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Cover: Artwork by Ratnak Vann and Kitty Chiu. Full descriptions of the scenarios, including the major driving forces, impacts, and implications of each alternative future, will be available in the report, Navigating Uncertainty, to be published by Metrolinx.



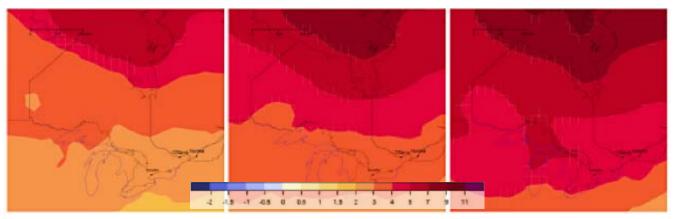


Figure 1: Temperature changes for Ontario in winter under high emissions scenarios for 2046 to 2065 compared as compared to 1986 to 2005. (left to right, 25th, 50th, 75th percentile estimates) (Woudsma and Towns, 2017)

Of Records, Resilience, and Infrastructure



By Clarence Woudsma, RPP

et's do a little experiment together. Fire up "the Google" or your favourite search engine and enter the term "weather records in Canada" using the "news" tab. Now, circle the terms that you see in the results from this list: driest, hottest, wettest, coldest,

never, unseen, uncharted, broken, or rare. No matter where you live, chances are you've experienced weather extremes that are not only shifting our understanding of normal, but forcing us to plan and prepare for significantly revised limits. The concept of planning for a "100-year flood" gets fuzzy when the frequency and magnitude of storm events increases, not to mention the additional complexities of changing urban populations, infrastructure deficits, new technologies and a seemingly long list of other factors. Taken together, this is a description of the "acute shocks" and "chronic stresses" facing our communities today. Increasingly our response as planners incorporates resilience and adaptation.

This issue of the OPJ delves into the world of infrastructure resilience with the intent of providing a review of activities that both inform and challenge your thinking around resilience. As a term, its use is widespread and resilience has taken on the prominence and perhaps similar contention that sustainability has endured. As examples of both, consider the appointment of Toronto's first chief resilience officer (see the Toronto 100RC article) and widespread debates in various sectors (planning, international development, economy, ecology) about resilience: as one title offers "Resilience: New Utopia or New Tyranny?" (Bene et al., 2012).

A recent report on climate change and adaptation in Ontario's transportation sector (see the Climate Change and Transportation Infrastructure article) offers a good starting point for exploring definitions. The maps in Figure 1 depict the serious changes in winter temperatures predicted for Ontario under current climate change scenarios (spoiler alert – warmer!). Adaptation involves adjusting our systems in response to this expected change, either moderating the harm or capitalizing on the benefits—for example developing alternatives for the loss of winter ice roads in northern Ontario or adjusting energy supplies. In the strict ecological origins of the definition of



resilience, the outcome focus would be on returning to a state of normal after a shock—that is, our resilience is based on our ability to bounce back. The early thinking then sets resilience as the state or characteristic and adaptation as the process. If you have high adaptive capacity, chances are you would be resilient. In the language of risk assessment, if you were exposed to many risks and highly vulnerable, you would silient.

not be resilient.

However, the definition and conception around resilience has evolved rapidly in recent years. Brown et al. (2016) provide a highly recommended review, with a discussion of the evolution of resilience thinking and its connection to cities. They begin with a basic definition of resilience as "the capacity to buffer change, learn, and develop." 100RC offers their definition of urban resilience as "the capacity of individuals, communities, institutions, businesses, and systems within a city to survive, adapt, and grow no matter what kinds of chronic stresses and acute shocks they experience." Finally, our pending 2017 Conference has defined resilience as "the capacity of infrastructure, communities and their related systems to mitigate, adapt, or positively respond to chronic and acute stresses, transforming in ways that restore, maintain and even improve their essential functions."

What's common in these definitions is that resilience clearly is a process that involves much more than building a bigger pipe and returning to normal. The articles in this issue illustrate this point very well, with a number of them describing the frameworks and measurement tools being developed to support resilience goals and their integration within planning. The focus is often on the interdependencies among city systems and enacting an ongoing resilience process rather than a basic outcome. They also make the point that resilience is about much more than hard infrastructure and extreme weather, with important considerations for a broader view of resilience across socioecological systems in the city.

There is no doubt that resilience is a concept that is gaining widespread acceptance in the planning realm. Yet, there is also uncertainty as to its meaning, implications, and potential for enhancing the communities we call home. This edition of the OPJ hopes to shed light on that uncertainty and get us thinking about resilience differently. There is a price to pursuing resilience, but considering the costs associated with responding to the record setting weather we all experience, it's a price many would argue is worth paying.

Clarence Woudsma, Ph.D., RPP, MCIP, is the director of the School of Planning at the University of Waterloo and a member of OPPI's PKE Committee. His research work has touched on many dimensions of climate change and transportation from emissions forecasting, and mitigation strategies to impacts and adaptation related to freight transportation in Canada.

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Planning the New Norm

By Lisa Prime, RPP, Alexander Hay & Lisa King

or southern Ontario's 12.1-million inhabitants, freezing rain in December is not unusual. But the severe storm that swept through the region on December 21, 2013, brought with it the kind of damaging ice accumulation that can force even the largest cities to a grinding halt. By the time the storm had ended, up to 30 mm of ice accretion had downed trees and power lines, made roads impassable and hamstrung public transit systems in some of the country's most densely populated areas. As many as 830,000 hydro customers were without power for several days, or longer. Power was only restored to most residences and businesses on January 1, 2014.¹

The storm was a shock, but was it a freak occurrence? Not anymore.

In fact, severe storms, driven by changing climate, are on the rise. Canada's insurance industry has said they are now three times more frequent than just five years ago. (ACI 2016) Losses are also increasing every year. (IBC 2015)

The widespread spring flooding across Ontario this year was no exception. Lake Ontario reached 6 cm above the highest water level recorded for that time of year, set in 1952. Toronto and Montreal have been under severe pressures to alleviate flooding to protect life and property from potential damages and insurance liability. This experience and concern is growing across urban areas as multiple events each year are adding to costs and total impacts for communities.

Planning for the new norm

If extreme weather events are the new normal, planning for them must be the new normal, too. That planning often revolves around the idea of resilience, or the ability of a municipality to absorb, adapt, respond to and rapidly recover from a catastrophic event. $^{\rm 2}$

Resilience comes about through changes in expectations

and behaviour as well as design. People must be able to self recover and meet their needs for food, water, and other essentials for the first 72 hours after a shock without relying on the municipality. If individuals have prepared for an emergency and can look after themselves, then the city is much more likely to rebound. This is particularly true for the most vulnerable, whose situation is such an important indicator of resilience.

In a catastrophe, a municipality needs to use its valuable resources to respond and recover, preserving as much life, property and commercial interest, and returning to normalcy, as quickly as possible. The more resources required to keep people alive during a catastrophe, the fewer are available for recovery.

Evolving how we prepare

For years, various levels of governments have been trying to get Canadians to buy into the idea of emergency preparedness. Know the risks, make a plan, get an emergency kit, they urge. Recent estimates suggest that just 5 per cent of Canadians are prepared for a natural disaster and would be able to safely and securely shelter in place for those tr 72 hours

crucial first 72 hours.

Resiliency is not about the likelihood of failure, but rather about how the system and people respond and recover; it is about being safe to fail, irrespective of the cause. Perhaps most importantly, it is also about the lessons learned from events and how they can be incorporated into new routine practice. As we learn from the experience of events and

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Lisa Prime



Alexander Hay



Lisa King

improve our systems, we can also look at best practice approaches to gain knowledge from others.

Designing for resiliency

The municipalities that we live in today are continuously evolving complex systems, balancing the needs of the natural environment, community, governance and infrastructure. The infrastructure, both hard and soft, is often aging and vulnerable. The nature of events that can affect a municipality range from extreme weather, like the continuous rainfall and flooding that we have seen in the Toronto region this spring, to impacts from power outages and storms, and impeded access to necessities such as water. Without endless resources and a crystal ball, traditional approaches to sustain residents in times of need are not the most effective approaches.

We need to think differently about how we plan and we need to help build resiliency in all aspects of what we do so municipalities can respond where extreme weather events are the new normal.

One example of planning for resilience is the City of Toronto's approach to housing and energy systems. More recent weather extremes have almost always led to power outages. These can occur in isolation as a result of peak demand stresses on the electrical grid or power line or transformer failures. Power outages are an inconvenience at best and life threatening at worst, particularly for the most vulnerable populations. Children, seniors, people with significant health issues requiring medical devices, even language barriers can make some of the population more vulnerable to the impacts of a system disruption. Vertical living provides new challenges for self recovery: elevator access and egress, water pressure serving higher floors, food and refrigeration and livable indoor temperatures are some of the more essential functions to maintain during an event.

Toronto's new back-up power guidelines set a 72-hour minimum back-up power requirement, far above the *Ontario Building Code*, to ensure public safety during that first critical period of self-recovery.³ Power and building design go hand in hand. In a recent study conducted by City Planning and The Atmospheric Fund,⁴ the relationship among a residential building's thermal envelope performance, greenhouse gas emissions and indoor temperatures during a prolonged power outage was explored. The study findings showed that the best performing buildings with the lowest energy loads, high insulation values and lower emissions were able to maintain comfortable indoor temperatures without power (during a winter or summer black out period). This in turn extended the life of the back-up fuel system needed to serve the immediate 72-hour self-recovery period.

City staff is now looking at moving the building performance requirements into the next Toronto Green Standard, and implementing a major initiative to develop district energy system nodes across the city using low carbon fuel sources. This is important in facilitating the transition of the community and economy from the shock of an incident through recovery back to routine . . . following the safe-to-fail principle.

Safe-to-fail principle

The safe-to-fail principle requires that planners assume that part of the infrastructure system will fail and they need to build in access to the service or purpose that failed infrastructure enables. This requires an in-depth understanding of crosssystem dependencies and failures. Risk assessment is one of the approaches used for assessing operational systems. It considers the likelihood of an incident, or a series of compounded incidents, and the degree of impact that cascades through those systems and allows us to see clearly what the consequences of failure would be. This identifies the risk posed across the dependencies between infrastructure systems, such as between energy and water and telecommunications, and prioritizes where to build in mitigation.

Municipalities rely on the operation of a complex web of infrastructure, institutions and information systems to perform their essential functions every day. Systems may include physical infrastructure—such as roads, bridges, energy, water and housing—or processes, practices and behaviours, culture, community cohesion and social relationships. Strong community networks have been shown repeatedly to contribute to resilience after a disruption to physical services.

Resiliency for an uncertain future

Considering the uncertainty embedded in how communities approach resiliency in planning, there is clearly important work to be done. This starts with thinking differently about what we are doing and how we can transform policy to support the potential needs of our communities. It is also how we can leverage solutions by designing to achieve multiple benefits, such as building space or public realm and park design.

