

Focus your hiring search



Everything roads since 1894.

The Good Roads Career Hub puts your municipal job opening in front of industry professionals every week.

Posting your municipal career with Good Roads targets those who are specifically working in the sector and qualified for municipal positions.

With over 2,000 views a week, Career Hub gets you the candidates you want to apply.

Good Roads

Career Hub

Learn more at GoodRoads.ca/careers

04

Good Roads Podcast: A Conversation with Ontario Regional Chief Abram Benedict



Ontario Regional Chief Abram Benedict leads the Chiefs of Ontario, representing 133 First Nations across the province.

10

Education / Building Bridges to the Future: Meet Good Roads' 2024 Bursary Winner



12

Climate / Assessing Risk Before the Storm



16

Road Salt / Shifting the Salt Paradigm: Can Ontario's Municipalities Make Winter Roads Safer and More Sustainable?



18

Human Resources / Ontario's Infrastructure Deficit: Why the Numbers Matter and What Comes Next



Editor

ott Butler

Subeditors

Thomas Barakat Rachel Swiednicki

Design and Art Jared LeMay

Production Lead

Disclaimer: All rights reserved. No part of this publication may be reproduced without the prior permission of Good Roads. Every effort has been made to contact and properly credit copyright works. Please contact us directly regarding corrections of omissions.

Nota bene: All interviews in Good Roads Quarterly are edited for clarity and

For advertising opportunities or partnership projects, please email rachel@ goodroads.ca. Submissions or content inquiries can be directed to scott@

For 130 years, the Ontario Good Roads Association – now simply "Good Roads" – has been dedicated to improving municipal roads and associated infrastructure in Ontario. Today, Good Roads has more than 450 municipal and First Nations members. We exist to connect our members to each other, to other levels of government, to academia and to relevant private sector interests.
We provide our members with training, knowledge, political advocacy, and solutions to their most pressing problems.

Good Roads Quarterly is published four times a year by Good Roads.

Designed and printed in Ontario.

Board of Directors

President

Cheryl Fort, Township of Hornepayne

First Vice President

Paul Ainslie, City of Toronto

Second Vice President Aakash Desai, Township of Chatsworth

Third Vice President

Melissa Abercrombie, County of Oxford

Past President

Antoine Boucher, Municipality of East Ferris

Directors

Salim Alibhai, Regional Municipality of York

Chris Angelo, City of Quinte West Cathy Burghardt-Jesson, Township of Lucan-Biddulph

Guy Godmaire, Township of Harley and

Terry McKay, Township of Chatsworth Kristin Murray, City of Timmins

Nancy Peckford, United Counties of Leeds and Grenville

Vincent Sferrazza, City of Toronto

Alysson Storey, Municipality of Chatham-Kent

Justin Towndale, City of Cornwall

22-1525 Cornwall Road Oakville, ON L6J 0B2

- www.facebook.com/goodroads.ca
- @goodroads
- in www.linkedin.com/company/ goodroads

Empowering Municipal Public Works Through Leadership Certification



Fueling Resilience: How Oil and Gas Powers Ontario's Road Maintenance Operations



22

Your Training Investment Earns Global Status





Good Roads Weather Tracker

Automated Weather Reports Trusted Since 2017

Enhanced Minimum Maintenance Standards compliance.

Designed for public works, snow and ice management contractors, and transportation officials.

Key Features:

- Local area forecasts from 470+ stations
- Detailed 48-hour forecasts with a 10-day outlook
- Environment Canada alerts
- Automated time-stamping when forecasts are reviewed and acknowledged
- Access past forecasts

Good Roads P A Conversation with O Regional Chief Abram B



odcast: ntario Benedict



Ontario Regional Chief Abram
Benedict leads the Chiefs of Ontario,
representing 133 First Nations across
the province. Known for his dedication
to Indigenous rights, economic
development, and intergovernmental
relations, Chief Benedict sat down with
Good Roads to discuss Indigenous—
municipal collaboration, infrastructure
challenges, and the path toward
meaningful reconciliation.

This conversation has been edited for clarity and concision.

Good Roads: For those who may not be familiar, what role does the Chiefs of Ontario play in First Nations governance?

Chief Benedict: The Chiefs of Ontario is an advocacy organization that's been around for about 50 years. Every three years, the 133 Nations elect a Regional Chief to represent them. Our primary work involves government relations—connecting First Nations with federal, provincial, and municipal governments, advocating for community priorities, and influencing policy and legislation. We provide a collective voice for Ontario's First Nations.

GR: How would you describe the current relationship between First Nations and municipalities in Ontario?

CB: It varies across the province. Ontario is large and diverse, and relationships look different in the north, centre, and south. The key is relationship-building—discussing shared priorities and recognizing that many First Nations people live in municipal settings. Truth and reconciliation means finding those commonalities and supporting one another.

GR: What unique challenges arise when First Nations people live in municipal settings, and how does your organization address them?

CB: We encourage municipal leaders, nonprofits, and businesses to connect with First Nations, even if they don't know where to start. My office can help create those linkages. Having regular dialogue between municipal administrators and First Nations leadership is critical to understanding and addressing unique service needs.

GR: Have there been examples of joint advocacy between the Chiefs of Ontario and municipalities?

CB: Yes—often when there's shared concern about government legislation. We've worked with AMO, and there's been some interaction with Good Roads. My goal is to formalize these relationships and ensure First Nations perspectives are included in working groups and policy discussions.

GR: At our conference, you spoke about the infrastructure deficit. Can you expand on that?

CB: Nationally, the First Nations infrastructure gap is about \$350 billion, and in Ontario alone it's around \$50 billion. This includes roads, schools, water treatment plants, and basic services. Many communities face chronic boil-water advisories, overcrowded housing, and aging schools. Climate change adds another challenge—flooding and wildfires are forcing evacuations to municipalities.

GR: Let's talk about resource development and Bill 5. What is your position?

CB: First Nations want prosperity, but we must be involved from the start. Bill 5 could fast-track development in "special economic zones" while sidestepping key consultation processes. That doesn't remove the government's duty to consult—it just shifts when it happens. We insist on free, prior, and informed consent, which often means saying "yes" with conditions—protecting sacred sites, water, and endangered species.

GR: Can you share an example of a successful First Nationsmunicipal partnership?

CB: The joint ownership of Cornwall's deep-water port with Akwesasne is a great example. The federal government offered the property jointly, but it was initially rejected. Years later, after relationships improved, both sides agreed to 50-50 ownership. That trust opened the door to collaboration that benefits both communities.

GR: What does meaningful reconciliation look like at the municipal level?

CB: It's about direct action—First Nations inclusion in planning, staff training, and service delivery partnerships. Land acknowledgements alone aren't enough. Municipalities like Cornwall have trained staff on Truth and Reconciliation and local First Nations history. Building relationships before issues arise makes collaboration easier when challenges come.

GR: Any final message for our audience?

CB: Our communities want development done right-projects that protect sacred sites, water, and the land. That starts with respectful dialogue and continues through to project completion and beyond. First Nations will still be there long after developers have left, so the work we do together must benefit future generations. GR



Promoting cycling and road safety in communities across Ontario

By: Eleanor McMahon, Founder and Board Chair, Share the Road Cycling Coalition

Did you know 3.2 million people ride a bicycle on Ontario roads at least weekly, with many of those riding daily? That's more than one in five of us.

Our research data confirms that cycling continues to grow as a popular mode of transportation across the province for reasons of affordability, convenience and because of its health and environmental benefits, too. And since the bike in front of or beside us is the car that isn't, cycling is a great tool for mitigating congestion as Ontarians embrace cycling in increasing numbers.

So how can we work together to facilitate this growing popularity, given cycling's numerous benefits?

