



HOT-MIX ASPHALT



VOL. 8 NO. 3

CURRENT NEWS

October 15, 1999



Pete Alex
The Osterland Co.



Osterland earns commendation

The Osterland Co., Cleveland, Earns National Recognition

The National Asphalt Pavement Association announced that the Plant One, West Third Street, facility of The Osterland Co., Cleveland, Ohio has earned NAPA's Diamond Achievement Commendation for Excellence in Hot Mix Asphalt Plant/Site Operations. The Commendation is designed to recognize Hot Mix Asphalt (HMA) production facilities that operate in an exemplary manner. The Osterland Co. is the first facility in Ohio to earn the Commendation.

"Earning the Diamond Achievement Commendation serves as a signal to neighbors that an HMA facility is a good neighbor," commented NAPA Chairman John S. Spangler. "The self-assessment process addresses six aspects of the plant/site: appearance, operations, environmental practices, safety, permitting and compliance, and community relations. By earning the Diamond Achievement, The Osterland Co. has shown the community that it will go the extra mile for excellence."

The Diamond Achievement Commendation is earned through a self-assessment process which is open to all in the Hot Mix Asphalt Industry regardless of whether they are NAPA Members. Participation is voluntary and is on a plant/site by plant/site basis. Nominations are verified by members of the local community and are evaluated by a nationally known independent assessment firm.

FPI wishes to congratulate the people of The Osterland Co. for their commitment to excellence and stewardship, which yielded this Commendation.

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THIN Is In

When it comes to managing road systems on a limited budget, it seems that "thin is in." Pavement managers routinely specify a variety of thin treatments in an effort to preserve and extend the pavement life. More and more pavement engineers are choosing Thin Hot Mix Overlays (THMO) over other thin treatments for this purpose. THMOs offer a number of advantages:

Smoothness: Test results from the Strategic Highway Research Program (SPS-3) found that THMOs were the only treatment which significantly improved smoothness. The other treatments in the study (i.e., chip seals, slurry seals and crack seals) showed little or no improvement in smoothness. This is a very important finding because the traveling public (our customer) has continually indicated in polls that smoothness is the most important attribute of roads.

Extended Life: THMOs routinely have the longest life of any thin treatment. Typically, agencies are getting 8-12 years of service life from THMOs as compared to 3-6 years of service life for other thin treatments. On a life cycle cost basis, this makes THMO by far the most cost effective.

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Pavement Preservation: A Road Map for the Future

The following article is based upon the U.S. DoT/Federal Highway Administration report "Pavement Preservation: A Roadmap for the Future" which resulted from a national workshop on pavement preservation held in Kansas City in 1998. Contributing to this article are: Jim Sorenson, Senior Construction and Preservation Engineer in the Office of Asset Management, FHWA, Washington, D.C., FHWA, and Bob McQuiston, Pavement Engineer, FHWA, Ohio Division.

Investing in our Infrastructure

The Growing Need for Pavement Preservation

As the Nation's transportation infrastructure carries us into the 21st century, highway officials are faced with the challenges of an ever-expanding, still-evolving, yet aging highway network. The Nation's largest public works project, the Interstate System of National and Defense Highways, is now over 99% complete with the few remaining segments generally under construction [e.g. I-670, Spring Sandusky, in Columbus.] The Federal-Aid highway program is undergoing a significant transition from its original focus on building the Nation's highway network to one of preserving our investment in, and improving the quality of, the infrastructure.

The demands on our highway network are greater than ever, and they will continue to grow into the next millennium. With this increasing demand comes the expectation of a higher standard of performance. A 1996 National Quality Initiative survey found that pavement condition was the number-one concern of highway users, and the seemingly ever-present work zones were a close second. This dissatisfaction translates into a general perception that highway agencies are not doing a very good job of maintaining the public's roadways. The levels and volumes of traffic on highways today far exceed design expectancy, but preventive maintenance strategies can allow us to satisfy the general public.

