

Road Business

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How Local Public Works Departments Can Reap Big Rewards Using Social Media

By Marilee LaFond, UNH T2 & Adam Howell, Cornell Local Roads Program, Cornell University

Public works professionals are humble heroes. These extraordinary men and women act as first responders in the wake of car crashes and fierce storms, they are the PPE-clad guardians of roadway work zones, and the reason clean water flows from our faucets. Behind these critical public works roles are stories. To champion the Public Works profession, build awareness of the industry, and advocate for resources, we need to find new ways to share these stories and connect public employees to the communities they serve.

Now more than ever, public works agencies utilize social media to convey updates and announcements to their communities. Many are also finding these platforms to be invaluable assets for sharing videos, photos, and commentary as a springboard to enhance relationships, build trust, and tell richer stories about the men and women working in this important field.

Social Media - I Haven't Used it Before So Why Now?

In the wake of COVID 19, people turned to social media for human connection when confined to their homes through cancelled vacations, scrubbed events, and public health restrictions. It's also where people turned for information as the situation evolved.

Why is now a pivotal opportunity for public works to embrace social media? Leadership and expertise are needed most right now, and we all know public works professionals fit the bill. This crisis not only impacts our routines, but it is an economic crisis and unprecedented public health emergency for people everywhere. Public works' essential employees and first responders maintain critical community infrastructure during crisis, ensuring other emergency response services can also remain active.

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U.S. Department of Transportation
Federal Highway Administration

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Chris Dowd, SADES Manager

Butch Leel, Senior Training Instructor

Bettina Sietz, LTAP Program Coordinator

Erin Bell, Ph.D., Principal Investigator

Robert Henry, Ph.D., Principal Investigator

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About UNH T2 and NHLTAP

The UNH Technology Transfer Center fosters a safe, efficient, and environmentally sound surface transportation system by improving skills and increasing knowledge of the transportation workforce and decision makers. As the site of the state's Local Technical Assistance Program, it works to enable local counties, cities and towns to improve their roads and bridges by supplying them with a variety of training programs, an information clearinghouse, new and existing technology updates, personalized technical assistance, training videos and materials, and newsletters. LTAP Centers nationally are able to provide local road departments with workforce development services; resources to enhance safety and security; solutions to environmental, congestion, capacity and other issues.

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Picture of a recent UNH T2 team meeting at DeMeritt Hill Farm in Lee: Back row: Butch Leel, Marilee LaFond, front row: Bettina Sietz

2020 - The Good - The Bad - The Ugly...

A year like no other is on its way out. When we set back the clocks a few weeks ago, all I could think of was: "Please, I really don't need an additional hour of 2020." – I am sure many of you are with me. Still, let's focus on the good:

The GOOD

When COVID-19 forced us mid-March out of our office space at UNH with a fully developed training calendar scheduled and soon to begin, we found ourselves isolated at home, glued to screens and all the challenges of home life in the background.

The UNH T2 team quickly realized that we needed to reinvent and adapt the way we were reaching out and providing training under the new circumstances.

All of us explored and embraced new technologies to bring training to a laptop near you. A hint of pioneer spirit was in the air.

Our team spent much of March and April compiling suitable online training resources for our audience, some of them also homebound or working in split shifts, in a way that they could utilize it to advance their professional knowledge and skillset on demand.

Our first Chit-Chat and Chew with UNH T2 was also born in April: An informal online meeting hour over coffee (or whatever beverage is preferred) where public works employees and supervisors could share their challenges in daily operations with reduced staff while trying to keep each other safe and lean onto another for help, creativity and encouragement.

Then came the first "Butch Says" Zoom training sessions on Culvert Installation, Workzone Safety and Grader Safety, followed by Hybrid Training that was broken out in a theory part on zoom, and very small hands-on training groups in municipalities that were interested in a more practical approach. Butch kept venturing out fearlessly to NH communities that requested this type of training.

We covered topics from Social Media Benefits for Public Agencies to Roadside Mowing with a focus on Invasive Species, from Performance Management Evaluations to Data Driven Winter Maintenance.

Our audience (YOU) has increased in numbers and keeps showing up, always willing to learn something new, asking the good questions and offering different viewpoints. Your attitude and grit keep us going and is the motivation behind our work. – Thank you!

The BAD

This will be short and can be summarized in one sentence: We miss seeing you in real life – we miss being able to come to your towns for in-person classes, and we can't wait to be back to in-classroom training, although some aspects of virtual learning might stay in a time after COVID-19.

The UGLY

Going into the cold time of the year in the Northeast, the ugly is the growing presence of the Coronavirus. More indoor time might bring more exposure as case numbers are on the rise.

We all have one goal in this: To keep ourselves and our families healthy. The people we work with are almost like family – sometimes we might even spend more time with our work family than with our next of kin, and Public Works Departments are tight knit communities.

Here's my plea to you: Watch out for one another, keep being vigilant and caring for your "work family", even though we are 9 months into this pandemic, and in so many ways just want to live our "old" life. These human connections with our (work) families will carry us through. At UNH T2 the actual workshop schedule might be slowing down for a bit, but we are already gearing up for 2021 behind the scenes. We can't wait to connect with you for new ideas and workshops (virtual and in real life) - whatever 2021 might bring us.

Stay safe, stay healthy, and enjoy the coming Holiday Season!



With gratitude,

The UNH T2 Team



TOP STORIES

WHO'S BEHIND THE PLOW? - TELL YOUR STORY OF WINTER OPERATIONS DURING COVID-19

- We'd like to increase awareness on the importance of winter operations
- We want to hear about the challenges of winter operations during the COVID-19 pandemic
- We would like to share YOUR story and highlight Public Works Heroes during this difficult time
- We will visit your DPW and take pictures or a short video of you on the plow or planning your day during COVID-19.

#NHPLOWSTORY

INTERESTED? CALL OR EMAIL BETTINA SIETZ AT 603-244-6207 OR BETTINA.SIETZ@UNH.EDU



Gilford DPW created a social media post with this photo to thank residents for their support of proper safety equipment for the Fleet Division due to the approved town budget that allowed purchase of mobile lifts. Pictured are from left to right: Roger Weeks, Kurt Mistler and Terry Clairmont of Gilford DPW and also a representative from All Seasons Equipment demoing the new lifts.

Well after COVID, there will be continued opportunity for public works authorities to maintain a trusted lifeline of information to citizens through key events. In short, if ever there were a time for your agency to try out social media – now is that time.

How are Local Agencies Using Social Media?

A strong social media presence is part of the Keene, NH public works team's robust communication strategy. Public Works Director Kürt Blomquist sees social media as a valuable tool to share project updates, but also to humanize his team members and the public works industry by putting a face and story to their work. Through interesting jobsite photos or humorous videos, the Keene team not only shares what they are doing, but also who they are and what the industry is all about.