Our data confirms that there is a pent-up demand – Ontarians want to cycle more often, and the number one way to get them to do so is creating safe places for them to ride. And since 87% of us are motorists and cyclists – we know that cycling infrastructure benefits drivers, too.

Fostering cycling-friendly cultures in our communities is not a silver bullet issue to be sure – but rather a combination of investments in infrastructure and well-designed safe streets – with a healthy dose of education and awareness campaigns to enhance safety and collaboration during our daily trips.

The opportunity to promote cycling and road safety in communities across Ontario is the driving force behind a recently announced collaboration between the <u>Share the Road Cycling Coalition</u>¹, Ontario's cycling advocacy and policy organization, and <u>Ontario Cycling</u>², the governing body for the sport of cycling that oversees hundreds of local cycling clubs across Ontario.

The partnership will focus on developing effective education and awareness campaigns and will include the creation of the Share the Road Cycling Club Program, aimed at supporting cycling clubs and members across the province by



connecting and amplifying the voices of cycling enthusiasts through workshops to foster effective advocacy.

By connecting with Ontario Cycling's member clubs and the thousands of cyclists in communities across the province who enjoy cycling daily, we are working to develop a Share the Road Pledge – evidence of our shared commitment to road safety. As both motorists and cyclists, these club members are signifying their commitment to the road safety values that the Pledge embodies, whether they are behind the wheel or in the saddle on Ontario's roads.

The initiative will roll out in phases over the coming months. Cycling clubs of all sizes are invited to join this free program and become part of a province-wide movement to make Ontario's roads safer and more inclusive for everyone.

There are various tools that can be developed to lessen the tensions that sometimes occur on our roads during our daily trips. Developing bridges of understanding can foster greater cooperation, but above all ensuring that policy and decision makers prioritize the creation of safe places for us all, has to be our number one shared priority.

People's lives are in the balance, and given the numerous benefits that choosing other modes of transport beyond the single occupancy vehicle brings to our communities, there is a tremendous opportunity for us to invest in the kind of healthy, safe and active communities that enhance our quality of life. Cities around the world are doing so – it is exciting to see so many communities in Ontario embracing these opportunities as well.

¹ Share the Road Cycling Coalition: https://sharetheroad.ca/

² Ontario Cycling: https://ontariocycling.org/membership/

Making the Call: The Importance of Decision Making for Municipal Winter Operations

By: Jaden Hodgins, Road Specialist **Intact Public Entities**

intactpublicentities.ca



Each winter, your municipality is faced with making critical decisions that impact road conditions and public safety. These decisions often take place under pressure, at odd hours, with limited information and during rapidly changing conditions. The choice of action could mean the difference between safe or hazardous road conditions.

Consider this scenario: it's December 24th at 9:00 p.m., the weather forecast warns that a cold front is moving in, and temperatures are expected to plummet from 8°C to -6°C over the next few hours. Rain is falling and is forecasted to transition to freezing rain followed by several centimetres of snow. The roads are currently wet but still above freezing, and crews have not yet been deployed. The supervisor must decide whether to initiate anti-icing operations before the temperature drops, call in full crews or wait for further confirmation. Acting too soon could waste material and resources; waiting too long could result in icy roads and unsafe driving conditions. It's a high-stakes decision made under pressure and the public's safety on the line.

"Winter is coming - it's never too early to prepare and Intact Public Entities is here to help minimize risk and maximize safety this winter."

How can your municipality ensure the best decisions are being made when it comes to winter maintenance? First and foremost, implementing a few best practices is key to helping your team make the right call. Here's how:



- 1. Annual winter maintenance training A highly trained team makes smarter decisions and fewer mistakes.
 - Review your winter maintenance plans, policies and levels of service
 - Confirm procedures for deployment, standby and
 - Reinforce the importance of effective record keeping
 - Cover the proper use and application rates of chemicals and abrasives
- 2. Develop clear policies and procedures Clear guidance is a tried-and-true way to ensure consistent and effective decision making.
 - Set clear expectations for staff to empower them to make confident decisions
 - Ensure consistency in information and use across policies, procedures and maintenance plans to provide clarity to decision-makers and staff alike
 - Consult with peers and experts for best practices to include in policies and procedures

Tip: These plans may be used as part of a municipality's defence against a claim. Demonstrating a well-documented and effective



winter maintenance system is crucial in these scenarios.

- 3. Utilize high quality data and information Decisions are only as good as the information used to make them.
 - Use data from multiple sources (weather forecasts, patrol observations, environmental sensors, etc.) to support decision making
 - Understand how meteorological variables (temperature, humidity, wind, cloud cover, and precipitation type and amount) influence pavement conditions
 - Monitor weather forecasts at least three times a day as required by the MMS
- 4. Communication and Collaboration Informed decisions require shared communication.
 - Supervisory staff should maintain regular contact with patrollers and operations staff
 - Share real-time observations, forecasts and situational updates
 - Collaborate with neighbouring municipalities to share lessons learned and best practices
- Post Weather Event Debriefing Reflection strengthens capacity to deliver safe, effective and responsive winter road maintenance.

- Discuss with the team what went well and what didn't
- Review changes that should be made to improve processes for next time
- Document everything

Winter is coming – it's never too early to prepare and Intact Public Entities is here to help minimize risk and maximize safety this winter.

Our in-house risk management experts will review your winter inspection and maintenance programs, assess areas of vulnerability and provide tailored training and education to help you reduce exposure to claims. We'll even drive your roads to identify hazards and offer proven solutions.

Let's get started! Learn more about our complimentary risk management value-added services, visit intactpublicentities.ca/value-added or email connectwithus@intactpublicentities.ca.

Building Bridges to the Future: Meet Sarah Baker, Good Roads' 2024 Bursary Winner

By: Jared LeMay Coordinator, Brand and New Media. Good Roads

Good Roads is proud to announce Sarah Baker as the winner of the 2024 Good Roads Bursary. An aspiring civil engineer with a passion for community-centric infrastructure, Sarah's insightful and meticulously researched essay on integrating Equity, Diversity, and Inclusion (EDI) into infrastructure projects stood out to the selection committee. Her work presents a compelling vision for a more accessible and equitable future for municipalities across Ontario, a vision she plans to build during her upcoming studies at the University of Ottawa.

Sarah's interest in the intersection of civil engineering and social equity is not just academic; it's deeply personal. Her perspective was significantly shaped by her daily experiences in high school while using the Ride Well program in Wellington County to commute to her job at a retirement residence. This on-the-ground view revealed the profound impact accessible public transportation has on various community members.

"I really saw how beneficial it was, not only for me as a student, but also for the elderly population," Sarah shared. She observed firsthand how crucial these services are for seniors needing to get to essential appointments and for students and low-income families who may not have access to a personal vehicle. This experience was the catalyst for her essay, providing a powerful case study on how thoughtful transit solutions can foster independence and community connection.

A Fresh Approach to Public Consultation

A cornerstone of Sarah's essay is her innovative proposal for rethinking public consultation. She argues that for infrastructure to be truly inclusive, the planning process must actively reach out to a broader, more diverse crosssection of the population. Traditional town halls, she suggests, often attract a very specific demographic. To break this cycle, Sarah advocates for meeting people where they are.

"I mentioned talking about grocery stores, public



Sarah Baker, winner of the 2024 Good Roads Bursary, stands in front of a snow plow at the County of Wellington garage.

libraries and, even cultural festivals," she explained. "I think grocery stores are really cool because it kind of gets a 2-in-1 done...you can get your groceries and then also give input on your community". This approach is designed to capture a wider array of voices and experiences, ensuring that infrastructure projects reflect the needs of the entire community, not just a vocal minority. As she rightly points out, "Everybody goes to a grocery store".

