



Staff Report

Planning & Development Services – Planning Division

Report To: Committee of the Whole
Meeting Date: June 15, 2021
Report Number: PDS.21.057
Title: Recommendation Report – Request for Municipal Concurrence for a Telecommunication Tower – 397323 11th Line (P2968)
Prepared by: Travis Sandberg, Planner I

A. Recommendations

THAT Council receive Staff Report PDS.21.057, entitled “Recommendation Report – Request for Municipal Concurrence for a Telecommunication Tower – 397323 11th Line (P2968)”;

AND THAT Council support the concurrence and installation of the proposed mono-pole telecommunication tower facility and forward the following comments to ISED Canada for their consideration:

1. That the applicant prepares an Environmental Impact Study demonstrating no negative impact on the Significant Woodlands, to the satisfaction of the Grey Sauble Conservation Authority;
2. That, prior to installation, the applicant provides a letter to the Town of The Blue Mountains Planning and Development Services Department agreeing to completely dismantle and remove the facility from the subject lands upon termination of its use;
3. That the applicant provides one (1) set of scaled engineering drawings, stamped and certified by a professional engineer, of the proposed support structure indicating the construction specifications to the Town of The Blue Mountains Planning and Development Services Department;
4. That the applicant obtain an Entrance Permit from the Town of The Blue Mountains for any new entrances proposed to the site; and
5. That the applicant obtain a Site Alteration/Fill Permit, in accordance with Municipal By-law 2002-78, as amended, as may be required.

B. Overview

The purpose of this report is to provide Council with a summary of public consultation and a recommendation regarding a proposed Telecommunication Tower located on lands municipally known as 397323 11th Line.

C. Background

Planning Services received a request for municipal concurrence on a proposed new telecommunications tower. The tower is proposed to be 50 metres in height and includes a fenced ground-level compound to house the tower base and associated equipment.

The subject lands are generally located at the intersection of Highway 26 West and the 11th Line, west of the boundary of the Primary Settlement Area boundary of Thornbury and are municipally known as 397323 11th Line. The property is approximately 27ha in area and currently contains one single detached dwelling unit and extensive tree cover. A location map and aerial photograph of the subject lands is provided below (see Figures 1 and 2).

Figure 1: Location Key Map

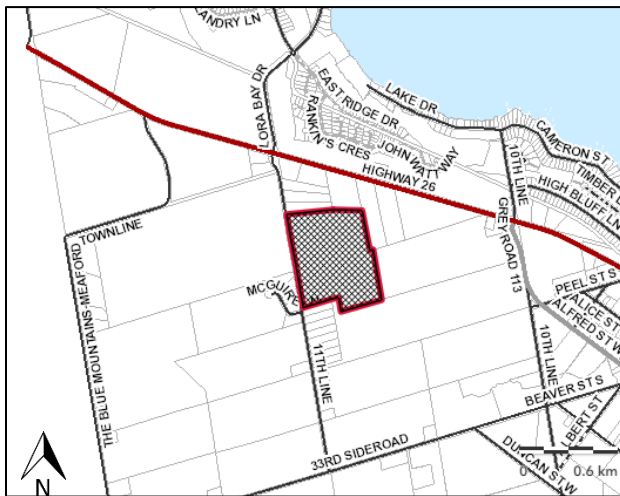


Figure 2: Aerial Photo (ca. 2019)



Surrounding land-uses include existing rural residential uses on the 11th Line, agricultural uses, and rural employment uses. The Lora Bay Golf Course and residential uses are located north of the Highway 26 West right-of-way.

The tower mast and ground-level compound is proposed to be located in the north-east corner of the subject property at a setback of 5.0m from the rear (east) and interior side (north) property lines. A 4.0m wide driveway is proposed to be constructed on the subject lands in order to provide access for maintenance purposes and will have an entrance onto the 11th Line (see Attachment 1). The intent of the proposed location is to provide an improved wireless network and enhanced service coverage along the Highway 26 West corridor, to the Lora Bay area, and to the westerly portion of the Thornbury Settlement Area. It is noted that a residential dwelling unit is located at 207542 Highway 26 West at a distance of approximately

180m from the proposed tower location. The applicant has secured confirmation from Rogers Communication to colocate on the proposed tower, negating the need for additional tower masts in the area.

D. Protocol for Establishing Telecommunication Facilities

Telecommunication facilities are federally regulated by Innovation, Science and Economic Development Canada ('ISED Canada'). As a federal undertaking, Bell Mobility is required by ISED Canada to consult with local land use authorities during the site selection process for new telecommunication facilities. The consultation process provides an opportunity for municipalities to review the proposal within the context of local land use issues and provide recommendations for conditions of approval to ISED Canada.

The Town of The Blue Mountains *Protocol for Establishing Telecommunication Facilities* ('the Protocol') outlines the local consultation process applicants must follow to establish or expand such uses within the municipality.

The Protocol includes site selection criteria and requirements for pre-consultation and public notice/consultation, which must be satisfied prior to Council providing their support to ISED Canada for the proposed tower. The intent of this process is to ensure potential adverse impacts posed by visually incompatible, or environmentally harmful, support systems are limited, while encouraging the growth and expansion of wireless networks throughout the municipality.

The following sections describe the stages of the review process established by the Municipal Protocol and includes information as to how each has been satisfied by the applicant.

Preliminary Consultation

Applicants seeking to establish new telecommunication facilities within the Town of The Blue Mountains are required to consult with Municipal Planning Staff prior to submitting a formal proposal. This pre-consultation stage allows the municipality to conduct a preliminary review of the proposed service area in order to identify potential colocation opportunities, determine areas of sensitivity, and potential land-use conflicts.

A pre-consultation meeting for this proposal was held on January 7, 2021. The pre-consultation identified the Highway 26 West corridor as both a municipal priority service corridor as well as an existing gap in the Bell Mobility service network.

The applicant identified two potential sites within a 6km radius of the subject lands which were reviewed for colocation opportunities. The first site being a 100m tall Rogers Guyed Tower, located approximately 3.8km west of the proposed tower location (317394 3rd Line, Meaford Ontario), and the second being a 34m tall Bell and Rogers Tower located at 122 Hoffman Street, Thornbury, approximately 4.5km east of the proposed location.

Ultimately, it was determined by the applicant that colocation on the existing tower at the first identified location would not resolve the coverage gap identified in Thornbury west, the Lora

Bay Area, or through the targeted portion of the Highway 26 West corridor. Similarly, colocation on the second identified location already contains Bell technology and is too far away from the targeted service area to provide any service improvements. A complete review of colocation opportunities is provided in the submitted Site Selection and Justification Report (see Attachment 2).

Following the colocation and preliminary consultation discussions, the applicant moved forward with submission of a formal request for municipal concurrence for the subject property.

Determining Sensitivity

In accordance with the Municipal Protocol, all applicants for new tower locations are required to submit a Site Selection Report which considers the criteria outlined by the Protocol. The report must demonstrate consideration of the proximity to sensitive land uses, environmental impacts, impacts on short-range and long-range viewscales, potential off-site impacts, and low impact tower design.

Visual Impact

The submitted Site Selection and Justification Report satisfies the requirements of the Protocol. Specifically, the report identifies all potential colocation opportunities within 6km of the subject lands, considers surrounding land uses, and considers mitigation of visual impacts through location and tower design. The facility is proposed to be located outside of urban/residential areas on a large rural property that is characterized by significant tree cover. The combination of existing tree stands and the substantial setbacks from public rights-of-way, approximately 280m and 200m from the 11th Line and Highway 26 West right-of-way, respectively, provide appropriate mitigation of potential visual impact of the tower from street-level.

