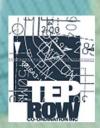


(from a municipal perspective)

OPWA ROW CONFERENCE – Mission Possible





# **Presentation Outline**

- Recent events
- Ongoing issues
- Emerging issues
- New technologies
- Potential impacts
- Assistance



### **RECENT EVENTS**

- The ongoing discussions at the CRTC
  - > Telecommunications Act and Broadcasting Act review scheduled for late 2018 / early 2019
  - could lead to CRTC taking jurisdiction over Small Cell and other wireless attachments (presently regulated by ISED)
- A decision in the U.S. by the FCC regarding Small Cell attachments
  - > capped permit review timelines and restricted attachment fees
- Alternate Model Code by the National League of Cities & the National Association of Telecommunications Officers and Advisors in the U.S.
  - > contains some good approaches for legal agreements or bylaws
- Bell Canada, etc. vs the City of Calgary Court of Queen's Bench of Alberta decision
  - confirmed federal paramountcy on telecom matters
- The City of Hamilton Bell Canada decisions by the CRTC
  - > created a new sliding scale for relocations & mandated ongoing negotiations on elevation vs. depth

### Management of congested rights-of-way

more and more public and private infrastructure is needing to go in existing rights-of-way, including competing telecom services

#### Abandonment

- municipal and private infrastructure is aging, including telecom infrastructure
- > many of those facilities are being abandoned in place leading to more congestion when new lines are put in new alignments

#### • Inaccurate maps or plans

- > some telecoms do not have accurate plans for their networks
- > most mapping systems only provide 2D info.

#### • Lack of agreement on beautification

what qualifies as beautification is still being debated in most places

#### • Smart City conflicts

> some cities are going with a Smart City approach, some with telecom initiatives

Smart Cities Challenge initiated by the Gov. of Canada in November 2017. 130 applications were received representing over 200 communities. Industry Canada's jury has narrowed the challenge down to the following municipalities (the qualifying First Nations communities are not listed here). Four prizes are available: one prize of up to \$50 million, two prizes of up to \$10 million each, and one prize of up to \$5 million

#### \$5 Million Prize Category

Town of Bridgewater, NS City of Yellowknife, NWT

#### \$10 Million Prize Category

Town of The Pas & Rural Municipality of Kelsey, MB City of Côte Saint-Luc, QC City of Fredericton, NB Parkland, Brazeau, Lac Ste Anne & Yellowhead Counties, AB City of Airdrie & Area, AB

#### \$50 Million Prize Category

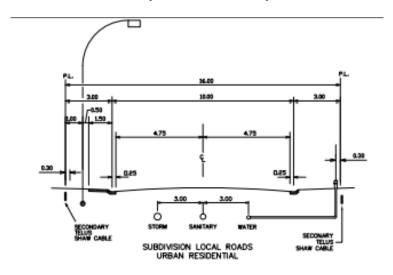
Region of Waterloo, ON
Quebec City, QC
City of Edmonton, AB
City of Surrey & City of Vancouver, BC
Montreal, QC
City of Richmond, BC
City of Guelph & Wellington County, ON
City of Saskatoon, SK
Greater Victoria, BC



- Conflicts in right-of-way approaches
  - > the Chicago idea the "Complete Streets" concepts and implementation



- Conflicts in right-of-way approaches
  - ➤ the move towards narrower rights-of-way due to densification initiatives, pressure from developers, and the Swedish concept Vision Zero
  - less room for telecoms or any other facility



#### **FTTH**

- > selective cities have been targeted for this telecom expansion
- significant permitting fees have been collected
- increased pavement degradation has also been a result
   citizen complaints have been received due to the activities of the telecoms' contractors and sub-contractors





- Pedestal "farms"
  - with more networks with expanded capabilities comes more pedestals
     placing them underground in vaults has its own complications