Lessons from Wellington County's Ride Well Program

Her detailed analysis of the Ride Well program serves as a practical example of her ideas in action. The ride-share model is not only affordable but also fosters a sense of community by allowing users to see who else benefits from the service. Sarah believes other municipalities can learn a great deal from this model.

However, she is also pragmatic about the financial hurdles. When asked about balancing equity with economic viability, Sarah pointed to the importance of inter-governmental cooperation. She noted that Ride Well was initiated with the help of grants from higher levels of government, a strategy she believes is key to sustainability. "If you increase the fee of it, it kind of defeats the purpose for the target audience," she wisely noted, emphasizing that keeping services accessible for lower-income users is paramount. Her solution is a call to action for municipalities



to actively seek provincial and federal funding to support these vital local programs.

The Road Ahead: Engineering a Better Tomorrow

Sarah's passion for municipal infrastructure is a family affair. Her father's career in the field sparked her own interest from a young age. "I grew up with him talking about conversations of bridges and projects happening in our community," she recalled. "It really showed me the impact that civil engineers have on a community. And I want to make that impact as well". Her father also served as a key resource, directing her to valuable websites that helped enhance her research for the bursary essay.

As she prepares to enter the University of Ottawa's renowned civil engineering program, Sarah is most excited about the hands-on experience she will gain through its co-op opportunities. With civil engineering being such a broad field, she looks forward to exploring its various specializations, from structural to environmental to municipal.

Looking a decade into the future, her goals are both ambitious and admirable. "My big long-term goal is to be a structural engineer," she states. "I kind of want to make infrastructure accessible and sustainable for growing communities". Beyond her technical ambitions, Sarah also hopes to pay it forward by becoming a mentor for young,

aspiring engineers, sharing her journey to support their development.

Juggling an already demanding schedule of school, work, sports, dance, and volunteering, Sarah's motivation and time-management skills are remarkable. Her secret? A genuine love for everything she does, coupled with strategic time-blocking to make the most of every day.

For students considering applying for next year's Good Roads Bursary, Sarah's advice is simple: dive deep and don't be afraid to ask for help. "Seek out help from really good websites and just keep working at it," she advises. "It was really interesting to make that essay and kind of just learn more about my community itself".

Sarah Baker embodies the spirit of the Good Roads Bursary: a commitment to improving community life through innovation, dedication, and a clear-eyed view of the future. We congratulate her on her exceptional achievement and wish her the very best in her studies and future career. Her work is a reminder that the path to better roads—and better communities—is paved with fresh ideas and a passion for serving the public good.

To read Sarah Baker's award-winning essay, please visit: bit.ly/GRBursaryWinner

Assessing Before the



Zisk Storm

Why Municipalities Need to Think About Climate Risk

By: Derry Wallis, Climate Change & Energy Specialist, County of Huron

Municipalities across Ontario are increasingly facing challenges brought on by climate change. From extreme weather to prolonged heat waves, the impacts of climaterelated events are becoming harder to ignore, especially for those responsible for managing infrastructure. That is why climate risk and vulnerability assessments are emerging as essential tools for municipalities.

Climate risk and vulnerability assessments use historic and predicted climate data to help municipalities understand how climate change will affect infrastructure, such as roads, bridges, culverts, and buildings, and plan accordingly.

Why Climate Risk Matters for Municipal Infrastructure

Recent research from the Ontario Provincial Climate Change Impact Assessment Technical Report¹ (2023) highlights several climate hazards that impact transportation infrastructure, including:

- Higher temperatures and extreme precipitation increase the risk of roadway infrastructure deterioration and washouts, raising maintenance and repair costs.
- Repeated freeze-thaw cycles place significant stress on bridges and culverts by causing materials to expand and contract. This repeated movement can lead to cracks, joint deterioration, and long-term structural weakening over time.

At the same time, many municipalities have aging infrastructure. Much of the current transportation network was designed and built before climate adaptation was a consideration. Combined with a reduction in natural assets over the past few decades, infrastructure is more exposed to the pressures of a changing climate.

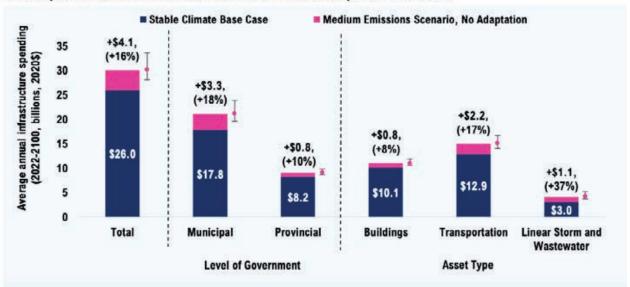
Financially, proactive incorporation of climate risk into infrastructure planning is the smart approach. The Financial Accountability Office of Ontario² (2023) found that municipalities can reduce long-term costs by investing in adaptive infrastructure today, rather than waiting for costly repairs after the damage is done.

¹ Ontario Provincial Climate Change Impact Assessment Technical Report: https://www.ontario.ca/files/2023-11/mecp-ontario-provincial-climatechange-impact-assessment-en-2023-11-21.pdf

² The Financial Accountability Office of Ontario: https://fao-on.org/en/ report/cipi-summary/#hazardsassessment-en-2023-11-21.pdf

Figure 1 1

Municipal infrastructure costs will rise more than provincial costs



Note: Uncertainty bands represent the range of cost outcomes in the medium emissions scenario, see Accounting for uncertainty. Source: FAO.

Huron County's Climate Risk Assessment

Huron County recently conducted a climate risk and vulnerability assessment focused on 211 large culverts and 79 bridges. These assets were chosen because:

- They are a part of critical transportation links in rural areas.
- They are costly to replace or repair.
- They are likely to be impacted by climate hazards.

The County partnered with WSP consulting to use their *DecisionVue: Climate Impacts Tool*, a system grounded in the made-in-Canada PIEVC (Public Infrastructure Engineering Vulnerability Committee) Protocol. This globally recognized method has been applied to ports, buildings, water systems, and roads across the globe.

Some key findings included:

- Top hazards: The most prominent threats were extreme precipitation (including the 100-year flood), very hot days, and heatwaves.
- Not all data is created equal: Flow rate changes and clearance levels were found to be better indicators of climate risk than drainage area alone.
- Older structures are more vulnerable: As expected, bridges and culverts in poor condition or of older age showed higher climate risk ratings.

Importantly, climate risk scores should not be reviewed in isolation. They must be considered alongside asset condition, age, and function to effectively prioritize replacements and upgrades.

Informing Municipal Decisions

This type of assessment is more than just a report—

it directly informs how municipalities operate. It can help municipalities meet their strategic or climate goals and comply with provincial Regulation 588/17, which requires municipalities to consider climate-related vulnerabilities in infrastructure planning.

By integrating climate risk scores into existing levels of service, municipalities can strengthen current environmental sustainability scores that were based on observations. Climate risk data is also useful in prioritizing asset replacement, especially in cases where options are otherwise evenly matched.

Visualization is also a key component. Using GIS, municipalities can map infrastructure risk across the region, revealing patterns along watercourses and highlighting which areas, particularly near communities, could be most affected by failures. This systems-thinking approach supports more informed budgeting decisions and allows the municipality to consider the broader social implications of infrastructure vulnerability.

The information gained from this climate risk assessment may help shape future design standards for high-risk bridges and culverts. It encourages the use of Intensity-Duration-Frequency (IDF) curves that include future climate projections, which can help ensure new structures are built to be more resilient over the long term.

