



Digital Twin
Ontario

Rural Optimization for Accelerated Deployment (ROAD)

**Guideline to Deliver Large Scale Broadband
Installations Within Municipal Rights of Way**

Developed for Designated Broadband Projects in Ontario.

Revision 2025

©2025 Digital Twin Ontario

The information herein is confidential, draft and under development, and for authorized discussion purposes only. No part of it may be circulated, quoted, or reproduced for distribution without prior written approval.

This document is solely for working group use.



[DigitalTwinOntario.ca](https://www.digitaltwinontario.ca)

info@digitaltwinontario.ca

Contents

Overview	5
1.0 Ontario Roads Overview	6
How Municipalities are Finding Success as AHSIP Delivery Partners	7
2.0 Legislative Framework for Expedited Broadband Deployment	8
2.1 Relevant Provincial Legislation for Expedited Broadband Deployment	8
2.2 Legislative Framework for Expedited Broadband Deployment Relevant to Municipalities ...	10
2.3 Additional Relevant Presiding Legislative Framework for Municipalities in Managing Rights-Of-Way.....	11
3.0 Removing Barriers to Construction	13
3.1 Overview of Best Practices to Promote Accelerated Broadband Deployment.....	14
3.2 Create a Project Charter or Agreement Specific to the Program	15
3.3 Align on Pre-Approved Running Lines and Consider Innovative Construction Methodologies	16
3.4 Provide Access to Existing Mapping and Infrastructure Data	20
Table 2: Recommended list of Infrastructure and Mapping Features to be shared between Municipalities and ISPs	21
3.5 Provide Project Workplans and Schedules to Maximize Resources	23
3.6 Align on Standards for Permit Drawings and System/Tools to Submit Applications	25
3.7 Develop a Field Adjustment Approach and Align on Restoration Expectations	27
4.0 Fee and Cost Recovery Framework	30
Glossary	32
Appendices	37
Appendix 1: Guideline 3.0 under the BBFA	37
Appendix 2: Federation of Canadian Municipalities Telecommunications and Rights of Way Handbook	38
Appendix 3: Fees and Charges under the Municipal Act 2001, O. Reg 584/06	39
Appendix 4: City of Toronto Universal Equipment Placement Guidelines	42
Appendix 5: O. Reg 184/23 - BBFA Access Agreements	43

Overview



The Government of Ontario has committed almost \$4B to help connect every region of Ontario to reliable, high-speed internet by the end of 2025.



This document has been created to assist municipal partners in understanding the legislative framework surrounding designated broadband projects in Ontario and the impacts of programs such as the Accelerated High Speed Internet Program (AHSIP), Improving Connectivity for Ontario (ICON), Northern Ontario Heritage Fund Corporation's Community Enhancement Fund (NOHFC) and the Universal Broadband Fund (UBF).

The supporting guidance in this document provides recommendations to municipalities and ISPs involved in Designated Broadband Projects in Ontario that will help to:

- Define a mutually beneficial program that accounts for operational impacts and resource implications of all delivery partners involved.
- Align on standards and the sharing of infrastructure data to accelerate design phase activities and maximize resource allocation.
- Implement innovative deployment methodologies and processes to expedite construction phase activities.



In 2021, the Ontario Legislature passed the Supporting Broadband and Infrastructure Expansion Act, 2021 and the Building Broadband Faster Act, 2021 (BBFA) along with changes to the Ontario Energy Board Act, 1998 and One Call Act, 2012. In November 2021, BBFA Guideline 1.0 was developed to reduce barriers, speed up broadband deployment and support the successful implementation of the BBFA. Stakeholders and partner ministries provided input into the development of the Guideline. The current Guideline 3.0 reflects the latest legislative and regulatory authorities and will be updated if required. To build upon this legislation, the Ontario government passed the Getting Ontario Connected Act, 2022, which further reduces barriers, duplication, and delays. The passing of these Acts enabled the Accelerated High-Speed Internet Program (AHSIP). AHSIP's primary purpose is to expedite the delivery of provincially significant broadband projects by removing barriers to building broadband.



Since 2021, the Government has made significant progress to advance AHSIP. In May 2022, Infrastructure Ontario (IO) in conjunction with the Ontario Ministry of Infrastructure (MOI) formed the Technical Assistance Team (TAT) in support of AHSIP. In spring 2022, eight Internet Service Providers were awarded contracts to deploy high speed internet infrastructure throughout the province.



The total program for AHSIP is approximately 53,000 km of fibre optic cable. Current plans indicate that of this total, nearly 21,000 km will be underground installations, representing approximately 40% of the overall program. This will generate a significant increase in workload for municipal road operations, engineering, and inspection staff in impacted municipalities, where the amount of telecommunications activity on municipal roads will be unprecedented.



This document helps define municipalities' role in the program's delivery, as well as document tools and resources at their disposal as road authorities to manage this program and their rights-of-way, facilitate broadband installations within their rights of way and promote cost neutrality to achieve the Government's commitment to connect every region of Ontario to reliable, high-speed internet by the end of 2025.



For additional information about the TAT, the Broadband One Window (BOW) and for tailored resources such as mini guides, videos, and comprehensive documents to help delivery partners navigate their role in the AHSIP, please visit onewindow.ca

1.0 Ontario Roads Overview

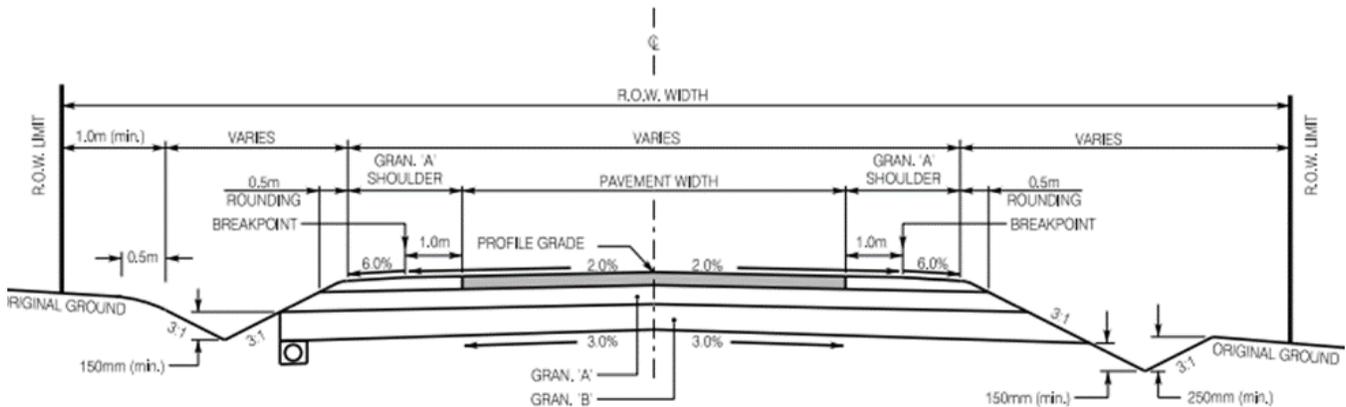
Ontario's roads serve as crucial infrastructure, encompassing public highways, municipal roads, rights of way (ROW), lanes, and alleys. For this document, the term "Roads" collectively refers to all legally established lands dedicated or assumed as municipal highways.

Developing a single, comprehensive cross-sectional template for road allowances is not possible due to the variation across each road. It is necessary to collaborate with local road authorities for accurate information on road layout and usage within their jurisdictions.

The foundation of municipal road systems in Ontario traces back to original surveys, wherein road allowances were typically laid out using a "chain" measurement equating to 66 feet or approximately 20 metres. This standard, however, is not without its exceptions; Ontario's diverse geography sometimes necessitated deviations from the one-chain road allowance due to physical constraints.

Being mindful of potential future state road configurations will allow for the optimal determination for infrastructure placement. Consideration of optimal infrastructure placement for alternate transportation modes, municipal drainage system enhancements and increased lane capacity and lighting improvements are necessary for future state configurations. Additionally, there are sustainability initiatives for more greenspace to offset carbon emissions, and the allocation of space for third-party utility providers will play into the complex considerations for road use.

Figure 1: Typical Rural Road Cross Section in Ontario



How Municipalities are Finding Success as AHSIP Delivery Partners

AHSIP is a transformational program focused on improving internet accessibility and connectivity across Ontario. The success of this program will not be possible without active engagement and crucial contributions from municipalities. These contributions include the supply of data, standards, and coordinating right-of-way (ROW) based activity.

Municipalities can take responsibility over their key roles in AHSIP to help work towards seamless broadband deployment across Ontario:

- Coordination of ROW Activity: Municipalities should support AHSIP partners to deliver efficient deployment using the systems and schedules that allow timely ROW access.
- Workflow & Permitting Management: Municipalities should manage AHSIP permit processing via existing systems or through the use of the Broadband One Window (BOW) to accelerate permit application cycle times.
- Sharing of Data for Design & Schedule Alignment: Municipalities need to share data and schedules with ISPs and AHSIP partners to allow effective design development.

By following this approach, municipalities will partner in timely delivery, accelerate permit cycles, facilitate effective design processes, and improve the overall efficiency of broadband deployment.

