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UPDATED TELECOMMUNICATION TOWER PROTOCOL

The Planning and Economic Development Committee recommends the adoption of the recommendations contained in the following report dated February 10, 2008, from the Commissioner of Planning and Development Services.

1. RECOMMENDATIONS

It is recommended that:

1. Regional Council replace the Region's 2002 Telecommunication Tower Protocol by adopting Industry Canada's protocol for telecommunication towers (CPC-2-0-03, as amended from time to time), as set out in *Attachment 1*.
2. The Regional Clerk circulate this report to the local municipalities, Industry Canada, and representatives of the cellular service providers.

2. PURPOSE

This report describes:

- The process to update the Region's existing protocol.
- The issues raised during the update process and consultation with stakeholders.
- Why staff are recommending adopting Industry Canada's protocol for the Region.

3. BACKGROUND

Radiocommunication and broadcasting services are important to all Canadians and are used daily by the general public, safety and security organizations, government, wireless service providers, broadcasters, utilities and businesses. In order for radiocommunication and broadcasting services to work, antenna systems including masts, towers, and other supporting structures are required. In exercising its mandate, Industry Canada has determined that it is important that antenna systems are deployed in a manner that considers the local surroundings.

York Region has a protocol for dealing with proposed antenna tower locates, which was adopted by Regional Council on April 18, 2002. Since then, Industry Canada has revised their procedures twice. A revised version took effect on January 1, 2008 and is set out in *Attachment 1* to this report. A recent amendment to the attached protocol exempts tower sharing by emergency services, including York Region Police towers.

A previous staff report was presented to Committee and Council in January 2008 (Clause 2 of Report No. 1 of the Planning and Economic Development Committee). The report outlined the main differences between the Region's existing 2002 protocol and Industry Canada's revised protocol. The report also identified the need to consult with the Region's local municipalities and with the cellular service providers to develop an updated York Region protocol.

4. ANALYSIS AND OPTIONS

During 2008, Regional staff organized a number of meetings to review Industry Canada's new protocol. In an effort to develop an updated Regional telecommunication tower protocol these meetings focused on the "approval" powers, the appropriate consultation parameters, and identification of issues from a municipal perspective, especially the issue of potential health effects from telecommunication towers.

Industry Canada approves the location of antennas but requires public consultation and written confirmation that this consultation has been undertaken from the land use authority

The installation and operation of each antenna is controlled, in part, by Industry Canada through the issuance of licences. Before these licences are granted, proponents must receive written concurrence from the appropriate land use authority, that the consultation process has been reasonably adhered to. *Planning Act* tools and the municipal planning process may have limited effect because the final approval of the location of an antenna system rests with the Minister of Industry Canada. Section 5(1)f of the *Radiocommunications Act* states: [the Minister has the power to] "*approve each site on which radio apparatus, including antenna systems, may be located, and approve the erection of all masts, towers and other antenna-supporting structures.*"

Industry Canada requires proponents to follow the municipal land use consultation process. In the event the municipal process has no public consultation requirement, proponents must then utilize Industry Canada's Default Public Consultation Process, as set out in Attachment 1.

The draft Regional Protocol benefited from several working meetings with key stakeholders

As directed by Regional Council, through the adoption of the January 2008 staff report, there have been multiple meetings with the Region's local municipal partners in the development of an updated protocol. The process has been iterative and involved detailed discussions of specific elements of the protocol. The municipal working group also met with the industry service providers in December 2008. Representatives from Ontario's three main service providers were present: Bell, Rogers and Telus. Also in attendance, were the service providers' legal counsel (Thomson Rogers) and their

planning consultant (Slobodsky Associates), as well as representatives from Industry Canada.

The municipal working group was informed about Industry Canada's current protocol and provided comments on the Region's proposed updated protocol.

The Regional Medical Officer of Health has indicated that Health Canada's safety standards are appropriate

In addressing a specific inquiry posed by Richmond Hill Council, the Town's Planning Commissioner, the Region's Planning Commissioner and the Region's Medical Officer of Health, and respective staff, had a teleconference meeting with Health Canada. The purpose of the meeting was to better understand and explore the issue of potential health effects from telecommunication antennas. According to Health Canada's Safety Code 6, radiofrequency fields from telecommunication antennas must be 50 times lower than the exposure that could cause harm to residents.

The Region's Medical Officer of Health, in reply to Richmond Hill's inquiry, attached herewith as Attachment 2, indicates that as part of the Region's due-diligence, the Public Health Branch has reviewed Health Canada's Safety Code 6 and research from agencies such as the World Health Organization, Health Canada, Industry Canada. This review also included research from a number of recent peer-reviewed scientific journal articles. The Region's Medical Officer of Health concludes that *"the weight of evidence has not identified that Safety Code 6 is inappropriate, in protecting the public from exposure to RF [radiofrequency] fields."*

Adopting Industry Canada's protocol will reduce redundancies

After the series of meetings a draft of the Region's updated protocol was developed. The resulting Regional protocol is very similar to Industry Canada's protocol and because of the similarity, staff concluded that simply adopting Industry Canada's protocol would reduce redundancies and permit a more efficient and consistent approach for the Region and the nine local municipalities.

The Region's 2002 protocol served its purpose well over the years. It provided an opportunity for local municipalities to establish individual protocols/approaches. Industry Canada's new protocol has also matured to become a far more comprehensive tool in the management of telecommunication tower approvals, which occurs at the Federal level.

Industry Canada's protocol requires the proponent to consult with landowners and adjacent municipalities within a distance of three times the tower height. The draft updated Regional protocol identified the distance to consult with landowners as: 120 metres or three times the tower height, whichever is greater. Staff have determined to use Industry Canada's protocol and have the local protocols determine more directive

requirements, if necessary. Since Industry Canada's revised protocol has been greatly improved, there is no longer a reason for the Region to have its own protocol.

