This edition of the STIC *Innovation in Motion* e-Newsletter features updates on two current STIC innovations as well as an article on the Design-Build Traffic Control Plan (DBTCP) innovation, a STIC innovation championed by the STIC’s Design Technical Advisory Group (TAG). The innovation improves project delivery by exploring ways to provide greater contractor flexibility in constructing projects.

This e-Newsletter also highlights the Ridley Creek State Park pilot project, where part of the roadway was paved with an asphalt and recycled plastic mixture. Representatives from PennDOT’s Strategic Recycling Program (SRP) presented on this pilot project during the March STIC Business Meeting. The e-Newsletter also features an article about the first curved steel tubular flange girder bridge in the United States, which is being constructed on Interstate 95 in southeastern Pennsylvania.

Additionally, this edition includes the third and final article in a series of articles celebrating the 25th Anniversary of PennDOT’s Agility Program. Read the first article in this series to learn about the Agility Program’s beginning and the second article in the series to read about a long-standing and successful Agility Agreement between PennDOT and Cranberry Township, Butler County.

**STIC Innovations Moving to the Advancement Phase**

The first STIC Business Meeting of 2022 was held virtually on March 23. During the meeting two STIC innovations were presented for the Advancement Phase of the STIC Innovation Development Process.
The **Environmentally Sensitive Area (ESA) Signage**, an innovation by the Design TAG, is specially-designed, unique signage that can be used to mark environmentally sensitive areas or areas that have been planted as mitigation. The Design TAG is working to make ESA signage a standard project special provision and include it in the library of mitigation measures in PennDOT’s Engineering Construction Management System (ECMS), and appropriate PennDOT publications to ensure designers know where to find the special provision and when to consider using this innovation on construction projects.

The **Brushing Loader Attachment and Vegetation Management Equipment Catalog**, a Maintenance TAG innovation, helps PennDOT maintenance forces better understand what pieces of equipment are available for use and how they are beneficial for effectively and efficiently removing overgrown and unwanted vegetation that can pose traffic hazards to the traveling public. The Vegetation Management Equipment Catalog (PUB 920) was developed to inform maintenance personnel about the different vegetation management equipment and attachments owned by PennDOT as well as raise awareness of potential equipment and attachments available for future purchase or rental by the department. The catalog is nearing completion and will be available to all PennDOT employees as well as local governments in the near future.
Design-Build Work Zone Traffic Control Plan Gains Wide Acceptance and Use Across the PennDOT System

Advancing transportation innovations to save Pennsylvania taxpayers money and hassle is a primary goal for PennDOT, and it has experienced great success with the Design-Build Traffic Control Plan (DBTCP).

Championed through the Pennsylvania State Transportation Innovation Council (STIC), which is celebrating its 10th anniversary in 2022, this innovation allows highway contractors and the designers to work closely on the final design of the Traffic Control Plan to keep drivers moving as efficiently as possible through construction areas.

Collaborative Pilot Paves Roadway with Recycled Plastic

This past October PennDOT, Department of Conservation and Natural Resources (DCNR), the Department of Environmental Protection (DEP), and the Department of General Services paved part of a Ridley Creek State Park roadway with an asphalt and recycled plastic mixture.

This pilot project, coordinated through PennDOT's Strategic Recycling Program (SRP), which is funded through DEP, includes two, quarter-mile roadway stretches surfaced with an asphalt/recycled plastic mix. The material is intended to strengthen the roadway surface without leaching plastic material into the surrounding environment.
PennDOT Constructs First Curved Steel Tubular Flange Girder Bridge in the U.S.

On Interstate 95 in southeastern Pennsylvania, PennDOT is constructing the first curved steel tubular flange girder bridge in the United States. The use of a tubular flange in place of a standard plate increases structural performance while reducing fabrication and erection material, as well as erection time compared to standard plate flange curved girders.

Innovative Thinking Leads to Unconventional PennDOT Agility Exchanges

Outside-the-box and unconventional thinking is at the heart of PennDOT's Agility Program, which celebrated its 25th anniversary in 2021. While service-for-service Agility exchanges are traditionally executed between PennDOT and local governments, innovative thinking has led to exchanges with several non-traditional PennDOT partners over the past 25 years, including airports, career and technology centers, hospitals, school districts and even volunteer fire departments.
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