

Re: **Rogers File:** W4706 Heritage Village
Legal Land Description: Road Plan 4501JK (Portion of NE 29-23-1 W5M)
Address: Undesignated Road Right-of-Way located at the NW corner of 14th ST and 75th AV SW, near 7007 14 ST SW
Coordinates: Latitude: 50.988380° N; Longitude: 114.095543° W

We want to thank you for your feedback regarding the proposed telecommunications installation for Rogers Communications Inc. ("Rogers"). Please review the below responses to all questions and concerns we received during public consultation.

Co-Location & Sharing Existing Structures:

Rogers has considered co-location of its equipment on existing nearby structures; however, could not find any suitable locations. There are no nearby existing telecommunications facilities (cell towers) in the area. The closest existing towers are approximately 2km to the northwest and southwest with a third tower located approximately 1.6km to the southeast. Rogers has existing facilities nearby those locations and an additional facility (building-mounted antennas) located approximately 1km to the northeast of the proposed tower location (Mayfair Place). In addition, Rockyview Hospital declined a proposal to mount antennas on their buildings. Streetlight poles within public Road Right of Way (RoW) were considered, but the low height and restriction of technologies deployed on streetlight pole facilities would not meet Roger's network requirements. Alternative locations along City road RoW were not possible due to the ongoing redevelopment along 14th Street SW. Streetlight pole facilities will continue to be explored and implemented where possible. The proposed tower is the best option for balancing technical challenges, commercial feasibility and to enhance wireless connectivity.

Rogers endeavours to share existing towers, buildings and other support structures whenever possible and has business agreements with other telecommunications companies to facilitate co-location on their own towers. Although co-location on an existing structure was not feasible at this time, Rogers welcomes co-location on the proposed tower.

Location

The proposed tower location was chosen in response to increased demand for wireless services and to improve both coverage and capacity of the Rogers network. More telecommunications facilities are needed to ensure the delivery of fast and reliable wireless services. The proposed tower would address the growing coverage and capacity challenges that our modern society faces as people and machines become increasingly dependent upon wireless communication.

Further to some resident's questions, a combination of factors are considered when planning network enhancements, which include: existing and future customers, machine-to-machine connections, the traveling public, high-density/high-traffic developments (hospital, Heritage Park, etc.), network reliability and speed for today and the future. Telecommunications facilities face unprecedented growth in wireless usage. In 2017, Canada's mobile data traffic grew 38% and it's projected to grow at a compound annual growth rate of 34% to 2022. In addition, the consumption of data and exclusive use of wireless over wireline services continues to grow (Cisco, VNI Forecast Highlights 2018, as cited at <https://www.cwta.ca/facts-figures/> on Aug. 6, 2019). Therefore, additional telecommunications facilities are needed to ensure network reliability.

The following are additional factors affecting site selection:

- Wireless radiocommunication facilities have inherent limitations in their broadcasting range
- Telecommunications facilities need to be close to wireless users
- Sites are determined in conjunction with existing and planned network facilities
- Co-location on existing towers or buildings was not feasible
- Increased development in the area provides physical obstacles (walls of the buildings, trees, etc.) that hinder the strength of radio signals emitted by cellular antennas
- There is a growing number of users that simultaneously use the wireless network, resulting in capacity challenges for existing telecommunications facilities and necessitating the addition of more facilities

- The public and businesses (e.g. point-of-sale transactions) increasingly demand ubiquitous, high-speed, low latency and reliable wireless service

There are several steps involved in the process of finding suitable locations for telecommunications facilities:

- Roger's Network Planning Department evaluates the coverage and capacity of existing facilities, known network deficiencies (dropped calls, sub-standard data speed, complaints), as well as future, projected concerns (i.e. industry trends, increased consumption of wireless services, high-traffic areas, reductions to radiofrequencies by buildings and topography, etc.)
- Topography, elevation, land use, etc. are factored into the analysis, which impact the practicality of finding sites and limit the locations for infrastructure
- A search area map is created, which defines a geographical area or areas within which a facility must be located to meet network requirements
- A site acquisition agent (LandSolutions' role) is tasked with evaluating lands within the confines of the search area, including:
 - Minimum height for radios to communicate effectively to devices in the area
 - Spatial requirements for towers or antennas on buildings
 - Landlord willingness to accommodate infrastructure and access
 - Proximity to power, fibre or line of sight for microwave transmission (i.e. how a facility connects to the greater network)
 - Presence of underground utilities, geotechnical considerations and setbacks to a variety of types of infrastructure, buildings, roads, etc.
 - Federal and municipal policies relating to the siting of telecommunications facilities, as well as political sensitivities (e.g. schools and community parks, proximity to residential, etc.)

