

NSPE-KY®

Kentucky ENGINEER
Volume 63

Fall
20
21

KENTUCKY ENGINEER

**Give Back to the
Future of Engineering**

page 12



**\$1.2 Trillion Infrastructure
Investment Transforms
Kentucky Engineering**

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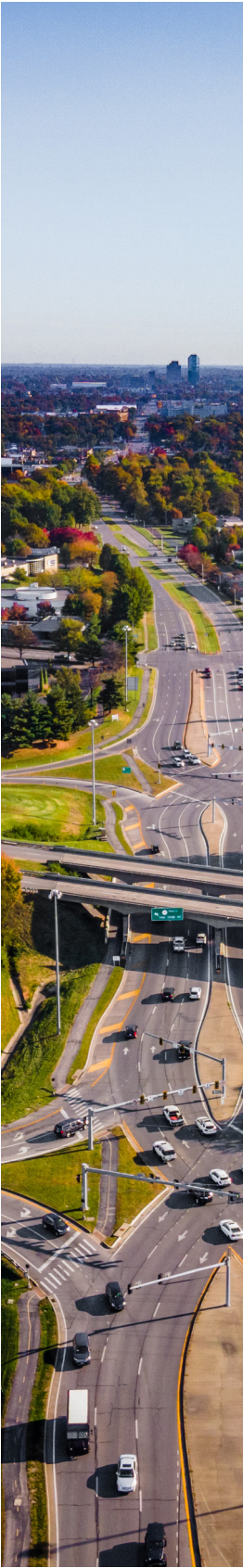
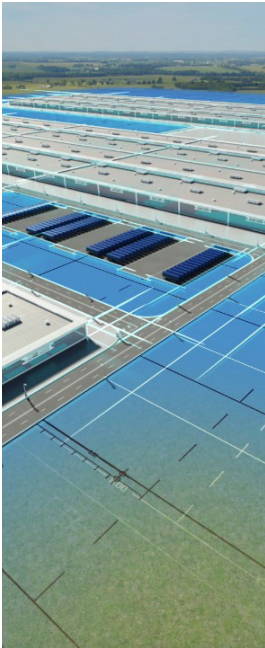
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Magazine design by Hayley Robb
Far left photo courtesy of Ford Motor Company

Cover includes members of the 1994 and current Kentucky Engineering Center building committee involved in the upcoming renovations and fundraising campaign.

President's Statement

Lora Boller, PE

"Hi, my name is Lora Boller and I'm a licensed Professional Engineer doing transportation related structural design and inspection."

This introduction sounds a little different than what we're used to but emphasizes the importance of licensure and brings our achievement in licensure into the light rather than hidden in a signature line.

This is part of the goal of NSPE's President, Rick Guerra, PE. As Rick stated in his NSPE Today article titled, "Changing the Conversation on Engineering Licensure", we are the people that will help our communities and our legislators to understand the purpose and importance of licensure and help to slow the battle against our licenses that comes in the form of bills allowing for practice by unlicensed persons.

#PROUDPE

This social media movement also comes to us as part of our charge to bring light to how Professional Engineers change the world. Let's start at the community level and as we post updates and articles about our work let's use the hashtag to start a conversation about the interesting work we do and the importance of licensure.

Licensed Professional Engineers are committed to a high standard of practice, comparable to doctors, yet the public does not view our commitment to a high standard of competence, professionalism, and ethical behavior in the same way. Much of this is caused by the public's lack of exposure to our work and our role in protecting the public welfare. If you have a story you would like to share, please send them our way so we can post them on NSPE-KY social media!



GOODBYE AND HELLO

The Kentucky Engineering Center has had some recent staff changes with Edward Warren moving to sunny Florida and the arrival of Bob Goodman. Bob's background makes him well qualified for teaming with Russ and Bill to continue the smooth background operations of the Kentucky Engineering Center that makes all our lives easier. Bob will also oversee our social media outlets so #ProudPE moments and other news feed-worthy items should be sent his way at bob@kyengcenter.org. Good tidings to Edward and a warm welcome to Bob!

