



Transcript

April 2004



Technology On the Road Helps To Improve Traffic Flow

Ron Poole
Central Office

IN APRIL, ODOT LAUNCHED THE FINAL phase of the Columbus Freeway Management System (FMS) – an advanced application of technology which helps motorists avoid traffic problems. The department also plans to bring this technology to other locations across the state over the next decade.

“Basically, we are going to deploy these systems in places like Cleveland, Akron/Canton and Toledo,” said Howard Wood, major program manager with Central Office. “We want to take the system to places where we have identified a need for better traffic management – large urban areas with crash and congestion problems.”

The first phase of the \$16 million, “intelligent transportation system” became active in 2001, and was placed along Interstate 71 between the corridor’s intersection with Polaris Parkway and Interstate 70 in downtown Columbus. Now, the second and final phase of the system is being installed and when completed, will manage traffic throughout Columbus. The second phase installation is expected to be completed in 2005.

During Phase II of the installation, 13 new signs will be placed along interstates 70, 71, 270, 670, State Route 315 and U.S. routes in the Columbus area. ODOT and the city of Columbus will add seven new ramp meters to regulate traffic on congested freeway segments. In addition, 41 new freeway cameras will be added to the 21 already used to monitor traffic. Motorists will be able to use the Internet



The wall of monitors – with cameras and a map displaying speed sensor information – at the City of Columbus and ODOT’s Traffic Management Center allows centralized supervision of traffic and posting of alerts to keep motorists informed.

to view real-time traffic flow from these cameras.

The FMS uses a combination of technologies to better manage traffic flow and enable emergency crews to respond to accidents quickly. Pavement sensors embedded in the road and 911 calls from motorists are used to detect traffic slowdowns. Operators at the Columbus Traffic Management Center use cameras along the freeway to locate problems and alert emergency road crews. During times of heavy congestion, ramp meters are used to regulate the flow of traffic onto freeways. Motorists are given forewarning of traffic tie-ups through elec-

tronic message signs located along the highway. The signs display information about accidents, travel times, road construction and traffic conditions and give travelers a chance to change their routes.

“TRAC (The Transportation Review and Advisory Council) has approved of our request for \$25 million in funding to establish freeway management systems in the Cleveland area in 2006,” said Wood. “Designs for systems in the Akron/Canton area, Toledo and Dayton will start between fiscal years 2006 and 2008.”

(see **FMS** on page 3)

photo by Leslie Dellovade, Central Office

Work Zone Safety Awareness Week

THE FEDERAL HIGHWAY ADMINISTRATION, state departments of transportation, and several trade groups used their collective voices this month to tell motorists to slow down in construction zones.

The message was part of National Work Zone Safety Awareness Week (NWZSAW). ODOT Director Gordon Proctor said in addition to raising awareness through work zone safety events,

DOT Close-Up

Joel Hunt
Central Office



While construction and maintenance workers are at obvious risk, federal statistics indicate motorists and passengers are four times more likely to be injured or killed. The most common causes of crashes are following too close, failure to yield and speeding. Many work zone crashes occur at interchanges where motorists are merging onto the highway.

NWZSAW is held each spring to raise awareness of the dangers of work zones through news conferences, special events, and advertising.

on-time and on-budget.

ODOT and FHWA co-hosted the Big Dig program at ODOT's Central Office auditorium this month. More than 100 people from ODOT, FHWA, local governments and the consulting community attended the two-day conference. The program was also seen around state by the public and private sectors through Webcast and video conferencing.

Gov. Taft's Jobs and Progress Plan, unveiled in August, identified large projects in nearly every region of the state that will be constructed during the next decade. Projects such as the Interstate 70 and Interstate 71 split in downtown Columbus, the Cleveland Innerbelt, and the Interstate 75 corridor reconstruction will consist of several phases and each total several hundred million dollars.