Roger's Network Planning Department issued a search area map along with direction to find a site that would enhance coverage and improve wireless service. The search areas were focused on portions of Heritage Park's parking lots, portions of Rockyview Hospital, undeveloped park space and boulevard along 14th St. SW and required a minimum height of 30m to satisfy network requirements.

LandSolutions' reviewed the search areas and contacted landowners for the most practical locations, which included The City of Calgary and Rockyview Hospital. Locations within Heritage Park (including the parking lots) were refused. Rockyview Hospital (Alberta Health Services) declined the proposal to locate a facility on their lands. A variety of locations within road RoW were refused. Vacant, undeveloped park space between Eagle Ridge and the Rockyview Hospital heliport were reviewed; however, after considering the proximity to the heliport, the natural character of the park space and proximity to residential this location was abandoned. Locations outside of these areas were not explored, as locating infrastructure outside of those locations would not have satisfied Roger's network requirements. After further dialogue with the City of Calgary, we found a single possible site, that of the current proposal.

During public consultation, we received feedback that the tower would be more appropriately located in the following locations (*our comments in red*):

- On lands nearby the intersection of 14th Street and Glenmore Trail – *outside of the search area boundaries and would not meet Roger's network objectives;*
- Lands associated with Rockyview Hospital and CareWest – *The hospital (Alberta Health Services) declined to accommodate a facility, CareWest is too far north and outside of the search area boundaries and a location there would not meet Roger's network objectives;*
- Along Road RoW further north of the current proposed location (50-100m) - *in terms of aesthetics, the closest locations are not substantially different from the proposed location, there is the potential these locations could conflict with landscaping (trees) and generally have less room for the facility, also the further north the facility is located, the less it meets network objectives and the greater the potential that additional antenna systems will be needed to compensate for the additional distance.*
- Along road RoW further south closer to Heritage Park and Glenmore Landing – *these locations were explored, prior to the current proposal and were found to conflict with ongoing road redevelopment;*

- Lands associated with or nearby Glenmore Landing – *these lands are outside of Roger's southern-most search area and are comprised of high-traffic commercial lands and undeveloped Special Purpose – School, Park and community Reserve lands (intended for public parks, open space, schools and recreation facilities on land designated reserve land under the Municipal Government Act; parks lands are discouraged locations for telecommunications facilities and developing these lands would have a negative impact on wildlife habitat;*
- Lands associated with Heritage Park – *most of Heritage Park is outside of the search area boundaries (most of the parking lots are within the search areas) and Heritage Park declined to accommodate a telecommunications facility;*
- Lands across the Glenmore reservoir (Earl Grey Golf Club) – *These lands are outside of the search areas and too far to improve connectivity to the desired areas;*
- Lands closer to the Glenmore reservoir – *geotechnical concerns and setbacks to water bodies, as well as many locations being outside of the search areas; and*
- Other locations within Kelvin Grove and Chinook Park communities, including Mayfair Nursing Home, community hall, schools, parks, places of worship, and residential lands – *most of these locations are outside of the search areas and are discouraged locations per City policy, Mayfair Nursing Home presents spatial and access challenges and is much closer to residential than the existing proposal*

The current proposed location is a preferred location per City policy, and we believe this is the best location possible that balances competing interests, policy, political sensitivities and satisfies technical, and network requirements.

Aesthetic Concerns

Regarding the aesthetics of the proposed tower, the tower height is needed for optimum antenna placement and broadcast of radiocommunication, which requires line of sight to the devices served by the antennas. The tower location within the property provides a buffer to most nearby residential properties and we have attempted to place this infrastructure close to comparable scaled structures (hospital buildings and street infrastructure). The buffer is only intended to minimize the aesthetic impact that a tall tower would have upon adjacent low-height residences. Lowering the height of the tower would negatively impact Roger's ability to enhance service to the area and may result in additional telecommunications facilities being needed in the area. The design of the tower is called a shrouded monopole tower, which conceals antennas and associated equipment.