- Suggestion by the CRTC to manage Small Cell attachments
  - single authority for telecom approval?
  - would this mean wireless infrastructure falls into an MAA?
  - > could result in attachment fees being limited or not allowed to be charged
- Infrastructure funding
  - > suggestion at the federal level to require conduits to be installed for telecom use as a condition of infrastructure funding
- Attachments to other utility infrastructure without municipal approval
  - > attachments to power poles has occurred in some areas
- Independent internet providers installing their own networks
  - Ontario example: TekSavvy in the Chatham Kent area

- Telecoms not servicing new neighbourhoods
  - ➤ waiting for customer base to increase to warrant network installation
  - > some developers now working with select CLEC's instead of the ILEC
- Autonomous vehicles
  - > a need for wireless and wireline networks to provide connectivity?



- Increased number of Small Cell attachments
  - needed to meet the public's demand for Wi-Fi service outside and insidetheir homes
  - > antennas are not shared across providers
  - > there are many different types of all styles & shapes





- The 5G "explosion"
  - needed to meet the public's demand for Wi-Fi service outside and inside their homes
  - encouraged by the CRTC to meet broadband requirements
  - ➤ for example, Verizon spent a full 62% of their \$10.3 billion capital expenditure on Small Cells in 2017 (and they've applied to come into Ontario)
- The United States-Mexico-Canada Trade Agreement (USMCA (New NAFTA))
  - ➤ Article 18.12: Access to Poles, Ducts, Conduits, and Rights-of-Way

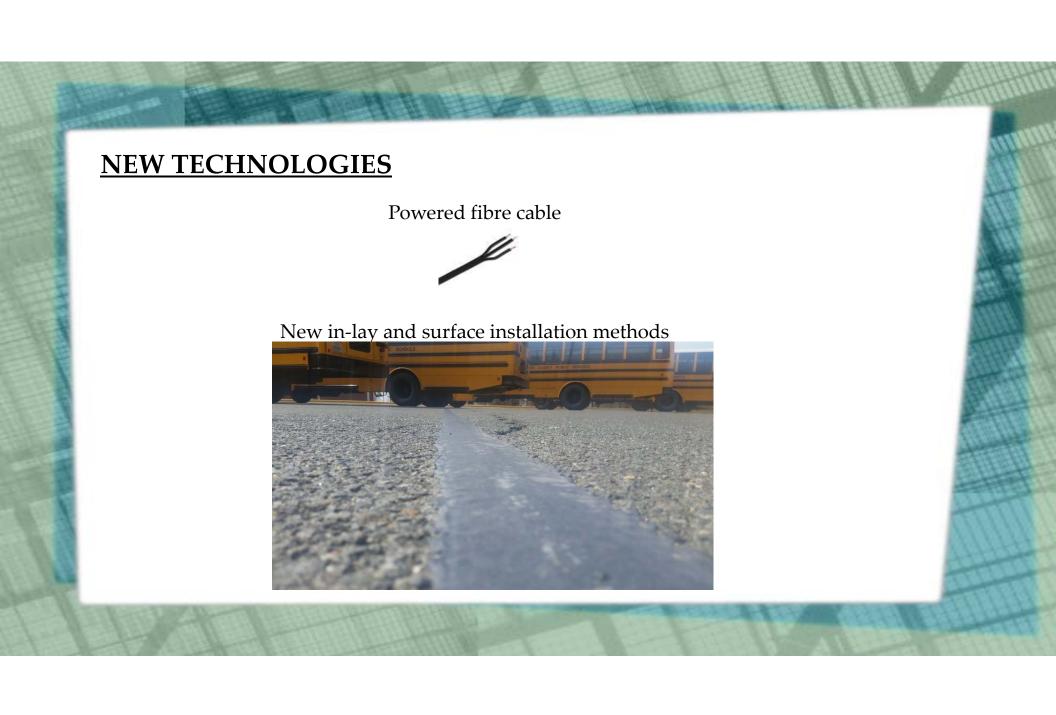
Each Party shall ensure that a major supplier in its territory provides access, subject to technical feasibility, to poles, ducts, conduits, rights-of-way, and any other structures as determined by the Party, owned or controlled by the major supplier, to suppliers of public telecommunications services of another Party in the Party's territory on a timely basis, on terms and conditions and at rates, that are reasonable, non-discriminatory, and transparent.