The vastness of our transportation system sets our Nation apart from others. Early in our history, commercial activities flourished as trails, roads, canals, and then railroads enabled goods and people to readily move about the country. In fact, the history of American transportation has been one continuous push for new or improved modes and technologies of movement. The condition of those modes-particularly our roads-has in large part determined the vitality of the U.S. economy. In that regard, today is no different from any other period of our history. The replacement of out-dated modes with newer ones-trails to mud roads to gravel roads to paved roads to airplanes-has allowed us the freedom of being able to build new rather than rebuild. But now we have nothing to replace the Interstate system. By improving ride quality, extending pavement life, and ensuring

safety (without increasing user delays), pavement preservation programs allow people and goods to continue to move safely and efficiently throughout the Nation.

Prior to the 1970s, few States devoted much attention to preventive maintenance, focusing on reactive maintenance and meeting Federal regulations. Federal-aid funding was only available for new construction. Since then, numerous legislative acts have recognized the need for Federal involvement in the post-construction phases. With the passage of the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991, the National Highway System Act of 1995, and the new Transportation Equity Act for the 21st Century (TEA-21), pavement preservation activities are now eligible for Federal funding. ISTEA allowed Federal funds to be used for pavement preservation activities on Interstate highways. The National Highway System Act expanded that eligibility to all Federal-aid highways. TEA-21 emphasizes the need for transportation system preservation and for properly funded pavement preservation programs. The stage has been set, and it is now up to us to get the most out of our premier highway system.

What is pavement preservation?

It is important to first understand what *pavement preservation* is and why it is important. Within the highway community itself, there is some confusion about the purpose of and need for pavement preservation activities, compounded by the inconsistent use of the terms *preventive maintenance* and *pavement preservation*. Although the terms have often been used interchangeably, they have two distinct meanings.

Defining the Concept

Promoting the concept of pavement preservation requires that everyone, including the promoters, have a clear understanding of what pavement preservation is and how it relates to existing maintenance activities. A major problem is that a consensus has not been met on the definitions of pavement preservation, preventive maintenance, and pavement maintenance. Through the recent efforts of the American Association of State Highway and Transportation Officials (AASHTO)

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THMOs – Thin Hot Mix Overlays

Thin Is In, *continued from page 1*

Increased Structural Capacity: A 1 inch thick THMO can add significant structure to local roads, which often are less than 4 inches thick to start with. Seal coats have no value structurally. Pavement design engineers know that as little as 1 inch of additional asphalt can double the structural life of an asphalt pavement.

THMOs, more than any other thin treatments, can improve smoothness, extend road life, and increase structural capacity. Additional advantages of THMOs include ease of construction, smooth texture (great for bikes, high heels, and skateboards) and minimal impact on public because no cure period is required and there are no chips or other loose aggregate to deal with.

FPI Members Take To Flight To Raise Awareness Of Transportation Issues

FPI in Washington

Nine FPI members and staff gathered in Washington, DC last month to visit each of Ohio's 19 Congressional Representatives and 2 Senators. The visits were scheduled as part of a Legislative Fly-In sponsored by the National Asphalt Pavement Association and the National Stone Association. Three issues topped the agenda for the FPI members' visits.

The first was the FY 2000 appropriation for TEA-21. Both the House and Senate have passed versions of the spending bill, the latter being passed the day after the Fly-In. While both versions call for increases in highway spending to match TEA-21, the Senate's appropriation contains several amendments. Some of these made it to the final bill, which cleared Congress October 6th and was signed by the President on October 9, 1999. In passing the bill, Congress permitted a crack in the TEA-21 "firewall". This crack changed the allocation formula originally agreed upon for distributing extra revenues from the Highway Trust Fund.

The second was AIR-21, the Airport Investment and Reform Act for the 21st Century. This bill is to airports what TEA-21 was to highways. The old authorization bill expired on August 6, 1999, putting airport construction projects on hold until AIR-21 is passed. The House passed their bill, which also took the airport Trust Fund off-budget, but the Senate is lagging behind objecting to the off-budget provision, among other things.

The third issue deals with the Environmental Protection Agency "grandfathering clause." On March 2, 1999, the US District Court of Appeals for the DC Circuit nullified the Environmental

Protection Agency's (EPA) "grandfather clause." (Environmental Defense Fund (EDF) vs. EPA). Prior to the EDF decision, projects previously found to conform to an area's clean air plan and were past the environmental review process were allowed to advance to construction (grandfathered) even if an area's transportation conformity had lapsed. The EDF decision held that highway projects may not be approved in areas where conformity has lapsed unless the project was already under construction.