Bring Your Child To Work Day

THE OHIO DEPARTMENT OF TRANSPORTATION's Central Office and the Ohio Department of Public Safety co-hosted Bring Your Child to Work Day this month. The annual event gives parents and guardians the opportunity to bring their children to their workplace and share with them the rewards and challenges of a career in civil service.

The day kicked off with a parade featuring the West High School

Band followed by a presentation by news anchor Andrea Cambern from WBNS TV in Columbus.



(see **CLOSE-UP** on page 3)

image courtesy of FHWA



"How Would You Like It If Someone Drove Through Your Office? The People Who Build Our Highways Work Where You Drive." This message was used to illustrate the importance of driving safely through construction as part of part FHWA's National Work Zone Awareness Week.

ODOT focuses on reducing work zone congestion to decrease crashes.

Last year there were 7,265 work zone crashes in Ohio: 1,055 people were injured and 16 people died. Despite the safety warnings, the number of crashes increased by 11 percent from 2002 - a trend ODOT is working to reverse.

"The department spends about \$30 million annually to maintain more lanes of traffic, speed the pace of construction and conduct more work on weekends and nights when fewer people are on the road," Proctor said. "In addition, ODOT employs full-time work zone managers to design and monitor work zones and is testing new materials to make signs, pavement markings and other warning devices more visible at night or in wet conditions."

This year, the department will also test the use of speed trailers in work zones to get motorists' attention.

'Big Dig' Conference

THE RECENT CONFERENCE ON BOSTON'S "Big Dig" project provided in sights on what ODOT may experience as the department enters its "mega-project" era.

When tunnel workers in Boston encountered unstable earth that threatened the completion of the Central Artery/Tunnel Project - and lives - they took a hard-nosed approach to fixing the problem. Through a system of pipes, a lot of brine, and several weeks, they froze the earth until they could safely build the tunnel.

It was that kind of innovation that inspired the Federal Highway Administration (FHWA) to create a program on Innovations and Advancements to help states deliver mega-projects like Boston's Central Artery Tunnel Project

CLOSE-UP (from page 2)

A host of activities were offered throughout the day including demonstrations from ODOT's Traffic Management Center and the District 6 First Team, a special performance from M&M Production's Mime Dancers, and a scavenger hunt.

Hungarian Delegate

EVERY FEW YEARS, DELEGATES FROM Ohio and Hungary traverse the Atlantic Ocean to exchange ideas on how best to build and maintain roads. This spring, Sandor Arki, technology director for Baranya County in the southern part of Hungary, spent four weeks in Ohio learning about Ohio's bridge management and roadway maintenance; safety program; cooperation with businesses and municipalities; and roadway operations.

It may be more than 4,500 miles away, but Hungary is similar to Ohio in terms of climate, population, and square mileage. Although the country has significantly less traffic than Ohio, the Federal Highway Administration (FHWA) wanted to compare how an Eastern Block country and the United States addressed similar problems, so it created the Technology Transfer Program.

In addition to Arki's trips to districts 1, 5, and 7, he saw the Maumee River Crossing project in District 2, the Mahoning bridges in District 4, and the Freeway Management System, Single Point Urban Interchange, Spring



photo by Julie Walcoff, Central Office

During his recent visit to Ohio, Sandor Arki, a director of technology from Baranya County in Hungary, discussed the Technology Transfer Program with Leonard E. Brown, from ODOT's Local Technical Assistance Program.

Sandusky Interchange project, and the Interstate 670 "Cap" in District 6.

This was the native Hungarian's first trip east of London. "Ohio's road maintenance is very good," said Arki. "I saw West Virginia's, Pennsylvania's, and New York's, and I like Ohio's best. I like Ohio's guide signs and phased construction." He also praised ODOT's efforts to control vegetation through mowing and herbicides.

Arki added, "I like the maintenance in Ohio, but I saw Ohio's money is not enough. For example, [there was] good pavement on [bridge] approaches, but [there were] potholes in some of the decks."