The design of parks in Toronto's waterfront includes good examples of this. Corktown Common is a new important public park and part of the flood protection for the Don River. Public access to the park is protected from flooding, while passive space adjacent to the river provides flood storage and habitat during an extreme weather event.

Overall, we need to approach the design for resilient infrastructure by considering human behaviour and operational infrastructure capability and recovery objectives. By simultaneously planning for potential failure and for the critical functions that must be maintained, we can move towards more resilient communities.

Lisa Prime, MCIP RPP, LEED AP, is a member of OPPI and the founding principal at Prime Strategy & Planning Inc, a Toronto based professional services firm specializing in strategy for complex projects, urban revitalization, sustainability and climate change plans. Alexander (Alec) Hay, CEng, PEng, is the founding principal at Southern Harbour Ltd, a Toronto-based infrastructure risk and resilience consultancy, and adjunct professor at the University of Toronto. Lisa King, MA, is a senior environmental policy planner for the City of Toronto, practicing in the areas of sustainable development, energy policy and climate change. This article has been developed from the whitepaper, Making Resilience Accessible, by kind permission of Southern Harbour Ltd.

Endnotes

- ¹ An ice storm hit Toronto 22/23 December 2013 with after effects to 27 December. 250,000 residents lost power for up to two weeks. The Insurance Bureau of Canada estimated the property losses from this event at \$200,000,000 in insured damage
- ² The University of Toronto Centre for Resilience of Critical Infrastructure defines Operational Resilience as "... that essential ability of an operation to respond to and absorb the effects of shocks and stresses and to recover as rapidly as possible normal capacity and efficiency." www.crci.utoronto.ca
- ³ The City of Toronto Back-up Power Guideline, 2016. Environment & Energy Division.
- ⁴ The City of Toronto Zero Emissions Buildings Framework. 2017. City Planning Division, The Atmospheric Fund.



Climate Change and Transportation Infrastructure

By Will Towns

s part of a national report entitled Climate Risks and Adaptation Practices for the Canadian Transportation Sector 2016, researchers from the University of Waterloo's School of Planning were engaged

to document challenges faced by transportation infrastructure in Canadian cities in relation to changing climate conditions. A thorough review of climate data, literature, and interviews with practitioners suggests these challenges are diverse, and that adaptation is underway.

Higher average and more extreme temperatures, more frequent and extreme precipitation events, fluctuating water levels—there is little doubt that projected trends in climate will significantly disrupt the movement of people and freight in the absence of effective adaptation.

Impacts may occur in the context of sudden and extreme weather—as the flooding of roads and rail lines in southern Ontario in July 2013 demonstrated—or as gradual shifts, but there are implications for the long-term integrity and resiliency of infrastructure, as in the case of roads and runways constructed on permafrost in northern Ontario. It will be the task of planners to confront these impacts and apply effective solutions.

As residents in Ontario's cities and rural areas alike have learned firsthand in recent years, roads are vulnerable to flooding during extreme precipitation events, the frequency and intensity of which are projected to increase.¹ More frequent freeze-thaw cycles, pavement rutting during heatwaves, and reduced operating seasons for winter roads are also likely to materialize.² However, adaptation planning is underway. increase capacities and use more erosion-resistant materials for culvert construction were identified as necessary practices. Other road adaptations identified

by municipal practitioners include the use of more heat-resistant pavement mixtures and more frequent clearing of culverts.³

Rail operators in Ontario face similar challenges. Extreme heat may result in rail buckling, while permafrost melt weakens rail embankments in the province's central and northern regions. Flooding of rail lines is familiar to residents of the GTHA—a variety

of prevention efforts were undertaken by Metrolinx in the Don Valley following the 2013 summer flood, including the installation of high-water and embankment failure sensors. Minor buckling has also been observed along select GO Transit network segments on hot days over the past decade. As a result, GO rail corridor staff has opted to proactively lessen buckling risks by increasing the preferred raildistressing temperature from 32.2C to 37.8C. This adaptation involves no extra cost, but has yielded benefits: buckling has decreased significantly in affected areas since this change was made, while ambient temperatures have increased. This rail-distressing temperature was also used in the construction of the Union-Pearson Express line.

For Ontario's marine industry, warming temperatures and changing precipitation patterns are expected to result in more variable water levels in the Great Lakes basin, with implications for shipping capacity. Fluctuations over the past 20-30 years make it difficult to predict the direction of long-term change; however, freight may shift to other modes should trends toward lower water levels

throughout the Great

Lakes occur as they did between 1997 and

2012.⁴ Practitioners

patterns is changing

and the timing and

duration of annual

Ontario's navigable

these risks,

proofing and

ice-clearing

freight movement on

waterways. To reduce

investments in flood-

maintenance practices

also suggest that a "seasonal shift" in ice

For example, to quantify risk and determine effective adaptation to extreme precipitation, Ontario's Ministry of Transportation recently assessed the resilience of highway stormwater management infrastructure to increased precipitation in the range of 10-30 per cent annually. While existing design standards were deemed robust, the need to



GO Transit rail cars in Toronto's flooded Don Valley, July 2013

infrastructure have been made by some port authorities, while shippers are making use of more accurate underkeel optimization technologies to deal with reduced water levels.⁵

Aviation also faces climate risks. Runway buckling as a result of more frequent freeze-thaw cycles, flight cancellations during severe weather events, and infrastructure damage and service disruptions during high winds have all been experienced in Ontario. In response, Ontario airport authorities are adding traction to runways,⁶ undertaking comprehensive assessments of infrastructure vulnerability,⁷ and installing geosynthetic barriers to reduce the impact of permafrost melt at northern airports.⁸

Transportation planners and providers in Ontario cities face similar impacts (among others), although urban transportation infrastructure vulnerabilities are compounded by density—of population, infrastructure, and stakeholders. Particularly in urban settings and given transportation's interdependence with other municipal sectors, there is a need for more structured coordination among transportation providers, municipal councils, engineers, and civil society to ensure adaptation is a community-wide endeavor.

Determining the timing and magnitude of change—as well as cumulative and compounding effects—pose challenges to adaptive planning. The cost of resilient infrastructure is a significant barrier, and practitioners suggest that buy-in from stakeholders and/or senior management can be challenging when concrete timelines for climate impacts are difficult or impossible to predict.

In terms of both capital and operational funding, innovative financing tools and intergovernmental partnerships are required to overcome uncertainty. One method to reduce fiscal barriers is to identify and plan for "low-regret" or "no-regret" adaptations, which offer municipalities opportunities to enhance the resiliency of transportation infrastructure within the replacement lifecycles of municipal infrastructure (e.g., by increasing design capacities for stormwater flows). These strategies may also build public support for adaptation efforts if benefits are tangible and clearly communicated.

In short, climate change will disrupt the normal operations of all modes of transportation to some degree; however, this research suggests that impacts can be predicted and adaptation planned well in advance if Ontario's infrastructure owners and operators decide to address climate change in a proactive fashion. Will Towns, BAH, MES, is a Pre-candidate Member of OPPI and a transportation planner for WSP Canada in Kitchener. He worked as a graduate research assistant and an employee of Transport Canada's Environmental Policy Directorate, co-authoring the Ontario, Urban, Prairies, and Atlantic chapters of Climate Risks and Adaptation Practices for the Canadian Transportation Sector 2016.

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Infrastructure resilience

Toronto 100RC

By Elliott Cappell & David MacLeod

oronto is rapidly changing. There are more cranes in Toronto's skyline than in any other city in North America, which is particularly notable given the scale of changes to the built

environment over the past 15 years. The demographics of the city are also changing, with more than half of Torontonians now foreign born. And, the city is experiencing an increase in the frequency and intensity of extreme weather.

It is within that context that Toronto applied and was accepted to participate in the global 100 Resilient Cities initiative, pioneered by the Rockefeller Foundation (100RC). Participation in 100RC includes appointment of Toronto's first chief resilience officer, who is to develop an overall resilience strategy that will address a wide range of shocks and stresses including, but not limited to, extreme weather. Toronto's strategy will focus on solutions which build climate resilience and foster inclusive population growth.

The strategy will build on work initiated by city staff in 2007, which systematically addressed issues of infrastructure resilience. This work is part of efforts to adapt to the impacts of climate change and associated extreme weather. The following provides an overview of city initiatives to prioritize actions to promote resilience of both built and social support infrastructure.

Infrastructure resilience strategies around the world

offer a range of approaches relevant to Toronto's

Approaches to infrastructure resilience



Toronto culvert washout that affected multiple infrastructure sectors

context. One approach is to focus on hard infrastructure, such as reviewing the project preparation and development processes to ensure they properly account for a changing climate, and not simply

> environmental protection. Another approach is to focus on the co-benefits of green infrastructure, such as increasing park space, which yields economic and social gains as well as providing flood defense.

An important consideration for Toronto is re-imagining its approach to existing hard assets, such as roads and multiunit residential buildings, in order to increase their capacity to adapt to a changing climate and a growing city. The city will also consider new approaches to financing community infrastructure, including working in partnership with the philanthropic sector.

Building on existing work

David MacLeod

Elliott Cappell

The city's resilience strategy will build on existing work by city staff, such as that on

interdependencies, which has been included in a C40 Cities report, Infrastructure Interdependencies + Climate Risk. This report establishes the rationale for cities to formally engage with infrastructure sectors they do not control, but depend upon, in order to better understand and manage climate risks.

Toronto was also one of the first cities to develop a specific climate change risk assessment tool. Based on the ISO 31000 standard for risk management, it incorporates concepts of enterprise risk management. Currently being web enabled by the Transportation Association of Canada for use by municipal and provincial roads departments, this tool helps to structure thinking regarding probability and consequence of different types of weather events. It is configurable to other types of shocks and stresses beyond just climate, and considers cascade failure modes. To reduce the time commitment required, an Excel-based version of the tool allows a more rapid assessment.

Toronto has also applied the Engineers Canada protocol to conduct more technically oriented climate change engineering vulnerability assessments on cityowned infrastructure (e.g., culverts, high-rise public housing) as well as infrastructure controlled by partner organizations (e.g., Toronto Hydro, Metrolinx / GO Transit).

In 2016, Toronto began undertaking climate risk assessments across thematic areas, based on a general approach used in Barcelona. These high-level risk assessments involved workshops with infrastructure owners to discuss the anticipated impact of different extreme weather scenarios on key components of their systems. Specific vulnerabilities associated with failure of other infrastructure systems upon which they depend were identified (e.g., flooding, electrical power outage, etc.). An important outcome of this work was the introduction of staff from different sectors who were able to take action on specific risks associated with interdependencies.