Senator Kit Bond (R-MO) and Representative James Talent have each introduced bills S. 1053 and H.R. 1876 respectively, that reinstates EPA's "grandfather clause." All Ohio Legislators were urged to support these bills. Not entirely by coincidence, the Senate bill passed Committee shortly after the Fly-In.

While the objective was to make our Legislators aware of transportation issues, it was also a great learning experience for all those who made the trip. Prior to visiting Congressional Representatives, presentations were made by Members of Congress and others on the issues at hand and topics such as smart growth.

The group was led by FPI Chairman Jim Tharp, The L.P. Cavett Company and Legislative Committee Chairman Jim Jurgensen, Valley Asphalt Corporation, along with Bill Heffner, Agg Rok Materials; Dan Montgomery, Northwood Stone & Asphalt Company; Andy Leffler, McCourt Construction Company; Paul Rice, The Shelly Company; Bill Fair, Cliff Ursich and Fred Frecker of the FPI staff.

Good News on Recycled RAP

RAP News

A study by the University of Florida Department of Environmental Engineering Sciences determined that reclaimed asphalt pavement (RAP) is not an environmental risk. The study was sponsored by the Florida Center for Solid and Hazardous Waste Management to determine whether RAP could be used as a clean fill material, or if there were risks of pollutants leaching into groundwater.

The study used six samples of RAP from various asphalt plants throughout Florida. A series of leaching tests were conducted to determine levels of heavy metals and a class of organic compounds known to be carcinogenic. Tests indicated that few if any priority pollutant chemicals leached from the RAP. The study concluded that the samples were not a hazardous waste and would not adversely effect groundwater standards.

The study was authored by Allan S. Brantley, Solid Waste Engineer, Jordan Jones, and Goulding, Inc., and Timothy G. Townsend, Assistant Professor, Department of Environmental Engineering Sciences, University of Florida.

3-Year Surface Warranty Joins Asphalt Warranty Line-Up

Warranty Update

The latest asphalt warranty hit the streets during October and is now available on the FPI web page at www.flexiblepavements.org. It is a 3-year warranty for asphalt surface courses and is designed for overlays or mill and fill projects on the interstate and other fully controlled limited access highways. This type of warranty was specifically called for by the Legislators to be on all applicable ODOT projects by July 2001.

It is important to note that at this time the warranty is not to be used on the 2-lane system or 4-lane roadways that do not have fully controlled limited access. Its distress types, threshold levels and remedial actions are specifically designed for the interstate and interstate look-alike systems. Where the 5-year and 7-year warranties require the pavement to have a design life of 20 years and 12 years respectively, the 3-year surface warranty does not require a pavement design, however, it can not be used on pavements with a pavement condition rating (PCR) of less than 75. ODOT policy requires that treatments for pavements with a PCR of less than 75 be designed as per the ODOT Pavement Design and Rehabilitation Manual.

Unlike the 5-year and 7-year warranties, which do not require the contractor to follow ODOT construction and material specifications, the 3-year surface warranty requires all ODOT specifications to be enforced. Thus it does not relieve ODOT of any inspection and approval responsibilities. Quality control and acceptance will be in accordance with ODOT Supplemental Specification 1056 which basically makes the contractor responsible for both functions with ODOT doing spot checks.

The warranty covers delamination, potholes, raveling and any type of disintegration that occurs at a joint or crack. Rutting is warranted for 1 year as long as it is confined to only the surface course. This means that ODOT is warranting a proper base upon which to build the surface course. It also provides for routine maintenance by the contractor, if he elects to do any and ODOT approves.

The learning curve for warranted pavements will be steep and fast as ODOT will attach pavement warranties to most applicable projects in order to meet the legislated mandates. Hopefully both ODOT and the contracting community can step up to meet the challenge.