Further to the physical site characteristics and tower siting, the monopole design and colour of the tower further contributes to reduced visual impact than might otherwise be incurred through more traditional lattice-style communication towers. Alternative designs were also considered, included a “mono pine”, wherein the tower is disguised as a pine tree, however, it was determined that due to the height of the tower in relation to existing trees on the property the mono pine would ultimately be more intrusive when considering visual impacts.

In terms of short-range and long-range viewscales, the applicant provided photo simulations of the proposed tower as part of their submission and public meeting presentation. The photo simulations are included in this report below as Figure 3 and Figure 4. In review of the photo simulations, it is noted that the greatest potential for visual impact would be with respect to short-range viewscales heading west on Highway 26 West. However, due to existing tree cover and substantial setbacks from the Highway 26 West right-of-way, the tower does not appear to dominate the visual landscape of the corridor. With respect to long-range viewscales, the tower is essentially not visible from the top of the escarpment when looking towards Georgian Bay and Thornbury and is appropriately blended with the landscape.

Figure 3: Photo Simulation - Short-range Viewscape of Highway 26 Heading West



Figure 4: Photo Simulation – Long-range Viewscape from Escarpment



Environmental Sensitivity

Comments received from the Grey Sauble Conservation Authority indicate that a portion of the subject lands along the southerly property line is regulated under Ontario Regulation 151/06, however, the proposed tower location is not within this regulated area. It is further noted that the County of Grey Official Plan, 2019, identifies a portion of the property contains significant woodlands. As such, the Grey Sauble Conservation Authority recommends that an Environmental Impact Study (EIS) be completed to demonstrate that the proposed telecommunications tower will have no negative impacts to the woodlands or its ecological function. It is noted that the proponent is in the process of completing the recommended EIS, as recommended by the Grey Sauble Conservation Authority.

No other potential matters of environmental sensitivity have been identified on the site. It is recommended that Council provide concurrence on the proposed telecommunication facility and recommend to ISED Canada that final approval of the facility be conditional on completion of an EIS demonstrating that there will be no negative impacts on the woodlands.

Land Use Compatibility

Although telecommunication facilities are not subject to the auspices of the *Planning Act*, it is the policies created under this Act that establish and guide development within the community. As such, Planning Staff did consult the appropriate Provincial, County, and local planning policy documents in order to determine the land use compatibility for the proposed telecommunication facility.

Provincial Policy Statement (2020)

The Provincial Policy Statement (PPS) provides policy direction on matters of provincial interest related to land use planning and development and provides for appropriate development while protecting the resources of the province, public health and safety, and the quality of the natural and built environment. The policies of the PPS require infrastructure to be provided in a coordinated, efficient and cost-effective manner while accommodating projected needs. The use of existing infrastructure shall be considered prior to the construction of a new support structure, and any new facilities shall be strategically placed in order to support the effective and efficient delivery of services and shall remain available for colocation opportunities for other service providers.

Planning Services is satisfied that the proposed telecommunication facility is consistent with the direction of the PPS as all existing colocation opportunities have been evaluated by the proponent and the proposed location for the new support structure will provide an increased level of wireless service in a priority service corridor within the municipality. There are no known or anticipated impacts on resources of natural heritage features of provincial interest, and an EIS is recommended to be completed to demonstrate no negative impacts on the identified woodlands, to the satisfaction of the Federal Government prior to final approval being granted by ISED Canada. Figure 6 and Figure 7 below demonstrate the existing and resulting LTE Wireless service levels in the target area as a result of the installation of the proposed facility.

Figure 5: Existing Service Levels

LTE1900 RSRP Coverage Improvements (Before)

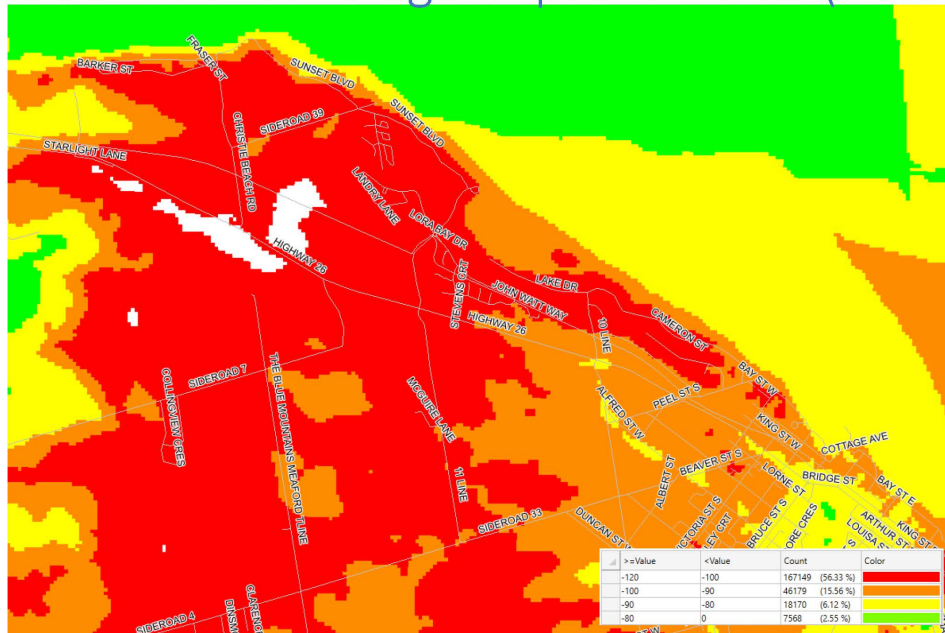
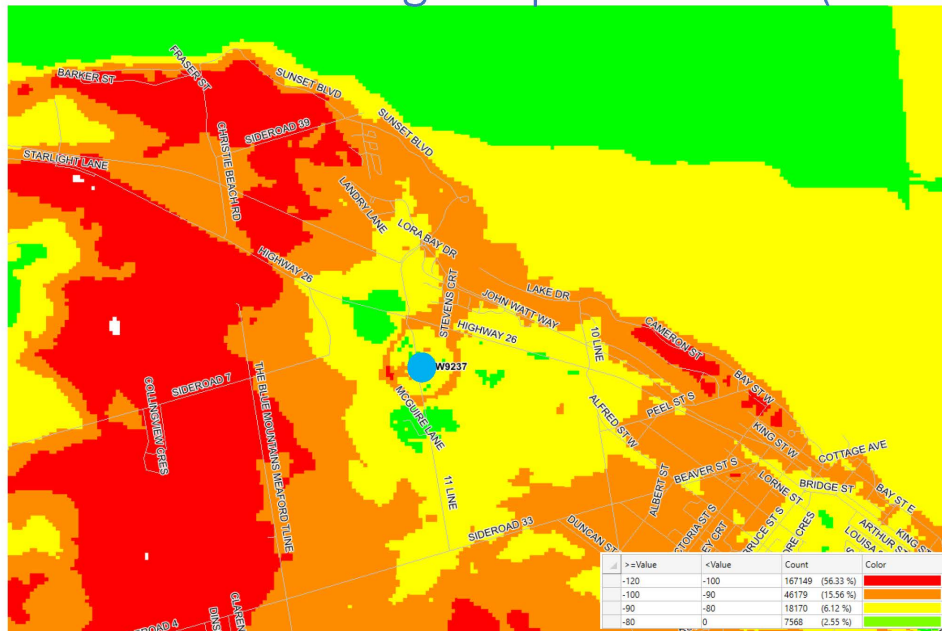


Figure 6: Resulting Service Levels

LTE1900 RSRP Coverage Improvements (After)



The Niagara Escarpment Plan (2017)

The subject lands are not located within the Niagara Escarpment Plan Area.