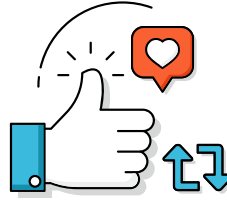
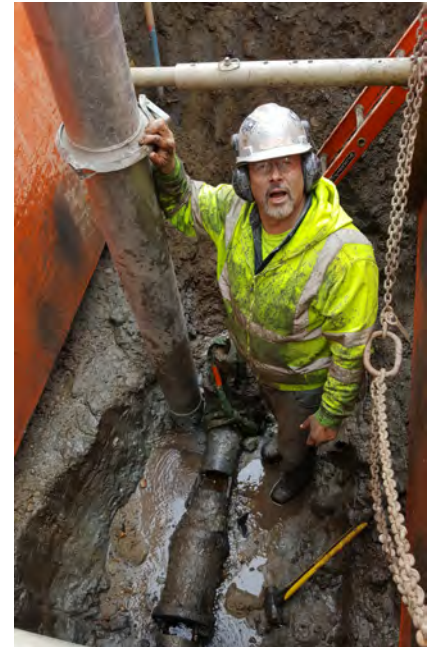
Their post of a simple one-minute clip of a microscopic animal called a "water bear" garnered over 1200 views recently. When the rare Tradigrade was spotted during a daily microscopic examination of the wastewater treatment plant's activated sludge, the plant's team turned it into a unique opportunity to engage viewers in science and public works simultaneously. The team also produces and stars in several other fun and informative videos, including their popular "Toilet Talk" series.

Social media is a great platform for keeping the public quickly informed of department activities, the people performing them, and their role in the community. Jim Miller, Town of Ancram Highway Department Superintendent in Ancram, New York doesn't consider himself a social media guru but has still found it to be a simple, effective tool for getting information out to his community. "We had a tropical storm that went through here and I had a couple roads closed for multiple days, so I put that on there (Facebook.)" Jim explains. "It really helps you spread the word a little bit better." Posts can also build awareness of why tasks are completed in certain ways. Meghan Theriault, Public Works Director in Gilford, NH, shared roadside mowing pictures with a note about why the invasive Knotweed was left untouched to be addressed later.



Left: Eric Swope, Industrial Pretreatment Coordinator with the City of Keene, NH, painting "Drains to Streams" stencils to remind citizens that all storm drains flow to local bodies of water.

Right: Todd Calderwood, Water Sewer Foreman getting down and dirty repairing a watermain



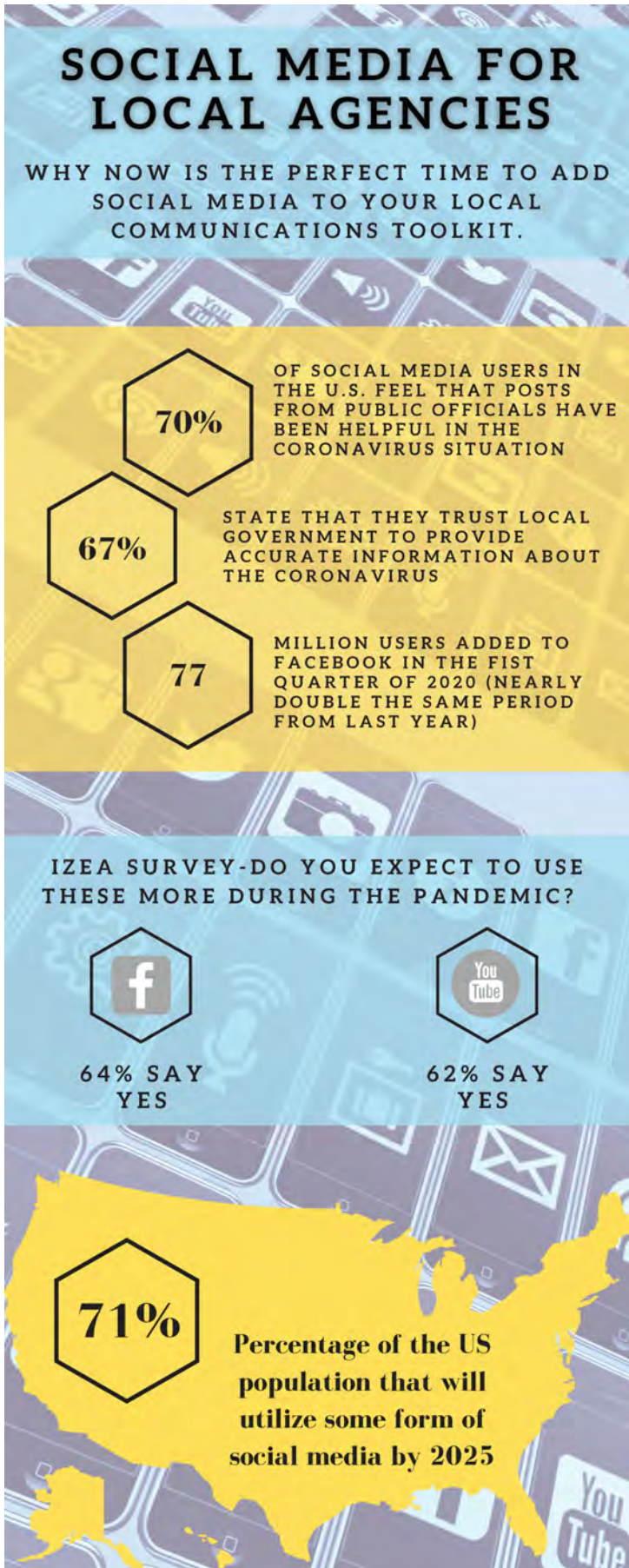
Using social media to “spread the word” increases transparency and can lead to enhanced community trust and collaboration. One agency raised awareness of equipment funding indirectly through roadside posts and images with a plow truck broken down along with an apology for the service delay. When it came time to purchase a new plow the following year, the town passed the budget with minimal discussion. Vince Stetson, Superintendent of Street Services for the Town of South Windsor, CT, shared how his team uses quick video updates to share a glimpse into public works projects. Some of their posts also support awareness of their stewardship of taxpayer dollars, such as a picture of a new library roof including a note about the roof’s 20-year non-prorated warranty.

Theriahult sees benefits to using social media to recognize your team and thank your community. “We all like to be appreciated; I want our staff to know I care about them, and the public to know we appreciate their support.” She’s celebrated an employee’s licensing accomplishment, shared pictures to recognize an employee and local nursery for the spring beautification, and shared pictures of the new equipment lifts with a note of appreciation to the taxpayers for the improved safety and efficiency.

Best Practices on Making Social Media Work for You

The adage “a picture says a thousand words” is never truer than in social media, where images are one of the best ways to get a post seen. A strong visual helped South Windsor experience viral fame with its March 17th post showing an operator removing a clump of sanitizing wipes and paper towels from a clogged pump. The message included a request to please cross-post to help spread awareness of the damage flushed wipes can do to pipes and pumps. The original post was shared almost 60,000 times to reach 3.2 million people and was also picked up by media outlets. Most importantly, the post positively impacted user behavior resulting in a drastic reduction of pump clogs.