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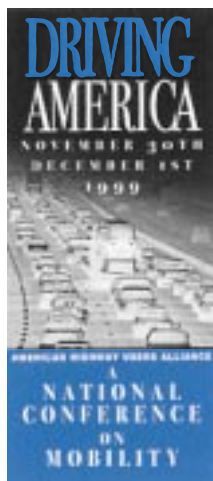
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Conference on Mobility

National Conference on Mobility

By William D. Fay, President & CEO American Highway Users Alliance



Every time we open the newspaper or switch on the news, it seems, **highway travel is under attack**. The wealth of benefits Americans derive both from ready access to cars and trucks and from an extensive, interstate highway system is often forgotten or overshadowed by the problems that are a by-product of being the most mobile society in history. Moreover, projected increases in population and annual miles of travel make it seem that the problems can only get worse.

But, in fact, there is another side to this story. There are affordable, effective solutions that can reduce traffic congestion, cut the number of fatalities and injuries due to crashes, improve air quality, and give U.S. businesses assurance that their products and supplies will get there on time and in good condition. That's what *Driving America*, The Highway Users' national conference on mobility, is all about: telling the positive side of the story about driving and the unprecedented mobility that Americans enjoy.

This one-and-one-half day forum, **on November 30 and December 1 at the National Press Club in Washington, D.C.**, will feature some of the best transportation minds in the world discussing solutions to – instead of indictments of – highway transportation and mobility.

Plan to attend *Driving America*! Take advantage of the reduced fees for early registration. Space is limited. You won't want to miss the decade's most important conference on mobility! I believe you'll agree that reducing traffic congestion and enhancing our freedom of mobility is worth your time and money. I guarantee that *Driving America* will give you a good return on your investment. You'll never feel guilty about driving again!

Registration materials can be obtained through the calendar of events on the FPI web site: www.flexiblepavements.org or by contacting the American Highway Users Alliance at 202-847-1200.

Pavement Preservation, *continued from page 2*

Lead States Team on Pavement Preservation, industry representatives and the FHWA an attempt has been made to clarify the relationship between preservation and maintenance.

Pavement preservation is the sum of all activities undertaken to provide and maintain serviceable roadways, including preserving investment in the national highway system; extending pavement life; enhancing pavement performance; ensuring cost-effectiveness; and reducing user delays. Pavement preservation includes corrective maintenance and preventive maintenance, as well as minor rehabilitation activities. It DOES NOT include new or reconstructed pavements and pavements requiring major rehabilitation or reconstruction. Pavement preservation is a component of system preservation.

Preventive maintenance is a tool for pavement preservation and a planned strategy of cost-effective treatments to an existing roadway and its appurtenance that preserves the system, retards future deterioration, and maintains or improves functional condition of the system without increasing structural capacity. Preventive maintenance for pavement narrows that focus to the application of one or more treatments generally to

the surface of a structurally sound pavement, which are cost effective methods of preserving the pavement structure.

Pavement maintenance includes three forms of maintenance activities, preventive, routine and reactive maintenance. Preventive maintenance is defined above and is a component of pavement maintenance. Routine maintenance is day-to-day activities, such as crack sealing pavements, line striping, mowing, and cleaning roadsides, that are scheduled and whose timing is within control of maintenance personnel. Reactive maintenance is activities that must be done in response to events beyond the control of highway agencies. These activities include pothole patching, repairing pavement blowups, snow and ice removal, and unplugging drainage facilities. Activities such as major pavement rehabilitation and pavement reconstruction, which significantly affect the structural capacity of the pavement, are considered capital improvements and not maintenance.

In future articles we'll discuss findings from the national workshop on what steps will be necessary to overcome barriers and to implement a more cost effective program of Pavement Preservation.

**5th HMA
Warranty
Project
Accepts
Traffic**

Butler Regional Highway Opens to Traffic

The Butler Regional Highway between Hamilton and I-75 is opening to Traffic after 30 years of planning but only 20 months of construction. The 10.7-mile, \$93 million highway project has been taken from groundbreaking on May 15, 1998 to incremental openings during October, November and December of 1999. The Kokosing Construction Company, the prime contractor, has successfully expedited the work to win the contract bonus for early completion.

Greg Wilkins, Director of the Butler County Transportation District (BCTID), says that the project is expected to be completed 8 months early, and close to budget considering that the contractor is expected to win all the contract incentives for early completion. He is proud that all environmental requirements of the project have been met and he believes that having local control of the contracting process by the BCTID has allowed quick resolution of problems and has helped to expedite the construction. Wilkins also observed that project management and cooperation have been outstanding. Wilkins said, " I've been on \$200,000 projects that have had more problems than we've had on this contract".