2.0 Legislative Framework for Expedited Broadband Deployment

This section provides an overview of the existing provincial laws and regulations that are relevant to municipalities regarding the deployment of large-scale broadband installations within municipal rights of way. Understanding the legal framework will help ISPs and municipalities to define a mutually beneficial program that adheres to each respective parties' rights regarding access, implementation processes and cost-sharing.

The following subsections include:

- 2.1 [**A high-level overview of the legislative framework for expedited broadband deployment in Ontario.**](#)
- 2.2 [**An overall description of the legislative framework for expedited broadband deployment, specifically focused on municipalities.**](#)
- 2.3 [**A description of additional relevant presiding legislative framework for municipalities' role in managing rights-of-way, aiming to balance the interests of telecommunications providers with those of municipalities.**](#)

2.1 Relevant Provincial Legislation for Expedited Broadband Deployment

The Building Broadband Faster Act (BBFA), 2021

The [BBFA](#) was enacted to expedite the delivery of designated high-speed internet projects by streamlining processes and removing barriers to construction that may result in additional costs and delays, while enhancing co-ordination and engagement with and being fair to public and private sector stakeholders.

The Act mandates local governments to adhere to specific timeframes for provincial projects within their jurisdictions and enables supports including Technical Assistance and Subject Matter Experts to promote best practices while providing strategic direction. These are outlined in the BBFA and include the use of an online permitting solution known as the Broadband One Window (BOW) tool, together with the requirement to permit at a specific cadence. The Act is overseen by the Ministry of Infrastructure or other designated government authorities as per existing legislation.

Less Red Tape, Stronger Economy Act, 2023

Under the [Less Red Tape, Stronger Economy Act, 2023](#), changes were made to the BBFA to

streamline processes for design and construction of projects and limit situations that might cause significant delays to project timelines.

These amendments clarify requirements related to data collection and municipal permitting, emphasizing the necessity for local governments to process permits swiftly and efficiently, and fostering an environment of good faith negotiation between municipalities and Internet Service Providers (ISPs).

Under this Act and the BBFA a series of regulations were created to support the legislated efforts. The table below provides a few examples of key regulations that were created to support expedited broadband deployment as part of the BBFA and the Less Red Tape, Stronger Economy Act.

Table 1: Key BBFA Regulations Created to Support Broadband Deployment

Section of BBFA	Description of Regulation	Timeline Associated
s. 10.1	As part of this regulation, the municipality reviews the complete application and issues municipal consent and road occupancy permit (where applicable): Municipalities have 10 or 15 days to approve an application or inform ISPs of a material issue or deficiency. For the latter, timelines stop once an ISP is informed and restarts on day one upon resubmission.	Up to 30km of ground: 10 business days (for each respective approval). Greater than 30km of ground: 15 business days (for each respective approval).
s. 20.1	This is a new requirement under the BBFA as part of the Less Red Tape, Stronger Economy Act, 2023 allowing the Minister of Infrastructure to make regulations changing the area within which a request for data access can be made from being within 10 metres of a designated broadband project to being within a prescribed area.	15 days of receiving the letter of request.
s. 27	This is a new requirement under the BBFA as part of the Less Red Tape, Stronger Economy Act, 2023 allowing the Minister of Infrastructure to make regulations restricting what a municipality may treat as a condition of a consent, permit or other approval or as a material deficiency or material issue.	N/A

For an exhaustive list of all the regulations that were created, please reference [Guideline 3.0](#).

2.2 Legislative Framework for Expedited Broadband Deployment Relevant to Municipalities

The Municipal Act, 2001

[The Municipal Act, 2001](#) outlines obligations and rights of municipal governments in Ontario, providing them with broad authority to manage public highways and other municipal affairs in response to local issues. Under this act, there is a definition of [Minimum Maintenance Standards](#) (MMS) which create an obligation on the municipality to maintain their highways according to class (determined by volume) which creates inspection and repair requirements.

This legislation governs Public Highway management in Ontario and creates specific obligations and rights for municipal governments. These include the concept of a “natural person” together with defined characteristics of what constitutes a public highway.

Municipalities may control aspects of their highways through the by-law process. Generally, the by-law cannot conflict with other levels of government’s areas of jurisdiction. However, for all other aspects of managing the city streets, the by-laws are applicable.

The Federal Telecommunications Act, 1993

The primary piece of legislation that governs telecommunications in Canada is the [Federal Telecommunications Act](#).

The Act establishes the regulatory framework for the telecommunications industry in Canada. It delineates the roles of municipal governments in managing rights-of-way, aiming to balance telecommunications providers’ access needs with municipal interests. Since its 1993 revision, the Act has fostered increased competition and expanded access to municipal rights-of-way.

The Act requires the consent from a municipality, or other public authority having jurisdiction, to construct a transmission line on, over, under or along a highway or other public place and provides telecommunications companies with rights of access to municipal rights-of-way and the construction of their infrastructure.

2.3 Additional Relevant Presiding Legislative Framework for Municipalities in Managing Rights-Of-Way

The Public Service Works on Highways Act, 1990

The [Public Service Works on Highways Act](#) outlines the procedures and cost-sharing principles for the relocation of infrastructure by utilities for municipal road work, emphasizing a collaborative approach between municipalities and utility providers.

This act is specific to the province of Ontario, and it applies to existing infrastructure already placed by either an energy supplier or telecommunications company, not covered by an access or franchise agreement. The act allows a municipal government or road authority to direct a utility to relocate within a certain timeframe and follows a prescribed cost formula.

In absence of any other form of agreement such as an MAA or Franchise agreement, this act will generally apply to new equipment as well. Costs are generally defined as the cost of labour (including mechanical equipment) and does not include materials.

The act indicates that a cost allocation agreement can be developed between the parties, and in absence of an agreement, costs are shared equally as per section 2 of the Act.

Canadian Radio-Television and Telecommunication Commission (CRTC) Relevant Decisions

The [Canadian Radio-television and Telecommunications Commission \(CRTC\)](#) plays a crucial role in this ecosystem, providing guidance on access to rights-of-way, cost allocation for installations, and ensuring a principle of “cost neutrality” for involved parties.

Wireline telecommunications in Canada are licensed by the CRTC through the Telecommunications Act, 1993. While some designated broadband projects are directed by the Province of Ontario, all telecommunication Infrastructure located within public or private lands is under the jurisdiction of the CRTC. There are no Utility Coordination requirements mandated by the CRTC, but telecommunication facilities must be accommodated on public lands such as road rights-of-ways.

Over the years, the CRTC has made numerous decisions shaping the telecommunications landscape, emphasizing the need for clear access agreements and modern management of right-of-way issues. Examples of three relevant CRTC decisions are included below.

- [Ledcor v. Vancouver \(CRTC Telecom Decision 2001-23\)](#): This decision addressed a dispute between the City of Vancouver and Ledcor Industries Limited regarding the construction of a fibre optic transmission system in Vancouver. Key outcomes of this decision include creation of Ledcor Principles, development of Causal Cost framework, denial of land charges (rent) for ROW use and denial of agreement negotiation costs.

- [Hamilton v. Bell \(CRTC Telecom Decision 2016-51\)](#): Telecom Decision CRTC 2016-51 addressed the dispute between the City of Hamilton and Bell Canada over a Municipal Access Agreement (MAA). Key outcomes of this decision include performance clauses, the CRTC determined the Model MAA was not a binding document, the term “other public place” should not be included in an MAA, longer relocation scale (now 17 years), denial of request for carrier 3-year capital program, approval of cost allocation for impacted normal municipal activities.
- [City of Terrebonne \(Terrebonne\) and Bell Canada, Cogeco Communications Inc., Rogers Communications Canada Inc., TELUS Communications Inc., and Videotron Ltd. \(collectively, the Carriers\) \(CRTC Telecom Decision 2020-61\)](#): This proceeding commenced in 2017 however was paused until November of 2018, at which time all parties advanced their issues to the CRTC for resolution. This decision was released just after the 2019-316 Gatineau ruling and therefore, had many parallel aspects. The key outcomes of this decision include; Denied municipal request for sea-level (vertical coordinates) elevation in municipal consent plans and as built records, required municipality to act reasonably when adjusting municipal consent applications, denial of temporary installations being laid on the ground or trespass on private airspace, approval of municipal fee structure similar to Gatineau and approval of the removal of municipal cost obligation if carrier is notified of planned works within 3 years.

The CRTC decisions, such as the three examples above, are important to broadband deployment and municipal partners as they create the framework on access rights and obligations for both parties and inform what “consent” means to the CRTC.

Together, these legislative and regulatory frameworks create a structured yet flexible environment for the deployment of telecommunications infrastructure, balancing the need for rapid broadband expansion with the rights and responsibilities of municipalities, telecommunications providers, and other delivery partners.

3.0 Removing Barriers to Construction

- To achieve the government’s goal of bringing high-speed internet to every region of Ontario by the end of 2025, the Technical Assistance Team (TAT) proposes a series of strategies below which are aimed at streamlining the permitting process and expediting broadband installation.
- These strategies are further intended to provide clarity, foster collaboration, and drive efficiency across the sector, thereby expediting the deployment of high-speed internet to rural communities.
- The following sections describe the challenges faced, specific recommendations, and anticipated outcomes for recommended mitigation measures.