PROFESSIONAL DEVELOPMENT

[Fall seminar](#) will be held virtually on December 13th and 14th and cover topics including major project updates, highway safety, risk management, communication, and ethics.

As we continue to strive to meet the continuing education requirements of our membership, we have several other excellent seminars lined up. Annual Bridge Day has become one of the most popular events and one of my personal favorites. A day filled with structural engineers, geotechnical engineers, contractors, and bridge stories... what could be better?

Save the dates for these important events:

- 1 February 1: Bridge Day at Lexington Griffin Gate Marriott**
- 20 July 20-22: NSPE-KY Annual Convention at the Louisville Downtown Marriott**

The Annual Convention will again be held in July this year. We had a great turnout at the convention last year and the dates better coincide with the changing of officers and PECON (in partnership with NSPE), which NSPE-KY hopes to host in Kentucky in the future! We hope by giving you these dates early on, you will be able to work around vacation schedules and other summer activities.

MATHCOUNTS

As engineers, we all know math counts but for the impressive mathletes that compete in the Chapter, State, and National MATHCOUNTS Competition, math rules! It is an awe-inspiring moment to watch these middle schoolers solve problems before I can even finish reading through them. The competition can be a lot of fun and excitement, but the stakes are real with a multitude of scholarship opportunities at every level of the competition. NSPE-KY works with the University of Kentucky, the University of Louisville, and Western Kentucky University to provide these prizes for our winners.

This year the Chapter competitions will be held virtually on February 17, 2022, hosted by the National MATHCOUNTS Foundation. The State Competition will be in person and hosted by Western Kentucky University in Bowling Green on March 26, 2022. Volunteers are always needed the day of the competition. If you are interested in helping and seeing some of the action, contact the Kentucky Engineering Center.

NSPE-KY UPDATE

As I mentioned in the summer magazine, I hope to touch on each of our long-term goal categories in turn and this time I'd like to discuss our efforts in Next Generation Planning. Neal Crawford, State Treasurer, has been looking into the possibilities of developing a virtual chapter and redistricting our existing chapters. Several chapters have become inactive or nearly inactive based on the limited membership in certain geographical areas. To

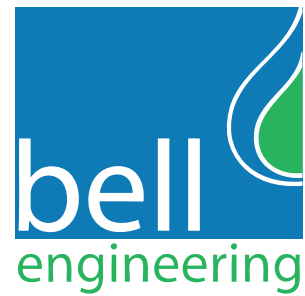
continue to have a personal connection with these outlying members and provide them with the benefits of an active chapter, a virtual option may be the answer especially since we have all gotten much more familiar with the technology in the last few years. Neal's goals also include diversifying membership and growing our non-civil engineering base as well as enhancing our relationship with engineering students and young engineers. Neal and the Membership Committee are working on bringing NSPE-KY to college campus events, advertising our benefits to student members, and hosting social events for both students and young engineers to continue their exposure to the society and its purpose and membership benefits.

Thank you all for your support of NSPE-KY. Please continue to find ways to volunteer and help each other. We serve to protect the public welfare and that includes encouraging and mentoring our colleagues. Bring a young engineer with you to the next meeting!

Thanks always to my loving family and my employer, HMB Professional Engineers, who provide me the support needed to serve in this role. I am blessed.

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Board of Licensure Report

Kyle Elliott, Executive Director

FIRM RENEWALS

All Firm Permits expire on December 31, 2021. The online firm renewal system is open and you can renew [online here](#). Please be sure to select Online Firm Renewal and not the Individual Renewal for the permit renewal.

31 December 31: All Firm Permits expire

RENEWAL REMINDERS

In mid to late November, paper renewal notices will be mailed out for all active Firm Permits. Electronic notices have already been emailed beginning on October 1.

30 November 30: Paper renewal notices mailed to active Firm Permits

COMPUTER-BASED TESTING UPDATE

NCEES is still in the process of converting all licensing exams from a paper and pencil format to the computer-based format. The civil exams were offered for the last time this October as pencil and paper. Beginning in 2022, the civil exams will be computer-based.

For surveyors, the national FS and the PS have already been converted to the computer-based format. Those exams are now completely computer-based and available year-round.

