

Arkansas HIGHWAYS

SPRING 2021

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Interstate 430 Closure A Construction First for ARDOT



WINTER STORMS
No Match for
ARDOT Crews

A LOOK AT HOW
Hazardous Materials
Impact Transportation

BROADWAY BRIDGE
Receives National
Recognition

DIRECTOR'S MESSAGE

Dear ARDOT Family,

A LOT HAS HAPPENED SINCE THE WINTER 2021 ISSUE. If you will remember, I ended my message with "We are going to knock it out of the park this year." And, you all certainly did just that!

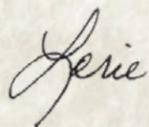
In February, Arkansas experienced a historic snow and ice event that lasted almost two weeks with a total of 20 inches of snow and bitter cold temperatures. All of those involved in clearing the roads to make them safe for the road users did a phenomenal job. I am so proud of ARDOT employees rising to the challenge and showing the State what you are capable of doing. ARDOT's employees are truly the backbone of our success. If you haven't done so, check out this video that our Public Information staff put together: vimeo.com/522929593. It is inspirational!

In March, the COVID vaccine became available and, as of April 26, everyone has returned to work on site. During the last year, you all have done such a great job keeping everything going in spite of the challenges we faced with COVID. Again, I am so proud of you all. The administration is working hard to put together the first phase of a remote work policy based on the lessons learned during the COVID pandemic. More to come on that soon.

In June, we are now facing a new challenge. The Interstate 40 Mississippi River Bridge between West Memphis and Memphis was closed due to a fracture in a critical beam that went undetected during the last several inspection cycles. The challenge is to figure out where the inspection process fell short, correct it and win back the public's confidence. This situation emphasizes how important each employee is to ARDOT and how important our work is to the public. We all have a high calling as public servants with the responsibility of making our roads as safe as possible. I am so thankful and proud of your hard work to meet that responsibility. We will stand together united to address this newest challenge, learn from it and become better because of it.

I hope you and your families have a great summer with plenty of sunshine and fun.

All my best,



Lorie H. Tudor, P.E., Director



FRONT COVER:
Interstate 430 Construction
Pulaski County

BACK COVER:
Sylamore Scenic Byway
Stone County

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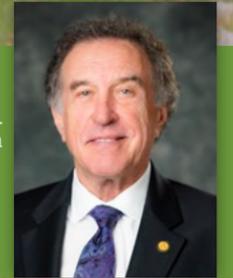
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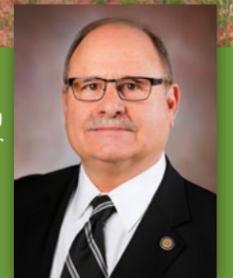
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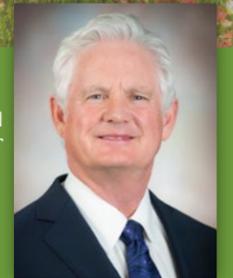
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ACCOLADES FOR ARDOT ROAD CREWS

BY DAVID NILLES

IT IS NOT THAT OFTEN WE HAVE SNOW OR ICE EVENTS IN ARKANSAS. WHEN IT DOES GET ICY, IT IS OFTEN CONFINED TO NORTHWEST ARKANSAS.

Such was not the case the week of February 14 as the entire state was blanketed by snow, not once, but twice! To make matters worse, the two back-to-back storm systems that swept across the country brought Arkansas and other states sub-freezing, single-digit temperatures.

According to the Weather Channel, snow covered the ground in 73.2 percent of the lower 48 states by February 16. Over 20 inches of snow blanketed Arkansas in that one-week period making February one of the snowiest months on record.

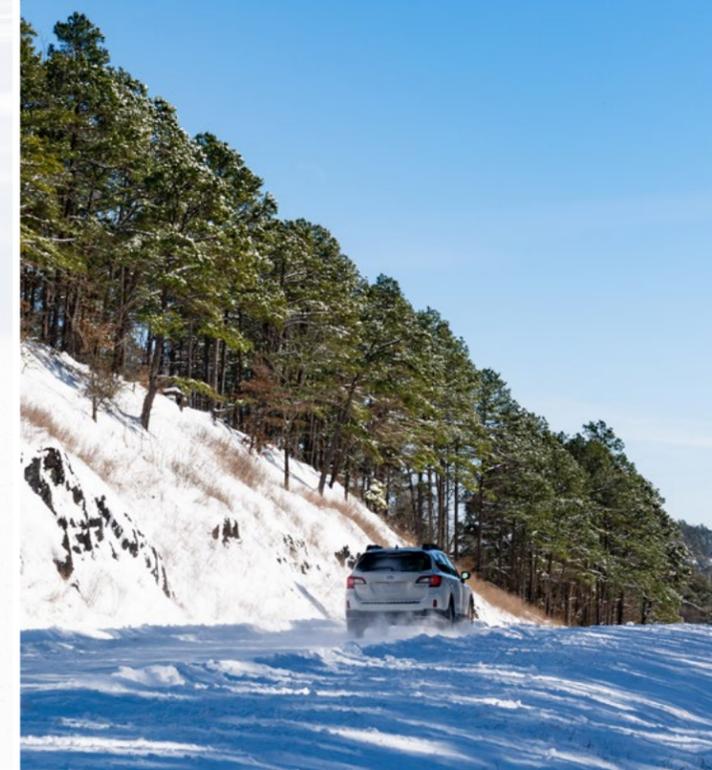
HITTING THE HIGHWAYS

Winter storms such as this are what you might call "Super Bowl" days for ARDOT and its District road crews. It is a time to suit up in warm clothes, load up the equipment and hit the front lines on Arkansas' 16,418-mile highway system. The ultimate goal is to clear the highways of snow and ice and make them safe for motorists.

District One Engineer Cannon Callicott described what crews

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Two snow storms in one week left more than 20 inches on Arkansas highways.



faced during that week.

“The past ten days have had just about every combination of winter weather condition you could imagine all rolled together – freezing rain, sleet, dry snow, wet snow, exceptionally low temperatures, high winds, continuous operations – on top of an on-going pandemic. There is no way to adequately describe the incredible work done by our employees to beat back wave after wave thrown at them by these storms.”

YEARS OF BETTER PREPARATION

ARDOT has made an effort over the past several years to up its game when it comes to battling icy roadways.

“We have more equipment, better equipment and good reserves of salt

and materials,” ARDOT Director Lorie Tudor shared.

A more efficient way of tracking snowplows by using computers is also being utilized.

District 9 Engineer Steve Lawrence reflected on ARDOT’s improved road clearing results.

“These improvements came as a result of a lot of work that has been done in the past six to eight years by current employees and a lot of people that have since retired, for whom I know it was very pleasing to see that work pay off. Snow and ice storms are brutal on people and equipment, but I am very confident that we completed this event in a much shorter time than it would have taken in years past. This benefits the Department, our employees and the people of

Arkansas.”

ON THE FRONT LINES

“In District 2, this winter weather event started with the tragic loss of one of our beloved ARDOT family members (Turner Roark),” District Engineer Deric Wyatt shared.

“We were able to regroup and face this challenge head-on. All of the crews went above and beyond during this historic winter weather event. From pretreating ahead of the storms, mixing and loading materials, clearing the highways, keeping our equipment running, seven straight days of 24 hours shifts, blizzard like conditions, zero degree temperatures and more than 22 inches of snow in some areas, they responded to every challenge we faced. I couldn’t be more proud to be a part of this amazing ARDOT family!”

“Our crews did a fantastic job,”



ARDOT crews worked around the clock for seven straight days.



A cleared Interstate 40 makes travel safer for motorists braving the elements.

District Engineer Chad Adams stated. “The overall effort and results in District Four were superb. I saw great teamwork, coordination and execution of the plan. I thank everyone for their professionalism and dedication to getting the work done.”

District 3 Engineer Will Cheatham also commented on the great teamwork.

“Our crews statewide demonstrated the greatest examples of teamwork and flexibility. They made adjustments when and where necessary. When the brunt of the snowfall hit us Wednesday and we started losing ground, they pulled through it together, stayed focused and kept working our plan. It was a unified effort statewide to maintain the safety

of our public transportation system!” STATE AND NATIONAL RECOGNITION

The good job clearing the roadways done by ARDOT’s crews was noticed by those outside of the Department as well.