3.1 [**Overview of Best Practices to Promote Accelerated Broadband Deployment**](#)

3.2 [**Create a Project Charter or Agreement Specific to the Program**](#)

3.3 [**Align on Pre-Approved Running Lines and Consider Innovative Construction Methodologies**](#)

3.4 [**Provide Access to Existing Mapping and Infrastructure Data**](#)

3.5 [**Project Workplans and Schedules to Maximize Resources**](#)

3.6 [**Align on Standards for Permit Drawings and System/Tools to Submit Applications**](#)

3.7 [**Develop a Field Adjustment Approach and Align on Restoration Expectations**](#)

3.1 Overview of Best Practices to Promote Accelerated Broadband Deployment



To help achieve the Government’s 2025 commitment by:

Use existing standards to create **pre-approved locations**.

- Allowing design teams to work in specific corridors that will be pre-approved promotes efficiency.
- Clarity around installation methods and locations will create opportunities to accelerate permit approval while ensuring compliance with required offsets.
- Design submission protocols can be developed to identify areas that are outside pre-approved locations. Only review and comment on non-standard proposals.

Provide underlying **GIS mapping and planned work schedules**.

- Supplying GIS or CAD data of the road and supporting infrastructure will allow design teams to provision using a land base that represents accurate municipal systems.
- Work planning that is in alignment with planned municipal capital projects decreases conflicts.
- Developing deployment plans that are based on planned schedules allow for correct resourcing allocations.

Create a **field review and adjustment process between delivery partners**.

- Few road projects will exactly follow design submissions due to inconsistencies of what will be found in the field.
- Lengthy delays in resubmitting or redlining permits adds time and cost to the project delivery.
- Authorized municipal staff can be assigned to make reasonable field decisions that allow contractor construction to continue.

3.2 Create a Project Charter or Agreement Specific to the Program

Issue:

- The current ad-hoc or site-specific Municipal Consent (MC) and approval processes are slow and inefficient for large-scale broadband expansion.
- The site-specific process is slow due to small scale site permitting. The current process assumes limited scale of permits and is geographically distributed within a municipal region.
- Many municipalities don't have an established permit process that anticipates an entire county / township or region in construction activity which is necessary to successfully meet broadband deployment timelines.

Recommendation:

- Implement a standardized project charter or agreement between the municipality and ISP that outlines pre-approved installation locations or running lines. This approach is based on national success stories and is aimed at creating a streamlined permitting routine.
- Create Project-Specific Agreements and Memorandums of Understanding (MoU) between the municipality and ISP. The MoU will fundamentally differ from traditional Municipal Access Agreements by addressing the unique challenges and requirements of AHSIP, ensuring both parties are aligned in their approach to this transformative project.
- The following summary captures components for consideration in creating project specific agreements or MoU's:
 - Recognition of Scale and Context: Acknowledge the unprecedented scale of AHSIP and the need to reimagine municipal processes to accommodate this project, focusing on maximizing broadband penetration throughout Ontario.
 - Adjustment to Volume and Timing: Traditional Municipal Access Agreements (MAAs) do not typically account for the significant volume of work or specific time constraints that AHSIP entails. The project-specific MoU should reflect these increased demands and tighter timelines.
 - Formalizing the Permitting Process: Transition from informal, ad-hoc permitting processes to a structured approach that can handle the increased workload efficiently, ensuring resources are adequately allocated.
 - Geographic and Workload Impact: Recognize that AHSIP's scope goes beyond servicing individual properties or developments, requiring a broader geographic impact

and workload management strategy to account for the volume of expected permit submissions and applicable BBFA regulations and timelines.

- Establishing a Project Framework: Include the formation of a dedicated project group with identified leads from both the municipality and the project implementers to oversee the initiative, ensuring streamlined communication and decision-making.
- Information Exchange and Conflict Resolution: Set protocols for regular information exchange and establish a clear conflict resolution mechanism to address any issues that arise promptly and effectively.

Further guidance and resources regarding aligning on standards for permit drawings and system/tools to submit applications are offered for ISPs and municipal partners in [Guideline 3.0. These resources have been developed based on publicly available information from reputable sources, industry standards and best practices.](#)

Anticipated Outcomes:

- The use of a project charter will lead to enhanced efficiency through a standardized approach, ultimately decreasing deployment times and reducing administrative hurdles.
- A project charter and/or MoU will help streamline communication and decision-making, therefore supporting broadband deployment by efficiently providing clear action plans.

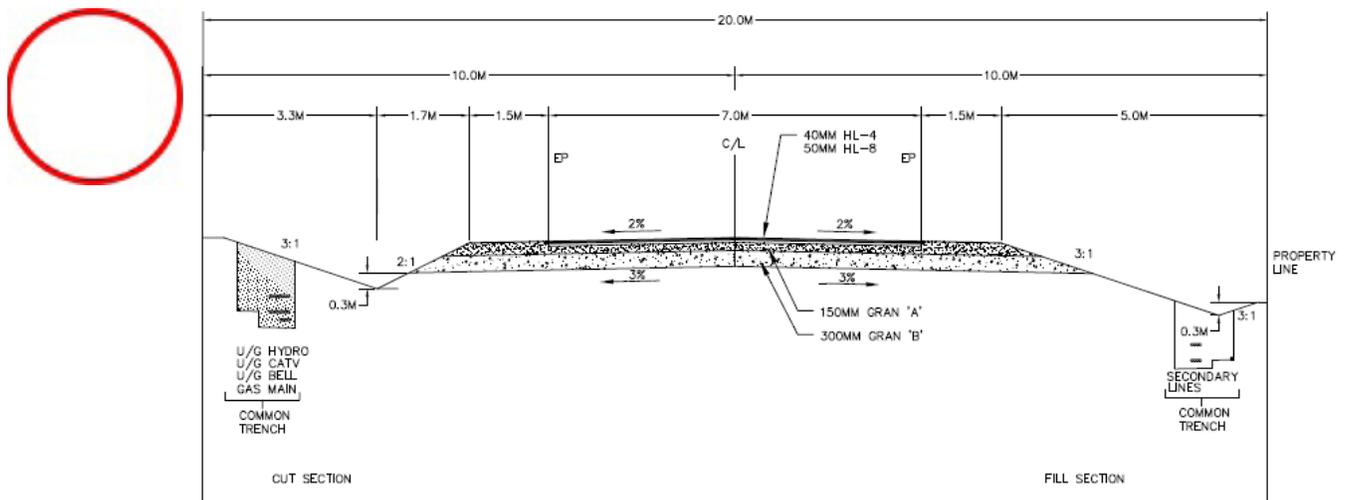
3.3 Align on Pre-Approved Running Lines and Consider Innovative Construction Methodologies

Issue:

- A lack of pre-agreed upon installation routes and construction methodologies slows down project initiation and execution.
- There is no single approach that will address each specific requirement when considering the scale and range of topologies in Ontario.
 - The rural road system in Ontario provides several services including transportation, drainage through a ditch system, and a path for third party utilities. Roads generally drain into ditch systems that run parallel to the traveled portion of the right of way.
 - The rural road system may have granular or hard surface for the travelled portion and will normally have a granular shoulder. The ditching is generally the transition from the construction of the road base and surface to the native soils that exist.

- The scope, scale and timelines of AHSIP necessitate the need to adopt innovative means and methods to accelerate deployment of underground infrastructure that are efficient for rural road systems, scalable and cost-effective.

Figure 3: Typical Running Lines - Rural Cross Sections in Ontario



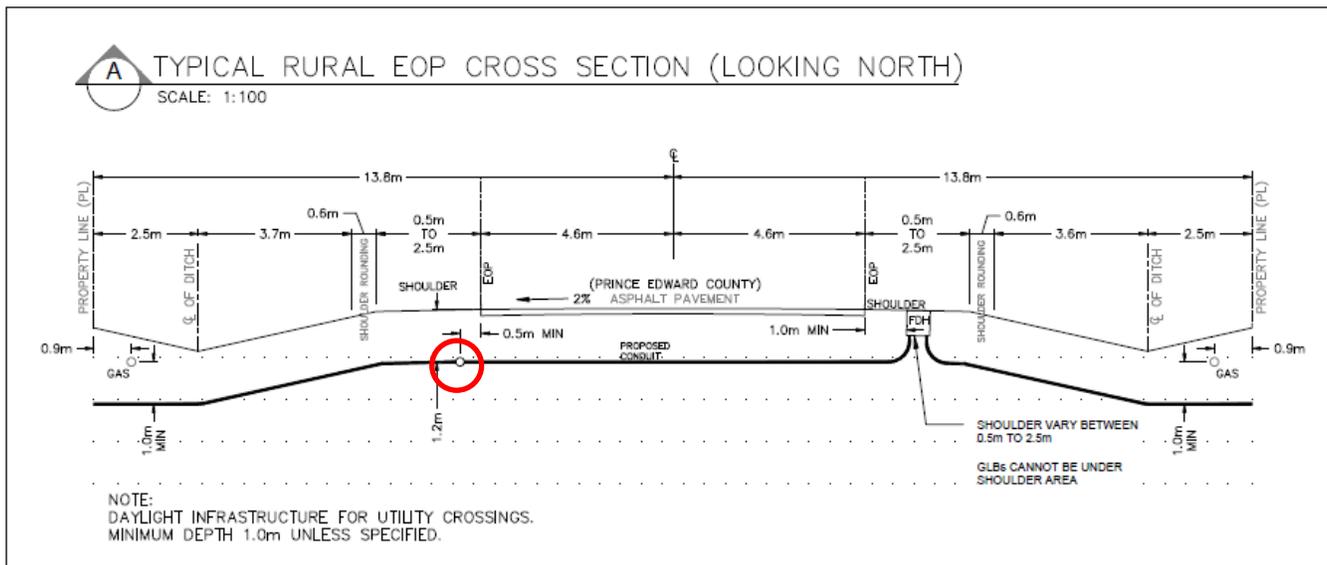
Recommendation:

- Municipalities and ISP delivery partners should utilize pre-approved running lines:
 - Through the discussion on approval of standard running lines or installation locations between the parties, telecommunications designers can design networks at scale in those approved locations.
 - These designs will be informed by existing mapping, plans and site visits to confirm they are constructible.
 - Permitting authorities, having already approved of the standard location, can allow large volumes of permits to be approved with limited office review.
 - This process aligns both parties at the outset of the project and allows for large scale accelerated processes for permitting and construction.
- Municipalities and ISPs can foster an understanding and agreement to adopt innovative construction methodologies such as vibratory plowing when applicable in replacement of conventional methods such as open trenching and directional drilling.
- Open trenching is typically an invasive method, causing significant surface disruption and

restoring the road surface and adjacent areas to their original condition can be costly and time-consuming.

- Directional drilling allows for a less invasive installation of fiber optic cables beneath public roads and presents numerous advantages in comparison to open trenching.
- The use of vibratory plowing for the installation of fibre optics along road edges is a trenchless construction method that is becoming increasingly popular due to its efficiency, cost-effectiveness, and minimal disturbance to the environment and existing infrastructure. This method involves the following considerations:
 - Soil Conditions: Vibratory plowing is best suited to cohesive soils such as clay or loam with minimal obstructions. Rock or hard soils may present challenges.
 - Depth Requirements: The method must meet depth requirements for the installation area to protect the fibre optic cables from damage.
 - Existing Utility Infrastructure: Care must be taken to avoid damage to existing underground utilities during the plowing process.

Figure 4: Potential Running Line using Vibratory Plowing - Typical Rural Cross Section in Ontario



- Another example of an innovative construction method is Keyhole Restoration, and the use of unshrinkable fill, which should be part of the overall project planning for spotting utilities and reduction of construction within the Right-of-Way (ROW). The use of keyhole techniques can

be an effective method to reduce road cuts and the associated larger restorations required when spotting underground utilities.

- There are techniques that allow the extraction of smaller “coupons” of asphalt or concrete which can then be reinstated using an epoxy once the excavation is filled using unshrinkable fill.
 - Keyhole restoration is a method primarily used in utility work and urban infrastructure management. It involves creating a small, circular cut (usually about 18 inches to 36 inches in diameter) in the road or pavement to access underground utilities such as water pipes, gas lines, or electrical conduits.
 - This technique is particularly useful because it minimizes surface disruption and can be much more cost-effective and faster than traditional large-scale excavation methods. After repairs or maintenance are completed, the hole is refilled, and the surface restored.
 - Unshrinkable fill, also known as controlled low-strength material (CLSM) or flowable fill, is a self-compacting, cement-like material used in place of compacted backfill. It is typically made from a mixture of cement, water, fine aggregate, or other similar materials. This fill is particularly useful because it can easily flow into narrow and hard-to-reach spaces, ensuring a uniform fill without the need for mechanical compaction. It sets into a strong material that can bear loads and reduces settlement of the road over the excavation site. Additionally, it is still relatively easy to excavate if necessary.
 - Adopting keyhole restoration and unshrinkable fill involves several considerations:
 - Technical Feasibility: Assessing whether the specific characteristics of the underground utilities and soil conditions are suitable for these methods.
 - Cost Implications: While these techniques can be cost-effective in the long run, initial investment in specialized equipment and materials might be required.
 - Regulatory Compliance: Ensuring that the use of these methods complies with local regulations and standards, which may vary by location.

Figure 5: Image of Keyhole Restoration Technique



Anticipated Outcomes:

- Accelerated design and deployment phase activities will be enabled by aligning on pre-approved running line locations early in the program that properly evaluate the feasibility of proposed locations and unique local municipality road configurations.
- By adopting innovative construction methodologies in underground deployment, delivery partners involved in AHSIP can overcome the challenges posed by the scope, scale, and timelines of the program, ultimately achieving efficient, scalable, and cost-effective deployment for rural road systems.

3.4 Provide Access to Existing Mapping and Infrastructure Data

Issue:

- Insufficient access to detailed mapping and infrastructure data complicates pre-engineering efforts and leads to inefficiencies.
- Access to up-to-date utility infrastructure data is important so that broadband project delivery partners can proactively plan and organize their work using better data on co-located infrastructure.

Recommendation:

- Designers, right of way managers, asset managers and capital planning teams should facilitate the exchange of information to ISPs on planned works, including mapping, GIS, and CAD files, to support accurate pre-engineering work. This information exchange should be completed as early in the project as possible to have all parties are working on a single

source of truth for their mapping base. Please note general use agreements and as-is provisions exist for data sets that should be understood by all parties to fully evaluate the liabilities and risks associated.

- All data related to existing infrastructure mapping should be exchanged between parties for optimal network designs.
- The exchange should take place in an agreed upon format including, but not exclusively, CAD files, GIS, Plan / Profile sheets, and any format that is feasible for the infrastructure design that can be readily transferred should be shared.
- The following table is a recommended list of infrastructure and mapping features for municipalities and ISPs to share to promote efficient data sharing in the pre-engineering and design phase of deployment. These infrastructure features provide a detailed view of the physical landscape that ISPs will need to navigate when designing and installing fibre networks. By sharing this information, municipalities can help ISPs plan effectively, avoid costly mistakes, and minimize disruption to the community.

Table 2: Recommended list of Infrastructure and Mapping Features to be shared between Municipalities and ISPs

Feature Name	Description
Road Edges	This data includes the location, width, and condition of road edges. It can help ISPs plan the most efficient routes for fibre optic cables.
Ditching Information	Information about the location, depth, and condition of ditches can help ISPs avoid potential obstacles during fibre optic cable installation.
Trench Centrelines	Information about the location, depth, and direction of existing or planned trenches can help ISPs plan the most efficient routes for fibre optic cables and avoid unnecessary digging.
Property Lines and Land Parcel Data	Detailed data about property boundaries and land parcels can help ISPs understand where they can legally install fibre optic cables and identify potential issues with property owners in advance.

Underground Utilities	Information on the location, depth, and type of other underground utilities like gas lines, electrical cables, etc., can help ISPs avoid interfering with these services during the installation of fibre optic cables.
Stream and Culvert Crossings	Information about these crossings can help ISPs plan for potential challenges that might arise when installing fibre optic cables near or across water bodies.
Underground Water and Sanitary Assets	Information about the location, depth, and condition of water and sanitary pipes can help ISPs avoid damaging these assets during installation.
Underground Storm Assets	Information about storm drains can help ISPs plan for potential challenges related to water flow and flooding.
Structural Assets	This includes information about bridges, tunnels, and other structures that might affect the installation of fibre optic cables.
Environmental Assets	Information about natural features like environmentally sensitive areas, soil types, rock lines and groundwater levels can help ISPs plan routes that minimize environmental impact.

Anticipated Outcomes:

- Exchanging information on planned works will lead to enhanced collaboration and reduced redundancy in engineering and permitting efforts. This will streamline the planning and execution phases of AHSIP deployment.
- The integration of geospatial data sources from multiple parties and infrastructure sources results in a streamlined process for route selection and the most efficient option to select for underground or aerial locations of broadband infrastructure placement.

3.5 Provide Project Workplans and Schedules to Maximize Resources

Issue:

- Uncoordinated work schedules and unclear project plans lead to resource underutilization and project delays.
- Municipal governments are subject to numerous regulatory processes that make sure their investment in existing assets and service enhancement is done in a cost-effective manner and meets council approved levels of service. These regulatory processes can be time-consuming and risk causing delays to the program. Due to the regulatory pressure municipalities face, there is a need for detailed project plans to be developed as early as possible to prevent delays.