The County of Grey Official Plan

The majority of the subject property is designated *Rural*, with the southerly portion being designated *Special Agriculture* per the County of Grey Official Plan and also identifies *Significant Woodlands* on the subject property (see Figure 7 and Figure 8).

Figure 7: County Official Plan Designation

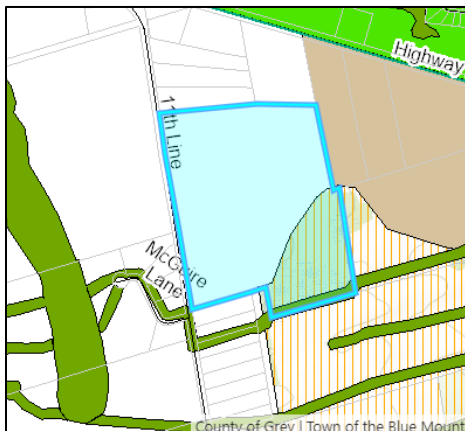


Figure 8: Significant Woodlands per County Official Plan



Section 7.4 of the County Plan outlines development policies within and in proximity (120m) to identified Significant Woodlands. It is noted that the proposed tower location is approximately 200m from the identified Significant Woodlands on the property, however, it is located within 120m of significant woodlands identified on the adjacent parcel. Because of this proximity, an EIS has been recommended by the Grey Sauble Conservation Authority.

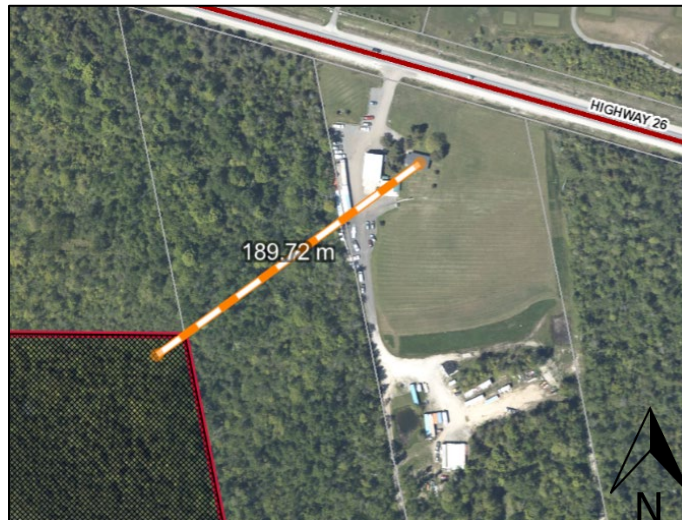
Section 8.9.4 of the County Plan provides policies and objectives with respect to telecommunication infrastructure in the County. The Plan identifies high-quality telecommunication services and improved coverage within the County's settlement areas and rural areas as the key to future economic growth and development of the County. Telecommunication infrastructure is encouraged and supported throughout the County. New tower facilities are encouraged to locate on existing lots of records by means of easement, right-of-way, or long-term lease. It is also a preference of the County Plan that new towers be located 250m from all residential zones and dwellings wherever possible, unless necessary to provide adequate service to such areas.

The proposed tower is located a minimum of 270m from the nearest residentially zoned property, which is located at 207525 Highway 26 West. It is noted that a residential dwelling unit currently exists on the property located at 207542 Highway 26 West and is approximately 190m from the proposed tower location (see [Figure 9](#) and [Figure 10](#)).

Figure 9: Proximity to Nearest Residentially Zoned Property



Figure 10: Proximity to Nearest Residential Dwelling Unit



It is noted that the property located 207542 Highway 26 West is also utilized for commercial purposes, specifically for automotive repair and accessory storage but also has a dwelling. Following discussion with the proponent, it has been submitted that relocating the tower further interior to the property to increase the distance from the dwelling at 207542 Highway 26 West may cause interference with the tower's signal propagation due to the topography of the Escarpment to the west of the site. This would also impact the efficiency of coverage along the Highway 26 West transportation corridor.

Planning Services is satisfied that the proposed telecommunication tower is consistent with the County of Grey Official Plan Policy 8.9.4(5)(c), as this policy identifies a 'preferred' 250m setback, where the intended service improvements will not be impacted. Given the generally rural nature of the area and considering the existing non-residential uses on the property located at 207542 Highway 26 West, Planning Services is satisfied that the proposed setback distance is appropriate and consistent with the intent of Policy 8.9.4(5)(c) of the County of Grey Official Plan. It is also noted that there are no existing towers within two kilometers of the

proposed location. Planning Services is satisfied that the proposed telecommunications tower can be considered consistent with the intent of the County of Grey Official Plan.

The Town of The Blue Mountains Official Plan

The Town of The Blue Mountains Official Plan designates the subject lands as “*Rural*”, “*Special Agricultural*” and “*Hazard*”.

Telecommunications are considered *Infrastructure* for the purpose of the Official Plan. Specifically, the Official Plan defines *Infrastructure* as:

“Means physical structures (facilities and corridors) that form the foundation for development. Infrastructure includes: sewage and water systems, septage treatment systems, stormwater management systems, waste management systems, electricity generation facilities, electricity transmission and distribution systems communications/ telecommunications, transit and transportation corridors and facilities, oil and gas pipelines and associated facilities.”

Section B1 of the Official Plan identifies that public or quasi-public uses shall be permitted in all land use designations, with the exception of the Wetlands and Hazard Lands designations of the Official Plan. The definition of *Public or Quasi-public uses* contained in the Official Plan includes “*uses carried out by Federal or Provincial ministries or companies subject to Federal and Provincial control*” (pg. 263, *Official Plan*, 2016).

Section B1(d) of the Plan further specifies that where companies subject to federal or provincial control propose a new wireless communication facility, it is the policy of the Plan to encourage where feasible and appropriate:

- i) the screening of antennas and towers from view from roads or scenic vistas through landscaping, fencing or other architectural screening;
- ii) the use of innovative design measures such as the integration of such uses with existing buildings or among existing uses;
- iii) collocation with other service providers;
- iv) locations on existing infrastructure such as water towers or utility poles; and,
- v) locations away from sensitive land uses.

Surrounding land uses to the proposed tower site generally consist of rural land uses, with select rural residential uses. It is noted that, with the exception of the residential dwelling unit located at 207542 Highway 26 West, all residential dwelling units are setback a minimum of 250m from the proposed installation.

While visual impacts are adequately mitigated through siting, screening, and tower design, any health concerns regarding exposure to radio-frequencies are mitigated through Health Canada’s Code 6 regulations, which require all output waves to be considerably lower than the lowest amount posing risk to human health. All telecommunication facilities must comply with these federal regulations throughout their lifespans.

Planning Staff are satisfied that the proposed site and tower design are appropriate and consistent with the intent and purpose of the Official Plan and provides adequate consideration of adjacent sensitive uses in terms of visual and environmental impact, and that the applicant has exhausted all appropriate and feasible opportunities to collocate on existing infrastructure/towers.

