When COVID-19 hit earlier this year, LTAP quickly adjusted its operations and shifted much of its training online instead. These virtual sessions have proven to be quite popular, but LTAP understands that some employees and local officials may not feel comfortable with virtual technology and are eagerly awaiting the announcement that training can be brought back to the classroom.

Until that happens, LTAP would like to share what some municipalities have been doing to ensure valuable training continues for their road crews and others. Employees and elected officials have been gathering in a meeting room (taking the appropriate COVID precautions) so that they can take a virtual class together as a group.

Don Sirianni, the roadmaster for Springfield Township, Montgomery County, recently invited others to attend a traffic calming class. Two township commissioners joined two public works employees, the assistant manager, and the traffic safety police officer for the course. They were able to discuss their local issues while learning together from the training. In fact, it was the first time the commissioners were able to attend an LTAP class.

Until classroom training becomes an option again, LTAP urges municipalities to take advantage of the virtual training and the opportunity to invite leadership to join road staff and learn together. All virtual classes are eligible for Roads Scholar credits. While only one person must log in for the class, everyone needs to register for the training. A person should be designated to take the polls and enter comments into the chat to participate in the course.

Check out the available courses at gis.penndot.gov/ltap. If you need assistance with registration, call 800-FOR-LTAP (367-5827) or email ltap@pa.gov.

Employees and elected officials of Springfield Township, Montgomery County, practice social distancing protocols while participating as a group in an LTAP virtual training.
WINTER WEATHER TIPS

Let’s Plow Right In!

The following information has been condensed from an article by Matt Carter of the Delaware T2 Center (LTAP).

Snow plowing isn’t for the weak. It is an art and a skill. It takes patience, lots of practice, and experience. Here are some tips and techniques for plowing:

- **Drive defensively** — All of the normal thinking of defensive driving applies to the equipment operator in a snowstorm. A heightened awareness of everything, including vehicles and pedestrians, is important. Uncleared or slippery sidewalks may force walkers out into the roadway, and they may not be wearing clothing that makes them easy to see. You must be on the lookout for them.

- **Focus on priority routes** — Through the peak of the storm and beyond, you need to be singularly focused on ensuring that if there is a 911 call, the EMTs, firefighters, and police officers can get their vehicles through and respond as quickly as possible. A spotter in the passenger seat can help you keep a sharp lookout so there’s plenty of time to take corrective action.

- **Plan out your rural approach** — When plowing rural roads that typically have one lane in each direction, narrow or nonexistent shoulders may limit snow storage and can pose hazards if a plow ends up in a ditch. If the adjacent lands are open, drifting snow can also be a problem.

  The typical approach on a rural road is to start in one direction with the plow overlapping the centerline somewhat. Exposing that centerline stripe early is important because it provides a visual cue for the motorists behind you. Coming back the other direction, try to aim at or just over the centerline to minimize windrows. Depending upon the size of the plow and the traffic volume on the roadway, you may need four passes just to clear enough space for two-way traffic. Because there’s no median, push the snow to the right, and if you’re expecting a heavy storm or additional storms, get it as far back off the shoulder as you can to make room.

  Tandem plowing the full width of a two-way road at one time, using one or more plows moving against the flow of traffic, is not a good idea unless you’ve set up traffic control to ensure that no vehicles can come from the opposite direction. Since driveways and intersections may make this difficult to do, it is generally too risky a maneuver to allow.

- **Be aware of urban issues** — Urban and suburban streets pose many of the same challenges as rural routes, but there are other concerns to be aware of, too. Adjacent sidewalks require you to really think about plow speed. Throwing snow over on the sidewalk can create problems, especially if a pedestrian is there. Keep in mind that snow thrown by a plow is not fluffy and light, particularly if it has stones and debris in it. Slow down!

  Adjacent parking is a similar concern. As folks are digging out their cars, they may be working in the travel lane and popping out between cars without warning. Be on the lookout and slow down.