Recommendation:

- Provide project workplans and schedules for deployment well in advance, allowing for optimal resource allocation, and minimizing conflicts.
 - Most municipal governments engage in capital planning processes with third-party utility companies for their participation and input into project development to manage effective one-time delivery of construction activity.
 - Public Utility Coordination Committee (PUCC) meetings are an important dimension of municipal stewardship of public property and are used to encourage coordination of third-party utilities in present and future uses of public property.
 - PUCC meetings offers municipalities and users of municipal rights-of-way an opportunity to enter co-operative joint planning and co-ordination arrangements.
 - Joint planning efforts during PUCC meetings offers an opportunity for municipal governments to:
 - Communicate developments in priority public initiatives.
 - Co-ordination of projects and capital works plans (with a requirement for all members to provide long range plans for major capital works, road modification, paving programs, and major maintenance programs);
 - Standardization (including the development of standards and specifications for joint infrastructure builds);
 - Damage prevention and conflict resolution

- Development of an integrated mapping system
- ISPs are encouraged to participate in joint planning and co-ordination committees, in municipalities in which they have a significant AHSIP presence. ISPs should be able, in the context of such committees, to exchange information at a sufficient level of detail to facilitate the co-ordination process, without compromising competitively crucial information.
- Develop a delivery partner engagement process that is specific to the project being delivered, the resources required and the governance structure that has been agreed to by the ISP and municipal AHSIP delivery partners. The delivery partner engagement process should feature the following key elements to define a mutually beneficial program for each partner.
 - Kick-off session to align on outcome, scope and scale of the program: A crucial initial step for ISPs and municipalities to meet key contacts and establish a shared understanding of the geographical boundaries and premises connected through AHSIP. This session allows both parties to align their goals and expectations, ensuring a smooth collaboration throughout their AHSIP project.
 - Right-of-way Access Alignment: Outline the terms and conditions for ISPs to access and utilize public rights-of-way and other municipal infrastructure for deploying connectivity infrastructure. These agreements establish the framework and guidelines for the project, addressing issues such as construction, maintenance, fees and adherence to all provincial and municipal traffic management regulations and obligations must be followed.
 - Design Standards & Permitting Processes Alignment: Focuses on establishing uniform design standards and streamlining the permitting processes between ISPs and municipalities. Harmonizing the permitting processes reduces administrative burdens and delays, enabling a faster and more efficient deployment.
 - Work Schedule and Deployment Cadence Definition and Alignment: Involves setting a clear and coordinated timeline for the project. ISPs and municipalities need to define the work schedule, including milestones and deadlines, to promote synchronized deployment. This alignment allows municipalities to resource effectively, minimizing disruptions and maximizing efficiency.

This process needs to be iterative, as delivery partner engagement is dynamic and evolves with the project lifecycle. Each phase should be revisited periodically for all delivery partners to remain engaged, and that their concerns are addressed. In the context of a broadband project on municipal roads, it's particularly important to consider the regulatory environment, public impact, and the technical complexity of the project.

Anticipated Outcomes:

- Through the attendance at Public Utility Coordinating Committees (PUCC's) all parties will be informed of large capital programs and schedule AHSIP projects accordingly to meet the 2025 timeline.
- An effective delivery partner engagement process could contribute to efficient project execution, streamlined revision processes and enhanced project outcomes.
- Effective workplan and schedule sharing ensures that effective resourcing plans can be implemented for municipal and ISP delivery partners to efficiently utilize labor, materials, and equipment to meet project timelines.

3.6 Align on Standards for Permit Drawings and System/Tools to Submit Applications

Issue:

- There is not a common drawing standard that exists across Ontario municipalities. Most municipalities have standards, CAD systems, detail requirements and spatial referencing that have all grown organically.
- Determining the methodology for developing acceptable plans for submission will be critical in program success. The largest deliverable throughout the design phase of the program will be design documents that will be utilized for permit applications. These documents need to be highly controlled through quality control processes, field confirmation and rationalization with existing data sets.
- Plans that do not adhere to standards will cause schedule delay. This part of the process requires diligence, attention to detail and innovative methods to review and approve complete applications.

Recommendation:

- Integrated with the establishment of the project charter, a municipality's design standards relating to running lines and permit submissions should be aligned on between ISPs and municipalities. Additionally, uniform standards for permit drawings and the intended use of centralized systems/tools for application submissions should be agreed upon.
- ISPs need direct oversight of design subcontractors with an integrated quality control process for accurate permit submissions to municipalities.
- ISPs are recommended to track plan deficiencies being communicated by municipalities

early in the permit submission phase and collaborate with design contractors to continuously improve the permit drawing submissions to achieve peak cadences of permit throughput.

- Systems and Tools such as the Broadband One Window (BOW), a solution created by Infrastructure Ontario, should be considered for use to process permit submissions, and align all parties to the workflow.
 - The BOW platform helps municipalities manage and track municipal permit requests through the coordination platform and integrates municipal infrastructure data. The BOW has several functionalities to facilitate the permitting application and approval process including geospatial analytics to enable access to information in location-based analytics, reports & visualization to provide access to permitting status reports, and workflow & request management to help manage delivery partner interaction.
 - Municipalities can leverage the Municipal Permitting Functionality on BOW which shows a list of ongoing applications (both Municipal Consent Permits and Road Occupancy Permits) and their status. This feature allows ISPs to submit a new application, and municipalities to review, approve or send back the application to the ISP allowing them to address deficiencies and re-submit.
- Municipalities and ISPs should seek to establish standards, systems/tools and processes if they are currently not established by the municipality in which deployment is being undertaken.
- Further guidance and resources regarding aligning on standards for permit drawings and system/tools to submit applications are offered for ISPs and municipal partners in [Guideline 3.0](#). These resources have been developed based on publicly available information from reputable sources, industry standards and best practices.
- Topics and resources offered in Guideline 3.0 include the following:
 - Municipal Consent Application Process Activity Breakdown and Process Details
 - Basic and Project Specific Permit Drawing Requirements
 - Standard Utility Offsets Drawing Requirements
 - Sample Templates for Municipal Consent and Road Occupancy Permits (ROP) Applications and Inspection
 - As-Built Drawing Requirements and Records Management

Anticipated Outcomes:

- A streamlined application process will reduce the time and effort required for permit acquisition and contribute to faster project initiation.
 - Plan quality is controlled by the ISP proponent. Developing agreed upon submission standards, required elements and locations will have a beneficial contribution to the processing of large volumes of infrastructure permits.
 - Plans that had been through a quality control process will be constructible in the field thereby reducing contractor delay claims, mobilization, and material impacts.
- Having all parties align on drawing requirements from a technical, systems and detail requirements perspective will allow the project to proceed at the highest level of integration.

3.7 Develop a Field Adjustment Approach and Align on Restoration Expectations

Issue:

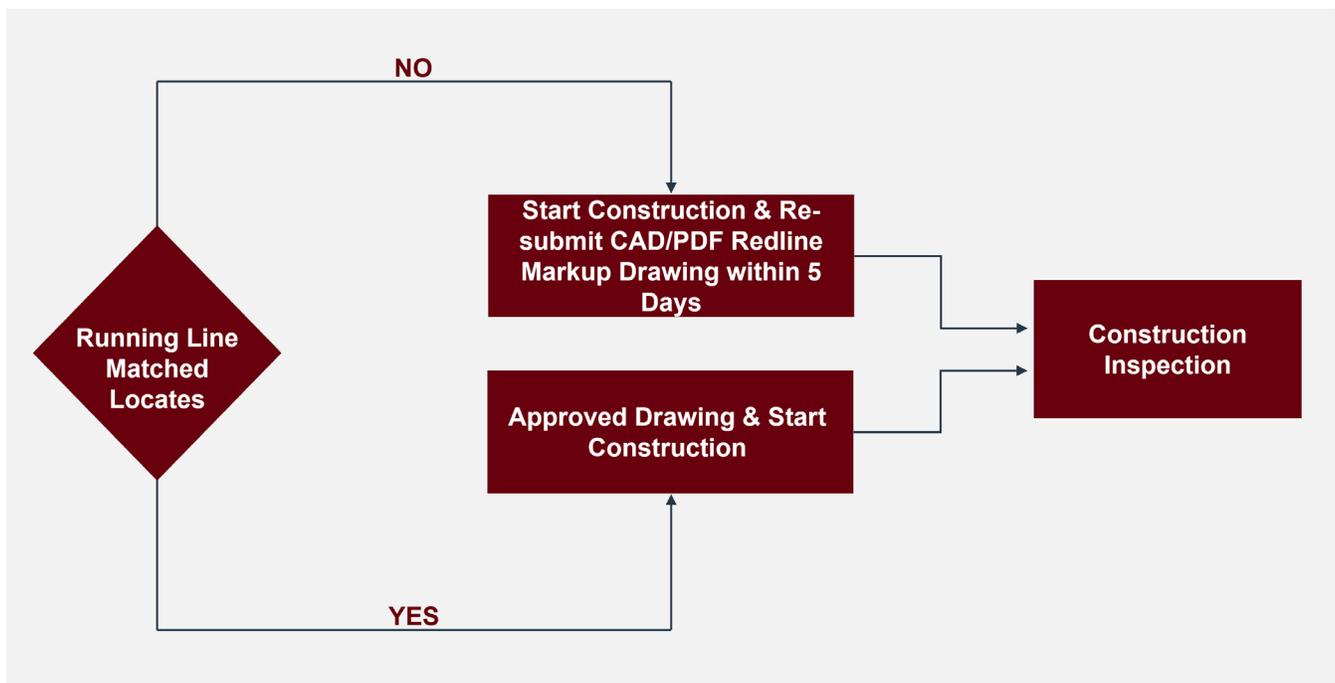
- Field variables often necessitate design adjustments, which can delay projects and lead to disputes over timelines and restoration expectations. As built records in Ontario have varying degrees of accuracy, and designers will use the best available records together with approved running lines to create permit drawings.
- Due to the volume of work that will be underway in peak periods of deployment, contractors will likely need to stop construction and mobilize resources to other areas if in-field construction findings necessitate a completely new application.
- Sections of municipal rights of way are left in a state of ongoing construction longer than required, potentially adding additional inspection or complaint management challenges.