Zoning By-law 2018-65

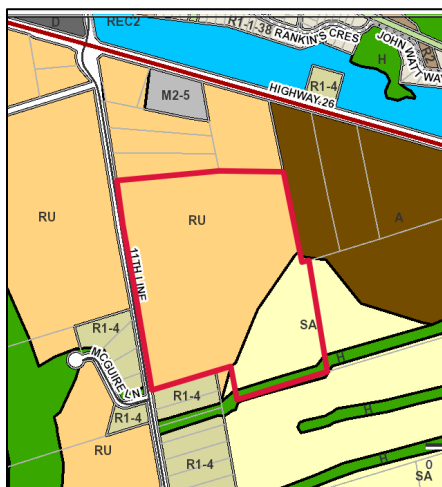
Zoning By-law 2018-65 zones the subject lands as *Rural, Special Agricultural, and Hazard*. An excerpt of the zoning for the property is provided in Figure 11. Telecommunication facilities are defined as *Infrastructure* for the purpose of Zoning By-law 2018-65. Specifically, *Infrastructure* is defined as:

“Means physical structures (facilities and corridors) that form the foundation for development. Infrastructure includes: sewage and water systems, septage treatment systems, stormwater management systems, waste management systems, electricity generation facilities, electricity transmission and distribution systems, communications/telecommunications, transit and transportation corridors and facilities, oil and gas pipelines and associated facilities.”

General Provision 4.29(a) states that “nothing in [By-law 2018-65] prevents the use of any land, building or structure as a public street or for infrastructure”.

Based on the analysis and comments provided in this report, Planning Services is satisfied that the proposal maintains the intent of the By-law and is a compatible use of the property.

Figure 11: Zoning By-law 2018-65



Notice and Public Consultation

A public meeting was held virtually by the Town of The Blue Mountains on March 22, 2021. Notice of the Public Meeting was provided in accordance with the requirements of the

Protocol. Written and verbal comments were received from public agencies as well as area residents.

Comments were received from the following public agencies indicating no concerns or objections to the proposal:

- The County of Grey – provided that positive comments are received from the Grey Sauble Conservation Authority;
- The Grey Sauble Conservation Authority – subject to completion of an EIS demonstrating no negative impacts on the adjacent significant woodlands;
- Enbridge Gas; and
- Hydro One.

At the public meeting, verbal comments were received from both Council and interested members of the public. The questions posed, and the applicant's responses provided at the public meeting, can generally be summarized as:

- Is there any potential to disguise the tower as a 'mono-pine'?
Applicant Response: the proposed tower is a mono-pole design. The 'mono-pine' design would be more appropriate in situations where the tower is of a similar height as the trees next to/in the vicinity of the facility. As the tower is proposed to be taller than the existing tree line, the mono-pine design would likely be visually more obvious/intrusive.
- How much area is needed for the base and ground-level compound?
Applicant Response: The total area would be 15m x 15m in dimension.
- Is there an opportunity for any other users on the tower besides telecommunication service providers?
Applicant Response: Yes, there is opportunity for fire and police services to also add radio equipment. Bell and Rogers are both confirmed for telecommunication carriers.
- How often would the facility need to be accessed for maintenance?
Applicant Response: Approximately once a year to confirm structural integrity and the equipment is monitored remotely.
- Will the tower be connected to fibre services?
Applicant Response: Yes, it will be connected to fibre optic services.
- Is there an opportunity for more than three carriers?
Applicant Response: There is an opportunity for up to three telecommunication service providers. There is also opportunity for other radio users, such as fire services and/or police services to add equipment.
- What is the demand forecast for the area? Can additional towers be constructed on the same site if demand increases?

Applicant Response: All carriers proposing new facilities must provide justification as to why they are not able to collocate on existing towers or structures that may be available in the area. ISED Canada does permit incremental height increases to existing towers to cover more service area, as may be required.

It is also noted that Council had questions about the development of a regional telecommunications plan to help identify potential tower locations to help guide future requests for municipal concurrence? Staff confirmed that this undertaking is in the process of being initiated and Staff will be contacting neighbouring municipalities to discuss this possibility in the future.

Conclusion

Based on the foregoing, Planning Staff are satisfied that the Municipal *Protocol for Establishing Telecommunication Facilities* has been satisfactorily completed by the applicant. Furthermore, the proposed telecommunications tower is consistent with the intent and direction of provincial, county, and local planning policy direction. Planning Staff supports this application subject to the conditions outlined in recommendations provided in this report.

E. Strategic Priorities

1. Communication and Engagement

We will enhance communications and engagement between Town Staff, Town residents and stakeholders

3. Community

We will protect and enhance the community feel and the character of the Town, while ensuring the responsible use of resources and restoration of nature.

4. Quality of Life

We will foster a high quality of life for full-time and part-time residents of all ages and stages, while welcoming visitors.

F. Environmental Impacts

Staff are satisfied that no adverse environmental impacts will result from the recommendations contained in this report. A condition of Municipal Concurrence is that the applicant must complete an EIS demonstrating no adverse impacts on the adjacent significant woodlands prior to final approval being granted by ISED Canada.

G. Financial Impacts

No adverse financial impacts to the municipality are anticipated as a result of the recommendations contained in this report.

H. In Consultation With

The general public and commenting agencies through the public consultation process.

I. Public Engagement

The topic of this Staff Report has been the subject of a Public Meeting and/or Public Information Centre which took place on **March 22, 2021**. Those who provided comments at the Public Meeting and/or Public Information Centre, including anyone who has asked to receive notice regarding this matter, has been provided notice of this Staff Report. Any comments regarding this report should be submitted to Travis Sandberg, planning@thebluemountains.ca

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J. Attached

1. Applicant's Proposed Site Plan
2. Submitted Site Selection Report

Respectfully submitted,

Travis Sandberg
Planner I

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Manager of Community Planning

Nathan Westendorp, RPP, MCIP
Director of Planning and Development Services

For more information, please contact:
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Report Approval Details