  When plowing intersections, carry the snow around corners and deposit it to the right of the road since this tends to minimize piles in the intersection. You will also need to get rid of the curved diamond in the center of the intersection. If you have lighter equipment, use it, especially where intersections are close together. In heavier storms, you should have a contingency plan for removing snow with loaders and dump trucks and placing it an environmentally suitable location.

  In grid-street systems, hit the priority streets first and often; a series of right turns is often the most efficient way to work through these, but some careful consideration of maps, coupled with the operator’s experience, will yield a smart approach.

  If you want parking aisles cleared during the storm to facilitate removal on key routes, local regulations provide a means to make it happen. You want the regulations to be enforceable, so ask law enforcement and legal counsel for advice and be sure the rules are consistently enforced. One technique is to pass an ordinance providing for alternate side parking in the days that follow a storm, enabling you to clear those aisles over the next couple days. Because the snow tends to be packed down to ice piles the longer you must wait to tackle it, you may need to use a backhoe, skid steer, or loader.

   

Educating the public about your process for clearing streets can help provide a better understanding of why you do what you do during a storm.
• **Know your route** – You may encounter cul-de-sacs, dead-end streets, alleys, and parking lots while plowing. Be sure you have a plan for tackling them.

  **Cul-de-sacs**: Because you will have to back up and go against traffic while plowing cul-de-sacs, be careful. Use a spotter when you can and when it’s safe to do so. There are many cul-de-sac designs, which means there is no one way to attack them. If you have a one-way plow, you are stuck sending snow to the right only. If you use reversible plows, you can attack with more flexibility. One possible approach is to enter the cul-de-sac on the right and go around the outside two-thirds or so, throwing snow to the right. Then, stop and back up to the rear of the cul-de-sac and make a series of back and forth movements to clear the snow out of the cul-de-sac.

  You want to minimize how much snow you’re carrying at any point because there’s usually a lot of driveway entrances and you want to reduce angst from residents. Some recommendations include pushing some of the snow into a center island or moving it out of the cul-de-sac to another location.

  **Dead-end streets**: Dead ends pose similar challenges as cul-de-sacs, but they have the added bonus of little or no turnaround area and no right-of-way room to store pushed snow. In these cases, you may find you have to back down the dead end and push the snow out of the street. Take it slow and try to use a spotter who can assist you while backing up. Be extra mindful of pedestrians, too.

  **Alleys**: Alleys can pose additional safety concerns because people could be coming and going out of doorways and garages along the route. Because of limited visibility, you want to avoid backing up in alleys so try to use the right equipment to effectively tackle a narrow route. Alleys also typically have items, such as trash cans, dumpsters, stored materials, and cars, that may get in the way. Try to address them in advance with outreach to residents or by passing an ordinance.

  **Parking lots**: If you have parking lots to plow, try to get to them early before vehicles start to arrive. Push boxes are commonly used for parking lots and other large surfaces like pedestrian plazas, as they allow the operator to push snow straight ahead, minimizing windrows and damage to the pavement. Plan where you’re going to push the snow, and keep in mind that the higher a pile, the longer it is going to be there. Be mindful that you don’t create a drainage problem when the melting starts.

• **Be careful on bridges** – Everyone knows that bridges freeze before roadways so be extra careful when approaching what could be an icy bridge. Bridges require additional considerations, too. Control your speed so you don’t send snow, rocks, and debris over the side and onto cars or people below. Also, think about where the drainage features of the bridge are located and try not to jam them up. You want them to work as intended when the melting starts.

• **Watch your speed** – Top speeds should always be low enough to ensure that the plow vehicle can be operated safely. Also, continually monitor traction conditions and be on the lookout for sudden changes. Because you are driving a heavy vehicle on a slippery pavement, you must be prudent. On a rural road, you may be able to travel faster since the snow will be broadcast wider and you will minimize windrows and help with melting. All things equal, the faster you’re moving, the greater your productivity.