Recommendation:

- Define a permit adjustment approval process that allows for quick field adjustments and approvals by authorized municipal staff and contractor personnel so that construction crews do not have to pause work significantly or resubmit permitting for minor adjustments.
- Municipal field staff should be given authorization to permit minor adjustments based on field conditions that allow the contractor's construction to continue while supporting agreed upon infrastructure separations and operational impacts. There should be a vertical and horizontal tolerance established for the alignment, and identification of situations that will require discussion with the municipality or other relevant parties.

- Authorized contractor field staff should maintain communication with authorized municipal staff to promptly inform them of the need for in-field adjustments to allow construction to continue. They should accurately document the redline adjustments required on the design plans, maintain effective communication with the design team or project manager to discuss and clarify any redline adjustments and include photographs, measurements, or any other relevant information that justifies the need for the changes.
- Once given temporary authorization to continue construction, the ISP should re-submit the required permit drawings for approval with redline adjustment markups to the municipality within an expedited timeframe (5 business days or less).

Figure 6: Field Adjustment Approvals Process Chart



- While municipalities may have varying standards for materials and quality of road restoration, ISPs are expected to adhere to the standards and material specifications set by the municipality in which they are constructing.
- ISPs and municipalities are encouraged to align upfront about the elements of hard surfaces (roads, driveways), soft surfaces (boulevards, ditches, private lawns), sidewalks and curbs that are expected to be restored. The responsibility of certain aspects of temporary and permanent restoration has variation across the province and should be clearly established between ISPs and municipalities.

- Particular attention should be made to define the acceptable means and methods for restoration to minimize public safety concerns, aesthetic disruptions, and resident complaints. Restoration methods and materials should be suitable for the application and meet quality standards set by the municipality.
- Expectations for timelines for restoration should be established between ISPs and municipalities. Upon receiving notice of construction completion, it typically takes 30-60 days for road authorities and ISP contractors to complete post-construction restoration of both hard and soft surfaces.
- Seasonality plays a role in restoration timelines, with construction completed between December and March requiring restoration in the Spring season.
- Temporary restoration of hard surfaces must prioritize safety and should use hot-mix asphalt immediately, although some road authorities may accept cold patch restoration methods. Granular material should not be left as the final surface. Further, an inspection process conducted by the municipality is customary for temporary restorations.
- Inspection protocols vary with each municipality, and it's recommended that roles and responsibilities between the ISP and municipality are defined at the beginning of deployment to allow for project completion and acceptance.
- Road restoration can be managed by having the ISP or its subcontractors undertake the restoration and provide a warranty period, or the municipality can conduct its restoration at a unit price and then bill the ISP. In larger cities, the municipality is typically responsible for the permanent restoration.

Anticipated Outcomes:

- Creating processes that allow for quick field adjustments will enhance efficiency and flexibility in managing field variables, and allow projects to remain in construction, on schedule and avoid costly delays.
- Efficient and effective management of restoration responsibilities minimize public safety concerns, resident complaints, and aesthetic disruption. Defining acceptable means and methods for restoration, as well as setting quality standards, allow for restoration to be carried out promptly and reduce any potential disputes or delays.

4.0 Fee and Cost Recovery Framework

To understand the fee and cost recovery framework in place for municipalities regarding broadband deployment, it is essential to understand the guidelines established by the Canadian Radio-television and Telecommunications Commission (CRTC) and the regulatory framework under Ontario Regulation 584/06 (Fees and Charges).

CRTC Guidelines on Cost Neutrality

The CRTC has established principles, notably through decisions such as CRTC 2001-23 and reaffirmed in 2019-316, concerning the use of municipal rights-of-way (ROW) by telecommunications carriers. These principles emphasize the principle of cost neutrality, where costs directly related to a carrier's infrastructure on municipal ROWs should be borne by the carrier, not municipal taxpayers. However, in specific circumstances, such as equipment relocation requested by the municipality, departing from this principle is deemed appropriate for assigning responsibility for costs.

Immediate Permitting, Inspection, and Road Restoration Fees

Municipalities are allowed to recover costs for:

- Permitting
- Inspection
- Road restoration

These costs can include staff time, systems, and the recovery of the loss of service life to pavement assets. The CRTC has supported reasonable permitting fees, allowing municipalities to recover the necessary costs associated with the telecommunications infrastructure permitting process.

O. Reg 584/06 on Fees and Charges

Ontario Regulation 584/06 allows municipalities to impose fees to recover costs for issuing permits related to placing works on a municipal highway and for cutting or digging up a municipal highway for such works. It does not allow charges for the "use of property" or land-based charges.

Long-Range Costs for Relocation and Work Around Issues

The CRTC acknowledges that municipalities may need to relocate telecommunications infrastructure for various reasons, such as road widening or construction projects. In these cases, the allocation of relocation costs can be shared, with a sliding scale approach applied to determine the municipality's responsibility for these costs over time. This approach considers the difficulty in predicting future

relocations and gradually reduces the municipality's responsibility, eventually applying the principle of cost neutrality after a set number of years.

Key Takeaways for Municipal Governments

Municipal governments have the right to recover costs directly related to the permitting, inspection, and restoration of roads due to telecommunications infrastructure work.

Fees for issuing and renewing municipal approval must be reasonable and are subject to CRTC guidelines.

While municipalities cannot charge land-based or occupancy fees for the use of ROWs by telecommunications carriers, they can impose fees to recover the reasonable costs associated with the works described.

In cases of infrastructure relocation requested by the municipality, a sliding scale approach to cost-sharing between the municipality and the telecommunications carrier is recognized, with the municipality's responsibility decreasing over time.

Municipal governments are encouraged to develop clear and reasonable fee structures for telecommunications permits and to plan for future infrastructure needs and potential relocations in alignment with CRTC decisions and provincial regulations.

Glossary

Aerial Infrastructure: Aerial infrastructure refers to the physical structures and components that are installed above ground level to support various communication, transportation, or utility systems. This can include overhead power lines, communication cables, antennas, or any other structures that are elevated or suspended in the air to enable the transmission of signals, transportation of goods, or provision of services.

Broadband One Window (BOW): A digital platform for all parties involved in the delivery of high-speed internet services in Ontario to design, procure, construct and manage provincially funded projects to facilitate broadband deployment. BOW expedites installation of high-speed internet infrastructure by providing a secure facility for all delivery partners to collaborate, upload data, share information, and submit and approve applications for provincially designated broadband projects.

Broadband: The term broadband commonly refers to high-speed internet access that is always on and faster than traditional dial-up access. Broadband includes several high-speed transmission technologies, such as fibre, wireless, satellite, digital subscriber line and cable. The CRTC defines universal service objective as having access to actual download speeds of at least 50 Mbps and actual upload speeds of at least 10 Mbps.

Canadian Radio-television and Telecommunications Commission (CRTC): The CRTC is an administrative tribunal that regulates and supervises broadcasting and telecommunications in the public interest. Their mandate given by the Parliament of Canada, and administered through the Minister of Canadian Heritage, focuses on achieving policy objectives established in the Broadcasting Act, Telecommunications Act and Canada's anti-spam legislation (CASL).

Computer-Aided Design (CAD): CAD data refers to the use of specialized software to create, modify, analyze, and share digital representations of physical objects or environments related to broadband infrastructure. This can include detailed drawings, maps, and models that depict the layout, design, and specifications of broadband networks, helping to facilitate accurate planning, documentation, and maintenance of broadband infrastructure.

Cost Neutrality: Cost neutrality refers to a principle that seeks to ensure that the costs associated with broadband deployment or expansion are fair and equitable among delivery partners.

Epoxy: Epoxy refers to a type of adhesive or resin that is used in fibre optic cable installations. Epoxy is commonly used to bond fibre optic connectors to the cable, providing a secure and durable connection that ensures optimal transmission of data signals.

Fibre Networks: Fibre networks are telecommunication networks that utilize fibre optic cables to transmit data at high speeds over long distances. These networks are designed to provide fast and

reliable internet connectivity, enabling users to access and transmit large amounts of data quickly, supporting bandwidth-intensive applications and services.

Fibre Optic Cables: Fibre optic cables are thin, flexible strands of glass or plastic that transmit data through the use of light signals, enabling high-speed and long-distance communication.

Field Adjustment: Field adjustment refers to the process of making physical changes or modifications to the network infrastructure or equipment in order to optimize performance or resolve issues. This can include activities such as adjusting signal levels, repositioning antennas, or replacing faulty components in the field.

Geographic Information System (GIS) Mapping: GIS mapping refers to the use of Geographic Information System technology to visualize and analyze broadband infrastructure, coverage, and availability data on a map. It allows for the identification of areas with broadband gaps, the assessment of network performance, and the planning of future broadband expansion projects based on spatial data.

