

For Information Only

Review of Location & Design Preferences for Antenna Systems – City of Greater Sudbury Radio-communication and Broadcasting Antenna System Public Consultation Protocol

Presented To:	Planning Committee
Presented:	Monday, Nov 04, 2019
Report Date	Friday, Oct 11, 2019
Туре:	Correspondence for Information Only

Resolution

For Information Only

Relationship to the Strategic Plan / Health Impact Assessment

The City's Strategic Plan under Section 4 states Council's desire to "prepare the ground" for economic growth throughout the community. This is to be achieve in part through investment in resources and collaboration with other public sector agencies and senior levels of government. This enables the City to advance initiatives and sustain a great quality of life an increase capacities to respond to new opportunities. Section 4.4 specifically notes that the City intends to invest in transformative facilities, spaces and infrastructure initiatives that support economic activity. In particular, with the anticipated launch of the 5G network infrastructure across North America there are a number of Proponents taking action now to not only continue to provide a high quality wireless infrastructure network which exists now, but also to ensure that this 5G wireless technology will be readily available in the City of Greater Sudbury.

Report Summary

This report responds to the Planning Committee's direction and provides further information on the location and design preferences includes within the City's Radio-communication and

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Manager Review

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Recommended by the Division

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Financial Implications

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Recommended by the C.A.O.

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Broadcasting Antenna System Public Consultation Protocol. Subject to any feedback that the Planning Committee may have, staff recommends that the two previously deferred applications for public consultation be brought forward to the next available meeting of the Planning Committee in order to issue a position of concurrence or non-concurrence to ISEDC, the federal government agency responsible for issuing licenses to Proponents for Antenna System installations.

Financial Implications

This report has no financial implications.

Date October 4, 2019

STAFF REPORT

Background:

The adopted and in-force City Protocol for consulting the public on proposed Antenna Systems came into effect on June 28, 2016, when Council ratified the resolutions of the May 30, 2016, meeting of the Planning Committee which recommended approval of the updated Consultation Protocol. The City's public consultation Protocol for proposed Antenna Systems is modeled upon the Joint Antenna System Siting Protocol (JASSP) that was released and endorsed on February 20, 2013, by the Federation of Canadian Municipalities (FCM) and the Canadian Wireless Telecommunication Association (CWTA). The approved City Protocol is also generally keeping with Innovation, Science and Economic Development Canada's (ISEDC) City Protocol is also generally keeping with Innovation, Science and Economic Development Canada's (ISEDC) Radiocommunication and Broadcasting Antenna Systems Client Procedures Circular (CPC-2-0-03) along with ISEDC's Guide to Assist Land-use Authorities in Developing Antenna Siting Protocols. The City's Protocol was also circulated to ISEDC prior to adoption by Council and no concerns were expressed with respect to how the Protocol was structured in order to balance the need for wireless infrastructure against the need to achieve good land use planning outcomes.

Staff also brought forward the first housekeeping amendment report to the Planning Committee on March 4, 2019 and Council ratified the updates to the City's Protocol on April 9, 2019. The first housekeeping amendments to the Protocol clarified the definition of "Height" and how it is to be measured, that preconsultation be required on all private residential Antenna System installations to determine if public consultation is required (and to what degree), and to clarify in Section 4.3 that the Designated Municipal Officer (DMO) has the flexibility to determine when site-specific circumstances warrant further exemptions from the City's Protocol. Staff remains committed to monitoring the radio-communication and broadcasting industry and responding to changes in a timely manner where necessary.

Staff has most recently prepared two reports for Planning Committee's consideration (Files # 705/19-8 & 705/19-11) and both were deferred pending a review of location and design preferences and opportunities that may exist to improve on Antenna System land use planning outcomes. Planning Committee directed staff at their meeting on September 9, 2019, to complete a review of location and design preferences that are at present included under Section 6 – Development Guidelines of the City's Protocol. Staff has since completed a review of the existing Protocol's location and design preferences and are bringing forward this report for Planning Committee's consideration.

Attached to this report for reference purposes is a copy of the most recent housekeeping update to the City's Protocol and a copy of both the existing and in-force City Protocol and the FCM/CWTA JASSP on which the City's Protocol was modeled.

Location & Design Preferences:

Ground-based Antenna Systems are a necessary physical infrastructure that is required to deliver wireless services to residents living in all parts of the City and as such, there is no "one size fits all" approach to the shape or the size or the general appearance of any one proposed Antenna System. The City's Protocol acknowledges this and has established location and design preferences under Section 6.0 of the Protocol that provide Proponents and staff with a general set of preferences that are looked at on a site-specific basis and balanced against the City's desire to achieve the best possible land use planning outcome whenever an Antenna System is proposed in any one particular local setting.

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Proponents are also required to hold a pre-consultation with the City prior to making an application for public consultation and in each case an information package is provided to a Proponent ahead of a formal application. Each information package identifies any site-specific location and design preferences that may impact the best possible land use planning outcome for a proposed Antenna System installation. These location and design preferences are general in nature and provide staff and Proponents with guidance in ensuring that each ground-based Antenna System is reviewed within its local context with the goal being to assure said Antenna System is integrated into the local setting as best as possible from a land use planning perspective.

In summary, the City's Protocol has identified the following location and design preferences and considers each on their own merits at both the pre-consultation and formal public consultation application stages:

Co-Location

The City's Protocol encourages co-location and the sharing of physical infrastructure in order to minimize the number of ground-based Antenna Systems that are required in order to deliver wireless services to residents. During pre-consultation, a Proponent is required to provide staff with radio-frequency coverage mapping and to provide information with respect to nearby Antenna Systems and whether or not the proposed new Antenna System is capable of accommodating additional radio-communication and broadcasting infrastructure in the future. At the same time, given that no two sites are the same, the Protocol acknowledges that co-location may sometimes not be desirable if it is more appropriate and important from a land use planning perspective to minimize the visual impact of an Antenna System (eg. utilizing a painted white mono-pole design in urban areas such as a commercial mall site, as opposed to larger and taller tower designs that would be able to accommodate more physical infrastructure).

2. Preferred Locations

- a) Areas which maximize the distance from a Residential Area;
- b) Agricultural, Commercial Areas, Industrial and Rural Areas;
- c) Mounted on buildings or existing structures within areas designated Downtown, Mixed Use Commercial and Regional Centre in the Official Plan for the City of Greater Sudbury;
- d) Areas that respect public views and vistas of important natural and/or man-made features;
- e) Transportation and utility corridors;
- f) As near as possible to similarly-scaled structures;
- g) Institutional uses where appropriate, including but not limited to those institutions which require radio communication and/or broadcasting technology;
- h) Adjacent to parks, green spaces and golf courses;
- i) Located in a manner that does not adversely impact view corridors; and,
- j) Other non-residential areas where appropriate.

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3. Discouraged Locations

- a) Locations directly in front of doors, windows, balconies or residential frontages;
- b) Ecologically significant natural lands;
- c) Inappropriate sites located within Parks and Open Space Areas with the exception of sites zoned to permit utilities and/or unless designed to interact with the area's character;
- d) Designated structures or heritage conservation districts under the Heritage Act, R.S.O. 1990 unless visibly unobtrusive or the design of the Antenna System forms an integrated part of the structure's overall design; and,
- e) Pitched roofs.

4. Design Preferences

The City's Protocol includes a statement that Antenna Systems should be designed in terms of appearance and aesthetics to respect their immediate surroundings, including being unobtrusive and inconspicuous, minimizing visual impact, avoiding disturbance to natural features and reduce the need for future facilities in the same area, where appropriate. Each site again is reviewed specifically in relation to the stated general design preferences that are included in the City's Protocol.

5. Style and Colour

- a) The architectural style of the Antenna System should be compatible with the surrounding neighbourhood and adjacent uses;
- b) An Antenna System may be designed or combined as a landmark feature to resemble features found in the area, such as a flag-pole or clock-tower, where appropriate subject to any zoning approvals required for the landmark feature;
- c) In the Downtown and Regional Centre designations, the design of Antenna Systems should generally be unobtrusive and consistent with any applicable urban design policy guidelines;
- d) Towers and communication equipment should have a non-reflective surface;
- e) Cable trays should generally not be located on the exterior faces of buildings; and,
- f) Antenna Systems that extend above the top of a supporting utility pole or light standard should appear to be a natural extension of the pole.

Buffering and Screening

- a) Antenna Systems and associated equipment shelters should be attractively designed or screened and concealed from ground level or other public views to mitigate visual impacts; and,
- b) Where adjacent to a principal building, equipment shelters should be constructed of a material or colour similar in appearance to the facades of the principal building.

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7. Structure

- a) Single operator loaded towers (ie. Mono-poles) are generally unobtrusive and of low impact and may therefore be located near living areas;
- b) Individual wall-mounted antennas should be fixed as close to the wall as possible and should not project above the Height of the wall face they are mounted on, in order to avoid visual clutter and should be painted to match the colour for stealth design purposes;
- Facilities located on roof-tops should not be visible to the extent possible from directly abutting streets;
- d) The appropriate type of antenna structure for each situation should be selected based upon the goal of making best efforts to blend with the nearby surroundings and minimize the visual aesthetic impacts of the antenna structure on the community;
- e) Pinwheel antennas are generally discouraged; and,
- f) The use of guy wires and cables to steady, support or reinforce a tower is generally discouraged.

8. Yards, Parking and Access

- a) Adequate yards to be determined on a site-by-site basis should separate Antenna Systems from adjacent development without unduly affecting the development potential of the lot; and,
- b) Parking spaces where provided at each new Antenna System site should have direct access to a public right-of-way at a private driveway that does not unduly interfere with traffic flow or create safety hazards.

9. Equipment Cabinets in Public Spaces

- a) Cabinets shall be designed in a manner which integrates them into their surroundings, including use of decorative wraps that are graffiti-resistant;
- b) Cabinet dimensions shall be as minimal as possible; and,
- c) Cables and wires must be concealed or covered.

10. Signage and Lighting

- a) Small owner/operator identification signs up to a maximum of 0.19 square metres may be posted on Antenna Systems and associated equipment shelters or perimeter fencing;
- b) No advertising signage is permitted;
- c) Unless specifically required by Transport Canada and/or NAV Canada, the display of any lighting is discouraged; and,

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d) The lighting of Antenna Systems and associated equipment shelters for security purposes is supportable provided it is shielded from adjacent residential properties, is kept to a minimum number of lights and illumination intensity, and where possible, is provided by a motion detector or similar system.

11. Roof-top Equipment

Equipment shelters located on the roof of a building should be set back from the roof edge to the greatest extent possible and painted to match the penthouse/building.

The City's existing location and design preferences are consistent with the Federation of Canadian Municipalities (FCM) and the Canadian Wireless Telecommunication Association's (CWTA) Joint Antenna System Siting Protocol (JASSP). Further to this, the City's now in-force Protocol was circulated prior to adoption by Council to ISEDC and no concerns with respect to the City's location and design preferences were identified. Many municipalities have either now adopted or are in the process of moving toward adopting the JASSP. The JASSP acknowledges that local settings across Canada will vary and that in each case a municipality may adjust the JASSP accordingly to fit local needs, settings and preferences.

For example, the City of Vaughan strongly encourages a Proponent to explore opportunities to locate and design an Antenna System on the roof of existing or proposed high-rise buildings in order to reduce the land use planning impacts on abutting properties. The City of Greater Sudbury in general does not have buildings high enough to provide sufficient and comprehensive radio-frequency coverage to residents. There are however roof-top Antenna System installations located already on buildings in the City's Downtown and in New Sudbury along the Lasalle Boulevard and Notre Dame Avenue corridors. The City of Vaughan's Protocol notes that regardless, "The architectural style of (a radio-communication and broadcasting) tower will be chosen based upon what is most compatible with the surrounding physical context. Mono-pole design with antennae shrouded or flush mounted are preferred architectural styles."

Other municipalities have utilized local geography to integrate Antenna Systems, such as the use of "mono-pines" in Western Canada or a "mono-cactus" in Arizona. Some municipalities have opted to minimize visual attraction to Antenna Systems by not allowing flags to be affixed to white mono-poles, whereas other municipalities have sought to affix flags to white mono-poles but only in open space or park-like settings.

Staff would advise that the City's approach is consistent with other municipal approaches to conducting public consultation on proposed Antenna Systems and note that in each case the municipality must balance location and design preferences against what would be considered to be the best and most reasonable land use planning outcome for any one particular Antenna System. There is no "one-size-fits-all" approach to siting Antenna Systems and each application for public consultation should be considered on its own merits and in its own unique setting and circumstances. Staff has completed a review of the existing City Protocol and examined other municipal protocols around the country and are of the opinion that no changes at this time are necessary.

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Deferred Applications for Public Consultation:

The first deferred application was before Planning Committee on September 9, 2019, and proposes a 30 m (100 ft) mono-pole Antenna System on lands known municipally as 1887 Bancroft Drive in Sudbury. Staff undertook pre-consultation as required under the Protocol with the Proponent and advised that based on proximity to the closest Residential Area that a position of concurrence or non-concurrence would be required from Planning Committee and Council. Upon receipt of the application, staff circulated the application to the local Ward Councillor, as well as relevant agencies and departments. The Proponent also conducted public consultation in the local community prior to filing the formal application for public consultation with the City. No concerns with providing concurrence to ISEDC were identified through this process. The staff report is available online for reference purposes.

The second deferred application was before Planning Committee on September 23, 2019, and proposes a 50 m (164 ft) mono-pole Antenna System on lands known municipally as 960 Notre Dame Avenue in Sudbury. Staff undertook pre-consultation as required under the Protocol with the Proponent and advised that based on proximity to the closest Residential Area that a position of concurrence or non-concurrence would be required from Planning Committee and Council. Upon receipt of the application, staff circulated the application to the local Ward Councillor, as well as relevant agencies and departments. Staff also understood at the time of application that the Proponent had approached the City to secure a lease on the lands and that extensive consultation had taken place with Pioneer Manner staff and that agreement on the final location and enclosure design of the Antenna System was in place. No concerns with providing concurrence to ISEDC were identified through this process. The staff report is available online for reference purposes.