Toronto staff is currently undertaking a municipal best practices scan in the use of Geographical Information Systems to understand climate risks. This work includes identifying best practices in modelling interdependencies of infrastructure systems in order to conduct stress test simulations to identify any unacceptable impacts associated with cascade failures. This will help identify priorities for infrastructure investment and other risk reduction actions.

Moving forward

Over the coming months, the 100RC process will engage a wide spectrum of stakeholders to identify the most

important shocks and stresses where there is a gap in corresponding policy, programs and initiatives to address the associated risks. This work will lead to the development of a Toronto Resilience Strategy that will involve resources from the city, other levels of government, the private sector, and the broader public sector.

Vancouver, Calgary and Montreal have also been selected to be part of 100RC. We anticipate a degree of similarity across these cities whereby ideas, best practices and leadership may be shared.

Elliott Cappell is the chief resilience officer for the City of Toronto. In this role he is leading the development of Toronto's Resilience Strategy and the city's participation in the global 100 Resilient Cities network. Elliott holds an MSc from the London School of Economics and a B.A. Honours from McGill University. David MacLeod, M.A., B.Sc, is Toronto's senior environmental specialist, within the Environment and Energy Division, which has responsibility for cross-corporate co-ordination on issues of climate change and resilience to extreme weather.

Infrastructure resiliance

Beyond Chasing Storms

By Dr. Blair Feltmate & Natalia Moudrak

s a result of increasingly severe rainfall events, the financial impact of residential flooding in communities across Canada is on the rise. As a consequence, in areas characterized by repeated basement flooding, escalating property and casualty insurance premiums to cover flood damages are becoming cost-prohibitive, and in some high-risk areas, insurance may be unavailable at any cost.

The consequences of limited insurance coverage are now drawing the attention of some sectors that previously paid little attention to extreme weather events-for example, banks and credit unions are now concerned that homeowners at high risk of flooding, and who may have virtually no insurance coverage, may default on their mortgage the next time they experience substantial flooding. More specifically, as of 2017, the Insurance Bureau of Canada identified the average cost of an urban basement flood to be \$42,000. Recognizing that basement floods usually

contain a heavy dose of sewer water that must be removed almost immediately to render a house habitable, homeowners with limited financial resources to remedy the situation could easily find themselves unable to remain in their home, and at risk of defaulting on their mortgage.

Going forward, actions to lower the risk of basement flooding in new residential communities would obviously be of great benefit to homeowners, insurers, banks and credit unions, and municipal governments.

Accordingly, researchers at the Intact Centre on Climate Adaptation at the University of Waterloo have developed 20 best practices for flood-resilient new residential community

> development. Developed in close consultation with municipal stormwater managers, engineering consulting firms, developers, insurers and homebuilders across Canada, examples of these best practices include:

- Not building new homes in floodways. New homes should also not be built in the flood fringe, unless flood-proofing addresses flood risks.
- Increasing the storm sewer capacity in communities in anticipation of more severe rainfall.
- Designing streets to channel rainfall away from homes to safe discharge areas.
- Ensuring homes are elevated well above potential water levels that follow extreme rainfall events.
- Ensuring that sewer pumping stations are located in areas • where they will remain operational during extreme rainfall, thus limiting the chance of sewer backup into homes.

The Standards Council of Canada will support translation of the 20 best practices for flood resilient community design into a new national Standard for Canada.

From a planning perspective, a national standard can help

Blair Feltmate



Natalia Moudrak



municipal governments, developers, homebuilders, design professionals and contractors better understand the minimum expected design and construction requirements for building new residential subdivisions that are less prone to flooding. This could in turn lead to multiple benefits, including:

Reduced liability—applying an appropriate, agreed upon industry standard could help local governments, developers, homebuilders, design professionals and contractors demonstrate that they have met the applicable standard of care and exercised due diligence in the design, construction and approval of new communities.

Improved local coordination and planning communities located within the same watershed may have different requirements for stormwater and floodplain management. This may create conflicts and duplications, as developers, homebuilders, design professionals and contractors have to comply with different sets of design guidelines for nearby lands. A standard can offer a more predictable playing field.

Improved construction quality—new developments that comply with a flood-resilient community design standard are less likely to incur flood damages. Enforcement of a standard could aid in limiting escalating insurance premiums, facilitating mortgage approvals, and help to maintain property value.

Improved public awareness—a standard could help to increase public awareness and drive market demand for flood-resilient homes and communities. Enforcement of a standard can also help protect homebuyers from purchasing substandard housing. Municipal credit rating—credit rating agencies, such as DBRS, are evaluating the potential of extreme weather to have a material impact on recovery costs to municipalities that issue bonds. Municipalities that employ a standard to minimize flood costs would generally be less likely to default on a bond, which in turn would help them to avoid a negative impact to their credit ratings.

Some municipalities in Canada have already implemented key elements of the 20 best practices for flood resilient community design, with a positive outcome.

"Newer neighborhoods in Ottawa generally include most of the 20 best practices in their design. The experience with these neighborhoods is that they are more flood resilient than their older counterparts during larger events. When we retrofit older neighborhoods with some of these best practices, their resilience increases as well," Ottawa Water Resources senior engineer Hiran Sandanayake, P.Eng. notes.

Other communities would be well served to follow Ottawa's lead. With larger rainfall events imminent, homeowners who purchase in communities built in accordance with the 20 critical best practices will also buy peace of mind every time it rains. A national standard for flood-resilient community design for Canada could not be more timely.

Dr. Blair Feltmate is head of the Intact Centre on Climate Adaptation, University of Waterloo. Natalia Moudrak is director of the Infrastructure Adaptation Program, Intact Centre on Climate Adaptation, University of Waterloo.

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Resilient infrastructure

Rethinking Streets— Path to Resilient Cities

By Lisa Nisenson & Kate Whitfield, RPP

n her book Street Fight, former New York City transportation director Janette Sadik-Kahn produced a manifesto for renegotiating our conventional contract

with streets. Her work contributed to a shift in thinking that argued our rights-of-way are public space for people, not just cars. Since then, cities have begun closing off streets for bike rides, parklets, festivals, dining and more on a regular basis. Some of these experiments, such as closing off Times Square in New York City, have led to permanent installations for plazas and protected bike lanes.

Since the book's publication in March of 2016, technology disruption has accelerated competition for use of public rights-of-way. Bike share programs are growing, including new dockless models that allow users to park anywhere, not just designated stations. This increases the pressure for bicycle racks and other places to secure bikes. Technology company Starship Enterprises

recently launched an autonomous delivery pod that navigates on sidewalks to solve the "last 50 feet" delivery to a consumer's doorstep.

For planners, bustling sidewalks are good news and a sign of economic vibrancy and healthy, carbon-free travel. However, are cities facing too much of a good thing? This article looks at these emerging trends, the challenges and opportunities brought by technology, and three tried and true measures that deliver community benefits and resiliency.

Emerging trends

Even without new technology, sidewalks are enjoying renewed popularity and planning attention. This renaissance in urban living translates into more demand for "outdoor living rooms" and sidewalk cafes. An added benefit is that sidewalks provide green infrastructure, with street trees taking on urban heat island mitigation and stormwater runoff management.

Over the past decade, sidewalk and curb functions such as parking have gone high tech.

Driverless cars once seemed decades away. However in the past year, cities across the globe have been launching trials on public and private roads. Automobile companies are competing at a fast pace to gain market share in driverless technology, realizing they must transform or fade away. Despite talking points on liveable cities, discussions tend to move quickly towards vehicles. Experts agree that Vehicle Miles Travelled (VMT) is likely to rise with the low-cost convenience of summoning a door-to-door ride, though they quickly

point to reduced carbon with electrified fleets. The shift to driverless also means massive upgrades will be needed in digital infrastructure, notably broadband for

> transportation and low-power networks for connected devices (or the Internet of Things).

The rise of e-commerce is reshaping both real estate and goods movement. Shoppers themselves have been the traditional last-mile delivery, but with on-demand everything, local deliveries are a growing slice of the traffic congestion pie.

Cities are taking climate change seriously. With global talks faltering, cities are taking the reins to pledge carbon reduction goals. In doing so, they must rethink the spaces over which they have control, and a large portion of that portfolio is streets and public rights-of-way.

This presents huge challenges-and offers opportunities-for urban planners to find practices that address several lines of disruption at once. Streets, sidewalks and curbs will need to serve as utilities, land uses, infrastructure and

climate change mitigation all at once.

Challenges and opportunities

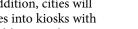
For urban planning, the most important questions revolve around how all this disruption translates into our daily work. The following examples, presented as challenges and opportunities, suggest ways our daily routines could change.

Challenge: Cities' traditional revenue sources based on automobile ownership, such as permits and parking fees, are expected to continue to decline, though it's unclear how to replace that revenue with new mobility options.

Opportunity: With curbside uses on the rise, such as pick-ups and drop-offs for ride sourcing (Uber, Lyft) and e-commerce, cities need to rethink charging for curb access. With old mobility options, these charges come in the form of metered parking. With new mobility, there can still be charges, such as small fees for pick up and drop off. However, pricing curbs also provide incentives, for example a smaller fee for shared rides or pick-up in designated areas less prone to congestion.

Challenge: In popular urban areas, competition for sidewalk space is already high, and growing with new technology. Cities tend to add new uses on an ad hoc basis instead of locating (or reallocating) amenities and facilities in the most advantageous places.

Opportunity: Just as there is Transportation Demand Management (TDM), cities will need to adopt Sidewalk Demand Management techniques. In addition, cities will seek designs for combining multiple uses into kiosks with small footprint. For example, bike amenities, transit







Lisa Nisenson

ticketing, schedule displays, lockers and other uses together in one structure.

Challenge: A new generation of motorized and nonmotorized "rideables" are emerging, challenging which uses can operate where. This includes small scooters, skate boards and one-wheels.

Opportunity: These new personal transportation devices provide valuable first/last mile access. Cities can experiment with mixed-motorized pathways like the CVLink in California, including e-bicycles and even neighbourhood electric vehicles for low impact, local transportation.

Challenge: If driverless vehicles offer on-demand, doorto-door service, why would anyone take transit? The answer is that there is not enough street capacity to accommodate individual trips, even with smaller pods and platooning.

Opportunity: The transit system's value proposition of moving more people in a smaller footprint remains with or without drivers. With driverless, some experts expect transit agencies will focus on high capacity corridors, replacing low-ridership lines to driverless vehicles that feed riders to transit. Having shuttles presents a new and exciting "missing middle" in transit for higher performance with low impact.

Resilient solutions

Of course, many of the best resilient solutions do not arise from new technology. Great urban design and multi-modal streets are still the foundation for livable, sustainable places.