By the time his visit wrapped up, Arki had amassed information on ODOT's Intelligent Transportation System, Free-

way Service Patrols, Maintenance of Traffic Policy, County Work Plan, Winter Plan, and Ohio Safe Commute program. At the top of the pile, though, was information on ODOT's Organizational Performance Index – a program he hopes to begin using in Hungary.

In 2002, ODOT Director Gordon Proctor and Local Technical Assistance Program Deputy Director (then FHWA division administrator) Leonard E. Brown, and others traveled to Hungary for nearly two weeks as delegates for the Technology Transfer Program. The group visited Gyor in the northwestern part of Hungary.

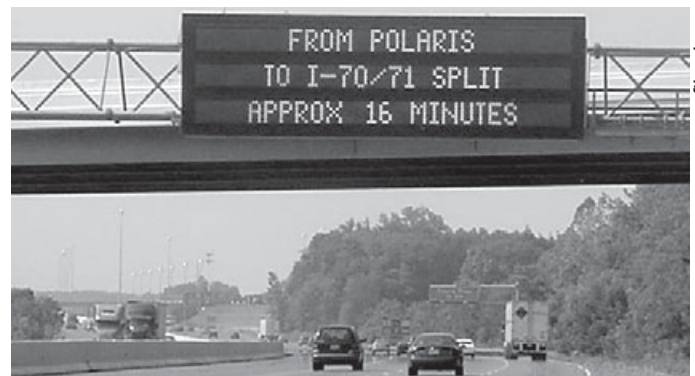
Rhode Island, Virginia, the Czech Republic, and Slovakia also participate in FHWA's Technology Transfer Program. ●

FMS (from page 1)

When completed next year, the FMS in Columbus will have additional uses. It can be deployed by state and local law enforcement to send out messages for missing children in central Ohio, and can be a helpful tool in getting messages to the public during disasters. The system will help to improve safety and mobility in central Ohio by providing key information about traffic patterns to motorists.

"As it becomes more difficult to expand our highways to accommodate

growth, we're finding creative ways to move more people and goods on our existing streets and highways," said Jack Marchbanks, ODOT District 6 deputy director. "Technology is continuously changing the way we commute in Ohio." ●



file photo

Electronic message signs, like this one on Interstate 71 south heading toward Columbus, display information about accidents, travel times, road construction and traffic conditions.

A Century of Progress: The Department's Mission Evolves With Time

Ron Poole, Central Office



WHEN THE OHIO DEPARTMENT OF Highways was created by a legislative act in 1904, its purpose was defined as one of education. ODOH was to study the physical makeup of highways and their repair. Under the guidance of the first commissioner, Sam Huston of Steubenville, the four-person office prepared research on the early road system. By 1910, ODOH reported Ohio had 14,188 miles of gravel roads, 9,688 miles of roads paved with crushed stones, and 231 miles of brick-paved roads. This left 64,755 miles of roads – or 73 percent of all roads in the state – made only of dirt.

With the use of the automobile on the rise across America, Ohio's roadway system needed to change to effectively sustain increased use. Introduced at around the turn of the 20th century, the number of automobiles, trucks and buses on the streets of the United States rose from 8,000 in 1901 to more than 78,000 by 1905. By 1910, more than 470,000 motorized vehicles were cruising the nation and more were coming. The rise of this personal and increasingly commercial form of transportation demanded dependable and durable roads with smooth surfaces. In short, Ohio needed a modern road system. And an agency to oversee its construction.

Two acts of the state legislature – the 1910 the Braun Act and the McGuire Bill in 1911 – addressed those concerns. Braun formally gave the state the authority to repair and maintain existing county roads. The McGuire Bill then officially gave ODOH the authority to initiate and oversee the construction of new roads.