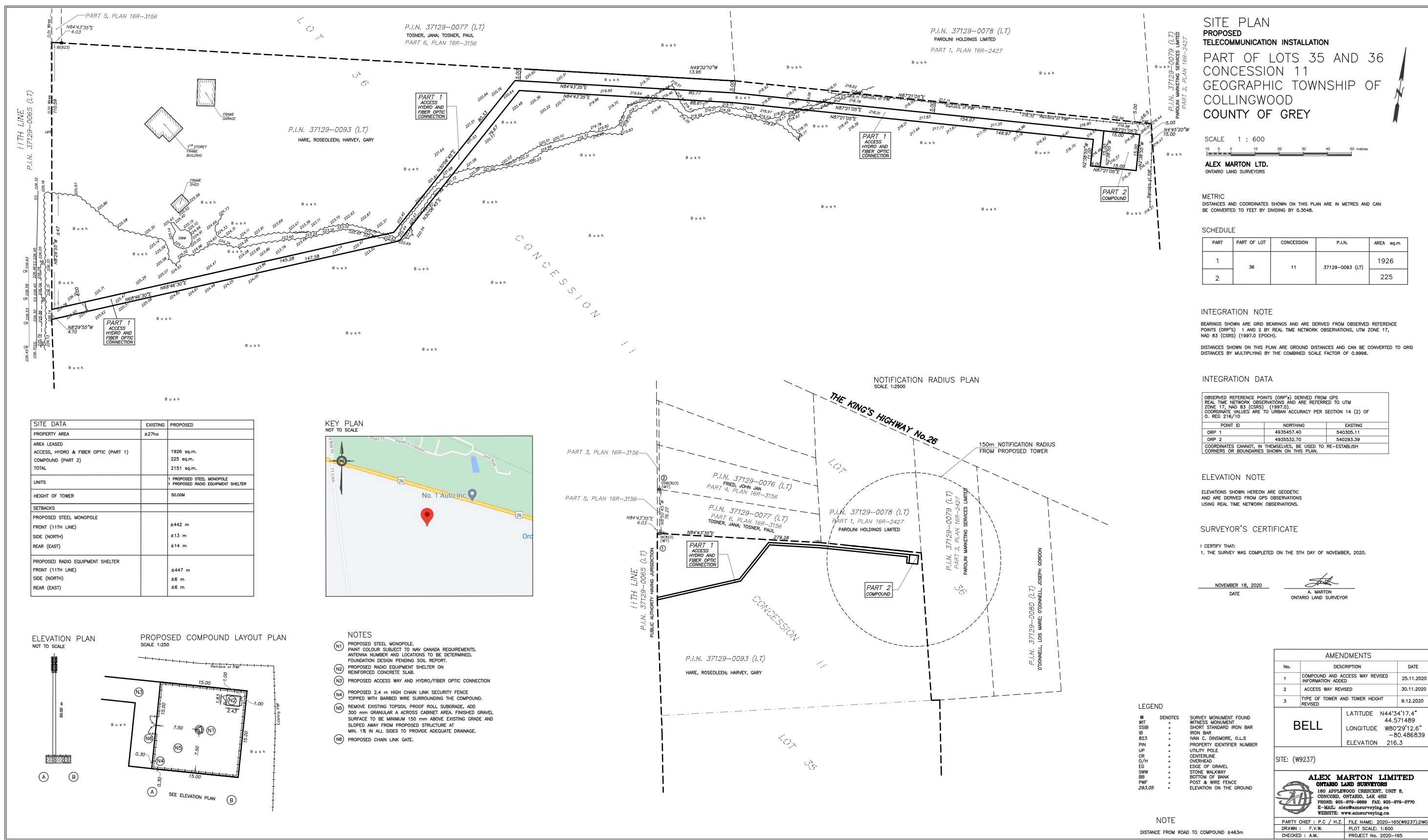
Document Title:	PDS.21.057 Recommendation Report - Request for Municipal Concurrence for a Telecommunications Tower - 397323 11th Line.docx
Attachments:	- W9237 - SURVEY - 20210107.pdf - W9237 - JUSTIFICATION - 20210107.pdf
Final Approval Date:	Jun 7, 2021

This report and all of its attachments were approved and signed as outlined below:

Trevor Houghton - Jun 2, 2021 - 3:21 PM

Nathan Westendorp - Jun 4, 2021 - 10:12 AM

Shawn Everitt - Jun 7, 2021 - 8:57 AM



W9237



August 1, 2019

Site Selection & Justification Report

Wireless Telecommunications Tower Site

397323 11th Line, Thornbury, ON

Bell Mobility – contracted to:
FONTUR International
70 East Beaver Creek Road, Suite 22
Richmond Hill, ON L4B 3B2

Table of Contents

Introduction	3
Purpose - Background & Coverage Requirement.....	3
Identification & Evaluation of Different Site Location Options	6
Proposed Site Location	7
Description of Proposed System.....	9
Justification of Preferred Tower Type.....	10
Statement Indicating Need for Tower Height.....	10
Health Canada's Safety Code 6 Compliance	10
Control of Public Access	10
<i>Canadian Environmental Assessment Act</i> and Conservation Authority	11
Transport Canada's Aeronautical Obstruction Marking Requirements	11
Engineering Practices	11
Distance to Residential	11
Public Consultation	12
Conclusion	12

Introduction

The on-going increase in the use of personal cellular telephones and other wireless devices for personal, business, and emergency purposes requires the development of new wireless telecommunications infrastructure. This infrastructure includes new antennas and their support structures which are required to meet the demands of increased capacity and broadening service areas. Without antennas in close proximity to a wireless device, wireless communication is simply not possible.

The use of wireless telecommunications is firmly entrenched into Canadian society and economy. Canadians currently use more than 30 million wireless devices on a daily basis including wireless phones, tablets, mobile radios, and broadband internet devices. Three-quarters of every Canadian household have access to a wireless phone, and more than half of all phone connections are wireless. About one-third of households now use cellphones exclusively (i.e. no landline). More importantly, each year Canadians place more than 6 million calls to 9-1-1 or other emergency numbers from their mobile phones and many major urban centres report that over half of all emergency calls are made by cell phone.

As part of its on-going commitment to provide high quality wireless services, Bell Mobility has determined that a new wireless telecommunications facility is required in the Township of Clearview.

As a general matter, Bell's site selection process is a balanced exercise that must meet Bell's network coverage objectives, having regard for land use constraints and its obligation to its customers to provide a high quality of service.

Wireless telecommunications facilities are regulated by the Federal Government under Innovation, Science and Economic Development Canada and need not follow municipal or provincial planning approvals. However, in recognition of the policy vacuum which exists as a result of that circumstance, Industry Canada requires that wireless telecommunication carriers consult with land use authorities.

Purpose - Background & Coverage Requirement

A radio antenna and a tower are the two most important parts of a radio communication system. The antenna is needed to send and receive signals for the radio station. The tower raises the antenna above obstructions such as trees and buildings so that it can send and receive these signals clearly. Each radio station and its antenna system (including the tower) provide radio coverage to a specific geographic area, often called a cell. The antenna system must be carefully located to ensure that it provides a good signal over the whole cell area, without interfering with other stations and can "carry" a call as the user moves from cell to cell.

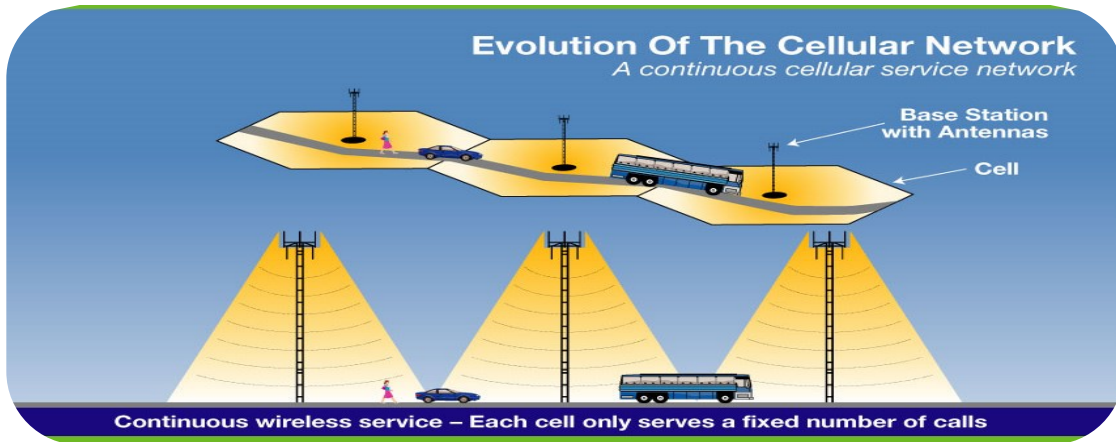


Figure 1

If the station is part of a radio telephone network, the number of stations needed also depends on how many people are using the network. If the number of stations is too small, or the number of users increases people may not be able to connect to the network, or the quality of service may decrease.

As the number of users exceeds the capacity of the radio station to receive and send calls, the coverage area for the cell shrinks and the shrinkage between cells creates coverage holes.

As demand increases for mobile phones and new telecommunication services, additional towers are required to maintain or improve the quality of service to the public and restore contiguous wireless service.