Summary:

It is not recommended by staff that any changes be undertaken at this time to those identified location and design preferences found under Section 6.0 – Development Guidelines of the City's in-force Radio-communication and Broadcasting Antenna System Public Consultation Protocol. The location and design preferences included in the City's Protocol are based upon the FCM/CWTA JASSP and many municipalities across Canada have moved toward adapting them to local settings and adopting them as guiding preference accordingly. Staff will continue to monitor emerging trends and technologies and respond accordingly with recommendations in future housekeeping amendment reports when necessary.

Staff would also recommend that the deferred applications be brought forward to the next available meeting of Planning Committee in order to issue a position of concurrence or non-concurrence from the ISEDC.



Request for Decision

Housekeeping - Radiocomm & Broadcasting

Presented To: Planning Committee

Presented: Monda

Monday, Mar 04, 2019

Report Date

Monday, Feb 11, 2019

Type:

Routine Management

Reports

Resolution

THAT the City of Greater Sudbury directs the City's Designated Municipal Officer to amend the City of Greater Sudbury Radio-communication and Broadcasting Antenna System Public Consultation Protocol, as outlined in the report entitled "Housekeeping - Radiocomm & Broadcasting" from the General Manager of Growth and Infrastructure, presented at the Planning Committee meeting on March 4, 2019, as follows:

- 1. That Section 3.0 be amended by adding the following definition:
- "9)Height: The measurement of a Freestanding Antenna System is calculated from the lowest ground level at the base of a Freestanding Antenna System, including any foundation, to the tallest point of the Antenna System which shall include any antennae, lightning rods, aviation obstruction lighting fixtures and any other attached appurtenances. Any attempt to artificially reduce the Height of an Antenna System (eg. addition of soil or aggregate) will not be included in the calculation or measurement of said Antenna System Height."
- 2. That throughout the Protocol the defined word "height" now be capitalized and bolded as "Height".
- 3. That Section 4.3 be deleted entirely and replaced with the following:
- "4.3Further Exemption From Public Consultation Only

In addition to ISED's basic exemption listed in Section 4.1 and the City's modified review process outlined in Section 4.2, the Designated Municipal Officer may on a case-by-case basis, exempt a Proponent from all or part of the consultation requirements under Section 5.0 and Section 8.0 of this protocol."

- 4. That Section 4.0 be amended by adding the following:
- "4.5 Siting Within a Residential Area

Signed By

Report Prepared By

Glen Ferguson Senior Planner Digitally Signed Feb 11, 19

Manager Review

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Recommended by the Division

Jason Ferrigan
Director of Planning Services
Digitally Signed Feb 11, 19

Financial Implications

Jim Lister Manager of Financial Planning and Budgeting Digitally Signed Feb 14, 19

Recommended by the Department

Tony Cecutti General Manager of Growth and Infrastructure Digitally Signed Feb 14, 19

Recommended by the C.A.O.

Ed Archer Chief Administrative Officer Digitally Signed Feb 20, 19 Any proposal by a Proponent to install any Antenna System at any Height located within a Residential Area is required to pre-consult with the Designated Municipal Officer in order to determine if the installation shall be considered to be excluded from public consultation as provided for in Section 6 of the Radiocommunication and Broadcasting Antenna Systems Client Procedures Circular (CPC-2-0-03). The Designated Municipal Officer shall in each case determine whether or not the exclusion provided for by ISEDC shall continue to apply, or alternatively if all or part of the public consultation requirements as outlined in this protocol is applicable to the proposed Antenna System that is to be located within a Residential Area. The Designated Municipal Officer will provide the Proponent with a written response outlining their decision with respect to any public consultation requirements that may be required within ten working days of having received a request from a Proponent."

Relationship to the Strategic Plan / Health Impact Assessment

This housekeeping amendment and update to the City's Radio-communication and Broadcasting Antenna Systems Public Consultation Protocol is an operational matter under the *Radiocommunication Act* whereby municipalities are permitted by Innovation, Science and Economic Development Canada to conduct and engage in public consultation on certain types and forms of Antenna System installations.

Report Summary

This report provides a general update on the City's recently adopted Radio-communication and Broadcasting Antenna Systems Public Consultation Protocol and summarizes a series of recommended housekeeping amendments to the Protocol. The report also summarizes emerging trends and anticipated future changes within the radio-communication and broadcasting industry as subsequent housekeeping amendments may be required to the City's Protocol.

Financial Implications

There are no financial implications associated with this report.

Antenna System Public Consultation Protocol

Date: February 5, 2019

STAFF REPORT

Background:

The adopted and in-force City Protocol for consulting the public on proposed Antenna Systems came into effect on June 28, 2016, when Council ratified the resolutions of the May 30, 2016, meeting of the Planning Committee which recommended approval of the updated <u>City of Greater Sudbury Radio-communication and Broadcasting Antenna System Public Consultation Protocol</u>. The City's public consultation Protocol for proposed Antenna Systems is modeled upon the <u>Joint Antenna System Siting Protocol (JASSP)</u> that was released and endorsed on February 20, 2013, by the Federation of Canadian Municipalities (FCM) and the Canadian Wireless Telecommunication Association (CWTA). The approved City Protocol is also in general keeping with Innovation, Science and Economic Development Canada's (ISEDC) <u>Radiocommunication and Broadcasting Antenna Systems Client Procedures Circular (CPC-2-0-03)</u> along with ISEDC's <u>Guide to Assist Land-use Authorities in Developing Antenna Siting Protocols</u>.

Staff has committed to continually monitoring emerging trends in the radio-communication and broadcasting antenna system industry in an effort to always respond and adapt quickly to a fast growing and often changing industry. Staff also monitors and continually reviews the effective of the City's Protocol for consulting with the public when a non-excluded Antenna System is proposed by a Proponent. This report outlines a number of housekeeping amendments and provides a general status update as they pertain to the in-force Protocol for conducting public consultation on proposed Antenna Systems in the City of Greater Sudbury. Emerging trends and expected future amendments to the City's Protocol are also discussed.

General Updates:

Staff has received six new requests from Proponent's seeking formal pre-consultation with the City since the new Protocol was adopted by Council on May 30, 2016. Staff also estimates that between 15-20 phone calls were received by the Planning Services Division with respect to potential future Antenna System installations. With respect to those inquiries that did proceed to formal pre-consultation with the City, one proceeded to a public consultation application, but was in excess of 300 m (984 ft) from the nearest Residential Area which only required an internal staff review and a letter from the DMO to ISEDC giving concurrence on the proposed Antenna System installation (File # 705/18-1). Two pre-consultation and site investigation meetings resulted in the DMO utilizing Section 4.3 of the Protocol to fully exempt the Proponents from public consultation requirements as both proposed Antenna Systems in these cases were to be located in excess of 1.9 km (1.18 miles) from the nearest Residential Area (Files # 705/18-2 & 705/18-3). These exemptions were provided to the Creighton Mine Site and to an Ontario Power Generation station located to the south-east of the Coniston settlement area. The remaining three preconsultations have not proceeded beyond initial discussions with the Proponent.

As a result, staff remains satisfied at this time that the "incentive-based" and "path of least resistance" approach through the modified review process to encourage locations away from Residential Areas has been successful in terms of ensuring that locations are chosen which maximize the distances between an Antenna System and the nearest Residential Area.

Antenna System Public Consultation Protocol

Date: February 5, 2019

Housekeeping Amendments:

1. Freestanding Antenna System Height

The JASSP document did not include a formal definition with respect to identifying or calculating the height of a Freestanding Antenna System. There is however a reference to Freestanding Antenna System height in Section 8.2 of the JASSP which addresses how notice is to be given when a public information session is required. Specifically, the JASSP outlines at the end of Section 8.2 that, "Height is measured from the lowest ground level at the base, including the foundation, to the tallest point of the antenna system. Depending on the particular installation, the tallest point may be an antenna, lightning rod, aviation obstruction lighting or some other appurtenance. Any attempt to artificially reduce the height (eg. addition of soil, aggregate, etc.) will not be included in the calculation or measurement of the height of the antenna system." Staff did not include this part of the JASSP in the City's Protocol because its exclusion was not at the time considered to be detrimental to Section 8.2 when drafted as a collective whole.

Since the Protocol was adopted by Council, the City did process an application for public consultation (File # 705/16-1) under the current in-force Protocol whereby the Proponent afterward informed staff that the maximum height of the Freestanding Antenna System tower would be slightly higher after it was discovered that the foundation required to support the Freestanding Antenna System in relation to the existing grade of the lands would result in the height exceeding 30 m (100 ft) by approximately 1 m (3.28 ft). The Designated Municipal Officer in this case provided an amended positive statement of concurrence to ISEDC clarifying the small change to the maximum height of the Freestanding Antenna System and further that the amended concurrence did not alter any other plans and supporting documentation which formed the original position of concurrence from the City. The definition as proposed is consistent with ISEDC's explanation of height as outlined in the CPC-2-0-03.

Staff is therefore recommending for clarity purposes that a defined term for height, including the calculation for the height of a Freestanding Antenna System, be added to Section 3.0 – Definitions of the City's Protocol. Any occurrence of the word "height" in the Protocol should also be updated to "**Height**" as a result. The proposed definition would be as follows:

"9) Height: The measurement of a Freestanding Antenna System is calculated from the lowest ground level at the base of a Freestanding Antenna System, including any foundation, to the tallest point of the Antenna System which shall include any antennae, lightning rods, aviation obstruction lighting fixtures and any other attached appurtenances. Any attempt to artificially reduce the height of an Antenna System (eg. addition of soil or aggregate) will not be included in the calculation or measurement of said Antenna System height."

2. Addressing the Emergence of Residential Antenna Systems

Staff has received several recent inquiries from the public relating to the installation of privately operated residential Antenna Systems that would be less than 15 m (49.21 ft) in height above ground level. Staff would note here that ISEDC in their "Exclusions" outlined in Section 6 of *CPC-2-0-03* provides for a general exclusion from municipal public consultation requirements for new Antenna Systems, including masts, towers or other antenna-supporting structures with a height of less than 15 m (49.21 ft) above ground level. The residential installations are intended to utilize low power and license-exempt radio-communication devices that are then affixed to the Antenna System tower that in principle would meet the exclusion criteria that ISEDC has set out in *CPC-2-0-03*. Section 4.0 of the City's Protocol does outline that depending on the type of Antenna System being proposed and the system's proximity to discouraged locations, structures typically excluded by ISEDC may be required to follow all or part of the preconsultation, proposal submission and public consultation requirements outlined in the City's Protocol.

Antenna System Public Consultation Protocol

Date: February 5, 2019

Having reviewed the emerging and potential ease of access and lowering costs of installing and operating an Antenna System having a height above ground level of less than 15 m (49.21 ft) within a Residential Area, staff is recommending that the Protocol be amended to make it clear that such installations in a Residential Area would be considered subject to some degree of public consultation at the local municipal level. Staff would note that the expected volume of residential antenna systems is low at this point in time and that should a residential antenna system proceed to an application for public consultation, the City would collect the fee which is presently in place for antenna system public consultation applications.. Staff would recommend that the following be added to Section 4.0 of the City's Protocol:

"4.5 Siting Within a Residential Area

Any proposal by a **Proponent** to install any **Antenna System** at any **Height** located within a **Residential Area** is required to pre-consult with the **Designated Municipal Officer** in order to determine if the installation shall be considered to be excluded from public consultation as provided for in Section 6 of the *Radiocommunication and Broadcasting Antenna Systems Client Procedures Circular (CPC-2-0-03*). The **Designated Municipal Officer** shall in each case determine whether or not the exclusion provided for by ISEDC shall continue to apply, or alternatively if all or part of the public consultation requirements as outlined in this protocol is applicable to the proposed **Antenna System** that is to be located within a **Residential Area**. The **Designated Municipal Officer** will provide the **Proponent** with a written response outlining their decision with respect to any public consultation requirements that may be required within ten working days of having received a request from a **Proponent**."

3. Further Exemptions From Public Consultation

The intent of Section 4.3 of the Protocol is to allow the Designated Municipal Officer flexibility to exempt a proposed antenna system entirely from the City's Protocol where the situation warrants from a land use planning perspective. A recent example of this flexibility would be where a ground-based antenna system was proposed at a distance in excess of 2.5 km (1.55 miles) from the nearest Residential Area. In this particular case, an internal staff review was conducted and a letter of exemption was provided to ISEDC and copied to the Proponent. A position of concurrence or non-concurrence was not in this case required to be provided by the DMO to ISEDC as the installation was deemed to be entirely exempt from the City's Protocol. It should be noted however that where such an exemption is provided by the DMO, the City still engages in pre-consultation with the Proponent in order to determine and confirm that no land use planning matters are present, which would compel the City to require and specify expectations around what public consultation is considered to be appropriate.

For clarity purposes, Section 4.3 should be amended to include clearer language and direct reference to both Section 5.0 (ie. Pre-Consultation) and Section 8.0 (ie. Public Consultation), as the DMO will often conduct and complete pre-consultation and a site investigation meeting with a Proponent before deeming the proposed antenna system to be fully exempt from the City's Protocol. The following unnecessary words would also be deleted from Section 4.3: "For example, the City of Greater Sudbury may decide to exclude certain proposals from the requirement to hold a public meeting, but not from issuing a public notification to affected property owners within the **Prescribed Distance**." Many municipalities have opted to remove sentences referencing examples in their Protocols in order to prevent confusion or assumptions on what may or may not be exempt from occurring.

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The new and amended Section 4.3 would read as follows:

***4.3** Further Exemption From Public Consultation Only

In addition to ISED's basic exemption listed in Section 4.1 and the City's modified review process outlined in Section 4.2, the **Designated Municipal Officer** may on a case-by-case basis, exempt a **Proponent** from all or part of the consultation requirements under Section 5.0 and Section 8.0 of this protocol."

