



Arkansas HIGHWAYS

SUMMER/FALL 2021

A PUBLICATION OF THE
ARKANSAS DEPARTMENT OF TRANSPORTATION | MAGAZINE

A Determination To Be Better: Improving ARDOT's Bridge Inspection Program

**REGULATIONS KEEP
Trucks Rolling
On Arkansas Highways**

**GO WITH CARE
& Get There!
Share the Road, AR**

**ARDOT RECEIVES FUNDS
From Federal Relief
Package**

DIRECTOR'S MESSAGE

Dear ARDOT Family,

I was fortunate enough to get to take a family vacation this year to Daufuskie Island, South Carolina. Yep – I'd never heard of it either! Daufuskie doesn't have a bridge to the mainland – so boats are how to get between the mainland and the island. While on the island, you travel around in golf carts. It was a lot of fun and if we started to get in a hurry, we would remind each other "we're on island time!"

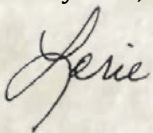
It was a relaxing stress-free week except for Monday. That was the day Tropical Storm Danny made its way through. It was also the day we decided to take a boat to the mainland so we could drive over to explore Savannah. We wanted to be strategic about what we did on our rain day.

We spent the day walking around Savannah in the pouring rain. We bought an umbrella but it broke. All the restaurants were out of oysters – what a letdown! After the stormy day, at about 9:00 pm we boarded the boat on the mainland to take us back to the island. It is about a 1-hour boat ride. It was a small boat, it was dark, it was raining, the waves were crashing over the bow of the boat and we were cold and soaked. We were all huddled up, laughing every time a wave hit us – which was about every 30 seconds. We were singing The Ballad of Gilligan's Isle (you baby boomers remember?...the weather started getting rough, the tiny ship was tossed, if not for the courage of the fearless crew, the Minnow would be lost). We were also quoting from the movie Forrest Gump – remember the hurricane scene with Lieutenant Dan on the shrimp boat?

But it gets even better! Evidently, the bespectacled captain of the boat (who wore a rain slicker but was still soaking wet with foggy wet glasses) was new on the job. As we neared the Daufuskie dock, he said "I can't see a thing" and he wasn't kidding. It became apparent that he had never docked a boat at Daufuskie in the dark. Well, needless to say, we stopped laughing. Thank goodness my son, Tim, knows how to operate boats. He asked the captain if he could take the wheel. The captain readily agreed. Tim was able to get us docked safely. But, not before the captain jumped out of the boat onto the dock to help guide the boat. He jumped out too soon and he was drug halfway down the dock – and his leg went through a hole. It was a tense and scary moment – I just knew the poor guy had broken his leg – but thankfully he did not – bless him. I left him a generous tip. My family got on our golf cart and made it back to the house we were staying in – grateful to be back on land and get into some dry clothes.

That day made our vacation unforgettable. But, it also helped to reinforce a life lesson. The storms of life can bring out the best in us by giving us confidence in ourselves and each other when we stay positive. And, sometimes when you think it can't get worse – it does. But, we should always strive to persevere and keep our courage. This day was a literal example of the figurative storms we all face as individuals and as a Department. Keeping a good attitude, encouraging each other and working together is the key to making it through.

All my best,



Lorie H. Tudor, P.E., *Director*



FRONT COVER:

Crew members inspect the Newport Bridge over the White River.

BACK COVER:

Cherokee Prairie Wildflowers on Arkansas Highway 60.

EDITOR

David Nilles

David.Nilles@ardot.gov

STAFF WRITER

Britni Padilla-Dumas

Britni.Padilla-Dumas@ardot.gov

GRAPHIC DESIGNERS

Paula Cigainero

Paula.Cigainero@ardot.gov

Marrissa Miller

Marrissa.Miller@ardot.gov

Lamarie Rutelonis

Lamarie.Rutelonis@ardot.gov

PHOTOGRAPHER

Rusty Hubbard

Russell.Hubbard@ardot.gov

Correspondence should be directed to:

ARKANSAS HIGHWAYS

Public Information Office

P.O. Box 2261

Little Rock, AR 72203-2261



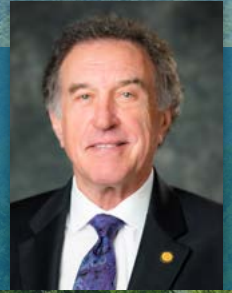
Arkansas Highways is published by and for employees of the Arkansas Department of Transportation as a medium of departmental news and other information. It is also distributed free of charge to the public upon request.

The Arkansas Department of Transportation (Department) complies with all civil rights provisions of federal statutes and related authorities that prohibit discrimination in programs and activities receiving federal financial assistance. Therefore, the Department does not discriminate on the basis of race, sex, color, age, national origin, religion (not applicable as a protected group under the Federal Motor Carrier Safety Administration Title VI Program), disability, Limited English Proficiency (LEP), or low-income status in the admission, access to and treatment in the Department's programs and activities, as well as the Department's hiring or employment practices. Complaints of alleged discrimination and inquiries regarding the Department's nondiscrimination policies may be directed to Joanna P. McFadden Section Head – EEO/DBE (ADA/504/Title VI Coordinator), P. O. Box 2261, Little Rock, AR 72203, (501)569-2298, (Voice/TTY 711), or the following email address: Joanna.McFadden@ardot.gov. Free language assistance for Limited English Proficient individuals is available upon request. This notice is available from the ADA/504/Title VI Coordinator in large print, on audiotape and in Braille.



ARKANSAS STATE HIGHWAY COMMISSION

ROBERT S. MOORE, JR.
Chairman



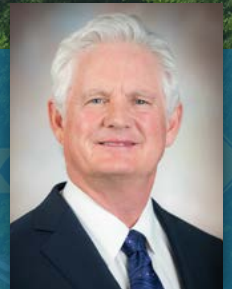
DALTON A. FARMER, JR.
Vice Chairman



PHILIP TALDO
Member



KEITH GIBSON
Member



MARIE HOLDER
Member



SUMMER/FALL 2021

CONTENTS

FEATURES

- 5 Improving ARDOT's Bridge Inspection Program
- 9 Regulations Keep Trucks Rolling On Arkansas' Highways
- 12 Go with Care & Get There!
- 15 When Highways Meet History
- 18 Rolling Through River Towns: Ponca, AR
- 20 The Poncius Site
- 25 A Cut Above: The Knives of Jim Bob Lamb
- 28 Arkansas Great River Road Receives All-American Designation
- 30 ARDOT Receives Funds From Federal Relief Package
- 31 Anchors Away
- 34 Drive Safe. Work Safe. Save Lives.

20



31



DEPARTMENTS

- Director's Message 2
- Events Around The State 14
- Construction Corner 35

IN THE
NEXT issue

- Chairman Moore's Lasting Legacy
- Visualizing Highways Through Art
- Volkswagen SAFER Grant