It’s important to remember that social media is well – social; you may receive feedback from your constituents, complaints, or even the rare belligerent commentary. Have a written social media policy posted prominently on your profile outlining how you will moderate aggressive, abusive, profane, or deceptive commentary.



There are many creative and effective ways social media can support public works operations.

When trying things out, keep it simple - posts are generally meant to be brief and appealing. Avoid long text or regulatory “fine print”, although you may use posts to drive people towards more authoritative and detailed information such as a town or county website. Lastly, social media is an investment; while we’ve all heard about a “viral” post getting millions of views, in reality, a strong social media following takes time and consistency. Theriault grew the Gilford Public Works’ page following by sharing posts periodically to other community pages as well as inviting those who “liked” or engaged with the posts to follow the page.

Especially in recent months when we couldn’t gather in person, “online” is where our neighbors, friends, and family met up to share stories, shop, solicit help, and catch up on the news. Social media has made our living rooms, conference rooms, and public places accessible from a phone, tablet, or computer almost anywhere.

Now’s the time to make sure your local agency is a part of this community, sharing valuable updates, relevant and accurate information, and championing the public works industry through your team’s story as first responders.

For more resources, contact ah959@cornell.edu or marilee.lafond@unh.edu, and follow us at:

UNH T2 Center LTAP Facebook Page
<https://www.facebook.com/UNHT2CenterLTAP>

Cornell Local Roads Program Facebook Page
<https://www.facebook.com/CornellLocalRoads>



Thank you to Adam Howell & Marilee LaFond for this contribution. This article was originally published in the Nov. 2020 edition of the APWA Reporter

Storage and Management of Deicing Materials

NHDES Environmental Fact Sheet 2019, WD-DWGB-22-30

Storage and management of deicing material can be a source of contamination of surface water and groundwater, causing a violation of state water quality standards. These salt-based products dissolve in precipitation and either infiltrate through the ground surface to groundwater, or run off into surface water. Salt that infiltrates the subsurface at significant concentrations can also react with the soils and release metals into groundwater and surface water at concentrations that exceed water quality standards.

The term “deicing material” used here refers to deicing salts, and may include any of the following in either solid or liquid form: sodium chloride (often called rock salt), potassium chloride, calcium chloride, magnesium chloride, and other mixtures that contain salts (chlorides) including mixtures with abrasives, such as sand, cinder, slag, etc.

Need for Proper Management

Due to their high potential for causing groundwater and surface water pollution, salt storage facilities should not be placed in environmentally sensitive areas. The best strategy to prevent pollution from deicing materials and the associated liability is to use and store these materials responsibly. Facilities should develop good housekeeping practices to minimize loss and waste during the delivery, storage, loading and management of deicing materials.

Existing and new facilities that operate without impermeable surfaces and infiltrate brine to the ground or groundwater need to register with the New Hampshire Department of Environmental Services (NHDES) under Env-Wq 402, Groundwater Discharge Permit and Registration Rules.

This is a free registration and is a method of tracking potential contaminant sources. If there are sensitive receptors nearby, some sites may be required to monitor drinking water wells and/or the groundwater. The registration form can be found at the Groundwater Discharge Permitting and Registration program page.

Best management practices (BMPs) for locating a new deicing materials storage facility should include the following:

- The facility should be located in an area that is not environmentally sensitive. Avoid areas where there are wells, reservoirs, or within the footprint of stratified-drift aquifers.
- The facility should be located on a flat site away from surface water and wetlands.
- Site drainage should be designed to direct clean stormwater away from the operations and storage areas in order to keep the stockpiles as dry as possible.
- Drainage that is contaminated with salt should be directed to a sewage treatment plant (subject to municipal approval), collected for use in pre-wetting activities or sent for proper disposal.

Structures and Work Areas

Ideally deicing material storage facilities should be completely enclosed, with storage and working areas on impervious surfaces such as asphalt or coated concrete. There should be stormwater drainage controls to prevent runoff water and snow melt from contacting or running through loading and material storage areas. Overhead cover to protect material from exposure to snow and rain should be installed to minimize runoff and inventory loss. A fixed roof is preferred over a tarp, because it is very difficult to keep storage piles completely covered with tarps during winter months and storm events.



Buildings should have concrete foundations and can be designed using dome, barn, or fabric style structures. For more information on constructing salt storage units, calculating how much space is needed for storage, and salting practices, see the Salt Institute's publications at www.saltinstitute.org.

The Salt Storage Handbook contains tables that indicate how much space is required to cover different height piles, and provides surface areas of exposed salt piles, to help in calculating number and size of tarps for temporarily covering salt piles.

The following BMPs should be considered when storing and managing deicing materials.

Storage Structures

- All salt and sand/salt mixtures should be stored on pads of impermeable asphalt or concrete. Storage and loading areas should have an impermeable floor constructed of asphalt, concrete or other suitable material that extends around the buildings and work area exterior. The area should be sloped away to prevent stormwater from entering the loading areas or structure.
- Concrete pads and walls should be treated to prevent concrete deterioration (spalling).
- Structure hardware should be galvanized and concrete block buildings should be waterproofed inside.
- If using a three-sided building, the exposed salt at the open end should be covered.
- Stormwater and snowmelt runoff should be properly controlled. Building floors and storage pads should be sloped to prevent ponding and allow any water to drain away from the storage piles.



On-Site Management: Delivery, Handling, Loading

- All sand and sand/salt mixtures temporarily out in the open should be covered to prevent salt from being washed or blown from the pile.
- If a permanent under-roof work area is not possible, then storage and handling activities should be conducted on impermeable (bituminous) pads. Any deicing materials left outdoors should be completely covered with waterproof tarpaulins.
- All surplus materials must be removed from the site when winter activity is finished.
- Working areas should be bermed and sloped to allow snow melt and stormwater to drain away from the area. In some cases, it may be necessary to channel water to a collection point, such as a sump, holding tank, or lined basin for collection.
- Storage and distribution should only be conducted during the fall/winter season.
- Spreaders should not be overloaded such that material spills off the vehicle. A plan for loading operations to prevent overflowing vehicles and eliminating material spillage during transportation should be developed and implemented.
- Salt spilled at the storage yard and loading areas should be collected and returned to the storage pile.
- Annual inspection and repairs should be carried out prior to the start of each season. Ongoing inspection of storage structures, work areas, and deicing liquid storage tanks should be carried out during the season.
- Solid bagged materials should be stored securely, indoors if possible.
- Spreaders should only be washed at a location where the wash water is properly managed. (See NHDES fact sheet WD-DWGB-22-10 Management of Vehicle Wash Water.)