The McGuire Bill also contained a statute which established a statewide system of county highways patterned after the state of New York's growing system. The bill's language stated the ODOH Commissioner and his deputies:

“... shall designate by name and number the main roads of the state which shall be known as the ‘Inter-county Highways,’ and the parts thereof in each county shall be designated so as to form as near as practicable continuous and connected highways within the county.”

With those words, the department gained a new mission, and its days of simply studying the roads in Ohio were over.

But a new mission brings new dimensions of politics, funding and public interest. Right after the goal to establish a highway system was defined, a state bond issue of \$50 million to build this system was defeated in 1912. Very little construction was done over the next few years as Ohioans seemed to favor a “pay as you go” strategy to large scale maintenance and road building.

On the other hand, a grass roots interest in building good roads

was forming. A statewide organization known as the “Ohio Good Roads Federation” made studies on the impact of roads and provided factual information to lawmakers regarding needed legislation. More commonly, the cry “Get us out of the mud!” was becoming more and more popular among the members of the growing motoring public tired of driving on dirt roads in the rain.

(see **HISTORY** on page 5)



Governor Donahey and Ohio Department of Highways Director Schlesinger on an inspection trip to the Ohio River in 1926.

file photo



Safety Cable

Ron Mosby, District 8

THE INSTALLATION OF A WIRE ROPE safety fence on Interstate 75 in Butler and Warren counties has eliminated the rash of head-on collisions along the highway. Between October 2000 and December 2001, 11 people died as a result of crossover accidents on I-75 between Hamilton-Mason Road and State Route 73. While the cables have sustained more than 40 hits, there have been no crossover fatalities since the cables were installed.

The cause of the head-on collisions along this stretch of I-75 was unclear. According to accident investigators, the road surface was not faulty, the terrain was level, there were no curves, and visibility was excellent. Frustrated, transportation engineers searched for a solution.

Their research led them to a product known as a wire rope safety fence. Although the technology was new to the United States, it had been successfully used in Europe and Australia, and more than 30 countries worldwide. It had also been approved for use in the United States by the Federal Highway Administration.

“The cables were the right mix of quality, safety, and efficiency,” said District 8 Deputy Director Mike Flynn.

The safety fence consists of four cables, each tested to a minimum break-



es Save Lives



photo provided by District 8

ing strength of 39,000 pounds. The posts which support the wire ropes are collapsible, so minimal damage is done to the vehicle when it strikes the posts. The wire rope safety fence at this location was also cost effective at \$1 million to install. "An added bonus is the cable rail that has been placed in concrete sleeves is easy and quick to repair," said District 8 Traffic Planning Engineer Jay Hamilton.

Rumble strips were initially installed on the 14-mile, crash-prone section of I-75. However, this did not solve the problem as another fatality occurred after the strips were installed. Numerous alternatives were suggested for the 60-foot wide median where these head on crashes were occurring – including earth mounds, heavy brush, concrete barriers, double-sided guardrail, and extra enforcement. However, these potential solutions were expensive.

Concrete barriers were projected to cost \$4.5 million, and mounding was estimated at \$2.8 million. The guardrail was the least expensive of these alternatives at \$1.2 million, but was still more than the safety fence.

After additional evaluation and testing the wire rope safety fence was installed last year and has eliminated the cross over crashes that plagued this stretch of I-75. ●

istrict

HISTORY (from page 4)

The department did what it could to fix roads and even took on a new function. In 1917 and 1918, ODOH began the practice of removing ice and snow from the roadways during the winter months for troops and materials moving through the state during World War I. The mission to clear the roads became just as important for civilian travelers, and it became an on-going service.

A few years after the war ended, Ohio elected A. Victor Donahey as its governor. Donahey ran his campaign as "The Farmer's Friend" candidate, and promised he would make completing the roads farmers needed to get their products to market a major priority of his administration. The governor wanted ODOH to increase the miles of roadway it could fix by looking at lower cost improvements. "What Ohio needed was more roads at \$10,000 per mile and fewer roads at \$40,000 and \$50,000 per mile," said Donahey.