Geospatial Data: Geospatial data can include details about the availability, coverage, and quality of broadband services in different areas, enabling analysis and decision-making related to broadband infrastructure planning and deployment.

Infrastructure Ontario (IO): Infrastructure Ontario (IO) is a Crown agency of the Province of Ontario that supports the Ontario government's initiatives to modernize and maximize the value of public infrastructure and real estate. IO upholds the government's commitment to renew public services and does so in co-operation with the private sector.

Internet Service Provider (ISP): An internet service provider, is the company that provides clients with internet access. ISPs can provide this access through multiple means, including dial-up, DSL, cable, wireless and fibre-optic connections. A variety of companies serve as ISPs, including cable providers, mobile carriers, and telephone companies.

Keyhole Restoration: Keyhole restoration refers to a method of repairing or upgrading broadband infrastructure without the need for extensive excavation or disruption to the surrounding environment. It involves accessing and working on the existing infrastructure through small openings or access points, minimizing the cost, time, and inconvenience associated with traditional excavation methods.

Local Distribution Company (LDC): Local distribution companies are responsible for distributing power at less than 50kV from the transmission system to homes and businesses across the Province of Ontario. For a map of Ontario's LDCs, visit the IESO's [Ontario Electricity Map](#).

Locates: Locates refer to the process of identifying and marking the location of existing

underground utilities, such as gas lines, electrical cables, or water pipes, before any excavation or construction work for broadband infrastructure begins. This is done to prevent accidental damage to these utilities during the installation or maintenance of broadband infrastructure, ensuring safety and minimizing disruptions to essential services.

Ministry of Infrastructure (MOI): The Ontario Ministry of Infrastructure is responsible for overseeing the province's plan to deliver effective and resilient infrastructure, guide investments in schools, hospitals, roads, bridges, transit and other critical services that are crucial to the everyday lives of Ontarians. people's daily lives. MOI is committed to the expansion of broadband and cellular services across the province, including rural, northern and Indigenous communities.

Memorandum of Understanding (MOU): A Memorandum of Understanding is a non-binding agreement between two or more parties that outlines their intentions, goals, and responsibilities regarding the development, deployment, or management of broadband infrastructure. It serves as a preliminary document that sets the framework for further negotiations and collaboration, providing a clear understanding of the parties' expectations and objectives.

Municipal Access Agreement (MAA): A Municipal Access Agreement refers to a contractual agreement between a broadband service provider and a local government or municipality. It outlines the terms and conditions for the provider to access public rights-of-way or municipal infrastructure to deploy and maintain broadband infrastructure.

Municipal Consent (MC): Municipal consent refers to the formal approval or authorization granted by local government entities, such as cities or municipalities, for the deployment or expansion of broadband infrastructure within their jurisdiction.

Pavement Asset: A pavement asset refers to the physical infrastructure component of a road or pavement that can be utilized for the installation and deployment of broadband infrastructure. This includes the surface of the road, its sublayers, and any associated structures or components that can be leveraged for the placement of fibre optic cables or other broadband equipment.

Permit Drawings: Permit drawings are detailed technical drawings or plans that are submitted to obtain the necessary permits and approvals for the installation of broadband infrastructure.

Pre-engineering efforts: Pre-engineering efforts in the context of broadband refer to the initial planning and assessment activities undertaken before the actual design and construction of broadband infrastructure. These efforts typically involve conducting feasibility studies, site surveys, and technical assessments to determine the most viable and cost-effective approach for deploying broadband networks.

Rights of Way (ROW): Rights of way refers to a common and public highway, street, avenue, parkway, driveway, square, place, bridge, viaduct or trestle, any part of which is intended for or used

by the public for the passage of vehicles and includes the area between the lateral property lines thereof.

Running Lines: Running lines refers to the physical pathways or routes through which broadband cables or wires are installed and run to connect different locations. These lines may include underground conduits, aerial poles or towers, or other designated routes that facilitate the transmission of broadband signals from one point to another.

Site restoration: Site restoration refers to the process of returning a location or area to its original or desired condition after the installation, maintenance, or repair of broadband infrastructure.

Technical Assistance Team (TAT): The Technical Assistance Team provides technical and administrative assistance to partners and works to improve communications and coordination to support the implementation of designated broadband projects. TAT provides three core services; permits and approvals coordination, broadband stakeholder support and disputes and resolution coordination.

Telecommunications Providers: Telecommunication providers are companies or organizations that offer communication services to individuals, businesses, or other entities.

Transportation Association of Canada (TAC): The Transportation Association of Canada is a national association that brings together transportation professionals and stakeholders in Canada. In the context of broadband, TAC may play a role in providing guidance, standards, and best practices for the deployment of broadband infrastructure along transportation corridors, such as highways or railways, to support intelligent transportation systems, connected vehicles, and other broadband-enabled transportation technologies.

Underground Infrastructure: Underground infrastructure refers to the network components and facilities that are installed below ground level to support the transmission of high-speed internet. This includes the placement of fibre optic cables, conduits, and other equipment in underground pathways to provide reliable and efficient broadband connectivity to homes, businesses, and other users.

Unshrinkable Fill: Unshrinkable fill refers to a type of material or substance that is resistant to shrinkage or compaction under certain conditions. It is commonly used in construction and engineering applications to provide stability and support, particularly in areas where settlement or soil compaction may occur.

Utility Coordinating Committees (UCCs): Utility Coordinating Committees refer to collaborative groups or committees that bring together various utility companies, government agencies, and other stakeholders involved in infrastructure development and maintenance. UCCs work to coordinate

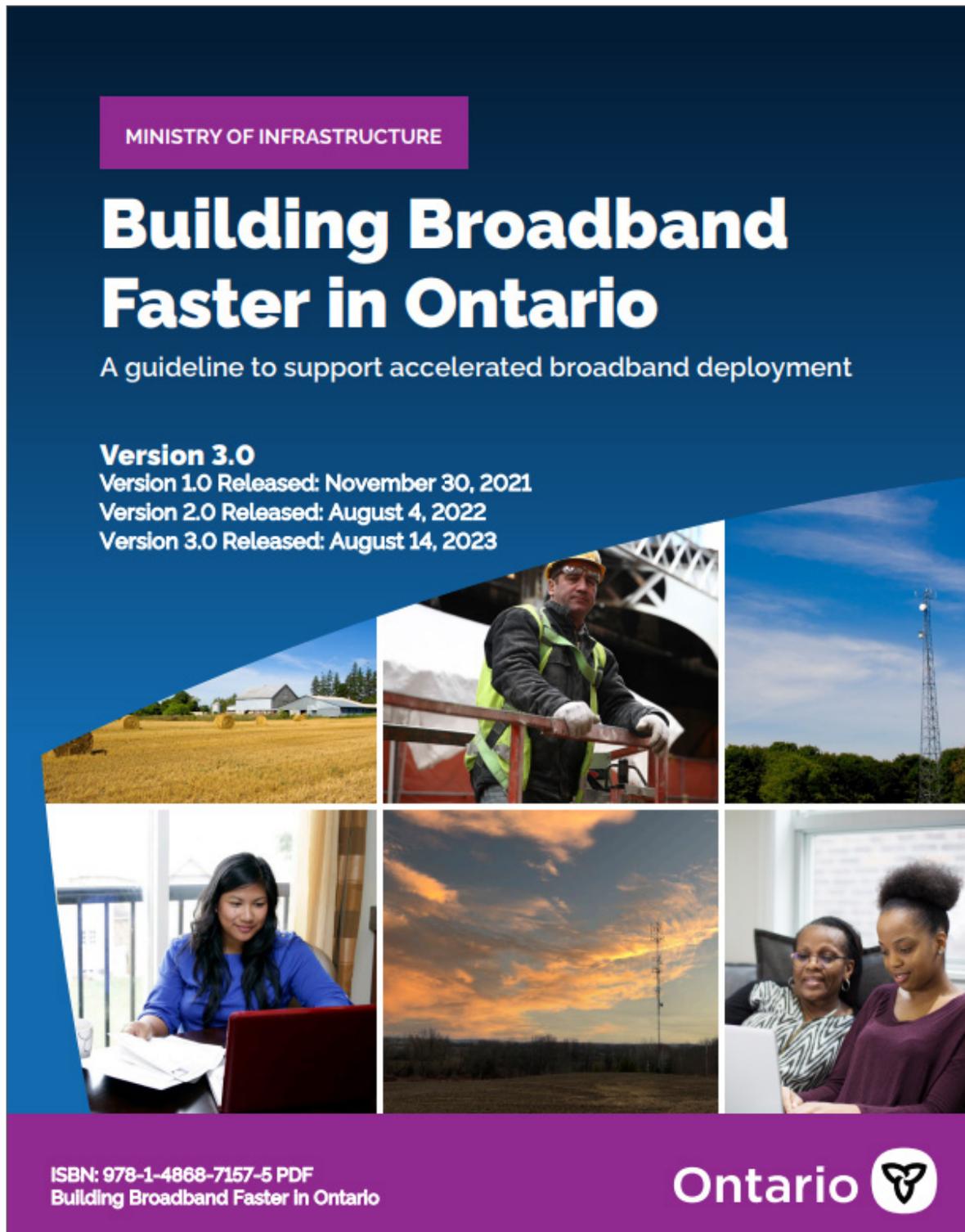
and streamline the planning, design, and construction of utility projects, including broadband infrastructure.