For engineers, the transition to computer-based format has been accelerated by NCEES in response to the Covid-19 pandemic.

COMPUTER-BASED EXAMS OFFERED YEAR-ROUND

FE (all disciplines)
PE Chemical
PE Environmental
PE Mechanical (all disciplines)
PE Electrical and Computer: Power

COMPUTER-BASED EXAMS OFFERED ONCE A YEAR

PE Nuclear
PE Petroleum
PE Fire Protection
PE Industrial and Systems
PE Agricultural and Biological Engineering
PE Electrical and Computer: Computer Engineering
PE Electrical and Computer: Electronics, Controls and Communications
PE Mining and Mineral Processing
PE Architectural Engineering
PE Naval Architecture and Marine
PE Control Systems
PE Metallurgical and Materials

All other exams are scheduled to be converted to computer-based format by 2022 with the exception of Structural Engineering which is scheduled for 2024.

For up-to-date information on the conversion to computer based testing, visit ncees.org/exams/cbt/.

Enforcement Actions Summary

July 1 – September 30, 2021
Heather L. Baldwin, PE, PLS, Director of Enforcement

MOTZ CONSULTING ENGINEERS, INC.

In June of 2021, the Board of Licensure was contacted by email by Bret Heckman, PE, a former employee of Motz Consulting Engineers, Inc. Heckman had separated from the company on March 18, 2020, but had recently discovered that his name was still listed as a professional engineer in responsible charge on the company's Kentucky engineering business entity permit. The company failed to notify the Board of Heckman's departure within 30 days as required by KRS 322.060(1)(e). Further investigation found that the company renewed the permit on December 31, 2020 and designated two professional engineers in responsible charge: Heckman, who had separated from the company on March 18, 2020, and R. Bradley Motz, whose Kentucky PE license had expired on June 30, 2020. Thus, the company had offered to provide, and provided, engineering services in Kentucky from July 1, 2020 to December 31, 2020 without a designated Kentucky PE in responsible charge, as required by KRS 322.060(1)(a), and had negligently provided inaccurate information during the December 31, 2020 permit renewal, in violation of KRS 322.180. The company continued to offer to provide, and provided, engineering services in Kentucky without a designated Kentucky PE in responsible charge from December 31, 2020 to June 14, 2021, when the investigation was initiated and the permit was made inactive. The company's engineering business entity permit was reinstated on July 22, 2021 after receipt of a letter from another employee of the company who represented himself as being the designated Kentucky PE in responsible charge. To resolve the violations of KRS 322.060 and KRS 322.180, the company entered into a Consent Decree with the Board wherein the company, through its President, Patricia Murdock, agreed to: (1) pay a \$4,000 fine; (2) provide Board staff with a Plan of Corrective Action, within 14 days of acceptance and entry of the Consent Decree, which is to be filed with the Consent Decree in the company's permit file with the Board; (3) maintain a current and valid business entity permit during any time in which it is engaged in providing engineering services in Kentucky; and (4) notify the Board in writing, within 14 calendar days, of any change in the presidency of the company. The Board of Licensure accepted this Consent Decree on October 29, 2021.

JANUARY

January 27: Board Committee Meetings | Frankfort
January 28: Board of Licensure Meeting | Frankfort

APRIL

April 21-23: NCEES Southern/Central Zone Meeting | Oklahoma City
April 22-23: NCEES Exam Administration (Structural) | Various locations
April 28: Board Committee Meetings | Frankfort
April 29: Board of Licensure Meeting | Frankfort

JULY

July 28: Board Committee Meetings | Frankfort
July 29: Board of Licensure Meeting | Frankfort

AUGUST

August 23-26: NCEES Annual Meeting | Carlsbad, CA

Calendar of Events 2022

OCTOBER

October 21-22: NCEES Exam Administration (Structural) | Various locations
October 27: Board Committee Meetings | Frankfort
October 28: Board of Licensure Meeting | Frankfort



THE UNIVERSITY OF KENTUCKY HAS LAUNCHED A NEW DEPARTMENT OF ENGINEERING TECHNOLOGY IN PARTNERSHIP WITH BCTC

Given advancements in technology, society is calling upon engineers to solve the world's most complex problems.