- Liquid storage tanks should be designed such that a plumbing failure will not result in release of the contents. Backflow prevention may be necessary on some plumbing applications.
- Liquid storage tanks should be protected from impact from vehicles moving about the yard and be located such that spilled material can be contained and retrieved in the event of a tank or piping failure. Secondary containment should be provided around large liquid storage tanks.

Brine Storage and Management

In recent years, brine has been used on roads prior to storms as an effective ice preventative, reducing the amount of deicing materials needed during a storm event. The water that runs off storage and loading areas can be collected into watertight tanks or lined basin(s) and re-used in pre-storm wetting of roads. Any brine storage should be designed with inert materials that are compatible with salt. Brine stored using holding tanks must be managed so that there are no releases to drains, groundwater or surface waters. If there is a floor drain in a building where brine is stored, it must be connected to a municipal sewer system (with the approval of the local authority), routed to a registered holding tank or permanently sealed. (see fact sheet WD-DWGB-22-8 Holding Tanks for Floor Drains) Storage ponds or collection basins used for brine storage must be lined and must not receive runoff from areas other than the storage and operations areas. The basin itself must be impermeable to prevent infiltration of the collected water into the ground. The basin may need a roof or cover to reduce the accumulation of snow and rain water. The collection of this runoff water would only be necessary during the winter maintenance months (November through March).

During the remaining seven months of the year, the non-brine stormwater can be redirected from the brine storage to a natural discharge point.

The preferred management option for any brine collected is for use as a pre-wetting agent for roads prior to winter storms. The release of this collected water to the ground, groundwater, or a stormwater system during operation or at season's end is not permissible and as a consequence, this type of runoff management may require disposal of the brine by one of the following methods: (1) discharge directly to a publicly owned treatment works (POTW) with local approval; (2) pumping and transporting the salt water to a POTW system by tank truck; (3) evaporation; or (4) treatment to remove salt and on-site discharge under a Nondomestic Wastewater Registration.

References:

Salt Institute

[Michigan Department of Environmental Quality Salt and Brine Storage Guidance](#)

Guide to Salt Storage Requirements for Small Commercial Snow Removal Services

Environnement Canada

[Best Management Practices for Salt Use on Private Roads, Parking Lots & Sidewalks](#)

[SIMA](#) (Snow & Ice Management Assoc.)

For More Information

Please contact the Drinking Water and Groundwater Bureau at (603) 271-2513 or by email at dwgbinfo@des.nh.gov

Note: This fact sheet is accurate as of June 2019. Statutory or regulatory changes, or the availability of additional information after this date may render this information inaccurate or incomplete.

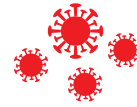


*To Ted Diers and Chris Avery from the
[NHDES Salt Reduction Program](#)
for giving us permission to share this
Environmental Fact Sheet*

Now is Public Works Time to Shine Through



Winter's Darkness-



Preparing COVID-Resilient Winter Operations

By the time you read this, most, if not all, New Hampshire road agencies will have plowed, salted, or otherwise begun the winter maintenance battle. Spreaders will be calibrated, equipment serviced, training completed, levels of service updated, and seasonal hiring requisitions posted. Seasoned snow fighters know the routine and will have prepared their teams and equipment well before the first flake flies. What about this year though? Public works isn't only fighting Old Man Winter this year, it's also fighting COVID. Across the world, how we do business and work has changed in response to the COVID pandemic. Plans have been made, changed, revised, updated, and thrown out the window as the situation evolved.

If ever there was a time to think outside the box in how we manage winter operations, now is that time. In fact, it might even benefit us to throw the box away and prepare to operate well outside our norms. How so?

Ask a lot of questions – A LOT of questions – and communicate frequently

Now, more than ever, employees need transparency and ongoing communication. Use this opportunity to include team members in the conversation. Play the game of "What If." What if there was a late evening storm forecasted and two of your team members were under quarantine? What if your usual contract plow team was unable to jump in and help? What if half your team members traveled during the holidays and were subject to quarantine restrictions? What impact could house guests have on team members, or children returning home for the holidays? The more scenarios you can imagine and talk through, the more prepared you will be.

By: Marilee LaFond, UNH T2 Center Manager

Communication also creates an opportunity to reinforce and reassure your team members. Everyone has felt the impact of COVID in some way; even those without any direct exposure have had to adjust life's habits, cancel personal events, and live day-to-day in an environment of ever-changing information, all while living through the fear of the unknown. Take time to educate your employees on CDC and other recommended guidance. What constitutes a "direct exposure" and how can individuals best protect themselves against that? If someone did test positive and was working through the contact tracing process, "who" would be categorized as someone who might be subject to further quarantine based on whether masks were worn and physical distancing? Provide access to high-quality authoritative information about COVID exposure risks, and reinforce the importance of social distancing, wearing masks, and being alert to which specific situations challenge those best practices. If employees understand how to minimize their likelihood of a high-risk exposure and are alert to potentially risky situations (such as working closer than six feet to an individual for an extended period of time), they are better empowered to make personal decisions that support a safe work environment.



Having this level of knowledge may also reduce anxiety arising from someone on the team being exposed outside of work and initiating contact tracing within the workplace. Also be sure everyone on the team has the PPE they need to feel safe, and ensure your entire organization is modeling appropriate safety and hygiene practices- this helps to reinforce confidence that all important precautions are followed and that there is a commitment to keeping employees healthy and well-cared for.

Maintain social distancing, but stick together

Towns have become creative in thinking about how to promote social distancing amongst their crews this year, including renting temporary office trailers, breaking out shifts, and assigning trucks (one truck to one person). It's important to keep up the enhanced safety and disinfecting protocols from the Spring as we head into Winter. It's also important to keep up efforts to come together as a team, even if apart. Find ways to connect routinely, through virtual team meetings, outdoor meetings, and even a variety of new virtual team engagement events that have sprung up. Use video and photo to share updates and keep in touch. Reimagine team traditions such as potluck dinners or grabbing lunch together at the local diner. Can a restaurant in your area contract for safe preparation and delivery of boxed meals for the team? Can employees be gifted individual snack packs to take with them in their trucks to decrease the need to stop into convenience stores or other public areas?

As you consider your greatest resource, people, look for creative ways to support them during these unique times. The plow operator arriving home after a long storm may be faced with clearing their own driveway, potentially delaying their own rest time before returning to the road. We've heard discussion about the ability to allow drivers to take their plow vehicle home to maintain their own personal driveway.

While this is extremely uncommon, and should be considered and reviewed with all the necessary municipal partners, it seeks to address just some of the challenges that may lie ahead for our workforce in managing a work-life balance in changing conditions (both at home and on the job), while staying safe through these unusual times.



Picture credit: Gilford DPW

For Resiliency Planning, Here's Where the Rubber Meets the Road

Another important component to resilient operations throughout COVID is effective cross-training and process documentation. Agencies should ask each employee to document their role, through a written SOP, video, or other method. Ensure turn-by-turn guidance is documented for plow routes, using GPS, apps, audio recordings, or printed detail. It's also important to maintain ongoing communication and discussion with your Emergency Management and preparedness partners, as well as to support conversations around prioritizing critical infrastructure if staff resources are impacted (what functions are critical to life and property).

