

Antenna Siting Protocols Update to Support 5G Network Deployment

RECOMMENDATIONS:

That the Infrastructure and Planning Committee recommend that Council:

1. Approve proposed amendments to the *Telecommunications Antenna Structures Siting Protocols* (Attachment 4); and
2. Amend the *2022 Planning Applications Fee Schedule* (Attachment 2) to add a Type D small cell antenna submission at \$118.00.

RECOMMENDATION OF THE INFRASTRUCTURE AND PLANNING COMMITTEE, 2022 MARCH 3:

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HIGHLIGHTS

- Administration is proposing to update the *Telecommunications Antenna Structures Siting Protocols* (Protocols) to address and enable new approaches to wireless infrastructure and technology for Fifth Generation (5G) network deployment.
- What does this mean to Calgarians? The updated Protocols balance supporting the economic benefits of this critical infrastructure for Calgary with the continued focus on quality urban design.
- Why does it matter? A 5G network is important for improving access to the digital economy and adoption of smart city infrastructure, such as digital driven traffic management. Greater 5G service has the potential to be an attractant for new businesses in the information technology sector. The updated Protocols are a collaboration between The City of Calgary (The City) and Wireless Service Providers (Providers) of network access that provide a transparent and consistent way of providing feedback on the placement and visual impact of wireless infrastructure installation.
- An outcome of amending the Protocols is a new type of small cell antenna installation submission and a new fee category to the *2022 Planning Application Fee Schedule*.
- Innovation, Science and Economic Development Canada is the approving body of antenna systems and requires land use authority review and public consultation in limited circumstances in their approval process. Generally, such consultation is required on new, purpose-built structures and existing structures with proposed height increase of 25% or more.
- The Federation of Canadian Municipalities supports the development of antenna siting protocols that highlight local considerations including preferred sites, design, and screening preferences.
- Several small cell antennas near one another in strategic locations may be required to support 5G network coverage. These antennas are frequently installed on the street level and impact the public realm. Small cell antennas were not previously considered in the Protocols.

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- Fostering innovation by providing a clear process to enable well designed small cell installations supports Calgary's position as an attractive place to start, grow or relocate a business and contributes generally to economic resiliency.
- On 17 November 2014 Council approved amendments to the Protocols that clarified location criteria considerations for cell towers in greenfield areas.
- Strategic Alignment to Council's Citizen Priorities: A well-run city
- Background and Previous Council Direction is included as Attachment 1.

DISCUSSION

Background

Innovation, Science and Economic Development Canada is the approver of telecommunications infrastructure and its review processes acknowledges the importance of antenna systems being deployed with consideration of the local context. Although The City is not the approver, concurrence or non-concurrence is issued by Community Planning based on a review of local context and urban design considerations guided by the Protocols. Letters of concurrence are considered in the federal approval process. The Protocols are intended to establish procedural standards that will allow The City to effectively participate in and influence the placement and design of telecommunication antenna structures.

City of Calgary Administration, Providers, members of Council, and Community Associations have a long history of working collaboratively to provide a local perspective on the design and location of telecommunications antenna structures. In 2011, Council adopted the *Telecommunications Antenna Structures Siting Protocols* to guide this collaboration and provide transparency on the process. The Protocols have remained unchanged since 2014, yet there have been significant changes to telecommunications technologies.

A 5G network builds on existing, previous generation antenna systems and sometimes requires the addition of new supporting infrastructure such as small cell antennas. Small cell antennas are often found on the street level and will augment the existing antenna systems (which are generally located higher on rooftop structures or on dedicated towers). These various antenna types work together to create a seamless experience and faster, more sophisticated connection for the user. The result is a greater number of installations of small cells (about the size of a backpack or a pizza box) which can be mounted on street poles, the facades of buildings, or on top of structures.