While certainly a subjective topic, the proposed tower design offers less visual clutter than a comparable facility without shrouding and a significant improvement in aesthetics compared to lattice-style and guyed tower development. It also has less massing than that of a tri-pole tower and although tall, is setback from the existing hospital sign and less visually prominent than the nearby hospital building.

In addition, aeronautical lighting will be required by Transportation Canada, due to proximity to the hospital's heliport. This typically includes a dual flashing red/white medium intensity lighting system used for daytime (white) & night-time (red) marking. The light fixtures are shielded from the ground to reduce the nuisance to nearby properties.

Property Value

Many factors influence property values, including location (e.g. proximity to amenities), land area (lot size), age of the building, interior space, supply & demand, aesthetics, redevelopment and investment potential. We have learned from our interaction with the public that many home buyers seek out neighbourhoods that have exceptional wireless coverage, as many people work from home and depend on a reliable wireless network (i.e. voice & internet services) to conduct business. In addition, many people rely exclusively on mobile telephones for wireless data and voice service and appreciate the security of having improved access to emergency services.

At the time of writing this letter, Innovation, Science and Economic Development Canada (ISED) considers property value concerns to be irrelevant per CPC-2-0-03, Section 4.2. This is because research to date has been inconclusive in showing a relationship between property value resulting from proximity to telecommunications facilities.

Health and Safety

All radiocommunication sites in Canada must comply with Health Canada's Safety Code 6 (SC6) (2015), which establishes safety limits for human exposure to radiofrequency (RF) electromagnetic fields for all age groups on a continuous basis. The limits consider total exposure from all sources of RF energy and incorporates large margins of safety. The code is based on peer-reviewed scientific research and is consistent with the science-based standards used in other parts of the world, including the United States, the European Union, Japan, Australia and New Zealand. The code is periodically revised to reflect new knowledge and was last updated in 2015 to incorporate scientific literature published up to August 2014. Health Canada continues to monitor research on the subject and should SC6 limits change at any time in the future, Rogers would be required to adhere to the current limits (i.e. no grandfathering of previously approved facilities). Please see below for additional details about SC6, which are derived from a variety of Health Canada sources, including information provided by the Consumer & Clinical Radiation Protection Bureau.

The recommended exposure limits in SC6 are based on an ongoing review of published scientific studies, including both internal and external authoritative reviews of the scientific literature, as well as Health Canada's own research. Safety Code 6 was last updated in 2015 and sets out recommended human RF exposure limits in the frequency range from 3 kHz to 300 GHz. This range covers the frequencies used by existing communications devices and those that may be used by devices employing future 5G technology. When developing the exposure limits in SC6, Health Canada scientists consider all relevant peer-reviewed scientific studies and employ a weight-of-evidence approach [which takes into account both the quantity of studies, and, more importantly, the quality of those studies – poorly conducted studies (e.g. inadequate exposure evaluation, lack of appropriate control samples or inadequate statistical analysis), receive relatively little weight, while properly conducted studies (e.g. all controls included, appropriate statistics, complete exposure evaluation) receive more weight] to evaluate possible health risks from exposure to RF electromagnetic energy. Health Canada's SC6 makes Canada's limits among the most stringent science-based limits in the world. SC6 has always established and maintained a recommended human exposure limit that is far below the threshold for the occurrence of all established adverse health effects associated with RF field exposure. To clarify, these health effects are nerve stimulation (a tingling sensation) and tissue heating. For more information on Safety Code 6, please visit: <https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/radiation/safety-code-6-health-canada-radiofrequency-exposure-guidelines-environmental-workplace-health-health-canada.html> and <https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/radiation/fact-sheet-what-safety-code-6.html>.

Within SC6, please note that the recommended peak SAR limit of 1.6 W/kg is not the threshold for the occurrence of adverse health effects. In fact, as a precautionary measure, the peak SAR limit in SC6 was set more than 50 times below the level at which excessive tissue heating could occur in the most sensitive tissue (the eye). This means that the peak SAR limits in SC6 would need to be exceeded by more than 50 times before one would see any thermally related adverse health effects. The weight of evidence indicates that there are no established adverse health effects at typical exposure levels from cell phones.