Lessons and Takeaways for Other Municipalities

Huron County's experience offers several insights for municipalities beginning to consider climate risk:

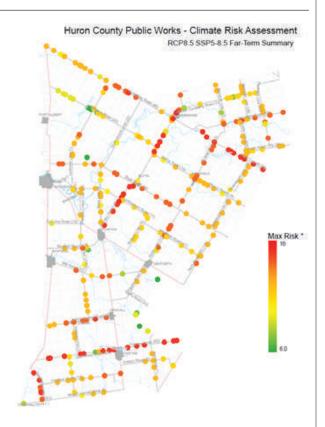
- Start broad: A high-level climate risk assessment helps identify where to focus more detailed work in the future.
- Look for funding: Pilot projects and federal funds, like the Canada Community-Building Fund used in Huron,

- can help start climate risk initiatives.
- Build a diverse team: Climate risk assessments require input from engineers, finance professionals, GIS specialists, climate scientists, and public works staff.
- "No surprises" is good news: In Huron's case, climate risks aligned closely with existing asset management priorities - a strong indication that proactive maintenance and planning are effective. It is valuable to see that current strategies are working, as this helps guide future decisions with greater confidence.

If your municipality is ready to start considering climate risk, here are a few steps to begin:

- Explore the free PIEVC Protocol³ resources available online.
- Invest in staff training or engage with consultants to understand your options.
- Include climate risk in strategic plans to prepare for future funding or policy opportunities.

Climate change is here. Municipalities that take early action to assess and prepare for risks can reduce costs, safeguard their communities, and ensure their infrastructure is ready for the future.



Elevate Your Career From Anywhere with Good Roads Online **Training Courses**

From technical road and infrastructure training to leadership development, Good Roads eLearning programs offer a flexible and convenient way to advance your career. Explore courses like Signs and Lines, Effective Management, and HR Essentials for Public Works, all taught by industry experts.

Since 1894, Good Roads has delivered top-quality road and infrastructure training to communities across Ontario and beyond.

Our diverse online programs provide both real-time and self-paced learning options to suit your schedule and objectives.

Good Roads - Training designed for your success.



³ PIEVC Protocol: https://pievc.ca/

Shifting the Salt Paradigm: Can Ontario's Municipalities Make Winter Roads Safer and More Sustainable?

By: Jacob Shaddock, Candidate, Master of Environment and Business, University of Waterloo

Every winter, municipalities across Ontario take on the enormous task of keeping roads clear, safe, and drivable. For decades, road salt has been the go-to solution, reliably melting ice and preventing accidents. But with growing concerns about environmental damage, infrastructure corrosion, and long-term sustainability, the question becomes unavoidable: is there a better way?

The short answer? It's complicated.

The Icy Cost of Comfort

We've grown used to bare, salted roads—even during the most punishing storms. But there's a steep environmental and economic price tag that comes with this level of service. Research shows that chloride levels in streams and lakes near roadways frequently exceed safe limits, threatening aquatic ecosystems and contaminating drinking water sources. Vegetation along roadsides withers under repeated exposure to salt, while animals drawn to sodium-rich roads are more likely to be struck by vehicles. Even species that survive are at risk—road salt is known to favor invasive species that thrive in salty conditions, often to the detriment of native flora and fauna.

Then there's the toll on infrastructure. Each winter, salt corrodes cars, bridges, and roads, contributing to billions in repair costs. These expenses land squarely on the shoulders of municipalities—and by extension, taxpayers.

Despite this, salt remains the default tool for winter maintenance. Alternatives like beet juice and calcium magnesium acetate have been explored, but high costs and limited real-world testing make widespread adoption unlikely in the near term. Techniques like anti-icing and prewetting can reduce salt use, but these too face barriers. So what's stopping municipalities from changing course?

Inside the Municipal Snowplow Mindset

As part of my graduate research at the University of Waterloo, I surveyed 37 medium-sized municipalities



There's a steep environmental and economic price tag that comes with bare, salted roads.

across Ontario to understand why sustainable practices aren't more widely adopted. The answers were clear—and surprisingly human.

First and foremost is the issue of liability. No one wants to get sued. Municipal staff and contractors consistently reported that fear of legal action looms large in every decision. As a result, many choose to err on the side of oversalting—even when it's environmentally harmful. If a road is too slick and someone gets hurt, the assumption is that more salt could have prevented it.

Next comes cost. Best Management Practices (BMPs) and newer technologies often require significant upfront investment. Municipal budgets are already stretched thin, and most staff reported that financial constraints prevent them from experimenting with new materials or methods. Technical hurdles were another sticking point. Integrating new technologies with aging equipment, unpredictable weather patterns, and difficulty tracking performance all complicate the picture. And even when alternatives exist. the lack of consistent, trusted data makes many hesitant to try them.

The Public Perception Gap

One surprising finding? While many residents are aware of road salt's environmental toll, few are willing to pay more for sustainable alternatives. This disconnect puts



municipalities in a bind: how do you introduce greener, potentially more expensive methods when your constituents aren't demanding them?

The result is a persistent status quo. Fewer than half of surveyed municipalities use pre-wetting or anti-icing, and only a handful have dabbled with alternatives like beet juice. While two-thirds have formal salt management plans, not all update them regularly. Without incentives or pressure to do more, many municipalities find themselves stuck in a reactive cycle.

A Path Forward

So how do we break the ice?

It starts with embracing proven BMPs like anti-icing and pre-wetting—methods that reduce salt usage while maintaining road safety. But municipalities can't go it alone. The provincial and federal governments have a role to play in offering grants or loans that help cover the cost of new equipment and materials.

Legal reform is also critical. If liability fears are driving overuse, then we need to consider protections for contractors and staff trained in BMPs. New Hampshire's "Green SnowPro" certification program offers a compelling model—contractors who follow certified guidelines there receive legal protections in the event of an incident.

Then there's the need for stronger policy. The federal Code of Practice for the Environmental Management of Road Salt is currently voluntary. Making it mandatory—with audits and reporting requirements—could help drive more consistent and effective salt management.

Public education is another key piece of the puzzle. Residents need to understand what sustainable winter maintenance looks like—and why they might not see black pavement during every snowfall. Changing public expectations will take time, but it's essential to building support for long-term change.

Finally, ongoing training and collaboration between municipalities will be vital. Associations like Good Roads can play a key role in fostering this network.

Winter Roads, Rethought

Ontario's winter roads are at a crossroads. The current model may be effective, but it's also expensive, environmentally damaging, and increasingly unsustainable. By rethinking how we approach winter maintenance—and by supporting municipalities with the tools, training, and policies they need—we can create safer, greener, and more cost-effective systems for years to come.

Ontario's Infrastructure Deficit:

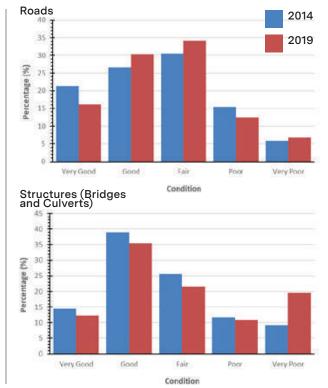
Why the Numbers Matter and What Comes Next

By: Dr. James Smith, Manager, Technical Programs and Research, Good Roads

Ontario's municipalities are facing an infrastructure deficit of more than \$44 billion in their roads, bridges, and culverts. This figure reflects the growing gap between the assets municipalities own and the resources available to keep them in good condition. While the number is daunting, it also represents a significant step forward: municipalities now have better data, better tools, and a clearer understanding of their infrastructure than ever

Prior to 2021, the most quoted infrastructure deficit value was \$60 billion, with \$28 billion attributed to roads, bridges, and other structures, as noted in the 2008 Provincial-Municipal Fiscal and Service Delivery Review. This was a benchmark measure, but it relied on limited and extrapolated data. In a 2020/2021 study, Good Roads set out to update, validate, and improve these values, and this was repeated in 2025. The 2025 study examined 444 municipal asset management plans (AMPs), most of which were completed in 2022 or later.

