2014
Build a Better Mousetrap Competition:
Recognizing Innovative Inventions and Improvements
PennDOT Local Technical Assistance Program
Have You Built a Better Mousetrap?

Have you or one of your coworkers recently built an innovative gadget or developed an improved way to do a job? If so, now is the time to show off a project your municipality is proud of in the Build a Better Mousetrap Competition.

PennDOT is looking for projects that you, your employees, or crew designed and built. It can be anything from the development of tools, equipment modifications, and/or processes that increase safety, reduce cost, improve efficiency, and improve the quality of transportation.

If you have something you think would qualify for this competition, submit your entries by **Tuesday, April 1, 2014**. Entries will be judged by a committee of municipal road employees on cost savings/benefits to the community, ingenuity, transferability to others, and effectiveness.

The winning entry will be submitted into a national competition to compete for prizes and, of course, bragging rights. Winners of the national competition will be announced at the annual LTAP/TTAP national conference this summer. All entries at the national level will be posted on the LTAP/TTAP program website and compiled into an electronic booklet.

To enter the competition, complete the entry form that follows and **return it by Tuesday, April 1, 2014**.

If you have questions, please feel free to email them to katkinson@psats.org, or call Karen Atkinson at (717) 763-0930.
Agency Name: ______________________________  Contact Person: ______________________________

Contact Phone #: ______________________________  Contact Email: ______________________________

Contact Address: ________________________________________________________________

Entry Title: ________________________________________________________________

Problem Statement: ________________________________________________________________

Discussion of Solution: ________________________________________________________________

Labor, Equipment, Materials Used: ________________________________________________________________

Cost: ________________________________________________________________

Savings/Benefits to the Community: ________________________________________________________________

*Please keep in mind that photographs are encouraged but not mandatory. You may use more than one page per entry. This form can be found and downloaded from www.ltap.state.pa.us - under the "News Items" section.

Please return your completed form by Tuesday, April 1, 2014, to kakinson@psats.org, fax it to 717-763-9732, or mail it to:

PennDOT LTAP
c/o PSATS
Attention: Karen Atkinson
4855 Woodland Drive
Enola, PA 17025

Questions? Please call Karen (717) 763-0930.
Judging Criteria

The competition is judged on the criteria listed below within the framework of a five-point rating scale. Provided is an example matrix that lists each of the judging criteria and assigns each entry a rating of one through five. The winner is the entry that has the highest number of overall points.

<table>
<thead>
<tr>
<th>Judging Criteria</th>
<th>Five-Point Rating Scale</th>
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<tbody>
<tr>
<td>- Cost</td>
<td>- 5 = Excellent</td>
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<tr>
<td>- Savings/Benefits to the Community</td>
<td>- 4 = Very Good</td>
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<tr>
<td>- Ingenuity</td>
<td>- 3 = Good</td>
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<tr>
<td>- Transferability to Others</td>
<td>- 2 = Fair</td>
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<tr>
<td>- Effectiveness</td>
<td>- 1 = Poor</td>
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<table>
<thead>
<tr>
<th></th>
<th>Cost</th>
<th>Savings/Benefits to the Community</th>
<th>Ingenuity</th>
<th>Transferability to Others</th>
<th>Effectiveness</th>
<th>Overall Total</th>
</tr>
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<tbody>
<tr>
<td>Entry #1</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>17</td>
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<tr>
<td>Entry #2</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>20</td>
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<td>Entry #3</td>
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<td>3</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>14</td>
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<td>Entry #4</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>23</td>
</tr>
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2013 Build a Better Mousetrap: Pennsylvania Competition Winners

1st Place Pennsylvania Winner and 3rd Place National Winner

Nazareth Borough/Northampton County
134 South Main Street, Nazareth, PA 18064

Winning Entry: Brine Making Totes

Description: Nazareth Borough wanted to apply brine to their streets. The Nazareth Public Works Superintendent, Robert Reimer, contacted Allen Township, who had been doing this for a couple of years. Allen Township purchased the spray set up along with a brine maker. Robert, along with his highway crew, had to come up with a way to make the brine and apply it at minimal cost to the Borough. They came up with an idea to use palletized tote to make, apply and store the brine. The highway crew took about a day to cut the tote, drill the holes and install the pipe and valves along with the wooden hopper. In total, the cost was approximately $540. Savings are abundant as a manufactured system can cost up to $20,000. Savings for salt increase with each weather event: the first salting would take about 12-16 tons of salt for our streets. With brine it takes about one ton of salt.
We would also like to recognize the following entries from 2013:

**2nd and 3rd Place Entries, respectively**

**Elk Township/Clarion County** for their entry *Anti-Skid Remover for Under Guiderail*. During winter maintenance months, anti-skid material collects under guiderail and storm water runoff does not remove it from the roadway. In order to alleviate this problem, the crew fabricated an apparatus which mounts to the mold board of a grader to push and remove material from under guiderail. The total cost of materials was approximately $50, plus six hours of labor. This mechanism allows the township to complete cleanup at 1/5\(^{th}\) of the cost to complete it manually.

**Borough of Mount Joy/Lancaster County** for their entry *Offset Snow Plow*. The Borough has an Amtrak Bridge with a 4 ft. sidewalk that needs to be shoveled when it snows. Due to the length (+/- 400 ft.), it often takes at least 3 men to shovel. There is no way to use a snow blower or any other machinery without closing the bridge due to the width of the bridge. Through team brainstorming and ingenuity, the roadmaster designed a plow that could pivot off the 3-point hitch of a tractor, keeping the snow to the right side. This tool cost less than $450 to complete and saves countless labor hours.