  On the other hand, slower speeds in urban areas and neighborhoods will minimize snow on sidewalks and pose less danger to pedestrians. Slower speeds also give you more time to observe trouble up ahead and take evasive or braking action. At slower speeds, you can deal better with the kidney jammers (bridge expansion joints, railroad crossings, manholes) and do less damage to these structures and your plow rig.

  Speed can also affect your material spreading effectiveness. Your speed should match the distributor speed, based on your calibration runs.

***

When Mother Nature unleashes her fury this winter, be sure your plow operators are ready to tackle what comes. It begins with a sound plan of attack and requires patience, experience, and lots of practice.
Impact of COVID-19 Expected to Reduce Municipal Liquid Fuels Funds for 2021

Earlier this year, the Pennsylvania Department of Transportation (PennDOT) sent a letter to municipalities letting them know the estimated amount of their 2021 Municipal Liquid Fuels Tax Fund allocation. The total amount to be allocated is estimated at $439,309,000, which reflects the anticipated impacts of COVID-19 and is a decrease of roughly $48 million (9.9%) from the 2020 allocation.

Throughout the year, municipal officials often have questions about their Liquid Fuels allocations, such as whether a certain item is eligible to be paid for with these funds or can they get help with filing the annual report. Questions on materials and projects should be directed to your Municipal Services representative at the local district office. A listing can be found at www.penndot.gov/Doing-Business/LocalGovernment/MunicipalServicesRepresentatives/Pages/default.aspx. Questions on the annual reporting and audit results should go to your regional PennDOT financial consultants. A listing is available at www.penndot.gov/Doing-Business/LocalGovernment/LiquidFuels/Pages/Financial-Consultants.aspx.

Liquid Fuels annual reports are due to PennDOT by January 31, and municipalities are strongly encouraged to use dotGrants, an online reporting system for the Liquid Fuels annual report. Filing your annual report through this system eliminates the need to send multiple signed and sealed copies of the report to your local PennDOT office. It also provides an error check on the form and email notifications as your report goes through the approval process.

It is especially important to file your 2020 annual report online since PennDOT employees have been working virtually from home and payments could potentially be delayed if paper reports are sent into the office. New users can register for a dotGrants account at dotgrants.penndot.gov/dotGrants/Welcoming. Questions on the annual reporting and audit results should go to your regional PennDOT financial consultants. A listing is available at www.penndot.gov/Doing-Business/LocalGovernment/LiquidFuels/Pages/Financial-Consultants.aspx.

If you have additional questions on Municipal Liquid Fuels Tax Funds or dotGrants, contact PennDOT Audit Manager Kristen Sims at (717) 214-6161 or krsims@pa.gov.

Salt Brine is Encouraged as Part of a Municipal Winter Maintenance Program

When the Federal Highway Administration introduced salt brines to Pennsylvania in 1996 as part of a best practices study, the technology was initially met with skepticism since plain salt was considered adequate for keeping motorists safe. Since that initial introduction, however, PennDOT has researched and developed trials that prove salt brines help to improve driver safety during wintertime weather while also reducing the amount of salt pollution that ends up in the state’s waterways.

Brine, a mixture of rock salt and water with a 23.3% saline content, is applied to dry roads before a forecasted storm so that the first fall of snow melts as it contacts the road surface. Publication 447, Approved Products for Lower Volume Local Roads, details how to properly mix and apply the brine. This process makes roads much safer at the onset of a storm, which is when many accidents are recorded. It also prevents the snow from freezing to the surface and allows for easier removal by plows as the storm increases in intensity.

Today, many municipalities use salt brine as a normal part of their winter maintenance operations. They find that reducing their salt purchases helps both the environment and their budgets.

Municipalities may use Liquid Fuels monies to purchase salt brine from a municipality with brine-making equipment or to buy their own brine-making equipment, storage units, and application devices for trucks. Some municipalities also have Agility agreements with PennDOT that allow them to obtain salt brine from the state’s sources. In addition, there are some brine enhancements on the open market that have been approved for Liquid Fuels reimbursement. Check with your Municipal Services representative to find out which products are approved.

