

## 2023-2024 PennDOT Innovations Challenge

### Background

The multi-lane, state-maintained roadway going through your town has reached the end of its useful life and must be rebuilt. When the roadway was initially constructed, it separated one of the neighborhoods in your community and required people and businesses to relocate. Before finalizing plans for reconstruction, PennDOT wants to collaborate with your town to overcome the separation caused by the roadway.

**Your Challenge:** Develop an innovative and implementable solution to meet the needs of your community, which includes accommodating bicycle and pedestrian traffic, connecting the separated neighborhood, allowing for new business development and ensuring the smooth flow of traffic. The proposed solution should also consider additional costs to restore your community.

### Your Award

The statewide winning team will be chosen from among regional winning teams across the state. Each PennDOT regional office's winning team members will receive certificates. The regional winners will be invited to present their innovative solutions to the PennDOT Secretary and a panel of judges, who will determine the statewide winner. The statewide winning team members will receive certificates, and their school will receive a traveling trophy and permanent trophy engraved with the school's name.

In addition, the Transportation Policy and Education Foundation, an educational arm of the [Associated Pennsylvania Constructors](#) (APC) organization and the [American Council of Engineering Companies of PA](#) (ACEC/PA) are providing a combined total award of **\$4,000** to the statewide winning team.

Think you have an innovative solution? Give the PennDOT Innovations Challenge your best effort!

### Project & Submission Guidelines

Students must work together in teams (**minimum of two up to a maximum of four individuals**) to develop their innovative solution that addresses the identified challenge.

To enter the challenge, teams must complete the [2023-2024 PennDOT Innovations Challenge Submission Form](#), which includes attaching a description of **no more than 750 words** outlining the innovative solution and its benefits. **Note:** Each team must identify a faculty adviser who will need to submit the form on the team's behalf.

The submissions will be reviewed by regional PennDOT offices, and up to five teams will be invited to **present their solutions** to a team of judges from the **PennDOT regional office** depending on where their school district is located. **Note:** If your team is selected as a regional finalist, a PowerPoint presentation (or similar presentation software), consisting of no more than 15 slides must be created. Presentations must be no longer than 15 minutes. In addition, models, diagrams, videos, and other visual aids or supporting materials can be used as part of your presentation to demonstrate your team's innovative solution to the PennDOT regional office judges.

Winners will be selected from the PennDOT regional offices; regional winners will advance to the statewide competition, where one statewide winner will be selected.

The challenge is open to **Pennsylvania high school freshmen, sophomores, juniors, and seniors** in public, private or charter schools, and homeschooled students. **Note:** PennDOT employees and their family members (siblings, children, grandchildren, nieces and nephews) are ineligible to enter.

The regional and statewide judging events may be held in person or virtually.

## Deadline

Submissions must be received by PennDOT's Bureau of Innovations by **11:59 PM on January 26, 2024**.

## Process and Timeline

1. By **January 26, 2024, at 11:59 PM**, complete and submit the [2023-2024 PennDOT Innovations Challenge Submission Form](#) to PennDOT's Bureau of Innovations.
2. By **February 9, 2024**, PennDOT regional offices will review initial submissions, select up to five finalists and invite them to present their innovative solutions to a panel of judges, either in person or virtually. **Note:** These presentations should be no longer than 15 minutes and include a PowerPoint (or similar presentation software), consisting of no more than 15 slides. Models, diagrams, videos, and other visual aids or supporting materials to demonstrate the team's innovative solution can be used as part of the presentation to demonstrate the team's innovative solution to the PennDOT regional office judges.
3. By **March 15, 2024**, PennDOT regional offices will select winners for the **statewide judging in April 2024** to present, either in person or virtually, their innovative solutions to the PennDOT Secretary and a panel of judges, who will determine the statewide winner.

## Judging Criteria

- **Effectiveness – 10 points**
  - Does the solution holistically address the challenge?
  - Could the solution be used by PennDOT without substantial revisions?
  - Does the solution address a problem that can be solved with tools, techniques and/or technologies that are available today or being discussed as possible within the next five to 10 years?
  - Does the solution include a plan for continued operation and maintenance after implementation?
- **Benefits to the Community – 10 points**
  - Does the solution connect previously separated neighborhoods and meet the needs of the community, e.g. recreational opportunities?
  - Does the solution consider and allow for new business development and employment opportunities?
  - Does the solution include and address impacts to the community and the local road network?

- Does the solution take into consideration bicycle and pedestrian traffic as well as other modes of transportation?
- Does the solution allow for the smooth flow of traffic?
  
- **Cost-Effectiveness – 10 points**
  - Is the solution cost-effective to implement and maintain?
  - Does the solution identify and effectively address any additional costs to restore the community?
  - Does the solution take into consideration any grant or similar type funding that could be used to help offset project costs?
  
- **Innovation – 10 points**
  - Does the solution inspire transportation progress?
  - Does the solution introduce an original or advanced concept?
  - Does the solution show promise as a catalyst for continued development?
  - Could the solution be implemented on other similar projects statewide?
  
- **Presentation – 10 points**
  - Were the presentation materials submitted completely?
  - Is the solution presented in a captivating manner?
  - Is the solution presented with clarity and forethought?
  - Did the presenters discuss all aspects of the solution from formulation through execution?
  - Did the group members answer questions from the judges completely, logically, and personably?
  - Did the brief write-up on the solution contain a clear, complete, and well-organized summary of the project?

## Resources

- [I-579 Urban Open Space Cap \(HDR Inc.\)](#)
- [I-579 CAP Urban Connector Project \(Pittsburgh Sports and Exhibition Authority\)](#)
- [Central Access Philadelphia \(I-95/CAP\)](#)
- [The Park at Penn's Landing](#)
- [The Chinatown Stich – City of Philadelphia](#)
- [Reconnecting Communities StoryMap \(FHWA\)](#)
- [Reconnecting Communities and Neighborhoods Grant Program](#)
- [Strengthening Communities with Innovative Right of Way Projects](#)
- [Build Community Connections through Innovative Development of Rights of Way and Airspace](#)

## Contact Information

For questions or more information, email PennDOT's Bureau of Innovations at [DOTInnovations@pa.gov](mailto:DOTInnovations@pa.gov).