As of 1923, the department had improved and/or maintained more than 4,200 miles of roadway. However, there were still hundreds of miles of unpaved roads. Under Donahey, the department expanded the state's paved road mileage by concentrating on projects that cost no more than \$15,000 per mile.

ODOH began several thousand miles of improvements following a stage-by-stage process: the road bed was first conditioned for all-weather travel, then other improvements were made as time and funds permitted. This policy was dubbed as the department's "Out of the Mud Program."

Governor Donahey initiated another change in the department. The governor had promised during his campaign to



"break" the hold that special building interests had on materials used in state roadway construction. In 1923, he initiated a policy of whenever possible asking for bids on at least two kinds of pavement for each project. This secured the advantage of competition in pricing, and opened opportunities to other companies.

As the demand increased to improve the roadways with wider access, the department faced a funding crisis. In 1925, a two-cent per gallon gasoline levy was introduced to supplement the financing of the highway program. The new tax would help improvements and increase ODOH's ability to initiate new construction.



file photo

The Ohio Department of Highways began snow and ice removal operations to aid with troop and material mobility during World War I.

This would be followed by the Norton-Edwards Bill passed by the Ohio Assembly in 1927. Among other things, the bill increased the gas tax by an additional cent per gallon and formally made the maintenance and improve-

ment of all roads on the state highway system the sole responsibility of ODOH.

The department's mission transformed during its first two decades from one of study to one of action, and from one of scientific interest to one of economic, political and public scrutiny. The same influences which shape how the department goes about its mission today started here. Above all, ODOH became a department very involved with the people of Ohio. The growth of the automobile meant every person and every community in Ohio would be serviced by the department in some form. ●

Total ODOT Performance (TOP) Awards Update

Ron Poole, *Central Office*

THE CHARTS TO THE RIGHT HIGHLIGHT the number of nominations made by ODOT employees for the Total ODOT Performance (TOP) Awards since its inception in 2001. Now in its fourth year, the total number of nominations have grown, and for the first time represent participation by Central Office and all 12 ODOT district offices.

The TOP awards recognize those employees and teams whose outstanding performances support ODOT's mission, values and goals.

The TOP Awards will be made at the annual Team-Up ODOT event on May 11 in the Rhodes Building at the Ohio State Fairgrounds.

Those interested in more information about TOP and/or the annual Team-Up event should contact Carol Schubert (614) 752-5722 or Willa O'Neill (614) 466-9967.

MVP Award: Steve Jenkins, Pike County Manager – District 9

This award is given to an individual who consistently demonstrates and encourages co-workers to use quality tools and practices in everyday departmental activities.

Communication Award: Donna Slagle, Liaison Officer – District 7

This award is given to the employee or employees who kept co-workers informed of current issues within their District or Division. This includes writing newsletters, providing information to a Public Information Officer, making formal presentations, preparing a booth for Team Up ODOT, or preparing written materials such as brochures describing new processes.

Director's Humanitarian Service Award: The Outreach Team – Jill Powers, Rick Green, Cheryl Journigan, Kathy Resek, Paul Wasilewski, David Whitely, Mark Zajia, Frank Hinkle, Pete McHugh,

Don Barth, James Perk, Cortez Browner, Vanessa Sheppard, Pricilla Collins, Ed Rahel, Dale Crowl, Dale Zydowicz, Deborah Harris, Kevin Jacobs, Antoinette Griffin, Dave Hokin, Billie Baughman – District 12

TOP Award Statistics

Year	Nominations Received	Districts Nominations	Central Office Nominations
2001	26	7	3
2002	26	7	7
2003	37	6	2
2004	50	12	3

Number of Nominations

District	2001	2002	2003	2004
1	1	1	0	3
2	0	0	0	1
3	2	6	8	6
4	0	0	0	5
5	0	0	2	4
6	1	4	0	1
7	0	0	10	4
8	4	1	0	2
9	3	1	1	7
10	4	4	6	6
11	0	0	0	1
12	8	2	8	7
Central Office	3	7	2	3

This award is given to the employee or employees who provided humanitarian service above and beyond the normal course of their job duties.