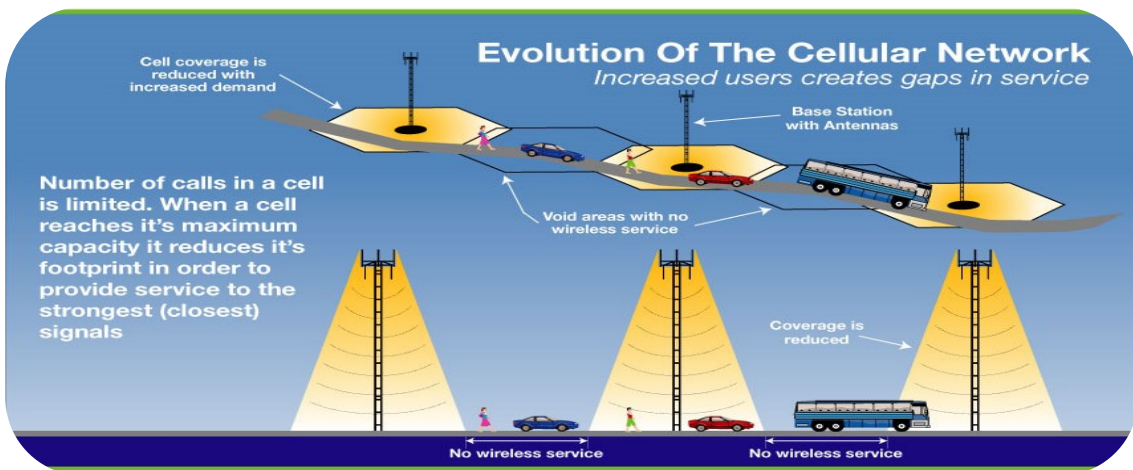


Figure 2

In this case, Bell Mobility's Radio Frequency Engineering department has determined the need for a service upgrade to adequately provide continuous coverage and service to our existing and future customer base surrounding the Thornbury area. Currently, our network is burdened by a combination of poor voice and data quality, specifically in high-use residential areas and transportation corridors. In some cases, the coverage is so poor that a handset would be unable to place a mobile call at all in the subject location and surrounding area. The result of this situation is on-going customer complaints, high

“dropped call” rates, and in extreme circumstances, the potential inability to place a mobile call that may be absolutely critical in an emergency situation.

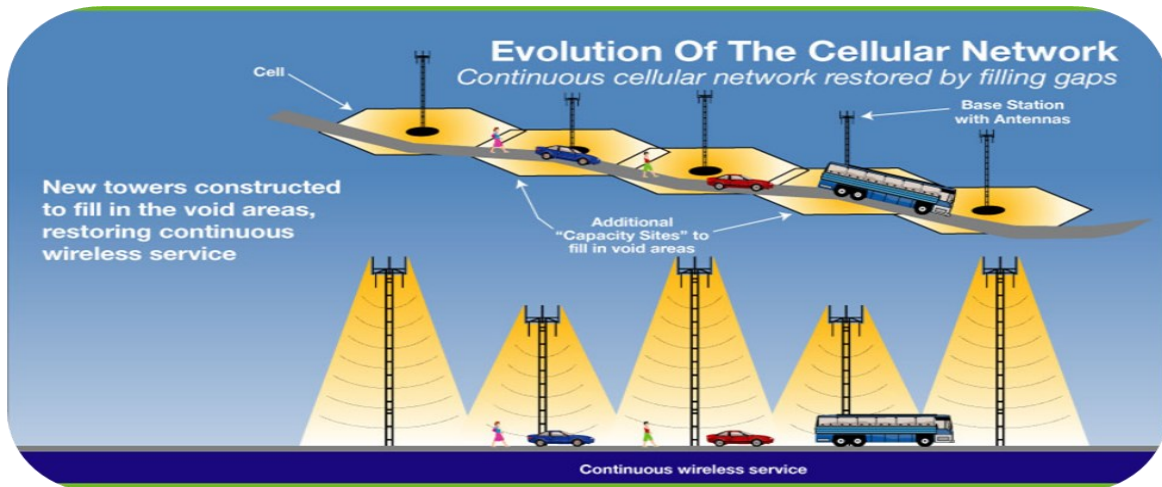


Figure 3

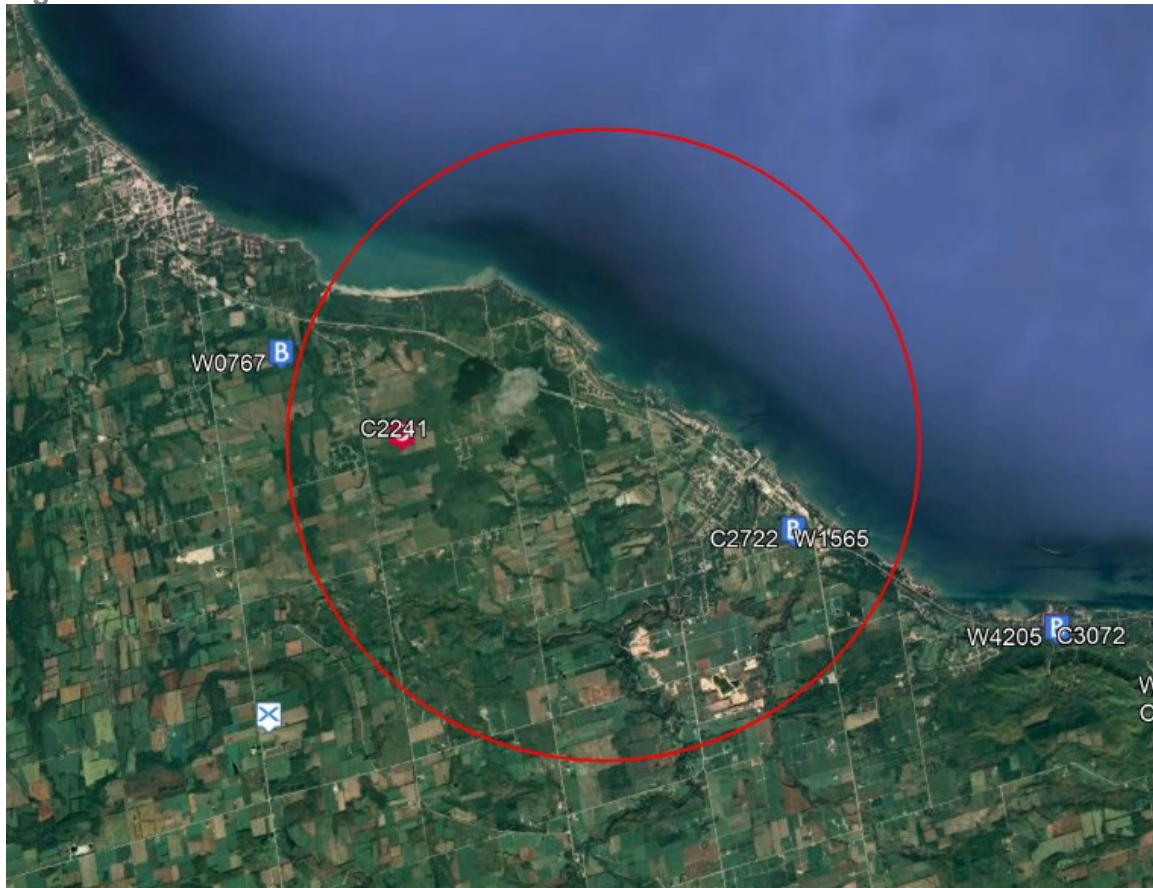
Bell Mobility is committed and mandated by its license to ensure the best coverage and service to the public and private sectors. The proposed site in Thornbury is extremely important in terms of providing coverage to an area that is under-served. Bell Mobility wants to provide infrastructure necessary to ensure that both residents and visitors to the area have access to service.

