



This edition of the STIC *Innovation in Motion* e-Newsletter features the release of the *Focus on Innovations* publication, highlighting the creativity and innovation that exists across all facets of PennDOT, including updates on current and new STIC and Federal Highway Administration (FHWA) [Every Day Counts](#) (EDC) innovations.

Additionally, this edition includes updates on the [Geosynthetic Stabilized Bridge Approach](#) innovation, a STIC innovation being pursued by the Construction and Materials TAG and the FHWA [EDC Round 5](#) innovation Reducing Rural Roadway Departures.

## Focus on Innovations Publication: Now Available

We are excited to share the recently-launched [Focus on Innovations](#) publication, highlighting accomplishments in transportation innovation across Pennsylvania. The publication showcases innovations recently developed and implemented at PennDOT as well as some of the more recent progress and successes of STIC and EDC innovations. Featuring several videos and in-depth articles, the publication includes:

- Employee-driven innovations of all areas within PennDOT
- Updates on current and newly introduced STIC innovations
- Every Day Counts innovations
- STIC Incentive Program project introductions and updates

“Thanks to the hard work and dedication of the Technical Advisory Groups, comprised of many dedicated transportation officials in both the public and private sectors, the STIC continued to move the needle of innovation in 2021,” said STIC co-chairs PennDOT Secretary Yassmin Gramian, P.E. and FHWA Division Administrator Alicia Nolan. “The STIC continues to be a vital and collaborative entity that remains focused on advancing proven innovations to improve transportation for the people of Pennsylvania. Its enduring success is pivotal to maintaining a safe and effective

transportation network.”

*Note: Please use Google Chrome or Microsoft Edge to view the report.*

[Read more](#)



## **PennDOT Embracing New Approach to Eliminating Bridge Bumps**

One ride quality issue PennDOT has made significant progress on is addressing the bump that drivers often encounter when approaching or exiting a bridge.

In typical bridge construction, the roadway must transition from an area supported by compacted but flexible soil embankment layers, known as backfill, to a more rigid bridge abutment support. Due to several factors, including seasonal temperature changes, loss of backfill by erosion, poor drainage, and high traffic loads, the portion of the backfilled roadway can settle over time while the abutment resists settlement. This creates an abrupt elevation change, or "bridge bump," at the transition point.

Across the United States, about 25% of bridges suffer from bumps at their ends, and state transportation agencies spend an estimated \$100 million per year fixing them.

[Read more](#)



## Reducing Rural Road Runoff Crashes: A Joint Effort Across Pennsylvania

PennDOT, [Pennsylvania's Local Technical Assistance Program \(LTAP\)](#) and local officials across the state are teaming up in the ongoing effort to tackle the vexing problem of rural roadway departure crashes.

According to the Federal Highway Administration (FHWA), every year, nearly 12,000 people die in crashes when their cars leave the travel lane on a rural road. That's 30 people every day. Roadway departure crashes are a major problem on all public rural roads. Nationally, 50% to 60% of them happen on state networks. That means more than 40% occur on locally-owned roads, according to FHWA.

As an FHWA [Every Day Counts Round 5 \(EDC-5\)](#) innovation Pennsylvania selected to pursue, the Reducing Rural Roadway Departures initiative involves LTAP contacting municipalities to offer training and assistance dealing with this critically important safety issue.

[Read more](#)





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