Maintain close contact also with your other municipal partners and consider how you can leverage one another's support during a time of need. Can other departments provide employees to supplement operations? Are your schools poised to transition to remote learning for a day to reduce the number of municipal lots your crew might need to clear at any period during a significant storm?

Have you discussed possible mutual aid partnerships with neighboring communities, including identifying specific mutual aid tasks and individuals/equipment to support them? Your elected officials, human resources department, town council, or others may also all have input as you consider various approaches and should be consulted as appropriate. As much as COVID might have left us feeling “isolated”, the importance of having routine, ongoing, and transparent conversation is more critical now than ever.

Communicate with the Public

While you’re having all the prior mentioned conversations, be sure you’ve also carved out thorough communication plans for your public. UNH T2 hosted a few sessions on how social media can benefit local agencies. Whatever mechanism you utilize for getting the word out, make sure your citizens know what to expect, beyond just Levels of Service and how to report issues. Now is a great time to share the planning and consideration your team has done leading up to this winter. Champion public works’ commitment, dedication, and perseverance even through these challenging times, and keep your community informed. As Benjamin Franklin would say “An ounce of prevention is worth a pound of cure.” By getting out in front of your community proactively and consistently, and making your team’s work transparent and visible, you can build strong community partners and a mutual respect for the challenges everyone may encounter this winter.

We’re all in this, together

Strong communication and planning have perhaps never been more critical to your public works team’s success than right now.

This year has shown us that although our plans are never a guarantee that things will go smoothly, not planning is the best guarantee that things will not go smoothly. Continue asking questions of each other, networking, raising ideas and sharing thoughts with your public works network. There is so much truth in that warm and friendly phrase we’ve heard so often this year... **we’re all in this together, and we’re getting through this together.**

Stay well, and please reach out to let us know how UNH T2 can help your teams!

Be sure to check out this issue’s Tech Assist Corner on page 20 for helpful resources to planning resilient Winter Operations throughout COVID!



Do you have two minutes? It would be so helpful for us to hear your feedback in this short survey. Did you like UNH T2's virtual 2020 landscape? Let us know. Not so happy? No worries, we can take the feedback. It can only help us in improving and planning the 2021 curriculum.

High Visibility Safety Apparel: Importance, Care and Replacement Tips

Compiled by Bettina Sietz, UNH T2

The Importance of High Visibility Safety Apparel (HVSA)

High visibility clothing plays an important role in keeping workers safe: In the US, nearly every 1 in 5 construction workplace fatalities is from a struck-by injury. A struck-by injury is caused when a worker is hit by a vehicle or a piece of equipment. Wearing high-visibility safety apparel can protect you from experiencing workplace injuries.

Why the bright colors?

The idea behind wearing bright colors that grab someone's attention is copied from a natural phenomenon called Aposematism, or in plain English, the use of a visual warning sign like bright colors or markings on an animal that warn a predator of its toxicity. Even though the bright colors may attract the predator's attention initially, they will stay away due to previous bad experiences with a brightly colored animal, and therefore act as an effective deterrent.

Much like animals in nature, bright colors attract people's attention in everyday life, and may protect the person who wears them. We associate these bright colors with caution.

When you pair bright colors with retroreflective materials, visibility of the person wearing this workwear during dawn, dusk, fog or night is significantly enhanced.

American National Standard for High Visibility Safety Apparel (HVSA)

ANSI/ISEA 107-2020 is the American National Standard for High Visibility Safety Apparel and outlines performance requirements such as color, retroreflection, the recommended configuration of the materials, and more. (<https://blog.ansi.org/?p=165103>)

Care for your HVSA

Keeping your high visibility workwear clean can be a bit of a challenge, especially because safety shirts, pants, and vests are used in industries that are prone to tough messes. These reflective materials do require special care, so keep these helpful tips in mind when cleaning your reflective jackets, vests, and more.

Always wash in cold water

While using warm or hot water might make stain removal seem more effective, it can actually compromise the quality of your reflective clothing. If these materials fade, they can present a safety hazard and may violate official regulations. Virtually all HVSA should be washed in cold water and with like colors.

Turn them inside out

Before you throw your high visibility pants and vests in the washing machine, be sure to turn them inside out first! If you forget to do this, reflective tape can more easily tear or fade, even on the gentle cycle. This is also why you should line-dry whenever possible. Absolutely need to throw it in the dryer? Be sure to tumble dry low and remove it immediately.

Don't use bleach or fabric softener

Even just one cycle using fabric softener or bleach can completely ruin these reflective materials. Resist the urge to add these to the wash and stick with mild detergent instead. If you wash your high visibility clothing with non-workwear, make sure there are no rough textures that could damage your work gear.

Don't iron or dry clean

Remember that HVSA should be laundered at home, rather than at your dry cleaner's. Ultimately, washing in a machine will get your garments cleaner, and the dry-cleaning process has the potential to damage certain fabrics. You should also refrain from ironing these garments, as the heat will likely damage the reflective materials.

While your work might not be straightforward, the cleaning of your work garments should be. By following these laundering tips, you'll be able to extend the life of your workwear and ensure that you remain safe while on the job.

When does high-visibility gear no longer protect and needs to be replaced?

HVSA should be replaced when it becomes faded, torn, dirty, soiled, worn or defaced, or if it's not visible at 1,000 feet day or night. The typical useful service life of HVSA depends on the type of work an individual performs while wearing the apparel.

If you think your HVSA is questionable, it's time to replace it!

Apparel that's worn on a daily basis has a service life expectancy of approximately 6 months, although apparel that's not worn on a daily basis may have a useful service life up to 3 years.

Factors that may wear your HVSA out more quickly:

- Hot climates
- Higher elevations due to increased UV rays
- Type of work that you are performing
- How well you follow the instructions on the care label

Acceptable



New high-visibility safety apparel is characterized by having vivid color contrast and high reflectivity.

Marginal



Characteristics: Good reflectivity although the vest has some soiling and light fading.

Unacceptable



Characteristics: little or no reflectivity, and soiled and faded material.

Acceptable



Apparel that is used but is in like-new condition is characterized as having excellent color contrast, excellent reflectivity, and is not faded or soiled.

Marginal *



Characteristics: Good reflectivity but has some soiling and light fading of material. *Note: This picture was taken with a flash and simulates nighttime conditions.

Unacceptable



Characteristics: Poor color contrast, low or no reflectivity, significant fading or soiling, and deteriorated reflective strips.

Pictures provided by Michigan Department of Transportation and Washington Department of Transportation

How do I replace my HVSA?

When HVSA is ready for replacement, notify your safety compliance officer or supervisor and request replacement apparel. Make sure they know the kind of work you are performing (paving, maintenance work, nighttime work, etc.) so that they will know which type of apparel to provide to you.