Local Councils can still customize their respective protocols

Local municipal Councils have in the past, and will still be able to customize their own protocols. For instance, local Councils can, within reason and with Industry Canada's agreement:

- Define more definitive public consultation requirements.
- Require proponents to install public meeting notice signs on the subject property.
- Require more landscaping around the base equipment.

The Region, however, will not likely be required to apply the protocol, as the land use authority, as identified by Industry Canada, refers to the local municipality. Even with antennas located within Regional right-of-ways, the proponent is still obligated to consult with the land use authority, i.e. the local municipality. The Region, in such specific instances, is like any other landowner or lessor.

5. FINANCIAL IMPLICATIONS

Updating the Region's protocol has no direct financial implications affecting Regional budgets or the tax levy.

Regional Council, on January 22, 2009, adopted Clause No. 7 of Report No. 1, from the Finance and Administration Committee. The staff report provided an update on the Regional Policy entitled "Communications Installations on Regional Property. The staff report also introduced a new fee structure for telecommunication licenses granted by the Region. Regional Environmental Services and Legal staff will be reporting back to Finance and Administration Committee and Council on the implications of requiring proponents to examine the possibility of locating their equipment on Regional property, or possibly other publicly-owned property, prior to applying for approval to install their equipment on private property.

6. LOCAL MUNICIPAL IMPACT

The updated Regional telecommunication tower protocol benefited from two working meetings with participating local municipal planning staff. Also, there was an all parties meeting between municipal staff, Industry Canada, the service providers, and their legal counsel and planning consultant. There was also a teleconference with Health Canada. This process has been comprehensive and has provided an effective forum for discussion and municipal contribution.

Local Councils have the option of tailoring the Industry Canada/Regional protocol to suit local circumstances.

7. CONCLUSION

Industry Canada's revised public consultation protocol came into effect on January 1, 2008. The Region, local municipalities, the cellular service providers, Industry Canada and Health Canada have worked towards a customized protocol that could be applied across York Region.

After careful deliberations, Regional Planning staff are recommending replacing the existing 2002 Regional protocol with Industry Canada's 2008 protocol. The reasons behind adopting Industry Canada's protocol are that the local municipalities are the land use authority required to provide written confirmation they consent to the proposed antenna system. Furthermore, Industry Canada's protocol has evolved into a more detailed and thoroughly defined public consultation process. Finally, local Councils, as with the old 2002 Regional Protocol, can still modify the protocol to suit their specific local needs and circumstances.

For more information on this report, please contact Augustine Ko, Senior Planner, at (905) 830-4444, Ext.1524 or Heather Konefat, Director, Community Planning Branch, at Ext. 1502.

The Senior Management Group has reviewed this report.

(The attachment referred to in this clause is attached to this report.)



Industry
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Council Attachment 1

CPC-2-0-03

Issue 4

Released: June 2007

Effective: January 1, 2008

Spectrum Management and Telecommunications

Client Procedures Circular

Radiocommunication and Broadcasting Antenna Systems

(Formerly CPC-2-0-03 - Environmental Process, Radiofrequency Fields and
Land-Use Consultation)

Comments and suggestions may be directed to the following address:

Industry Canada
Radiocommunications and
Broadcasting Regulatory Branch
300 Slater Street
Ottawa, Ontario
K1A 0C8

Attention: DOSP

Via e-mail: spectrum_pubs@ic.gc.ca

All Spectrum Management and Telecommunications publications are available on the following website at: <http://strategis.gc.ca/spectrum>.

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1. Introduction

Radiocommunication and broadcasting services are important for all Canadians and are used daily by the public, safety and security organizations, government, wireless service providers, broadcasters, utilities and businesses. In order for radiocommunication and broadcasting services to work, antenna systems including masts, towers, and other supporting structures are required. There is a certain measure of flexibility in the placement of antenna systems which is constrained to some degree by: the need to achieve acceptable coverage for the service area; the availability of sites; technical limitations; and safety. In exercising its mandate, Industry Canada believes that it is important that antenna systems be deployed in a manner that considers the local surroundings.

1.1 Mandate

Section 5 of the *Radiocommunication Act* states that the Minister may, taking into account all matters the Minister considers relevant for ensuring the orderly development and efficient operation of radiocommunication in Canada, issue radio authorizations and approve each site on which radio apparatus, including antenna systems, may be located. Further, the Minister may approve the erection of all masts, towers and other antenna-supporting structures. Accordingly, proponents must follow the process outlined in this document when installing or modifying an antenna system. Also, the installation of an antenna system or the operation of a currently existing antenna system that is not in accordance with this process may result in its alteration or removal and other sanctions against the operator in accordance with the *Radiocommunication Act*.

1.2 Application

The requirements of this document apply to anyone (referred to in this document as the proponent) who is planning to install or modify an antenna system regardless of the type of installation or service. This includes, amongst others, Personal Communications Services (PCS) and cellular, fixed wireless, broadcasting, land-mobile, licence-exempt and amateur radio operators. As well, parts of this process contain obligations that apply to existing antenna system operators.

1.3 Process Overview

This document outlines the process that must be followed by proponents seeking to install or modify antenna systems. The broad elements of the process are as follows:

1. Investigating sharing or using existing infrastructure before proposing new antenna-supporting structures.
2. Contacting the land-use authority (LUA) to determine local requirements regarding antenna systems.
3. Undertaking public notification and addressing relevant concerns, whether by following local LUA requirements or Industry Canada's default process, as is required and appropriate.
4. Satisfying Industry Canada's general and technical requirements.

It is Industry Canada's expectation that steps (2) to (4) will normally be completed within **120 days**. Some proposals may be excluded from certain elements of the process (see Section 6). It is Industry Canada's expectation that all parties will carry out their roles and responsibilities in good faith and in a manner that respects the spirit of this document.