In an interview on CNN, a reporter shared with Governor Asa Hutchinson how well Arkansas had handled the ice and snow on the roads.

KATV meteorologist Todd Yakoubian tweeted “I’m completely serious; ARDOT and the City of Little Rock have done a remarkable job on the roads. Great job!”

Referring to a photo of the Arkansas-Texas border during the snowfall, the Weather Channel’s Mike Seidel tweeted, “Can you guess what state has snow plows? It is the Arkansas side

of State Line Avenue that is clear. The Texas side is snow covered.”

Seidel also tweeted a photo of Interstate 49 near Mira, Louisiana, saying, “One lane at 30-35 miles per hour. Look at the road in Arkansas, basically no issues! Plows, salt and ARDOT made a big difference.”

And from Senator Jim Hendren, “Nice work ARDOT, I’ve gotten a similar report about the Arkansas-Missouri border.”

“The City of Caddo Valley in Clark County called me overflowing with gratitude and appreciation wanting to know who was responsible for this phenomenal effort,” shared District 7 Engineer David Archer. “They wanted to bake cookies for them. I told them it certainly was not me, but every member of our team had contributed

(continued on page 9)

Road crews cleared Interstates and rural two-lane highways across the state.



heroically and I agreed their performance was outstanding. The multitude of stories from outside the Department and employees bragging on one another make this a performance for the ARDOT history books. Light shines brightest in the darkness. There were some very bright lights shining on the District 7 team this past week. I could not be more proud of our team.”

“Crews exceeded everything I could have ever dreamed of as far as response and what they did to make the roads passable and safe for our motorists,” Director Tudor added.

AID TO ARKANSAS CITY

Not only did crews battle the weather, District 2 crews also assisted in delivering water to the town of Arkansas City after the city water system failed.

“Aiding Arkansas City was another shining example of the goodness and dedication, above and beyond job descriptions, of the men and women of ARDOT,” Commission Chairman Robert Moore, Jr. stated. “I am deeply appreciative and honored to be associated, as a Commissioner, with this exceptionally fine department of state government.”

AS THE SNOW MELTED AWAY

Brad Smithee, District 10 Engineer, took a moment to reflect on the recent storms, “I have shared with many that I personally will let motorists, citizens and whomever wishes to do so grade our performance from their own point of view. Some saw great success, some may disagree. However, what we saw in great personal attitudes and the intensive effort put forth could not be disputed by anyone! It was an amazing team effort in doing our very best. Many thanks to all!”

In summing up the tremendous work road crews did, Tudor stated, “I couldn’t be more proud or more thankful. I support our crews 100% and I am their biggest fan.” ▣

Motorists successfully travel Interstate 530 in Little Rock.





INTERSTATE 430 CLOSURE A CONSTRUCTION FIRST FOR ARDOT

BY DAVID NILLES

WHEN A CONSTRUCTION PROJECT REQUIRES CLOSING TRAVEL LANES, THE OPTIMUM GOAL IS TO GET THE WORK DONE AS QUICKLY AS POSSIBLE.

That was the challenge ARDOT faced earlier this year while working on the widening of Highway 10 west of Pleasant Valley Drive in Little Rock. What would be the quickest way to get a portion of the work completed while minimizing traffic interruption?

CREATING A GAME PLAN

"The purpose of this road closure was to allow the structural steel erection for the new ramp overpass crossing Interstate 430," ARDOT Staff Engineer Kevin White shared.

The work included erection of structural steel spans and diaphragms, installation of safety platforms and safety cable, and installation of overhang forming system. Ultimately, the decision was made to do the work on a weekend. The closure marked the first time in ARDOT's history that Interstate travel lanes have been completely shut down for this length of time for construction.

"We were not necessarily taking advantage of lower traffic volumes as there is still a tremendous amount of traffic using Interstate 430 on weekends," White added. "Instead the Department was permitting the contractor to close the Interstate for a weekend to maximize the amount of work that could be done. It could be accomplished much more efficiently by not having to install and take down the traffic control each work period. Normally, this type of work

would be done over several nightly lane closures with intermittent total road closures while lifting structural steel girders into place. It usually takes approximately an hour to set up and then another hour to take down the lane closure each work period. By allowing a total road closure over a single weekend, the work was accomplished at one time more efficiently and much safer."

Originally, the closure was scheduled for February 14 and 15, a Sunday and the following Monday holiday, President's Day. Due to inclement weather, the closure was rescheduled twice and took place March 5-7. During this time, motorists were faced with finding an alternate route for crossing the Arkansas River.

The scheduled closings included all of the southbound Interstate 430 lanes from Interstate 40 to Cantrell Road and all northbound lanes from Rodney Parham Road to Cantrell Road. One northbound lane over the bridge remained open over the weekend.

The project for widening Highway 10 was the first Construction Manager/General Contractor (CM/GC) project that the Department has undertaken. Kiewit Infrastructure South Company was selected as the CM/GC in early 2018 and began working with the Department during the design phase.

The main advantages of the CM/GC contract delivery method is early contractor involvement during the design phase by providing constructability reviews, innovative

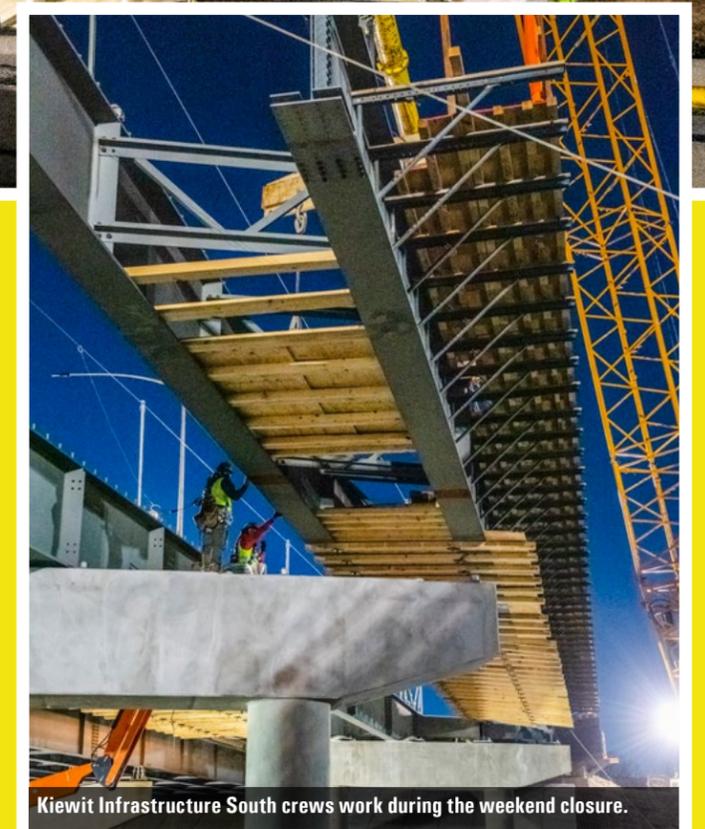


ideas to incorporate into the design, and schedule optimization in order to deliver complicated projects on time and within budget.