As reported in our previous articles (July 1, 1998, and July 15, 1999) the asphalt paving on the project is a premium structural design consisting of 352mm(14in.) of Hot Mix Asphalt (HMA) on 100 mm (4in.) of asphalt treated free draining base on 150mm(6in.) of aggregate base over 8 runs of longitudinal underdrains. HMA is being placed by Kokosing Construction Asphalt Division, and by Valley Asphalt Corporation as subcontractor. Kokosing Materials set up a portable asphalt plant on the project to produce 300,000 tons of the 600,000 tons of HMA required for the project. Kokosing Materials noted that the company placed the 300,000 tons in just 104 paving days.

The asphalt surface is covered by a 5-year warranty specification, which allows the contractor to choose the materials and construction methods. The Kokosing Construction Asphalt Division has chosen to place a surface of all limestone aggregate with an SBR modified asphalt binder, similar to an ODOT type 1H. Kokosing Materials Quality Control Department said that the mix was chosen for high performance after nearly a dozen potential mixes were submitted to the Pavement Technologies laboratory in Georgia for rut and fatigue testing on their Asphalt Pavement Analyzer. To eliminate longitudinal joints, Kokosing has paved the entire project from the base up 28 feet wide. Because of the quality designed and built into the pavement, Kokosing's Asphalt Division believes this pavement will last far in excess of the warranty period. Similarly, Valley Asphalt also had their designs checked by the Pavement Technologies' lab and chose

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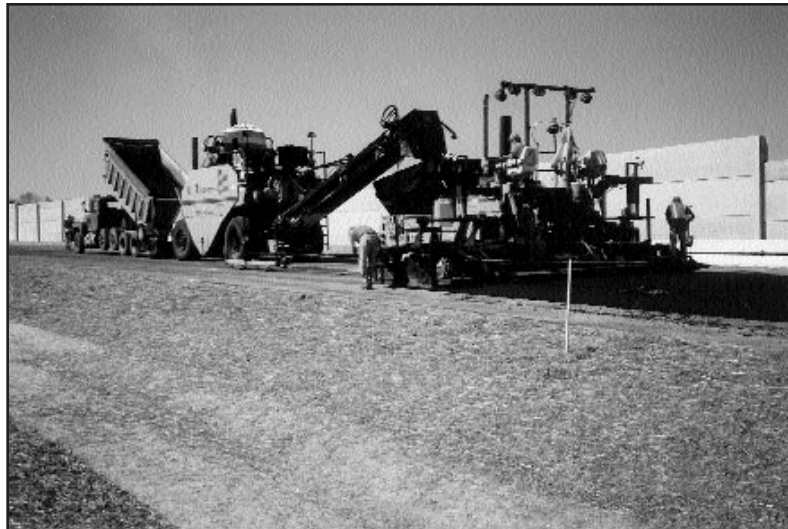
The 10.7 mile, \$93 million Butler Regional Highway nears completion after only 18 months of construction

Butler Regional Highway, continued from page 7

a type 1H gradation mix with limestone, natural sand, RAP and an unmodified PG 64-22 binder for the best combination of performance and economy. Not only was exceptional care taken with designing the mixes but, Dan Crago at Valley Asphalt's lab noted, because of the warranty provisions and time constraints on the project, that about 50% more than normal production control testing has been done to insure that all material produced and placed was right. The highway will be maintained by the Ohio Department of Transportation (ODOT) and the warranty provisions administered cooperatively by the BCTID and the ODOT.

The contract also has an incentive specification for smoothness on the asphalt pavement. According to Joe Cron, Joe Durbin and Chuck Hecht, of Resource International, who perform the project inspection and testing, smoothness of the completed mainline pavement is outstanding, with roughness readings on the surface typically being zero. Both Kokosing and Valley Asphalt chose to place the material through a "Shuttle Buggy" Material Transfer Vehicle to insure smoothness and uniformity. Both paving contractors are expected to receive full bonus for smoothness of the mainline pavement.