Roundabouts-While rarely proposed in terms of



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Toll Free: 1 (855) 771-7266 www.gwdplanners.com resilience, roundabouts pose multiple benefits. Because cars don't need to accelerate from a complete stop, emissions are lower. The centre of roundabouts can hold landscaping and/ or stormwater facilities. Finally, power loss from a storm is not a problem for roundabouts. Whereas disabled, signalled intersections require law enforcement to direct cars, roundabouts continue to do their job.

Walking and biking—Of all transportation options, walking and biking deliver the widest array of benefits including those associated with health, zero emissions, and social interaction. Moreover, a growing number of studies confirm the value of walkable communities. Also, walking and bicycling are not prone to cyberattacks or interruptions.

Urban trees—Studies confirm the economic value of street trees. Trees are also essential for resilience; they capture rainfall and shade otherwise heated pavement. However, it takes time for tree canopies to develop. Cities cannot wait for perennial heat waves to take action. They must move to identify future hot spots and areas appropriate for planting.

Planners' roles

So what are planners' roles? Planners need to add a sense of certainty in uncertain times. This means less long-range planning based on current assumptions and more planning for uncertainty. Scenario planning and pilot programs are essential skills to get ahead of change.

As new models for revenue generation and governance emerge, planners need to understand public-private partnerships and shifting value capture.

Finally, no technological benefits will accrue if the public refuses to accept new mobility options such as autonomous transit. Thus, civic engagement, as with any project, remains at the core of building community and enhancing its resilience.

Lisa Nisenson is the new mobility lead at Alta Planning + Design. She has 20 years of experience in city design as a civic activist, federal policy-maker, local planner and civic technology entrepreneur. Currently, Lisa's work focuses on adaptive planning for technology, in particular smart city and transportation technology. Kate Whitfield, RPP, is both a professional engineer and a member of OPPI. She works primarily in the field of multi-modal transportation planning and engineering with a particular love of projects involving walking and biking. Kate helps lead Alta Planning + Design's Canadian operations from Ottawa.



Infrastructure resilience

Planners as Field Ambassadors

By Michi McCloskey & Sabrina Coletti, RPP

aking up one of the fastest growing regions in North America, municipalities in the Greater Toronto Area are faced with the pressures of building public infrastructure to service new

growth while maintaining, rehabilitating or replacing aging infrastructure in existing urban areas. According to the Federation of Canadian Municipalities, one-third of Canada's municipal infrastructure is in fair, poor, or very poor condition, increasing the chance of service disruptions (Canadian Infrastructure, 2016). In 2012, FCM reported that in Toronto alone, 50 per cent of the water and wastewater systems are 50 years of age or greater (Canadian Infrastructure, 2012), which is why the City of Toronto has dedicated over \$300-million on a multi-year program to rehabilitate its aging watermains.

Currently, WSP serves as the program manager and contract administrator for the City of Toronto capital works delivery on its Watermain Rehabilitation Program. WSP's team comprises

engineers, program administration staff, site inspectors, and field ambassadors. The program involves two types of watermain rehabilitation: Cured-in-Place Piping is a trenchless construction method that uses several small access pits to clean and line the watermain. Construction typically lasts 3 to 6 months along the public rights-of-way, and can include the temporary disruption of sidewalks, roadways and bike lanes. Buildings are connected to a temporary water supply system while city-owned pipes are relined and substandard water services replaced. Cathodic Protection involves attaching anodes along the existing watermain to absorb ions and help to protect from external corrosion. This process is less invasive than the former method and typically takes one to two days to complete.

As one can imagine, navigating the communication of construction impacts, as well as responding to enquiries and complaints, requires a keen understanding of the balance between the public good and the needs of the individual. This is where the field ambassador comes in. Field ambassadors should have strong communication skills as well as an approachable and professional attitude toward the people they engage. They are the bridge between the implementation team of engineers and contractors and the public.

Planners excel as field ambassadors. Professionally, they are wardens of the public interest who value public engagement and understand the need for impact mitigation during construction. Planners are also trained to listen and to respond compassionately to members of the public, recognizing that each community is unique. At its core, planning is an interdisciplinary profession, and planners are accustomed to collaborating while being challenged to

translate technical information in an accessible manner to the lay person.

When a field ambassador approaches a new area, they undertake a due diligence process that involves an

> assessment of the area's demographics, as well as the identification of sensitive local uses (e.g., schools, community centres or businesses), which will require proactive communication and an assessment of impacts and mitigation measures. This due diligence process also involves outreach to local businesses, councillors and other decision-makers to explain the program and working collaboratively to characterize the local context and the needs of the community.

> People inherently react negatively to change, particularly if the change will inconvenience their daily lives. Once construction is underway, the field ambassador juggles a diverse range and high volume of public enquiries and complaints, which are prioritized and communicated back to the consulting team, contractor and municipality. Urgent calls can be received at all times of the day

or night, and on weekends. Field ambassadors hit the ground running, and must handle real time issues with timeliness and efficiency.

The Watermain Rehabilitation Program has been a valuable learning experience for WSP's field ambassadors. The role offers planners a portal into the implementation of infrastructure plans. It also offers professional growth as they learn to navigate the large administrative structures of a project team. They learn how to handle public enquiries quickly and professionally, and to serve as reliable and trustworthy representatives of the project. They have learned that the field ambassador is a translator, distilling technical processes and terms into simple, easy to understand language and concepts.

The volume of public enquiries and complaints, and the need to synthesize this data for clear reporting to the city acted as a catalyst for the development of an innovative tool-the Communication Management Dashboard.

The CMD is a web-based geospatial tool that employs a user-friendly interface for the field ambassador to record each enquiry or complaint, in addition to the plan of action undertaken to solve the issue. It is a repository of enquiries and complaints that can be compared over the years and used to evaluate capital works programs in new and exciting ways. Since the tool was designed and developed in-house, each database field is customized to the reporting needs of the Watermain Rehabilitation Program. The CMD displays data as a map, which allows users to easily identify trends and patterns while enabling detailed analyses when the data is collapsed with other indicators, such as socio-economic data. A summary of key performance indicators is generated each month by the CMD, which forms a component of the





Michi McCloskey





program performance reporting that is delivered regularly to the city.

Although simpler in function, the CMD is powered by PRIME; WSP's proprietary planning data tool. One of the benefits of PRIME is that it is scalable and can be adapted and customized to meet a client's needs. The CMD is an example of this adaptability as it involves the storage of public enquiries, complaints and resolutions, rather than planning data. However, over time, PRIME would allow the CMD to overlay this data with other layers, thereby offering deeper insights into the delivery and impact of the Watermain Rehabilitation Program. With further development, this tool could be used to store communications relating to various projects across the city. This would give us the ability to assess construction impacts and optimal mitigation measures by neighbourhood as well as citywide with a high level of integration across capital and operating programs, benefitting the public through superior service and essential infrastructure delivery.

The manner with which municipalities communicate with the public is an evolving practice. We are witnessing progressively new ways to integrate technology into our communication systems. Large capital infrastructure programs, such as the Watermain Rehabilitation Program, require a high level of internal and external coordination. Finding innovative ways to bridge these lines of communication are key to program success and conflict mitigation.

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Arguably, our team was forward-thinking in the delivery of the Watermain Rehabilitation Program in two ways. The first was in realizing that planners make good field ambassadors. The second was through the delivery of the CMD, which allows for the storage and analysis of public communications in a manner that is scalable over time. The result is the delivery of high quality construction practice. The unexpected benefit of this program, however, has been the personal and professional growth realized by our planners when fulfilling this role. Although it is challenging, demanding and complex at times, the field ambassador role offers a learning opportunity to combine planning and development knowledge with practical construction experience in real time.

Michi McCloskey is a Candidate member of OPPI and a planner at WSP where she has served as the Watermain Rehabilitation Program's field ambassador since 2016. She works on development and policy projects throughout the GTA, with a particular focus in community engagement and collaborative design. Sabrina Coletti, RPP, is a member of OPPI and is a senior project manager and supervisor of a team of planners at WSP. Sabrina's area of focus is on the design and facilitation of community engagement programs for a wide range of policy, development and environmental assessment projects. She serves as the communications lead for the Watermain Rehabilitation Program.

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Infrastructure resilience

Re-defining Off-street Parking

By Sarah Krapez & Sonya Terek

he Provincial Policy Statement recognizes that many facilities and corridors make up Ontario's transportation system, such as rights-of-way, transit stops, sidewalks and parking facilities. This article considers the opportunities to rebalance off-street parking

practices with the goals of the overall transportation system, to better support its resilience.

Improved off-street parking practices which cater to more than one mobility option and which incorporate new technologies can support connectivity and sustainability objectives and therefore increase the resiliency of the system. These include updating municipal zoning regulations to exempt minimum off-street parking requirements, implement maximum off-street parking requirements, promote shared parking, and unbundle the cost of parking from units. These practices require off-street parking facilities to accommodate sustainable modes of transportation including electric vehicles (EVs), car-share vehicles, car-pool vehicles, and bicycles. Financial practices could include charging user fees for off-street parking facilities, collecting stormwater fees based on impervious surface and implementing employer strategies such as parking cash-out or workplace parking levies. It means preparing for emerging technologies such as smart parking, mobile payments, demand responsive parking, peer-to-peer parking apps, and autonomous vehicle parking.

A review of GTHA municipal practices revealed progressive initiatives in the delivery of off-street parking. For example, Vaughan, Newmarket and Toronto have shared parking, bicycle parking and



Sarah Krapez



Sonya Terek

parking maximum requirements for new developments. Mobile payment technologies are operating in Scugog and Burlington. And, a stormwater charge to better reveal the cost of impervious surfaces is raising the accountability of parking facility owners in Mississauga. However, parking minimums are still prevalent across many municipalities and most municipalowned off-street parking facilities are offered free of charge. Our research has shown that off-street parking regulations differ greatly from one municipality to another, indicating a need to define regional objectives in the provision of off-street parking.

For the foreseeable future, off-street parking will continue to be a key component

of our transportation system; however, its function, as we know it today, needs to be redefined in support of a more resilient system.

Sonya Terek, B.U.R.PL. is a transportation planner with the Transit and Urban Mobility team at WSP. Sarah Krapez, B.E.S., is a student member of OPPI and a transportation planner with WSP. She is currently finishing her Masters of City Engineering and Management from the University of Toronto.



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Scenario Planning for Transportation Investment

By Kitty Chiu & Cian O'Neill-Kizoff

hat will the world look like tomorrow? In a year? How about 25 years? Imagining the future is often a challenge, and the further out we look, the fuzzier it becomes. How are we to plan for the future when we do not know what it will look like? This is where scenario planning becomes

This is where scenario planning becomes extremely useful. It helps to shift the conversation from what we think will happen to what could happen. It ensures that strategies and solutions put forward for the future are effective not only under predictable circumstances, but also in case of the unexpected. With new technologies on the horizon, the emergence of the digital economy, climate change looming and the growing risk of global instability; defining tomorrow has never been more difficult.