Recommended Updates to the Siting Protocols

To accommodate small cell antennas, a new Type D category of submission is proposed. During the submission and review process, Type D applications will be circulated to the Ward Councillor for information purposes. The Type D submission process will give The City the appropriate level of review from a local authority perspective supported by urban design considerations for best visual impact outcomes. The process will address the placement of small cells on both building facades (private and public) and municipal infrastructure such as streetlights. Guidance to Providers has been illustrated in the updated protocols with visual examples of encouraged and discouraged placement and appearance characteristics for small cell installations. These installations may occur on buildings where significant consideration and input from development stakeholders was considered when a building was first built. Requiring

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antenna submission helps ensure continuity to those considerations. A new fee of \$118.00 is proposed for the, *2022 Planning Application Fee Schedule*, to recover the cost of the review (as described in Attachment 2). Minor changes were identified in the Protocols to address the limited circumstances where public consultation is required by Innovation, Science and Economic Development Canada for small cell antennas. These changes provide clarity that new towers or height expansions fall into existing processes outlined for Type A and B installations and would apply if small cells were a component of that system. The circumstances where public consultation is required are anticipated to be rare.

Additional changes to the Protocols reflect updated terminology and the ability for public consultation to take place virtually. Virtual public consultation remains supported by notification methods that maintain equitable access to information on proposed antenna systems where required by the protocols (e.g. Type A submissions). Public consultation meetings, while included in Calgary's protocols, exceed the base requirements provided under the Federal guidelines. The pandemic highlighted an opportunity to clarify that a virtual open house, in combination with the notification measures contained within the Protocols satisfy the objectives and can be an alternative to in-person consultation formats. Attachment 3 is a summary table of proposed Protocol changes identified by description of type and intent of the proposed change. A redline version of the Protocols, inclusive of the changes can be found in Attachment 4.

STAKEHOLDER ENGAGEMENT AND COMMUNICATION (EXTERNAL)

- Public Engagement was undertaken
- Public Communication or Engagement was not required
- Public/Stakeholders were informed
- Stakeholder dialogue/relations were undertaken

Information on the proposed changes was shared with Providers between 2021 July 19 through to 2022 February 2 and feedback was collected. Providers confirmed the value of obtaining local authority review through the concurrence submission process and were supportive of the proposed Type D submission process. It was through these discussions that the opportunity to address virtual public consultations for Type A submissions was raised and added to the proposed changes.

Innovation, Science and Economic Development Canada, as the approving authority for radiocommunication in Canada, were consulted on the proposed protocol changes. They reinforced the value of collaboration by local land use authorities, providers and Innovations, Science and Economic Development Canada in the review of small cell antenna installations. Attachment 5 contains stakeholder letters.

Working with the Federation of Calgary Communities, Community Associations were notified of the proposed changes and included information in their August communication with Planning Community Chairpersons and Presidents. In addition, Neighborhood Partnership Coordinators included project information in their regular update newsletters to communities over July, August, and November. Updates were also provided regarding the timing of reporting to committee.

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IMPLICATIONS

Social

A clear process to address small cell installations creates certainty of process for the Providers and transparency on objectives to provide the best visual outcomes when impacting the public realm. Certainty of process and the resulting installations assist in the speed of review and implementation of networks that serve all Calgarians.

Environmental

Smart infrastructure is key to sustainable and efficient development of cities.

Economic

5G networks are important in providing greater access to the digital economy and necessary for the improvement of services through the adoption of smart city infrastructure. Greater 5G service has the potential to be an attracting factor for new business start-ups and existing businesses looking to relocate to Calgary, especially in the information technology sector.

Service and Financial Implications

No anticipated financial impact

RISK

Failure to adopt protocol changes would create a submission gap based on antenna type. It would be a missed opportunity to collaborate and provide local consideration of small cell antenna installations that interact with the public realm.

ATTACHMENT(S)

1. Previous Council Direction, Background
2. Excerpt of Proposed Fee Schedule Amendment
3. Proposed Amendment Summary Table
4. Redline Amendments to the Protocols
5. Stakeholder Letters

Department Circulation

General Manager/Director	Department	Approve/Consult/Inform
Stuart Dagleish	Planning & Development	Approve
Debra Hamilton	Planning & Development	Approve