2. Industry Canada Engagement

There are a number of points in the processes outlined in this document where parties must contact Industry Canada to proceed. Further, anyone with any question regarding the process may contact the local Industry Canada office¹ for guidance. Based on a query by an interested party, Industry Canada may request parties to provide relevant records and/or may provide direction to one or more parties to undertake certain actions to help move the process forward.

3. Use of Existing Infrastructure (Sharing)

This section outlines the roles of proponents and owners/operators of existing antenna systems. In all cases, parties should retain records (such as analyses, correspondence and engineering reports) relating to this section.

Before building a new antenna-supporting structure, Industry Canada requires that proponents first 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 such as rooftops, water towers etc.

Proponents are not normally expected to build new antenna-supporting structures where it is feasible to locate their antenna on an existing structure, unless a new structure is preferred by land-use authorities.

Owners and operators of existing antenna systems are to respond to a request to share in a timely fashion and to negotiate in good faith to facilitate sharing where feasible. It is anticipated that 30 days is reasonable time for existing antenna system owners/operators to reply to a request by a proponent in writing with either:

- a proposed set of reasonable terms to govern the sharing of the antenna system; or
- a detailed explanation of why sharing is not possible.

¹ Please refer to Radiocommunication Information Circular 66 (RIC-66) for a list of addresses and telephone numbers for Industry Canada's regional and district offices. [RIC-66](http://strategis.ic.gc.ca/epic/internet/insmt-gst.nsf/en/sf01742e.html) is available via the Internet at: <http://strategis.ic.gc.ca/epic/internet/insmt-gst.nsf/en/sf01742e.html>.

4. Land-use Authority and Public Consultation

Contacting the Land-use Authority

Proponents must always contact the applicable land-use authorities to determine the local consultation requirements unless their proposal falls within the exclusion criteria outlined in Section 6. If the land-use authority has designated an official to deal with antenna systems, then proponents are to engage the authority through that person. If not, proponents must submit their plans directly to the council, elected local official or executive. Proponents are expected to establish initial formal contact with the land-use authority in writing in order to mark the official commencement of the **120-day** consultation process.

Proponents should note that there may be more than one land-use authority with an interest in the proposal. Where no established agreement exists between such land-use authorities, proponents must, as a minimum, contact the land-use authority(ies) and/or neighbouring land-use authorities located within a radius of three times the tower height, measured from the tower base or the outside perimeter of the supporting structure, whichever is greater. As well, in cases where proponents are aware that a potential Aboriginal or treaty right or land claim may be affected by the proposed installation, they must contact Industry Canada in order to ensure that the requirements for consultation are met.

Following the Land-use Authority Process

Proponents must follow the land-use consultation process for the siting of antenna systems, established by the land-use authority, where one exists. In the event that a land-use authority's existing process has no public consultation requirement, proponents must then fulfill the public consultation requirements contained in Industry Canada's Default Public Consultation Process (see Section 4.2). Proponents are not required to follow this requirement if the LUA's established process explicitly excludes their type of proposal from consultation or it is excluded by Industry Canada's criteria. Where proponents believe the local consultation requirements are unreasonable, they may contact the local Industry Canada office in writing for guidance.

Broadcasting Undertakings

Applicants for broadcasting undertakings are subject to Canadian Radio-television and Telecommunications (CRTC) licensing processes in addition to Industry Canada requirements. Although Industry Canada encourages applicants to consult as early as practical in the application process, in some cases it may not be prudent for the applicants to initiate public and municipal/land-use consultation before receiving CRTC approval, as application denial by the CRTC would result in unnecessary work for all parties involved. Therefore, assuming that the proposal is not otherwise excluded, broadcasting applicants may opt to commence land-use consultation after having received CRTC approval. However, broadcasting applicants choosing this option are required, at the time of the CRTC application, to notify the land-use authority with a Letter of Intent outlining a commitment to conduct consultation after receiving CRTC approval. If the land-use authority raises concerns with the proposal as described in the Letter of Intent, applicants are encouraged to engage in discussions with the land-use authority regarding their concerns and attempt to resolve any issues. See Broadcasting Procedures and Rules, Part 1 (BPR-1), for further details.

4.1 Land-use Authority Consultation

Industry Canada believes that any concerns or suggestions expressed by land-use authorities are important elements to be considered by proponents regarding proposals to install, or make changes to, antenna systems. As part of their community planning processes, land-use authorities should facilitate the implementation of local radiocommunication services by establishing consultation processes for the siting of antenna systems.

Unless the proposal meets the exclusion criteria outlined in Section 6, proponents must consult with the local land-use authority(ies) on any proposed antenna system prior to any construction with the aim of:

- discussing site options;
- ensuring that local processes related to antenna systems are respected;
- addressing reasonable and relevant concerns (see Section 4.2) from both the land-use authority and the community they represent; and
- obtaining land-use authority concurrence in writing.

Land-use authorities are encouraged to establish reasonable, relevant, and predictable consultation processes² specific to antenna systems that consider such things as:

- the designation of suitable contacts or responsible officials;
- proposal submission requirements;
- public consultation;
- documentation of the concurrence process; and
- the establishment of milestones to ensure consultation process completion within **120 days**.

Where they have specific concerns regarding a proposed antenna system, land-use authorities are expected to discuss reasonable alternatives and/or mitigation measures with proponents.

Under their processes, land-use authorities may exclude from consultation any antenna system installation in addition to those identified by Industry Canada's own consultation exclusion criteria (Section 6). For example, an authority may wish to exclude from public consultation those installations located within industrial areas removed from residential areas, low visual impact installations, or certain types of structures located within residential areas.