A drive test was conducted along area roads such as 11th Line and Highway 26, and smaller residential streets in this area, for the purpose of determining our coverage objectives. Very weak coverage areas with poor signal strength were found around and along these stretches of road, which generate significant coverage requirements as a result of the number of users and the varying topography. Bell Mobility is also anticipating significant growth in the amount of wireless broadband use in this area as a result of the general increase in wireless services use and local population increase.

Bell Mobility's existing coverage in this part of The Blue Mountains is in need of upgrading. Like all other infrastructure, it must keep up with changes in the ways people use technology, as well as general population growth of the area. As illustrated in the map below (**Figure 4**), there is a gap in wireless telecommunications infrastructure in the area of coverage need. The following sites are within 6 km of our search area, and are shown in Figure 4:

- **100m Rogers Guyed Tower** located approximately 3.8km from the tower location. The distance of the structure from the proposed tower is too great for coverage to be provided to the target area.
- **34m Bell & Rogers Tower** located at 369 Clark Street. The distance from this installation (4.3km) is too great to provide coverage to the search area. In addition, Bell has already co-located on this tower to provide coverage to the Blue Mountain Resort.

Figure 4 – Current Telecommunications Infrastructure in The Blue Mountains



New equipment is therefore required in this area, to accommodate growing demand for wireless services, to mitigate existing coverage and capacity issues, and to effectively pass on calls to other towers in the network.

Identification & Evaluation of Different Site Location Options

Based on research by Bell's Radio Frequency Engineering team, a general search area location was chosen centered on the intersection of Highway 26 and 11th Line. A site within the search area on the map below (**Figure 5**) would, from an engineering point of view, meet the coverage objectives of Bell's network. Typically, in semi-urban areas, the search area can have a radius of between 300 and 1000 metres.

A review of existing telecommunications installations within the search area, as illustrated in **Figure 4**, revealed that there are no existing towers that would meet Bell Mobility's coverage requirements (i.e. within the search area).

Figure 5 – Search area



The search area consists of predominantly residential, environmental, and other sensitive land uses, which had a significant effect on the number and quality of site candidates.

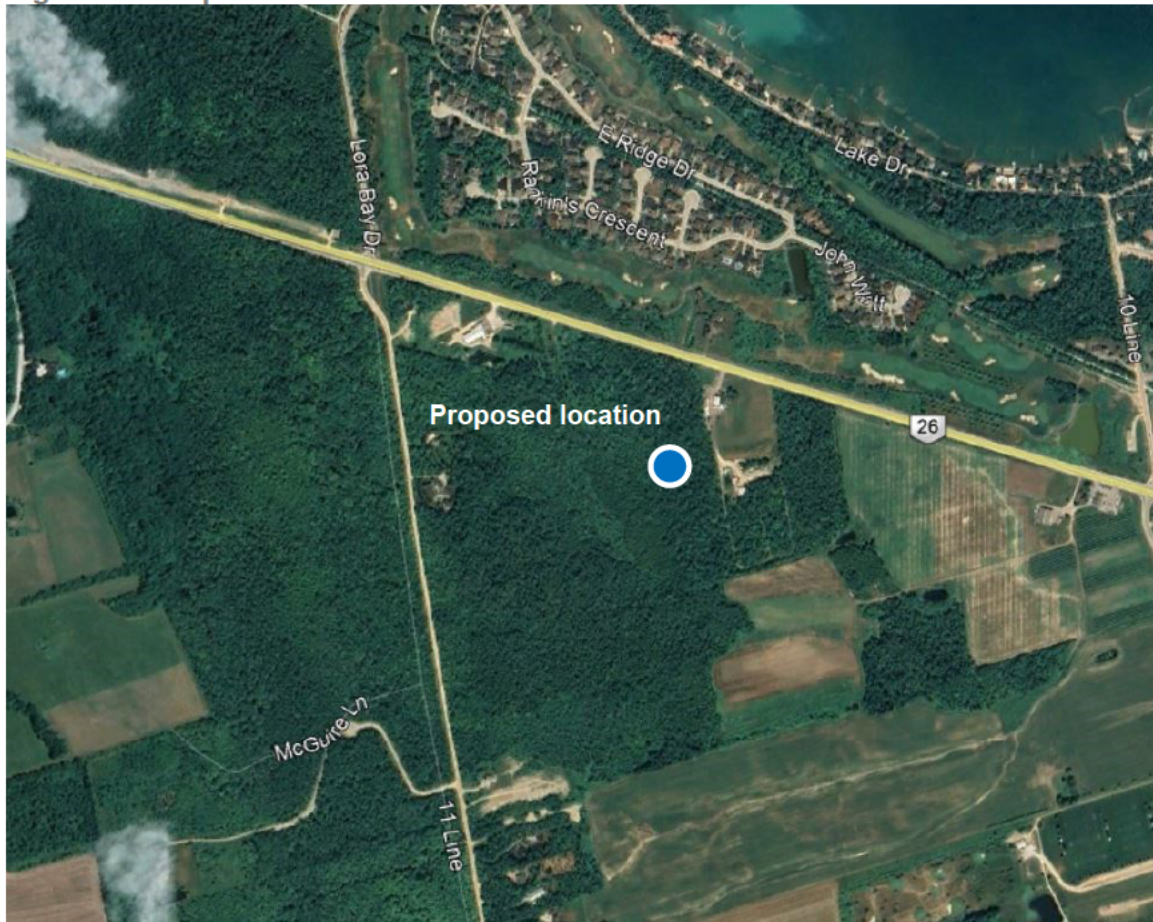
After visiting the search area and reviewing Blue Mountains' *Protocol for Establishing Telecommunications Facilities*, we identified a number of potential sites that would meet engineering requirements, as well as the standards outlined in Industry Canada's CPC 2-0-03 document. We proceeded to meet with several land owners in the area to discuss potential locations.

Proposed Site Location

The location which Bell proposes for a wireless telecommunications site in Thornbury is on the property municipally known as 397323 11th Line (**Figure 6**). The proposed site is ideal in the Town of the Blue Mountains as it meets several the preferences stated in the Town's *Protocol* and Official Plan.

The property's legal description is: PT LT 35-36 CON 11 COLLINGWOOD AS IN R245260 EXCEPT PT 1-6 16R3156; THE BLUE MOUNTAINS

Figure 6 – Proposed location



The site itself is located approximately 200 metres south of Highway 26.

The geographic coordinates for the site are as follows:

Latitude (NAD 83) N44°34'17.4

Longitude (NAD 83) W80°29'12.6"