Public exposure to RF electromagnetic energy from wireless devices (including cell towers, Wi-Fi, etc.) is far below the limits specified in science-based exposure guidelines such as SC6. Based on the very low exposure levels and the weight of evidence from peer-reviewed scientific studies to date, it is Health Canada's position that public exposures to the RF electromagnetic energy emitted from cell towers do not cause adverse health effects in people. This conclusion is similar to that arrived at by the International Committee on Non-Ionizing Radiation Protection (ICNIRP), the Scientific Committee on Emerging and Newly Identified Health Risks (SCENIHR, European Commission), and the World Health Organization (WHO). Therefore, Health Canada does not consider additional precautionary measures are warranted to further reduce RF energy exposure below the limits currently outlined in SC6. You may wish to visit the following link for more information: <https://www.canada.ca/en/health-canada/services/consumer-radiation/safety-cell-phones-cell-phone-towers.html>. The following links describe the current scientific opinion of ICNIRP and the WHO:

- 1) <http://www.icnirp.org/en/publications/article/hf-review-2009.html>
- 2) <http://www.icnirp.org/cms/upload/publications/ICNIRPStatementEMF.pdf>
- 3) <https://www.who.int/peh-emf/about/WhatisEMF/en/index1.html>
- 4) <https://www.who.int/peh-emf/about/WhatisEMF/en/index4.html>

- 5) <http://www.who.int/mediacentre/factsheets/fs193/en/>
- 6) <http://www.who.int/peh-emf/publications/facts/fs304/en/>
- 7) <http://www.who.int/peh-emf/publications/facts/fs296/en/>

Please note that the regulation of wireless communication technology and their associated infrastructure, including the deployment of 5G technologies, is the responsibility of Innovation, Science and Economic Development Canada (ISED), under the *Radiocommunication Act* (<https://laws-lois.justice.gc.ca/eng/acts/r-2/>). To ensure that public exposures fall within acceptable limits, ISED has developed regulatory standards that require compliance with the recommended human exposure limits outlined within Health Canada's Safety Code 6. ISED also conducts regular audits to help ensure wireless devices on the market and antenna installations are compliant. Any questions regarding testing and compliance of wireless RF-emitting devices and their associated infrastructure should be directed to ISED. For more information on ISED's regulatory process, including requirements for consultation with land-use authorities, please contact ISED directly: General - http://www.ic.gc.ca/eic/site/icgc.nsf/eng/h_07026.html; District Offices - <http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf01742.html>. Additionally, please note that ISED has recently published a new website on Radiofrequency Energy and Safety that can be found at the following link: <http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf11467.html>. This website provides general information on RF energy, the role of the government of Canada, and RF safety requirements, including those for potential 5G technology.

The below links are to scientific literature on the health effects of RF energy:

1. <http://www.icnirp.org/en/publications/index.html>
2. https://ec.europa.eu/health/sites/health/files/scientific_committees/emerging/docs/scenihr_o_041.pdf
3. <http://www.hc-sc.gc.ca/ewh-semt/radiation/cons/wifi/index-eng.php>
4. <http://www.hc-sc.gc.ca/ewh-semt/radiation/cons/radiofreq/index-eng.php>
5. <http://www.hc-sc.gc.ca/ewh-semt/radiation/cons/radiofreq/research-recherche-eng.php>
6. <https://www.emf-portal.org/en>
7. <http://ieee-emf.com/index.cfm>
8. <http://www.who.int/peh-emf/publications/en/>

Health Canada recognizes that a few international jurisdictions (cities, provinces or countries) have applied more restrictive limits to RF field exposures from cell towers; however, there is no scientific basis to support the need for such restrictive limits. In addition, these more restrictive limits aren't applied equally to other wireless devices operating within the same jurisdictions. For more information on SC6, please refer to this link: <https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/radiation/understanding-safety-code-6.html>

Rogers performs RF energy analyses of its equipment and reports to ISED to ensure SC6 compliance throughout the lifetime of a telecommunications facility. Several websites are provided that detail the measures Rogers, ISED and Health Canada undertake to ensure public safety.

Other Safety Concerns

Rogers attests that the radio antenna system for the Proposed Installation will be constructed in compliance with the National Building Code and the Canadian Standard Association, and will respect good engineering practices, including structural adequacy.

The tower and fence will be located to the west of the existing freestanding sign for Rockyview Hospital, which will not detract from the visibility along the corridor, nor will the tower site impede motorist's view around the corner.