When Metrolinx first released *The Big Move* in 2008, smart phones had only just begun their steep ascent to becoming a common everyday

item; transportation network companies such as Hailo, Uber, and Lyft had yet to enter the Canadian market, and the real estate landscape in the Greater Toronto and Hamilton Area was quite different than today. In less than 10 years we have seen substantial change, and the years to come will undoubtedly bring about more change.

The next Metrolinx Regional Transportation Plan is anticipated to establish a vision for the GTHA to the year 2041 and set out transportation and transit capital projects, policies and programs. To help Metrolinx be better prepared for the range of possible futures to come, we were retained to conduct a scenario planning analysis to test the resiliency of the strategies proposed for the next 25 years.

Exploring alternative futures

The first step of the analysis involved developing six alternative futures to explore what could potentially happen over the coming years.

What would happen if emerging technologies, such as autonomous vehicles and augmented reality disrupt everyday life in a similar (or greater) magnitude? What if population growth in the region manifests differently than the Growth Plan and concentrates only in select areas? Climate change is here, but the bulk of major disruptions are still to come. Will we be ready if these major impacts, such as flooding of coastal cities and deterioration of urban infrastructure arrive earlier than expected? What would become of the region if a

significant portion of the population experiences increasing difficulty in securing long term stable employment? What if government could no longer

> support subsidies of public resources, and everyone has to pay the full price of what they consume? Growth in the region has for a long time been predicated on the assumption of continued immigration; so what if this flow of people stops?

> No crystal ball can help us answer these questions perfectly, but thinking through what these questions mean for the future of the region can help bring us one step closer to addressing impacts and allow us to take advantage of emerging opportunities as they arise. For example, a future that is centred around privately owned autonomous vehicles might exacerbate the impacts of the caroriented lifestyle that has characterized much of North America since the post-war era and lead to further urban sprawl. However,

autonomous vehicles also offer many opportunities to address our biggest transport challenges, such as bridging the first and last mile gap to and from transit. A future where consumers are required to pay the full cost of their resource consumption might increase the cost burden for parts of the population, but on the other hand, may encourage more efficient and thoughtful use of resources and allow for better redistribution of resources to the parts of the population that need it most.

Strengthening plan resiliency

With consideration for the range of opportunities and implications associated with each of the alternative futures, the scenarios were then used to advise on ways to strengthen the resiliency of the regional transportation plan through a three stage process: strategies and actions, resiliency evaluation, and portfolio refinement.

Strategies and actions

First, a gap analysis was conducted to ensure that strategies and actions that could address the opportunities and implications of the specific scenarios would be considered alongside the projects, policies, and programs identified by Metrolinx and its partners. From this long list Metrolinx developed five hypothetical investment portfolios, hinged on different themes and emphases. The portfolios highlighted areas of focus such as heavy investment on new infrastructure, improved transit operations, active transportation, land use



Kitty Chiu



Cian O'Neill-Kizoff



controls, and the use of pricing to manage transportation demand.

Resiliency valuation

Once a short list of potential investment portfolios was developed, a resiliency evaluation was conducted to assess how each package of strategies and actions would perform under the stresses associated with the various scenarios.

Portfolio refinement

In addition to highlighting the strongest and most resilient of the shortlisted investment portfolios, we advised on how the findings and observations of the resiliency evaluation could inform the refinement of projects, policies, and



Alternative future scenarios developed for the regional transportation plan. Full descriptions of the scenarios, including the major driving forces, impacts, and implications of each alternative future, are available in our original report, Navigating Uncertainty, published by Metrolinx

programs included in each portfolio. Identifying shortcomings and opportunities for improvement in the initial investment portfolios provided evidence from which to recommend adjustments to the types of strategies and actions, as well as the identification of strategies and actions that may contribute to more beneficial outcomes.

Next regional transportation plan

Although different futures will necessitate different

responses, it is evident from our resiliency evaluation that certain concepts remain relevant regardless of where the future takes us. The saying that "the best transportation plan is a good land use plan" continues to hold true, as integrated land uses make travel by transit, walking, and cycling easier and more convenient. Additionally, comprehensive mobility pricing, coupled with convenient transit and active transportation options, will likely remain one of the strongest strategies in curbing excessive auto



travel, although the equity impacts of any pricing approach must be carefully considered. Finally, a flexible and adaptable public transit system must combine investment in both infrastructure and operations to effectively meet the needs of an evolving region. Building infrastructure alone will not solve the region's mobility challenges.

The alternative future scenarios developed through this work can be used to inform Metrolinx's next Regional Transportation Plan in a number of different ways. They can help to ensure that the next plan meets the travel needs of people living in the region today as well as in the future. While we cannot be certain of what the future holds, we can plan for greater resilience by being aware of the range of alternative futures that may come our way.

Kitty Chiu, B.E.S. is a Candidate Member of OPPI and a transportation planner in the transit and urban mobility team at WSP, specializing in new mobility and future-proofing cities. Cian O'Neill-Kizoff, M.PL., B.Sc.Eng. is a is a Candidate Member of OPPI and a transit/urban mobility designer.

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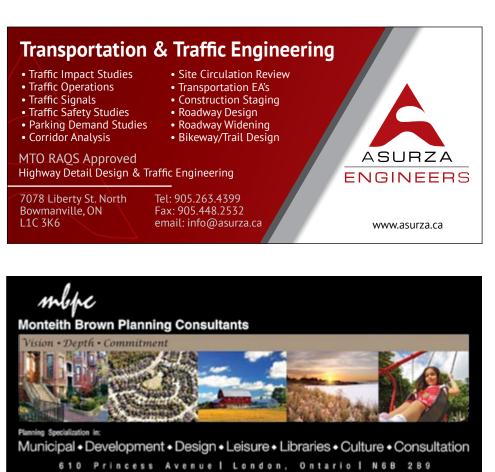
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Planning our future

Dissecting Newmarket's Urban Centres

By Adrian Cammaert, RPP

ranes are in the air over Newmarket's Yonge
 Street and Davis Drive and numerous more
 development applications are in process as the
 town renews its urban centres.

It seems that Newmarket's time has come, however this

is new territory for the 86,000-strong town in the middle of York Region. Like many other GTHA municipalities, the majority of the town's growth occurred between the 1960s and the 1990s in the form of low-density, singledetached residential uses interspersed with some ground-oriented commercial uses along its arterial roads.

That all began to change in 2006, when the province designated the area around Yonge Street and Davis Drive as a provincial Urban Growth Centre; one of only four in York Region. Like all provincial Urban Growth Centres, this area was to be planned to accommodate a wider range of uses and greater heights and densities through intensification and redevelopment.

Clearly a secondary plan would be needed to guide the new uses, heights and densities, but the town made an important and strategic decision at this time. It decided that the secondary plan would not just encompass the Urban Growth Centre around the Yonge Street and Davis Drive intersection, but would extend outward to include the majority of these corridors. This allowed the area to be planned in a comprehensive and meaningful manner. After more than four years of preparation, the Urban Centres Secondary Plan was approved by the region in March 2015, and is in place today (with the exception of one remaining appeal). This plan envisions these corridors, now termed Urban Centres, to be a highly walkable and vibrant community of 33,000 residents and 32,000 jobs; drastically different from the 1960s and 1970s built form that was inherited.

with applicants. The strategy is to align the zoning directly with the designation, a relative rarity in municipal planning contexts. This approach limits bonusing negotiations to the discretionary maximums set out in the secondary plan. In addition, with the secondary plan area

> being largely mixed use, it was decided that a form-based approach, and possibly a Community Planning Permit System, would be considered.

With the planning policy framework established, the town sought to gain an appreciation of the business perspective associated with development. The premise

being that a development at Yonge and Davis would not offer the same profit margin as the same development at Yonge and Bloor, yet the physical development costs are the same. Therefore steps were taken to reduce development costs in order for the town to be as competitive as possible. Consultation with the industry confirmed that the three most significant costs for development are development charges, parkland dedication (or more specifically its cash-in-lieu value), and high parking requirements. The town decided to focus its efforts on where it could make the most impact and set out to address these latter two cost areas.

Regarding parkland dedication, in December 2016 the town enacted a new parkland dedication by-law. This by-law accepts various forms of urban parkland typologies, allows for land/cash-in-lieu combinations, and imposes a 25 per cent cap on physical land and cashin-lieu equivalents for a period of three years from the date of the by-law's enactment. The cap is seen as an as incentive measure over the three year period, after which it increases to 50 per cent.

Regarding parking requirements, in March 2017 the

On the heels of the secondary plan came the Urban Centres Zoning By-law project. Currently underway, it is anticipated to be completed by early 2018. The goal of this project is to create a clear picture of what development is permitted in which locations, so there is as little mystery as possible when discussing potential developments



212 Davis Drive IMAGE COURTESY OF ROSE CORP

zoning by-law amendment which applied new and largely reduced parking requirements for developments within the Urban Centres. This strategy has multiple benefits, including lowering development costs by requiring less parking and therefore parkingrelated costsestimated at \$15,000 to \$50,000 per parking

town approved a



space depending on whether it is surface, structured or underground parking—encouraging transit usage, and prioritizing public realm design. Importantly, these new parking requirements included maximum limits on parking, a rarity among Ontario municipalities but a highly effective tool in creating a pedestrian-friendly, walkable environment.

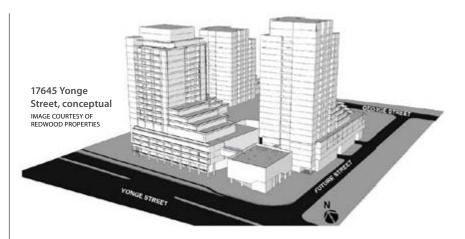
Complementing these policy initiatives is a more concentrated focus on transit. One of Newmarket's greatest assets has historically been its proximity to Toronto, and strengthening the transit connections to and from downtown is of great importance. Metrolinx has identified the entire Barrie GO Transit rail corridor for electrification and enhanced service. For Newmarket this will mean increased service in the form of 30-minute train service during rush hours and hourly during midday, evenings and weekends.

Taking riders to and from the GO station is the completed VivaNext Bus Rapidway along Davis Drive. Early in the planning for these renewed corridors, it was determined that to support the planned density, a higher-order transit system would be needed to move people around and decrease reliance on the private automobile. With the Davis Drive segment of the rapidway now complete, work has turned the corner onto Yonge Street and is progressing south. In Richmond Hill, the rapidway is progressing north on Yonge Street. These construction projects will ultimately connect and allow riders to access the eventual subway station at Richmond Hill centre.

With the VivaNext Rapidway in place on Davis Drive and the GO station being located on Davis Drive, it is critical to create a logical integration of these transit facilities, support multi-modal access, and plan for transit-oriented development. To this end, Metrolinx and the town are currently in the midst of a Mobility Hub Study for the GO station lands and surrounding area. This will serve as a true mobility hub, linking different transit options to provide convenient transit solutions for residents.