Thanks to a unique partnership between the College of Engineering at UK and the Bluegrass Community and Technical College, that call is being answered by a new Department of Engineering Technology.

Graduates of this program will be trained in the latest technologies and equipped with the practical skills and hands-on experience necessary for thriving in advanced technology industries through two four-year undergraduate degrees in lean systems engineering technology and computer engineering technology.

> BACHELOR OF SCIENCE IN LEAN SYSTEMS ENGINEERING TECHNOLOGY

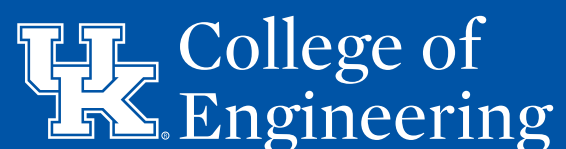
The BS in Lean Systems Engineering Technology is a unique program that gives students the skills to improve quality output, streamline processes and reduce waste.

> BACHELOR OF SCIENCE IN COMPUTER ENGINEERING TECHNOLOGY

The BS in Computer Engineering Technology provides in-depth knowledge of hardware and software design, development and maintenance. The curriculum is based on a solid foundation of intensive classroom and laboratory experiences.

Engineering Technology students spend their first years earning their AAS degree at BCTC before working toward their BS degree at UK's main campus.

Learn more at enr.uky.edu/et



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Give Back to Kentucky's Future Engineers This Year

For the past two years, the pandemic has changed every aspect of our lives including our work. While we will be processing the obstacles and hardships of the pandemic for months to come, the world will slowly return to “normal,” and it’s critical we are prepared for the future.

According to the Kentucky Council on Postsecondary Education, there will be a demand for 3,000 more engineering jobs in the Commonwealth over the next nine years. This is an 11.9% increase in less than a decade, which outpaces the national average. Engineering careers are expected to help drive the Commonwealth’s post-COVID economic recovery, which will require more Kentuckians to study and receive engineering degrees.

While this is exciting news, it also challenges the Kentucky

Engineering Foundation (KEF) to support and match this growth.

Fortunately, KEF has launched a new campaign to strengthen its capacity to serve current and future engineers, the “KEF Endowment” campaign.

Through this campaign, we can make certain Kentucky engineers have the necessary resources and support to reach our individual and collective potential, and together, we can lay a path for engineers to lead in Kentucky.

By supporting the KEF Endowment campaign, we can resource and expand critical programs like MATHCOUNTS, Leadership PE, local NSPE-KY chapters, professional development trainings and scholarship awards to Kentucky engineering students. Additionally, we will ensure the KEC building is maintained and will remain a gathering place for our professional members.

KEF wants to help shape a future where Kentucky engineers are prepared to lead and feel supported by a robust community of peers. But we can’t do this alone. Your support will ensure this commitment is unwavering and successful.

One professional that has stepped up to support the initiative is Michael Harris, president of Jacobi, Toombs & Lanz, a southern Indiana-based civil engineering and surveying firm. Harris holds this mission close to his heart as he competed in the MATHCOUNTS program in 1986.

“MATHCOUNTS has always been a critical piece of NSPE-KY’s outreach to students, specifically middle schoolers,” Harris said. “It’s one of the most consistent ways we have to reach that critical age group, hoping to inspire future engineers (and NSPE-KY members!). I’ve loved being a part of the competition for the last 20+ years at both the state and chapter level.”

Some of the money raised in the Future of Kentucky campaign will go towards MATHCOUNTS, ensuring this program benefits kids just like Harris for many years to come.

“It’s a part of our duty as Professional Engineers to give back and reach out to upcoming generations,” Harris said. “Please join me in supporting this great program!”

We hope you will choose to support this campaign and the future of Kentucky’s engineering industry. If you would like to learn more or have questions about the campaign, please reach out to Bill Bell at bill@kyengcenter.org.

MEMBER SPOTLIGHT

Q&A

SIX QUESTIONS WITH LEE



LEE KRESOVSKY
Enterprise Transformation Lead
Humana Inc.
Louisville, Kentucky

1 Why engineering?

My father was a PE and extremely proud of his engineering profession. I became a PE to follow in his footsteps and enhance my capabilities in engineering. I actually took the exam on the same day as my husband Joe, on our 10th anniversary.