A DETERMINATION TO BE BETTER: IMPROVING ARDOT'S BRIDGE INSPECTION PROGRAM

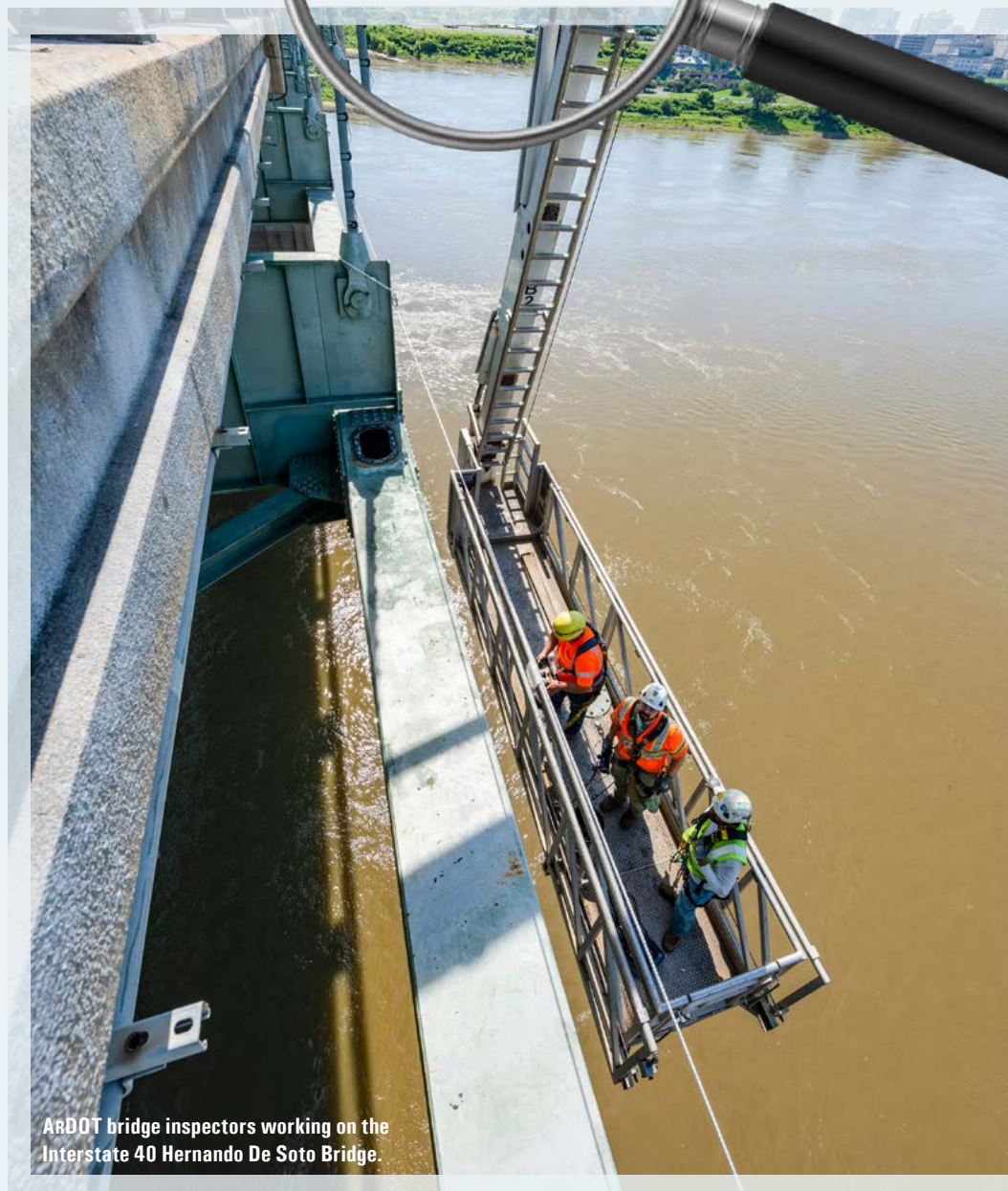
BY BRITNI PADILLA-DUMAS
& DAVID NILLES

ON MAY 11 OF THIS YEAR, CONSULTANT COMPANY MICHAEL BAKER INTERNATIONAL DISCOVERED A FRACTURE IN THE INTERSTATE 40 HERNANDO DE SOTO BRIDGE MISSISSIPPI RIVER BETWEEN WEST MEMPHIS, ARKANSAS, AND MEMPHIS, TENNESSEE, WHILE CONDUCTING A ROUTINE INSPECTION OF THE BRIDGE'S CABLING SYSTEM. Michael Baker notified first responders and both the Arkansas Department of Transportation (ARDOT) and the Tennessee Department of Transportation (TDOT) immediately. Authorities closed the bridge, coordinated with U.S. Coast Guard to stop Mississippi River traffic and diverted drivers to use the Interstate 55 Bridge.

For a program that has always surpassed minimum federal requirements, the findings were eye opening when ARDOT discovered that the fracture was missed during a Department inspection. That mistake has become the catalyst for an improved, more thorough bridge inspection program.

THE INSPECTION PROGRAM TODAY

ARDOT is responsible for inspecting 12,776 bridges within the state, 7,360 of which are state-owned. The remainder are located on roads owned
(continued on page 6)



ARDOT bridge inspectors working on the Interstate 40 Hernando De Soto Bridge.

“ Failure isn't fatal, but failure to change might be. ”

- John Wooden



THE SNOOPER™ IS THE WORLD'S MOST WIDELY USED UNDERBRIDGE INSPECTION AND MAINTENANCE TRUCK.

by local cities and counties.

In many ways, ARDOT's bridge inspection program exceeds the minimum requirements to maintain compliance. For example, structures with reduced load postings and structures in poor condition are only required to be inspected every two years; ARDOT, however, inspects them annually, and in some cases, even more frequently.

"We had been working toward improving the bridge program before the Memphis event," shared Rex Vines, ARDOT's Deputy Director and Chief Engineer. "We are constantly looking for ways to make the program better. For example, six years ago, we had one statewide bridge inspection team. Since then, we have added two additional teams to increase our quality control program."

ARDOT's statewide bridge inspection teams are responsible for large structures (like the Hernando de Soto Bridge). In addition, there are 24 teams throughout the Department's ten Districts across the state that inspect smaller structures. Each team consists of a lead bridge inspector and an assistant bridge inspector and reports to the District Construction Engineer. Each person must have a minimum of five years' experience in structures, at least two and a half years specifically in bridge inspection and completion of a two-week National Highway Institute safety course.

"Our bridge inspectors are very conscientious, very efficient and do a great job," Vines stated. "Unfortunately, we allowed a failure to go unnoticed. This has shed a light



on a weakness in our program. We are going to examine this situation and learn from it in order to make our program better."

MORE THOROUGH INSPECTIONS MOVING FORWARD

ARDOT is well on the way to building a better bridge inspection program. The Federal Highway Administration (FHWA) is currently doing a review of the Department's inspection procedures.

ARDOT is also hiring a consulting firm to do an objective analysis of the program and make recommendations.



Utilizing a Snooper allows crews to closely examine structural details.

"Our goal is to increase our quality control and quality assurance," Vines shared. "The FHWA will make recommendations and we will likely see some best practices from other DOTs across the nation that we can adopt. Until we get the final report, we really do not know what it is going to entail but I am confident we will move quickly on it. Initially, we will use the consultant inspection team to provide our immediate quality control improvements. Their recommendations will make our processes better."

Supplemental to improvements to the inspection program, ARDOT is

adding a fleet of drones out in the field to assist on location.

"We will be adding drones in each of our 10 Districts and our Heavy Bridge teams will utilize them as well," Vines shared.

AN INVESTMENT IN SAFETY

A total of \$152 million has been set aside for rehabilitation of bridges over the next four years. In addition, \$502 million is in place for bridge replacements over the next four years.

"There is so much we have learned and are continuing to learn from this crisis," stated Lorie Tudor, ARDOT Director. "This has been a huge

challenge for all of us and especially for motorists on the roads. We have been constantly monitoring traffic flow and understand what they have been through. I want to reassure them that from this experience, we will have a better program, and not just in Arkansas. I believe this challenge is going to make the whole inspection program across the nation better."

On his visit to the Memphis Bridge site on June 3, U. S. Department of Transportation Secretary Pete Buttigieg shared insight from the federal level:

"Put simply, the reason that I am here

(continued on page 8)

is to emphasize that the situation with this bridge may be a regional issue, but it is a national concern. Our country has some work to do in this regard. We have 45,000 bridges in poor condition in this country. And Americans cross those bridges 178 million times every single day. We have fallen out of the Top 10 in infrastructure. If we want to remain the leading country in the world, we have got to make sure we have world class infrastructure to match."

OWNERSHIP, ACCOUNTABILITY, TRANSPARENCY

Now that crews have completed repairs on the Hernando de Soto Bridge, a great deal has been learned that will benefit the Department in the future.

"We've learned both good and bad from this experience," Vines added. "We've learned that trust is a hard thing to earn once you've lost it. We lost the trust of the citizens of Arkansas. However, I think we have learned that transparency is the first step to earn back that trust. We have tried to be as transparent about this incident as possible. We have recognized we have a problem and we are meeting that problem head on to find a solution moving forward. We are going to see this as an opportunity to improve our quality control and grow a better inspection program. This will not just take place in the bridge program; improvement will find its way into other divisions at ARDOT as well." ■

“Implementing Extreme Ownership requires checking your ego and operating with a high degree of humility. Admitting mistakes, taking ownership, and developing a plan to overcome challenges are integral to any successful team.”

- Jocko Willink

Extreme Ownership: How U.S. Navy SEALs Lead and Win

ARDOT crew members using the Snooper on the Interstate 40 Hernando de Soto Bridge





REGULATIONS KEEP TRUCKS ROLLING

ON ARKANSAS' HIGHWAYS

BY DAVID NILLES

HAVE YOU EVER WONDERED WHAT THOSE STICKERS AND NUMBERS SIGNIFY ON THE SIDES OF 18-WHEELERS AS THEY ROLL BY ON OUR HIGHWAYS? They all serve a purpose as part of keeping our highways in good shape and operating safely. As a commercial truck operator, there are certain requirements that must be met before carrying loads on the highways of Arkansas.

Federal interest in preserving highways goes back to the enactment of the Federal-Aid Highway Act of 1956, which authorized the Interstate and Defense Highway System. To preserve our nation's infrastructure and to keep trucks and buses moving efficiently, states must ensure that commercial motor vehicles comply with federal size and weight standards.

The enforcement of those standards is the responsibility of ARDOT's Arkansas Highway Police (AHP) Division, and specifically the AHP Permits Section. The section includes 18 staff members.

Here is a look at some of the permits distributed by the AHP that are required of commercial truckers in Arkansas.

COMMERCIAL DRIVER'S LICENSE

Driving a commercial motor vehicle (CMV) is a big responsibility. It all begins with a commercial driver's license (CDL).

Driving a CMV requires a higher level of knowledge, experience, skills and physical abilities than that required to drive a non-commercial vehicle.

Obtaining a CDL involves several steps. There are medical requirements and residency requirements that must be met. In order to obtain a CDL, an applicant must pass both skills and knowledge testing geared to these higher standards. Additionally CDL holders are held to a higher standard when operating any type of motor vehicle on public roads. Serious traffic violations committed by a CDL holder can affect their ability to maintain their certification.

To drive certain specialized types of vehicles such as buses or tank trucks or carry hazardous materials, you must also apply for the proper endorsements on your CDL. Endorsements include Passenger (P), allowing you to carry passengers; Tank (T), allowing you to drive trucks containing liquid cargo; and H (Hazardous

(continued on page 10)



Materials), allowing you to drive trucks containing such hazardous materials as flammable liquids, explosives or radioactive substances.

The cost of a CDL is \$42, the testing fee is \$50 and the license is valid for four years.

OVERWEIGHT AND OVERSIZE PERMITS

Overweight Permits are special types of temporary permits. They authorize the movement of vehicles with a gross weight exceeding legal weights that cannot readily be reduced. This type of permit may be issued after a weight analysis of the planned route.