² Industry Canada is available to assist land-use authorities in the development of local processes. In addition, land-use authorities may wish to consult Industry Canada's guide for the development of local consultation processes.

4.2 Industry Canada's Default Public Consultation Process

Proponents must follow Industry Canada's Default Public Consultation Process where the local land-use authority does not have an established and documented public consultation process applicable to antenna siting. Proponents are not required to follow Industry Canada's Default Public Consultation Process if the land-use authority's established process explicitly excludes their type of proposal from public consultation or it is excluded by Industry Canada's criteria (see Section 6). Industry Canada's default process has three steps whereby the proponent:

1. provides written notification to the public, the land-use authority and Industry Canada of the proposed antenna system installation or modification (i.e. *public notification*);
2. engages the public and the land-use authority in order to address relevant questions, comments and concerns regarding the proposal (i.e. *responding to the public*); and
3. provides an opportunity to the public and the land-use authority to formally respond in writing to the proponent regarding measures taken to address reasonable and relevant concerns (i.e. *public reply comment*).

Public Notification

1. Proponents must ensure that the local public, the land-use authority and Industry Canada are notified of the proposed antenna system. As a minimum, proponents must provide a notification package (see Appendix 2) to the local public (including nearby residences, community gathering areas, public institutions, schools, etc.), neighbouring land-use authorities, businesses, and property owners, etc. located within a radius of three times the tower height, measured from the tower base or the outside perimeter of the supporting structure, whichever is greater. For the purpose of this requirement, the outside perimeter begins at the furthest point of the supporting mechanism, be it the outermost guy line, building edge, face of the self-supporting tower, etc.
2. It is the proponent's responsibility to ensure that the notification provides at least **30 days** for written public comment.
3. In addition to the minimum notification distance noted above, in areas of seasonal residence, the proponent, in consultation with the land-use authority, is responsible for determining the best manner to notify such residents to ensure their engagement.
4. In addition to the public notification requirements noted above, proponents of antenna-supporting structures that are proposed to be 30 metres or more in height must place a notice in a local community newspaper circulating in the proposed area.³

³ The notice must be synchronized with the distribution of the public notification package. It must be legible and placed in the public notice section of the newspaper. The notice must include: a description of the proposed installation; its location and street address; proponent contact information and mailing address; and an invitation to provide public comments to the proponent within **30 days** of the notice. In areas without a local newspaper, other effective means of public notification must be implemented. Proponents may contact the local Industry Canada office for guidance.

Responding to the Public

Proponents are to address all reasonable and relevant concerns, make all reasonable efforts to resolve them in a mutually acceptable manner and must keep a record of all associated communications. If the local public or land-use authority raises a question, comment or concern relating to the antenna system as a result of the public notification process, then the proponent is required to:

1. respond to the party in writing within **14 days** acknowledging receipt of the question, comment or concern and keep a record of the communication;
2. address in writing all reasonable and relevant concerns within **60 days** of receipt or explain why the question, comment or concern is not, in the view of the proponent, reasonable or relevant; and
3. in the written communication referred to in the preceding point, clearly indicate that the party has **21 days** from the date of the correspondence to reply to the proponent's response. The proponent must provide a copy of all public reply comments to the local Industry Canada office.

Responding to reasonable and relevant concerns may include contacting a party by telephone, engaging in a community meeting or having an informal, personal discussion. Between steps 1 and 2 above, the proponent is expected to engage the public in a manner it deems most appropriate. Therefore, the letter at step 2 above may be a record of how the proponent and the other party addressed the concern at hand.

Public Reply Comments

As indicated in step 3 above, the proponent must clearly indicate that the party has **21 days** from the date of the correspondence to reply to the response. The proponent must also keep a record of all correspondence/discussions that occurred within the **21-day** public reply comment period. This includes records of any agreements that may have been reached and/or any concerns that remain outstanding.

The factors that will determine whether a concern is reasonable or relevant according to this process will vary but will generally be considered if they relate to the requirements of this document and to the particular amenities or important characteristics of the area surrounding the proposed antenna system. Examples of concerns that proponents are to address may include:

- Why is the use of an existing antenna system or structure not possible?
- Why is an alternate site not possible?
- What is the proponent doing to ensure that the antenna system is not accessible to the general public?
- How is the proponent trying to integrate the antenna into the local surroundings?
- What options are available to satisfy aeronautical obstruction marking requirements at this site?
- What are the steps the proponent took to ensure compliance with the general requirements of this document including the *Canadian Environmental Assessment Act* (CEAA), Safety Code 6, etc.?

Concerns that are not relevant include:

- disputes with members of the public relating to the proponent's service, but unrelated to antenna installations;
- potential effects that a proposed antenna system will have on property values or municipal taxes;
- questions whether the *Radiocommunication Act*, this document, Safety Code 6, locally established by-laws, other legislation, procedures or processes are valid or should be reformed in some manner.

4.3 Concluding Consultation

The proponent may only commence installation/modification of an antenna system after the consultation process has been completed by the land-use authority, or Industry Canada confirms concurrence with the consultation portion of this process, and after all other requirements under this process have been met. Consultation responsibilities will normally be considered complete when the proponent has:

1. concluded consultation requirements (Section 4.1) with the land-use authority;
2. carried out public consultation either through the process established by the land-use authority or the Industry Canada's Default Public Consultation Process where required; and
3. addressed all reasonable and relevant concerns.

Concluding Land-use Authority Consultation

Industry Canada expects that land-use consultation will be completed within **120 days** from the proponent's initial formal contact with the local land-use authority. Where unavoidable delays may be encountered, the land-use authority is expected to indicate when the proponent can expect a response to the proposal. If the authority is not responsive, the proponent may contact Industry Canada. Depending on individual circumstances, Industry Canada may support additional time or consider the land-use authority consultation process concluded.