2 How did you get to the position you're in now?

My career has taken some interesting turns, starting at Ford Motor Company as a design engineer & plant engineer, transitioning to the business side at Cummins in a marketing/customer support role and then Six Sigma in a process improvement role. There, I ultimately led a team of 10 Six Sigma Black Belts and Master Black Belts and supported the corporate functions. Six Sigma is what led me to Humana to join the healthcare sector as an internal consultant. While what I do each day has changed a lot over the years, one thing has been constant – I solve problems and make customers' lives better.

3 Why did you join NSPE-KY?

I attended a conference to get my continuing education credits, and found that I had a lot in common with the other attendees and truly enjoyed my time there!

NSPE-KY is dedicated to promoting the ethical, competent and licensed practice of engineering while enhancing the professional, social and economic well-being of both returning and new members of the organization. Please welcome Lee Kresovsky to NSPE-KY.

4 What do you hope to gain from NSPE-KY?

I hope to maintain and strengthen relationships with those we've met at previous events. I would also like to help make an impact on advancing STEM education for our Kentucky youth.

5 Are there any organizations you're actively involved in outside of NSPE-KY?

Our family is very involved in our church, Christ Church United Methodist. In addition, I am on the Site-Based Decision Making (SBDM) Council at Lowe Elementary school.

6 Best engineering memory you have?

My favorite engineering memories are at the Ford Louisville Assembly Plant. There is nothing more incredible than seeing vehicles being manufactured. I was the engineer in charge of Seats & Restraints and rolled out new safety technology (Occupant Classification Sensors) during my time at the plant. It was gratifying to work on components that directly impacted driver and passenger safety and to see new safety technology come to life.



Lee, her husband, Joe, and their two sons enjoy a Louisville Bats game together.



FAVORITE HOBBY

I love to run and have a wonderful running group who just completed the Bourbon Chase relay race (12 runners, 200 miles!). I also love to cook and have a newfound passion for baking bread, which I just discovered during the Covid quarantine.



FAVORITE BAND

I love lots of different types of music, but my 2 all-time favorites are Cowboy Mouth from New Orleans and more recently, Nathaniel Ratliff and the Nightsweats. I would also be remiss if I didn't mention Wicker Frog, the acoustic duo I am in with my husband Joe. He plays guitar and sings, and I play bass and sing backup.

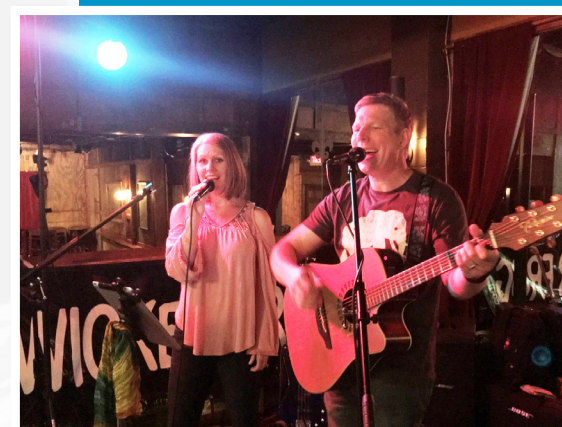


FAVORITE RESTAURANT

I'm from New Orleans and have a huge list of favorite restaurants there. My favorite in Kentucky would have to be Jack Fry's in Louisville. I love the ambiance and the food is always great.

#PROUDPE

NSPE is encouraging its state chapters to share why their proud to be a PE, so we're doing the same! Here's why NSPE-KY's Joe Kresovsky is a #ProudPE.



JOE KRESOVSKY
Principal Mechanical Engineer
Denson Engineers, Inc.

Why did you decide to become a PE?

Fifteen years into working for Ford Motor Company and Cummins Inc., my wife, Lee, and I were strongly encouraged by her parents to take the PE exam.

Given the industry exemptions, a PE license was not required (or common) at Ford or Cummins, but I knew if I wanted to pursue a forensic engineering career, I would need the PE license. So, for six months, Lee and I studied every evening and on our 10th wedding anniversary in 2012, we took (and passed!) the PE exam.