Next Steps & Emerging Trends:

1. Deployment of "5G Network" Infrastructure

The next generation "5G Network" (ie. 5G) is considered by CWTA to be critical for Canada and something that all stakeholders including the industry itself, regulators, policy-makers and the public will need to work together in order to ensure the successful deployment of 5G for the benefit of all Canadians. In short, 5G will deliver more capacity, faster speeds, enhanced reliability, lower latency and enabling a massive number of devices to connect to each other at the same time. The benefits extend to mission-critical services such as those related to public safety (eg. ambulance, fire, hospitals, police, military, etc.). Non-critical services, such as smart sensors used in agricultural and/or mining and mineral operations, also stand to benefit greatly from 5G. These networks may be capable of connecting 1 million devices per 1 km (0.62 miles). This deployment is expected to result in the industry investing approximately \$26 billion over a seven year period along with adding approximately 250,000 permanent jobs in Canada by the year 2026. The construction of the physical infrastructure necessary to deploy 5G across Canada will at some point impact how municipalities conduct public consultation on proposed Antenna Systems in their local communities as there will be an increase in the number of Antenna System installation requests to ISEDC in almost every local community across Canada. More detailed information on the 5G deployment is available through Accenture Strategy's report "Fuel For Innovation: Canada's Path in the Race to 5G" which was published in June of 2018.

2. "Small Cells" Technology

The deployment of 5G will also lead to smaller antenna systems referred to as "smart cells." To provide context, smart cells are often referred to in terms of their size as being "pizza boxes" or "backpacks" and it is estimated that up to 273,000 smart cells will be deployed across Canada in the next 5-7 years, whereas 33,000 antenna system towers were deployed in Canada across the previous 20 years. CWTA has outlined that the existing regulatory environment and local municipal Protocols may need to adapt quickly to facilitate the timely deployment of 5G in our local communities. More precise positioning is going to be required by Proponents along with a larger number of siting approvals. Providing fair and reasonable access to sites is expected to become a theme in the industry and in the regulatory environment as a result. For the information of Planning Committee and Council, the City has already been approached by a Proponent to explore the possibility of a master agreement with the City that would reduce the timeline to regulatory approvals from ISEDC on sites within municipal rights-of-way or where locations on municipal properties are considered to be of an optimal location for installing a smart cell to provide 5G service (eg. arenas, parks, bus-shelters, hydro poles, etc.).

Antenna System Public Consultation Protocol

Date: February 5, 2019

3. Master Agreements for Municipalities

Staff expects that requests for master (or "blanket) agreements between Proponents and the City to allow for the installation of small cells within City rights-of-way and on City-owned properties and other physical City-owned infrastructure will increase due to the pressures expected to come along with the 5G deployment. These master agreements are expected to establish parameters around which a Proponent can notify the City of an impending and needed small cell installation without requiring site-by-site pre-consultation and site-by-site agreements with the City to mount a small cell Antenna System. As previously mentioned, staff from the Development Approvals Section and the City's Real Estate Section did meet with a Proponent to better understand their specific request and the parameters and preferences that they would be looking for to be included in a master agreement scenario. The Proponent did provide a draft example to staff but at the time of writing this report the Proponent has not further pursued the matter with the City. Staff will continue to review this issue and if needed will bring forward any housekeeping amendment to the City's Protocol and related business processes. Staff would advise

however that at present Section 4.4 of the City's Protocol addresses siting on municipally-owned property whereby any proposal to do so would require a Proponent to meet any and all of the City's needs and requirements. This part of the Protocol may however require an update for clarity purposes with respect to small cell technology and the desire for Proponents to obtain master agreements with the City to install said Antenna Systems.

4. Review of the City's Development Guidelines for Antenna Systems

The next housekeeping amendment to the City's Protocol will examine the incoming 5G technology in light of the location and design preferences identified within Section 6.0 of the City's Protocol. While staff do not anticipate major changes being necessary, by the end of 2019 it is expected that both ISEDC and CWTA will have a clearer picture as to how local municipalities can assist in ensuring that the 5G network deployment balances both land use planning matters and concerns with the fast-paced timeframes that an industry Proponent is expected to face when seeking out locations for the physical infrastructure that will be necessary for 5G. This will also represent an appropriate point in time to review the results with respect to Antenna Systems installed in the City since on May 30, 2016 and to determine if any changes to the City's identified preferences would be desirable.

Summary:

Staff is satisfied with the effectiveness of the City's new Protocol for conducting public consultation on proposed Antenna Systems. The results to date have had the effect of locating several new Antenna Systems at increased distances from Residential Areas and general inquiries from Proponents with staff have been positive in nature whereby site locations and design preferences that best address land use planning concerns associated with Antenna Systems are being considered actively by Proponents.

At this time, staff is proposing three amendments to the City's in-force Protocol for conducting public consultation on proposed Antenna Systems. The three amendments are intended to provide clarity to how the height of an Antenna System is to be measured, to clarify when and how the DMO may fully exempt a Proponent from all Protocol requirements and to require that all residential Antenna Systems proceed through the City's pre-consultation requirements as set out in the Protocol.

There are also a number of emerging trends at present within the radio-communication and broadcasting industry that staff will continue to monitor and if required a further housekeeping amendment report will be brought forward to Planning Committee for consideration. It is on this basis that the Planning Services Division therefore recommends that the City's Radio-communication and Broadcasting Antenna Systems Public Consultation Protocol be amended as outlined in the recommendation section of this report.

City of Greater Sudbury Radio-communication and Broadcasting Antenna Systems Public Consultation Protocol

Date of Enactment: June 28, 2016

Date of Last Update: March 26, 2019

1.0 OBJECTIVES

The objectives of this protocol are as follows:

- To establish a siting and consultation process for the City of Greater Sudbury that is in keeping with Innovation, Science and Economic Development Canada's (ISEDC) Radiocommunication and Broadcasting Antenna Systems Client Procedures Circular (CPC-2-0-03) and Guide to Assist Land-use Authorities in Developing Antenna Siting Protocols for reviewing land use planning issues associated with Antenna System siting proposals;
- 2) To establish an objective process, criteria and guidelines that are transparent, consistent and predictable for the evaluation of **Antenna System** siting proposals that:
 - a) Minimize the number of new antenna sites by encouraging **Co-Location**;
 - b) Encourage designs that integrate with surrounding land uses and the public realm;
 - c) Establish when local public consultation is required; and,
 - d) Allow ISEDC and the communications industry to identify and resolve any potential land use, siting or design concerns with the City of Greater Sudbury at an early stage in the process.
- 3) To provide an expeditious review process for Antenna System siting proposals;
- 4) To establish a local land use consultation framework that ensures the municipality and members of the public contribute local knowledge that facilitates and influences the sitinglocation, development and design (including aesthetics) of **Antenna Systems** within the City of Greater Sudbury;
- 5) To contribute to the orderly development and efficient operation of a reliable and strong radiocommunication network in the City of Greater Sudbury; and,
- 6) To provide the City of Greater Sudbury with the information required to satisfy the requirements of ISEDC regarding local land use consultation, resulting in an informed statement of concurrence, concurrence with conditions, or non-concurrence from the City of Greater Sudbury to ISEDC at the end of the process.

2.0 JURISDICTION AND ROLES

2.1 Innovation, Science and Economic Development Canada

Under the *Radiocommunication Act*, the Minister of Industry has sole jurisdiction over inter-provincial and international communication facilities. The final decision to approve and licence the location of **Antenna Systems** is made only by ISEDC. In June 2007, ISEDC issued an update to its *Radiocommunication and Broadcasting Antenna Systems Client Procedures Circular (CPC-2-0-03)* which outlines the process that must be followed by

Proponents seeking to install or modify Antenna Systems, effective January 1, 2008. ISEDC also requires that Proponents intending to install or modify an Antenna System notify and consult with the appropriate land use authority, and the local community within a Prescribed Distance from the proposed structure. ISEDC also published a *Guide to Assist Land-use Authorities in Developing Antenna Siting Protocols* in January 2008, stating that it, "... considers that the Municipality's and local residents' questions, comments and concerns are important elements to be considered by a proponent seeking to install, or make modifications to, an antenna system." The CPC also establishes a dispute resolution process to be used where the Proponent and municipality have reached an impasse.

2.2 City of Greater Sudbury

The role of the City of Greater Sudbury is to issue a statement of concurrence or non-concurrence to the **Proponent** and to ISEDC. The statement considers the land use compatibility of the **Antenna System**, the responses of the affected residents and the **Proponent's** adherence to this protocol. The City of Greater Sudbury also guides and facilitates the siting process by:

- a) Communicating to **Proponents** the particular amenities, sensitivities, planning priorities and other relevant characteristics of the area;
- b) Developing the design guidelines for **Antenna Systems** contained in Section 6 of this protocol; and,
- c) Establishing a community consultation process, where warranted.

2.3 Proponent

Proponents need to strategically locate **Antenna Systems** to satisfy technical criteria and operational requirements in response to public demand. Throughout the siting process, **Proponents** must adhere to the antenna siting guidelines in the CPC, including:

- a) Investigating sharing or using existing infrastructure before proposing new antenna-supporting structures (consistent with CPC-2-0-17 Conditions of Licence for Mandatory Roaming and Antenna Tower and Site Sharing and to Prohibit Exclusive Site Arrangements);
- b) Contacting the City of Greater Sudbury to determine local requirements regarding **Antenna Systems**; and,
- c) Undertaking public notification and addressing relevant concerns as is required and appropriate.

2.4 Other Federal Legislation

Proponents additionally must comply with the following federal legislation and/or regulations, where warranted:

- a) Health Canada's Safety Code 6 Limits of Human Exposure to Radiofrequency Electromagnetic Fields in the Frequency Range from 3 KHZ to 300 GHZ - Safety Code 6 (2009);
- b) The Canadian Environmental Assessment Act; and,
- c) NAV Canada and Transport Canada's painting and lighting requirements for aeronautical safety.

3.0 DEFINITIONS

The following definitions applicable to this protocol are as follows:

- 1) Antenna System: an exterior transmitting device, or group of devices, used to receive and/or to transmit radio-frequency signals, microwave signals, or other federally-licenced communications energy transmitted from, or to be received by, other antennas. Antenna Systems include the antenna, and may include a supporting tower, mast or other supporting structure, and an equipment shelter. This protocol most commonly refers to the following two types of Antenna Systems:
 - a) Freestanding Antenna System: a structure (e.g. tower or mast) built from the ground for the expressed purpose of hosting an Antenna System or Antenna Systems; and,
 - b) Building/Structure-Mounted Antenna System: an Antenna System mounted on an existing structure, which could include a building wall or rooftop, a light standard, water tower, utility pole or other.
- Co-Location: the placement of antennas and equipment operated by one or more
 Proponents on an Antenna System operated by a different Proponent thereby creating a shared facility.
- 3) **Designated Municipal Officer (And His or Her Designate):** the municipal staff member tasked with receiving, evaluating and processing submissions for **Antenna Systems**.
- 4) **Height:** The measurement of a **Freestanding Antenna System** is calculated from the lowest ground level at the base of a **Freestanding Antenna System**, including any foundation, to the tallest point of the **Antenna System** which shall include any antennae, lightning rods, aviation obstruction lighting fixtures and any other attached appurtenances. Any attempt to artificially reduce the **Height** of an **Antenna System** (eg.

- addition of soil or aggregate) will not be included in the calculation or measurement of said **Antenna System Height**.
- 5) **Municipal Departments:** branches of municipal government that administer public services and are operated by City of Greater Sudbury staff.
- 6) Other Agencies: bodies (e.g. boards or commissions) that administer public services but are not operated or staffed by the City of Greater Sudbury.
- 7) Prescribed Distance: three times the Height of a proposed Antenna System, measured horizontally from the base of the proposed Freestanding Antenna System or Building/Structure-Mounted Antenna System.
- 8) Proponent: a company, organization or amateur radio operator proposing to site an Antenna System (including contractors undertaking work for a Proponent) for the purpose of providing commercial or private radiocommunication and/or broadcasting services.
- 9) **Residential Area:** the location on a lot occupied by an existing residential dwelling or lands within a Residential Zone or lands designated Living Area 1 or 2 in the Official Plan for the City of Greater Sudbury.

4.0 EXCLUDED STRUCTURES

This section outlines the criteria for identifying **Antenna Systems** excluded from the consultation process by ISEDC, the need to consider local circumstances for all exempt structures and the process for **Proponents** to notify and discuss exempt structures with the City of Greater Sudbury. Depending on the type of **Antenna System** proposed and the proposed system's proximity to discouraged locations, structures typically excluded by ISEDC may be required to follow all or part of the pre-consultation, proposal submission and public consultation as identified in this protocol.

4.1 Exemptions From Antenna System Siting Proposal Review and Public Consultation

For the following types of installations, **Proponents** are generally excluded by ISEDC from the requirement to consult with the City of Greater Sudbury and the public, but must still fulfill the "General Requirements" outlined in Section 7 of the ISEDC CPC:

- a) New Antenna Systems, including masts, towers or other antenna-supporting structure with a Height of less than 15 metres above ground level (ie. Area "A" on Schedule "A" – Modified Review Process to Encourage Locations Away From Residential Areas);
- b) Maintenance of existing radio apparatus including the **Antenna System**, transmission line, mast, tower or other antenna-supporting structure;

- c) Addition or modification of an Antenna System, including improving the structural integrity of its integral mast to facilitate sharing, the transmission line, antenna-supporting structure or other radio apparatus to existing infrastructure, a building, water tower and so on, including additions to rooftops or support pillars, provided:
 - i. The addition or modification does not result in an overall **Height** increase above the existing structure of 25% of the original structure **Height**;
 - ii. The existing Antenna System is at least 15 metres in Height; and,
 - iii. The existing **Antenna System** has not previously been modified to increase its original **Height** by 25%.
- d) Maintenance of an **Antenna System's** painting or lighting in order to comply with Transport Canada's requirements;
- e) Installation for a limited duration of not more than 3 months of an **Antenna System** that is used for a special event or one that is used to support local, provincial, territorial or national emergency operations during an emergency, and is removed within 3 months after the emergency or special event. Upon request, the City of Greater Sudbury may grant **Proponent** additional time for the removal of **Antenna Systems** used for a special event or emergency operation.