These policy efforts and transit improvements are beginning to pay dividends. The town currently has six large-scale development projects in the Urban Centres either under construction or in the planning process:

• 212 Davis Drive—225 unit, 15-storey, purpose-built rental development. Under construction with completion anticipated this year.



- 17150 Yonge Street—York Region's 430,000 ft² annex building for its administrative headquarters. Under construction with completion anticipated by 2020.
- 345 and 351 Davis Drive—40-unit, back-to-back, stacked townhouse development. Zoning approval issued, site plan application currently in process.
- 514 Davis Drive—Stratus Centre, a 5-storey, 103,000 ft² mixed-use office / retail development. Zoning by-law amendment and site plan applications currently in process.
- 17365 and 17395 Yonge Street—360-unit, 11 and 12 storey, residential condominium development with podium. Zoning by-law amendment application currently in process.
- 17645 Yonge Street—555-unit, 17, 19 and 21 storey, purpose-built rental development with podium. Zoning by-law amendment application currently in process.

Complementing this current batch of developments are pre-consultations for additional large-scale redevelopments that have become commonplace.

By setting a clear vision, and establishing a supportive policy framework to implement that vision, the town is achieving significant levels of intensification and is successfully renewing its Urban Centres. It seems that for Newmarket, the future is now!

Adrian Cammaert, MCIP, RPP, CNU-A is a member of OPPI and senior policy planner for the Town of Newmarket. He is a member of OPPI's Community Design Working Group and the founder and past chair of the Ontario Chapter of the Congress for the New Urbanism.





In conversation with Krushelnicki and McKenzie

OMB Reform



ill 139, Building Better Communities and Conserving Watersheds Act, 2017 has received first reading in the Ontario Legislature. In part, it is the result of the provincial government's review of the OMB's scope and effectiveness. In the absence of the details that regulations are likely to bring, there is considerable speculation as to the impact of the proposed changes. OPPI asked former Toronto chief planner Paul Bedford, RPP to sit down with Environment and Land Tribunals Ontario

executive chair Bruce Krushelnicki, RPP, and OMB associate chair James McKenzie to get their perspective on the proposed changes to evolve the OMB into a Local Planning Appeal Tribunal. The following is an edited summary of their recent conversation.

Do these changes address the main criticisms and complaints that were made during the consultations?

The consultation process yielded a good list of issues: concerns about the number of OMB hearings, the length of hearings, their complexity, how litigious and adversarial they tend to be. There are claims that the process is biased in favour of expertise—that decisions rely too much on the experts and not enough on the people who live in the community. And some expressed concern about single-member panels; but that is really a resource issue.

Many of these concerns can be characterized as leveling the playing field. The government's response is to propose a process that reduces the amount of oral evidence and the amount of cross examination, increases the use of mediation and establishes a resource centre, modeled on that of the Human Rights Tribunal. It will be very interesting to see how it works out. Offering greater access to justice, which is

what the tribunal is all about, is not quite enough. You also need support for those trying to access justice. Resource centre staff can do what we can't do which is to provide legal and planning advice to unrepresented parties, so this initiative tries to address the problem head on. This is a good initiative; but it is likely going to raise expectations as well as manage them.

There are a lot of things we are doing already to improve the process, such as case management and pre-hearing conferences. That has been more formalized now, bringing more rigor to the process. How that translates into practice remains to be seen.

Why is mediation so important as an alternative?

The board has been a trail blazer in making mediation the new reality of the Ontario planning system. Mediation creates an opportunity for people to converse face to face. Often it is the first time folks could sit down face to face and explain their concerns with a proposal without it being filtered through a lawyer or a planner.

But there are some challenges ahead with the proposed legislative changes: mediation is in a really tenuous place.

The fear is that without *de novo* hearings the ability for mediation to survive and thrive is in real jeopardy.

The tribunal can hold hearings or other proceedings in writing or electronically, require a mandatory case management conference and eliminate de novo hearings for appeals to OPs, ZBLs and plans of subdivision. If the tribunal decides to hold an oral hearing, no party of person may adduce evidence or call or exam witnesses. How will the role of planners and lawyers change? How will these changes result in better hearings?

The devil really is in the details. We'll see how it unfolds in regulation.

Planners will find their work shifting. There will be a lot to do before an appeal but less to do after a matter has been appealed to the tribunal. While their reports will be there, planners are going to have a much smaller role in hearings. The intent of the legislation is to shift the focus from the appeal hearing back to where the original decision is being taken, at the municipality.

This may produce a new role for planners and result in some fundamental changes in terms of the work they do. The new regime moves the proceedings away from an

adversarial model to a more inquisitorial model where questions about the evidence will be posed by the tribunal members rather than lawyers. The new tribunal won't be assessing decisions against good planning. It will be assessing municipal decisions against higher order plans.

Lawyers are likely the ones going to be most affected by these proposed changes. Their role in hearings will be more of a passive one. While currently lawyers present the case, attack the opposition and sum up the evidence and the law for the board member, under the proposed changes, lawyers will simply sum up for the hearing chair. No longer will there be



Bruce Krushelnicki



James McKenzie

three or more well-resourced lawyers prosecuting a planning case in front of a passive adjudicator and a couple of ratepayer associations watching from the side lines. This model contemplates a much more intensive prehearing process with

consultation and mediation, making sure to exhaust every aspect of the planning process at the municipality, leaving fewer cases to be decided at appeal hearings.

Each respective role of the planner and lawyer will take on more importance before getting to a hearing. There is an important undercurrent to this. One of the intents of the reform package is to push back the process—all the important matters that today

happen at a hearing—to the municipality.

What is going to change for the adjudicator is that there will be no oral hearing. Instead the evidence will consist of a box of reports produced when the decision is made at the municipality, which then forms the record for the tribunal hearing and decision. Not everyone will have met. The faceto-face, human interaction dynamic that goes along with court-like proceedings will not happen or will happen less. The only interaction may be by emails. This is currently what happens at a number of other Ontario boards. We'll see how this works out in a planning context.

What are the implications in terms of time and cost under the proposed changes?

COMMUNITY ENGAGEMENT . POLICY PLANNING

A lot depends on caseload. But some official plan hearings

just won't be heard any more (nor will Toronto C of A appeals) so there may be cost and time implications. We hope that the government would allow us to use the freed up capacity caused by fewer or shorter hearings to schedule



multi-member hearings, spend more time writing decisions and undertake more professional development. If there are savings, we hope we will be able to reinvest them in improvements that align with the reform recommendations.

The proposed new regime introduces a possible double appeal with a second hearing following a recommendation by the tribunal to the municipality. This may generate more work. We

have to think about that—the same appellant coming back to the tribunal twice.

The tribunal shall have regard for municipal decisions pertaining to appeals of OPs, ZBLs, matters of provincial interest, interim control by-laws, site plans and plans of subdivision. How much weight will the tribunal place on this provision? How do you interpret "have regard for"?

This is not new language but what you are applying the test to changes. Now we are going to be applying the test to higher order planning documents. We won't be looking at whether the application/proposal represents good planning. Instead we are being asked whether the council decision itself is consistent with the *PPS* and conforms or does not conflict with provincial plans.



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OPs must include policies to provide for adaption to a changing climate. How will this requirement likely be interpreted?

This is a creative opportunity for the planning profession. The profession has been looking at human health and how the way we build cities contributes to physical and mental health. This is the same. There are a lot of policy aspects to this which have implications for how we build complete communities. Obviously it has implications for transportation, how we build and orient buildings, and the adequacy of our employment lands.

It is about innovation in practice, which is a good thing. We mustn't get stuck on land use conflicts. We must start thinking about bigger questions.

OPs may include policies identifying lands surrounding major transit station areas (heavy rail, light rail, bus in dedicated ROW) regarding land uses, minimum densities and residents and jobs with no right of appeal. Do you think this provision is subject of misinterpretation?

It is about compromise and a balance. We have known since the early 2000s what the densities have to be to support transit, that's why planners developed growth scenarios in provincial plans. The policy intention is a good one: let's make the best possible use of this huge investment in transportation infrastructure.

We'll have to monitor this and see what happens, then address any required changes in the next review.

Join the conversation with Bruce Krushelnicki and James McKenzie October 5th at the OPPI 2017 Conference at the Blue Mountain Resort in the Town of Blue Mountains.

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Conference preview

Land Claims

By Bob Rae

or a very long time, it was a working assumption of public policy in Canada that land in Canada either belonged to the Crown (federal or provincial) or to private individuals. The argument was based on the theories of "discovery" and "conquest," on both the common law and the Quebec Civil Code, and the legislation passed by both provincial and federal legislative bodies.

Two landmark events in the past 35 years have led to the transformation of the legal and public policy frameworks across the whole country. Coupled with dramatic social and demographic changes, the policy landscape today would be unrecognisable to the governments of the 1960s, let alone to the founders of Confederation.

The first event was a famous court case, which made its way to the Supreme Court of Canada in 1973. Frank Calder, leader of the Nishga'a people in British Columbia, argued that development could only happen in his community if and when his people approved it.

Governments were confident their view—that First Nation communities had no right to control the timing, place, and pace development—would be approved by the Supreme Court of Canada. They were wrong. The court rejected the conquest theory of Canada, and instead pointed out that unless First Nation communities had "extinguished" their title in an explicit treaty, the issue of who owned what was "undetermined."

We can trace the modern land claim policy, brought into effect by the Liberal government of the day, to this one decision. The impact of the Calder decision was compounded by the addition of a short sentence to the Canadian constitution as part of the patriation process in 1982. Known as Section 35, the clause "affirmed" "existing Aboriginal and treaty rights."

The addition of this clause was soon given a wide interpretation by the Supreme Court of Canada, a practice that continues to this day. The court has made a number of rulings which reinforce the principle of the duty of the Crown to consult affected First Nation peoples with any plans for development, as well as the broader principle that the Crown has to uphold its "honour" in any dealings with Aboriginal peoples.

The cumulative impact of these legal changes and policy shifts has been significant, and now forces developers, municipalities, and provincial and federal governments to engage First Nation peoples in a serious dialogue about projects and plans before and during the approval process.

But other developments, both homegrown and



Bob Rae

international, mean that the debate about indigenous issues has become even more complex. Most federal politicians 150 years ago fully expected the Aboriginal communities to disappear. Through policy instruments like the *Indian Act* and the *Residential Schools Policy*, the extinction of distinctive and resilient cultures and communities was a

deliberate goal.

That this did not happen is a tribute to the courage and strength of First Nation, Inuit, and Metis peoples. Today, Aboriginal communities are the fastest growing demographic in Canada. Aboriginal people are better educated and economically stronger than they have ever been. There will be no retreating from the hard won victories of recent years.