Why is PE licensure so important to you?

Being a PE shows my dedication to the engineering profession and to continuous learning.

The journey to becoming a PE is challenging and I am very proud of that accomplishment. My PE license provides me the opportunity to work as a Forensic Engineer and enables me to present my analyses, conclusions, and opinions to judges and juries to assist them with understanding technical subject matter and making informed decisions.

\$1.2 Trillion Infrastructure Investment Transforms Engineering Landscape



Story by Hayley Robb | Photo courtesy of Ford Motor Company

On November 15, President Joe Biden signed the \$1.2 trillion [Infrastructure Investment and Jobs Act \(IIJA\)](#) into law. Also known as the Bipartisan Infrastructure Law, this landmark legislation is the largest long-term investment in our nation's infrastructure in nearly a century and will shape spending on bridges, broadband, energy, transportation and water from California to Kentucky.

While the transportation, manufacturing, utility and energy sectors are sure to be impacted, the Bipartisan Infrastructure Law affects the engineering industry, as a whole. From the civil engineers redesigning the roadways to the environmental engineers who will be responsible for addressing water infrastructure in places like Flint, Michigan, this is transformational change, and it is long overdue.

WHAT IS THE BIPARTISAN INFRASTRUCTURE LAW?

The Bipartisan Infrastructure Law will deliver \$550 billion of new federal investments in America's infrastructure over five years. The money will go

towards safe travel, logistics, strengthening power plants and creating a new Grid Development Authority to build a resilient, clean, 21st century electric grid.

The bill comes after the state earned a C- on its infrastructure report card from the American Society of Civil Engineers earlier this year.

"This infrastructure bill will dramatically change our industry over the next five years and beyond," said Dr. Wayne Karem, PE, president and CEO of Vector Engineers, Inc. and chair of the Legislative Committee. "From new jobs to new possibilities with electric car technology being born right here in Kentucky, there's no better time to be an engineer."

WHAT DOES THAT MEAN FOR KENTUCKY ENGINEERS?

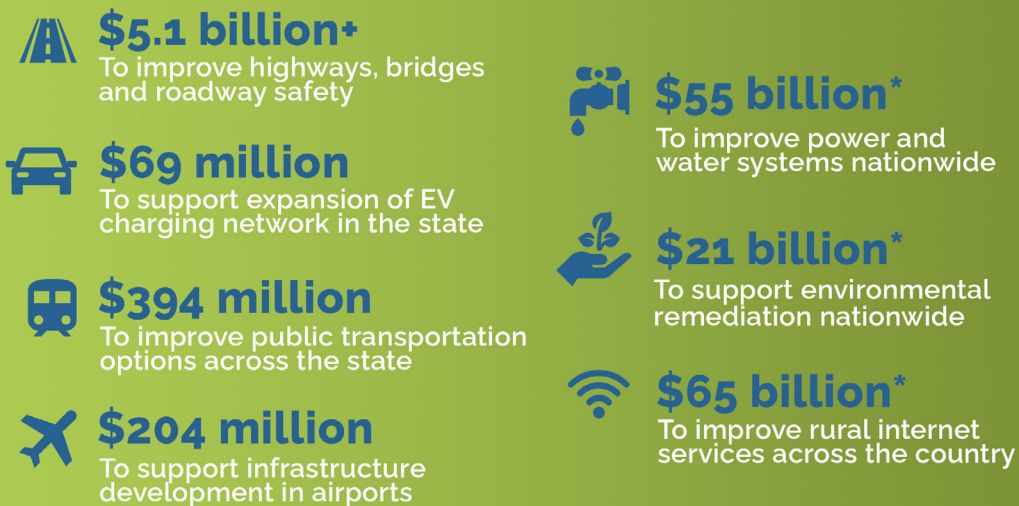
This piece of legislation will have a ripple effect on Kentucky engineers over the next five years. Our civil engineers will be instrumental in the development of new bridges and roads to service the logistics industry.