Once you have received your new apparel, cut your old apparel into pieces so that it can't be reused and dispose of it properly.

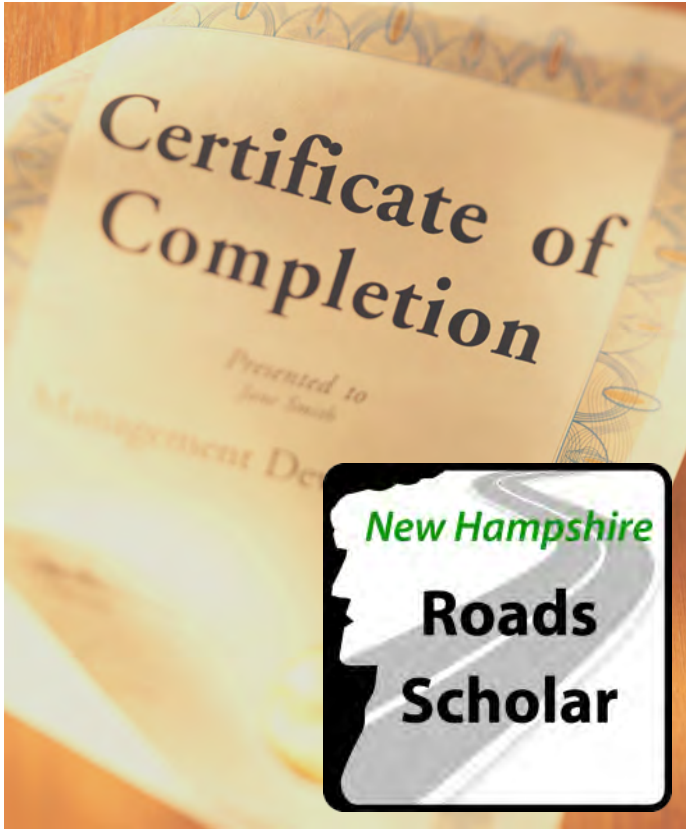
Sources:

- [HVSA in Highway Work Zones](#)
- [TSA Safety.com: Blog: Caring for your high visibility clothing](#)
- [ANSI-Blog HVSA](#)
- [Safety Talk on HVSA: NDLTAP Safety Talk - Safety Apparel - May 2018 \(nltapa.org\)](#)



BE SAFE - BE SEEN!



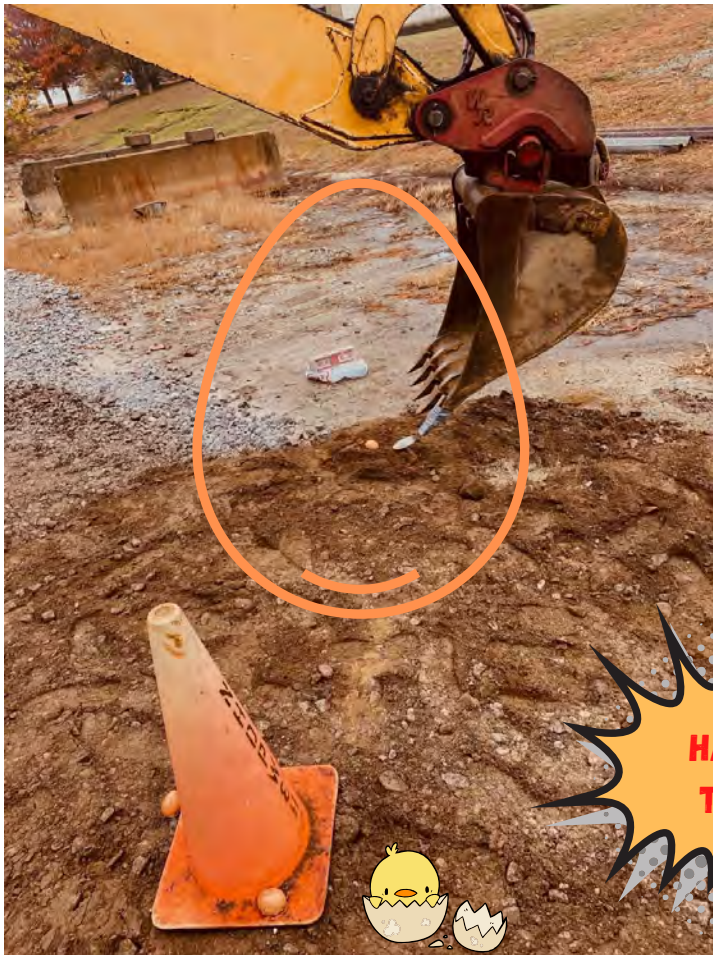


Curious about your Learning History with Learnforlife?

With Learnforlife you can access your workshop history anytime, anywhere, including any electives and workshops you've taken through UNH T2! Check out this [video tutorial](#) for assistance in accessing your account profile and learning history.

Need to update your email address or reset your user ID?

Contact T2.Center@unh.edu with your full name, mailing address, phone number and organization.



**HANDS-ON
TRAINING**

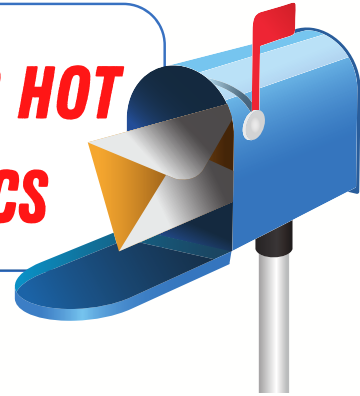
Pictures from a recent Backhoe Hands-On training in Hooksett, NH. Left: Precision fun with eggs!

By: Butch Leel



Water, Water Nowhere

NHMA'S HOT TOPICS



By Natch Greyes, Municipal Services Counsel, NHMA

All summer we've been watching the slow pitch of the surface waters across the state slowly recede as drought grips the land. In late June, the state declared a drought in southern New Hampshire. As the hot and rainless July progressed, the drought spread from the Seacoast to encompass the whole of the state. At its peak, the governor issued an executive order barring campfires and smoking near certain wooded areas to prevent the tinderboxes that they had become from igniting into the infernos that we saw along the West Coast of the United States.

The declaration of drought was the first step in allowing municipalities to take action to restrict outdoor water use pursuant to RSA 41:11-d. Although this power is limited – allowing restrictions on certain outdoor uses– more powerful rules may be promulgated by municipal public water systems pursuant to RSA 38:26. The power of municipal public water systems to restrict usage by their customers includes not only outdoor use, but also indoor use. This is the type of restriction that we've seen more commonly across our state, but some municipalities have adopted rules under RSA 41:11-d to restrict certain uses. How those two statutes function are as follows:

General Municipal Use Restrictions

RSA 41:11-d provides that the local governing body may establish regulations restricting the use of water from private wells or public water systems for outdoor lawn watering. Any such restrictions may be implemented after providing notice at least three days in advance of the restrictions going into effect. Notice must be published in a newspaper of general circulation in the community and posted in two public places. The three-day count begins the day after notice is given. Any restrictions may exclude "grass playing turf of a recreational field, the grass playing surfaces of a golf course, and grass agricultural fields, including fields used for the production of sod," at the option of the governing body. Publication of the entire regulation is not necessary. A summary of the regulation is sufficient, if it indicates where the full text of the regulations can be viewed.