Thanks to the BCTID's emphasis on quality in its contracting provisions and extraordinary attention to quality by the contractors, the people of Butler County should enjoy many years of low maintenance, smooth riding HMA pavement on the Regional Highway.



Kokosing Construction Company places a smooth, high performance surface on the Butler Regional Highway using a 28 ft. wide paver and a material transfer vehicle.



The Valley Asphalt Corp. takes profilograph readings that show the HMA pavement surface on the Butler Regional Highway is extraordinarily smooth.

**FPI
Member
Makes
Top 400**

Kokosing Construction Company, Inc. Moves Up ENR's Top 400 List

Kokosing Construction Company, Inc. was the only FPI member to make the Engineering News-Record (ENR) Top 400 Contractors List. The magazine ranked the nation's contractors according to construction revenue in 1998. Kokosing ranked number 78 nationally, up from number 82 last year. ENR also develops a separate list by various specialties where Kokosing showed up as the nation's 19th largest highway contractor, 22nd largest bridge contractor, 28th largest sewage and solid waste contractor and 7th largest sanitary/storm sewer contractor. Only one other Ohio contractor, who specializes in constructing manufacturing facilities and buildings, ranked ahead of Kokosing, holding down the number 69th spot. FPI sends its congratulations to Kokosing Construction on another banner year.

S.E. Johnson Companies, Inc. Opens New Southern Region Facilities

S.E. Johnson Companies dedicated its new Southern Region office and shop facilities at Sidney, Ohio with an Open House on July 22, 1999. Don Weber, Regional Vice President, presided over the proceedings, which included words of welcome from local elected officials and representatives of the local Chamber of Commerce. The new facilities include office, shop and yard space for all three of the Region's divisions, including construction, structures and asphalt. The facility is located at 800 South Kuther Road, Sidney, Ohio. The mailing address is P.O. Box 4249, Sidney, Ohio 45365.