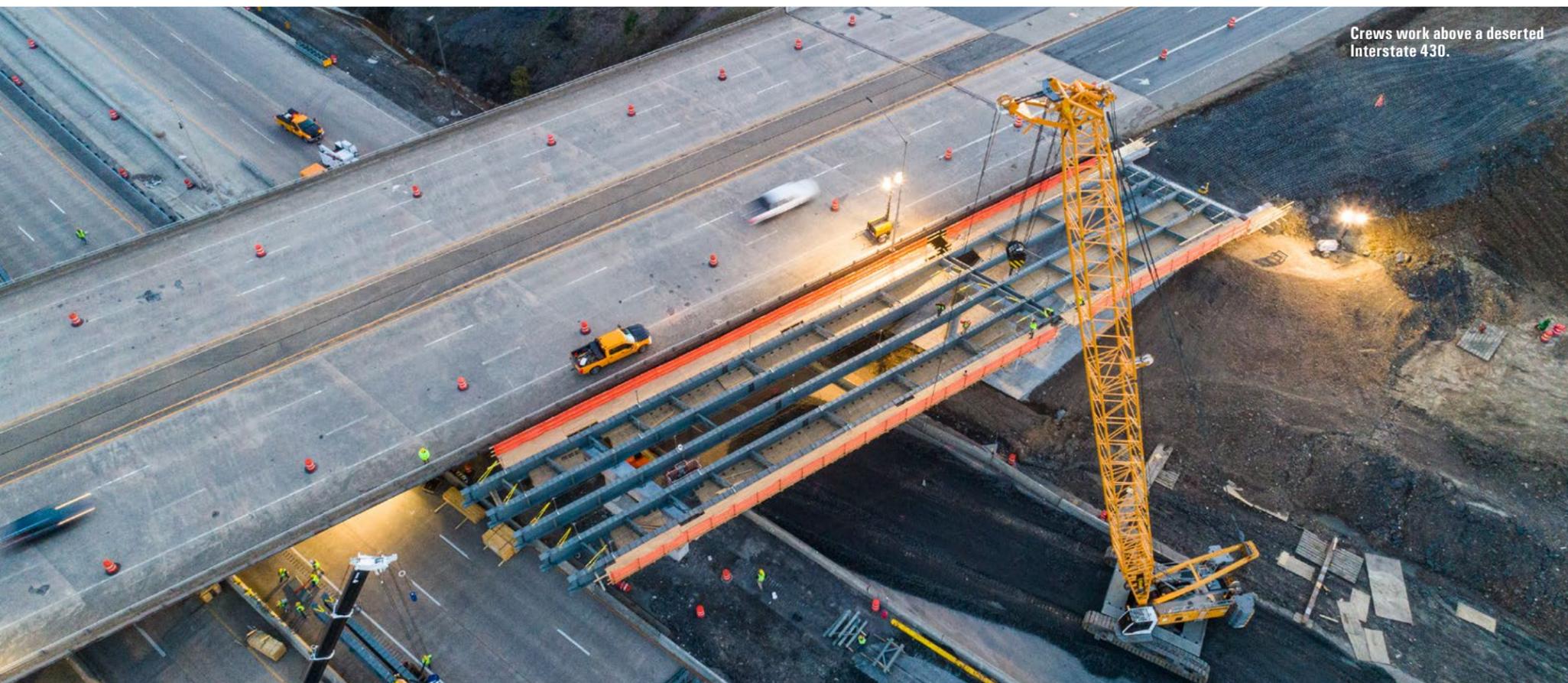
"One of the concepts Kiewit requested to incorporate was the erection of the structural steel for the overpass crossing Interstate 430 to be installed in one weekend with total road closure to maximize efficiency and safety for the traveling public and the contractor," White shared.

"Instead of several nightly lane closures to install the structural steel spans, safety platforms, safety cables, overhang forming et cetera, the work was accomplished over two full days and nights with only one traffic control installation. This is not a new concept nationally, but it is a new concept for the Department. We have never done this and it was a big, but successful, undertaking for us."

(continued on page 12)



Kiewit Infrastructure South crews work during the weekend closure.



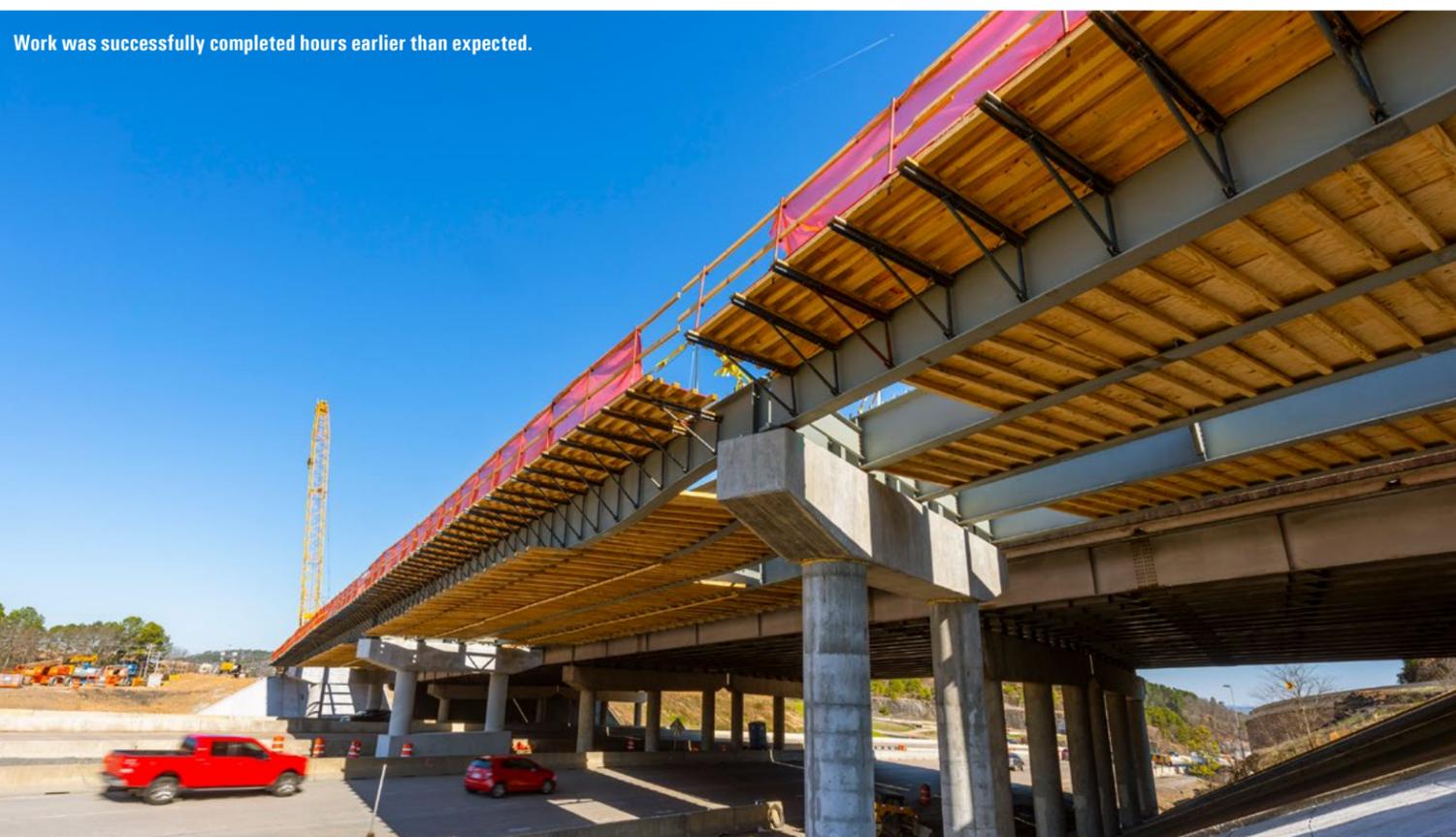
Crews work above a deserted Interstate 430.

A TEAM EFFORT

The closure involved the contractor, the Department inspection staff, Arkansas Highway Police (AHP), local police departments and coordination with emergency responders that work the area. A lane dedicated for emergency responders to use at all times during the closure was included in the plan.

"The AHP was very helpful in our planning efforts for this closure. Public Information Officer Dave Parker did a great job in getting the word out to the media," White shared.

Considering that Interstate 430 carries 84,000 vehicles through the construction area each day, preparations to close the Interstate at the Cantrell interchange began weeks prior to the closure. Motorists were advised on February 6 to begin



Work was successfully completed hours earlier than expected.

preparing early for traffic delays, detours through residential areas and alternate routes to cross the river.

"We advised motorists that there would be backups," Dave Parker stated. "We encouraged motorists to stay away from the area and find alternative routes. We know the closure was an inconvenience but it allowed the required work to be completed more quickly."

Neighborhood associations in the areas affected by the detours utilized emails and social media to inform residents about the alternate routes.

Detour routes were set up on city streets near the construction area including residential streets and roads with retail stores. No truck traffic was allowed to use the detours. That traffic was re-directed to Interstates 30 and 440.

ASSESSING OPERATIONS AFTERWARDS

After the work was completed, White reflected on how operations went.

"The full road closure of Interstate 430 was very successful. The CM/GC contractor worked very safely, efficiently and quickly completing the work they had planned in approximately 45 hours. The contractor (Kiewit) estimated it would have taken 12 nightly lane closures to get this work finished if not for the weekend full road closure. The northbound I-430 lanes were opened to traffic late on Saturday night and the southbound lanes were opened up around 4:30 p.m. on Sunday afternoon, about 12 hours earlier than planned.