There are federally mandated maximum weights for the National System of Interstate and Defense Highways. The following limits are all permissible and would not require a permit. However, if the gross weight and axle weights exceed these limits, a permit would be required. The single axle weight limit cannot change. It remains the same with or without a permit. On a tandem axle, with a permit, the weight may reach up to 46,000 pounds.

The limits are:

1. 80,000 pounds gross vehicle weight
2. 20,000 pound single axle weight
3. 34,000 pound tandem axle weight

Axle spacing is a consideration that must be taken into account when looking at Federal weight compliance. To protect bridges, the number and spacing of axles carrying the vehicle load must be calculated. A bridge weight formula is applied to commercial vehicles in determining their compliance with Federal weight limits.

For an overweight permit, a standard fee of \$22 or \$28 is applied, depending if payment is made with a bonded

account or with a credit card. An overweight fee based on how many tons a truck is over the limit and how many miles it is to be driven is then added.

An **Oversize Permit** authorizes travel in a specified jurisdiction. In most cases, it will list the hauler's name, the description of the load and its dimensions, and a route they are required to travel. Federal size limitations include a 102-inch width limitation and a 13'-6" height limitation. If a load exceeds 300,000 pounds, a detailed sketch of the vehicle including all tire sizes, axle spacing, axle weights and overall dimensions of the vehicle must be included.

The Federal government does not issue permits for oversized and overweight vehicles. This is a State option with ARDOT charging the \$22/\$28 fee.

INTRASTATE AUTHORITY PERMITS

Some trucking companies choose to run only in one state. All for hire motor carriers hauling freight or passengers within a single state's borders must obtain an Intrastate Authority Permit. This allows for-hire motor carriers to use any of the public highways in that state. There is a \$25 application fee for general freight/mobile home movers and a \$50 application fee for household goods/passenger carriers.

HOUSE MOVING PERMITS

If there is a situation where a person decides that instead of selling their old home and buying a new one, they want to have their house moved from its current location to private land they have purchased, a house-moving permit

must be obtained to carry out the move. An application for a moving permit must include the dimensions of the structure, the planned route and the time of day for the move. The application is then submitted to the appropriate ARDOT District Office and the District Permit Officer verifies the measurements of the house and runs the route to make certain it is an appropriate route. Once the District Engineer signs off on the application and this final step, it is sent to the AHP office and a permit is issued. A charge of \$22/\$28 is then applied.

ROUTING LOADS TO PRESERVE OUR INFRASTRUCTURE

Heavy and oversized loads can have a negative effect on highway pavements. The heavier the load, the more wear and tear it has on driving surfaces. Permit Techs play an important role in assuring that permitted loads are routed correctly in order to protect our infrastructure.

When planning a route, construction zones must be considered. It is critical that overweight and oversized loads are not routed through any zones.

"The Permits section has been using the Department's Legacy Linear Referencing System to route oversized and overweight loads," Permits Section Office Manager Samantha Nelson shared.

The system contains all of the centerline main lanes of Arkansas' highway system and can find the shortest, fastest and least-costly route to take for an oversized truck.

ARDOT will soon be replacing that system with the All Roads Network of Linear Referenced Data system (ARNOLD).

"ARNOLD contains an expanded network of all roads, dual carriageway for divided routes and a complete ramp and frontage road system," stated Sharon Hawkins, Staff GIS and Mapping Administrator. "When the Permits Section switches to using the new system, they will be able to take advantage of using this expanded road system within their permitting system."

"HEAVY AND OVERSIZED LOADS CAN HAVE A NEGATIVE EFFECT ON HIGHWAY PAVEMENTS. THE HEAVIER THE LOAD, THE MORE WEAR AND TEAR IT HAS ON THE PAVEMENT SURFACES."

The Permit Section also works with a program called ARPARS (Arkansas Permitting and Routing System) that features all of the laws, rules and regulations necessary when issuing a permit. The ARPARS system was recently upgraded to a web-based system. The program communicates with ACTIS Lane Closures and the Department's bridge inventory system.

"It is very important when routing oversize/overweight loads that we are protecting our construction workers along with our bridges and roadways," Nelson added. The Permit Section depends on the information in these systems to make sure they are routing the permits correctly. It becomes evident that there are many factors involved when routing these large loads through our state, making it very important that all of these programs work together.

ALLOCATION OF PERMIT FEES

For 2020, a total of 157,741 permits were issued by the AHP Permits Section. And what becomes of the fees that are collected?

"The revenue generated from the permits we issued totaled just under \$14.9 million," Nelson shared. "Per Arkansas law, the monies go into ARDOT's general budget."

With so many commercial trucks rolling down the state's highways, it is easy to understand the important role permit fees play in keeping Arkansas' highways in good condition. ■



A superload tonitown transformer being transported in 2017.



SAFELY Share the

BY BRITNI PADILLA-DUMAS

SURELY, MOST OF US HAVE SEEN OR HEARD A PUBLIC SERVICE CAMPAIGN CALLING ROAD USERS TO SAFELY SHARE THE ROAD, BUT WHAT DOES THAT MEAN, REALLY? Isn't this common sense? It feels like it would be; most of us have been behind the wheel for at least a decade—shouldn't we have the hang of it by now? Unfortunately, data shows that isn't the case. A motor vehicle struck and killed a pedestrian every 85 minutes in 2019—that is unacceptable.

KNOWLEDGE IN NUMBERS

Nationally, 846 cyclists were killed in traffic crashes in 2019. A pedestrian was killed every 85 minutes in 2019. Yes, we already said that, but it's worth repeating—6,205 human beings left their home one day and never returned.

This issue doesn't exclude the Natural State; in Arkansas, there were

58 pedestrian deaths in 2019 and 107 were seriously injured. Fatal crashes took two cyclists and another 24 suffered injuries.

The National Highway Traffic Safety Administration (NHTSA) aims to be the global leader in motor vehicle and highway safety. Through their extensive research—like the crash data from 2019 that I cited above—they provide the public with useful information, safety standards and enforcement ideas to save lives, prevent injuries and reduce economic costs due to road traffic crashes. One of their messages is for road users to safely share what already belongs to all of us—enter the Share the Road campaign.

The goal of Arkansas' Share the Road messaging is to provide travelers with information on laws, policies, maps and resources to commute safely on Arkansas' roadways, whether by walking, cycling or driving.

BE PROACTIVE

Pedestrians aren't crashing into bicycles or vehicles, but there are steps you can take to mitigate the risk that comes with walking near traffic. For example, **always walk facing traffic** and be predictable. Use the crosswalk, and if one isn't available, cross in the best-lit location and wait for a gap in traffic. Maintain your situational awareness by keeping your senses in tune with the surroundings—use only one earbud if listening to music.

Cyclists aren't demolishing vehicles, but you can ride defensively and cultivate safer choices that lend to predictably. **Always ride with traffic.** Protect your brain and **PLEASE WEAR A HELMET.** Most crashes occur in urban areas at night, so plan to stand out at all times—be bright, reflective and use lights on your bike. Do everything you can to protect yourself.

For more info, visit: ardot.gov/share

Road



GO WITH CARE. GET THERE!

Safely Share the Road, Arkansas.



Abiding by so many safety measures may seem tedious, but I promise, your life is worth it.

We can't ignore, however, that the leading cause of traffic fatalities is careless driving. It basically boils down to this: drivers are in control of a two-ton death machine on wheels. Sure, we can offer more tips on safe cycling and safe walking, (which we will absolutely do next) but when it comes down to it, a human being vs. a mobile mound of metal won't ever end well for anyone outside the vehicle.

That's why it is imperative that ALL road users make an effort to look out for one another.

A UNITED FRONT

We can bring the number of fatalities down, but we have to do this together. Remember that mention about additional safety tips? Here they are—this is how we can be more cognizant, connected and cautious:



CYCLISTS: be visible and ride alert. Yield to pedestrians at crosswalks and always maintain control of your ride.

- **Obey traffic laws.** The absence of a motor doesn't exempt you from getting a ticket.
- **Ride with traffic.** It's the law. Ride on the right for everyone's safety.
- **Stay in control.** Never ride under the influence, unless you want a DUI.



PEDESTRIANS: walk against traffic (it's the law) and give extra attention to your surroundings on busy roadways and intersections. Having the right of way does not protect you from a careless driver.

- **Use the crosswalk.** It's your safest option.
- **Be present.** Try to get visual confirmation from others that they see you.
- **Be visible.** Wear reflective clothing or keep a reflective belt/vest handy when traveling after dark.



MOTORISTS: commit to being alert and sharing the road with both pedestrians and bicycles. Be patient at intersections or if a bicycle is using your lane.

- **Drive alert.** Avoid distractions and using devices.
- **Watch others.** Other travelers have the right to use the roadway.
- **Slow down.** Give yourself time to react in case of an incident.

etheroad

SPECIAL EVENTS AROUND THE STATE



BY DAVID NILLES



Union Pacific Railroad Overpass Groundbreaking

UNION PACIFIC RAILROAD OVERPASS MAYFLOWER, ARKANSAS

"What an outstanding day," that is how Congressman French Hill described the May 25 groundbreaking for the Union Pacific Railroad Overpass project in Mayflower.

Approximately 80 people were on hand as ground was broken to construct a new overpass crossing over Highway 365 and the adjacent railroad tracks near the Interstate 40 interchange. On new location, the new facility replaces an at-grade crossing on Highway 89 that is ranked in the top 10 percent of the most dangerous crossings in the state.

Awarded to Emery Sapp & Sons for \$26.3 million, the project is the result of a partnership between ARDOT, the City of Mayflower, Metroplan and Faulkner County.

