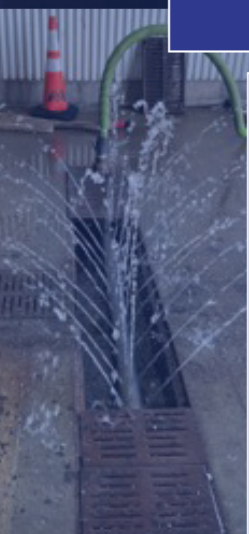
Indiana Transportation Innovators

2025 People's Choice Award



INDIANA TRANSPORTATION INNOVATORS

Indiana Transportation Innovators

An Indiana LTAP & INDOT Partnership

The innovation programs of Indiana LTAP and INDOT joined together to further recognize the transportation innovators of Indiana. Both programs host competitions to find the best Indiana innovators. Then, they pool their applicants together at Road School to award the People's Choice Award.

People's Choice Award
INDIANA TRANSPORTATION INNOVATORS

That's where YOU come in!

In the following pages, we have the innovation projects submitted to both the Local Innovation Masterminds Challenge (INLTAP) and Innovation Champions Challenge (INDOT).

Indiana Local Innovation Masterminds
INDIANA LTAP

Innovation Champions
INDOT

Choose the project you think is the most innovative and cast your vote!
Vote online or find us next to Indiana LTAP's table in PMU, Room 118.

Interested in submitting your innovation? Read pages 10-11 for more information!

Merging at Purdue Road School

Come meet the Indiana Transportation Innovators Team at Purdue Road School.

Voting/Information Booth
Purdue Memorial Union Room 118

How to Vote

After reviewing the projects (pages 4-9), visit **inltap.info/2025RSInnovation** or use the QR code to place your vote.

If you prefer to vote in-person, please visit our **Indiana Transportation Innovators booth in the Purdue Memorial Union Room 118.**

Voting ends Tuesday, March 18th at 3:00 PM.

The Announcement of Winners

Winners will be announced on March 19th (WED) at 8:00 AM at the LTAP/APWA breakfast. The breakfast starts at 6:45 AM in the East and West Faculty Lounges of the Purdue Memorial Union (2nd floor). Special guests from the Statewide Transportation Innovation Council will be in attendance including the Secretary of Transportation and Infrastructure, Matthew Ubelhor and INDOT Commissioner, Kent Abernathy.

Last Year's Winner

The **Town of Munster, Indiana** won the second annual Indiana Transportation Innovators People's Choice Award at the 2024 Purdue Road School.

Their innovative **Paving Crew Ambulance Conversion** project provides a solution to long work hours and lack of storage. Munster took a used ambulance and created a breakroom from the heat, a place to store their refrigerated lunches, and a storage unit for signs, cones, barrels, etc.

They engaged the community by hosting a contest for local elementary school to design the graphics for the unit.

Vincennes and Central Office

Thermal Integrity Profile Testing for Drilled Shafts

Problem

- Evaluation of the cross-section and the entire length of the deep foundation element cannot be achieved without drilling the entire shaft.

Solution

- The Thermal Integrity Profile test consists of installing instrumented cables along the length of the reinforcing steel cage of a drill shaft foundation and measuring the heat of hydration of concrete during placement and curing.
- Software resolves the temperature data into a 3-dimensional image of the drill shaft, including any imperfections in the structure.
- TIP shows vertical positioning of the re-steel cage.
- TIP illustrates how the shaft was drilled.

Benefit

- The test allows construction staff to evaluate the structural integrity of drilled shaft foundations in a low cost, non-destructive, and highly reliable manner.
- TIP opens the door to greater use of this foundation type and cost savings to the agency.

Greenfield District

Portable Wireless Cameras

Problem

- Most of our large vehicles & heavy equipment have major blind spots.
- Drivers rely on side mirrors and spotters to see traffic and workers on the ground.
- Lack of visibility & distractions make it difficult for driver to stay aware of workers on the ground and surrounding traffic.

Solution

- Portable wireless cameras may be mounted onto any truck or other equipment to watch operations from any angle necessary.
- Cameras are easily interchangeable because they are magnetic.

Benefit

- The portable camera system is a benefit in situations where there are rearview blind spots and on operations where employees are walking behind a truck or heavy equipment.
- Cameras provide increased visibility of workers and motorists.
- Cameras reduce distractions allowing driver to focus on one screen.
- Cameras decrease backing incidents.

Greenfield District

Snowplow Guidance Laser

Problem

- When not lined up properly, snowplows may damage mailboxes, guardrails, parked cars, etc. along the route.

Solution

- The snowplow guidance laser uses an ultra-bright green laser spot to establish the wing plow trailing edge location prior to arrival at that point.
- The snowplow laser guide is displayed on the road and/or snow surface ahead of the snowplow wing to show provide the snowplow driver with a reference spot in the road within the driver's field of view.
- The snowplow laser guide is designed for cold weather operation.
- The laser snowplow guide is coupled with a special heat source and pneumatic air puffer for the exit window to reduce or eliminate ice build-up on the front of the laser output lens for the displayed snowplow laser guidance system.

Benefit

- The snowplow laser guide, helps local street and state highways departments avoid costly damage to property and plows.
- The damage is avoided while also reducing downtime and improving safety with the unique snowplow laser guide.
- The snowplow laser guide is a versatile, all-weather product that can be used for guiding highway paint stripers, asphalt distributors, pavement profilers, or virtually any other vehicle or equipment requiring line control. Use it in the winter and summer for all your laser guidance needs.