Public Water System Restrictions

RSA 38:26 provides that municipalities with public water systems have the power to adopt rules regarding the use of municipal water. In those municipalities, the governing body, or the board of water commissioners if the system is run by water commissioners, may adopt such ordinances and bylaws relating to the system or structures as required for proper maintenance and operation. The New Hampshire Safe Drinking Water Act, RSA chapter 485, further provides community water systems with the authority to restrict non-essential water use when there is a threat of demand exceeding supply and to terminate service to customers when customers refuse to follow those restrictions. Env-Dw 503.

Although it is not necessary for municipalities to obtain approval from the New Hampshire Department of Environmental Services (NHDES) prior to enacting restrictions, DES has previously provided the ability for public water systems to obtain NHDES written endorsement of water restrictions in order to assist municipalities who face opposition to implementation of such restrictions. It is likely that NHDES's Drinking Water and Groundwater Bureau will continue provide this service as municipalities look to implement sensible water-saving measures.

Conclusion

Historical data gathered from across the state shows that, although the amount of precipitation across the state has increased significantly in the last 100 years, recent decades have seen more cyclical weather events –periods of prolonged rain punctuated by a series of droughts. In the last decade, the cycle has moved toward longer, more pronounced droughts coupled with extreme precipitation events, resulting in large-scale damage throughout the region. It would be wise for municipalities, even municipalities without public water systems, to consider adopting drought rules which can be triggered if necessary, rather than seeing delays or weeks-to-months as a drought drags on. Forward-thinking water conservation measures can be the difference between a dry well and one that makes it through the next drought.



We want to thank Natch Greyes for his continuing support and important contributions of "Hot Topics" to our newsletter!

More information on NH's Drought in this informative webinar from the UNH Carsey School of Public Policy: [New Hampshire's Drought](#)

WE SEE YOU !

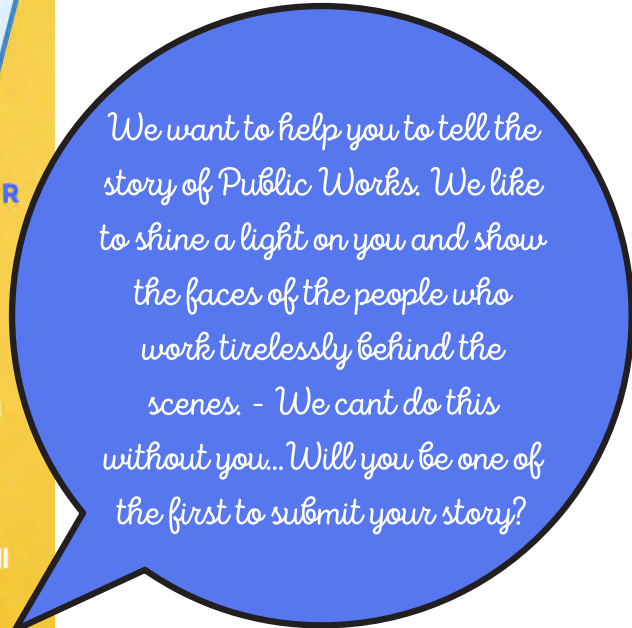
That employee who went above and beyond?
A public works colleague who was with your department for
countless years serving the public?

**WE WANT TO HEAR THAT STORY, SEE THE PICTURES, SHARE YOUR
GRATITUDE.**

THANK YOU

Share your shoutout of gratitude for years of service, the extra mile or that big work anniversary in the next edition of Road Business.

Email us a story and a picture at t2.center@unh.edu or call us at 603-862-0030 and tell us about the person who you'd like to thank!



UNH T2's Tech Assist Corner

UNH T2 provides Technical Assistance on a variety of topics, including equipment training, pavement management questions, drainage considerations, policies and best practices, understanding maintenance regulations, and more.

Winter Operations Planning during COVID-19



What if...

Imagine it's snowing New England style...Lots of snow in a short period of time – blizzard conditions, and you are receiving the notice that your team has been exposed to a confirmed case of COVID-19. Your plow operators need to isolate at home, and it keeps dumping from the sky.

What now...Do you have a plan?

This edition's Tech Assist Corner is trying to highlight and provide various resources that might be helpful in establishing a "game plan" before this dire scenario becomes reality.

Local agencies should review or update their winter maintenance plans, pandemic operation plans and emergency action plans to have a procedure in place for possible backup plow operations, shared services agreements, level of services, priorities, line of communication, protecting your employees, communications, and many other things to consider.

There is no "one-size-fits-all" solution due to different department sizes and organizational structures– but below resources do provide some considerations, helpful ideas and best management practices.

[COVID-19 Winter Operations, UNH T2 Panel Discussion, Part 1 Recording](#)

[COVID-19 Winter Operations, UNH T2 Panel Discussion, Part 2 Recording](#)

[COVID-19 Winter Maintenance Plan Tech Tips from Cornell Local Roads](#)

[Winter Operations Panel on the UNH T2 homepage](#)

[Winter Maintenance Playlist on the UNH T2 YouTube channel](#)

[Winter Maintenance Preparedness under COVID-19](#)



Do you have a technical need we can help you with? Reach out to T2.Center@unh.edu!

“How To”: Town Meetings During and After COVID-19

DRIVE-INS AND VIRTUAL MEETINGS



Drive-In Town Meetings

A drive-in town meeting can sound intimidating, but these tips will help smooth over the process. To start, choose a large and open location with plenty of parking such as a public works garage. Once a location is chosen, create a detailed map of the meeting area and provide this to attendees prior to the meeting. Attendees should not be allowed to leave their vehicles for the duration of the meeting however, a map of the location will allow for a less cluttered enter and exit of cars. Along with the location map, make all meeting documents available to attendees prior to the meeting and request that they are brought by the individual, if necessary. Lastly, be sure to have loudspeakers and/or megaphones available at the meeting for optimal communication.

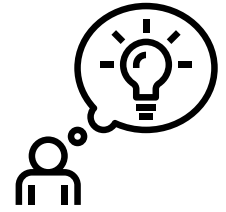
Virtual Town Meetings

A technique that is being used more often during these times of social distancing is holding virtual town meetings. Towns and organizations can utilize ‘Zoom’ to hold their meetings virtually. However, with this type of technology, it is important to have the proper security settings set up to prevent ‘Zoom Bombings (unwanted attendees)’. This includes using a meeting password, enabling the waiting room feature, initially disabling audio and video of attendees upon entry, and turning off screensharing for everyone but the meeting host. In addition, have attendees register prior to the meeting to receive a meeting ID to use day of meeting. Lastly, be sure to make all meeting documents available to attendees prior to the town meeting to ensure all individuals are prepared at the start of the town meeting.