Planners, municipal politicians, project developers, businesses in all sectors—as well as federal and provincial officials and politicians—need to be fully aware of this transformation. Contributing to the

momentum of change is the rapidly evolving international picture with the *United Nations Declaration on the Rights of Indigenous Peoples* and its well-known principle that "free, prior, and informed consent" is required before any development can take place on the "traditional territories" of indigenous peoples. These principles have been endorsed by indigenous governments across the country (and around the world) and have been signed by the government of Canada. What this means for the present and future is still being actively debated and discussed across Canada and needs to be better understood.

While we have seen some important governance changes in Canada in the last 25 years, we need to see much more. First Nation peoples are less interested in "consultation" and more interested in asserting their own jurisdiction. So new approaches to governance are absolutely essential, and new institutions that will enable joint decision-making. We are seeing these changes starting to happen in Quebec, B.C., the Northwest Territories, Yukon, and Nunavut, but there is less innovation in the "old treaty" provinces. We still have some distance to travel.

Bob Rae is currently working as a lawyer, negotiator, mediator, and arbitrator, with a particular focus on First Nation, Aboriginal, and governance issues. He also teaches at the University of Toronto School of Governance and Public Policy, and is a widely respected writer and commentator. Throughout his career, Bob has been strongly committed to advancing Aboriginal rights and the critically important goal of reconciliation between Aboriginal people and all Canadians.

DISTRICTS & PEOPLE

Perspectives from Nunavut

Mélodie Simard, RPP & Alecia Boddie

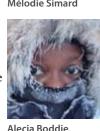
n some northern offices, they take bets on how long you are going to last. When Alecia moved from Southern Ontario to Cape Dorset,

some of her new colleagues eventually told her they thought she'd last less than a year. Mélodie, originally from Northeastern Ontario and now based in Iqaluit, years before south (i.e., lands south of the 60th



Mélodie Simard

had given herself 2 moving back to the parallel). We are both now in our 4th year in



Nunavut and are no longer taking bets. Choosing to work in Nunavut is not only a professional choice, but also a lifestyle commitment.

Lifestyle commitment

Life in Nunavut is not what you think it is. People usually think there's nothing to do, no one to hang out with, and that it's generally dark and desolate. Both of us have found vibrant lives in our communities. You have to come with an open mind and recognize life is not going to be the same as it was in the south. Once you do that, success is bound to follow.

First off, most trips between communities and from the south are by plane. There are no roads connecting settlement areas. While there are yearly

barges that deliver items, generally your mail, food and additional medical services all come by plane. When bad weather stops the planes, your travel plans may need to change and fresh groceries start to dwindle in the stores. There are local options for feeding yourself like country food (e.g., caribou, arctic char, seal, beluga, narwhal, goose, ptarmigan) but unless you are a good hunter or have a good hunter in the family, you can't rely solely on these foods.

If you are considering Nunavut, let us ask you this: Are you ready to swap your transit pass for a skidoo? If you want to get out of town for a day trip or the weekend, you'd better learn the difference between a two and a four cylinder. In town, the streets here are filled with a variety of skidoos, ATVs, SUVs and trucks. Communities are small and you can walk (pisuk) almost everywhere. Just make sure you are dressed properly. This last winter, Mélodie acquired a quarnikuviniq (permanent frostbite mark)—sort of a northern tattoo-a reminder that keeping yourself warm and covering your exposed skin is really important. Speaking of dress, you may also want to buy yourself some locally made seal skin mitts or better—*miqsuq* (sew) yourself a pair. Mélodie just finished her first pair, with the help of a miqsuqti (experienced seamstress).

If you choose Nunavut, you have to embrace the winter. We are really close to the land here and so outdoor

DISTRICT LEADERSHIP **TEAM CHAIRS**

Toronto, Jane McFarlane, RPP jmcfarlane@westonconsulting.com 416-640-9917 x225

Northern, Cindy Welsh, RPP cindy.welsh@timmins.ca 705-360-2600 x3377

Western Lake Ontario, Christine Newbold, RPP christine.newbold@hamilton.ca 905-546-2424 x1279

activities are a way of living even when it's cold. Social connections also keep us going when we face challenges overcoming the darkness and the winter blues. Friends quickly become family here. Blizzards mean that you get a snow day. You can stay in your pjs, binge watch some shows, eat and visit friends. The only downside is if your community is like Alecia's, and on trucked water and sewage service, bad weather stops these services so you might run out of water. There is a beauty to every season and the winter's darkness allows us to see amazing Northern lights, even as we *pisuk* home from work. As spring arrives the days get longer and warmer and by summer the snow has melted and the sun is up practically 24 hours. Everyone is out enjoying the sunshine. Are you convinced yet?

To many people's surprise, Nunavut is a pretty diverse place. The predominant culture is Inuit; however, there are people from all the other territories and provinces living and working here. Iqaluit, the territory's capital, draws migration from other hamlets, from southern Canada and new immigrants to Canada, who all contribute to the vibrancy of the city. Iqaluit and many of the smaller communities are growing, and planning is becoming more and more relevant.

Opportunities for professionals

Nunavut is a young territory and all

Oak Ridges, Scott Waterhouse, RPP swaterhouse@candevcon.com 289-315-3680

Southwest, Kristen Barisdale, RPP kbarisdale@gspgroup.ca 519-569-8883 x248

Eastern, Tim Chadder, RPP tchadder@jlrichards.ca 613-728-3571 x1287

Lakeland, Kelly Weste, RPP kelly.weste@ontario.ca 705-755-1210

levels of government are still developing their capacity to deliver services. As professionals we end up being exposed to a greater variety of planning issues than in larger centres where planners tend to specialize. We work on community plan updates, development review, environmental/heritage reviews, and public engagement. We are in a constant learning mode and also deal with issues that are not so typical in southern Canada, such as considering wind and snow piling patterns or snowmobile trails in subdivision planning. We have also gained skills beyond planning, including project management, human resources, procurement, policy development, and event planning. We've become very skilled at juggling the timelines of the construction season. In much of Nunavut, building foundations are elevated on piles, which get drilled into the ground in the spring. The construction season is short due to weather and there are often delays in receiving the materials by barge.

Companies and governments are always in a hiring mode and this territory needs dedicated professionals that believe in supporting the betterment of Nunavut. The City of Iqaluit has hired a student planner for the last four summers, and so far, the last three have found long-term planning jobs in Nunavut. Many southerners arrive expecting to stay in Nunavut for only a short time, but quickly find the beauty and liveliness of this territory. Before long, they must break the news to their families that they aren't coming back anytime soon.

Beyond urban planning

Moving to Nunavut is an opportunity to learn about what our history books have not taught us and recognize that there is a learning gap in our education system. You may be surprised to learn that a lot of the communities in Nunavut, particularly in the High Arctic, are not traditional settlements. Some communities were settled by the Canadian Government for sovereignty objectives. Inuit today are still recovering from these governmental decisions. Contact between the Inuit and Southern Canada is a fairly recent affair. Professionals must constantly be aware of this context. While southerners bring their technical skills to the north, they have much to learn and it is important to come with this in mind. In Nunavut, planners must be humble, learn to listen more than they speak and authentically care.

We were asked to provide a quick summary of our experiences with working and living in Nunavut as planners. Despite the challenges, there are some amazing opportunities personally, socially and professionally. Don't be afraid to take the leap—it will transform you in ways that you never imagined.

Mélodie Simard, MCIP, RPP is the director of planning and development for the City of Iqaluit. Her northern experience spans from coast to coast to coast. Originally from Kapuskasing, she has lived in Whitehorse, Yukon and on the North coast of Québec. Alecia Boddie, M.Sc(Pl), is the community planner, Qikiqtaaluk Region for the Government of Nunavut. Originally from Mississauga, she delivers planning services to 12 hamlets in the region.

OPPI SCHOLARSHIPS

Congratulations to the 2017 OPPI Scholarship winners

S ydney Bailey is the winner of the Ronald M. Keeble

Undergraduate scholarship. She is going into her fourth year of urban planning at the University of Waterloo. Sydney is

Waterloo. Sydney is Sydney Bailey particularly interested in urban design, integrating her passion for planning with her

natural creativity.

Emily Goldney is the winner of

the Gerald Carothers Graduate scholarship. She is a M.Pl. 2018 candidate at

candidate at the School of Urban and Regional Planning at Queen's University. Emily hopes to help shape the future of cities and towns to make them bial



Emily Goldney

make them high-quality, sustainable places for present and future generations.

MEMBER SERVICE AWARDS

2017 Member Service Award Winners

O PPI is honoured to recognize the following members for their contributions to the Institute and the planning profession.

Angela Dietrich, RPP

Angela's Dietrich has served on the Oak Ridges District Leadership Team for five years and was the chair for

approximately two years. Angela successfully delivered a fulsome district events program (about nine



events each year) that helped members complete their Continuous Professional Learning requirements. She was instrumental in setting up the District Leadership Team Charter to help guide the District Leadership Team's work and she helped to expand the membership on the team to support the District's program. She was also involved in improving the District's outreach to its public and private sector members.

In 2001 Angela was awarded a Member Service Award for her work as the Central District Membership Committee representative. Currently, she works as the city wide

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planning manager for the City of Mississauga.

Chris Wicke, RPP

Chris Wicke has been actively engaged in OPPI for many years and has significantly contributed to the programs and

services of the Institute. He was a valued member of the Eastern District Leadership Team from 2009 to 2015 where he



helped to organize events and workshops. Chris served as the chair of the Outreach Committee 2014 to 2017. During this time he was the Queen's University representative and a member of the on the Student Liaison Committee. Every year, he visits the students of the School of Urban and Regional Planning at Queen's University and promotes the benefits and opportunities of becoming an OPPI Student Member. Over the years he has become a mentor to many of these students.

Chris has been a senior planner with the City of Kingston since 2012. He is responsible for a variety of projects ranging from the creation of urban design guidelines and secondary plans to the creation of the new comprehensive zoning by-law. Chris graduated from McGill University in 2005 with a Masters in Urban Planning.

Kira Dolce, RPP

With close to 20 years of experience, Kira Dolce has contributed substantially to the planning

profession as a volunteer for OPPI committees and activities. In addition to being a

member of

OPPI since



2000, she has dedicated her time and energy to the Western Lake Ontario District since its inception, serving for three years as chair (2013 - 2016). She excels at engaging members at District events and bringing quality learning opportunities to the planning profession. Prior to this, she was a member of OPPI's Municipal Affairs and Housing Working Group, and Policy Review Subcommittee.

Kira currently serves as associate director of planning and development services for the Town of Fort Erie. She has been instrumental in establishing a number of training programs through Brock University for planners throughout Niagara Region.