In Kentucky, there are 1,033 bridges and more than 1,322 miles of highway in poor condition. Since 2011, commute times have decreased by 6.3% in the state, and on average, each driver pays \$444 per year in costs due to driving on roads in need of repair. Based on formula funding alone, Kentucky would expect to receive \$5.1 billion over five years in

production and activity.

Automotive and chemical engineers in Kentucky will also be affected by the influx in productivity. Not only that, but the epicenter of electric car production will be happening right here with the recent announcement of Ford Motor Company's electric

U.S. Federal Infrastructure Spending for Kentucky Over Five Years



* Includes national spending estimates. Note: Kentucky is also eligible to apply for additional federal grants.
(Source: U.S. Department of Transportation Kentucky Fact Sheet)

Federal formula funding for highways and bridges.

Kentucky's borders are within a one-day's truck drive or 600 miles of over 65% of the nation's population, personal income and manufacturing establishments, according to the Cabinet of Economic Development.

This combined with the Cincinnati/Northern Kentucky International Airport partnership with Amazon and UPS' key role in COVID-19 vaccine distribution in Louisville this year, will boast plenty of economic growth for the Commonwealth.

Beyond civil engineering, sectors like agricultural engineering will see a domino effect as well. Agriculture already has deep roots in Kentucky as one of the biggest economic drivers. As roadways improve, more goods are distributed and rural communities across the state receive more resources, this will put pressure on agricultural engineers to develop systems that can keep up with increased

car battery plant coming to Hardin County. Ford's presence alone is expected to create 5,000 new jobs with thousands more to follow after the passing of this infrastructure bill.

It will be imperative to recruit young talent and implement programs that prepare them for the various openings. Positions in infrastructure require months, if not years, of on-the-job training. As many industries struggle to find skilled labor today, talent recruitment and diversifying the engineering workforce will be important as companies work to fill gaps.

No matter the challenges, the infrastructure plan is an opportunity for more better-paying jobs, safer connections and improved access for those who need it most.

This is an opportunity for growth in our country, our profession and our people.

Kentucky Bridge Project Successfully Attracts Endangered Bats to Roost



Story by Brenna Angel

A Kentucky bridge with flaking concrete, large cracks and exposed, rusted steel was a growing safety concern for the Kentucky Transportation Cabinet (KYTC) and also home for thousands of endangered gray bats. Overcoming the infrastructure and environmental dilemma, a KYTC project team designed a bat-friendly bridge that has proven to be a successful habitat for the species and safe connection for local motorists.

“This bridge project is the first of its kind in Kentucky, using an innovative and collaborative approach to mitigate the effects of much-needed bridge repairs on an important endangered species,” KYTC Secretary Jim Gray said. “KYTC delivered a new bridge that is not only safe for motorists but is now providing habitat for an estimated 1,100 gray bats.”

BATS IN KENTUCKY

The core of the gray bat population lies in the karst regions of Kentucky and Tennessee, roosting

primarily in caves. Historically the species has been found in the Midwestern and southeastern United States, in an area roughly from Kansas to West Virginia and from Indiana to Florida. Bats can also use bridges and culverts that have cave-like qualities for shelter from rain and predators.

To prevent interference with the bat habitat, KYTC is not releasing the location of the bridge. It is a two-lane, concrete box beam bridge carrying a state highway in a rural area. A 2018 inspection through the Bridging Kentucky program identified significant cracking and spalling of the concrete. Heavy guano staining was also visible underneath the bridge.

“Thousands of bats had made a home in the cracks and crevices between the deteriorating beams,” said Danny Peake, Director of the KYTC Division of Environmental Analysis. “It was clear the bridge needed to be repaired, but we wanted to minimize adverse effects and be sensitive to the

survival needs of the bats.”

A project team comprised of engineers and ecologists reviewed similar structures in other states that had a habitat-focused design. KYTC also worked with the U.S. Fish and Wildlife Service for biological expertise and guidance on the timing of the project.

“The gray bat has been on the Endangered Species list since 1976 and continues to face threats from habitat conversion and white-nose syndrome,” said Lee Andrews, field supervisor of the U.S. Fish and Wildlife Service’s Kentucky Field Office. “KYTC’s success in preserving bat habitat on this bridge is tremendous and could serve as a model for other projects.”