"When you consider the number of organizations that have come together to make this railroad overpass a reality, you get an idea of how much these improvements were needed," commented Arkansas Highway Commissioner Marie Holder.

The current at-grade crossing handles approximately 2,600 vehicles a day.

"The new overpass will bring better traffic flow, eliminate delays and most important, increase safety," Holder added.

Congressman Hill commented on the significance of the new overpass.

"This is more than just a crossing over the Union Pacific tracks. This is transformational for Faulkner County and for Mayflower. This gives Mayflower a heart, a soul and a plan for the future. This new location will be a place where families can build houses, have a safer way to go to school, seek medical care and easily get to the Interstate. This is transformational." ■

RESURFACING OF HIGHWAY 195 WASHINGTON, ARKANSAS

Old Washington State Park was the location for a ribbon cutting on June 21 celebrating the resurfacing of 13 miles of Highway 195 between Washington and Fulton. Redstone Construction Group, Inc. completed the \$9.5 million project in late April.

The improvements are the result of a partnership between ARDOT, Tyson Foods, Inc., the Arkansas Economic Development Commission and Hempstead County.

The partnership was formed when representatives of Tyson approached ARDOT about proposed plans for a new feed mill on Highway 195. Wanting to be good stewards of Highway 195, Tyson was curious if the roadway would stand up to the weight of the trucks that would be traveling the highway to reach the new plant. An ARDOT study followed and indicated additional asphalt would be needed to support the trucks traveling Highway 195. As a result, the partners stepped up to make the new roadway and the Tyson plant a reality.

"Each member of this partnership recognized the importance of continued investment in Arkansas communities and the value of good highways," Commissioner Philip Taldo told the crowd at the ribbon cutting. "We worked together to provide the funding necessary to make Highway 195 improvements that were necessary in this area."

In addition, Hempstead County agreed to accept ownership and responsibility for sections of Highways 195, 234 and 355.

"With the new Tyson plant and this improved highway, we will now see additional jobs for our community," Hempstead County Judge Jerry Crain shared. ■



Highway 195 Resurfacing Ribbon Cutting

WHEN HIGHWAYS Meet History

BY BRITNI PADILLA-DUMAS



Old Highway Department Building



Shelby Linck, Architectural Historian

A NTHROPOLOGY: THE STUDY OF HUMAN SOCIETIES AND CULTURES AND THEIR DEVELOPMENT;

Archaeology: the study of human history and prehistory through the excavation of sites and the analysis of artifacts and other physical remains; **Architecture:** buildings, collectively; **History:** a continuous, systematic narrative of past events as relating to a particular people, country, period or person; All of these topics converge at Architectural Historian—someone that studies buildings and structures within their historical context and analyzes how upcoming highway projects could affect or harm a site.

The need for architectural historians

arose after the U.S. Congress passed the National Historic Preservation Act (NHPA) of 1966. Section 106 requires federal agencies to consider the effects of their funded undertakings on historic properties and to provide the Advisory Council on Historic Preservation (ACHP) with an opportunity to comment. While Section 106 pushes to consider the effect on the property, Section 4(f) of the U.S. Department of Transportation Law of 1966 focuses on the use of the property. Section 4(f) properties include significant publicly owned public parks, recreation areas, wildlife or waterfowl refuges, or any publicly or privately owned historic site listed or eligible for the National Register of Historic Places (NRHP).

Since ARDOT is involved in federally

funded projects, ARDOT's Architectural Historian, Shelby Linck, provides these analyses from the Cultural Resources Section of the Environmental Division.

"When a project is in the planning stage, we look at the proposed route and identify any historic properties," Linck reported. "These could be buildings, structures, bridges, and even landscapes. Once we identify, we send constraints to the designers and roadway engineers to let them know the property is historic and to avoid it as best as possible."

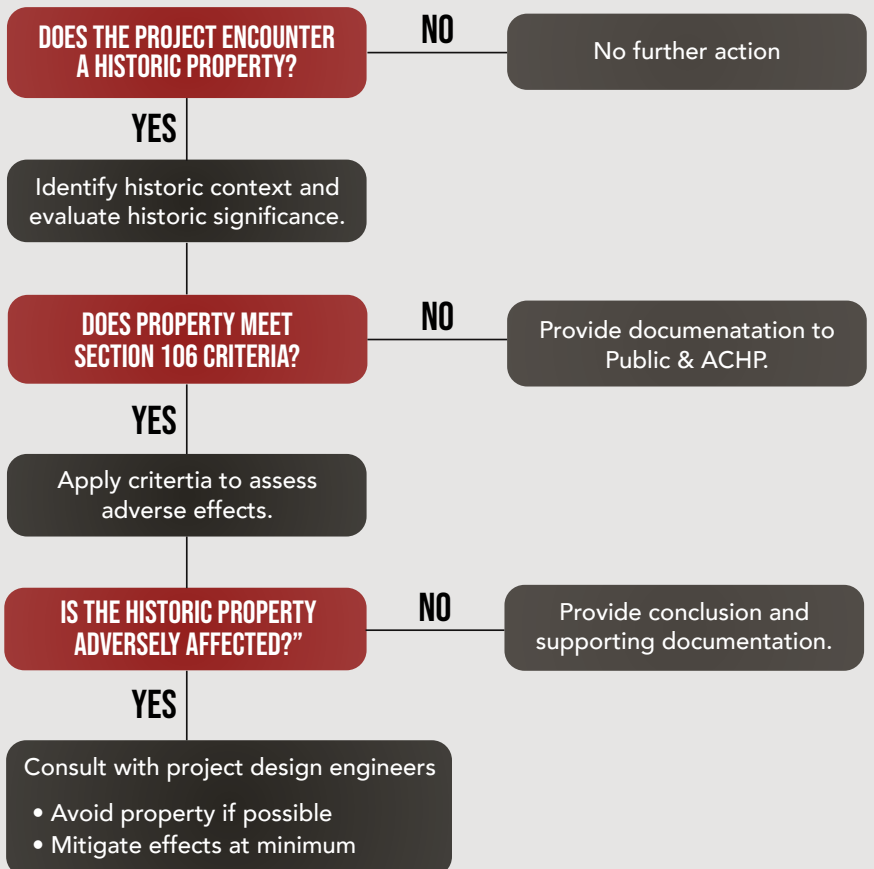
If avoiding the property is not possible,

(continued on page 16)



HOW ARDOT COMPLIES WITH SECTION 106

Once resolved, a Memorandum of Agreement (MOA) allows the project to move forward. The MOA is evidence of the Agency's compliance with Section 106.





Linck works with the design staff to minimize the route's impact to the property, and mitigate the effects when necessary.

"All historic properties are given boundaries to maintain their setting and historic integrity of the land," Linck explained. "We will mitigate our effects and consult with the State Historic Preservation Office, Native American Tribes, land-owners and historical societies and find the best possible solution for that property."

The ACHP defines mitigation as "a way to remedy or offset an adverse effect or a change in a historic property's qualifying characteristics in such a way as to diminish its integrity." One recent example is Job 020070—improvements to U.S. Highway 79B through Pine Bluff—and the adverse effects to the

historic Williams Building, one of the first civil rights' establishments outside of Little Rock.

"Our intern, Jessica Chavez, created a permanent exhibit housed on the University of Arkansas at Pine Bluff campus that explains the significance of the Williams Building and the role it played in the Civil Rights Movement," Linck recalled. A brass marker stands near the highway, representing the location of the building and defining its importance.

Linck's experience with architectural history in Arkansas is not limited to old buildings. Much of Arkansas is considered rural, so Linck often studies vernacular architecture—structures that are characterized by the use of local materials and knowledge—or even agricultural sites and landscapes.

"Vernacular architecture shows us how people lived. Many of our projects are rural, and since Arkansas is rural in general, there wasn't a lot of early development. I love getting to travel to different parts of the state and connecting with its history," Linck shared. "Many people don't know, but we work to help preserve historical properties that are important to the local communities. I think it's important that we document the properties we affect saving history, even if the structure is no longer standing and contribute to the overall information of Arkansas History." ■

This article was written with information from the U.S. Department of the Interior, the National Park Service and the Advisory Council on Historic Preservation.

CUTLINES

1. **THE CHURCH OF GOD** in Arkadelphia is eligible under Criterion C; it is an example of a church with vernacular Gothic Revival and Tudor influence styles. This was surveyed and determined eligible as part of 070439.
2. **THE KRAMER SCHOOL LOFT APARTMENTS** is eligible for inclusion in the National Register of Historic Places (NRHP) within the MacArthur Park Historic District.

3. **THE WHITE OAK LAKE STATE PARK SIGN** was hand carved in a folk-art influenced style by Hal Lane, the original sign carver for Arkansas State Parks. This sign was surveyed and determined eligible as part of 030530.
4. **TRAPNALL HALL** is listed in the NRHP and is also within MacArthur Park Historic District. Shelby Linck helped survey this property for the 30 Crossing project.

Rolling through *River Towns*

BY DAVID NILLES

PONCA, AR

ASK AROUND AND YOU WILL DISCOVER THAT ONE OF THE MOST POPULAR RIVERS IN ARKANSAS IS THE BUFFALO RIVER. Flowing through the Ozark Mountains in northern Arkansas, it is so popular that it was named the country's first National River in 1972. The Buffalo flows freely for 135 miles and is one of the few remaining undammed rivers in the lower 48 states.