Employee Mentoring Award: Kevin Jacobs, Transportation Manager 2, Danny Thomas, Highway Worker 2, Jim Anderson, Training Officer – District 12

This award is given to an individual for providing guidance and acting as an advisor and role model to another employee who, as a result, became more productive, more effective and customer focused.

Impact Award: Bill Tallberg, Labor Relations Officer – District 12

This award is given to an active Quality Coordinator, Quality Advocate or facili-

tator who exemplified enthusiasm, dedication and loyalty in their efforts, showing others the value of using quality tools and practices, while meeting day-to-day work expectations.

Outstanding Customer Service Award: Craig Hebebrand, Project Manager – District 12

This award is given to an individual or team whose achievements or actions had a major positive impact on ODOT's customers.

Process Improvement Award: High Performance Concrete Deck Cracking Investigation Team, Dale Crowl, Michael Sutak, Michael Malloy, Jeff Lechak – District 12

This award is given to an individual or team for the improvement of an existing process or the creation of a new process. Process improvements need to be measurable in terms of cost, quality, speed, service and/or safety. The project must have been implemented during the calendar year. ●

State Byways Offer Scenic Experiences

Paul Staley, Central Office

YOGI BERRA, FORMER NEW YORK Yankees player and manager once said, “if there is a fork in the road, take it.” That fork may be on one of Ohio’s Scenic Byways where travelers can enjoy a relaxing scenic or historic off the beaten path trip. Ohio’s 17 byways consist of more than 1,300 miles of county, township and state routes located in 52 counties. The byways offer travelers an opportunity to get off the busy interstates and explore Ohio’s archaeological, cultural, historic, natural and recreational sites.

The 464 miles that make up the Ohio River Scenic Byway, mainly along State Route 7, U.S. Route 52 from East Liverpool to Cincinnati, provide travelers a unique opportunity to see the mighty Ohio River and the southern region of the state up close. The byway is a great way to discover the importance of water transportation and Ohio’s history. Visitors can

see how the Hannibal Lock and Dam, one of several locks and dams on the river, enables barge traffic to carry important cargo such as coal along the river.

The Rankin House and Parker House, located in Ripley, provides a historic perspective of Ohio’s contribution and significance to the Underground Railroad movement. Historic Marietta, the oldest city in Ohio, is a true river community which offers guests of the city dramatic



The Guernsey County Courthouse along the Historical National Road in Cambridge, Ohio.

views of the Ohio River. From the Campus Martius Museum and Ohio River Museum, Harmar Historic District to the downtown shops, Marietta offers unique amenities.