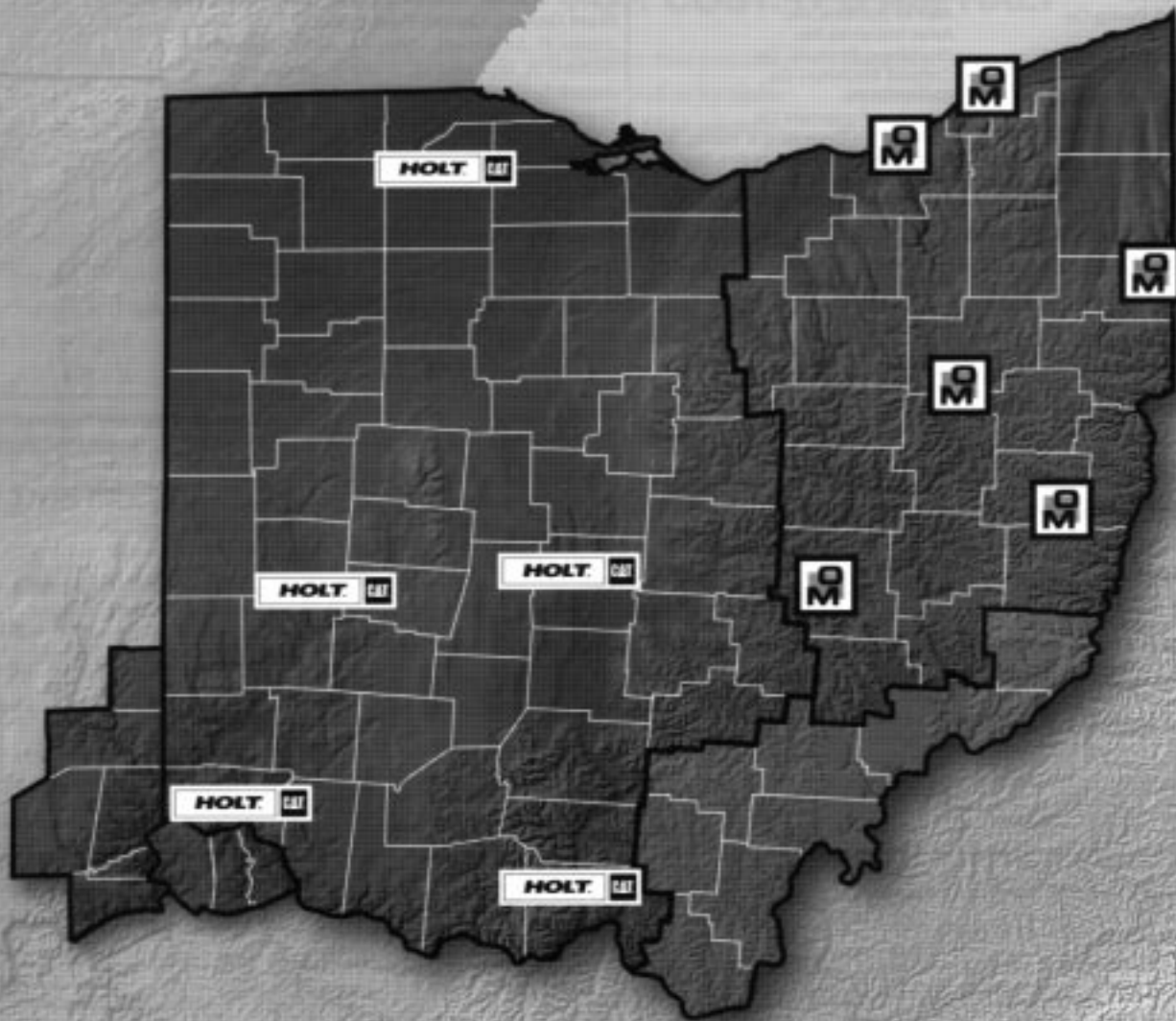


Staff of S.E. Johnson Companies' Southern Region office pictured in front of their new office building.

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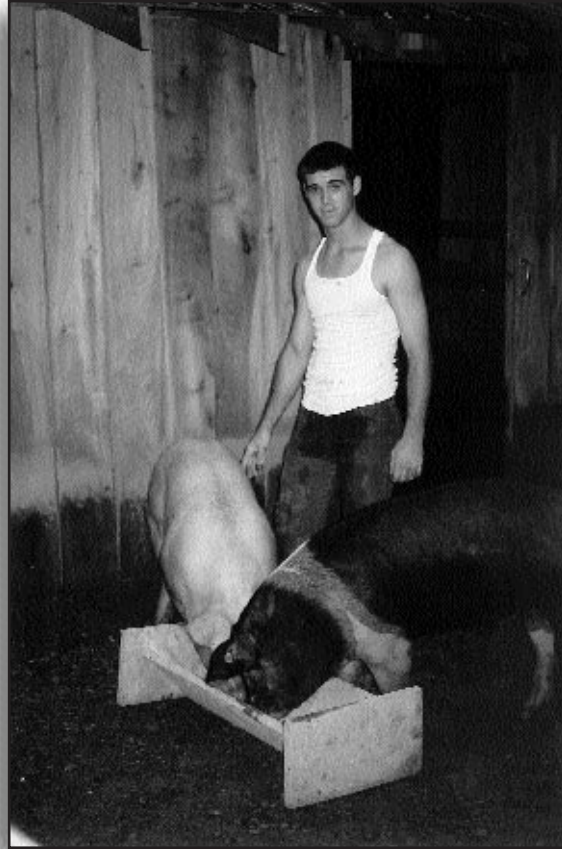
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Fair Winner Shows Versatility of Asphalt

Congratulations go to Andrew Patterson for a Third Place Market Hot at the 1999 Clermont County Fair. Andy is the son of Dave Patterson, the Sales Representative for Valley Asphalt in Cincinnati, Ohio. As Paul Harvey would say, "now for the rest of the story." In constructing his hog pen, Andy faced much opposition and criticism about his choice of materials. At the insistence of his father, the chosen material for the floor was hot mix asphalt (Gilsonite Modified). Andy's 4-H advisors were positive that the hogs would dig up or eat the asphalt surface. Perfectly intact at market time, hot mix asphalt again proves to be a versatile, the most economical and durable surface. What do the pigs think of their first class pen? – "Now this is what you call living high off the hog."



Andy and his prize winning hog.



Andy Patterson's asphalt lined hog pen.

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