"Accomplishing this work took a total team effort. The planning for this weekend closure began early during the design phase. Kiewit proposed this plan to the Department and

Director Tudor had the courage to allow us to try something that we had never done before in Arkansas."

FULL SCOPE OF THE PROJECT

The purpose of the entire project is to widen 1.3 miles of Highway 10, from Pleasant Valley Drive westward to Pleasant Ridge Road. Kiewit Infrastructure South Company was awarded the \$81 million project in February of 2020. The stretch of Highway 10, which crosses over Interstate 430, carries approximately 57,000 vehicles daily.

"Construction on the project is progressing well," White commented. "Work began in June 2020. Currently, the work that is ongoing or has been completed includes retaining walls along the north and south sides of Highway 10 and bridge construction on two of the four bridges to be constructed. The relocated River Mountain Road and the new connection of Rodney Parham Road to Southridge Drive are nearing completion as well.

"Utility adjustment work is ongoing, but progressing well. Utility coordination was extremely important to the success of the project. James Ward and Barry Cruz with our Utility Section did a great job working with Kiewit on early coordination with all the utility companies that have facilities along Highway 10. Instead of moving all utilities prior to construction beginning, the project schedule was built so that utility adjustment work would happen concurrently with the construction of the project. This concept allowed the project to begin much sooner than it would have otherwise."

The project is estimated to be completed in the summer of 2023. ■

TENDING OUR HIGHWAYS

BENEFITS OF SELECTIVE TREE CLEARING



BY DAVID NILLES

ONE OF THE JOYS OF TRAVELING THE OPEN ROAD IS THE SCENERY ALONG THE WAY. WHETHER IT IS WIDE-OPEN SPACES OR WOODED AREAS, OBSERVING THE WORLD PASSING BY OUTSIDE THE WINDOW IS ENJOYABLE.

The Arkansas Department of Transportation puts a great deal of effort into maintaining the view out of our car windows. There is mowing to be done, brush needing clearing, plantings for the ARDOT Wildflower Program and occasional tree clearing.

Chances are you have seen a roadside area where trees and vegetation have been trimmed back or perhaps removed all together. Contractors performed this type of work this past fall along Interstate 30 in Nevada and Clark counties as well as on Highway 67 north of Jacksonville.

ARDOT receives more inquiries about tree clearing than any other type of roadside care. Though sometimes not popular with motorists, there are safety and environmental reasons to keep the trees trimmed.

Over the past 50 years or so, trees outside of the mowed areas have grown to a substantial size. These trees have a negative impact as they grow closer to the roadway due to their roots migrating under the roadway subgrade.

"Tree limbs overhanging the Interstate may look nice overhead but they are terrible for roadway structure and stability down below," former

District 3 Engineer Steve Frisbee shared.

"On Interstate 30, tree roots were growing under the pavement subgrade contributing to major cracking along Interstate shoulders. This resulted in water infiltration and deterioration of the roadway. It is similar to how trees growing too close to a house will cause foundation problems. Clearing the area of large trees protects the roadway structure from this damage guaranteeing stability and smoothness of our Interstates for years to come."

Tree clearing provides other safety benefits as well, such as:

- a wider clear zone for vehicles that lose control and depart the roadway;
- a reduced chance of trees falling across the roadway;
- improved clearing of snow or ice from the pavement after weather events.

There are also environmental benefits. The cleared areas provide more sunlight for roadside wildflower habitats that enhance beauty and benefit pollinators. The extra sunlight promotes faster growth.

"The wildflower areas are pretty to look at and are important because they help combat declining honey bee and butterfly populations," Frisbee added.

Frisbee added that there are also mowing issues to be considered.

"Over the years, trees had grown up next to and, in many cases, into the standard 30-foot mow zone the Department likes to maintain."

Though selective tree clearing may initially jolt the senses, without a doubt, there are long-term benefits for our highways and the roadside areas surrounding them. ■



“

Bravo on Interstate 30, Arkansas! We have traveled it for 30-plus years. We found ourselves on it twice last week. Great job on the new paving and clearing of brush back several yards. Thank you for wise management of taxpayer funds!

- Sandy S.

”



BROADWAY BRIDGE

RECEIVES NATIONAL RECOGNITION

BY DAVID NILLES

THE BROADWAY BRIDGE (HIGHWAY 70), SPANNING THE ARKANSAS RIVER BETWEEN LITTLE ROCK AND NORTH LITTLE ROCK, HAS BEEN RECOGNIZED BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC).

The organization presented ARDOT with a Merit Award as part of their 2020 Prize Bridge Award Competition.

According to the AISC, the art of designing and building beautiful, efficient, economical and sustainable steel bridges has been practiced for more than a century. They launched their Prize Bridge Competition in 1928 as a way to showcase the beauty of steel bridges.

Since Pittsburgh's Sixth Street Bridge won the first competition in 1928, bridges from all across the United States have won in a variety of categories, and at least an equivalent number of bridges has received a

merit or honorable mention award for finishing as runner up. Overall, this competition has recognized more than 600 bridges of all sizes from all across the United States.

Some of the award-winning bridges, such as the Wabash Railroad Bridge in Wayne County, Michigan, which won a prize in 1941 and still carries railroad traffic more than 70 years later, have actually outlasted the companies that built them.

"These projects are tributes to the creativity of the designers and the skills of the constructors who collaborated to make them a reality," said AISC President Charles J. Carter, SE, PE, PhD. "Steel shines and soars on their talents and we celebrate the accomplishments these projects represent."

The team of HNTB Corporation and Garver, LLC, was chosen to design the replacement of the old Broadway Bridge in 2011. The HNTB-designed

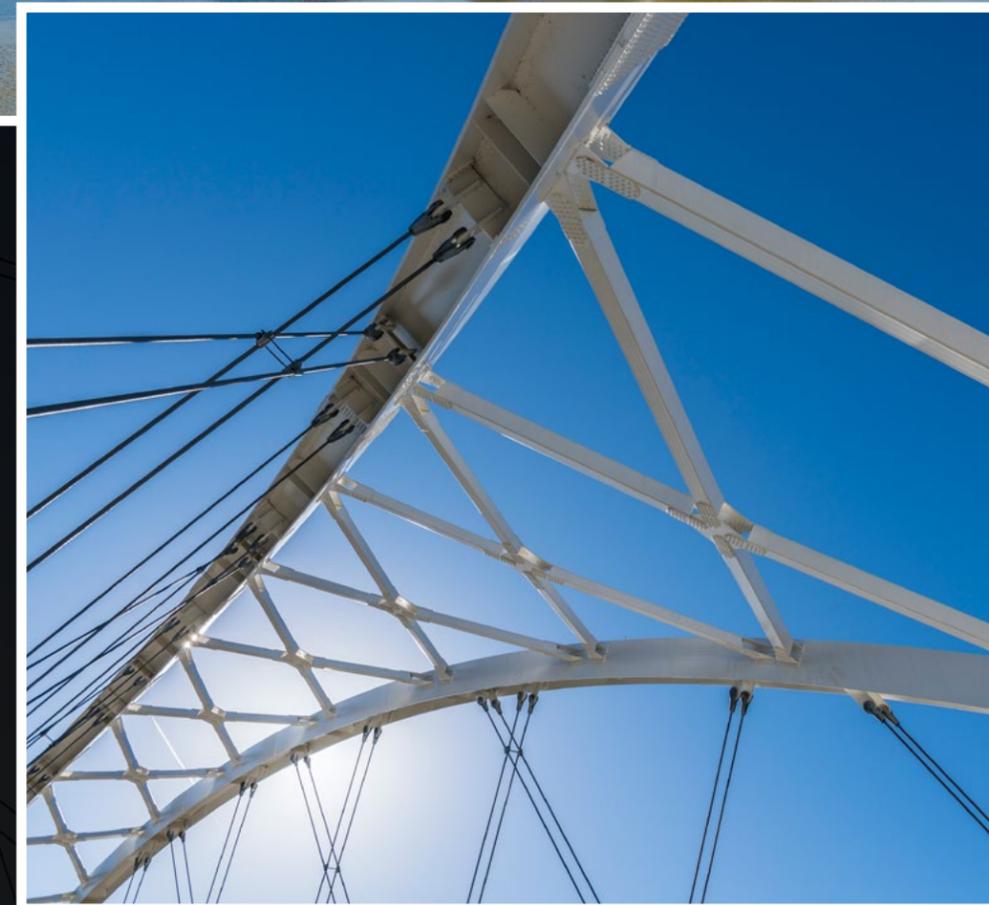
main spans of the Broadway Bridge are composed of two 448-foot network tied-arch spans with steel plate girder approaches. The lengths of the five approach spans vary from 126 feet to 227 feet. The final design consists of inclined basket-handle arches with a framed-in floor system, which lowered costs. The tied arches allowed a signature structure to be constructed on the existing alignment ahead of the anticipated 180-day bridge closure by using an accelerated bridge construction (ABC) technique to float the arches into place. Prime contractor for construction was Massman Construction Company of Overland Park, Kansas.