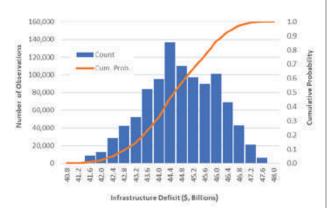
Collectively, municipalities own nearly 299,000 lane kilometres of roadway and close to 20,000 bridges and culverts. The replacement cost of these assets is approximately \$182 billion. The overall condition is generally described as "good to fair," but the deterioration curve for transportation assets is steep. Without consistent investment, assets rated "fair" today can quickly become costly liabilities.





Quantifying the infrastructure deficit required going beyond what was reported in municipal AMPs. Few municipalities calculated their own deficit values, so engineering and economic principles were applied to estimate the investment needed to return assets to a likenew condition. Maintenance and rehabilitation techniques were factored into the calculations, and a Monte Carlo simulation of one million runs was used to account for variability and uncertainty in the data.

The results point to a deficit range between \$42 billion and \$47 billion, with the best estimate at \$44.43 billion. Of that total, roads account for about \$23.6 billion,



while bridges and culverts add another \$20.8 billion. These figures highlight the scale of the challenge facing municipalities: the need to manage large, expensive networks of infrastructure within constrained financial environments.

More than just numbers, the study underscores a critical necessity for greater standardization. Municipalities vary in their methods of evaluating, tracking, and reporting infrastructure data, making comparisons challenging and complicating coordinated planning. Standardization of methodologies and reporting is not just a suggestion, but a crucial step towards improving accountability and strengthening the case for support from other levels of government.

While the size of the deficit is significant, municipalities are now better equipped to understand their infrastructure, plan investments, and make informed choices. With coordinated action, consistent standards, and a commitment to long-term planning, Ontario can begin to close the infrastructure gap.

Pavement Markings: **How Ontario** Municipalities Can Get More Life Out of **Every Line**

By: Rania Alzahal Specialist, Technical Programs and Research Good Roads

If you've driven through your community and noticed the painted lines on the road fading faster than expected, you're not alone. Across Ontario, municipalities are grappling with pavement markings that sometimes last only a single season. For public works teams, this isn't just a cosmetic issue-it's about safety, costs, and keeping roads running smoothly.

Why Paint Isn't Sticking Around

The shift to water-based paints in recent years was meant to cut harmful emissions of Volatile Organic Compounds (VOCs). Environmentally, this was a positive move. But Ontario's harsh winters and heavy snowplow use have exposed the limitations of these paints:

- They don't adhere well in cold or damp conditions.
- Snowplows scrape them off more easily.
- On busy roads, they can wear out in months instead of years.

The result? Crews are repainting more often, driving up labour and equipment costs and causing more traffic disruptions. Ironically, reapplying paint so frequently also undermines some of the environmental benefits that led to the switch in the first place.

What Materials Are on the Table?

Not all roads are the same, and neither are pavement marking materials. Choosing the right one for the right place can make all the difference:

- Water-Based Paint Affordable and environmentally friendly, but best reserved for low-traffic or temporary
- Solvent-Based Paint Longer-lasting, though restricted in some areas due to VOC policies.
- Thermoplastics & MMA (Methyl Methacrylate) Higher upfront cost, but excellent durability. A smart choice for intersections, school zones, or stop bars.



Crews are repainting more often, driving up labour and equipment costs and causing more traffic disruptions.

Preformed Tape – Extremely durable and highly reflective, ideal for highways or key symbols like turn arrows. The Ontario Provincial Standard Specification (OPSS.MUNI 710) is a reliable guide that helps municipalities match the right material to the right context.

Lessons from the Province

The Ministry of Transportation of Ontario (MTO) has already shifted its approach. On provincial highways, long-lasting materials like thermoplastics and preformed tapes are typically installed during resurfacing or reconstruction. These markings often last for years, reducing both maintenance needs and disruption to the public. Municipalities can adapt this playbook to their own busiest corridors.

Making Pavement Markings Last Longer

For municipal staff tasked with stretching budgets while maintaining safety, here are some practical takeaways:

- 1. Lean on OPSS.MUNI 710 Consistent specifications mean more predictable performance.
- 2. Think Like the MTO Reserve durable materials for high-volume or high-risk areas.
- 3. Prioritize Smartly Intersections, school zones, and stop bars deserve your most durable markings.
- 4. Stay Curious New materials are emerging that balance durability with environmental responsibility.

Striking the Balance

At the end of the day, the goal is clear markings that keep people safe while respecting municipal budgets and environmental commitments. By matching materials to conditions, municipalities can make smarter, longer-lasting choices that reduce costs, minimize disruptions, and build safer communities.

Good Roads Awards Good Roads Recognizes Your Achievements Be recognized for your hard work, dedication, ingenuity and creativity through the various awards we present at the annual Good Roads Conference. - Volunteer of the Year Award - Long Service Award - Neidra Better Practices Award - Municipal Paving Award - Municipal Concrete Award - Good Roads Bursary Concrete Award sponsored by Concrete Ontario Apply now and elevate your achievements. For more information please visit: www.GoodRoads.ca/Awards





Your municipal training dollars are working harder than you might realize.

Good Roads has been awarded the Brandon Hall Group Gold Award for Best Association Professional Development Program—an international recognition that validates what you've been experiencing: access to world-class professional development that rivals major corporate training

This isn't just good news for Good Roads. It's proof that your investment in professional development through the association delivers measurable value that's now recognized at the highest industry levels.

Competing Against Corporate Giants—And Winning

The Brandon Hall Group Excellence Awards represent the "Academy Awards of Human Capital Management," with entries evaluated by veteran industry experts across six continents. Gold recognition goes only to the highestperforming initiatives that demonstrate measurable business impact.

This year, Good Roads' 18-person team competed against Fortune 500 companies including Bank of America, Google, Shell, and Unilever-organizations with training budgets that dwarf most municipal annual revenues. The fact that Good Roads came out ahead with Gold recognition speaks to something significant: association-based training designed specifically for municipal realities can outperform generic corporate programs.

For municipal professionals, this external validation matters. It confirms that the training you're accessing through Good Roads meets standards set by organizations that invest millions in workforce development.

The Numbers Behind the Recognition

The award recognized Good Roads' complete transformation of how municipal training gets delivered. The measurable impact speaks for itself:

- 40 to 470+ Online learners (2022 to 2024)
- 90%+ Course completion rates maintained
- Zero to Nine Online programs launched since 2021
- Province wide Reach Now serving remote and northern communities previously unable to access training

This dramatic growth reflects genuine demand from municipalities across Ontario, proving that high- quality online training designed for municipal professionals fills a critical gap in workforce development.

Real-World Impact on Municipal Operations

The transformation addresses the hidden economics of professional development that every municipal manager understands. A works supervisor from northern Ontario captured the operational impact: "This has been a gamechanger for us. We used to only be able to send one person a year to TJ Mahony due to coverage issues. Now we can train our entire team."

Training That Fits Your Operations The current online program portfolio reflects core municipal competencies: both sections of the TJ Mahony Program (Construction & Maintenance), Snow School, Effective Management, Signs & Lines, Bridge and Structure Inspection, Emerging Municipal Leaders, and HR Essentials for Public Works. Each combines

decades of municipal expertise from volunteer instructors with modern digital delivery.

Course content is designed around municipal work schedules-broken into segments averaging 2-5 minutes per page, accessible on laptops and tablets, suitable for learning between callouts, during lunch breaks, or after hours. One participant noted: "Really enjoyed the course. Love that it was self-paced... Hope that these courses can continue and the course availability will expand for online self-paced learning."