Special-Event Permits Must Adhere to State’s COVID-19 Restrictions

PennDOT has updated its regulations about special-event permits to make sure they adhere to COVID-19 restrictions and conditions. These permits are used to authorize temporary road closures and other event-related uses of PennDOT’s right-of-way. PennDOT does not permit or sanction the event itself, only the occupancy.

Due to the ongoing COVID-19 pandemic, the following condition statement must be included in each application: “The event will comply with all current and applicable Pennsylvania orders regarding COVID-19 and all applicable COVID-19 safety mitigation guidance including, but not limited to, guidance from the Pennsylvania Department of Health and the Centers for Disease Control.”

State health orders that took effect November 23, 2020, revised outdoor-event size limits that apply to special-event permits. The orders establish maximum occupancy as 67 people per 1,000 square feet for outdoor events or gatherings, with a maximum of 2,500 people. While these orders remain in effect, applicants must provide the estimated length and width of the permitted closure area, along with the total number of expected participants. This information will be used to determine if the estimated number of participants complies with the current order.

To assist municipal recovery during the COVID-19 pandemic, PennDOT may now permit the temporary use of sidewalks or travel lanes in a PennDOT right-of-way to accommodate public space for tables, seats, and retail activities. These requests must be submitted through the special-event permit application process. They may also require approval from the Federal Highway Administration if the event is to be located on the federal-aid network (both state and local roadways). Please contact your local Engineering District office for details.

The special-event permit regulations can be found at 67 Pa. Code §§212.701 and are also made part of PennDOT Publication 212, Official Traffic Control Devices.
Using PennDOT Connects to Achieve Watsontown Borough’s Vision for the Future

The location of Watsontown Borough, just north of Interstate 80 between US Route 15 and Interstate 180 in Northumberland County, has made the borough a transportation hub and prompted considerable business and residential development. The area averages 8,000 vehicles per day, 20% of which are tractor-trailers.

Having heard about the opportunity to use PennDOT Connects Technical Assistance, Watsontown Borough Planning Commission’s Tom Hetherington worked with borough council to seek help with the transportation element of a new comprehensive plan. The borough wanted a plan that would address truck traffic concerns while preserving the community’s historic character, revitalizing downtown, and strengthening its pedestrian and bicycle initiatives.

With the help of PennDOT Connects Technical Assistance, the planning commission identified several near-term actions, including interviewing major employers about future growth and traffic to inform planning decisions. It also established potential recommendations for the plan, such as installing highway signage to direct truck drivers around, rather than through, the center of town and implementing safe pedestrian connections between downtown and the riverside park and trail.

With an eye to future growth and livability, PennDOT Connects Technical Assistance was able to help Watsontown Borough determine how it could achieve its vision, safely support its Watsontown Walks initiative, and revitalize the downtown area.

Do you have a project that could use help from PennDOT Connects Technical Assistance? Learn more at www.penndot.gov/ProjectAndPrograms/Planning/Pages/PennDOT-Connects.aspx.

Moran Logistics, whose largest warehouse is located in Watsontown, contributes to the notable truck traffic through the borough, which also includes freight and local services vehicles.
New Classes Coming in 2021!

Erosion and Sediment Control
Half-Day, Road Scholar I, COMING SPRING 2021

This course will educate municipal employees on the importance of erosion and sediment control, including post-construction stormwater management. It will review what erosion and sedimentation are and will provide examples of control measures, including installation procedures. The municipality’s role in monitoring post-construction stormwater management will be reviewed as will the steps to take for developing your own erosion and sediment plan.

Intended Audience: Individuals who are involved in establishing erosion and sediment control policies, reviewing development plans, inspecting facilities, and operating and maintaining controls, including elected officials, planners, public works directors, engineers, and operations and maintenance personnel.