"We are honored to receive this recognition from the American Institute of Steel Construction," ARDOT Director Lorie Tudor shared. "The Broadway Bridge has become an iconic part of the downtown area and we thank everyone that was

involved in its design and successful construction. Today, it also serves as a memorial to our country's war veterans and for that, we are very proud."

AISC's competition recognizes bridges on a biennial basis, with winners receiving recognition during the North American Steel Construction Conference/World Steel Bridge Symposium. Keeping with tradition, bridges are eligible for the competition based on the date they first opened to traffic.

Eligible bridges must be built of structural steel, located in the U.S., defined as the 50 states, the District of Columbia and all U.S. territories. ■



THIS IS THE DRONE YOU'RE LOOKING FOR



BY BRITNI PADILLA-DUMAS

NOT SO LONG AGO IN AN ARDOT OFFICE NOT SO FAR AWAY, THE SURVEYS DIVISION RECEIVED FEDERAL FUNDS TO HELP PURCHASE AN UNMANNED AERIAL VEHICLE (UAV) LIGHT DETECTING AND RANGING (LIDAR) SYSTEM.

"Our function is to gather topographic and terrain data for Roadway Design," stated Surveys Division Head David Hall. "Another function is to assist the Right of Way Division in determining property ownership and boundary lines."

What better way to see a mass of land than with a bird's eye view? UAVs—also known as drones—are becoming more common as technology advances. But what is LiDAR? The National Oceanic and Atmospheric Administration (NOAA) explains that LiDAR is a remote sensing method used to examine the surface of the Earth. A laser is pulsed from a sensor, bouncing from the ground back to its source, recording the time between volleys.

"Our particular system is capable of acquiring LiDAR point cloud data and imagery simultaneously," Hall said. "All of the combined data allows us to create more precise, efficient, 3D terrain models that engineers will use to design a project."

The Department uses a DJI Matrice 600 UAV equipped with a LiDAR sensor that rapidly collects millions of points. The system then assigns each point a color value based on photos

captured during the flight. It can even collect points through vegetation and tree canopy! Once all of the data is processed, the finished product is what looks like a picture of the area—except it is complete with other quantifiable information that is paramount to planning a project.

"We can actually measure the height of power lines and get an accurate representation of ditches at a potential jobsite," Hall explained. "We sometimes still need crews to collect information, but this method provides us a lot of data quickly that we can extract in the office without crews spending hours in the field."

ARDOT currently has two photogrammetry—the process of making surveys and maps through aerial photographs—technicians that are Federal Aviation Administration (FAA) certified UAV pilots.

"The FAA Part 107 consists of studying the rules and regulations of operating a UAV safely and efficiently," reported Photogrammetry Technician Kramer Rhodes. "We have to pass a test and retake it every two years to maintain the license. We also received system-specific training on how to use the flight planning software, the actual acquisition of the data in the field, and the post-processing of the data once we're back in the office."

Rhodes and co-worker Valarie Nichols are the only two people in the Surveys Division authorized to operate the

drone. If the weather allows, they try to fly and capture data several times a week.

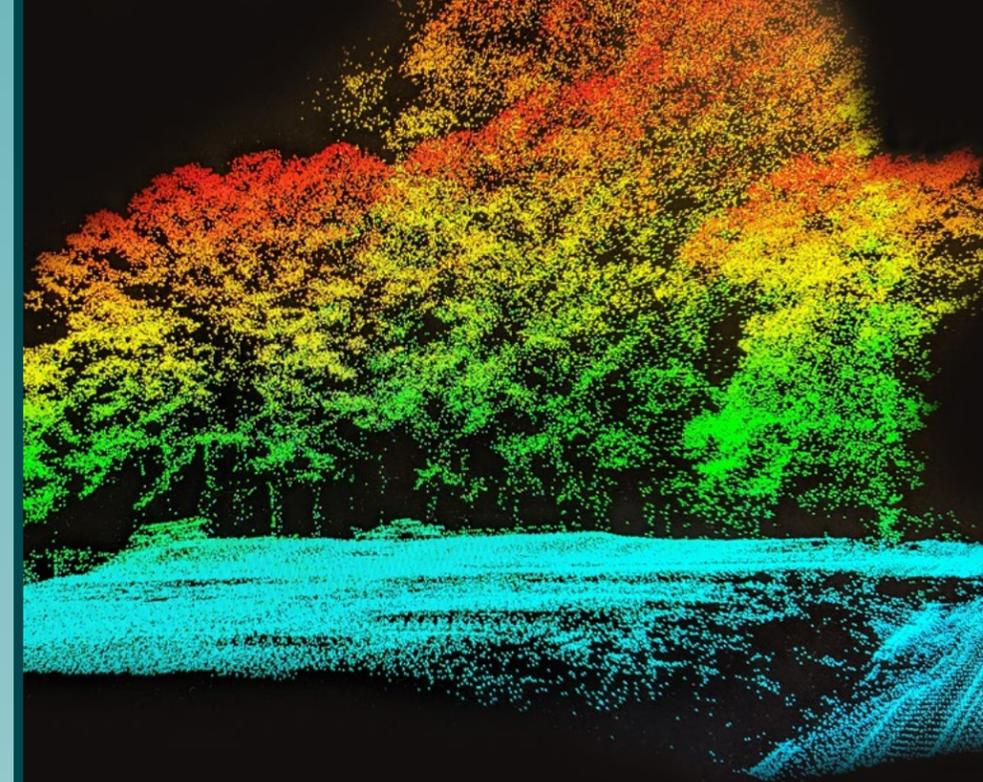
"The average flight time is around 20 minutes for one battery," Nichols said. "Weather plays a huge factor in the flight plan. If there's more headwind, you have less time because more battery power is utilized."

Rhodes added, "Our flights plans are constructed so that we're not flying above the road's surface. We don't want to fly above traffic, so we plan our paths off to the side or in the median, and when we need to cross the roadway, we do so when traffic is not present. Safety is always our top priority so we're always planning to minimize any risk to the public."

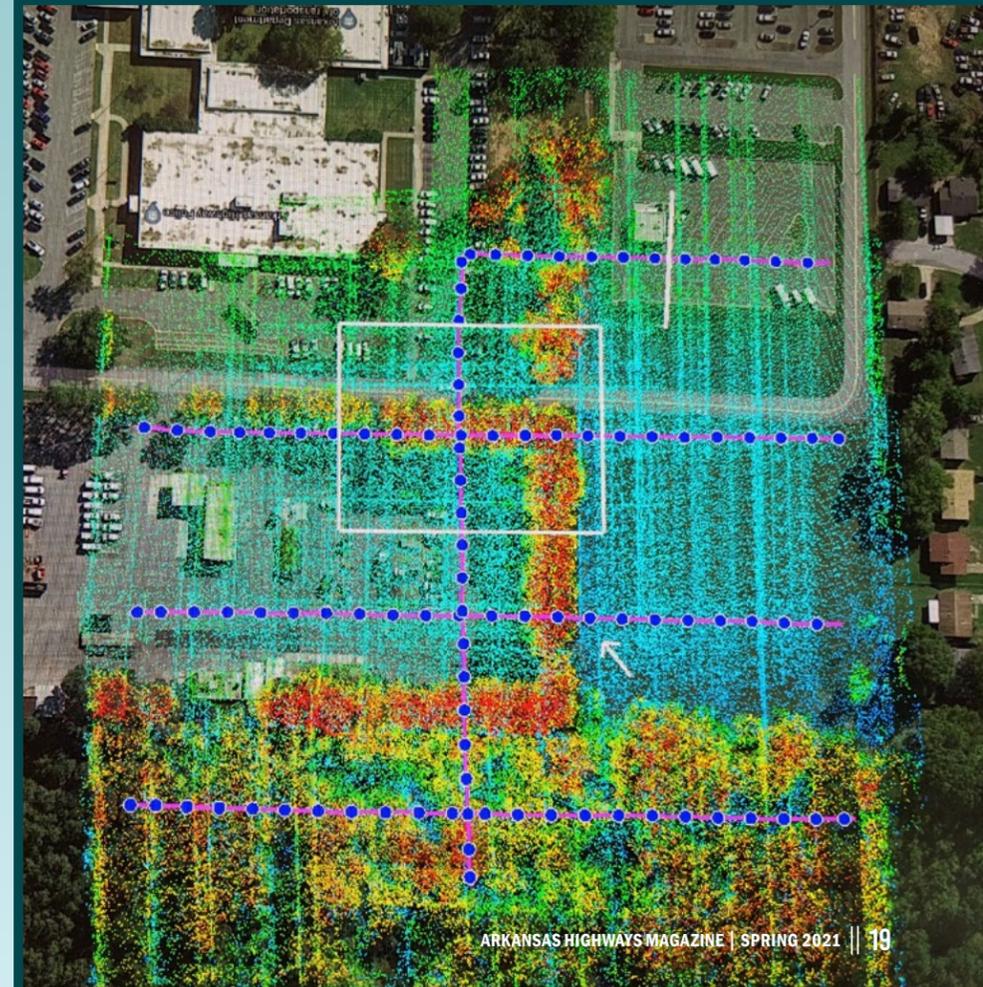
Using an aerial system also reduces the exposure of field crews to high volume traffic areas, protecting both ARDOT staff and traveling motorists. Hall also mentioned that the Department can use this tool to present more realistic models to the public—to offer an accurate representation of proposed improvements and how the finished product will look. Roadway Design engineers use this surface model as their base map and they develop their design on top of the model; they can even compute earthwork quantities from the data collected by the UAV.