One of the best places to experience the Buffalo River and surrounding areas is in the small town of Ponca, with a population of just over 100 people. Though short on fulltime residents, Ponca is long on things to do and its population shoots upward as warm weather arrives. Winter months can be just as fun though, with better views through the bare trees, fewer people exploring the outdoors and...no bugs!



Cabins make a great place to stay!

Photo courtesy of Arkansas State Parks & Tourism



Lost Valley Trail

Photo courtesy of Arkansas State Parks & Tourism

Arkansas is known as the Natural State due to its beautiful landscapes featuring mountains, valleys, rivers and lakes. Without a doubt, there are plenty of places to escape in order to enjoy the outdoors. In this series, Arkansas Highways explores Arkansas' river towns. With 33 rivers running through our state, we will explore communities that have grown up along the riverbanks.



FLOATING THE RIVER

Arriving in Ponca on Highway 43, your adventure will probably begin on the river itself. The shores of the Buffalo offer camping, fishing, kayaking, canoeing and

swimming. Bring your own means of floating or stop in at one of the local outfitters that can provide you with a canoe plus a shuttle ride back to your car.

A favorite place to learn more about the area is the **BUFFALO OUTDOOR CENTER**. The staff knows every inch of the river and can recommend a float trip that suits your needs. They specialize in three different stretches of the river and can match you with one best suited for floating depending on current water levels and your skill level. The Center offers cabins as well after a day on the river.

Another great place for information about the Ponca area is **LOST VALLEY CANOE & LODGING**. This family-owned headquarters has been in business for 33 years. Visit their historic general store, and learn more about float trips and cabins available for overnight stays.

During your float down the Buffalo, stop for a swim, a picnic lunch on the beach or try your luck in a favorite fishing spot.

You will want to bring your sense of adventure. Be ready for a full day of fun enjoying the rapids and the calm, crystal clear stretches of the river as the stone bluffs tower overhead.

HIKING & BIKING THE PONCA AREA

Coming off the water, you may want to take in a hike through the woods to discover all kinds of beautiful scenery in the Ponca area. Inside the National Park, a favorite is the **LOST VALLEY TRAIL**. This two-mile hike features waterfalls, a number of flower species, a natural bridge, high bluffs and a cave. Enter Cobb Cave and you will exit on the other end to a path leading to Eden Falls, a special and picturesque site.

Another popular hike is the **WHITAKER POINT TRAIL**. This three-mile trail leads to Hawksbill Crag, one of the most photographed and scenic views in Arkansas.

For the best view of the Buffalo River, set out on the **CENTERPOINT TRAIL**. This 2.5-mile hike leads to the Big Bluff spur trail (.4-mile in length) which places you on a bluff above



An elk sighting in Ponca, Arkansas

Photo courtesy of Arkansas State Parks & Tourism

the river and offers views 350-feet below to the water. This trail is not recommended for children, but adults who take it know how unique it really is.

If mountain biking is more your speed, Ponca has some of the longest downhill trails in the state. Bring your bike or rent one in town for a network of gravity lines that can be strung together into six-mile-long runs with as much as 1,300 feet of descending. Navigate the drops, jumps and rock gardens or take advantage of the "go around" options. With trail names like White Lightning, Skull Cracker and Mule Kicker, an opportunity for speed and adventure awaits! Bike shuttles run seven days a week.

DISCOVER ELK HERDS

Ponca and the Lost Valley area are home to a herd of more than 800 Rocky Mountain Elk that are easily seen from Highway 43 heading south out of Ponca. Keep your eyes on the fields between Ponca and Boxley in the early morning and late afternoon and chances are good you will see herds of elk grazing. Be sure to visit Ponca's **ELK EDUCATION CENTER**. Here you can learn about the latest sightings, see an exhibit explaining why the herd was introduced to Arkansas and relax on the deck overlooking Ponca Creek.

LODGING

The area around Ponca has many offerings when it comes to staying overnight. Camping along the river's edge is a unique way to enjoy the outdoors. There are numerous campgrounds in the area as well. One of the most popular options available is to rent a cabin. They come in all sizes and include both modern and rustic accommodations. Select one deep in the woods or one looking out over a valley. They all make for a memorable home away from home.

Regardless of where you settle for the night, you are likely to fall asleep thinking about your next day in Ponca and this beautiful wilderness area. ■

BY DR. THADDEUS BISSETT, WOOD E&IS

THE PONCIRUS SITE:

Archaeologists Unearth Evidence of Ceremonial Practices

Construction on the extension of the Martin Luther King Bypass in Hot Springs is well underway. The \$75 million project will feature six miles of roadway on new location and was awarded to McGeorge Contracting Company, Inc. in late 2019. The new roadway will extend from U.S. Highway 70 East northward to State Highway 7 near Fountain Lake. Before dirt was turned, ARDOT archeologists surveyed the area. This article, written by Dr. Thaddeus Bissett of Wood Environment & Infrastructure Solutions (Wood E&IS), tells the significance of what unfolded.

EARLY ONE MORNING IN JULY OF 2020, THE ARCHAEOLOGICAL TEAM FROM WOOD ENVIRONMENTAL & INFRASTRUCTURE SOLUTIONS, INC. (WOOD E&IS) WAS NEARING THE END OF THE EXCAVATION AT THE PONCIRUS SITE, AN ANCIENT NATIVE AMERICAN ARCHAEOLOGICAL SITE IN THE HILLS OUTSIDE OF HOT SPRINGS. Before the excavation, the site, discovered three years earlier by ARDOT archaeologists during a highway survey, was unimpressive to see, a small patch of forest with the occasional sprout of poison ivy poking through the leaves. A broken television set had been dumped nearby and lay partially covered in leaves.

Kneeling in a trench three feet deep, one of Wood E&IS's senior archaeologists carefully exposed a faint oval-shaped patch of dark soil, the remains of an ancient pit, labeled as Pit 19. The archaeologist removed, bagged and labeled several soil samples with information about the location, depth and contents. Weeks later after samples were analyzed, Wood E&IS learned Pit 19 contained, among other things, two tiny tobacco seeds. Dating between 1,050 and 700 BC, they may be the oldest domesticated tobacco seeds yet uncovered in North America.

The discovery places ancient Arkansas squarely in the middle of an archaeological mystery: how and when did tobacco, a plant that originated and was domesticated

in the Andes Mountains of South America, arrive in North America? Tobacco has long played a prominent role in Native North American religious ceremonies, but the story of its arrival and early use is as-yet untold, a puzzle with many missing pieces. The discovery at the Poncirus Site shows that ancient Arkansans, who were growing and using tobacco at least 2,650 years ago, have a part to play in that story.

THE NATIONAL HISTORIC PRESERVATION ACT OF 1966

Poncirus is among hundreds of archaeological sites that have been discovered by ARDOT during routine archaeological surveys as part of work required by the National Historic Preservation Act (NHPA). The NHPA created the National Register of Historic Places (Register), a nationwide list of historically significant buildings, structures (e.g., bridges), and sites (collectively referred to as "historic properties") considered worthy of preservation.



Poncirus Site before excavation



New properties can be added to the Register through a process outlined in Section 106 of the NHPA. Section 106 requires that an area must be surveyed for historic properties ahead of most construction or development projects. New properties found during a survey may be eligible if they:

- Are associated with events that have significantly contributed to the broad patterns of our history; or
- Are associated with the lives of historically-significant person(s); or
- Embody distinctive characteristics of a type/period/method of construction, or represent the work of a master, or possess high artistic values; or
- Yield or be likely to yield information important in history or prehistory.

However, eligibility does not make a property untouchable. Eligible properties can be modified or even destroyed. The Section 106 process requires steps be taken to avoid damage to eligible properties or to mitigate the damage by recovering as much as possible of the unique and significant

information from the property before it is lost.

ARDOT's discovery of the Poncirus Site, and its excavation by Wood, is an example of the Section 106 process in action. ARDOT's archaeological survey within the Hot Springs bypass corridor was intended to find archaeological sites. Poncirus—identified as an eligible site—could not be avoided by the bypass construction. As an alternative, ARDOT hired Wood E&IS to perform a full site excavation to recover as much information as possible from the site.

DIGGING THE PONCIRUS SITE (3GA1102)

The official Arkansas designation for Poncirus is 3GA1102; it is the 1,102 archaeological site recorded in Garland County. However, archaeologists often name the sites they excavate. "Poncirus" is taken from a type of bitter orange, found growing at the edge of the site not long after the excavation began.

The Poncirus Site was not especially large as archaeological sites go. The area found eligible for the Register was about 3,340 square feet, less than one tenth of an acre. However,

(continued on page 22)

archaeology is a meticulous and often very slow process, and can take months to properly excavate. For a site containing many artifacts, even a small area can produce enough archaeological material to fill a dozen or more boxes. For the sake of practicality, most archaeological digs focus on a small part of a site. The targeted portion is usually the area that is believed to contain the densest concentration of artifacts and other archaeological remains.

At Poncirus, that area was about 667 square feet, or around 20 percent of the total area, broken into 62 individual archaeological excavation units, reaching varying depths of 70 to 100 centimeters excavated in those units. Including working weekends, the excavation lasted for a month.

Digging with shovels and masonry trowels, the archaeological consultants excavated 1,533 cubic feet of soil and rock, weighing a combined total of about 44 tons and sifting every ounce of that soil through wire screens. After sorting through the natural rock and gravel to collect the artifacts, Wood E&IS recovered over 15,000 Native American artifacts, mostly small chips or flakes of Arkansas "novaculite." Novaculite, also called "Arkansas stone," is exceptional for making stone tools, and has many different colors, such as black, white, red, pink, yellow, gray, etc. The material has been found across the Southeastern US, traded from person to person over long distances. The novaculite artifacts found at Poncirus show that the stone was mined nearby and brought to the site to work into tools.