Boone County

Salt Bed Rack & Tailgate Rack

Problem

- The old salt bed rack was built to hang the salt beds by chains.
- Crew backed the truck bed under the elevated rack and raised the bed, disconnecting the chains as they lowered the bed.
- Employees were having to either use a ladder to aid in this process, or climb on top of the I beams to disconnect chains.
- The employees were in and out of their trucks numerous times during this operation in slick conditions.
- Crew needed a way to insert beds with limited exposure to the elements.

Solution

- A salt bed rack (120′ long x 91″ wide) made of galvanized I-beams, perched atop 12 concrete-filled sonotubes with 4″ x 7″ pockets for loading forks to easily access.

Benefit

- There was less exposure to slips, trips, and falls, reducing loss time due to accidents.

Kosciusko County

Magical Parts Room

Problem

- There was a lack of organized space for inventory.
- A parts room was needed that was large enough to hold all the parts for many different types of equipment while also organizing it by type/model/vendor.

Benefit

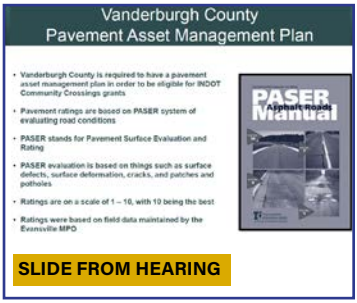
- More space was available for storage.
- Staff know what's on the shelf and what needs to be replaced.

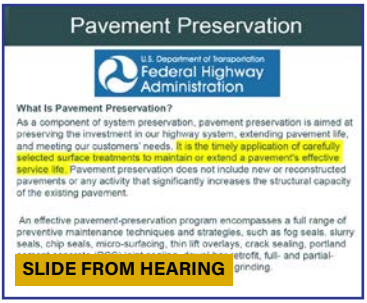
Solution

- The parts room became two levels with open space to get to the next level via lift.
- Room was organized for easier access.
- Every row and shelf was labeled with a barcode.
- An in-house computer keeps track of the inventory.

Vanderburgh County

Public Road Hearing





Problem

- County residents submit annual (most often in the spring) road paving requests for roads that they want to see repaired.
- These requests may or may not correspond to the road repair needs based on the county's asset management plan.

Solution

- The County Commissioners hold an annual Road Hearing at one of their meetings in the spring.
- At that hearing, the Commissioners solicit road repair requests from the public.
- The public requests are combined with recommended repairs based on data from the county's asset management plan.
- A presentation is given that summarizes all of the road repair requests along with the pavement ratings for the requests.
- The County Commissioners then determine a final road repair plan after reviewing the requests and the data, prioritizing the repairs based on all relevant data.

Benefit

- By introducing the pavement ratings from the asset management plans into the planning process for determining road repairs, it provides another tool to assist in prioritizing the requests that are received from the county residents.
- The Hearing allows residents to know that their voices are being heard and that their requests are actually being evaluated.
- The Road Hearing also benefits the county by establishing a deadline for determining the annual road repairs.

INDOT Innovation Champions

INDOT employees are challenging traditional ways of thinking in transportation planning, financing and construction in favor of inventive ideas and innovative solutions, especially if those ideas save money and manpower. These initiatives have enabled INDOT to deliver outstanding results at all levels – in transportation engineering, planning and operations.

INDOT's Research and Development Division supports innovation by conducting cutting edge research and working in close collaboration with Purdue University's School of Civil Engineering.

The Innovation department is focused on new practical ideas and technologies. They gather information and input from the grassroots level and all levels of INDOT. The focus is on solutions while fostering an environment of idea sharing and statewide implementation. The Innovation department is solutions based and keenly focused on quickly implementing ideas.

INDOT's Innovation Committee receives submissions from each of its districts, awarding Innovation Champions each year.

https://www.in.gov/indot/current-programs/innovative-programs/

Indiana LTAP Innovation Masterminds

Indiana LTAP's Innovation Program is a newly developed program to identify, vet, implement, and recognize ideas, processes and tools specifically generated by local agencies that improve construction, maintenance, contracting, inspection, and all other related highway and street department activities.

How It Works

Indiana LTAP is gathering input from ALL levels of local government agencies to identify and share those innovations that exist in every highway and street department. Has your department created a new process, tool, or piece of equipment that has made an operation easier, safer, more efficient or more affordable?

Triangle of Impact

Great innovations in transportation use the Triangle of Impact, turning the gears of safety, economic vitality, and quality of life. Innovations can increase the safety of the traveling public or construction workers on the jobsite. Innovations can also reduce costs, saving taxpayer dollars, allowing: government agencies to invest funds into other services, highway and street departments to perform more work, and employees to have a more competitive salary. Finally, innovations can improve quality of life, providing better service to the community, attracting visitors, and making work easier or more fun. The opportunities are limitless!

The individual gears of the Triangle of Impact turn together to make a great innovation. For example, making a job easier will improve the safety of the work, giving less room for error; it will reduce costs because the labor will take less time; and it will improve quality of life because a less difficult job will make the lives of workers easier.

Indiana Innovation Masterminds

Indiana LTAP has launched the Indiana Local Innovation Masterminds Challenge to celebrate successful ideas utilized in our local transportation agencies. This contest is open to innovators in Indiana town, city, and county government entities. **Applications are taken all year round!** To learn more about the innovation program and the masterminds application, visit: **purdue.edu/inltap (Innovation tab)**.

The Indiana Transportation Innovators Team

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