Depending on the land-use authority's own process, conclusion of local consultation may include such steps as obtaining final concurrence for the proposal via the relevant committee, a letter or report acknowledging that the relevant municipal process or other requirements have been satisfied, or other valid indication, such as the minutes of a town council meeting indicating LUA approval. Compliance with informal city staff procedures, or grants of approval strictly related to zoning, construction, etc. will not normally be sufficient.

Industry Canada recognizes that approvals for construction (e.g. building permits) are used by some land-use authorities as evidence of consultation being concluded. Proponents should note that Industry Canada does not consider the fact a permit was issued as confirmation of concurrence, as different land-use authorities have different approaches. As such, Industry Canada will only consider such approvals as valid when the proponent can demonstrate that the LUA's process was followed and that the LUA's preferred method of concluding LUA consultation is through such an approval.

Concluding Industry Canada's Default Public Consultation Process

Industry Canada's Default Public Consultation Process will be considered concluded when the proponent has either:

- received no written questions, comments or concerns to the formal notification within the **30-day** public comment period; or
- if written questions, comments or concerns were received, the proponent has addressed and resolved all reasonable and relevant concerns and the public has not provided further comment within the **21-day** reply comment period.

In the case where the public responds within the **21-day** reply comment period, the proponent has the option of making further attempts to address the concern on its own, or can request Industry Canada engagement. If a request for engagement is made at this stage, Industry Canada will review the relevant material, request any further information it deems pertinent from any party and may then decide that:

- the proponent has met the consultation requirements of this process and that Industry Canada concurs that installation or modification may proceed; or
- the parties should participate in further attempts to mitigate or resolve any outstanding concern.

5. Dispute Resolution Process

The dispute resolution process is a formal process intended to bring about the timely resolution where the parties have reached an impasse.

Upon receipt of a written request, from a stakeholder other than the general public, asking for Departmental intervention concerning a reasonable and relevant concern, the Department may request that all involved parties provide and share all relevant information. The Department may also gather or obtain other relevant information and request that parties provide any further submissions if applicable. The Department will, based on the information provided, either:

- make a final decision on the issue(s) in question, and advise the parties of its decision; or
- suggest the parties enter into an alternate dispute resolution process in order to come to a final decision. Should the parties be unable to reach a mutually agreeable solution, either party may request that the Department make a final decision.

Upon resolution of the issue under dispute, the proponent is to continue with the process contained within this document as required.

6. Exclusions

For the following types of installations, proponents are excluded from the requirement to consult with the LUA and the public, but must still fulfill the General Requirements outlined in Section 7:

- maintenance of existing radio apparatus including the antenna system, transmission line, mast, tower or other antenna-supporting structure;
- 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. provided the addition or modification does not result in an overall height increase above the existing structure of 25% of the original structure's height;
- maintenance of an antenna system's painting or lighting in order to comply with Transport Canada's requirements;
- 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 the emergency, and is removed within 3 months after the emergency or special event; and
- new antenna systems, including masts, towers or other antenna-supporting structure, with a height of less than 15 metres above ground level.

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 LUA 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.

Proponents who are not certain if their proposed structure is excluded, or whether consultation may still be prudent, are advised to contact the land-use authority and/or Industry Canada for guidance.

7. General Requirements

In addition to roles and responsibilities for site sharing, land-use consultation and public consultation, proponents must also fulfill other important obligations including: compliance with Health Canada's Safety Code 6 guideline for the protection of the general public; compliance with radio frequency immunity criteria; notification of nearby broadcasting stations; environmental considerations; and Transport Canada/NAV CANADA aeronautical safety responsibilities.

7.1 Radio Frequency Exposure Limits

Health Canada has established safety guidelines for exposure to radio frequency fields, in its Safety Code 6 publication, entitled: *Limits of Human Exposure to Radiofrequency Electromagnetic fields in the Frequency Range from 3 kHz to 300 GHz*.⁴ While the responsibility for developing Safety Code 6 rests with Health Canada, Industry Canada has adopted this guideline for the purpose of protecting the general public. Current biomedical studies in Canada and other countries indicate that there is no scientific or medical evidence that a person will experience adverse health effects from exposure to radio frequency fields, provided that the installation complies with Safety Code 6.

It is the responsibility of proponents and operators of installations to ensure that all radiocommunication and broadcasting installations comply with Safety Code 6 at all times, including the consideration of combined effects of nearby installations within the local radio environment.

For all proponents following Industry Canada's Default Public Consultation Process, the proponent's notification package must provide a written attestation that there will be compliance with Safety Code 6 for the protection of the general public, including consideration of nearby radiocommunication systems. The notification package must also indicate any Safety Code 6 related signage and access control mechanisms that may be used.

Compliance with Safety Code 6 is an ongoing obligation. At any time, antenna system operators may be required, as directed by Industry Canada, to demonstrate compliance with Safety Code 6 by (i) providing detailed calculations, and/or (ii) conducting site surveys and, where necessary, by implementing corrective measures. Proponents and operators of existing antenna systems must retain copies of all information related to Safety Code 6 compliance such as analyses and measurements.

7.2 Radio Frequency Immunity

All radiocommunication and broadcasting proponents and existing spectrum users are to ensure that their installations are designed and operated in accordance with Industry Canada's immunity criteria as outlined in EMCAB-2⁵ in order to minimize the malfunctioning of electronic equipment in the local surroundings. Broadcasting proponents and existing undertakings should refer to Broadcasting

⁴ [Safety Code 6](http://www.hc-sc.gc.ca/ewh-semt/pubs/radiation/99ehd-dhm237/index_e.html) can be found on Health Canada's website at: http://www.hc-sc.gc.ca/ewh-semt/pubs/radiation/99ehd-dhm237/index_e.html.