"This method allows us to collect data on jobs that are smaller in size, significantly reduces personnel hours in the field, can penetrate most tree canopies, and can obtain pavement surface information safer for both our crews and the public," Hall emphasized. "It's safer, accurate, efficient, and precise."

The force is strong with this one. ■



Colorized point clouds create a detailed 3-D image.



KEEPING THE SCENE CLEAN

A look at how hazardous materials impact transportation

BY BRITNI PADILLA-DUMAS

BRIGHT GREEN, BUBBLING TOXIC CHEMICALS IS USUALLY WHAT COMES TO MIND WITH THE WORDS “HAZARDOUS MATERIALS,” BUT THAT IS NOT ALWAYS THE CASE. HAZARDOUS MATERIALS, OR HAZMAT, CAN APPEAR ANYWHERE IN A VARIETY OF WAYS. The Arkansas Department of Transportation is not immune to dealing with hazmat. Terry Tucker, an Advanced Impact Analyst in the Environmental Division, and Property Manager Sherman Whittle from Right of Way, are the dream team working to ensure environmental compliance in the event of discovered hazardous materials.

“We’re investigators,” Tucker began. “We have been trained to identify hazardous materials. We’ve been trained to look for the signs.”

What kinds of hazmat would a transportation agency have to consider? I thought you’d never ask. The obvious answer is large trucks traveling the highways carrying flammable liquids, gases, corrosive materials, etc. If one of these trucks spills during an accident, the Arkansas Highway Police process the site. However, the not so obvious answer?

“Usually, we’re dealing with underground storage tanks,” Whittle explained. “There could be an odor or discoloration of soil if the tank is leaking. Sometimes it isn’t anything you can see or smell. Recently, a contractor took old fencing from a construction site to a junkyard. The man there was familiar with that particular type of fence, so he brought a Geiger counter, tested it, and it was contaminated.”

“When we were working on four lanes to Siloam Springs, the contractor began digging into the side of a hill,” Tucker shared. “When he clipped this hill with a bulldozer, it began to ooze this terrible green-colored liquid that smelled awful. Upon investigation, we found out that it was a chicken burial pit.”



Above Ground Storage Tanks



Illegal Dumps



Asbestos



Accidental Spills

“One time I had a project over the Cadron Creek near Conway,” remembered Tucker. “The contractor was digging to place the footings for the bridge over the creek. The inspector called us when they discovered large plastic drums labeled ‘Hazardous When Empty.’ By investigating and talking to people around the community, we found out there was a railroad derailment at that site in 1975. We even found a local woman that had photos of the derailment. We contacted the railroad and discovered the material was buried on site—lots of Miller beer, wheat, and these empty drums. The Arkansas Department of Environmental Quality (ADEQ) authorized the railroad company to bury the material on site in 1975. We ran our own gambit of tests and found absolutely nothing hazardous, so ADEQ authorized us to bury it on site, too. That’s what we did—to this day, those things are buried with the bridge footings.”

So now, we’re up to radioactive fencing, a chicken mass grave and 40-year-old booze. But Tucker and Whittle’s jobs are about more than finding buried treasure; they actually help steer the Department away from situations that would cost taxpayers millions in hazmat cleanup costs.

“An archaeologist from Forrest City asked me to investigate an old barn near the highway. We were about to purchase this barn for the right of way to build a road. I found containers of DDT and some 3-in-1 cotton dust that was 58% arsenic.”

The EPA banned DDT in 1972 because of adverse effects on humans and wildlife; the arsenic cotton dust was a fungicide used to prevent mold on cottonseeds.

“Our main emphasis is to make sure the Department doesn’t get into situations where large amounts of money are spent on a site. We didn’t buy that barn because we would have been liable for its contents. Instead, the right of way and road go around the barn, which is still there today.”

Tucker went on to explain that when the Department is looking to design a roadway, every effort is made to avoid landfills due to the amount of material work required before the roadway construction can even begin.

“Discovering hazardous materials at a potential project site can be severe enough to cancel the project entirely,” Tucker said. “We were looking into building an industrial access road in Malvern. I went to check out the property—an old industrial facility—and discovered ponds of water with a pH of two. TWO... (Uncontaminated water has a pH near seven.) It turns out it was a result of acid-mined rock.”

How costly can it really be, though, to clean up hazardous material?

“We had an underground tank leakage in Blytheville about seven years ago,” Whittle shared. “That cleanup was completed in December of 2020 and cost \$1 million.”

“When we investigate, we look at the past, present and future of a site,” Tucker said. “We want to do what’s best for the environment and safeguard as much money as we can for the Department. We do our due diligence to make sure we are environmentally safe with our projects and we let the public know that we’re working to make a safe and viable system.” ■



ARDOT signs partnering agreement with AAPA. (L. to R.) AAPA Executive Director Park Estes, former AAPA Chairman Murry Cline, AAPA Chairman Lance Lamberth and Lorie Tudor, ARDOT Director.

WORKING TOGETHER FOR BETTER HIGHWAYS

BY DAVID NILLES

OFFICIALS WITH THE ARKANSAS DEPARTMENT OF TRANSPORTATION (ARDOT) AND THE ARKANSAS ASPHALT PAVEMENT ASSOCIATION (AAPA) CAME TOGETHER IN LATE 2020 TO SIGN A WORKING AGREEMENT BETWEEN THE TWO ORGANIZATIONS.

The partnering agreement lays out goals and objectives as a means of enhancing communications as they work together to improve Arkansas' highway system.

"This partnership is so important to ARDOT because we cannot do what we need to do without the AAPA," ARDOT Director Lorie Tudor stated.

"We embrace the spirit of collaboration that this partnering agreement represents and I look forward to a bright future as we work together to promote Arkansas."

Key components of the agreement include the safety of workers and the public, utilization of joint

committees and task forces to optimize communications and a collaborative focus on materials, construction and maintenance, among other items.

"The collaboration between the contractors and the Arkansas Department of Transportation is key for us in order to build the highest quality roads we can for the citizens of Arkansas," AAPA Chairman Lance Lamberth shared. "This is something that needs to be emphasized from the top to the bottom to ensure that we are giving the citizens of Arkansas the highest quality roads that we possibly can."

Tudor stressed how important the agreement is, especially with the passing of Issue 1 last November.

"AAPA's support of Issue 1 was crucial to its approval on election day. The voters have put their trust in all of us... ARDOT and the contracting industry,"



Tudor shared. "Together we will not let them down."