- Municipal needs for connectivity
  - > traffic sensors
  - > CCTV cameras
  - gun shot sensors
  - > Smart signal technology
  - Wi-Fi in our trucks, graders, snow plows & other equipment
  - fibre optic connections to transit stations/centres



- More micro trenching
  - there are more pilot projects or approved projects featuring micro trenching
     it has its own pros & cons



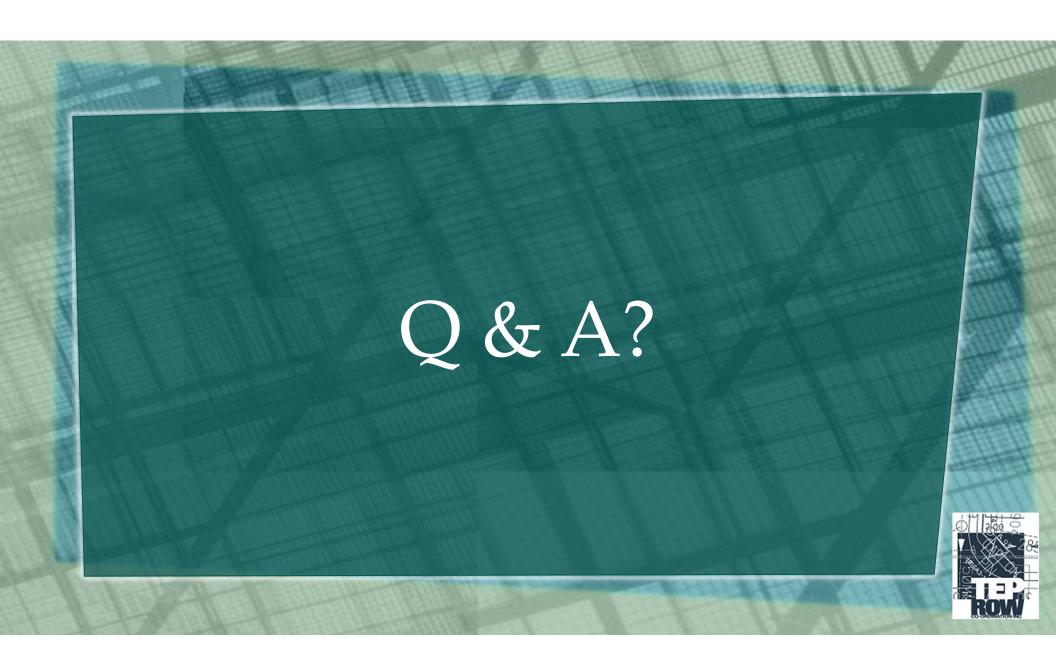


#### **POTENTIAL IMPACTS**

- Increasing difficulties in managing rights-of-way
  - how do we juggle the conflicting needs, priorities, and wishes?
  - > some cities are taking a pro-active approach, others are not
  - > some responses have been more technical, while others have been political
- Increased Small Cell attachments
  - > multiple attachments in a block?
  - increased amount of underground connections and pedestals?
- Increased citizen complaints and NIMBYism
  - citizens' complaints about health impacts
  - > aesthetic concerns
- · Need for more trained staff
  - no specific courses at the post-secondary level
  - definite need for APWA training
  - reduced funding for more staff

### **ASSISTANCE**

- Federation of Canadian Municipalities' updated Handbook
  - > an updated Handbook should be out soon
- FCM documents on Small Cells and abandonment
  - discussion papers on these topics are available for FCM members
- Update on the American Society of Civil Engineers CI/ASCE 38-02 Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data
  - > calls for better as-built information
- Update to the Canadian Standards Association CSA S250-11 Mapping of underground utility infrastructure standard





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