In addition to novaculite flakes, Wood E&IS found more than 2,000 tools at the site, including spear points or knives, tools for woodworking, hide



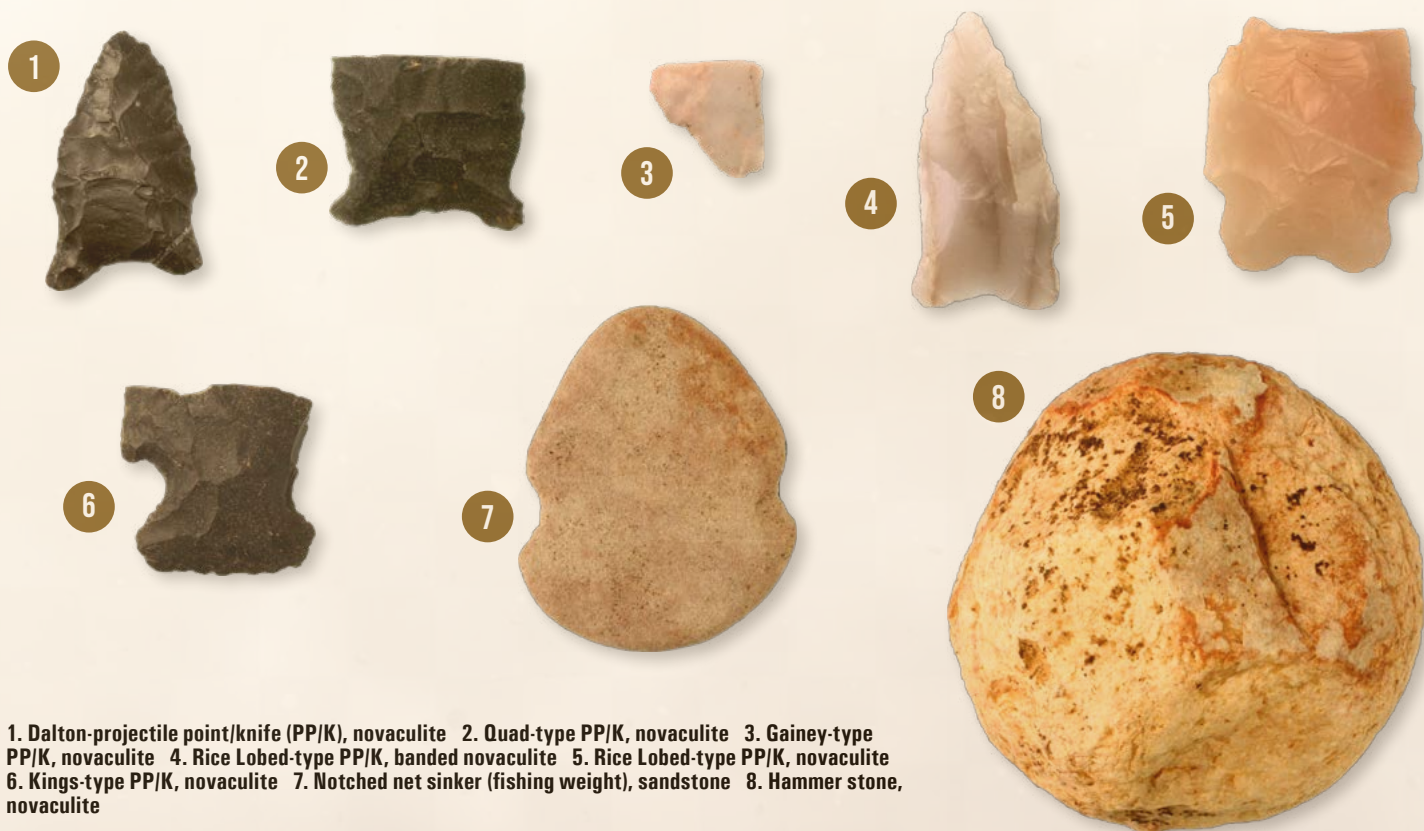
Raw novaculite block found on the surface

scraping, stone tool making, fishing, hunting and butchering animals, and in the preparation of food. The artifacts found help to provide a foundation to understanding prehistoric lifeways of thousands of years ago.

Artifacts only tell the partial story; other features can tell us more about the people who lived there beyond what artifacts are left behind. At Poncirus, Wood E&IS also uncovered the remains of seven ancient pits, including Pit 19. In ancient settlements, pits were dug for many reasons, including storing food, trash disposal, for fire pits and even as graves. At Poncirus, the pits were scattered around the site. Some were only a foot below the ground, while others—like Pit 19—were 2-to-3 feet deep. They were round or oval, 1-to 2-feet in diameter, and up to 1-foot deep. Wood E&IS dug out half the soil in each pit to expose a cross-section. In addition, Wood E&IS saved the soil for analysis, photographed and sketched the feature and recorded its precise location with the same

high-precision laser transits and GPS equipment familiar to any ARDOT surveyor.

Ancient pits are treasure troves of information. They often contain fragile organic remains like charcoal, bits of seeds or bones from the plants and animals eaten or used at a site, and broken tools. In the lab, each soil sample is placed in a large basin filled with water and stirred. Heavier things like stone and gravel sink, while lighter materials like charcoal and plant remains float to the surface. The floating material is skimmed off, dried and analyzed by specialists in ancient plant remains—paleoethnobotanists—who spend hours staring through microscopes identifying seeds, charcoal, nutshell and other materials. Their analysis tells us the kinds of plants people ate or used at the site, or the types of wood they burned in campfires. Archaeologists use the information about plants to reconstruct the diets of the people who lived at the site.



1. Dalton-projectile point/knife (PP/K), novaculite 2. Quad-type PP/K, novaculite 3. Gainey-type PP/K, novaculite 4. Rice Lobed-type PP/K, banded novaculite 5. Rice Lobed-type PP/K, novaculite 6. Kings-type PP/K, novaculite 7. Notched net sinker (fishing weight), sandstone 8. Hammer stone, novaculite

Knowing the kinds of wood burned in fires tells what kinds of trees were in the area when people were living there.

Because these materials are organic—and contain carbon—there is one other important piece of information that we can extract from this kind of analysis: when did people live at the site?

HOW OLD?

Radiocarbon dating has been around for about 70 years, and archaeologists use it whenever possible. The basic concept is simple: anything that was once alive contains a tiny bit of radioactive carbon-14. Like any radioactive element, carbon-14 decays to a stable isotope at a constant rate over time. By measuring how much carbon-14 remains in a given organic sample, and the amount of the stable isotope that replaced it, we can estimate the age of the organic sample. If the sample came from a pit

feature—as many organic samples did at Poncirus—then by extension, we can estimate the age of the pit and how long it has been since people dug and used it.

Enough organic material was recovered from four of the seven pits, including Pit 19, to radiocarbon date them. Wood E&S sent the samples to a laboratory specializing in radiocarbon dating and awaited the results. Each of the four radiocarbon-dated pits was a different age, and the ages were centuries apart in time. The oldest pit dated between 3,300 and 3,100 years ago. The next oldest was Pit 19, dug and filled in between 2,650 and 3,000 years ago. Two others were dug around 2,700 years ago and 1,900 years ago. The radiocarbon dates indicate the Poncirus site was used many times over a long period for at least 2,300 years.

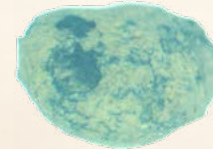
People returned to Poncirus repeatedly, indicating the site's

importance as a place to mine and process novaculite. Perhaps, it was near a travel route. Many possible explanations exist, but one thing known for certain is that sometime between 3,000 and 2,650 years ago, one of those groups of people grew and used domesticated tobacco, an imported South American plant.

WHY IS EVIDENCE OF TOBACCO AT PONCIRUS 2,650 YEARS AGO IMPORTANT?

Learning how, when and why tobacco—a plant domesticated in the mountains of South America—came to North America is important both to archaeologists and to modern Native American people. Tracing the path, and the history, of a plant central to the ceremonial practices of so many Native American cultures can help modern Native Americans connect meaningful ceremonies and practices today with those of their

(continued on page 24)



WHILE IT IS NOT UNUSUAL TO FIND *N. RUSTICA* SEEDS IN ARCHAEOLOGICAL SITES DATING AFTER ABOUT 2,000 YEARS AGO, THE SEEDS FOUND IN PIT 19 AT PONCIRUS ARE THE OLDEST EVER DISCOVERED IN ARKANSAS, AND POSSIBLY THE OLDEST SO FAR KNOWN IN NORTH AMERICA.

ancestors. Many different Native North American cultures consider tobacco sacred, and it is used in a variety of rituals and ceremonies. And although wild varieties of tobacco are native to western North America, the domesticated South American tobacco, *Nicotiana rustica*, was the dominant variety used by most Native American groups at the time of European contact, and most likely for many centuries before that.

N. rustica is unlike modern tobaccos. It contains very high concentrations of nicotine that, in high-enough doses, act as a potent and fatal poison. In non-fatal but moderately high doses, nicotine causes altered states of consciousness. Because of its potency, *N. rustica* was almost certainly not used casually or recreationally, but very deliberately and carefully as a part of religious ceremony. Tobacco

has no food value, and because *N. rustica* is not indigenous to the region (or even the continent), it must have been brought to Poncirus intentionally.