⁵ For more information see [EMCAB-2](#), entitled: *Criteria for Resolution of Immunity Complaints Involving Fundamental Emissions of Radiocommunications Transmitters* available on Industry Canada's Spectrum Management and Telecommunications website at: www.strategis.ic.gc.ca/epic/internet/insmt-gst.nsf/en/sf01005e.html.

Procedures and Rules - Part 1, *General Rules* (BPR-1) for additional information and requirements⁶ on this matter.

Proponents are advised to consider the potential effect that their proposal may have on nearby electronic equipment. In this way, they will be better prepared to respond to any questions that may arise during the public and land-use consultation processes, or after the system has been installed.

Land-use authorities should be prepared to advise proponents and owners of broadcasting undertakings of plans for the expansion or development of nearby residential and/or industrial areas. Such expansion or development generally results in the introduction of more electronic equipment in the area and therefore an increased potential for electronic equipment to malfunction. By keeping broadcasters aware of planned developments and changes to adjacent land-use, they will be better able to work with the community. Equally, land-use authorities have a responsibility to ensure that those moving into these areas, whether prospective residents or industry, are aware of the potential for their electronic equipment to malfunction when located in proximity to an existing broadcasting installation. For example, the LUA could ensure that clear notification be provided to future prospective purchasers.

7.3 Proximity of Proposed Structure to Broadcasting Undertakings

Where the proposal would result in a structure that exceeds 30 metres above ground level, the proponent is to notify operators of AM, FM and TV undertakings within 2 kilometres, due to the potential impact the physical structure may have on these broadcasting undertakings. Metallic structures close to an AM directional antenna array may change the antenna pattern of the AM broadcasting undertaking. These proposed structures can also reflect nearby FM and TV signals, causing 'ghosting' interference to FM/TV receivers used by the general public.

7.4 Canadian Environmental Assessment Act

Industry Canada requires that the installation and modification of antenna systems be done in a manner that complies with appropriate environmental legislation. This includes the CEAA and local environmental assessment requirements where required by the CEAA.

Proponents will ensure that the environmental assessment process is applied as early as is practical in the planning stages. This will enable proponents and other stakeholders to consider environmental factors in any decisions that may be made. As part of their environmental assessment, proponents are to give due consideration to potential environmental impacts including cumulative effects.

Proponents are advised to view the current CEAA exclusion list⁷ to see if their proposed installation meets the requirements to be excluded from assessment under the CEAA.

⁶ [BPR-1 - Part I: General Rules](http://strategis.ic.gc.ca/epic/internet/insmt-gst.nsf/en/sf01326e.html) can be found on the Spectrum Management and Telecommunications website at: <http://strategis.ic.gc.ca/epic/internet/insmt-gst.nsf/en/sf01326e.html>.

⁷ The [CEAA exclusion list](http://laws.justice.gc.ca/en/C-15.2/SOR-94-639/index.html) can be found at <http://laws.justice.gc.ca/en/C-15.2/SOR-94-639/index.html>.

If not excluded, the proponent must first notify the local Industry Canada office which will direct the proponent on how to proceed with an environmental assessment. At this point, the proponent must not proceed with any construction related to the proposal.

Where the proposal requires assessment under the CEAA, the proponent must either:

- abandon the proposal; or
- participate in the environmental assessment process as established under the CEAA.

Should the environmental assessment identify that there is the potential for an adverse environmental effect, the proponent will be required to describe the effect and propose mitigation measures. Through an environmental assessment, careful consideration may be given to potential adverse environmental effects during the planning stages. This makes it possible to introduce measures which permit the project to proceed while protecting the environment.

Should any significant adverse environmental effect become apparent at any time during the installation, all construction must be stopped, regardless of whether the installation was excluded from environmental assessment.

For all proponents following Industry Canada's Default Public Consultation Process, the proponent's notification package must provide written confirmation of the project's status under the *Canadian Environmental Assessment Act*.

In those situations where an environmental assessment is required, Industry Canada will post a notification of the commencement of the assessment on the Canadian Environmental Assessment Registry website.⁸ This will help to ensure that all interested parties, including the general public, are aware of an assessment from the outset. The notification will include the name, location and a summary description of the project, and identify the project proponent(s) and federal department(s) directly involved in the assessment. Other pertinent documents will be placed on the Internet site as the assessment proceeds, including all public notices, decisions and information about follow-up programs. Should mitigation measures be identified further to the assessment, Industry Canada will ensure that the project does not proceed unless these measures are adequately addressed.

In addition, proponents are responsible to ensure that antenna systems are installed and operated in a manner that respects the local environment and complies with other statutory requirements such as the *Canadian Environmental Protection Act*, the *Migratory Birds Convention Act* and the *Species at Risk Act*, where applicable.

⁸ The [Canadian Environmental Assessment Registry website](http://www.ceaa-acee.gc.ca/050/index_e.cfm) can be found at: http://www.ceaa-acee.gc.ca/050/index_e.cfm.

7.5 Aeronautical Safety

Proponents must ensure their proposals for any antenna system are first reviewed by Transport Canada and NAV CANADA.

Transport Canada will perform an assessment of the proposal with respect to the potential hazard to air navigation and will notify proponents of any painting and/or lighting requirements for the antenna system. NAV CANADA will comment on whether the proposal has an impact on the provision of their national air navigation system, facilities and other services located off-airport.

As required, the proponent must:

1. submit an Aeronautical Obstruction Clearance form to Transport Canada;
2. submit a Land-use Proposal Submission form to NAV CANADA;
3. include Transport Canada marking requirements in the public notification package;
4. install and maintain the antenna system in a manner that is not a hazard to aeronautical safety; and
5. retain all correspondence.