Highlighted Industry and Health & Safety Links:

- <http://strategis.ic.gc.ca/towers>
- <http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf11467.html>
- <http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf08792.html>
- http://www.hc-sc.gc.ca/ewh-semt/pubs/radiation/radio_guide-lignes_direct-eng.php
- <https://www.ctia.org/homepage/public-safety-channel>
- <https://www.cwta.ca/for-consumers/health-safety/>
- <http://www.rogers.com>

Other Concerns

Additional concerns we received are listed below, followed by responses:

- Consultation Process – *As detailed in the below section, we have followed the City of Calgary's policy requirements for public consultation, which are greater than the basic federal requirements established by ISED.*
- Southwest Bus Rapid Transportation/Construction Nuisance – *While we appreciate the angst voiced by multiple residents towards the development along 14th Street, we have done our best to find a suitable location and propose an improved design for the proposed facility. Construction of the facility (if approved) would only take approximately 4-6 weeks, and likely would not include work on a daily basis during the construction period. For example, the tower structure is typically erected in 1-day. Following construction, there would be non-intrusive periodic maintenance visits.*
- Questions regarding who would receive financial remuneration for the facility – *Under the Privacy Act, this is confidential information.*

Federal and Municipal Policies

Telecommunications facilities are regulated by Innovation, Science and Economic Development Canada (ISED), which is the approving authority per the *Radiocommunication Act*. ISED's policy for the siting of telecommunications facilities, titled [Radiocommunication and Broadcasting Antenna Systems \(CPC-2-0-03\)](#) includes requirements to follow a local Land Use Authority (municipality)'s tower-siting policy. The City of Calgary's [Telecommunication Antenna Structures Siting Protocols](#) provides guidance to proponents of telecommunication facilities with regard to preferred and discouraged locations, designs and establishes public consultation and a formal review process.

The City of Calgary's policy requires proponents to notify all residential properties within a 300-metre radius of the proposed location. The City provided 119 addresses (without personal information), which included 5 mailing addresses associated with Rockyview General Hospital and 1 address for CareWest. In addition, we notified the Chinook Park, Kelvin Grove and Eagle Ridge (CKE) Community Association, city staff, the area councillor, ISED and the local Member of Parliament. Consultation requirements included a public notification (mailed on June 24th), a public meeting (held on July 18th) and a public response period, which ended on July 28th. Additional time was taken to account for summer vacations and to thoroughly consider and respond to public feedback. Please note that the City's notification and public meeting requirements are substantially greater than ISED's default public consultation requirements, which include notification of landowners within three-times (3x) tower height (90m) and do not require a public meeting.

Rogers has followed both federal and City policies, explored co-location and sharing opportunities with existing structures and consulted with the City of Calgary and the public. The proposed telecommunications facility meets the City's policy preferences for location (transportation and utility corridors, close proximity to similarly scaled structures, non-residential areas and adjacent to parks or green space), exceeds the Residential Development Setback Guideline (75m from the nearest dwelling unit), and design (shrouded monopole, screening of equipment). We followed public consultation requirements per the City's policy and with this letter are responding to all feedback received.

While the City of Calgary is not the approving authority, Rogers must demonstrate our best efforts to adhere to city policies relating to telecommunications facilities and request a letter of support (concurrence). ISED is ultimately the approving authority and all public information gathered from consultation will be available for their information.

Conclusion

New telecommunications facilities are needed to keep pace with consumer demand for wireless service. Roger's proposal takes into consideration technical constraints, network requirements and is designed with respect to the local environment. The proposed facility will provide enhanced wireless coverage and capacity to the area, which will benefit residents, businesses, institutions, and improve access to emergency services. The proposed facility will adhere to all federal health and safety requirements. Rogers and LandSolutions have performed significant effort to find a technically feasible location that respects federal and local policies. Our modern society expects high quality, fast and reliable

wireless telecommunications services. The proposed facility would ensure the reliability and performance of Roger's network in Calgary and support the emergence of innovative technologies.

Next steps include submitting a formal report to the City of Calgary and request for concurrence. All correspondence received will become part of the public consultation records shared with the City of Calgary and ISED. Thank you for participating in the public consultation process.

Sincerely,

LandSolutions LP for Rogers Communications Inc.



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