Technology Built for Municipal Environments Recognizing Ontario's connectivity challenges, courses use lightweight HTML rather than bandwidth-heavy formats, ensuring municipal staff in areas with limited internet can access content without frustration. The partnership with D2L provides enterprise-grade tracking and accessibility compliance that meets municipal procurement standards. The platform delivers automated progress tracking and professional certificates that demonstrate competency completion.

Rather than adapting generic training models, the education team developed detailed profiles of municipal learners-from field staff who may have negative classroom associations to managers seeking leadership-focused development. This research-backed approach ensures content speaks directly to municipal professionals' experiences and challenges.

Looking Forward: What This Recognition Enables

The Brandon Hall Group recognition positions Good Roads to expand programming based on member needs. The organization's development focus centers on converting current in-person courses to online delivery, continuing to support municipalities with the training they need and individuals with the certifications they seek. This dual-delivery approach gives municipalities the flexibility to match training format to employee preferences and operational needs.

The award also opens doors to partnerships with other training organizations and technology providers, potentially expanding course offerings while maintaining the municipal focus that makes Good Roads training effective.

Member feedback continues driving program development, with strong demand for more courses to be available online. Particularly sought after are online versions of courses that support AOR's Certified Road Supervisor (CRS) certification and MEA's Municipal Infrastructure Certificate—professional credentials that advance municipal careers while strengthening organizational capacity.



Course completion rates maintained



The Volunteer Expertise That Makes It Possible

This achievement belongs fundamentally to Good Roads' volunteer instructors—municipal professionals just like you who bring decades of hands-on experience from across Ontario. These volunteers are the backbone that makes Good Roads training possible, generously sharing their expertise to mentor the next generation of municipal professionals.

Without these volunteers — your peers and colleagues none of this would be possible. They bring real-world credibility that no external training provider can match. When they teach winter maintenance, they've actually managed snow operations. When they cover asset management, they've wrestled with aging infrastructure budgets. This authentic expertise transforms good content into exceptional learning experiences.

The Good Roads Education team, supported by Administration, Finance, and Marketing teams, provides the infrastructure, but the essential knowledge comes from practicing municipal professionals who continue working in the field while volunteering their expertise to strengthen the entire sector.

Essential Infrastructure for Municipal Success

In a sector facing unprecedented challenges — aging infrastructure, climate adaptation, workforce transitions, and evolving regulatory requirements - professional development isn't just beneficial training, it's essential infrastructure for municipal success.

The Brandon Hall Group recognition validates that Good Roads has created something unique: professional development that understands municipal realities, fits municipal schedules, and prepares municipal professionals for the challenges ahead. For your municipality, this recognition provides confidence that training investments support programs recognized at the highest industry levels.

That's not just good training—it's strategic workforce development that positions your municipality for long-term success.







1. 2+1 = A Safer Trans-Canada Highway

In Ontario, roughly 1,750 km of the Highway 17 stretch of the Trans-Canada Highway — not even counting the bulk of Highway 11 — remain two lanes and have no plans to be widened. Ontario is the only province with two-lane stretches of the Trans-Canada. The Northern Policy Institute (NPI) estimates twinning costs at about \$3 million per km, meaning twinning all of Highway 17 would cost at least \$5 billion, likely more.

Alternately, the Federation of Northern Ontario Municipalities is proposing a series of 2+1 expansion projects along sections of Highways 11 and 17 that provide the safety benefits of a twinned highway at a fraction of the cost. NPI estimates that building a 2+1 could one sixth to half of the cost of twinning. The province has already committed to installing 30 km of 2+1 on Highway 11 between North Bay and Temiskaming Shores. The proposal suggests building more in phases, continuing north on 11 through Cochrane and eventually to Nipigon, and from Renfrew to Sudbury on the 17 and eventually in sections leading all the way to Kenora.

FONOM is pitching this plan to the feds and the province as a nation building project.

2. Helsinki Proves Vision Zero Isn't Just a Slogan

In 2024, Helsinki pulled off something most cities only dream about: an entire year without a single traffic death. For the Finnish capital, this wasn't luck—it was the result of a longterm commitment to Vision Zero, the European Union's bold goal to eliminate road fatalities by 2050.

The recipe? Slow things down-more than half the city's streets are now capped at 30 km/h, with even lower speeds near schools. Redesign streets so people, not cars, take priority. Build walking and cycling networks that keep vulnerable road users separate from motor traffic. Add reliable public transit so fewer people need to drive at all.

Back it up with automated enforcement, targeted police patrols, and steady safety upgrades to vehicles. The result: injury collisions have plummeted from nearly 1,000 a year in the late '80s to just 277.

Helsinki's message to other cities, including in Ontario? Vision Zero works—if you commit to it and stay the course.

3. Toronto Cyclists Will Ride Safer... For Now

The Ontario Superior Court has ruled in favour of Cycle Toronto's Charter challenge to the removal of 19 km of separated bike lanes under Bill 212, the Reducing Gridlock, Saving You Time Act. The Court found that the sections of the law at issue infringed on cyclists' rights to life and security of the person under Section 7 of the Charter.

The ruling emphasizes that governments are permitted to take actions that may increase risk (such as road design changes), but only where those actions are reasonably connected to a legitimate policy goal. In this case, the Court found that the government's rationale for the removals reducing congestion - was not supported by the evidence. Justice Paul Schabas highlighted evidence and expert analysis that showed that separated bike lanes actually reduce congestion, and that bike lane usage had been significantly underreported in public communications. The provincial government has stated that it will appeal the decision.

Meanwhile in Alberta, the same argument is being made to remove bike lanes in Calgary and Edmonton. Will they find evidence of a problem that could not be found in Ontario?

4. Ontarians Support Speed Cameras, Even as Vandalism Rises

A new survey by our friends at CAA South Central Ontario shows strong public support for automated speed enforcement, with 73% of Ontarians backing the use of speed cameras. The majority (76%) say the cameras deter speeding, and nearly half (46%) admit to avoiding roads with them. Still, Toronto alone has seen 25 cases of camera vandalism since 2024, including 11 in early July alone.

This comes despite a recent expansion of the city's camera network to 150 units. Some are arguing for changes, calling cameras "speed traps" and urging clearer signage and more visible units. The province has indicated that it will be making such changes to the ASE framework.

While debate continues, CAA's findings suggest cameras are influencing driver behaviour: 73% slow down when approaching one, and more are staying within limits afterward. As back-to-school season nears, the discussion underscores a shared goal—safer streets, especially for children. Municipal leaders may want to revisit how enforcement tools are communicated and deployed.





Source: Ontario Phragmites Action: https://www.invasivespeciescentre.ca/dude-wheres-my-dock-help-prevent-the-spread-of-invasive-phragmites/

5. The Grass That's Wrecking Your Road Trip

It's tall. It's dense. It's everywhere. And no, you're not imagining it—the creepy grass taking over Ontario's highways, beaches, and lakefronts is getting worse.

Meet Phragmites. This invasive species (aka Canada's most unwanted plant) has been quietly ruining views, clogging ditches, blocking sightlines, and turning cottage country into a giant fire hazard. And now it's got its own billboard tour along Highways 11, 400, and 60. The Ontario Phragmites Action program is behind the campaign, hoping to grab the attention of lake-lovers and weekend warriors. The message: Clean your boots. Scrub your gear. Don't mow it. And for the love of summer, report it if you see it.

Why should municipalities care? Because Phragmites doesn't stop at the property line. It spreads via boots, boats, bikes—and bureaucracy. Fighting it takes coordination across roads, jurisdictions, and shorelines.

You can't unsee it. But with a bit of effort, we might just stop it from taking over the province.

6. Ontario's New **Wastewater Standard** is Here!

A new tool is now available to help municipalities manage underground infrastructure. The Ontario Wastewater Management System (WWMS) standard is officially published! This standard was developed through academic research and the CSA Group's rigorous standardization process.