4.2 Modified Review Process to Encourage Locations Away From Residential Areas

Notwithstanding the exemptions provided for in Section 4.1, the City of Greater Sudbury provides for a modified review process in order to encourage a **Proponent** to select locations which are located at increased distances from **Residential Areas**. The modified review process is as follows:

- a) New Antenna Systems, including masts, towers or other antenna-supporting structure with a Height of more than 15 metres but less than 30 metres above ground level and located between 150 metres and 300 metres from the nearest Residential Area shall only require a statement of concurrence or nonconcurrence in writing from the Designated Municipal Officer if the proposed Antenna System is co-located, otherwise Area "D" on Schedule "A" applies (see Area "C" & "D" on Schedule "A" – Modified Review Process to Encourage Locations Away From Residential Areas);
- b) New **Antenna Systems**, including masts, towers or other antenna-supporting structure with a **Height** of more than 30 metres above ground level and located between 150 metres and 300 metres from the nearest **Residential Area** shall be exempt from Section 8.0 Public Consultation of this protocol and only require

staff review and a statement of concurrence or non-concurrence from Council (see Area "D" on Schedule "A" – Modified Review Process to Encourage Locations Away From Residential Areas); and,

c) New **Antenna Systems**, including masts, towers or other antenna-supporting structure with a **Height** of more than 15 metres above ground level and located more than 300 metres from the nearest **Residential Area** shall only require staff review and a statement of concurrence or non-concurrence from the **Designated Municipal Officer** (see Area "E" on Schedule "A" – Modified Review Process to Encourage Locations Away From Residential Areas).

4.3 Further Exemptions From Public Consultation Only

In addition to ISED's basic exemption listed in Section 4.1 and the City's modified review process outlined in Section 4.2, the **Designated Municipal Officer** may on a case-by-case basis, exempt a **Proponent** from all or part of the consultation requirements under Section 5.0 and Section 8.0 of this protocol.

4.4 Siting on Municipal-Owned Properties

Any request to install an **Antenna System** on lands owned by the City of Greater Sudbury shall be made to the appropriate official dealing with municipal properties, in accordance with City of Greater Sudbury policies.

4.5 Siting Within a Residential Area

Any proposal by a **Proponent** to install any **Antenna System** at any **Height** located within a **Residential Area** is required to pre-consult with the **Designated Municipal Officer** in order to determine if the installation shall be considered to be excluded from public consultation as provided for in Section 6 of the *Radiocommunication and Broadcasting Antenna Systems Client Procedures Circular (CPC-2-0-03)*. The **Designated Municipal Officer** shall in each case determine whether or not the exclusion provided for by ISEDC shall continue to apply, or alternatively if all or part of the public consultation requirements as outlined in this protocol is applicable to the proposed **Antenna System** that is to be located within a **Residential Area**. The **Designated Municipal Officer** will provide the **Proponent** with a written response outlining their decision with respect to any public consultation requirements that may be required within ten working days of having received a request from a **Proponent**.

5.0 PRE-CONSULTATION WITH THE CITY

Pre-consultation is one of the most important elements in the antenna siting process as it generally occurs at a point before the **Proponent** is committed to a site or a design. As a result it represents the best opportunity to influence the siting decision since the **Proponent** is more likely to become committed to a site once the detailed engineering has been completed. While a

discussion of submission requirements is appropriate the proposal will benefit most from early direction on matters of siting and design. **Proponents** are strongly encouraged to initiate a preconsultation as early as possible in the antenna siting process.

Prior to submitting an **Antenna System** proposal, the **Proponent** will undertake the following preliminary consultations with the City of Greater Sudbury.

5.1 Notification

Proponents will notify the **Designated Municipal Officer** in writing that locations in the community are being physically assessed for potential **Antenna System** siting.

5.2 Site Investigation Meeting

Prior to submitting an **Antenna System** siting proposal, the **Proponent** will initiate a site investigation meeting with the City of Greater Sudbury. The purpose of the site investigation meeting is to:

- a) Identify preliminary issues of concern;
- b) Identify requirements for public consultation, including the need for additional forms of notice and a public information session;
- c) Guide the content of the proposal submission; and,
- d) Identify the need for discussions with any other **Municipal Departments** and **Other Agencies** as deemed necessary by the **Designated Municipal Officer**.

Where the City of Greater Sudbury has an initial concern with the proposed siting of the proposal the City will make known to the **Proponent** alternative locations within the **Proponent's** search area for consideration.

The **Proponent** will provide the following information for the site investigation meeting:

- a) The proposed location;
- b) Potential alternative locations;
- c) The type and Height of the proposed Antenna System;
- d) Preliminary drawings or visuals renderings of the proposed **Antenna System** superimposed to scale; and,
- e) Documentation regarding the investigation of **Co-Location** potentials on existing or proposed **Antenna Systems** within 500 metres of the subject proposal.

If desired by both the **Proponent** and the City of Greater Sudbury, multiple **Antenna System** siting proposals may be reviewed at a site investigation meeting.

5.3 Confirmation of Preferences and Requirements

Following the site investigation meeting, City of Greater Sudbury staff will provide the **Proponent** with an information package that includes:

- a) This protocol, which outlines the approval process, excluded structures, requirements for public consultation and guidelines regarding site selection, Co-Location, installation, design and landscaping;
- b) Proposal submission requirements;
- c) A list of plans and studies that may be required;
- d) A list of Municipal Departments and Other Agencies to be consulted;
- e) An indication of the Municipality's preferences regarding **Co-Location** for the site(s) under discussion.

To expedite the review of the proposal, the **Proponent** will review this information package before the proposal is submitted so that the interests of **Municipal Departments** and **Other Agencies** are taken into account. The **Proponent** is encouraged to consult with affected **Municipal Departments** and **Other Agencies**, as well as the local Ward councillor and the **Designated Municipal Officer** before submitting the proposal.

6.0 DEVELOPMENT GUIDELINES

6.1 Location

a) Co-Location

Before submitting a proposal for an **Antenna System** on a new site, the **Proponent** must explore the following options:

- i. Consider sharing an existing **Antenna System**, modifying or replacing a structure if necessary; and,
- ii. Locate, analyze and attempt to use any feasible existing infrastructure, including but not limited to roof-tops, water towers, utility poles or light standards.

Where **Co-Location** on an existing **Antenna System** or structure is not possible, a new **Antenna System** should be designed with **Co-Location** capacity, including in **Residential Areas** when identified as the City of Greater Sudbury's preference.

The City of Greater Sudbury recognizes that the objective of promoting **Co-Location** and the objective of making **Antenna Systems** less noticeable may sometimes conflict. Nevertheless, the City of Greater Sudbury intends to review each submission on its merits with a view to promoting both objectives and, where necessary, it will determine the appropriate balance between them. The **Proponent** should, in all cases, verify the City of Greater Sudbury's site-specific design preferences during the pre-submission consultation process before investing in a final design or site.

b) Preferred Locations

When new **Antenna Systems** must be constructed, where technically feasible, the following locations are preferred:

- i. Areas which maximize the distance from a **Residential Area**;
- ii. Agricultural, Commercial Areas, Industrial and Rural Areas;
- iii. Mounted on buildings or existing structures within areas designated
 Downtown, Mixed Use Commercial and Regional Centre in the Official
 Plan for the City of Greater Sudbury;
- iv. Areas that respect public views and vistas of important natural and/or man-made features;
- v. Transportation and utility corridors;
- vi. As near as possible to similarly-scaled structures;
- vii. Institutional uses where appropriate, including but not limited to those institutions which require radiocommunication and/or broadcasting technology;
- viii. Adjacent to parks, green spaces and golf courses;
- ix. Located in a manner that does not adversely impact view corridors; and,
- x. Other non-residential areas where appropriate.

c) Discouraged Locations

New Antenna Systems should avoid the following areas:

- Locations directly in front of doors, windows, balconies or residential frontages;
- ii. Ecologically significant natural lands;

- iii. Inappropriate sites located within Parks and Open Space Areas with the exception of sites zoned to permit utilities and/or unless designed to interact with the area's character;
- iv. Designated structures or heritage conservation districts under the Heritage Act, R.S.O. 1990 unless visibly unobtrusive or the design of the Antenna System forms an integrated part of the structure's overall design; and,
- v. Pitched roofs.

6.2 Development and Design Preferences

Antenna Systems should be designed in terms of appearance and aesthetics to respect their immediate surroundings, including being unobtrusive and inconspicuous, minimizing visual impact, avoiding disturbance to natural features and reduce the need for future facilities in the same area, where appropriate. The City of Greater Sudbury's preferred design and development preferences are described below. The City of Greater Sudbury will identify to the **Proponent** which of the following development and design preferences are encouraged in any given proposed location.

a) Style and Colour

- i. The architectural style of the **Antenna System** should be compatible with the surrounding neighbourhood and adjacent uses;
- ii. An Antenna System may be designed or combined as a landmark feature to resemble features found in the area, such as a flag-pole or clock-tower, where appropriate subject to any zoning approvals required for the landmark feature:
- iii. In the Downtown and Regional Centre designations, the design of Antenna Systems should generally be unobtrusive and consistent with any applicable urban design policy guidelines;
- iv. Towers and communication equipment should have a non-reflective surface;
- v. Cable trays should generally not be located on the exterior faces of buildings; and,
- vi. **Antenna Systems** that extend above the top of a supporting utility pole or light standard should appear to be a natural extension of the pole.

b) Buffering and Screening

- Antenna Systems and associated equipment shelters should be attractively designed or screened and concealed from ground level or other public views to mitigate visual impacts; and,
- ii. Where adjacent to a principal building, equipment shelters should be constructed of a material or colour similar in appearance to the facades of the principal building.

c) Structure

- i. Single operator loaded towers (ie. Mono-poles) are generally unobtrusive and of low impact and may therefore be located near living areas;
- ii. Individual wall-mounted antennas should be fixed as close to the wall as possible and should not project above the **Height** of the wall face they are mounted on, in order to avoid visual clutter and should be painted to match the colour for stealth design purposes;
- Facilities located on roof-tops should not be visible to the extent possible from directly abutting streets;
- iv. The appropriate type of antenna structure for each situation should be selected based upon the goal of making best efforts to blend with the nearby surroundings and minimize the visual aesthetic impacts of the antenna structure on the community;
- v. Pinwheel antennas are generally discouraged; and,
- vi. The use of guy wires and cables to steady, support or reinforce a tower is generally discouraged.

d) Yards, Parking and Access

- Adequate yards to be determined on a site-by-site basis should separate
 Antenna Systems from adjacent development without unduly affecting the development potential of the lot; and,
- ii. Parking spaces where provided at each new Antenna System site should have direct access to a public right-of-way at a private driveway that does not unduly interfere with traffic flow or create safety hazards.

e) Equipment Cabinets in Public Spaces

- i. Cabinets shall be designed in a manner which integrates them into their surroundings, including use of decorative wraps that are graffiti-resistant;
- ii. Cabinet dimensions shall be as minimal as possible; and,

iii. Cables and wires must be concealed or covered.

f) Signage and Lighting

- Small owner/operator identification signs up to a maximum of 0.19 square metres may be posted on **Antenna Systems** and associated equipment shelters or perimeter fencing;
- ii. No advertising signage is permitted;
- iii. Unless specifically required by Transport Canada and/or NAV Canada, the display of any lighting is discouraged; and,
- iv. The lighting of Antenna Systems and associated equipment shelters for security purposes is supportable provided it is shielded from adjacent residential properties, is kept to a minimum number of lights and illumination intensity, and where possible, is provided by a motion detector or similar system.

g) Roof-top Equipment

 Equipment shelters located on the roof of a building should be set back from the roof edge to the greatest extent possible and painted to match the penthouse/building.

7.0 PROPOSAL SUBMISSION

7.1 Applicability of Proposal Submission

For a proposed **Antenna System**, the **Proponent** will submit to the **Designated Municipal Officer** an **Antenna System** siting proposal and the applicable fee, except for cases in which consultation is not required.

7.2 Proposal Submission Requirements

The **Proponent** must include the following information when submitting an **Antenna System** siting proposal:

- a) A letter or report from the Proponent indicating the need for the proposal, the
 proposed site, the rationale for site selection, coverage and capacity of existing
 Antenna Systems in the general area and a summary of opportunities for CoLocation potentials on existing or proposed Antenna Systems within 500 metres
 of the subject proposal;
- b) Visual rendering(s) of the proposed **Antenna System** superimposed to scale;
- c) A site plan showing the proposed development situated on the site;

- d) A map showing the horizontal distance between the property boundary of the proposed site and the nearest **Residential Area**;
- e) For Antenna Systems requiring public consultation, a map showing all properties located within the Prescribed Distance from the proposed Antenna System;
- f) Confirmation of legal ownership of the lands subject to the proposal, or a signed letter of authorization from the registered property owner of the land, their agent, or other person(s) having legal or equitable interest in the land;
- g) An attestation that the **Antenna System** will respect Health Canada's Safety Code 6 which sets safe radiofrequency emission levels for these devices;
- h) Application fees; and,
- i) Any other documentation as identified by the City of Greater Sudbury following the site investigation meeting.

7.3 Completeness of Proposal Submission

A determination on the completeness of an application or request for additional information will be provided within five working days of receipt of the proposal. Upon receipt of a complete proposal submission, the City of Greater Sudbury will circulate the proposal for review and comment to:

- a) Affected Municipal Departments;
- b) Affected Other Agencies;
- c) Any adjacent Municipalities within the Prescribed Distance; and,
- d) The local Ward councillor.

7.4 Fees

The **Proponent** must pay the applicable application fee to the City of Greater Sudbury. The **Proponent** is responsible for securing applicable applications or permissions from all relevant **Municipal Departments** and paying any applicable application fees or charges as required.

8.0 PUBLIC CONSULTATION PROCESS

If the proposed **Antenna System** is not exempt from the public consultation process as per the requirements of Section 4 of this protocol, the **Proponent** will initiate the following public consultation process, including the issuance of notice, undertaking written consultation, hosting

a public information session and where required review the consultation results with the City of Greater Sudbury.

8.1 Notice Recipients

After the **Proponent** has submitted an **Antenna Systems** siting proposal, the **Proponent** will give notice to:

- a) All affected properties within the Prescribed Distance;
- b) Any adjacent municipalities within the Prescribed Distance;
- c) The ward councillor;
- d) The Designated Municipal Officer; and,
- e) The ISEDC regional office.