Seeds are not the only way to recognize the use of tobacco in the archaeological record. In 2018, a 3,600-year-old Native American pipe found in an Alabama site contained nicotine residue, showing that it was used to smoke tobacco. But nicotine residue does not specifically show the use of *N. rustica*. It could include North American undomesticated tobacco.

The only way to definitively show the presence of *N. rustica* is to find direct evidence of the plant: seeds or other portions of the plant. Such remains are rare because tobacco seeds are tiny, fragile, and are seldom preserved in archaeological sites. While it is not

unusual to find *N. rustica* seeds in archaeological sites dating after about 2,000 years ago, the seeds found in Pit 19 at Poncirus are the oldest ever discovered in Arkansas, and possibly the oldest so far known in North America.

ARCHAEOLOGY LINKS THE PAST AND THE PRESENT

The fact that an archaeological site in Garland County may contain the oldest direct evidence of domesticated tobacco in North America is a major finding, and it represents new and important information for archaeology and archaeologists. But for those modern Americans—and Arkansans—who count among their ancestors the people who grew and used tobacco at Poncirus—this discovery emphasizes and highlights the continuity of their sacred traditions today with those of the people living in Arkansas over 2,600 years ago. Those traditions live, alive and vibrant, more than two and a half millennia later. ■



A CUT ABOVE

The Knives of Jim Bob Lamb

BY DAVID NILLES



THERE IS A PLACE JUST NORTH OF HOPE, ARKANSAS, WHERE VISITORS CAN STEP BACK IN TIME TO THE 1800S. It is Historic Washington State Park. The park features the largest collection of 19th-century buildings in the state. An important stop on the Southwest Trail, James Bowie, Sam Houston and Davy Crockett traveled through the area. It is here in Washington where James Black, a local blacksmith, forged the legendary Bowie knife.

Over 150 years later, the site still boasts some of the best bladesmiths to be found. That may be because Washington is home to the James Black School of Bladesmithing and Historic Trades.

Among the knife makers that have passed through its doors is ARDOT's own Jim Bob Lamb. Lamb is the Area

Maintenance Supervisor for Howard County and has been with the Department for 28 years.

LEARNING FROM ONE OF THE BEST

Lamb became interested in knife making at an early age.

"My mentor, James Cook, lived three houses down the road from me on Highway 26 here in Howard County," Lamb shared. "I was about 12 years old. Mr. Cook was well into learning the trade and was becoming a Journeyman. I asked him if he would teach me to make knives. He said 'sure, come on!' I went down there and he showed me how to light a coal forge and started teaching me how to hammer out a blade. We then discussed making a handle for it. I still have that knife today."

(continued on page 26)



Unbeknownst to him, Lamb was learning from one of the best. Today, Cook has been recognized as an *Arkansas Living Treasure*. The Arkansas Living Treasure program, presented by the Arkansas Arts Council, annually recognizes an Arkansas artist who excels in the creation of a traditional craft and who actively preserves and advances his or her craft through community outreach and educating others.

COMING BACK STRONG

Lamb got away from the craft for many years but today, some 35 years later, he has come back in a big way.

"I got to watching the television show *'Forged in Fire'* and it rekindled me," Lamb explained. "I had some spare time on my hands during the Covid stage. I did a little YouTubeing and got back into it."

All these years later, Lamb is still enjoying guidance from Cook.

"I went to him and he guided me," Lamb shared. "After I made my first

one, I messed it up a little. Mr. Cook told me to chalk it up because it was no good. It broke my heart but I moved on to the next one."

For his next knife, Lamb enjoyed guidance from Jerry Fisk. Like Cook, Fisk teaches at the James Black School and has been recognized as the first bladesmith to be named a *National Living Treasure*.

CRAFTING A COLLECTION

Today, Lamb has completed over a dozen knives. A few are from kits, but the majority he has crafted from scratch. He also makes the sheathes that house his knives.

One knife he keeps for his own daily use. Others have been made for people who have taken notice of Lamb's special talent.

"I made one for fellow ARDOT employee Scott Clark who used to work here in District 3. He admired one I made and asked that I make him a similar one. It features a bull cutter design. He specifically asked that the handle be blue.

"I also made one for my stepmother. It was the first one I made and the first one is always close to your heart. She pried it out of me. Dad told me yesterday he does not have a clue where it is, 'she won't let me touch it.' That tickled me."

Lamb always tries to personalize the knives he makes for others.

"I like to take the handles and try to personalize everything if I know who it is going to," Lamb explained. "For example, for a retired state trooper I featured a blue handle. He is an American so red, white and blue colors are seen. That is also our ARDOT colors. There is a black and blue band that is a 'Back the Blue' band. He is a horseman and so I featured a horse rasp. On the sheath, I featured a star to represent the Arkansas State Troopers."

THE CHALLENGES OF KNIFE MAKING

For Lamb, it can take anywhere from 10 to 40 hours to make one knife.

"The kits are the easiest ones," he



James Cook joins Lamb in the James Black School of Bladesmithing.



stated. "The blades are already made. Just follow the directions and you can come out with a knife in a couple of hours."

To craft one on your own takes a great deal more time and talent.

"You hammer out the blade that you have designed, then grind it down and put it in the fire for several processes, and then put your edge on it and sharpen it.

JAMES BLACK SCHOOL OF BLADESMITHING & HISTORIC TRADES

There is no finer place to learn the art of bladesmithing than the James Black School in Washington.

Act 818 of 2019 designated Washington, Arkansas, as the "Birthplace of the Bowie Knife, Arkansas Heritage Site" and designated the University of Arkansas Hope-Texarkana (UAHT) to develop and operate a school of bladesmithing located in Washington. The purpose is to promote and protect the art of bladesmithing and the Bowie Knife

crafted in Historic Washington. UAHT works collaboratively with Historic Washington State Park and the Arkansas Department of Heritage to teach and celebrate Arkansas' history, bladesmithing and other heritage trades.

Lamb recently completed the program offered at the school.

"I highly recommend the school to everybody interested in the craft whether they are starting or have been at it for years."

Jennifer Teresa is the school's Dean of Business, Trade and Industry.

"We offer a Certificate of Proficiency in Bladesmithing," she shared. "There are five required classes with each class running a semester long. We can take up to eight students per semester."

A summer semester offers a different set of classes including one in axe making.

Students at the school are, without a doubt, learning from the best.

"Knife making never ends as far as

the learning," Cook explains. "There is always a new opportunity to add to what you are already doing. You never stop."

Having graduated from the school, Lamb enthusiastically explained his final exam.

"Once completed, your blade must be sharp enough that it will cut through a one-inch, free-hanging sisal rope. Then you must cut a 2" x 4" all the way through. Your edge must not chip or roll. Then if you can shave the hair off your arm, you've made a good blade. The final test comes as you put it in a vice and pull the blade back towards you to 90 degrees. If the blade breaks, you do not pass. You must start all over. If you successfully pull it all the way back, you then lighten up and allow it to return to a vertical position. The test indicates you followed the instructions of proper heat-treating, tempering and thermal cycling. Let it be mentioned, Lamb's blade passed this test for a third time while our magazine crew was there!

There are more knives in Lamb's future.

"The more knives I make, the more that will come, just like driving a car."

Just by looking at his collection, it is evident that Lamb has learned from the best. ■



Arkansas' Great River Road RECEIVES ALL-AMERICAN DESIGNATION

BY DAVID NILLES

THE ARKANSAS SECTION OF THE GREAT RIVER ROAD, WHICH IS PART OF A NATIONAL SCENIC BYWAY THAT RUNS 3,000 MILES FROM MINNESOTA DOWN TO LOUISIANA, HAS BEEN DESIGNATED AN "ALL-AMERICAN ROAD" BY THE FEDERAL HIGHWAY ADMINISTRATION.

Arkansas' section of the Great River Road runs through 10 counties located in the eastern Arkansas Delta: Mississippi, Crittenden, St. Francis, Lee, Monroe, Phillips, Arkansas, Desha, Drew and Chicot.

To receive an All-American Road designation, a road must possess multiple intrinsic qualities that are nationally significant and have one-of-a-kind features that do not exist elsewhere. The road or highway must also be considered a "destination unto itself." That is, the road must provide an exceptional traveling experience so recognized by travelers that they would make a drive along the highway a primary reason for their trip. These roads are considered the very best of America's National Scenic Byways.

In 2020, 63 nomination applications were submitted

for consideration. Forty-nine byways in 28 states were designated, including 34 National Scenic Byways and 15 All-American Roads.

"We are honored that Arkansas' section of the Great River Road National Scenic Byway has been named an All-American Road by the Federal Highway Administration," said Arkansas Department of Transportation Director Lorie Tudor. "There are so many things to see and experience along the river road in Arkansas. The Mississippi River has shaped life as we know it along our eastern border."

"The Great River Road tells the story of America's history," said Kim Williams, director of Arkansas' Great River Road. "From large cities to small river towns, through historical sites and interpretive centers, the Great River Road lays out the history of our native people and immigrant communities, the river industry and transportation, agriculture and so much more. This designation is a wonderful testament to the importance and historical significance of Arkansas' Delta region."

The Mississippi River Parkway Commission (MRPC),



a non-profit organization founded to preserve and improve the resources, viability and amenities of the Mississippi River Valley, hopes the All-American status will bring new attention to the Great River Road.

Created in 1938 and stretching for 3,000 miles through and beside 10 states, the Great River Road National Scenic Byway is the longest such designated roadway and one of the oldest.