For those antenna systems subject to Industry Canada's Default Public Consultation Process, the proponent will inform the community of any marking requirements. Where options are possible, proponents are expected to work with the local community and Transport Canada to implement the best and safest marking options. Proponents should be aware that Transport Canada does not advise Industry Canada of marking requirements for proposed structures. Proponents are reminded that the addition of, or modification to, obstruction markings may result in community concern and so any change is to be done in consultation with the local public, land-use authority and/or Transport Canada, as appropriate.

References and Details

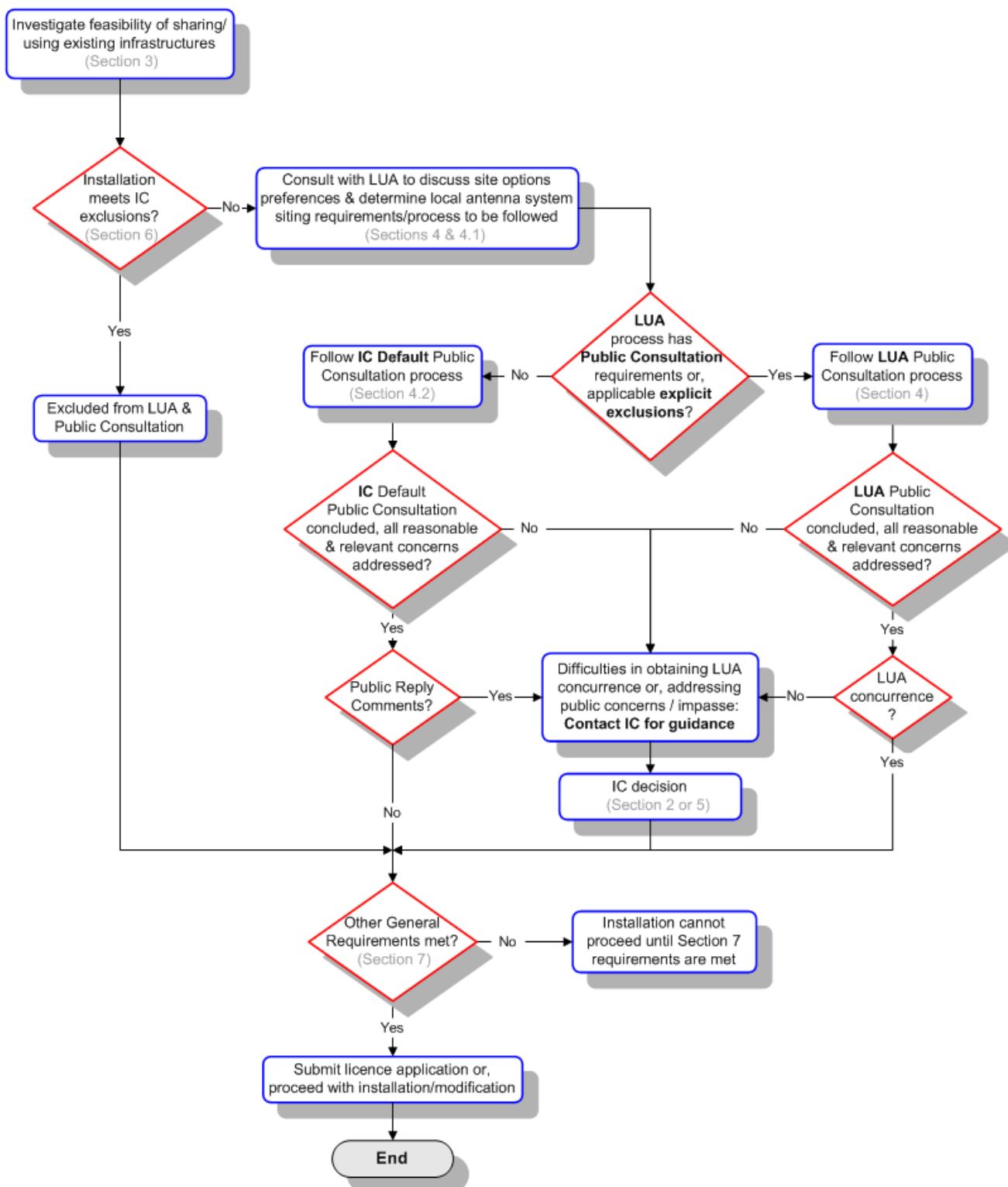
Aeronautical Obstruction Clearance forms are available from any Transport Canada Aviation Group Office. Both the Aeronautical Obstruction Clearance form (#26-0427) and a list of Transport Canada Aviation Group regional offices are available on the Transport Canada website.⁹ Completed forms are to be submitted directly to the nearest Transport Canada Aviation Group office. (Refer to Canadian Aviation Regulations, Standard 621.19, Standards Obstruction Markings).

Land-use Proposal Submission forms are available from NAV CANADA¹⁰ and completed forms are to be sent to the appropriate NAV CANADA General Manager Airport Operations (GMAO) office, East or West.

⁹ The [Transport Canada website](http://www.tc.gc.ca) can be found at: <http://www.tc.gc.ca>.

¹⁰ Search keywords "Land-use Proposal" on the [NAV CANADA website](http://www.navcanada.ca) at: <http://www.navcanada.ca>.

Appendix 1 - Consultation Flow Chart



Appendix 2 - Industry Canada's Default Public Consultation Process - Public Notification Package (See Section 4.2)

The proponent must ensure that at least **30 days** are provided for public comment. Notification must provide all information on how to submit comments to the proponent in writing. The proponent must also provide a copy of the notification package to the land-use authority and the local Industry Canada office at the same time as the package is provided to the public.