Vibratory Plowing: Vibratory plowing is a trenchless method used for the installation of underground broadband cables or conduits. It involves using a specialized machine that vibrates a blade or plow into the ground, creating a narrow slit or trench to lay the cables or conduits, minimizing disruption to the surface and reducing the need for extensive excavation.

Appendices

Appendix 1: Guideline 3.0 under the BBFA

<https://files.ontario.ca/moi-building-broadband-faster-in-ontario-guideline-v3-en-2023-08-14.pdf>



Appendix 2: Federation of Canadian Municipalities Telecommunications and Rights of Way Handbook.

[A handbook for municipalities](#)



Appendix 3: Fees and Charges under the Municipal Act 2001, O. Reg 584/06

<https://www.ontario.ca/laws/regulation/060584>

[Français](#)

Municipal Act, 2001

ONTARIO REGULATION 584/06

FEEES AND CHARGES

Consolidation Period: From April 1, 2022 to the [e-Laws currency date](#).

Last amendment: [227/22](#).

Legislative History: [227/22](#).

This is the English version of a bilingual regulation.

CONTENTS

- [1.](#) Limitation re Crown
- [2.](#) Capital costs
- [3.](#) Planning applications
- [4.](#) Elections
- [5.](#) Taxes for school purposes
- [6.](#) Taxes for upper-tier purposes
- [7.](#) Board of management
- [8.](#) Telecommunications services and activities
- [9.](#) Electricity and gas services and activities
- [10.](#) Fees or charges, permits for works described in ss. 8 and 9
- [11.](#) Police record checks re volunteers

Limitation re Crown

1. A municipality and a local board do not have power under the Act to impose fees or charges,

(a) on a class of person that is comprised solely of the Crown; or

(b) on the Crown,

(i) for ensuring court security under section 137 of the *Police Services Act* or otherwise, or

(ii) for escorting and conveying persons in custody. O. Reg. 584/06, s. 1.

Capital costs

2. (1) A municipality and a local board do not have power under the Act to impose fees or charges to obtain

revenue to pay capital costs, if as a result of development charges by-laws or front-ending agreements under the *Development Charges Act, 1997* or a predecessor of that Act that was passed or entered into before the imposition of the fees or charges, payments have been, will be or could be made to the municipality or local board to pay those costs. O. Reg. 584/06, s. 2 (1).

(2) For the purpose of subsection (1),

“capital costs” has the same meaning as it has in the *Development Charges Act, 1997*; (“dépenses en immobilisations”)

“payments” do not include amounts the municipality or local board has refunded or is required to refund under the *Development Charges Act, 1997*. (“paiements”) O. Reg. 584/06, s. 2 (2).

Planning applications

1. A municipality and a local board do not have power under the Act to impose fees or charges for the processing of applications made in respect of planning matters under the *Planning Act*. O. Reg. 584/06, s. 3.
- 2.

Elections

4. (1) A municipality and a local board do not have power to impose fees or charges on another municipality or local board under the Act that relate to the conduct of an election under the *Municipal Elections Act, 1996*. O. Reg. 584/06, s. 4 (1).

(2) Subsection (1) does not apply to the power of a municipality or local board to impose fees or charges on another municipality or local board that relate to the conduct of an election under the *Municipal Elections Act, 1996* to obtain the opinion of the electors on a question the other municipality or local board requires to be submitted under subsection 8 (1) or (2) of that Act. O. Reg. 584/06, s. 4 (2).

Taxes for school purposes

3. A municipality and a local board do not have power to impose fees or charges on the Crown or on a school board under the Act that relate to the collection of real property taxes for school purposes. O. Reg. 584/06, s. 5.

Taxes for upper-tier purposes

4. A municipality and a local board do not have power to impose fees or charges on an upper-tier municipality under the Act that relate to the collection of real property taxes for the purposes of the upper-tier municipality. O. Reg. 584/06, s. 6.

Board of management

7. A board of management established by a municipality for an improvement area under section 204 of the Act may impose fees or charges under the Act only on the following classes of persons:

1. Owners of rateable property in the improvement area for which the board of management was established, if the property is in a prescribed business property class for the purposes of sections 204 to 214 of the Act.
2. Tenants of property described in paragraph 1. O. Reg. 584/06, s. 7.

Telecommunications services and activities

8. (1) A municipality and a local board do not have power under the Act to impose a fee or charge on a person who owns or operates a telecommunications business carrying on business in Ontario for services or activities, costs payable or the use of property with respect to wires, cables, poles, conduits, equipment, machinery or other works that,

- (a) are or will be located on a municipal highway; and

(b) are or will be used as part of the telecommunications business. O. Reg. 584/06, s. 8 (1).

(2) For the purpose of subsection (1),

“telecommunications” has the same meaning as in subsection 2 (1) of the *Telecommunications Act* (Canada). O. Reg. 584/06, s. 8 (2).

Electricity and gas services and activities

9. A municipality and a local board do not have power under the Act to impose a fee or charge on a generator, transmitter, distributor or retailer, as these terms are defined in section 2 of the *Electricity Act, 1998*, or on a producer, gas distributor, gas transmitter or storage company, as these terms are defined in section 3 of the *Ontario Energy Board Act, 1998*, for services or activities, costs payable or the use of property with respect to wires, cables, poles, conduits, pipes, equipment, machinery or other works that,

(a) are or will be located on a municipal highway; and

(b) are or will be used as part of the business of the generator, transmitter, distributor, retailer, producer, gas distributor, gas transmitter or storage company, as the case may be. O. Reg. 584/06, s. 9.

Fees or charges, permits for works described in ss. 8 and 9

10. Nothing in subsection 8 (1) or section 9 prevents the imposition of fees or charges to recover the municipality’s or local board’s reasonable costs for issuing permits with respect to the works described in those provisions,

(a) to place the works on a municipal highway; and

(b) to cut the pavement of or otherwise dig up a municipal highway for the works. O. Reg. 584/06, s. 10.

Police record checks re volunteers

11. A municipality and a local board do not have power under the Act to impose a fee or charge in respect of any matter for which a person may not charge a fee under subsection 7 (6) of the *Police Records Check Reform Act, 2015*. O. Reg. 227/22, s. 1.

12. OMITTED (PROVIDES FOR COMING INTO FORCE OF PROVISIONS OF THIS REGULATION). O. Reg. 584/06, s. 12.

Appendix 4: City of Toronto Universal Equipment Placement Guidelines

<https://www.toronto.ca/legdocs/mmis/2017/cc/bgrd/backgroundfile-109275.pdf>



This guide is a reference for cabinet, grade level or other utility infrastructure.

Appendix 5: O. Reg 184/23 - BBFA Access Agreements

<https://www.ontario.ca/laws/regulation/r23184>

ONTARIO REGULATION 184/23

made under the

BUILDING BROADBAND FASTER ACT, 2021

Made: June 29, 2023

Filed: June 30, 2023

Published on e-Laws: June 30, 2023

Published in The Ontario Gazette: July 15, 2023

AMENDING O. REG. 436/22

(DEFINITIONS AND PRESCRIBED PROVISIONS)

1. Ontario Regulation 436/22 is amended by adding the following section:

Municipal service and right of way access application

5.1 (1) For the purposes of section 10.1 of the Act, a municipality is not permitted to require that a proponent enter into any agreement with the municipality.

(2) Despite subsection (1), a municipality is permitted to require that the proponent is to,

(a) commit, in writing or otherwise, to taking steps as soon as reasonably possible to negotiate and finalize, in good faith, an agreement with the municipality in connection with the municipal service and right of way access under section 10.1 of the Act, if the municipality requests this agreement with the proponent; and

(b) comply with an agreement described in clause (a).

(3) Despite subsection (1), a municipality is permitted to require that the proponent obtain the following, as may be applicable:

1. Building permits.
2. Road occupancy permits.
3. Utility cut permits, road cut permits, or both.
4. Municipal consent permits.

5. Right of way activity permits.

6. Any other municipal permits that may be necessary for the construction and deployment of the designated broadband project.

(4) If a proponent refuses to comply with a requirement described in subsection (2) or (3), the municipality is permitted to do either or both of the following:

1. Treat the refusal as a failure of the proponent to comply with a condition of a municipality and not issue the applicable consent, permit or other approval under clause 10.1 (3) (a) of the Act.
2. Treat the refusal as a material deficiency or material issue for the purposes of clause 10.1 (3) (b) of the Act.

Commencement

2. This Regulation comes into force on the later of July 1, 2023 and the day this Regulation is filed.

Made by:

Pris par :

La ministre de l'Infrastructure,

KINGA SURMA

Minister of Infrastructure

Date made: June 29, 2023

Pris le : 29 juin 2023



Digital Twin
Ontario

DigitalTwinOntario.ca

info@digitaltwinontario.ca

