

**PLANNING AND DEVELOPMENT COMMITTEE**

*HIS WORSHIP, THE MAYOR  
AND COUNCILLORS*

**SUBJECT: SMALL CELL ANTENNA INSTALLATIONS ON CITY  
INFRASTRUCTURE / ANTENNA DEVELOPMENTS IN P2 DISTRICT**

**RECOMMENDATIONS:**

1. **THAT** Council authorize the preparation of a bylaw amending the Burnaby Zoning Bylaw, as outlined in Sections 2.2 and 2.3 of this report, and that the bylaw be advanced to First Reading on 2015 October 05 and to a Public Hearing on 2015 October 27 at 7:00 pm.
2. **THAT** Council authorize the preparation of a bylaw amending the Burnaby Street and Traffic Bylaw, as outlined in Section 2.4 of this report, and that the bylaw be advanced to First, Second, and Third Readings on 2015 October 05.

**REPORT**

The Planning and Development Committee, at its meeting held on 2015 September 29, received and adopted the attached report proposing text amendments to the Burnaby Street and Traffic Bylaw and the Burnaby Zoning Bylaw to permit small cell antenna installations on City street light standards and traffic light poles; and amend the P2 Administration and Assembly District with respect to antenna developments.

Respectfully submitted,

Copied to:	City Manager Deputy City Managers Director Engineering Director Planning & Building Chief Building Inspector City Solicitor
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Councillor C. Jordan  
Chair

Councillor D. Johnston  
Vice Chair

Councillor S. Dhaliwal  
Member

**TO:** CHAIR AND MEMBERS  
PLANNING AND DEVELOPMENT  
COMMITTEE

**DATE:** 2015 September 24

**FROM:** DIRECTOR PLANNING AND BUILDING

**FILE:** 42000 20  
*Reference: Small Cell Antenna*

**SUBJECT:** SMALL CELL ANTENNA INSTALLATIONS ON CITY INFRASTRUCTURE  
/ ANTENNA DEVELOPMENTS IN P2 DISTRICT

**PURPOSE:** To propose text amendments to the Burnaby Street and Traffic Bylaw and the Burnaby Zoning Bylaw to permit small cell antenna installations on City street light standards and traffic light poles; and amend the P2 Administration and Assembly District with respect to antenna developments.

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#### **RECOMMENDATIONS:**

1. **THAT** Council authorize the preparation of a bylaw amending the Burnaby Zoning Bylaw, as outlined in Sections 2.2 and 2.3 of this report, and that the bylaw be advanced to First Reading on 2015 October 05 and to a Public Hearing on 2015 October 27 at 7:00 pm.
2. **THAT** Council authorize the preparation of a bylaw amending the Burnaby Street and Traffic Bylaw, as outlined in Section 2.4 of this report, and that the bylaw be advanced to First, Second, and Third Readings on 2015 October 05.

### **REPORT**

#### **1.0 INTRODUCTION**

On 2015 July 06, Council authorized staff to review the provisions of the Burnaby Zoning Bylaw and the Street and Traffic Bylaw in relation to the installation of small cell and other antennas on City street infrastructure. The need for the review arises from a proposal from Telus to provide for the installation of small cell wireless communication devices on City street infrastructure. Council approved an agreement with Telus, subject to an independent bylaw amendment process to follow.

Installation of the small cell stations on City infrastructure requires text amendments to the Burnaby Zoning Bylaw, which currently permits commercial antennas as a principal use only in the P2 Administration and Assembly District, or on buildings (in all Districts except R Districts) subject to conditions. It also requires text amendments to the Burnaby Street and Traffic Bylaw to specify general terms and conditions for installing the small cell stations.

It is also recommended that the P2 District schedule be amended to require CD Comprehensive Development District rezoning for antenna developments that exceed the requirements of Section 6.21 of the Zoning Bylaw.

## **2.0 PROPOSED ZONING BYLAW AMENDMENTS**

### **2.1 Small Cell Installations**

Small cell wireless communications stations are antenna installations that provide additional wireless capacity in high usage areas, and additional coverage in areas with challenging features, such as trees or other obstacles that may block signals. Small cell installations are mounted on poles and consist of an approximately 1 ft<sup>2</sup>, 5-inch deep [0.01 m<sup>3</sup> (0.35 ft<sup>3</sup>)] antenna unit and an associated electrical breaker box of similar size [approximately 0.006 m<sup>3</sup> (0.21 ft<sup>3</sup>)]. The typical placement height is approximately five to six meters from ground level, but can be lower or higher. Each unit is connected to the core network through power and fiber lines that run through the pole and into underground conduit.

### **2.2 Zoning Bylaw Text Amendment – Small Cell Antennas**

Small cell installations are a relatively unobtrusive means to improve wireless service. The small size of the antennas and associated electrical boxes, and their integration on existing infrastructure, is considerably less intrusive than freestanding antennas or, in many cases, rooftop antennas. Given their inconspicuous design and the minimal energy output from the antennas, these installations are suitable for all areas of the City, including residential areas. However, an approach is needed to control the proliferation of small cell installations and to ensure that they are designed and located in a manner that minimizes visual impacts. Through this report, this is achieved by way of specific Director Engineering approval for each attachment to a City pole. The Director Engineering will be responsible for the siting of installations and the resolution of any issues.

Currently, the Zoning Bylaw permits antennas only in the P2 Administration and Assembly District, or on buildings (except in R Districts) subject to siting and design criteria. Antennas that are accessory to a principal use are also permitted. In order to permit the small cell installations on City street and traffic light poles in any zoning district, an amendment to the Zoning Bylaw is required.