Thank you to Rachel Barbieri, UNH T2 Office Assistant



Innovation Station



Featuring a winning Build-A-Better-Mousetrap entry from 2019 on the insert after this page. Now is the time to think about the creative innovations that you implemented in 2020. Did you tweak a process, change a piece of equipment to make it more user-friendly, to improve your and your teams' safety? Did Covid-19 make you creative in how you kept yourself and others safe in your daily work? - Tell us about it! And have your idea and entry ready for the Build-A-Better-Mousetrap competition of 2021!

New Hampshire, The Beautiful!

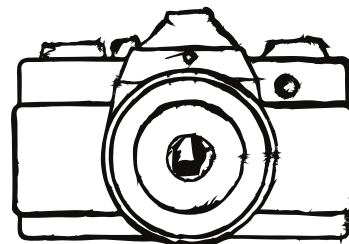
Our state is so beautiful! Mountains, pristine ponds, lakes and rivers, and the coast line! New Hampshire has it all! Prosperous cities, quaint New England villages, humble people. We recently asked for you to be our eyes on the road, and to send in some pictures from your (work) day. We are so happy and thankful to have received some outstanding pictures! We are still looking for more submissions from the road (safety first, please), and encourage you to show us your (hobby) photographer talent! - Thank you!



Butch's Backyard, Foliage with Snow,
Submitted by UNH T2 Senior
Instructor Butch Leel



Early morning Main Street in Durham,
Submitted by Bettina Sietz, UNH T2 Program Coordinator



*Got pictures? Send them
to
Bettina.Sietz@unh.edu
Thanks!*

FACILITIES IMPROVEMENTS

These innovations enhance the quality of operation and improve the use of transportation facilities through construction, alteration, and innovative repair.



WINNER

East Brandywine Township,
Chester County, Pennsylvania

Rolling Rack for Salt Spreaders Boosts Safety

"I usually say if you don't find anything to do, you're not looking hard enough," remarked Matthew VanLew. As Roadmaster of East Brandywine Township in Chester County, Pennsylvania, VanLew doesn't believe in idle hands. The former carpenter oversees 38 miles of roads and helps maintain a 19,000-square-foot municipal building. There are endless acres of grass to cut and trees to clear, and always something to repair.

VanLew often reminds his crew of five that if they're faced with a job they don't feel comfortable doing, they shouldn't. Many of the team's morning meetings conclude with him reminding them, "Be safe out there."

This level of support makes public works employees like Derrick Claas and Kyle Mortzfield feel empowered when exercising their problem-solving muscles around the garage. They freely share their practical yet creative ideas, especially when it comes to finding ways to save space. No stranger to the creative process himself, especially when it comes to working with wood, VanLew says "sawdust is in our blood."

East Brandywine Township's facility is filled to capacity with equipment and supplies inside and outside of the building. For most equipment, indoor storage is preferred to protect the investment. However, space is at a premium, and oversized equipment, such as salt spreaders weighing

300 to 500 pounds, pose the biggest storage challenge. Couple that with the need for quick and easy access during the winter and you soon find yourself out of space.

"They would all be spread out on the floor," says Mortzfield. "To get to them, we would have to move a truck and a couple of plows because we don't really use them a whole lot."

Not only were the spreaders tucked away on the front side of the garage, but each also required a backhoe to lift it onto the back of a truck outside—and the help of two to three people. To get the backhoe into the garage, many other pieces of equipment had to be moved out of the way.

Claas and Mortzfield knew there must be a smarter way to organize and move the spreaders, so the duo started brainstorming. Drawing on previous project experience, such as mounting a wheel on a concrete mixer to make it easier to transport, they arrived at the perfect solution: a self-contained unit on wheels that could be operated by a single person.

Realizing they could easily repurpose lumber that had been reclaimed from an old structure, they took dimensions of the spreaders and started building. Casters and hardware were the only items that needed to be purchased for the project, resulting in a total cost of \$50.

The biggest challenge was figuring out how to stack the spreaders so the bottom row had access, but they solved this problem with an ingenious two-piece, double-decker design. Perched on wheels, the first layer holds two spreaders, while the cradle above them holds two more.

At a moment's notice, the new 5 L x 9 W x 4 H foot rack could be wheeled out the door to a chain hoist the township garage salvaged from an old pump station. Once hooked to the spreader, the hoist can raise and lower it so it lines up perfectly with a dump truck. The same person who wheeled the rack out can then position the four pins necessary to finish mounting the spreader into place.

"It makes it a one-man operation and safer than using the backhoe," says VanLew of the project's benefits. And not only is it safer but it's also more efficient.

According to Claas, "You can get a spreader onto a truck on your own probably in 10 to 15 minutes. It would probably take the same amount of time using the backhoe, but that was also with two or three people doing it. You save 20 minutes per spreader because those other two employees could be doing something else [like loading the truck with salt]."

"Plus," VanLew continues, "during snow or bad weather, we have to pre-salt the roads as quickly as we can—or maybe we're called in the middle of the night and it takes about a half-hour to get to the township garage... By putting the spreader on one truck within 10 minutes, that driver does not have to wait to help with the other trucks. It saves a lot of time and it gets us on the road a lot quicker."

This time- and space-saving innovation led Claas and Mortzfield to receive recognition at an East Brandywine Township Board of Supervisors meeting, and they've started to share their idea with public works colleagues in the area.

VanLew is proud of their innovation. "To see what they did and what they accomplished, and how it's really benefited the township and our crew, is pretty amazing."

Asked what's next for the duo, VanLew laughs and says, "I can see their wheels spinning right now."



© 2019 Matthew VanLew, East Brandywine Township, Pennsylvania.

For more information, contact:

East Brandywine Township,
Chester County, Pennsylvania
Matthew VanLew, Township Road Master
610-269-8230
roadmaster@ebrandywine.org



Riddle me this...

After reading the articles, are you ready to solve our **virtual Road Trip riddle**? [Click here to play.](#)

Answer the questions, keep scrolling to the very end of the online questionnaire, and submit your answers for your chance of being drawn for a free UNH T2 workshop seat (total value of up to \$100).



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IMPORTANT: PLEASE SUBMIT YOUR 2020 HOURS ASAP

IMPORTANCE: SUBMIT HOURS BY THE DEADLINE TO RECEIVE CREDIT FOR COMPLETION



TUESDAY'S TOP TEN AT 10

with T2



Winners of the Road Business Riddle in the Summer Edition:
 Chris Theriault from Moultonborough & Jonathan Wallace from Manchester
 Congratulations on a FREE UNH T2 workshop seat!



Image source: Mindfulness Ireland Facebook

Tailgate Talks

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LIVE GoLive!

See you next year! 1/4 @ 8 AM



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