recycled asphalt and 50 percent virgin material. This success made it clear that asphalt recycling could no longer be ignored. Soon after that ODOT began including asphalt recycling requirements in its standard specifications.

"With recycling you save so much in aggregate resources, not to mention transportation and landfill space," said Thomas. "Today recycled asphalt actually makes a better product, so it’s really one of the best things that happened to the business."

Thomas Asphalt Paving Company was founded in 1960 when a young Gail Thomas, who had been learning about asphalt paving from his father,
The company is steered by Gail and his brother, Melvin "Butch" Thomas, who is executive vice president. Other key leaders include Gail’s son Andrew (vice president) and Controller Robert Davis.

Thomas lists the Goodyear Test Track in Akron, where Goodyear tests its tires, as another highlight project. This 1980 project included paving a 60,000-square-yard vehicle dynamics area, a mile-long main track, a Ford handling track, an acceleration area, a tethered circle and a simulated paved area involving special surface finishes. "This project presented a real paving challenge because it had specifications unlike any project we’ve ever worked on," Thomas said. "It was exciting to get a chance to work on a racetrack."

It’s likely that son Andrew will take over the company’s reins when his father retires. Thomas sees no reason why the company won’t continue to grow over the next decade, as it has steadily since 1960.

"The secret to our business is that we have repeat customers," Thomas said of his business philosophy. "We’re seeing customers that we did work for 35 years ago come back to us because they know we will take care of them again. I stress quality and honesty with my employees, that’s what makes repeat business.”

decided to start his own company. The company grew from a six-man operation into what today is a booming business with over 100 employees. It now services both public and private customers, mainly in Summit, Portage and Medina counties, sometimes working in the Cleveland and Canton areas.

The company headquarters in Kent at 1234 Boel Drive features a six-ton batch plant and a 1,100-ton storage silo. Adjacent to it is Gail Thomas’ other business, Portage Limestone, a 25 acre facility that sells limestone to area contractors.

While asphalt paving represents about 75-80 percent of the Thomas’ business, it’s just one of the company’s capabilities. The firm also does concrete work, including curbs, sidewalks and piping. When it comes to paving, however, asphalt is Thomas’ preferred material. "Concrete is great for a lot of things," said Thomas. "But when it comes to pavement surface, asphalt is really the way to go because it’s cheaper, provides a better riding surface and is easier to maintain."
The U.S. Department of Transportation’s Long Term Pavement Performance (LTPP) Program recently released data from an experiment entitled “Performance of Rehabilitated Asphalt Concrete Pavements – Data Collected Through February 1997.” The experiment analyzes the performance of AC (asphalt concrete) overlays on existing AC pavement, shedding new light on factors that contribute to the long-term performance of these pavements.

The study concludes that the majority of the AC overlays analyzed served for 15 years or more before the load- and non-load-related distresses became sufficient to require rehabilitation. Some test sections showed only nominal levels of distress after more than 20 years of service. The study further reinforced the notion that construction is the key factor in long-term control of rutting and roughness.

Pavement thickness was shown to be a key factor in performance. According to the study, overlay designs that provide pavement structure consistent with traffic expectations can be expected to perform well for more than 10 years. Data also show that as thickness of the overlay increases the incidence of transverse cracking decreases.

Age was shown to be a crack causing factor in thin AC overlay pavements (less than 60 mm), but it had no measurable effect on thicker overlays. Thicker overlays consistently showed less longitudinal cracking outside the wheelpath, as well as a lower incidence of cracking in general.

The experiment gathered data from 125 test sections, 60 without detailed condition surveys of the existing surface prior to overlay placement, 65 sections for which detailed distress surveys were performed prior to overlay. Ages of the sections ranged from 0.1 – 26.4 years with a mean age of 7.3 years. Traffic levels ranged from 10 to 1,900 thousand equivalent single-axle loads (KESALs) per year, with an overall mean of 300 KESALs per year.

These pavement sections were evaluated based on six distress types, including fatigue cracking, longitudinal cracking in the wheelpath, longitudinal cracking not in the wheelpath, transverse cracking, rutting and roughness. More than half of the test sections showed no fatigue cracking, longitudinal cracking in the wheelpath, or longitudinal cracking not in the wheel path.

It’s believed that additional monitoring of these test sections will provide further insight in determining what factors play key roles in the performance of an AC pavement.

The U.S. Department of Transportation’s LTPP Program was developed to improve design methodologies and strategies for the rehabilitation of existing pavements. Contact Flexible Pavements of Ohio at 888-4HOTMIX if you would like a copy of the U.S. DOT’s TechBrief describing this experiment.

Leadership, continued from page 2

Democrat. The committee is composed of six Republicans and three Democrats.

An Ohio Legislative Directory listing all Ohio’s State Legislators, their committee assignments, phone numbers, etc., is available in a compact pamphlet by contacting Flexible Pavements of Ohio by phone, fax or email. They may be ordered in quantity and are free.

Emission Study, continued from page 3

plant are approximately the same as those from two residential fireplaces and significantly less than from a bread bakery. TOC emissions from a "typical" hot mix asphalt plant are comparable to common residential emissions sources from a small neighborhood. For TOC, the equivalent emissions levels ranged from 78 wood stoves (burning wood throughout the heating season) to the lawn mowers from 35 households (in use for the spring and summer lawn-cutting seasons).

Particulate emissions were comparable to those from a neighborhood with about 300 wood stoves or about 200 fireplaces. Speciated PAH emissions from the "typical" hot mix asphalt plant were generally lower than the same PAH species for the other sources investigated.

The results of this study will give asphalt plants the best information available to date to share with neighbors concerned about air pollution. It’s hoped that this information will help the public better understand and appreciate the high level of environmental citizenship maintained by the asphalt industry, and allow neighbors to rest easy about the asphalt facility in their community.

Contact Flexible Pavements of Ohio at 1-888-4HOTMIX if you would like a copy of this study.
Not only did an Ohio hot mix asphalt producer bring home first prize in the National Asphalt Pavement Association’s (NAPA) Ecological Award Competition, another Ohio HMA producer also finished as one of the top three finalists.

Mansfield Asphalt Paving Company’s Mar-Zane Plant 21 in Mansfield received NAPA’s award as the nations best effort to make an existing facility environmentally friendly, improve its appearance and be a good neighbor. The facility had previously received NAPA’s Diamond Achievement Commendation and was featured in our December 15, 2000 newsletter. "It feels good," said Marty Wilson, Vice President of Mansfield Asphalt. "We try to be good neighbors."

"NAPA selects the award recipients using rigorous criteria to evaluate the environmental friendliness of their operations," said R. Wayne Evans, Chairman of NAPA’s Board of Directors. "The judges determined that Mansfield Asphalt Mar-Zane Inc. operates in an exemplary manner."

Shelly and Sands, Inc. of Zanesville is the Parent Company of Mansfield Asphalt.

If this wasn’t enough to make Ohio proud, Valley Asphalt Corporation’s Plant #14 in the Village of Newtown was one of the three finalists for the award. This facility had also previously received NAPA’s Diamond Achievement Commendation and was featured in our December 15, 1999 newsletter. "Its nice to see the efforts the Ohio HMA industry in being responsive to the community and the environment recognized at the national level" said Fred Frecker, Executive Director of Flexible Pavements of Ohio. "If we have more of our facilities make this kind of effort, it would change most of the negative perception that comes from the siting of a hot mix asphalt facility," he continued.

In addition to the Ecological Award, Valley Asphalt and Kokosing Construction received NAPA’s Quality in Construction Awards for construction of the Butler County Regional Highway.
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