Travelers planning a journey along the road can order a free 10-state Great River Road map, which shows the Great River Road's route through all 10 states and highlights the interpretive centers along the way. Travelers can plot their route along the Great River Road and find scenic overlooks, agri-tourism attractions, interpretive centers and more. ■

For more information, visit experiencemississippiriver.com
The Great River Road can also be found on Facebook,
Instagram and Pinterest.

**Information for this article was provided by The Daily Record.*

ARDOT RECEIVES FUNDS FROM FEDERAL RELIEF PACKAGE

BY DAVID NILLES

LATE IN 2020, CONGRESS PASSED A \$900 BILLION CORONAVIRUS RELIEF BILL. The Arkansas Department of Transportation and three urban transportation areas in the state are receiving \$128.4 million in funds from that bill.

Nationally, a total of \$10 billion was made available for state transportation agencies marking the first time they were included in a federal pandemic relief package. Passed at the same time was a full year of federal transportation funding.

"We are pleased that Congress has seen fit to provide not only a full year's federal funding but also Covid relief funding that acknowledges the impacts to our transportation funding and to the economy of our state,"

“

...DOTs rely on taxes from motor fuels to help pay for road and bridge construction as well as the maintenance on the country's highway system.

”

stated ARDOT Assistant Chief of Administration Kevin Thornton.

Of the \$128.4 million awarded to Arkansas, ARDOT is receiving \$120 million. The remaining balance of the Arkansas package is being apportioned under federal distribution formulas to metropolitan planning agencies in central Arkansas, northwest Arkansas and West Memphis. Metroplan, which includes central Arkansas, received \$4.7 million, the Northwest Arkansas Regional Planning Commission received \$3.2 million and the West Memphis Metropolitan Planning Organization received \$440,000.

Departments of Transportation (DOTs) saw travel volumes drop dramatically during the pandemic as motorists across the country sheltered at home. This affected the bottom line for those agencies because DOTs rely on taxes from motor fuels to help pay for road and bridge construction as well as the maintenance on the country's highway system.

ARDOT Director Lorie Tudor stated that Department revenue was off \$10.4 million since the pandemic began but has since returned to normal.

The Highway Commission is now tasked with deciding how to best utilize the federal funding. Unlike other federal funding, this package does not require the state to match the amount with a percentage of its own budget.

"We are in the process of developing some recommendations for the use of this funding and those will be presented to the Highway Commission later this year," Thornton added. ■

*Some information for this article was provided by Noel Oman of the Arkansas Democrat Gazette



Anchors Away

BY BRITNI PADILLA-DUMAS

SPENDING SUNRISE TO SUNSET REPEATEDLY TRAVELING ONE MILE MAY NOT SOUND LIKE A GOOD TIME TO MOST PEOPLE, BUT SCOTT BURLESON SAYS OTHERWISE. Burleson is the newest Supervisor of the Peel Ferry, Arkansas' last operating ferry.

(continued on page 32)



Scott Burleson,
Peel Ferry Supervisor



A FERRY BOAT IN ARKANSAS?

Indeed! The Peel Ferry began operations in 1968, running vehicles and passengers across Bull Shoals Lake in the far reaches of north Arkansas. The lake sprawls across 94,000 acres of water with more than 1,050 miles of shoreline; it even crosses the Missouri border several times.

There were actually 17 active Arkansas ferries in 1968, but the number slowly dwindled; by the mid-80s, only four remained. Today, the Peel Ferry is the only state-owned ferry that is still in operation.

BACK TO YOU, SCOTT

Scott Burleson began his ARDOT journey nearly 15 years ago as a Peel Ferry Deck Hand. After earning enough hours on deck, Burleson tested for and received his pilot's license. He spent most of his career as

a Pilot – Deck Hand, until recently.

"I became a full-time pilot a year and a half ago, and when the supervisor position advertised, I applied," Burleson said. "I've been in this position since March. This is the first time in 15 years that I've not worked holidays or weekends."

Peel Ferry crews work 14.5-hour shifts, every other day, seven days a week.

"It takes a special person to work this," Burleson shared. "We've ridden out tornadoes, hail storms, high winds, fog; every bad storm that hits this area follows that ridgeline," he said as he pointed to the trees that separate Arkansas from Missouri. "We don't ever cross into Missouri, but we're close enough that we can throw a rock."

One of Burleson's supervisory tasks is to maintain ARDOT's partnership

with the U.S. Coast Guard. Since the ferry carries passengers across a waterway, it falls under the jurisdiction of the Western Rivers Division of the Eighth U.S. Coast Guard District. The ferry's route remains on the Arkansas side of the invisible state line that cuts through the lake. If the weather behaves, a one-way trip across the water takes about 20 minutes.

WHY, THOUGH?

Highway 125 stretches from Yellville, AR, to Fair Grove, MO, but Bull Shoals Lake interrupts the roadway.

"Other than using the ferry, the only other way to get from this side of the shore to the other side is to drive 100 miles in either direction. The distance across the water is 1.1 miles," Burleson explained. "Using the ferry saves more than an hour of driving time."

The Peel crew sees daily ferry users



Motorcyclists are the most frequent passengers aboard the Peel Ferry.

that may live in Arkansas but work in Missouri, or vice versa. However, Burleson confirmed that motorcyclists are their most frequent passengers.

"The Peel Ferry is actually listed as a destination on Arkansas motorcycle tours," Burleson shared. "During riding season, we can fit up to 80 bikes on the barge, and we've done it."

A tugboat steers the 100-ton barge from one shore to another. The weight limit on the barge is 44,000 pounds—an empty 18-wheeler can make the trip!

"There are only six people in the state that are licensed to pilot the ferry," Burleson said. "I make sure my crew has everything they need to be successful. They're here every day, rain or shine, getting people where they need to go. I couldn't imagine doing anything else." ■



David King pilots the ferry across Bull Shoals Lake

Drive Safe Work Safe SAVE LIVES

BY DAVID NILLES



JEREMY STOKES
Construction Inspector
District 6 – R.E. 65, Pulaski County

NATIONAL WORK ZONE AWARENESS WEEK WAS HELD ACROSS THE NATION APRIL 26-30. Now in its 21st year, the annual awareness campaign spreads the message that we are all responsible for driving safely and cautiously through work zones.

With a theme of “Drive Safe, Work Safe, Save Lives,” this year’s National Kickoff Event was hosted by the Michigan Department of Transportation on April 27 and was livestreamed.

Throughout the week, ARDOT aired videos on its Twitter account, @myardot, from various construction sites around the state urging motorists to slow down and be safe.

As part of the campaign in Little Rock, some bridges and buildings were illuminated in orange lights. Among them were the Junction Bridge Pedestrian Walkway, Main Street Bridge, Clinton Presidential Park Bridge, Big Dam Bridge, Two Rivers Park Bridge, Union Plaza Building and Simmons Bank Building in Little Rock’s River Market District. The Arkansas Heart Hospital in Saline County also joined in lighting their building in orange.

Statistics from the National Work Zone Safety Information

Clearinghouse show there were 762 fatal crashes in work zones resulting in 842 deaths in 2019. The majority of those crashes were rear end accidents. In addition, 135 roadway workers were killed in work zones in 2019.

“ARDOT asks everyone to remember that construction zones can be dangerous places not only for those in vehicles but also for construction workers on the job in those zones,” ARDOT Director Lorie Tudor stated. “It is important for motorists to observe work zone speed limits and eliminate distractions when approaching and driving through work zones. Let’s hope 2021 can be a year where we see fewer crashes in work zones than we did the year before.”

Arkansas’ 2021 Work Zone Awareness Week partners included the Little Rock Convention and Visitors Bureau, Pulaski County Road and Bridge, the Union Plaza Building, Simmons Bank and Arkansas Heart Hospital-Saline County.

National Work Zone Awareness Week was formed by the American Traffic Safety Services Association (ATSSA), the American Association of State Highway and Transportation Officials (AASHTO) and the Federal Highway Administration (FHWA). ■

DISTRICT 3

CONSTRUCTION

CORNER

WORK BEGAN IN OCTOBER OF 2020 ON REPLACEMENT OF THE HIGHWAY 19 BRIDGE OVER THE LITTLE MISSOURI RIVER IN NEVADA AND PIKE COUNTIES.

It is part of a larger project to mill, inlay and overlay approximately one mile of Highway 19 in the area. The work was awarded to Manhattan Road & Bridge Company for \$13.3 million. Crews are constructing the new 502-foot bridge to the east of the existing bridge. They have recently been working on the drilled shafts for the new bridge. Crews have also performed the undercut, placement of dumped riprap, stone backfill and aggregate base course for the notch and widening portion and new location of roadway. Work on the compacted embankment has also been underway. The old bridge will be removed after the new bridge is opened to traffic.

Also included in this project are repairs to the Little Missouri Relief Bridge approximately one mile to the south that sustained damage from a fire in 2016. The fire beneath the bridge caused extensive damage to the columns, caps and bridge deck. The repair work is being performed by pre-casting concrete caps and bridge deck units at the storage yard. The damaged portions of the bridge will be removed and replaced with the new precast units using stage construction and one-way traffic across the bridge. The precast units are being tied together with closure pours. After all damaged units are replaced the 425-foot bridge will receive a polymer bridge deck overlay.

Completion of the entire project is expected in the spring of 2022. ■



Crews at work on the Highway 19 Bridge over the Little Missouri River



Arkansas Department of Transportation
P.O. Box 2261
Little Rock, AR 72203-2261

PRSRT STD
U.S. POSTAGE

PAID

Little Rock, AR 72203
Permit No. 2556

FORWARDING SERVICE REQUESTED