REHABILITATING THE ‘BAT BRIDGE’

The bridge rehabilitation involved repairs to the existing abutment and piers and replacement of the bridge superstructure with new beams, deck and railing. Rather than placing the box beams right next to each other, the new beams were set with 1.5-inch gaps. The intentional gaps do not affect the safety of the bridge, but they do provide more available

roosting space than the bats previously had on the deteriorating structure.

Construction on the bridge took place in January and February of this year while bats were hibernating elsewhere in caves. Ecologists conducted bat emergence surveys throughout the summer to count how many bats had returned to the bridge. In June, the count was estimated at around 400 bats. By August, that number had nearly tripled. Ecologists also noted the presence of bat pups, an encouraging sign for the species and overall success of the project.

“The bat bridge project is another example of how Kentucky is working hard to repair and replace critical infrastructure across the state, and there’s been significant activity – more than 300 projects completed – under the Bridging Kentucky program. Through a collaborative effort, we are building bridges that meet safety, budget, design and environmental requirements,” said Royce Meredith, KYTC program manager for Bridging Kentucky.

KYTC will continue to monitor the bridge for bat activity over the next five years.





COMPREHENSIVE ENGINEERING SOLUTIONS.



Jacobson Park Pump Station
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Highway Safety

During the Holidays and Beyond

Story by Hayley Robb

As the holiday season nears and more people travel on Kentucky's highways, the health and safety of our drivers becomes even more important.

During the fall and winter months, inclement weather, social gatherings and alcohol are more likely to be involved increasing the likelihood of injuries or fatalities.

From 2009 to 2018, Kentucky experienced approximately 7,425 highway fatalities, which is roughly equivalent to the entire population of Highland Heights in northern Kentucky or Russellville in western Kentucky.

The Kentucky Transportation Cabinet published a strategic plan to reduce the number of highway fatalities below 500 by 2024. This plan focuses on prevention within 6 areas: aggressive driving, distracted driving, impaired driving, occupant protection, roadway departure and vulnerable road users.

"When performing highway safety analysis, we have to remember that improving highway safety isn't about numbers, it's about people – our families, friends, neighbors, co-workers and communities," said Assistant State Highway Engineer Jason Siwula. "Our goal continues to be to help all who travel – including pedestrians, bicyclists,

The Kentucky Transportation Cabinet published a strategic plan to reduce the number of highway fatalities below 500 by 2024.

motorcyclists, and motorists – make it safely to their destinations. Every trip. Every time."

In order to prevent serious injuries and deaths on Kentucky's highways, the Strategic Highway Safety Plan outlines several strategies with engineers playing a key role. The following techniques are outlined in the most recent plan helping professionals navigate through the holidays and beyond.

ACCESS MANAGEMENT

Access management controls the location, spacing, design and operations of access points such as driveways, median openings, traffic signals and interchanges. Access management helps control the number of traffic conflicts.

Think about your own community and the areas with heavy congestion or crashes. How could the access points be improved to reduce the number of drivers impacted?

INNOVATIVE INTERSECTIONS

Change is hard for everyone but oftentimes it can be beneficial in the long run. Innovative intersections are one example of that. These designs control the flow of traffic to reduce or avoid traffic conflicts.

A few examples include reduced conflict U-turns (RCUT), which have proven to reduce all crashes in rural communities by 30 to 40% and reduced fatal crashes by 80 to 100%, and mini roundabouts, which have improved safety performance and reduced crash rates by 30%.

Where in your community could one of these designs be implemented? Where might they be already existing?

REALLOCATING AVAILABLE FOOTPRINT

Roadway reconfiguration is another strategy

engineers use to reduce the number of fatal crashes.

Road and lane "diets," also called road and lane reduction, is a technique whereby the number of travel lanes and/or the effective width of the road is reduced to improve safety for all roadway users and increase livability by creating a bicycle and pedestrian-friendly environment.

Check on your neighbors, families and friends this holiday season. Start analyzing your own communities and be intentional about the example you set on the road.

For more information on the Strategic Highway Safety Plan, visit transportation.ky.gov.



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