Notification must include, but need not be limited to:

- (1) the proposed antenna system's purpose, the reasons why existing antenna systems or other infrastructure cannot be used, a list of other structures that were considered unsuitable and future sharing possibilities for the proposal;
- (2) the proposed location within the community, the geographic co-ordinates and the specific property or rooftop;
- (3) an attestation¹ that the general public will be protected in compliance with Health Canada's Safety Code 6 including combined effects within the local radio environment at all times;
- (4) identification of areas accessible to the general public and the access/demarcation measures to control public access;
- (5) the project's status under the *Canadian Environmental Assessment Act*²;
- (6) a description of the proposed antenna system including its height and dimensions, a description of any antenna that may be mounted on the supporting structure and simulated images of the proposal;
- (7) Transport Canada's aeronautical obstruction marking requirements (whether painting, lighting or both) if available; if not available, the proponent's expectation of Transport Canada's requirements together with an undertaking to provide Transport Canada's requirements once they become available;
- (8) an attestation that the installation will respect good engineering practices including structural adequacy;
- (9) reference to any applicable local land-use requirements such as local processes, protocols, etc.;

¹ Example: I, (name of individual or representative of company) attest that the radio installation described in this notification package will be installed and operated on an ongoing basis so as to comply with Health Canada's Safety Code 6, as may be amended from time to time, for the protection of the general public including any combined effects of nearby installations within the local radio environment.

² Example: I, (name of individual or representative of company) attest that the radio antenna system described in this notification package is excluded from environmental assessment under the *Canadian Environmental Assessment Act*.

- (10) notice that general information relating to antenna systems is available on Industry Canada's Spectrum Management and Telecommunications website (<http://strategis.ic.gc.ca/antenna>);
- (11) contact information for the proponent, land-use authorities and the local Industry Canada office;
and
- (12) closing date for submission of written public comments (not less than **30 days** from receipt of notification).



Health Services Department
Public Health

January 9, 2009

Ms. Ana Bassios
Commissioner of Planning and Development
The Town of Richmond Hill
P.O. Box 300, 225 East Beaver Creek Road
Richmond Hill, ON L4C 4Y5

Dear Ms. Bassios:

Re: Request for Comments from the Medical Officer of Health on Safety Code 6 - Radio Frequency Exposure Standard

Thank you for your letter dated November 18, 2008 requesting a written response regarding the health impacts of cellular telecommunication facilities on the general public, and the federal exposure standard for radio frequency electromagnetic fields (RF EMFs).

As you are aware, the setting of standards and guidelines on RF EMFs as well as the regulation of siting and installation of cell towers are matters of federal jurisdiction:

- Health Canada is responsible for setting RF exposure guidelines, known as Safety Code 6, to protect exposed workers and the general public from short term, high exposure effects of RFs. Health Canada's Safety Code 6 is based on the International Commission for Non-Ionizing Radiation Protection guidelines for public exposure limits. These guidelines are based on the well understood heating effects of RFs – addressing the short-term, high exposure effects.
- Industry Canada has the regulatory authority for approving the siting and installation of telecommunication towers and antennas. Industry Canada requires that operators of cell towers and other RF emitting devices ensure that the RF fields produced by their installation do not exceed the maximum level contained in Health Canada's Safety Code 6. Industry Canada encourages cell phone carriers to consult with local land use authorities to determine the most suitable sites for installation.

RF EMF types of non-ionizing radiation have been researched extensively to identify potential health risks from exposure to these forms of radiation. As a local public health unit, we rely on the federal level jurisdiction with the necessary scientific and evaluative expertise – Health Canada, to provide direction and advice based on current science. Nevertheless, as part of our due diligence, York Region Public Health Branch staff have reviewed RF EMFs research from agencies such as the World Health Organization, Health Canada, Industry Canada and have also reviewed a number of recent, peer-reviewed, scientific journal articles.

The position and advice of Health Canada and the World Health Organization (WHO) relating to RF exposures suggests that typical levels of RF in the community are unlikely to cause adverse health effects:

- Research from Health Canada suggests that worst-case exposure levels of RFs are typically thousands of times below the recommended exposure limits in Health Canada's Safety Code 6 (Bradley, R., Director, Consumer and Radiation Protection, Health Canada, personal communication).
- The WHO reported that current scientific evidence indicates that exposure to RF fields, such as those emitted by mobile phones and their base stations, is unlikely to induce or promote cancers (WHO, 2000).
- The WHO released a report in 2006 stating that, "research on potential health effects from base station RF fields was deemed of low priority since studies of cancer risk related to such exposure are unlikely to be feasible and informative" (WHO, 2006).

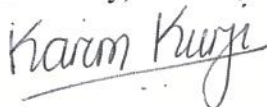
Although the Safety Code 6 was established in 1999, the guidelines have been subsequently evaluated by the Royal Society of Canada Expert Panel (Krewski 2001, Krewski et al 2007 and Prato, Personal Communications 2008). The Panel concluded that there is no clear evidence of adverse health effects associated with RF fields. Other research studies also acknowledge that the studies done to date give no consistent or convincing evidence of a causal relationship between RFs and any adverse health effects. However, the Royal Society of Canada Expert Panel, Toronto Public Health and other researchers have stated that further studies are warranted to clarify biological (i.e. non-thermal) and long term effects of exposure to RF fields on human health.

In conclusion, based on the review by the York Region Public Health Branch, the weight of evidence has not identified that Safety Code 6 is inappropriate, in protecting the public from exposure to RF fields. While my staff continue to communicate with Health Canada, and other agencies researching this issue, it is recommended that the Town of Richmond Hill continue to liaise with Industry Canada regarding the siting and installation of telecommunication towers and antennas within your jurisdiction.

Please do not hesitate to call me if you have any questions.

Thank you.

Sincerely,



Dr. Karim Kurji, MBBS, MSc, MRCGP, FFPHM, FRCPC
Medical Officer of Health

KK/pf