Designed especially with small and medium-sized municipalities in mind, the WWMS standard offers guidance for planning and rehabilitating wastewater infrastructure helping communities across Ontario make smarter, more sustainable decisions underground.

Best of all, it's available for free! Anyone can view the full English-language standard online by registering at the CSA Group's website. A French version is also in the works.

Hats off to all involved for bringing this important resource to life.

Your Simplified Road Product Directory Is Here!

With 4,000+ pre-vetted infrastructure products and growing municipal adoption, the GR Product Guide helps you build smarter, faster, and more reliably.

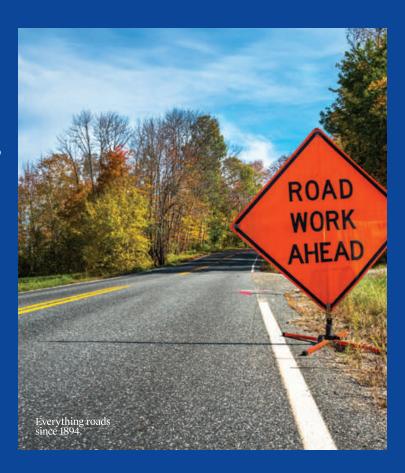
It's a centralized, searchable database of peerapproved municipal products.

Why municipalities are turning to the GR Product Guide:

- Reduces Admin Burden Streamlines evaluation, automates records, ensures compliance.
- Central & Trusted Canada's go-to source for approved infrastructure products.
- Enables Innovation Simplifies adopting new technologies and materials.
- Strengthens Supply Chains Offers alternatives to reduce project delays.

Make the switch to smarter infrastructure planning. Explore the GR Product Guide today.

For more information visit: www.GRProductGuide.com



Empowering Municipal Public Works Through Leadership Certification

By: Christie Little, **AORS Programming & Training Coordinator**

Dennis O'Neil. **AORS Member Services Coordinator** Association of Ontario Road Supervisors

Building Strong Foundations with PWLDP and CRS

The Public Works Leadership Development Program (PWLDP) is the Association of Ontario Road Supervisors' (AORS) flagship leadership training initiative, developed specifically for public works supervisors and managers. Delivered through a structured eight-module curriculum, the program builds essential competencies in areas such as local government operations, customer service, and staff supervision. While the program is closely aligned with the Certified Road Supervisor (CRS) designation framework— Ontario's industry standard for recognizing supervisory excellence in public works—it also offers valuable leadership training for individuals in other municipal service areas, including administration, parks and recreation, fire services, and more.

To date, more than 1,900 CRS designations have been awarded, making it a widely recognized benchmark of knowledge, experience, and professional development in the municipal infrastructure sector.

Understanding the AORS Certification Pathway

AORS offers a structured certification pathway with four levels of recognition, each tailored to an individual's training and experience that includes courses offered through both AORS and Good Roads. Applications are reviewed by an independent Certification Board that meets four times annually. Board members are appointed by AORS. Good Roads and the Municipal Engineers Association.

Why CRS Certification Matters to Municipalities

- 1. Assured Competence & Accountability CRS-certified supervisors are equipped with standardized, provincially recognized training. Certification ensures they are aligned with evolving regulatory and operational standards.
- 2. Professionalism & Organizational Credibility Municipalities with CRS-certified leaders strengthen their reputation both internally and externally. Certification signals a strong commitment to best practices, continuing education, and public trust.
- 3. Succession Planning & Workforce Continuity As many municipalities face looming retirements, the CRS pathway builds a skilled bench of future leaders, helping to safeguard institutional knowledge and maintain service continuity.

ASSOCIATE

ASSOCIATE ROAD SUPERVISOR

- Successfully completed T.J. Mahony Road School courses (Construction and Maintenance) OR
- Three (3) years of significant roads related supervisory experience but has not completed T.J. Mahony Road School courses.



CERTIFIED ROAD SUPERVISOR (CRS)

 Successfully completed both sections of T.J. Mahony Road School (Construction and Maintenance)

- Successfully completed the PWLDP modules (minimum passing grade 70%): Local Government, Leadership & Supervision, and Customer Service; AND
- A minimum of three (3) years significant roads related supervisory experience.

AORS holds the exclusive right to grant the Certified Road Supervisor (CRS) designation under the Association of Ontario Road Superintendents Act, 1996. This provincial legislation recognizes AORS as the sole certifying body for this designation in Ontario, reinforcing the credibility and authority of the CRS program. As such, CRS certification is not only a mark of professional achievement—it is a provincially sanctioned standard of excellence for public works supervision.

PWLDP At-a-Glance

- Delivery Formats: Modules are offered in both in-person and live webinar formats, providing municipalities flexibility to train staff within budget and scheduling constraints.
- Certification Path: Completion of all eight PWLDP modules earns a Certificate of Completion, which satisfies the leadership training requirement for all three CRS designations. Modules can also be taken individually to meet specific needs or timelines.

Benefits That Drive Municipal Value

- Stronger Leadership: Certified supervisors are more confident and capable in managing crews, projects, and interdepartmental communication.
- Risk and Liability Reduction: Training and certification help mitigate risks by ensuring staff comply with ministry regulations, workplace safety standards and industry best practices.
- Operational Efficiency: CRS-certified individuals improve resource planning, reduce equipment downtime, and accelerate project timelines.
- Employee Engagement & Retention: Certification recognizes and rewards talent, encouraging long-term

commitment and reducing turnover.

A Call to Elected Officials & Decision-Makers

Municipal councils and CAOs play a critical role in shaping the future of public works operations. Supporting the PWLDP and encouraging CRS certification is not just an investment in employees—it's a strategy to build high-performing departments that can adapt, innovate, and thrive.

- Develop internal leadership capacity instead of relying solely on external recruitment.
- Prepare for upcoming retirements with a skilled leadership pipeline.
- Support excellence in public infrastructure delivery, where professional supervision is key.

Even experienced supervisors benefit from certification, which validates their knowledge and ensures they stay current with legislation, technologies, and operational best practices.

"Education and training are not optional—they are strategic necessities for safe, efficient, and resilient public works operations."

About the Author / Contact

For more information or to register staff in the next PWLDP cohort or pursue CRS certification, please visit www.aors.on.ca or contact:

- Christie Little, AORS Programming & Training Coordinator - christielittle@aors.on.ca
- Dennis O'Neil, AORS Member Services Coordinator dennisoneil@aors.on.ca



CERTIFIED ROAD SUPERVISOR— INTERMEDIATE (CRS-I)

- Satisfied the CRS requirements; AND
- Successfully completed two mandatory C.S. Anderson Road School Courses: Managing Human Resources OR Effective Management AND
- Successfully completed Municipal Health and Safety; AND
- Successfully completed one approved specialized course of your choice; AND
- Successfully completed the PWLDP modules (minimum passing grade 70%): Financial Management and Talent Management; AND
- A minimum of five (5) years significant roads related supervisory experience.



CERTIFIED ROAD SUPERVISOR— SENIOR (CRS-S)

- Satisfied the CRS and CRS-I requirements; AND
- Successfully completed mandatory course: Basic Report Writing and Presentation Skills (C.S. Anderson Road School); AND
- Successfully completed the PWLDP modules (minimum passing grade 70%): Process Management, Continuous Improvement and Communications;
 AND
- Successfully completed two other approved Technical/Management courses of your choice; AND
- A minimum of seven (7) years significant roads related supervisory experience.

Fueling Resilience: How Oil and Gas Powers Ontario's Road Maintenance **Operations**

By: Josefa Michaelson Canadian Association of Petroleum Producers

www.capp.ca

When winter storms roll through Ontario, municipal road crews mobilize fast. They load up salt, fire up graders and snowplows, and head out to keep roads safe, clear and connected. Behind every one of those machines are fuels that get the job done: diesel and natural gas.