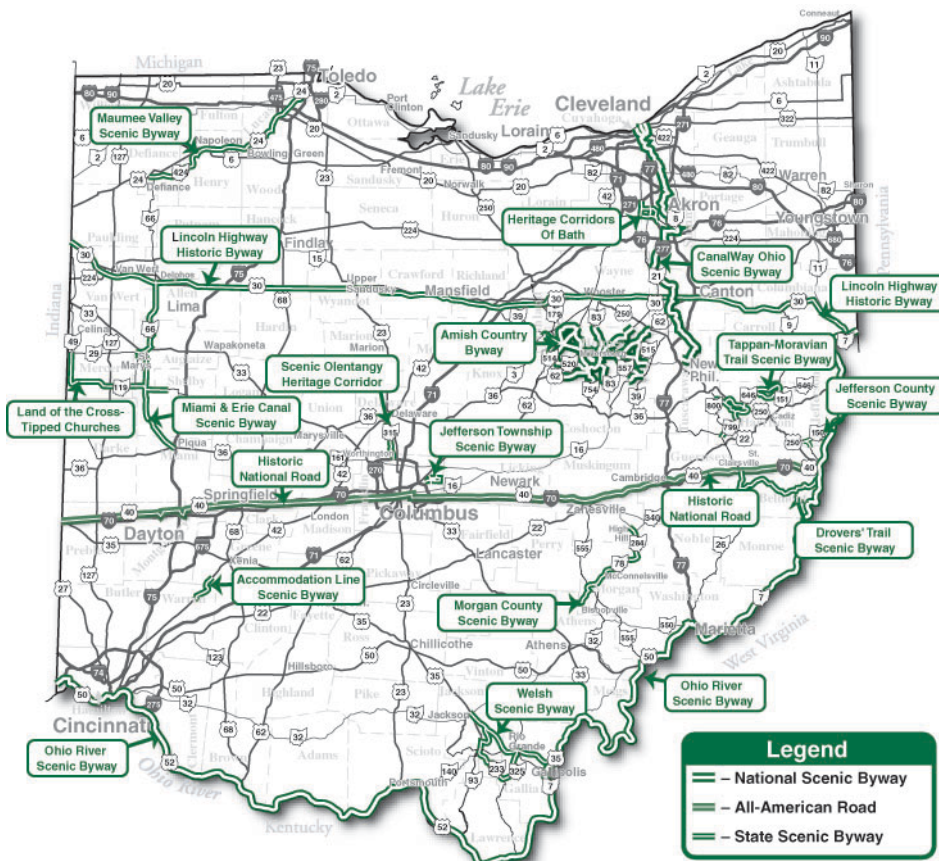
Other interesting places to visit along the Ohio River Scenic Byway include: Serpents Mound in Adams County, U.S. President Ulysses S. Grant’s birthplace in Point Pleasant, Old Fort Steuben in Steubenville, large hand-painted murals on Front Street in Portsmouth, and Ohio’s only Civil War battlefield, Buffington Island, located in Meigs County.

The state’s newest byway, the 260-mile Lincoln Highway, which follows old U.S. Route 30 from East Liverpool to Van Wert, in northern Ohio provides travelers interesting opportunities. The Lincoln Highway in many ways captures small town Americana with old movie houses, historic homes, buildings, architecture and tree-line streets. The route’s historic red, white and blue markers can be seen along the byway as well as sections of the original brick road.

The entire 3,389 miles of the Lincoln Highway starts in New York and ends in San Francisco. This byway travels through many quaint communities such

(see **BYWAYS** on page 8)

Ohio’s Scenic Byways



Feature Photo



photo by Leslie Dellovade, Central Office

The Ohio River Scenic Byway passing through downtown Pomeroy, in Meigs County, as seen from across the Ohio River.

BYWAYS *(from page 7)*

as Minerva, Hanoverton, Bucyrus, Lisbon, and Van Wert.

Another byway that has many historic features is the Historic National Road, the first road in the nation to have its construction completely federally funded. The byway traverses the central part of the state along U.S. Route 40 from Preble County to Belmont County. The Zane Grey Museum in Norwich, the Ohio Statehouse in Columbus, John Glenn's childhood home in New Concord, the Blaine Bridge – Ohio's oldest standing bridge, the Pennsylvania House in Springfield, the S-bridges, and historic mile markers are



just a few of the many unique attractions and sites located along the Historic National Road

For those interested in a truly authentic cultural experience visit Holmes County and the Amish Country Byway (SR 39, SR 83, SR 241, SR 515, SR 557 and U.S. 62). Amish-made furniture and food can be found throughout this beautiful scenic area, so it is recommended visitors bring with them an empty stomach and a full wallet.

All 17 Ohio Byways offer different and unique experiences and remember that by taking the fork in the road, one may be traveling along a byway. For further information about Ohio Byways visit www.ohiobyways.com.

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