Winter Maintenance 101
Half-Day, Roads Scholar I, NOW AVAILABLE

This course covers the basics of an effective and efficient winter maintenance program. Best practices for winter maintenance operations are emphasized. Topics include an overview of the various materials available for treating roads and the latest techniques in prewetting and anti-icing practices. Other topics include spreader calibration, material application rates, basic plowing techniques, and environmental awareness.

Intended Audience: All public works employees engaged in winter maintenance operations, including street supervisors, public works directors, roadmasters, crew foremen, and equipment operators.

Asset Management
Half-Day, Road Scholar I, Road Scholar Administrative, NOW AVAILABLE

Many municipalities in Pennsylvania employ some sort of asset management, whether it is properly planning for road maintenance or using an advanced database system to manage signs, roads, bridges, and even park benches. This course explores the variety of asset management systems and approaches used throughout Pennsylvania and helps municipal officials determine the right level of asset management for their needs. Participants will enhance their knowledge of asset management systems and their benefits to municipalities.

Intended Audience: Individuals responsible for asset management, budgeting/planning for maintenance activities, and/or managing employees and officials who attain a certain number of LTAP courses within a three-year period (10 courses for Roads Scholar I, eight for Roads Scholar II, and six for Police and Administrative). During these courses, participants are educated on up-to-date maintenance and safety topics so that they become even more valuable members of their municipal team.

Courses eligible for Roads Scholar credit are offered virtually and will be conducted at convenient locations throughout the state once pandemic restrictions are lifted. To learn more, go to gis.penndot.gov/ltap and click on “Roads Scholar Program.”

Become Trained as a Roads Scholar and Increase Your Employee Value

Through the LTAP Roads Scholar Program, municipal employees and officials are trained in the latest road-related technologies and innovations and receive recognition as a certified Roads Scholar.

The Roads Scholar Program consists of four designations – Roads Scholar I and Roads Scholar II, plus two new categories for Police and Administrative – and provides a professional certification to

STIC Spotlight continued from page 5

“I can’t speak highly enough of the engineering team at PennDOT,” she says. “The communications have been wonderful.”

Full reconstruction is under way and expected to be completed in late summer of 2023.

PennDOT Connects is a policy begun by former Secretary of Transportation Leslie Richards to strengthen the commitment of PennDOT to collaborate with Metropolitan Planning Organizations (MPOs), Rural Planning Organizations (RPOs), and local governments during the planning process. PennDOT Connects seeks to identify community needs and contextual issues early in project planning through a collaborative process. This past summer, the PennDOT Connects initiative won in the Quality of Life/Community Development Small Project category of the regional America’s Transportation Awards competition.

Road diets are an example of the innovations growing out of the STIC, whose aim is to deliver the best transportation services to communities across Pennsylvania. A collaboration between the Federal Highway Administration (FHWA) and PennDOT, STIC features extensive outreach and collaboration with the highway construction industry, local governments, and other entities.

Road diets were also part of the FHWA Every Day Counts (EDC) Round 3 initiative that Pennsylvania championed. Other road diets have been implemented in Carlisle in Cumberland County, Sharon in Mercer County, Boalsburg in Centre County, and Beaver Falls in Beaver County.

To learn more about innovations in Pennsylvania, please visit penndot.gov/STIC.
Virtual Drop-ins

Recorded sessions and handouts from previously held drop-ins are available at connect.psats.org/trainingevents/ltapresourcepage. There is also a link on the homepage of gis.penndot.gov/ltap/.