Oil and gas products—particularly diesel—are the backbone of road maintenance operations. From rural hamlets to urban centres, municipalities depend on petroleum-based fuels and materials to power and protect vital transportation infrastructure.

Diesel keeps the wheels turning

Ontario's municipalities operate vast fleets of heavyduty vehicles, including snowplows, salt spreaders, dump trucks, road graders and patching equipment. These machines run predominantly on diesel, chosen for its energy density, affordability, reliability and performance in harsh conditions.

In a single 24-hour storm, a mid-sized municipality might burn through tens of thousands of litres of diesel clearing and treating roads. That's not just for keeping commuter routes open—it's also about enabling emergency vehicles, school buses, delivery services and essential workers to move safely.

One reason municipalities continue to depend on diesel is its proven track record in extreme conditions. Diesel engines provide more torque and fuel efficiency for heavyduty applications compared to gasoline or electric alternatives. They start reliably in cold weather and perform under pressure—traits that are non-negotiable during Ontario's winters.

Diesel also provides a degree of price predictability and availability that many public works departments rely on when planning annual operations. With road maintenance already among the largest expenditures for municipalities, cost-effective energy sources are crucial.

Bitumen builds roads

The impact of petroleum on road maintenance goes beyond fuel tanks. Bitumen, a viscous oil-derived material, is the binding agent used in asphalt. It holds together the roads themselves, forming the surface layer that endures traffic, freeze-thaw cycles and time.

Municipal crews routinely use hot or cold mix asphalt (both are bitumen-based) for patching potholes, sealing cracks and resurfacing worn roads. Without a reliable supply, routine maintenance would grind to a halt.

Thankfully, Canada's oil sands sector is a major source of bitumen. Over 20% of the average Canadian barrel of oil goes to producing products such as asphalt, propane, and chemical feedstocks.

From producers to pavement

Ontario's road maintenance system depends not only on the fuels and materials themselves, but also on the producers and supply chains that deliver them. While Ontario refines some petroleum domestically, the province's refineries rely heavily on crude from Western Canada, much of it sourced from Alberta's oil sands. In 2023, more than 80% of crude processed in Ontario refineries came from Western Canada, transported via the Enbridge Mainline and other pipeline systems.

This connection is about more than fuel. Most bitumen used in Canadian asphalt production originates in the oil sands. That means the same producers supplying diesel for snowplows are also supplying the binding agent that holds Ontario's roads together—and both rely on secure, uninterrupted delivery.

Energy security and supply risks

While Canadian oil and gas does reach Ontario, our supply chains are not without vulnerabilities. Most of the crude from Western Canada travels to Ontario refineries through pipelines that cross the United States, making the flow dependent on U.S. infrastructure and regulatory decisions. For natural gas, the reliance is even more pronounced; Ontario imports about 50% of its supply from the U.S. This



Bitumen, a viscous oil-derived material, is the binding agent used in asphalt. It holds together the roads themselves.



The bitumen that binds asphalt forms the surface layer that endures traffic, freezethaw cycles and time

interdependence introduces potential risks if cross-border infrastructure were disrupted or policy changes occurred.

Ensuring robust, domestic energy supply chains for both petroleum fuels and natural gas is part of protecting Ontario's ability to maintain and build its transportation network in every season. Reliable infrastructure depends on reliable energy, and that starts with secure access to Canadian production.

Secure supply powers reliable performance

The strength of Ontario's energy supply chains is more than an economic or policy issue—it's the reason municipal crews can count on diesel, asphalt, and other petroleum products when they need them most. Without steady, predictable flows from Canadian producers, those heavy-duty fleets and maintenance crews would be far more vulnerable to shortages, delays, and cost spikes.

Working together for stronger infrastructure

Resilient roads don't just appear; they require planning, people and dependable energy. Every cleared lane, patched crack and resurfaced kilometre represents a collaboration between skilled municipal teams and the fuel, equipment and materials that make their work possible.

Oil and gas remain essential to that system. While the energy landscape evolves, petroleum-based products continue to deliver what's needed today: power, reliability and reach.

Ontario's roads connect us—to each other, to services, to opportunity. Let's make sure the energy that supports them keeps up.



Building Better Roads—One Project at a Time: Small Townships That CAN!

Bv: Cherv Fort President - Good Roads

In small towns across Ontario, road projects often seem modest-just one street at a time. For communities like Hornepayne, the Third Avenue reconstruction represents much more than resurfacing a main street. We are also installing new water and sewer infrastructure, making this a long-term investment in critical infrastructure, community safety, and economic resilience.

This two-vear plan aims to deliver lasting results while helping the township learn to scale up and eventually accomplish more streets simultaneously. Starting small, we are focused on mastering project and cost management. It is hoped that this single project will lead to infrastructure upgrades for all our roads over the next decade.

Hornepayne is an example of continuous improvement in action. In small municipalities, adopting a continuous improvement approach is essential. We cannot wait for catastrophic failures or rely on piecemeal fixes. Projects like the Hornepayne Third Avenue Project demonstrate proactive planning that:

- Extends the life of core infrastructure,
- Reduces future emergency repair costs,
- Supports better drainage and environmental management,
- Prepares the community for future growth and development.

Challenges of Small Town Projects

Unlike large urban centres, towns such as Hornepayne must balance tight budgets with the pressing need to maintain vital roads and utilities. Harsh northern weather compounds these challenges by accelerating the wear and tear on infrastructure.

We adopted a two-year approach to our road project to maximize grants and funding programs while minimizing the impact on taxpayers.

Collaboration for the Community

This project has been made possible through strong partnerships among the township, provincial and federal funders, and regional contractors. Transparent communication with residents has been a priority, ensuring that everyone understands the project's timeline, phases, and long-term benefits.

Looking Forward

Upon completion, the project will deliver more than just a smoother road surface. It will improve water and wastewater services, enhance safety, and strengthen the foundation for future development in Hornepayne.

We want to share our experience with new residents and visitors to our community.

Last year, we opened Motel Studio 6—the first hotel in Hornepayne since 2010. It has been a pleasure to welcome guests again. By taking small, manageable steps, small townships can achieve upgrades and work toward a sustainable future.

Over the past seven years as a Director on the Ontario Good Roads Association board, I have learned - through data-driven research - the magnitude of challenges faced by small-town Ontario. I have also learned about the multifaceted obstacles that larger cities encounter when building new infrastructure, replacing aging assets, and embracing new technologies.

This past June, I was delighted to host a meeting of the Good Roads Board of Directors in Hornepayne. It was a privilege to showcase our modest but welcoming town. As the Geographic Centre of Ontario, travel to our community takes time from all parts of the province.

I am very thankful to everyone who journeyed north to witness firsthand the challenges and opportunities in Northern Ontario. I am enjoying my term as President and look forward to connecting with more people to ensure healthy, safe communities across Ontario—learning best practices from each other for the betterment of all residents.

Good Roads Contract Courses



Training That Comes To You!

Good Roads helps build better communities and sets its members up to succeed with training that comes to your municipality.

Good Roads Contract Courses bring training to your team at your location. Pick from our coveted courses below and click the start button on helping your teams win at their jobs.

- Winter Maintenance Operations Training
- Heavy Equipment Operator Training
- Managing Your Road Network
- Municipal Infrastructure Training
- Guelph Road School
- Leadership, Supervision and Administration

Everything roads since 1894.

For more information: Cherry Sales Lead, Strategic Initiatives and Partnerships cherry@goodroads.ca

Good Roads

Register Now







Good Roads Conference 2026



Ideas. Inspirations. Contacts.











March 29— April 01, 2026