Signing the agreement were Arkansas Highway Commission Chairman Robert S. Moore, Jr., ARDOT Director Lorie Tudor, AAPA Chairman Lance Lamberth, AAPA Executive Director Park Estes, AAPA Vice-Chairman Max Mathis and AAPA Past Chairman Murry Cline. ■



DARIN LAUGHARD SHARES HIS LOVE OF CAR STEREO & RACING

MY NAME IS DARIN LAUGHARD (PRONOUNCED LOCKARD). I HAVE BEEN EMPLOYED WITH ARDOT SINCE 1987, AND HAVE ALWAYS WORKED IN CONSTRUCTION FOR DISTRICT THREE RE OFFICE 32. I have been fortunate to work on many different jobs in our District while being here. In addition, I am known as "MacGyver" in our office because I can usually fix anything.

TUNES AND CAR STEREO

I have always been good in carpentry and found I liked working on my own cars. In addition, I have always liked music. As a result of those loves, I built a stereo system in my first car while in high school. The car's biggest speakers were 6" x 9"s. After high school, I spent time living in Illinois and Michigan and when I returned to Arkansas in 1987, one of my buddies had placed four 15-inch subwoofers in his Toyota truck. And with that, he entered a car stereo contest.

ENTERING THE WORLD OF COMPETITIONS

I found the contest interesting and for me, it was on! I built a small system in my 1980 VW Rabbit and started competing myself at local shows.

When I began competing, everyone I talked to about stereos thought it was all about how loud the stereo could get and to some point, it is. However, there is much more to it, including sound quality.

A photo log of the things that judges cannot readily see has to be presented at competitions. They check to make sure the system is installed safely and will not cause the vehicle to catch fire or cause problems with the other components of the car.

The scoring system at auto stereo competitions is based on two things: "install quality" and "sound quality."

Install points are awarded based on the quality of the installation. Does it keep with a theme? Does it look like the factory would have installed it? Does it match the vehicle?

(continued on page 24)



Laughard's 2015 Dodge Challenger features a 485 horsepower engine.



At the Nationals, they have autocross, drag racing, road racing, stereo contests and a car show all in the four-day event. I was hooked!

Numerous auto stereos Laughard has installed.

Sound quality points are based on musical instruments sounding like the actual instrument, vocals sounding natural, and placement of the instruments or singers on the soundstage.

BUILDING STEREO SYSTEMS

My buddy that had the Toyota truck later bought a Honda Civic and had a shop install four 15-inch subs. He never liked it much and decided he wanted eight 15s. He was going to have the same shop build the system. We discussed it and I told him that I thought we could modify what he had and build it ourselves. Sure enough, a month later, he was pounding the pavement with eight 15s in the back of his Civic hatchback.

I married my wife in 1989 and bought a Ford Ranger extended cab that same year. I built a stereo system in it and went to finals twice, but never placed where I wanted to in the competitions.

In 1992, I bought a VW Jetta GLI that had three different systems in it over its lifetime. I placed 2nd through 5th at finals during the years that I had it in competitions. I stopped competing in 1999 due to family obligations but I kept the car until 2007 and then bought a 1996 Impala SS.

CARS AND COMPETITIONS

During this time, I built three other car systems for other people and they wound up in competitions.

In 2014, Ed and Sorina Rice had me redo their vehicles that I had previously built. Ed wound up winning the "Triple Crown" at Finals that year and his wife placed First in "Install Quality" in her class.

FROM AUTO STEREO TO AUTOCROSS

When I bought my Impala, I built the stereo system for my own pleasure, not to compete at stereo contests. I had

plans to take the car to auto shows.

My first Impala show was in Dallas at Texas Motor Speedway. Not only did they hold a car show, but also held road races. I knew right away that I wanted to do some racing, but my wife did not like the idea of something breaking and me not having a way home.

Later that year, I drove to St. Louis, Missouri, to the "Impala Nationals." At the Nationals, they have autocross*, drag racing, road racing, stereo contests and a car show all in the four-day event. I was hooked!

In 2011, my son and I worked together to build him a 1995 Chevy Caprice wagon with a large stereo system. The car placed fifth overall at "Spring Break Nationals" in Daytona, Florida.

One of the judges said that I must be on drugs because of the way I had wired my son's car and the other two vehicles I built for Ed and Surina Rice. I had directed all of the wiring through

the channels in the A-pillar and across the top of the car to the trunk. I kept all of the wires out from under the carpet and from making bulges underneath it. Routing the wires also reduced the possibility of them being stepped on and broken. It takes longer to plan and do it this way because wires have to drop out of the bundle at different locations for the rear speakers and front speaker.

My son and I both autocrossed our cars that year at Impalafest and were going to do it in Shreveport the next year with the Sport Car Club of America (SCCA). Unfortunately, he totaled the car before we got a chance.

THE GREEN HORNET

I happened to see a sublime green Dodge Challenger at a dealership while returning from my Center for Training Transportation Professionals (CTTP) training in Fayetteville. It must have made an impression on me. I wound up

buying it.

I began taking it to car shows and taking it to SCCA autocross events in Louisiana. After they moved their location in Louisiana to Monroe, I started going to Arkansas region shows in Little Rock. I now compete in both regions.

Arkansas holds their events at the Stuttgart Airport. My son is not able to drive due to injuries from his car accident, but he can still ride along with me. Prior to Covid-19 regulations, he could ride with other people as well.

I have performed many modifications to the suspension on the Green Hornet to help me compete with the lighter cars usually found competing in autocross. I have also added pieces under the hood to help with the "car show" side of my hobby. Ironically, I have not done anything to the stereo. It came from the factory with two 10-inch subs in the trunk and that is fine for me.

Over my years of building systems, I have installed stereos on motorcycles, ATVs, UTVs, cars, trucks and even in some houses! They have ranged from small systems with no subs to very elaborate systems with eight subs that take months to complete.

I have been asked why I have not opened a shop and the answer has always been the same. I enjoy what I am doing and can choose my customers. If I did it full time, I would probably end up hating it! ■

**Autocross utilizes a mini-road course using traffic cones that are set up in a parking lot or airport runway. Competitors drive to get the lowest time without hitting any cones or going off course. Despite low overall speeds, it is one of the most intense, rapid-fire forms of motorsports one can enter. Competitors range from the casual driver who may use the same car that is driven daily to the hardcore driver who has a dedicated competition car.*

ARKANSAS QUILT TRAIL

BY BRITNI PADILLA-DUMAS

IF YOU'VE EVER FOUND YOURSELF DRIVING IN RURAL PARTS OF THE NATURAL STATE AND NOTICED A QUILT BLOCK PAINTED ON THE SIDE OF A BARN, THEN YOU'VE BEEN ON THE ARKANSAS QUILT TRAIL. THIS IS OUR SECOND VISIT TO THE TRAIL, THE FIRST WAS HIGHLIGHTED IN THE FALL 2019 ISSUE OF ARKANSAS HIGHWAYS.

Winding through the Ozark Mountains, the 27 painted blocks of the Searcy County Quilt Trail are spread out between Witts Springs, St. Joe, Harriet and Leslie, Arkansas.

If you begin the tour in Witts Springs, you'll catch the colorful Bicycle Dresden block designed and painted by area native Cynthia Garmoe.

Plot a 29-mile route to St. Joe to find At the Depot, Crossed Canoes, Ohio Star, and Bear's Paw on Bear Creek. As Highway 65 enters Marshall, make your way to Arkansas Highway 27 towards Harriet. Marshall has several quilt blocks hidden locally, off of the highway. Finally, wrap up your tour with a last stop in Leslie.

For more information about the significance of each block's design, or for the history of the area, visit arkansasquilttrails.com/stonecounty/.