Paul Baskcomb, RPP

A member of OPPI for over 30 years, Paul Baskcomb has been a member of the Northern District executive for

many years. Active in his profession and his community, he has been a member of the Regional Planning



Commissioners of Ontario and the Long Range Planners of Ontario, as well as serving on the Board of Governors for Laurentian University and Thorneloe University. He also served as a mentor to many young planners in the community.

A retired growth and development general manager for the City of Greater Sudbury, Paul led many initiatives that raised awareness of the planning profession in Sudbury and northern Ontario, including the creation of an official plan for the newly amalgamated City of Greater Sudbury and the establishment of the city's Lake Water Quality Program. He was also instrumental in expanding the use of community improvement plans in the north, focusing on brownfields, downtown revitalization and neighbourhood beautification.

OBITUARY

Don Manahan, RPP 1947–2017

N ortherner, planner and athlete, Don Manahan was born and raised in northwestern Ontario and spent his entire career living and

working in the north. After 10 years as a planner with the City of Thunder Bay, Don ventured out on his own as a planning consultant



with Manahan Planning and Consulting. This also led to his involvement with Thunder Bay Ventures.

Don's dedication to the planning profession was admired by his many colleagues. He provided planning services to the people of Thunder Bay and the northwest region for over 40 years. His familiar face will be missed at Thunder Bay's planning offices and city hall.

Referred to as a gentle giant by his friends and family, Don had a quiet demeanor and worked behind the scenes to support many OPPI initiatives.

An accomplished athlete, Don enjoyed mentoring, coaching and volunteering at sporting events. A true northerner, he loved the outdoors, especially fishing and hunting. Don also had a great love of his dogs and most recently volunteered countless hours to the Northern Reach Dog Rescue.

~ Leslie McEachern

Regional Planning Commissioners of Ontario

Introducing RPCO

By Ron Glenn, RPP

s the chair of the Regional Planning Commissioners of Ontario (RPCO), I have had a number of fellow planners ask me, "who are the Regional Planning Commissioners of Ontario, what do they do, how is the membership formed?" All very good

questions that I would like to shed some light on through this brief article.

We were approached by the Journal to provide some insight into RPCO and the planning issues facing its membership. We thought this presented a great opportunity to share who we are and what we do.

In upcoming issues of *OPJ*, RPCO

members will provide highlights of planning issues that our members have faced, or are currently dealing with, and some of the solutions that have been developed. This is an attempt to share our insight into the ongoing challenges and opportunities that we face as leaders in the field of municipal planning in Ontario.

The RPCO comprises heads of planning in upper-tier and single-tier municipalities with a population greater than 100,000: regions of Halton, Durham, Niagara, York, Peel and the District of Muskoka; cities of Brantford, Chatham-Kent, Greater Sudbury, Guelph, Hamilton, Kingston, London, Ottawa, Thunder Bay, Toronto and Windsor; and the counties of Haldimand and Simcoe. Members represent about 80 per cent of the province's population.

The vision and mission of RPCO is to provide leadership and support with respect to the creation, growth and management of Ontario's most significant urban communities to ensure that they deliver world class living conditions and economic prosperity. We do this by striving for excellence in the Ontario planning system and advancing opportunities for positive change; responding to the challenges brought about by the changing *Provincial Planning Policy* by spearheading key planning initiatives; engaging and collaborating with other jurisdictions for the benefit of planning in Ontario; developing position papers on emerging issues; establishing and sharing best practices; promoting the practice of integrated land use planning; and serving as an important linkage between municipal heads of planning and the Province of Ontario.

RPCO has a number of working groups that provide insight into various issues including: Long Range Planners of Ontario (LORAPON), Development Directors of Ontario (DDO), Regional Information System Working Group (RISWIG) and Affordable Housing Working Group (AHWG).

In recent times RPCO has published and responded to a number of key provincial initiatives including Land Use Planning in Ontario, Ontario Municipal Board Reform, Implementing the Growth Plan and Affordable Housing. These documents can be found on our website at www.rpco.ca.

It's often said that cities are the engines of our economy, our communities, and our culture. Bringing together municipal planning leaders from cities and regions across the province gives strength to our practice. It allows us to spread innovation, draw ideas from one another, and act together in a coordinated way to generate positive change in our profession. And, these benefits are brought back from the RPCO table to our constituent municipalities, allowing us to share knowledge and connections with our staff and our local community partners. RPCO allows us all to make better planning decisions and provide better planning services collectively, and within our own cities.

Ron Glenn RPP, MCIP, is a member of OPPI, chair of the Regional Planning Commissioners of Ontario and the chief planning official at Halton Region. He has over 30-years' experience in planning with municipal and provincial governments.





PRESIDENT'S MESSAGE

Significance Unfettered

ignificant. That's the word I've chosen to describe the last four years; two years as President-Elect and the last 2 years as OPPI President. Together we've dealt with, and continue to deal with, significant changes: updates to provincial planning legislation, organizational restructuring at the national level, adoption of an inspiring strategic plan and



anticipated new professional regulation. Significant effort has gone into everything we've touched. Hundreds of volunteer and staff hours turn ordinary tasks into extraordinary achievements and make OPPI the envy of associations across the country. Whether it is policy submissions, delivering CPL, reaching out to students or responding to member enquires, we do a lot. These

efforts build awareness of and instil value in the work that planners do.

The membership has taken ownership of the path forward. Traditionally members have owned District events and participated on specific committees. Today, members have taken ownership of personal learning strategies, new ways to engage

(Twitter Chats and Webinars) and offer feedback (Inspire surveys) and governing the business of the Institute (new faces on Council). Perhaps one of the most significant contributions came from a broad swath of members this past spring when they contacted dozens of MPPs to ensure they were fully briefed on the proposed RPP Act before it was introduced for 2nd reading in the legislature. An unprecedented action on the part of members led to a very tangible response from MPPs.

Since then there has been a significant disappointment. I had hoped, as OPPI President, to be able to celebrate with you a major milestone, publically acknowledging that "great plans need great planners." However, I am confident that the proposed RPP Act will pass with all-party support in the near future.

It has been an incredible honour to serve as President. While it is a significant amount of work, I wouldn't change the people, the stories, the effort, the laughter and even the frustration, for anything. I'll witness the next chapter from a less prominent vantage point but the pride I have for who we are as planners and all that OPPI embodies will always be significant.

Andrea Bourrie, RPP



Congratulations!

Full Members who became certified as Registered Professional Planners

Congratulations to our 70 Full Members who successfully completed their Full membership certification in Spring 2017 and became certified as Registered Professional Planners. The title RPP signifies both their achievement and their pledge to abide by OPPI's Professional Code of Practice. We applaud their commitment to the public interest, to quality professional standards and to advancing healthy and sustainable communities.

Stephen Albanese Marianne E. Alden Mark D. Antoine Mitchell A. Avis Christie S. Basalle James S. Batchelor Aaron P.C. Baxter Michelle K. Berguist Adam D. Betteridge Sheila M. Boudreau Gransaull Carolyn Brown Delroy Andrew Brown Cosimo Casale Daniel Ceron Sarah Code Mike L. Corby

Leslie Cosburn Matthew D. Creador Lauren D. Eramo Katherine Faria Mary Filipetto Kristen Flood Justyna M. Garbos Jaclyn L. Hall Melanie Harding Christina C. Hovey Helen Hao Wen Huang Anna G. Iannucci Andrew Keuken Megan M. Kevill Victor Kloeze Michelle L. Knieriem Lawrence Kuk

Katherine S.W. Kung Dennis G. Kwan Natasha Laing Denise J. Landry Allison Lebow Allister D. MacLean Eric K. Mark Owen B. McCabe lames D. McCoomb Heather C. McDonell Caleigh J. McInnes Mattson Meere Sean I. Meksula Paul V. Moreau Stephanie R. Morris David J. Morse Dukhee Nam

Joshua J. Neubauer lason Neudorf Emanuel Nicolescu Britt A. O'Hagan Michael H. Palmer Kadambini Pandey Constance Ratelle Daniel A. Rende Kyrylo Cyril Rewa Caitlin A. Robinson Niki Siabanis Jennifer M. Sisson Cela Amelia Sloan Jonathan Craig Smith Adam S. Szaflarski Jessica A. Tijanic Matthew Warzecha Andrew D.G. Warzin Merrilees O. Willemse Matthew Williams

The notice is accurate at the time of publication. For questions regarding membership, please email membership@ontarioplanners.ca or call 416.483.1873 ext. 222.

RPP stamps and seals can be ordered at http:// ontarioplanners.ca/PDF/RPP-Certificate-Seal-Order-Form.

Members struck from the register The following members have resigned or have been removed from the register.

The following Full Members have resigned in good standing from OPPI for the 2017 membership year:

Jennifer Bozzo Ilda Cordeiro lan Cross Dennis Cuomo Anna Czajkowski Gregory Dworak Stephen Fagyas Margaret French Barbara Hodgins Elana Horowitz Cathlyn Kaufman Geri Kozorys-Smith Françoise Lecrouart Alan Lee Hov Dharam Malik

John Michailidis W. Scott Morgan Carol-Anne Munroe Ralph Pugliese Arianne Purves Barbara Rahder Steven Rowe Mark Siegel Dorothy Skinner Steve Thompson Mavis Urguhart Perry Vagnini Kathleen Willis Philip Wong

The following Full Members have been removed from the register for non-payment of membership fees for 2017:

Kyle Benham Matthew Ferguson Jessica Ferri Alison Fiorini Eric Gupta Lisa Hardess **Eric Hodgins** Keri Hyde David Johnston

Bronwyn Krog Lynda Lukasik Ćharlene Miranda Paul Mondell Meghan O'Donnell Patricia Parker Paul Snape Jennifer Tharp

The following Full Members have been removed from the register for noncompliance with the full Continuous Professional Learning requirement:

Brent Bullough Paula Bustard **Thomas Farrell** Fred Galloway Robert List

Lynda Macdonald Ánne McCauley **Douglas Skeffington** Silvino Speranza George Wheeler

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LETTERS TO THE EDITOR Members are encouraged to send letters about content in the Ontario Planning Journal to the editor. Please direct comments or guestions about Institute activities to the OPPI president at the OPPI office or by email to the executive director. Keep letters under 150 words. Letters may be edited for length and clarity.

JOURNAL THEMES OPJ is seeking ideas for 2018 themes. Send suggestions for upcoming themes to OPJ editor Lynn Morrow.



OPPI's Planning Consultant Directory

Looking for a Registered Professional Planner for a

project? OPPI's Planning **Consultant Directory helps** you to find consulting RPPs that match your specific needs in Districts across Ontario. Simply search by contact name, company name, city or service. Visit the directory today where you'll find more than 260 consultants to choose from.





The views and opinions expressed in the Ontario Planning Journal are those of the authors and do not necessarily reflect those of the Ontario Professional Planners Institute.



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