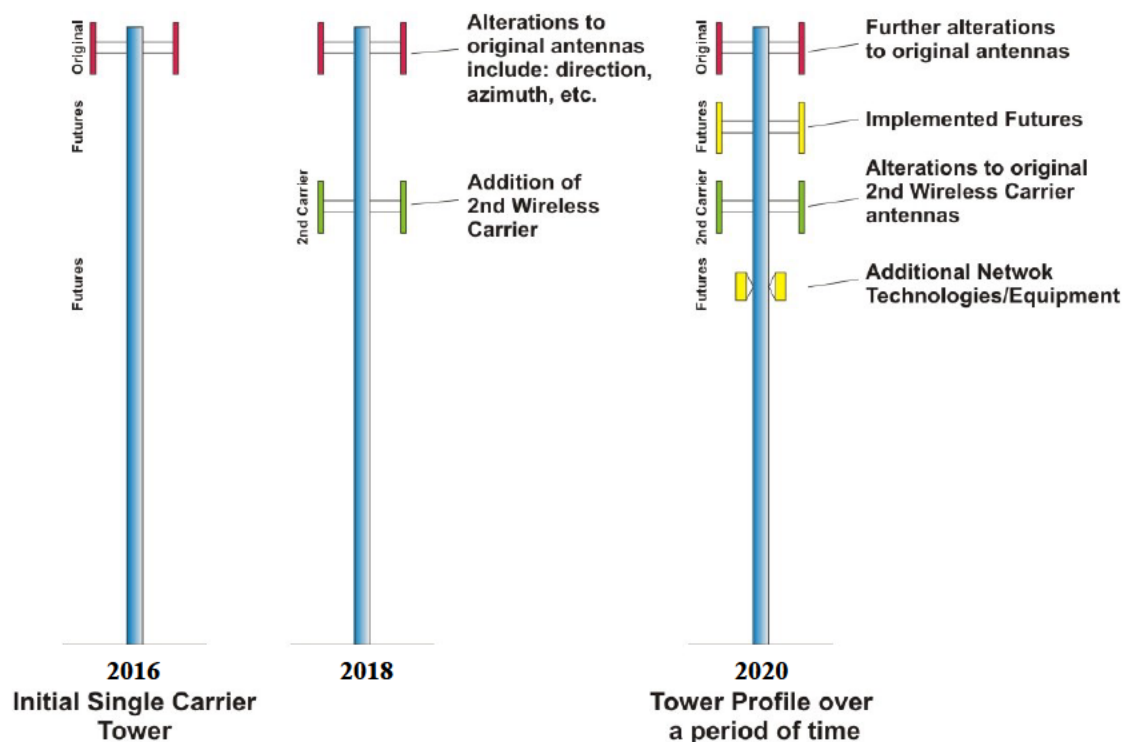
The siting of this tower put it on rural land and outside of any hazard lands as per the preference of Section B1(b) of the Official Plan as well as Section 8.9.4 5(a) of the Grey Official Plan. The property is also along Highway 26, which has been identified as a corridor of demand in the Town's *Protocol* in Section G. These coordinates also ensure that the tower is not located within 120m of the identified Woodlands to the West.

Bell Mobility's proposed tower will accommodate wireless antennas for the purpose of providing wireless communications coverage and network capacity. To the end user, this translates into Bell's suite of wireless technologies such as cellular phone or wireless internet coverage. Depending on the signal strength, and the amount of data being downloaded, the regular user should not see a difference between this and a fibre line.

Bell strongly supports co-location on existing towers and structures and designed the tower to accommodate future carriers on the tower as per Section B1(d)(iii). The use of

existing structures minimizes the number of new towers required in a given area and is generally a more cost-effective way of doing business. However, tower infrastructure is a finite resource and over time most towers reach their engineered maximum. This normally results when more than two carriers occupy the same tower as illustrated in **Figure 7**. The proposed tower is designed to support and accommodate additional carriers. Bell, additionally has already received interest from Rogers regarding colocation at this tower location.

Figure 7



Towers are limited in terms of both allowable space and engineering capacity. Each antenna array requires a separation of vertical space so they do not cause interference with each other.

Unfortunately, there are no pre-existing towers that would work for co-location and given the low average height of structures in the search area, a rooftop antenna installation is also not viable.

Description of Proposed System

The proposed system for 397323 11th Line is a steel monopole telecommunications tower that is 50 metres in height. A fenced-in compound would also be constructed, and would occupy a ground compound area of approximately 225 square metres.

The compound and majority of the lower sections of the tower will be screened from view with the fencing and surrounding foliage. These efforts help addressing the Town Official Plan Section B1(d) regarding mitigation from views and vistas.

Bell Mobility proposes to install antenna and microwave equipment. The tower would initially provide wireless voice and data services for subscribers to the Bell Mobility network.

Justification of Preferred Tower Type

Due to the dearth of existing telecommunication facilities in the area, and the demand for improved wireless services, there is a great need for new wireless signal in the search area. As a result, Bell Mobility has designed a monopole tower. This tower allows for potential co-location while simultaneously resulting in an aesthetically-pleasing design that should help address Section B1(d) of the Official Plan. This design, in addition to the proposed height of the tower (50m) should allow The Town of Blue Mountains to minimize the amount of towers required in Thornbury in the future.

Statement Indicating Need for Tower Height

The proposed tower has been designed at a height of 50 metres. Due to the large coverage hole that currently exists in Bell Mobility's network in this part of Blue Mountains, this height is required to provide optimal coverage to the area for voice and, importantly, data use, and to "pass on" calls and other uses effectively to surrounding towers in the network. The height will also allow other carriers to use the tower for their own equipment.

Health Canada's Safety Code 6 Compliance

Bell Mobility attests that the radio antenna system described in this report will comply with Health Canada's Safety Code 6 limits, as may be amended from time to time, for the protection of the general public including any combined effects of additional carrier collocations and nearby installations within the local radio environment.

Control of Public Access

The site facility would include one locked, alarmed and electronically monitored mechanical equipment shelter. Fencing would be installed around the base of the tower and equipment shelter and would include one locked gate access point.

Canadian Environmental Assessment Act and Conservation Authority

Bell Mobility attests that the radio antenna system described in this notification package is not subject to the *Canadian Environmental Assessment Act, 2012*; therefore this facility is exempt from assessment.

Bell Mobility has also made every effort to design the tower and access in compliance with the Grey Sauble Conservation Authority (GSCA) regulations. We have been informed by the GSCA that the property contains significant woodlands in accordance to the County of Grey Official plan and as a result, Bell Mobility will be completing an environmental impact study

Transport Canada's Aeronautical Obstruction Marking Requirements

Bell Mobility attests that the radio antenna system described in this notification package will comply with Transport Canada / NAV Canada aeronautical safety requirements. Bell Mobility has made all necessary applications to Transport Canada and NAV Canada.

At the time of writing, neither Transport nor NAV Canada has completed their review of the proposed structure. However, given that the structure is not in close proximity to any aerodrome, we anticipate that lighting and/or painting of the structure will not be required.

Engineering Practices

Bell Mobility attests that the radio antenna system described in this notification package will be constructed in compliance with the National Building Code of Canada and comply with good engineering practices including structural adequacy.

Distance to Residential

The nearest residential use outside of the subject property is approximately 270 metres North of the proposed site, on Highway 26 as illustrated in Figure 8.

Figure 8 – Distance to nearest residential



Public Consultation

In accordance with Industry Canada's CPC 2-0-03 guidelines and The Blue Mountains' *Protocol for Establishing Telecommunications Facilities*, Bell Mobility will conduct a public circulation at the appropriate time in the evaluation process.

Impact on Sensitive Land Uses/Features

This installation will not affect any sensitive land uses, natural heritage, significant vegetation, or agricultural uses.

Conclusion

Canadians as a whole are becoming more dependent on wireless products for personal, business, and emergency purposes. In many areas of the country, more than half of all 9-1-1 calls are now made via a mobile phone. To that end, an improvement upon the current wireless coverage in this area of the Town of Blue Mountains would be a benefit to the community.

Bell Mobility believes the proposal:

- Is in a location technically suitable to meet Bell Mobility's network requirements;
- Is a design that will accommodate additional providers in the future, if needed;

- Is a development compatible and appropriate with surrounding uses, and will have limited impact on existing land uses in the vicinity.

Bell Mobility is committed to effective public and municipal consultation. Should you have any questions or require further information regarding our proposal, please do not hesitate to contact the undersigned.

Sincerely,



Ferdinand Staab, MCIP, RPP, SR/WA
Consultant for Bell Mobility