Apple Blossom

4533 Highway 66, Leslie

Crossroads

103 Oak Street, Leslie

Oak & Reel

6861 Highway 27 North, Marshall

Bowtie

2146 Old Highway 66, Leslie

Pinwheel

2146 Old Highway 66, Leslie

At the Depot

110 US Highway 65, St. Joe

Bob Russell

3165 South Highway 27

Bicycle Dresden

196 Hwy 16 West, Witts Springs

Crossed Canoes

9826 Hwy 65 S., St. Joe

Ohio Star

14466 N. Highway 65, St. Joe

Bear Tracking

6899 Hwy 66, Leslie

Bear's Paw on Bear Creek

14466 N. Highway 65, St. Joe

This article highlights quilts found on Arkansas Highways. Additional blocks can be found at the Arkansas Quilt Trails website by selecting the Google Map hyperlink of the entire trail. ■



Ohio Star



Bicycle Dresden



Crossed Canoes



Bear's Paw on Bear Creek

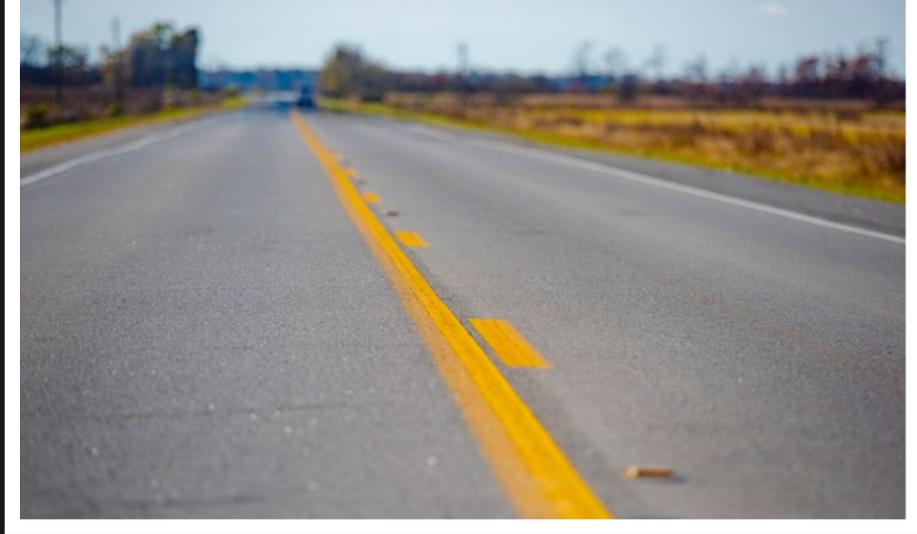


Crossroads



MAINTENANCE CREWS: ON LOCATION

DISTRICT 8



ARDOT NAMED WINNER OF PERPETUAL PAVEMENT AWARD

BY DAVID NILLES

TWELVE DEPARTMENTS OF TRANSPORTATION (DOTS) ACROSS THE COUNTRY WERE NAMED WINNERS OF THE PERPETUAL PAVEMENT AWARD BY THE ASPHALT PAVEMENT ALLIANCE (APA). This is a record number of awards given in a single year since the awards were first presented in 2001. The award celebrates long-life asphalt pavements that reflect the characteristics of a Perpetual Pavement design.

The award is presented to state transportation departments and local agency road owners for well-performing asphalt pavements that are at least 35 years old with proven high-quality structural design. To earn the award, the pavement must have not suffered a structural failure, and should have an average interval between resurfacing of no less than 12 years. The road must demonstrate excellence in design, quality in construction and value to taxpayers.

The Arkansas Department of Transportation was among the 12 winners recently announced. The Department received an award for a two-mile section of U.S. Highway 79 in Jefferson County, near Altheimer.

"We are honored to be recognized by the Asphalt Pavement Alliance for this section of Highway 79," ARDOT Director Lorie Tudor stated. "This award is a reflection of the outstanding work that our men and women across the state are doing on our highways."

This marks the tenth time that ARDOT has received the award. The other state Departments of Transportation receiving Perpetual Pavement awards were Alabama, Colorado, Florida, Maryland, Montana, Nebraska, North Dakota, Pennsylvania, South Carolina, Tennessee and Washington.

Engineers at the National Center for Asphalt Technology (NCAT) at Auburn University evaluated the nominations and validated the results for the 12 Perpetual Pavement Award winners. Since the awards were first presented in 2001, 144 pavements in 31 U.S. states and one Canadian province have been recognized.

The APA is a partnership of the Asphalt Institute, National Asphalt Pavement Association and the State Asphalt Pavement Associations. ■



A FAILING FIVE-BARREL CULVERT SYSTEM ON MOUNTAIN HARBOR ROAD IN MONTGOMERY COUNTY REQUIRED THE ATTENTION OF MULTIPLE DISTRICT 8 CREWS LAST WINTER. The project required replacing the old system and involved the Montgomery County crew, as well as the District 8 Maintenance and Bridge crews.

The improvements had to begin with construction of a detour structure in order to reroute traffic on the roadway.

"The detour structure had to be built because there was no other roadway in the area to route traffic onto," shared District 8 Maintenance Engineer David Tolleson.

Crews then began removal of the old concrete and failing culverts.

"The project went very well other than a longer than expected delivery time on the new culverts," Tolleson added.

After the new culverts arrived and were installed, backfill material was replaced. The final steps involved replacing the concrete top slab and slopes, and then removing the detour structure. The entire project was completed in early spring. ■



Perpetual
Pavement
Award

ARKANSAS
STATE HIGHWAY &
TRANSPORTATION DEPARTMENT

This award honors asphalt pavements that were designed and built with outstanding care and exceptional quality. The result is a long-lasting pavement one that serves the traveling public and provides true value to the taxpayers and demonstrates the quality of asphalt pavement.

DISTRICT 1

CONSTRUCTION

CORNER



Interstate 55 in West Memphis



Interstate 40 over MLK, Jr. Drive (Highway 38).

A project was recently completed in District 1 that rehabilitated just under one mile of Highway 38 in Crittenden County.

Crews with Kiewit Infrastructure South Company worked in West Memphis to replace failing asphalt on Highway 38 (Martin Luther King Boulevard) with an improved subgrade, concrete paving and a polymer overlay for the Interstate 55 overpass. The ramps were also replaced as part of the project.

The improvements began at Highway 70 and extended to Southland Drive.

"The project area had numerous truck stops and a tight working area from end to end which added to the difficulty for both construction and maintenance of traffic," Construction Engineer Jeff Adams shared.

"The original contract work was completed on December 14, 2019, but additional change order work for high-mast lighting was required with that being completed on June 22, 2020," Adams added.

The original contracted work for the project was awarded for \$11.3 million and was completed 51 calendar days early. ■

Highway 38 passes over Interstate 55.

Dear ARDOT

I was truly blessed to have stopped at an area approximately near Alma or Knoxville off I-40 East. I was headed towards Marshall, Arkansas! I had been given wrong directions 3 times and the store I asked to buy an Arkansas map from said they do not make maps here anymore! I met this most unique gentleman. His name is Laska Farmer. This man was one of the most kind, compassionate people I have had the privilege of meeting. Not only did this man focus on me but he gave me a map and showed me the way. There is no way I can tell you [how much] gratitude I have for this man.

I know this letter will probably not get Mr. Farmer a pay raise but you can surely take the time out of a busy day to give him a pat on the back.

This man is a credit to you, his boss, and to your whole department.

In fact, this man should be teaching, particularly new employees that the person that signs their paycheck is you, me, them, etc., and not an inanimate [object].

This man shows how much enthusiasm he is blessed with in helpfulness, joyfulness, his very hard work ethics impressed me before I approached him to help me.

Sir, I would not have gotten treated any better were I the very President.

Were I to try, I could not Thank God enough for this man.

Thank you,
Sylvia Bruce

*Laska Farmer is a Maintenance Aide II in District 8.

ROAD CLEARING

Couldn't find a place to "THANK YOU" for the road clearing work being done in and around Paragould. Coldest it's been in a while and the ice was a real challenge followed by snow and now more snow. GREAT JOB GUYS (and Gals)!

Bart Rowe

MARION & BAXTER COUNTY CREWS

I want to compliment the Marion and Baxter County road crews. They've done an amazing job clearing the roads during the inclement weather this year. This is the best I've ever seen the highways when it has snowed

David Humphrey
Flippin, AR

BLACK ROCK REST AREA

I'd like to express my appreciation for your employee that handles, cleans, mows, etc. the Black Rock rest area. He has kept the area in A-1 condition for the past three years that I've been stopping there.

There is always toilet paper, floors mopped, and a clean smelling restroom.

Please let him know that I appreciate his dedication and superb work ethic.

Stephanie Edwards

RETIRED EMPLOYEE EXPERIENCE

I would like to recognize one of your outstanding employees, Robbie Howlett. My husband, Anthony Sain, is a retired Arkansas Highway Police officer and each year I have to send Mrs. Howlett paperwork to fill out on my daughter's health insurance due to her disability. She is always so kind and does the paperwork quickly. I know this is an addition to her job duties and I appreciate her help. ARDOT is fortunate to have an employee like Mrs. Howlett,

Lacey Sain
Paragould, AR



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