The City of Greater Sudbury will assist the **Proponent** in compiling a mailing list of addresses of the affected properties within the **Prescribed Distance** from the proposed **Antenna System**. Notices may be delivered to a condominium corporation instead of each unit owner.

8.2 Notice Requirements

The notice will be sent by regular mail or hand-delivered, a minimum of 30 days before the public information session where a public information session is required and shall include:

- a) Information on the location, **Height**, type, design and colour of the proposed **Antenna System**, including a 21 cm x 28 cm $(8.5" \times 11")$ size copy of the site plan submitted with the application;
- b) The rationale, including **Height** and location requirements, of the proposed **Antenna System**;
- c) The name and contact information of a contact person for the **Proponent**;
- d) The name and contact information of the **Designated Municipal Officer**;
- e) An attestation that the **Antenna System** will respect Health Canada's Safety Code 6 which sets safe radio-frequency emission levels for these devices;
- f) The date, time and location of the public information session where required;
- g) A deadline date for receipt by the **Proponent** of public responses to the proposal:

- i. Where a public information session is required, the deadline date must be no more than five days before the date of the session; or,
- ii. Where a public information session is not required, the deadline date must be at least 30 days after the notices are mailed;
- h) The notification shall be enclosed in an envelope addressed to the "Occupant" and shall clearly show in bold type on the face of the envelope the following statement:
 - "NOTICE FOR RESIDENTS WITHIN [INSERT PRESCRIBED DISTANCE] OF A NEW PROPOSED ANTENNA SYSTEM. INFORMATION IS ENCLOSED."
- The City of Greater Sudbury may also require the **Proponent** based on local conditions such as a high proportion of rental accommodation in the vicinity of the site, to provide such additional forms of notice as deemed necessary; and,
- j) Any additional notification requirements will be identified by the City of Greater Sudbury during or following the site investigation meeting. Other forms of notification may include, but are not limited to:
 - i. Publication of the notice in a local newspaper; and/or,
 - ii. Hand delivery of notices to specified buildings.

8.3 Written Consultation Process

Following the delivery of the notification, the **Proponent** will allow the public to submit written comments or concerns about the proposal. Specifically, the **Proponent** will:

- a) Provide the public with at least 30 days to submit questions, comments or concerns about the proposal;
- b) Respond to all questions, comments and concerns in a timely manner of no more than 60 days from date of receipt;
- c) Allow the party to reply to the **Proponent's** response and provide at least 21 days for public reply comments;
- d) Keep a record of all correspondence that occurred during the written consultation process. This includes records of any agreements that may have been reached and/or any concerns that remain outstanding; and,
- e) Provide a copy of all written correspondence to the City of Greater Sudbury and the regional ISEDC office.

8.4 Public Information Session

The City of Greater Sudbury may request that the **Proponent** conduct a public information session in cases where there is significant public interest in the proposed **Antenna System**. Where a public information session is required the **Proponent** shall:

- a) Determine an appropriate date, time and location for the public information session in consultation with the **Designated Municipal Officer**;
- b) Make available at the public information session an appropriate visual display of the proposal, including a copy of the site plan submitted with the application and an aerial photograph of the proposed site; and,
- c) Provide the City of Greater Sudbury with a package summarizing the results of the public information session containing at a minimum the following:
 - i. List of attendees, including names, addresses, email addresses and phone numbers (where provided voluntarily);
 - ii. Copies of all letters and other written communications received; and,
 - iii. A letter of response from the **Proponent** outlining how all the concerns and issues raised by the public were addressed.

8.5 Post Consultation Review

The **Proponent** will contact the **Designated Municipal Officer** following completion of the public consultation process in order to discuss the results and next steps in the process.

9.0 STATEMENT OF CONCURRENCE OR NON-CONCURRENCE

9.1 Concurrence and Concurrence With Conditions

The City of Greater Sudbury will provide a letter of concurrence to ISEDC and the **Proponent** where the proposal addresses, to the satisfaction of the City of Greater Sudbury, the requirements as set out within this protocol and the City of Greater Sudbury's technical requirements and will include conditions of concurrence, if required.

9.2 Non-Concurrence

The City of Greater Sudbury will provide a letter of non-concurrence to ISEDC and the **Proponent** if the proposal does not conform to City of Greater Sudbury requirements as set out within this protocol. The City of Greater Sudbury will also forward to ISEDC any comments on outstanding issues, including those raised during the public consultation

process. The City of Greater Sudbury will issue the letter of non-concurrence within the timeframe established in Section 10 of this protocol.

9.3 Rescinding a Concurrence

The City of Greater Sudbury may rescind its concurrence if following the issuance of a concurrence, it is determined by the City of Greater Sudbury that the proposal contains a misrepresentation or a failure to disclose all pertinent information regarding the proposal, or the plans and conditions upon which the concurrence was issued in writing have not been complied with, and a resolution cannot be reached to correct the issue. In such cases, the City of Greater Sudbury will provide notification in writing to ISEDC and to the **Proponent** and will include the reason(s) for the rescinding of its concurrence.

9.4 Duration of Concurrence

A concurrence remains in effect for a maximum period of three years from the date it was issued by the City of Greater Sudbury. If construction has not commenced within this time period the concurrence expires and a new submission and review process, including public consultation as applicable is necessary prior to any construction occurring. Notwithstanding the above, the **Proponent** may request in writing to the **Designated Municipal Officer** a one-time extension not exceeding one year in length provided that it is demonstrated to the satisfaction of the **Designated Municipal Officer** that no substantial change in land use planning circumstances within the vicinity of the proposal has occurred since concurrence was initially given.

9.5 Transfer of Concurrence

Once concurrence has been issued, that concurrence may be transferred from the original **Proponent** to another **Proponent** without the need for further consultation provided that:

- a) All information gathered by the original **Proponent** in support of obtaining the concurrence from the City of Greater Sudbury is transferred to the new **Proponent**;
- b) The structure for which concurrence was issued to the original **Proponent** is what the new **Proponent** builds; and,
- c) Construction of the structure is commenced within the duration of concurrence period outlined in Section 9.4 of this protocol.

10.0 CONSULTATION PROCESS TIMEFRAME

10.1 Completion of Preliminary Review

Consultation with the City of Greater Sudbury is to be completed within 60 days of the proposal being accepted as complete by the City of Greater Sudbury as outlined in Section 7.0 of this protocol.

10.2 Completion of Public Consultation

Where public consultation is required, consultation with the City of Greater Sudbury and public consultation are both to be completed within 120 days of the proposal being accepted as complete by the City of Greater Sudbury.

10.3 Consultation Extensions

The City of Greater Sudbury or the **Proponent** may request an extension to the consultation process timeline. Extension requests are to be submitted to the **Designated Municipal Officer**. This extension is to be mutually agreed upon by both parties.

10.4 Incomplete Consultation

In the event that the consultation process is not completed within 270 days, the **Proponent** will be responsible for receiving an extension from the City of Greater of Sudbury or reinitiating the consultation process to the extent requested by the City of Greater Sudbury.

11.0 LETTER OF UNDERTAKING

The **Proponent** may be required, if requested by the City of Greater Sudbury, to provide a letter of undertaking, which may include the following requirements:

- a) The posting of a security for the construction of any proposed fencing, screening and landscaping;
- b) A commitment to accommodate other communication providers on the Antenna System, where feasible, subject to the usual commercial terms and ISEDC Conditions of Licence for Mandatory Roaming and Antenna Tower and Site Sharing and to Prohibit Exclusive Site Arrangements (CPC-2-0-17); and,
- c) All conditions identified in the letter of concurrence.

12.0 REDUNDANT ANTENNA SYSTEMS

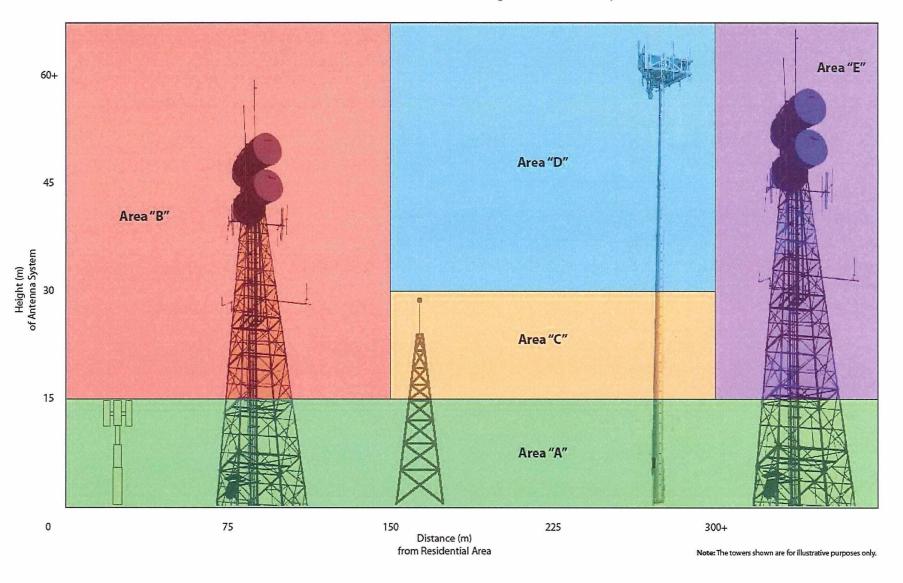
12.1 Redundant Antenna System Clarification Request

The City of Greater Sudbury can issue a request to network operators to clarify that a specific **Antenna System** is still required to support communication network activity. The network operator will respond within 30 days of receiving such a request, and will provide any available information on the future status or planned decommissioning of the **Antenna System**.

12.2 Removal of Antenna System

Where the network operators concur that an **Antenna System** is redundant, the network operator and the City of Greater Sudbury will mutually agree on a timeframe to remove the system and all associated buildings and equipment from the site. Removal will occur no later than 2 years from when the **Antenna System** was deemed redundant.

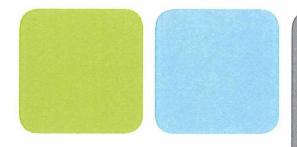
SCHEDULE "A" - Modified Review Process to Encourage Locations Away From Residential Areas







ANTENNA SYSTEM SITING PROTOCOL TEMPLATE www.cwta.ca



PURPOSE:

(TO BE REMOVED FROM FINAL PROTOCOL)

The purpose of this protocol template is to provide Municipalities with a tool to develop customized protocols for the siting of Antenna Systems within their Municipality.

As the template was developed jointly by the FCM and the CWTA, and is consistent with Industry Canada rules on Antenna System consultations, its use should result in consistent and predictable Antenna System siting protocols. This template encourages the development of local protocol guidelines that fully express the Municipality's location and design preferences. It is desirable for protocols to highlight local knowledge and expertise by suggesting preferred sites in all zoning designations and community development plans, including in Residential Areas, as well as design and screening preferences.

Additionally, all examples of local customization provided in the Appendix are endorsed by the wireless industry as being reasonable and practical components of an antenna siting protocol. Some of these examples are better suited to urban, suburban or rural Municipalities, depending on the Municipality from which they derive, but they serve as 'best practices' and should be considered by Municipalities as they examine options for developing their own local protocols. Municipalities should remove all items from this template that are not relevant considering its municipal policies and preferences before finalizing its protocol.

The following sections set out recommended language that may be adopted or adapted by Municipalities wishing to develop a customized protocol in a manner that reflects local circumstances.

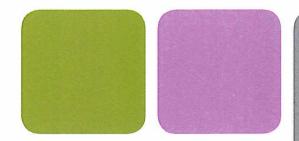
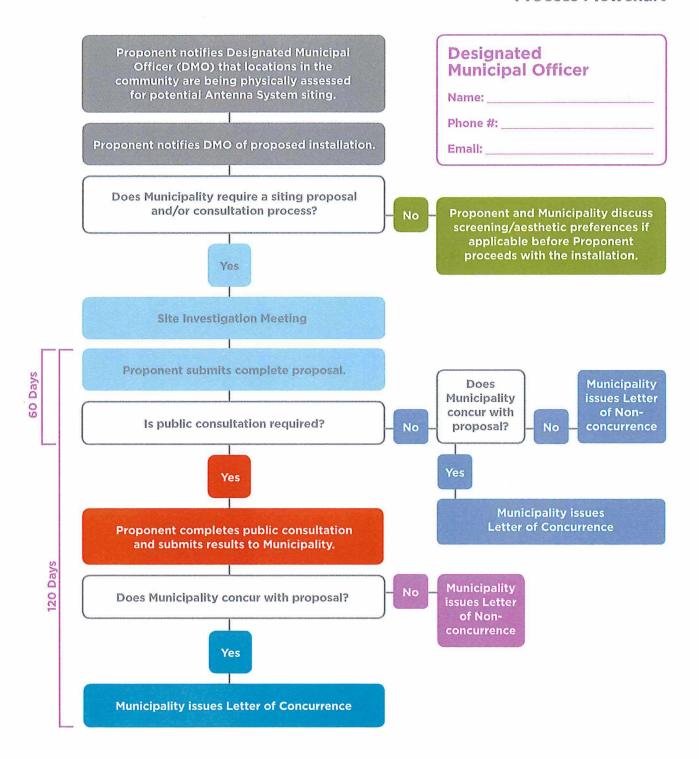
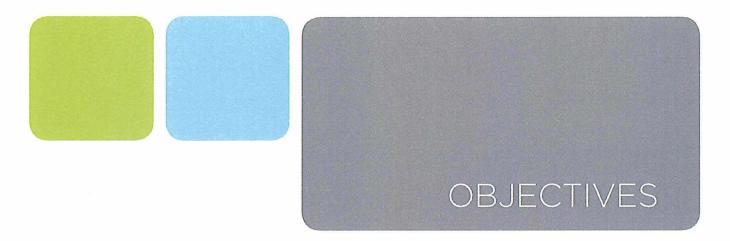


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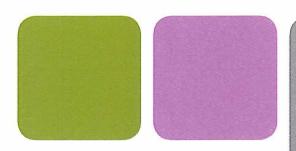
Antenna System Siting Process Flowchart





The objectives of this Protocol are:

- (1) To establish a siting and consultation process that is harmonized with Industry Canada's Radiocommunication and Broadcasting Antenna Systems Client Procedures Circular (CPC-2-0-03) and Guide to Assist Land-use Authorities in Developing Antenna Siting Protocols for reviewing land use issues associated with Antenna System siting proposals;
- (2) To set out an objective process, criteria and guidelines that are transparent, consistent and predictable for the evaluation of Antenna System siting proposals that:
 - a. Minimize the number of new antenna sites by encouraging co-location;
 - b. Encourage designs that integrate with the surrounding land use and public realm;
 - c. Establish when local public consultation is required; and
 - d. Allow Industry Canada and the communications industry to identify and resolve any potential land use, siting or design concerns with the Municipality at an early stage in the process.
- (3) To provide an expeditious review process for Antenna System siting proposals;
- (4) To establish a local land use consultation framework that ensures the Municipality and members of the public contribute local knowledge that facilitates and influences the siting location, development and design (including aesthetics) of Antenna Systems within municipal boundaries;
- (5) To contribute to the orderly development and efficient operation of a reliable, strong radiocommunication network in the Municipality; and
- (6) To provide the Municipality with the information required to satisfy the requirements of Industry Canada regarding local land use consultation, resulting in an informed statement of concurrence, concurrence with conditions, or non-concurrence from the Municipality to Industry Canada at the end of the process.