- Accident Reporting for CDL and Non-CDL Drivers
- Asset Management
- COVID-19
- COVID-19 and Special Events/Needs on State Routes
- Curves
- Mastics
- Safety Tips for Flagging
- Salt Brine
- Sign Inventory Management
- Speed Limits
- Traffic Calming
- Trail Crossings
- Traffic Poles
- Trucks

Webinars

Previously recorded webinars are available on the LTAP website, gis.penndot.gov/ltap (under “Webinars”). The following titles can be viewed there:

- ABC’s of Asset Management
- ADA Transition Plans
- Crosswalks
- Curves on Local Roads: Issues and Safety Tools
- Emergency Preparedness from the Road Crew Perspective
- GRS Bridges
- Municipal Bidding
- Municipal Responsibilities on State Roads
- PennDOT Pennsylvania Crash Information Tool
- Principles of Paving
- Roadside Safety Features
- Speed Limits on Local Roads
- Stop Signs and Intersection Traffic Control
- Truck Restrictions

Roadway Management Conference 2020 RECAP

Missed the event? Recorded sessions and handouts available!

While it was definitely a different experience from years past, the Roadway Management Conference continued in 2020 with close to 300 attendees joining in online for a virtual experience. The change of format allowed participants to share a series of educational presentations with transportation professionals from across the Mid-Atlantic Region and beyond.

To access session recordings and handouts, go to roadwaymanagementc.wixsite.com/home and click on “2020 Conference” under the “Past Conferences” tab.

SAVE THE DATE FOR 2021!

The Roadway Management Conference is scheduled for October 6-8 in Rehobeth Beach, Del. Watch a promo video here: www.youtube.com/watch?v=eMHqa-4c2Ps&feature=youtu.be

New Classes continued from page 6

public works activities, including public works managers, roadmasters, and street superintendents. Others who would benefit from this course include municipal management employees, elected officials, and public works employees.
Show Off Your Road Crew’s Innovative Gadgets and Ideas

Build a Better Mousetrap contest: Four categories, four potential winners!

Has one of your employees recently built an innovative gadget or come up with a better way to do a job? If so, now is the time to show it off by entering the 2021 Build a Better Mousetrap Competition.

PennDOT is looking for projects that municipal employees or road crews designed and built. It can be anything from the development of tools and equipment modifications to processes that increase safety, reduce costs, or improve efficiency or the quality of transportation.

New last year, the contest now has four categories for submitting entries, with a potential winner in each. From among these winning entries, an overall winner of the contest will be chosen. The categories are:

1) Inspection and data collection (automated/remote means, testing, time, etc.)
2) Asset management techniques (GIS, mapping, decision support systems, etc.)
3) Maintenance tools and methods (lifters, reachers, modifications, assembly, etc.)
4) Transportation facilities improvements (storage, access, operations, services, etc.)

If you have a project that qualifies under one of these categories, submit your entry by March 5, 2021. PennDOT will choose winners in March and announce them at the annual conference of the winners’ respective municipal association. 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 entries for each category will be submitted into the national competition. 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 website and compiled into an electronic booklet.

Entry forms for the 2021 Build a Better Mousetrap Competition may be downloaded at gis.penndot.gov/ltap; click on “News.” Complete the entry form and return it by March 5 to PennDOT-LTAP, c/o PSATS, 4855 Woodland Drive, Enola, PA 17025 or email it to katkinson@psats.org. For more information, call Karen Atkinson at PSATS at (717) 763-0930, ext. 156.

If your township submitted an entry in a prior year of the contest but didn’t win, consider entering it again in 2021.

Need ideas for what to enter?

Check out these innovative winning entries from the past two years:

2020 Winner: Top and Shoulder Stone Paver, Lower Heidelberg Township, Berks County

2020 Runner-up: Sign Post Driver, Upper Mount Bethel Township, Northampton County

2019 Winner: Spreader rack, London Grove Township, Chester County

2019 Runner-up: Inlet grate puller, City of Easton, Northampton County

2019 Runner-up: Polish paver, City of Williamsport, Lycoming County

Did you find the information in this newsletter useful? Do you know others who will, too?
Please share this newsletter with others, including:

- Road supervisors/roadmasters
- Public Works Department
- Road crew
- Elected officials
- Managers and secretaries
- Engineers

You can also direct them to the electronic version available at gis.penndot.gov/ltap.