JURISDICTION AND ROLES

INDUSTRY CANADA: Under the *Radiocommunication Act*, the Minister of Industry has sole jurisdiction over inter-provincial and international communication facilities. The final decision to approve and licence the location of Antenna Systems is made only by Industry Canada. In June 2007, Industry Canada issued an update to its *Radiocommunication and Broadcasting Antenna Systems Client Procedures Circular* (CPC-2-0-03) which outlines the process that must be followed by Proponents seeking to install or modify Antenna Systems, effective January 1, 2008.

Industry Canada also requires that Proponents intending to install or modify an Antenna System notify and consult with Municipality (Land Use Authority), and the local community within a Prescribed Distance from the proposed structure. Industry Canada also published a *Guide to Assist Land-use Authorities in Developing Antenna Siting Protocols* in January 2008, stating that it "considers that the Municipality's and local residents' questions, comments and concerns are important elements to be considered by a Proponent seeking to install, or make modifications to, an antenna system." The CPC also establishes a dispute resolution process to be used where the Proponent and Municipality have reached an impasse.

ROLE OF THE MUNICIPALITY: The ultimate role of the Municipality is to issue a statement of concurrence or non-concurrence to the Proponent and to Industry Canada. The statement considers the land use compatibility of the Antenna System, the responses of the affected residents and the Proponent's adherence to this Protocol. The Municipality also guides and facilitates the siting process by:

- Communicating to Proponents the particular amenities, sensitivities, planning priorities
 and other relevant characteristics of the area;
- Developing the design guidelines for Antenna Systems contained in Section 6 of this Protocol; and
- **Establishing** a community consultation process, where warranted.

For additional information regarding Industry Canada's mandate and the application of its authority in the wireless telecommunications process, please consult Industry Canada's Spectrum Management and Telecommunications Sector at http://ic.gc.ca/spectrum.



By working with Proponents throughout the siting process, beginning with preliminary notification and the site investigation meeting, the Municipality seeks to facilitate Antenna System installations that are sensitive to the needs of the local community.

ROLE OF THE PROPONENT: Proponents need to strategically locate Antenna Systems to satisfy technical criteria and operational requirements in response to public demand. Throughout the siting process, Proponents must adhere to the antenna siting guidelines in the CPC, including:

- Investigating sharing or using existing infrastructure before proposing new antenna-supporting structures (consistent with CPC-2-0-17 Conditions of Licence for Mandatory Roaming and Antenna Tower and Site Sharing and to Prohibit Exclusive Site Arrangements);
- Contacting the Municipality to determine local requirements regarding Antenna Systems; and
- Undertaking public notification and addressing relevant concerns as is required and appropriate.

OTHER FEDERAL LEGISLATION: Proponents additionally must comply with the following federal legislation and/or regulations, where warranted:

- Health Canada's Safety Code 6 Limits of Human Exposure to Radiofrequency Electromagnetic Fields in the Frequency Range from 3 KHZ to 300 GHZ -Safety Code 6 (2009)²
- The Canadian Environmental Assessment Act; and
- NAV Canada and Transport Canada's painting and lighting requirements for aeronautical safety.

The Municipality does not assess any submission for an Antenna System with respect to health and radiofrequency exposure issues or any other non-placement or non-design related issues. Any questions or comments the public may wish to make regarding health issues related to cell phones, cell towers and radiofrequency exposure guidelines (Safety Code 6) should be directed to Health Canada on-line at healthcanada.gc.ca and to the Proponent's representative.



ANTENNA SYSTEM: an exterior transmitting device – or group of devices – used to receive and/or to transmit radio-frequency (RF) signals, microwave signals, or other federally-licenced communications energy transmitted from, or to be received by, other antennas. Antenna Systems include the antenna, and may include a supporting tower, mast or other supporting structure, and an equipment shelter. This protocol most commonly refers to the following two types of Antenna Systems:

- **1. Freestanding Antenna System:** a structure (e.g. tower or mast) built from the ground for the expressed purpose of hosting an Antenna System or Antenna Systems;
- 2. Building/Structure-Mounted Antenna System: an Antenna System mounted on an existing structure, which could include a building wall or rooftop, a light standard, water tower, utility pole or other.

CO-LOCATION: the placement of antennas and equipment operated by one or more Proponents on a telecommunication Antenna System operated by a different Proponent, thereby creating a shared facility.

COMMUNITY SENSITIVE LOCATIONS: land on which the siting of new Antenna Systems is discouraged, or requested to be subject to greater consultation than otherwise dictated by the standard protocol. Such locations may be defined in local zoning bylaws, community plans, or statutory plans.

DESIGNATED COMMUNITY ASSOCIATION: area- or neighbourhood-specific group that is recognized by the Municipality.

DESIGNATED MUNICIPAL OFFICER (AND HIS OR HER DESIGNATE): the municipal staff member(s) tasked with receiving, evaluating and processing submissions for telecommunication Antenna Systems. The Designated Municipal Officer's name and contact information is provided in the Antenna System Siting Flowchart provided in this protocol.



ELECTED MUNICIPAL OFFICIAL: the political leader of the demarcated area of the Municipality (e.g. ward) in which the Antenna System is proposed.

HERITAGE STRUCTURES/AREAS: buildings and structures (e.g. monuments) or areas/neighbourhoods receiving a heritage designation by the Municipality.

MUNICIPAL DEPARTMENTS: branches of municipal government that administer public services and are operated by city staff.

OTHER AGENCIES: bodies (e.g. boards or commissions) that administer public services but are not operated or staffed by the Municipality.

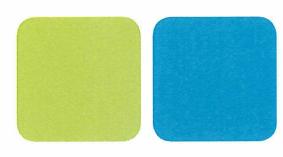
PRESCRIBED DISTANCE: [TO BE DETERMINED BY THE MUNICIPALITY³], measured horizontally from the base of the proposed Freestanding or Building/Structure-Mounted Antenna System.

PROPONENT: a company or organization proposing to site an Antenna System (including contractors undertaking work for telecommunications carriers) for the purpose of providing commercial or private telecommunications services, exclusive of personal or household users.⁴

RESIDENTIAL AREA: lands used or zoned to permit residential uses, including mixed uses (i.e. where commercial use is permitted at-grade with residential apartments/condominiums above).

Industry Canada recommends in the CPC a distance of three times the height of the proposed tower. Other existing municipal protocols have adopted a range of prescribed distances, e.g. six times the height of the proposed tower, a minimum of 100 metres, a minimum of 120 metres.

⁴ The Municipality may wish to apply this Protocol to amateur radio operators or, alternatively, introduce a separate review process for amateur radio installations.



EXCLUDED STRUCTURES

This section outlines the criteria for identifying Antenna Systems excluded from the consultation process by Industry Canada, the need to consider local circumstances for all exempt structures, and the process for Proponents to notify and discuss proposed exempt structures with the Municipality. Depending on the type of Antenna System proposed and the proposed system's proximity to discouraged locations (i.e. within the Prescribed Distance from the nearest Residential Area), structures typically excluded by Industry Canada may be required to follow all or part of the pre-consultation, proposal submission and public consultation identified in this protocol.⁵

4.1 EXEMPTIONS FROM ANTENNA SYSTEM SITING PROPOSAL REVIEW AND PUBLIC CONSULTATION

For the following types of installations, Proponents are generally excluded by Industry Canada from the requirement to consult with the Municipality and the public, but must still fulfill the General Requirements outlined in Section 7 of the CPC:

- (1) New Antenna Systems, including masts, towers or other antenna-supporting structure, with a height of less than **15 metres** above ground level **except where required by the Municipality as per Section 4.2.2**;
- (2) Maintenance of existing radio apparatus including the Antenna System, transmission line, mast, tower or other antenna-supporting structure;
- (3) Addition or modification of an Antenna System (including improving the structural integrity of its integral mast to facilitate sharing), the transmission line, antenna-supporting structure or other radio apparatus to existing infrastructure, a building, water tower, etc., including additions to rooftops or support pillars, provided:
 - a) the addition or modification does not result in an overall height increase above the existing structure of 25% of the original structure's height;
 - b) the existing Antenna System is at least 15 metres in height⁶; and
 - the existing Antenna System has not previously been modified to increase its original height by 25%;⁷

In developing this Joint Antenna System Siting Protocol with the Federation of Canadian Municipalities (FCM), the Canadian Wireless Telecommunications Association (CWTA) has agreed that Proponents will follow all or part of the pre-consultation, proposal submission and public consultation requirements for typically exempt Freestanding Antenna Systems and additions to Freestanding Antenna Systems, as long as these requirements are reasonable and consistent with the process identified in this protocol.

Any modifications or additions to existing Antenna Systems 15 metres or less in height that would extend the height of the existing antenna above 15 metres will be subject to the consultation process as applicable.



- (4) Maintenance of an Antenna System's painting or lighting in order to comply with Transport Canada's requirements; and
- (5) Installation, for a limited duration (typically not more than 3 months), of an Antenna System that is used for a special event, or one that is used to support local, provincial, territorial or national emergency operations during an emergency, and is removed within 3 months after the emergency or special event.⁸

The CPC also states that: Individual circumstances vary with each Antenna System installation and modification, and the exclusion criteria above should be applied in consideration of local circumstances. Consequently, it may be prudent for the Proponents to consult the Municipality and the public even though the proposal meets an exclusion noted above. Therefore, when applying the criteria for exclusion, Proponents should consider such things as:

- the Antenna System's physical dimensions, including the antenna, mast, and tower, compared to the local surroundings;
- the location of the proposed Antenna System on the property and its proximity to neighbouring residents;
- the likelihood of an area being a Community-Sensitive Location; and
- Transport Canada marking and lighting requirements for the proposed structure.

4.2 NOTIFICATION AND MUNICIPAL REVIEW OF EXEMPT ANTENNA SYSTEMS

Notwithstanding Industry Canada's exemption criteria for certain Antenna Systems, Municipalities should be informed of all new Antenna System installations within their boundaries so they can:

- Be prepared to respond to public inquiries once construction/installation has begun;
- Be aware of site Co-location within the Municipality;
- Maintain records to refer to in the event of future modifications and additions; and
- Engage in meaningful dialogue with the Proponent with respect to the appearance of the Antenna System and structure prior to the Proponent investing in full design.

Therefore, Proponents are required to undertake the following steps for **all exempt Antenna System installations before commencing construction**.

The Municipality may grant, upon request, additional time for the removal of Antenna Systems used for a special event or emergency operation.



4.2.1 Building/Structure-Mounted Antenna System:

The Proponent will in all cases provide the following information for all new Antenna Systems or modifications to existing Antenna Systems that are mounted to an existing structure, including (but not limited to) a building/rooftop, water tower, utility pole or light standard:

- The location of the Antenna System (address, name of building, rooftop or wall mounted, etc.);
- (2) Description of proposed screening or stealth design measures with respect to the measures used by existing systems on that site and/or the preferences expressed in Section 6;
- (3) The height of the Antenna System;
- (4) The height of any modifications to existing systems.

The Municipality may notify the Proponent of any inconsistency with the preferences and sensitivities expressed in Section 6 and the parties will work towards a mutually agreeable solution.

4.2.2 Freestanding Antenna Systems and additions to Freestanding Antenna Systems:

The Proponent will confirm to the Municipality that the Freestanding Antenna System to be erected, or an addition to an existing Freestanding Antenna System as defined in Section 4.1(3), meets the exclusion criteria in Section 4.1 by providing the following:

- (1) The proposed location, including its address and location on the lot or structure;
- (2) A short summary of the proposed Antenna System including a preliminary set of drawings or visual rendering of the proposed system; and
- (3) A description of how the proposal meets one of the Section 4.1 exclusion criteria.

The Municipality will review the documentation and will contact the Proponent where there is a site-specific basis for modifying the exemption criteria based on the preferences and sensitivities expressed in Section 6 of this Protocol. In such cases, the Municipality and the Proponent will work toward a mutually agreeable solution, which may include the Municipality requesting the proposal be subject to all or part of the pre-consultation, proposal submission and public consultation process defined in Sections 5, 7 and 8 of this protocol, as applicable, concluding with a letter of concurrence or non-concurrence.



Proponents should anticipate that the Municipality will request that all proposals for new Freestanding Antenna Systems and additions to existing Freestanding Antenna Systems that are proposed within the Prescribed Distance from the nearest Residential Area be subject to the pre-consultation, proposal submission and public consultation process. For this reason, Proponents are strongly encouraged to initiate this process before investing in a final design or site.

4.3 EXEMPTIONS FROM PUBLIC CONSULTATION ONLY

In addition to Industry Canada's basic exemptions listed in subsection 4.1, the following types of Antenna Systems are exempt from the public consultation requirement by the Municipality:

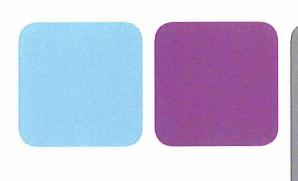
- (1) New Antenna Systems which will be located outside the Prescribed Distance (as identified in Section 3) from the nearest Residential Area.
- (2) Notwithstanding subsection (1) above, the Municipality may, on a case-by-case basis, exempt a Proponent from all or part of the consultation requirements under Section 8 of this Protocol.⁹ For example, exemptions may be granted where the proposed location is separated from a Residential or Heritage area or structure by an arterial roadway, and/or is buffered by substantial tree cover, topography, or buildings.

4.4 SITING ON MUNICIPAL-OWNED PROPERTIES

Any request to install an Antenna System on lands owned by the Municipality shall be made to the appropriate official dealing with municipal properties, in accordance with Municipal policy.¹⁰

For example, a Municipality may decide to exclude certain proposals from the requirement to hold a public meeting, but not from issuing a public notification to affected property owners/tenants within the Prescribed Distance.

Existing municipal procedures related to the leasing/selling of municipal-owned land to third parties may necessitate a consultation process irrespective of whether an exemption is provided under this Protocol.



PRE-CONSULTATION WITH THE MUNICIPALITY

Pre-consultation is one of the most important elements in the antenna siting process as it generally occurs at a point before the Proponent is committed to a site or design. As a result it represents the best opportunity to influence the siting decision since the Proponent will more likely become committed to a site once the detailed engineering has been completed. While a discussion of submission requirements is appropriate the proposal will benefit most from early direction on matters of siting and design. Proponents are strongly encouraged to initiate pre-consultation as early as possible in the antenna siting process for exempt and non-exempt structures.

Prior to submitting an Antenna System proposal, including for Freestanding Antenna Systems or additions to Freestanding Antenna Systems as may be required under Section 4.2.2, the Proponent will undertake the following preliminary consultations with the Municipality.

5.1 NOTIFICATION

Proponents will notify the Designated Municipal Officer that locations in the community are being physically assessed for potential Antenna System siting.

5.2 SITE INVESTIGATION MEETING WITH MUNICIPALITY

Prior to submitting an Antenna System siting proposal, the Proponent will initiate a site investigation meeting with the Municipality.

The purpose of the site investigation meeting is to:

- Identify preliminary issues of concern;
- Identify requirements for public consultation (including the need for additional forms of notice and a public information session);
- Guide the content of the proposal submission; and
- Identify the need for discussions with any Municipal Departments and Other Agencies as deemed necessary by the Designated Municipal Officer.



Where the Municipality has an initial concern with the proposed siting of the proposal they will make known to the Proponent alternative locations within the Proponent's search area for consideration.

The Proponent will bring the following information to the site investigation meeting¹¹:

- (1) The proposed location;
- (2) Potential alternative locations;
- (3) The type and height of the proposed Antenna System; and
- (4) Preliminary drawings or visual renderings of the proposed Antenna System superimposed to scale; and
- (5) Documentation regarding the investigation of co-location potentials on existing or proposed Antenna Systems within 500 metres of the subject proposal.

If desired by both the Proponent and the Municipality, multiple Antenna System siting proposals may be reviewed at a site investigation meeting.

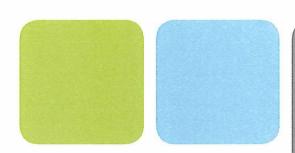
5.3 CONFIRMATION OF MUNICIPAL PREFERENCES AND REQUIREMENTS

Following the site investigation meeting, municipal staff will provide the Proponent with an information package that includes:

- (1) This Protocol, which outlines the approval process, excluded structures, requirements for public consultation and guidelines regarding site selection, co-location, installation, design and landscaping;
- (2) Proposal submission requirements;
- (3) A list of plans and studies that may be required (i.e. environmental impact statements);
- (4) A list of Municipal Departments and Other Agencies to be consulted; and
- (5) An indication of the Municipality's preferences regarding Co-location for the site(s) under discussion.

To expedite the review of the proposal, the Proponent will review this information package before the proposal is submitted so that the interests of Municipal Departments are taken into account. The Proponent is encouraged to consult with affected Departments as well as the local Elected Municipal Official and/or Designated Municipal Officer before submitting the proposal.

Proponents may prefer to attend the site investigation meeting without some of the required documents – particularly preliminary drawings – if it is waiting on Municipality feedback before settling on a final location, structure height or design. This should be confirmed with the Municipality. Such documents will be required to be provided following the meeting and prior to the Municipality providing the Proponent with the information package.



DEVELOPMENT GUIDELINES

BACKGROUND (TO BE REMOVED FROM FINAL PROTOCOL):

Municipalities are advised to provide as much detail as possible in this section in order to guide the development of Antenna Systems in their community in a manner that respects local sensitivities and land-use compatibility while providing transparency and predictability to Proponents. Various common criteria for development guidelines are included below. Suggestions for specific guidelines that have been identified as best practices from other Municipal protocols are provided in the Appendix as a reference point. Municipalities are encouraged to populate this guidelines section (or remove any inapplicable categories) as is appropriate to identify their local sensitivities.

Municipalities should ensure that all relevant Zoning By-law regulations are cited in this section as deemed necessary.

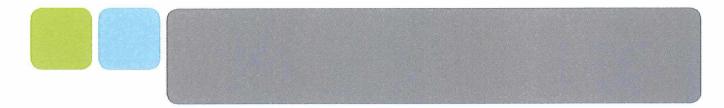
Antenna Systems should be sited and designed to respect local sensitivities and preferences as identified by the Municipality.

The Municipality has set out a number of guidelines under the following criteria for the selection of sites and/or construction of new Antenna Systems:

- Location, including Co-location; and
- Development and Design Preferences

The Proponent should review the guidelines identified below as early as possible, and should attempt to resolve any outstanding issues prior to submitting its Antenna System siting proposal and undertaking the public consultation, where required by the Municipality. Because expressed preferences may be location- or site-specific, the Proponent is encouraged to discuss the guidelines fully with the Municipality at the site investigation meeting.

Proponents are also required to obtain all applicable building permits for additions and/or modifications to existing buildings.



6.1 LOCATION

Co-location:

Before submitting a proposal for an Antenna System on a new site, the Proponent must explore the following options:

- Consider sharing an existing Antenna System, modifying or replacing a structure if necessary;
- Locate, analyze and attempt to use any feasible existing infrastructure, including (but not limited to) rooftops, water towers, utility poles or light standards.

Where Co-location on an existing Antenna System or structure is not possible, a new Antenna System should be designed with Co-location capacity, including in Residential Areas when identified as the Municipality's preference.

The Municipality recognizes that the objective of promoting Co-location and the objective of making Antenna Systems less noticeable may sometimes come into conflict. Nevertheless, the Municipality intends to review each submission on its merits with a view to promoting both objectives and, where necessary, will determine the appropriate balance between them. The Proponent should, in all cases, verify the Municipality's site-specific design preferences during the pre-submission consultation process before investing in a final design or site.

Preferred Locations:

When new Antenna Systems must be constructed, **where technically feasible**, the following locations are preferred:

Discouraged Locations

New Antenna Systems should avoid the following areas:



6.2 DEVELOPMENT AND DESIGN PREFERENCES

Antenna Systems should be designed in terms of appearance and aesthetics to respect their immediate surroundings (e.g. Residential, parkland, Heritage district, etc.), including being unobtrusive and inconspicuous, minimizing visual impact, avoiding disturbance to natural features, and reduce the need for future facilities in the same area, where appropriate. The Municipality's preferred design and development preferences are described below.

The Municipality will identify to the Proponent which of the following development and design preferences are encouraged in the proposed location.

Style and Colour: Buffering and Screening: Structure: Height: Yards, Parking and Access:

Equipment Cabinets in Public Spaces:

Signage and Lighting:

Rooftop Equipment:

•



PROPOSAL SUBMISSION

For a proposed Antenna System, except for cases in which consultation is not required as per Section 4.2.1 or the Municipality has not requested consultation as per Section 4.2.2, the Proponent will submit to the Municipality an Antenna System siting proposal and the applicable fee.

7.1 PROPOSAL SUBMISSION REQUIREMENTS

The Proponent must include the following information when submitting an Antenna System siting proposal:

- (1) A letter or report from the Proponent indicating the need for the proposal, the proposed site, the rationale for site selection, coverage and capacity of existing Antenna Systems in the general area and a summary of opportunities for Co-location potentials on existing or proposed Antenna Systems within 500 metres of the subject proposal;
- (2) Visual rendering(s) of the proposed Antenna System superimposed to scale;
- (3) A site plan showing the proposed development situated on the site;
- (4) A map showing the horizontal distance between the property boundary of the proposed site and the nearest property in residential use;
- (5) For Antenna Systems requiring public consultation, a map showing all properties located within the Prescribed Distance from the proposed Antenna System;¹²
- (6) Confirmation of legal ownership of the lands subject to the proposal, or a signed letter of authorization from the registered property owner of the land, their agent, or other person(s) having legal or equitable interest in the land;
- (7) An attestation that the Antenna System will respect Health Canada's Safety Code 6 which sets safe radiofrequency emission levels for these devices; and
- (8) Any other documentation as identified by the Municipality following the site investigation meeting.¹³

¹² The Proponent may request to use the Municipality's mapping system.

For example, in cases where the Proponent commits to a design that includes Co-location capacity, the Municipality may require the Proponent to verify that other Proponents in the area have been notified of the potential Co-location opportunities.



A determination on the completeness of an application or request for additional information will be provided within **five working days** of receipt of the proposal.

Upon receipt of a complete proposal submission, the Municipality will circulate the proposal for review and comment to:

- (1) Affected Municipal Departments;
- (2) Any adjacent Municipalities within the Prescribed Distance;14 and
- (3) The local Elected Municipal Official.

7.2 FEES

Remove reference to fees if not applicable to your Municipality.

The Proponent must pay any applicable application fee to the Municipality.

The Proponent is responsible for securing applicable applications or permissions from all relevant municipal departments and paying any applicable application fees or charges as required to the Municipality.

⁴ As part of inter-municipal processes, the Municipality may also request that the Proponent notify adjacent Municipalities at greater distances, subject to review by the Municipality or at the request of the adjacent Municipality.





PUBLIC CONSULTATION PROCESS

BACKGROUND (TO BE REMOVED FROM FINAL PROTOCOL):

Industry Canada believes that nearby residents should be consulted regarding non-excluded antenna proposals. Consultation allows the community to be involved and ultimately influences the proposal's siting. Discussions allow stakeholders to work towards a consensus.

While Industry Canada provides a default public consultation process in the CPC, Municipalities are free to structure their public consultation process to meet their needs. Most often, Municipalities customize their public consultation process in two ways:

- By prescribing which information must be included in the public notification; and
- Requiring that either a face-to-face public consultation (i.e. open-house, drop-in or public meeting) process or a written (or other) consultation process take place.

If the proposed Antenna System is not exempt from the public consultation process as per the requirements in Section 4, the Proponent will initiate the following public consultation process, including issuing notice, undertaking written consultation, hosting a public information session where required and reviewing the consultation results with the Municipality.

8.1 NOTICE RECIPIENTS

After the Proponent has submitted an Antenna Systems siting proposal, the Proponent will give notice to:

- (1) All affected residential properties within the Prescribed Distance;
- (2) All Designated Community Associations within the Prescribed Distance.
- (3) Any adjacent municipalities within the Prescribed Distance;
- (4) The local Elected Municipal Official;
- (5) The Designated Municipal Officer; and
- (6) The Industry Canada regional office.



The Municipality will assist the Proponent in compiling a mailing list of addresses of the affected residences within the Prescribed Distance from the proposed Antenna System.¹⁵ The Municipality may charge a fee for this service.

8.2 NOTICE REQUIREMENTS

The notice will be sent by regular mail or hand delivered, a minimum of 30 days before the public information session (where a public information session is required), and include:

- (1) Information on the location, height, type, design and colour of the proposed Antenna System; including a 21 cm x 28 cm (8Đ" x 11") size copy of the site plan submitted with the application;
- (2) The rationale, including height and location requirements, of the proposed Antenna System;
- (3) The name and contact information of a contact person for the Proponent;
- (4) The name and contact information of the Designated Municipal Officer;
- (5) An attestation that the Antenna System will respect Health Canada's Safety Code 6 which sets safe radiofrequency emission levels for these devices;
- (6) The date, time and location of the public information session where required; and
- (7) A deadline date for receipt by the Proponent of public responses to the proposal.
 - a. Where a public information session is required, the deadline date must be no more than five days before the date of the session.
 - b. Where a public information session is not required, the deadline date must be at least 30 days after the notices are mailed.

The notification shall be sent out in an envelope addressed to the "Occupant" and shall clearly show in bold type on the face of the envelope the statement:

"NOTICE FOR RESIDENTS WITHIN [INSERT PRESCRIBED DISTANCE] OF A NEW PROPOSED CELL TOWER, INFORMATION IS ENCLOSED."

Notices may be delivered to a condo/strata corporation instead of to each unit owner.



The Municipality may also require the Proponent, based on local conditions such as a high proportion of rental accommodation in the vicinity of the site, to provide such additional forms of notice as deemed necessary. Additional notification requirements will be identified by the Municipality during or following the site investigation meeting. Other forms of notification may include, but are not limited to:

- A large format notice board sign or signs, posted on the site of the proposed Antenna System, that is clearly visible from any roadway abutting the site;
- Publication of the notice in a local newspaper(s); and/or,
- Hand delivery of notices to specified buildings.

8.3 WRITTEN CONSULTATION PROCESS

Following the delivery of the notification, the Proponent will allow the public to submit written comments or concerns about the proposal.

The Proponent will:

- Provide the public at least 30 days to submit questions, comments or concerns about the proposal;
- (2) Respond to all questions, comments and concerns in a timely manner (no more than 60 days from the date of receipt); and
- (3) Allow the party to reply to the Proponent's response (providing at least 21 days for public reply comments).
- (4) Keep a record of all correspondence that occurred during the written consultation process. This includes records of any agreements that may have been reached and/or any concerns that remain outstanding.
- (5) Provide a copy of all written correspondence to the Municipality and the regional Industry Canada office.



8.4 PUBLIC INFORMATION SESSION

The municipality may request the Proponent chair a public information session in cases where there is significant public interest in the proposed Antenna System. The type of public meeting to be conducted (open house, drop-in or town hall format) is up to the discretion of the Proponent, however:

- An appropriate date, time and location for the public information session will be determined in consultation with the Designated Municipal Officer.
- The Proponent will make available at the public information session an appropriate visual display of the proposal, including a copy of the site plan submitted with the application and an aerial photograph of the proposed site.

The Proponent will provide the Municipality with a package summarizing the results of the public information session containing at a minimum, the following:

- List of attendees, including names, addresses and phone numbers (where provided voluntarily);
- (2) Copies of all letters and other written communications received; and
- (3) A letter of response from the Proponent outlining how all the concerns and issues raised by the public were addressed.

8.5 POST CONSULTATION REVIEW

The Municipality and the Proponent will communicate following completion of the public consultation process (and arrange a meeting at the Municipality's request) to discuss the results and next steps in the process.



STATEMENT OF CONCURRENCE OR NON-CONCURRENCE

9.1 CONCURRENCE AND CONCURRENCE WITH CONDITIONS

The Municipality will provide a letter of concurrence to Industry Canada (copying the Proponent) where the proposal addresses, to the satisfaction of the Municipality, the requirements as set out within this Protocol and the Municipality's technical requirements, and will include conditions of concurrence, if required.¹⁶

The Municipality will issue the letter of concurrence within the timeframe established in Section 10.

9.2 NON-CONCURRENCE

The Municipality will provide a letter of non-concurrence to Industry Canada (copying the Proponent) if the proposal does not conform to Municipality requirements as set out within this Protocol. The Municipality will also forward to Industry Canada any comments on outstanding issues, including those raised during the public consultation process.

The Municipality will issue the letter of non-concurrence within the timeframe established in Section 10.

9.3 RESCINDING A CONCURRENCE

The Municipality may rescind its concurrence if following the issuance of a concurrence, it is determined by the Municipality that the proposal contains a misrepresentation or a failure to disclose all the pertinent information regarding the proposal, or the plans and conditions upon which the concurrence was issued in writing have not been complied with, and a resolution cannot be reached to correct the issue.

In such cases, the Municipality will provide notification in writing to the Proponent and to Industry Canada and will include the reason(s) for the rescinding of its concurrence.

¹⁶ The Municipality may, on case-by-case basis, include in writing specific conditions of concurrence such as design, screening or Co-location commitments.



9.4 DURATION OF CONCURRENCE

A concurrence remains in effect for a maximum period of three years from the date it was issued by the Municipality. If construction has not commenced within this time period the concurrence expires and a new submission and review process, including public consultation as applicable, is necessary prior to any construction occurring.¹⁷

In addition, if construction has not commenced after two years from the date the concurrence was issued, the Municipality requests that the Proponent send a written notification of an intent to construct to the Designated Municipal Officer, the Elected Municipal Official and any Designated Community Association once the work to erect the structure is about to start. This notification should be sent 60 days prior to any construction commencing. No further consultation or notification by the Proponent is required.

9.5 TRANSFER OF CONCURRENCE

Once concurrence has been issued, that concurrence may be transferred from the original Proponent to another Proponent (the current Proponent) without the need for further consultation provided that:

- (1) All information gathered by the original Proponent in support of obtaining the concurrence from the Municipality is transferred to the current Proponent;
- (2) The structure for which concurrence was issued to the original Proponent is what the current Proponent builds; and
- (3) Construction of the structure is commenced within the Duration of Concurrence period.

For the purpose of this Protocol, construction will be deemed by the Municipality to have commenced when the preparation of a base for an antenna structure has been physically initiated or an existing structure is about to be altered in any way in preparation of an increase in height to that structure.

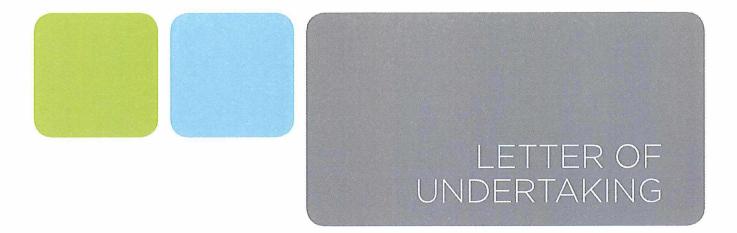


Consultation with the Municipality is to be completed within 60 days of the proposal being accepted as complete by the Municipality as explained in Section 7 of this Protocol.

Where public consultation is required, consultation with the Municipality and public consultation are both to be completed within 120 days of the proposal being accepted as complete by the Municipality.

The Municipality or Proponent may request an extension to the consultation process timeline. This extension must be mutually agreed on by both parties.

In the event that the consultation process is not completed in 270 days, the Proponent will be responsible for receiving an extension from the Municipality or reinitiating the consultation process to the extent requested by the Municipality.



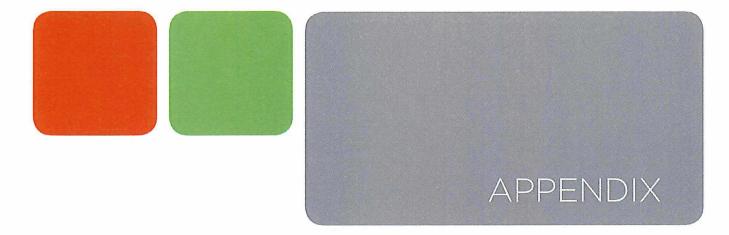
The Proponent may be required, if requested by the Municipality, to provide a Letter of Undertaking, which may include the following requirements:

- (1) The posting of a security for the construction of any proposed fencing, screening and landscaping;
- (2) A commitment to accommodate other communication providers on the Antenna System, where feasible, subject to the usual commercial terms and Industry Canada Conditions of Licence for Mandatory Roaming and Antenna Tower and Site Sharing and to Prohibit Exclusive Site Arrangements (CPC-2-0-17); and
- (3) All conditions identified in the letter of concurrence.



Municipalities can issue a request to network operators to clarify that a specific Antenna System is still required to support communication network activity. The network operator will respond within 30 days of receiving the request, and will provide any available information on the future status or planned decommissioning of the Antenna System.

Where the network operators concur that an Antenna System is redundant, the network operator and Municipality will mutually agree on a timeframe to remove the system and all associated buildings and equipment from the site. Removal will occur no later than 2 years from when the Antenna System was deemed redundant.



Industry Canada's *Guide to Assist Land-use Authorities in Developing Antenna Siting Protocols* suggests that protocols can include promoting the placement of antennas in optimal locations from a land-use point of view,¹⁸ or excluding certain lands and rooftops from protocol requirements.

The protocol should identify areas of historic, cultural or environmental importance to the community and the need to minimize the impact of the proposal on these areas, and identify local preferences for antenna siting. In particular, the Municipality should define Community Sensitive Areas in which the siting of new Antenna Systems is discouraged, as may be defined in local zoning bylaws or community plans. Industry Canada also requires Proponents to use existing antenna towers or infrastructure (such as rooftops, water towers, etc.) where possible, and the Municipality may wish to provide guidance as to its own preferences regarding Co-location.

Suggestions for specific location and design guidelines that have been identified as best practices from other Municipality protocols, and can be used to customize Section 6 of your protocol, are provided below as a reference point.

The land-use compatibility of Antenna Systems may be guided by municipal plans, design bylaws, relevant planning work (i.e. neighbourhood plans and antenna site pre-selection studies) and/or any other municipal guiding document or policy.



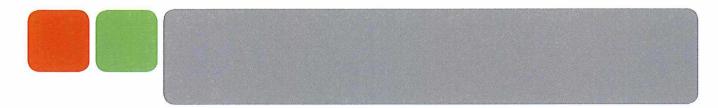
LOCATION

Preferred Locations:

- Areas that maximize the distance from Residential Areas.
- Industrial and commercial areas.
- Mounted on buildings or existing structures within the downtown area.
- Areas that respect public views and vistas of important natural or manmade features.
- Agricultural areas.
- Transportation and utility corridors.
- As near as possible to similarly-scaled structures.
- Institutional uses where appropriate, including, but not limited to, those institutions
 that require telecommunications technology: emergency services, hospitals, colleges
 and universities.
- Adjacent to parks, green spaces and golf courses.
- Located in a manner that does not adversely impact view corridors.
- Other non-Residential Areas where appropriate.

Discouraged Locations

- Locations directly in front of doors, windows, balconies or residential frontages.
- Ecologically significant natural lands.
- Riverbank lands.
- Inappropriate sites located within Parks and Open Space Areas (with the exception of sites zoned to permit utilities and/or unless designed to interact with the area's character).
- Sites of topographical prominence.
- Heritage areas (unless visibly unobtrusive) or on heritage structures unless it forms an integrated part of the structure's overall design (i.e. through the use of stealth structures).
- Pitched roofs.
- Community Sensitive Locations (as may be defined by the Municipality prior to being included in this Protocol).



DEVELOPMENT AND DESIGN PREFERENCES

Style and Colour:

- The architectural style of the Antenna System should be compatible with the surrounding neighbourhood and adjacent uses (Example: monopole near Residential Area or lattice-style in industrial areas).
- In all instances the Proponent should mitigate negative visual impacts through the use of appropriate landscaping, screening, stealth design techniques, etc.
- An Antenna System may be designed or combined as a landmark feature to resemble features found in the area, such as a flagpole or clock tower, where appropriate, subject to any zoning approvals required for the landmark feature.
- In the downtown area, the design of Antenna Systems should generally be unobtrusive and consistent with Downtown Design Guidelines.
- Towers and communication equipment should have a non-reflective surface.
- Special design treatments should be applied to Antenna Systems proposed to be located within parks and open space areas or on listed Heritage buildings and/or sites to make the system unobtrusive.
- Cable trays should generally not be run up the exterior faces of buildings.
- Antennas that extend above the top of a supporting utility pole or light standard should appear (e.g. in colour, shape and size) to be a natural extension of the pole.

Buffering and Screening:

- Antenna Systems and associated equipment shelters should be attractively designed
 or screened and concealed from ground level or other public views to mitigate visual
 impacts. Screening could include using existing vegetation, landscaping, fencing, or
 other means in order to blend with the built and natural environments.
- A mix of deciduous and coniferous trees is preferred to provide year-round coverage.
- Where adjacent to a principal building, equipment shelters should be constructed of a
 material similar in appearance to at least one of the materials used in the facades of the
 principal building and one of the same colours used in the principal building.



Structure:

- Single operator loaded towers (i.e., monopoles) are generally unobtrusive and of low impact and may therefore be located near living areas.
- New structures in residential or high-traffic areas should consider multi-use design (street lighting, electric vehicle charging, parking payment terminals, signage, Wi-Fi etc.).
- Individual wall-mounted antennas should be fixed as close to the wall as possible and should not project above the height of the wall face they are mounted on, in order to avoid visual clutter, and should be painted to match the wall colour for stealth.
- Facilities located on rooftops should be not be visible (to the extent possible) from the street.
- The appropriate type of telecommunication antenna structure for each situation should be selected based upon the goal of making best efforts to blend with the nearby surroundings and minimize the visual aesthetic impacts of the telecommunication antenna structure on the community.
- Pinwheel telecommunication antennas are discouraged (or encouraged).
- The use of guy wires and cables to steady, support or reinforce a tower is discouraged (or encouraged).

Height:

- The Municipality prefers that Freestanding Antenna Systems be a maximum of [TO BE DETERMINED BY THE Municipality] in height, except in industrial areas.¹⁹
- Height for a Freestanding Antenna System must be measured from grade to the highest point on the structure, including lighting and supporting structures.
- Where Building/Structure-Mounted Antenna Systems will exceed 25% of the height of the existing building, the Municipality prefers that the height not exceed [TO BE DETERMINED BY THE Municipality] measured from the top of the roof or [TO BE DETERMINED BY THE Municipality] above the highest point of the elevator penthouse, whichever is higher.

Yards, Parking and Access:

 Adequate yards, to be determined on a site-by-site basis, should separate Antenna Systems from adjacent development without unduly affecting the development potential of the lot over the lease period.

The Municipality may require Proponents to take out a newspaper notice for Freestanding Antenna Systems that are more than 30 metres in height, in addition to the public notification requirements listed in Section 8.



Parking spaces, where provided at each new Antenna System site, should have direct
access to a public right-of-way at a private approach that does not unduly interfere
with traffic flow or create safety hazards.

Equipment Cabinets in Public Spaces²⁰:

- Cabinets shall be designed in a manner which integrates them into their surroundings, including use of decorative wraps that are graffiti-resistant.
- Cabinet dimensions shall be as minimal as possible.
- Cables and wires must be concealed or covered.

Signage and Lighting:

- Small owner identification signs up to a maximum of 0.19 square metres may be posted on Antenna Systems and associated equipment shelters or perimeter fencing.
- No advertising sign or logo is permitted.
- Appropriate signage may also be used as part of screening or disguise.²¹
- Unless specifically required by Transport Canada and/or NAV Canada, the display
 of any lighting is discouraged.
- Where Transport Canada and/or NAV Canada requires a structure to be lit, the lighting should be limited to the minimum number of lights and the lowest illumination allowable, and any required strobe lightning should be set to the maximum strobe interval allowed by Transport Canada.
- The lighting of Antenna Systems and associated equipment shelters for security purposes
 is supportable provided it is shielded from adjacent residential properties, is kept to a
 minimum number of lights and illumination intensity, where possible, is provided by a
 motion detector or similar system.

Rooftop Equipment:

 Equipment shelters located on the roof of a building should be set back from the roof edge to the greatest extent possible, and painted to match the penthouse/building.

This section is intended to apply to mechanical equipment cabinets that are located in public spaces (e.g. at the bottom of a utility pole) and do not apply to cabinets that are located inside fenced in areas (e.g. in industrial areas or on rooftops).

Municipality concurrence under this protocol does not include approval for associated signage. Proponents are required to obtain any necessary approvals for signage through the Municipality's development process or sign by-law as applicable.