More specifically, staff proposes an amendment to Section 6.21 – Antennae of the Burnaby Zoning Bylaw, which currently regulates antennas on buildings. The proposed amendment would add a new subsection, specifically for small cell and similar installations, with the following provisions:

- maximum size and height requirements for the antenna;
- a minimum distance between separate installations;

- a definition of the City infrastructure components (e.g., traffic light or lamp pole) upon which the antennas could be attached; and
- the requirement that the installation be approved by the Director Engineering.

The intent of these provisions is to ensure that the proposed installations meet the expectations of the City and do not result in visual clutter or other impacts to the quality of the streetscape. These provisions also provide for discretionary review of each installation by the Director Engineering. It is noted that while the proposed amendment accommodates the proposed Telus installations, it would apply to any conforming antenna system, provided the carrier installing the system has entered into a written licence agreement with the City. In addition, future amendments may be considered to similarly accommodate other small antenna installations with different requirements.

### **Recommended Zoning Bylaw Amendment**

**THAT** Section 6.21 be amended to add provisions similar to the following:

*An antenna or group of antennas and associated electrical box forming part of a single installation attached to an approved traffic light or lamp pole is permitted in any zoning district if it meets the following qualifications, namely:*

- *it is located at least 6m (19.7ft) above the ground but not extending higher than the pole or crossbar on which it is mounted;*
- *the antenna or antennas have a volumetric dimension not greater than 0.01m<sup>3</sup> (0.35ft.<sup>3</sup>); and*
- *it is located not less than 250m (820ft) from any other approved traffic light or lamp pole mounted antennas on the same street.*

*For the purposes of this section, “approved traffic light or lamp pole” means a City owned traffic signal pole or street lamp pole situated within a dedicated road allowance or statutory right of way and that has been approved by the City’s Director Engineering for the mounting of antennas.*

### **2.3 Zoning Bylaw Text Amendment – Antennas in the P2 District**

The Zoning Bylaw permits antennas as an outright use in the P2 Administration and Assembly District. Few conditions apply to this use, as antennas are exempt from building height restrictions and setbacks and require no off-street parking. At the same time, free-standing antennas can be unsightly due to excessive height and their generally utilitarian, pre-fabricated design. In addition, these antennas can generate concern from neighbouring residents and the larger public. While monopole antennas have rarely been constructed on P2 District properties, the potential exists for this to occur with little regulatory control over siting and design.

Typically, free-standing antenna installations have been sited on industrial properties that have required rezoning to accommodate the use. In those instances, staff have supported rezoning proposals only to the CD Comprehensive Development District based on the P2 District, rather than to the P2 District itself, as rezoning to the CD District limits development to that shown on the approved plan. As such, the initial design and any subsequent additions or changes must be approved through the rezoning process.

In order to ensure that all antenna proposals, other than those permitted under Section 6.21 of the Zoning Bylaw, require approval through the rezoning process, it is recommended that the P2 District schedule be amended to only permit antenna developments if they are included as part of a comprehensive development plan subject to the CD Comprehensive Development District.

### **Recommended Zoning Bylaw Amendment**

THAT Section 502.1 (14) be amended similar to the following (proposed additions are underlined):

*Antenna developments not included in section 6.21, subject to the condition that such use is included as part of a comprehensive development plan to which the provisions of the Comprehensive Development District apply.*

### **2.4 Street and Traffic Bylaw Text Amendment**

The Street and Traffic Bylaw regulates the use of City streets, including infrastructure within the City road right-of-way. In order to permit the installation of small cell wireless communications stations on street infrastructure, it is necessary to amend the Bylaw to specify the conditions under which this may be done. The proposed amendment specifies the types of infrastructure subject to the provision, and stipulates prerequisites to installation, including entry into a written licence agreement with the City, and consideration to consist of provision of optical Ethernet services or other non-monetary consideration as may be acceptable to Council.

### **Recommended Street and Traffic Bylaw Amendment**

THAT a new section be added similar to the following:

*No person shall install or affix a cellular telecommunication station for the transmission of wireless communications in, on or to a City structure or street, including without limitation a:*

- *street light standard,*
- *traffic light pole,*
- *roadway,*
- *sidewalk,*
- *boulevard,*

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- transit shelter,
- sign, or
- unopened road allowance,

*within the area of a street unless the person first enters into a written licence agreement approved by City Council and agrees that in consideration for the licence the person must provide optical Ethernet services to City buildings, structure or facilities, for the benefit of the City and the City's invitees or agents or such other non-monetary consideration as may be approved by City Council for each station installed or affixed by the person.*

### 3.0 CONCLUSION

This report presents Zoning Bylaw text amendments in order to: 1) permit the installation of small cell antenna installations on City infrastructure; and 2) ensure that antennas that do not meet the provisions of Section 6.21 (e.g., freestanding or monopole antennas) require public input and Council approval through the CD rezoning process. It also presents amendments to the Street and Traffic Bylaw to provide the necessary prerequisites for installation of the small cell stations on City infrastructure.

It is recommended that Council approve a) the proposed Zoning Bylaw amendments, as outlined in Sections 2.2 and 2.3 of this report, for advancement to First Reading on 2015 October 05 and Public Hearing on 2015 October 27 at 7:00 pm; and b) the proposed amendment to the Street and Traffic Bylaw, as outlined in Section 2.4 of this report, for advancement to First, Second and Third Readings on 2015 October 05.

  
Lou Pelletier, Director  
PLANNING AND BUILDING

LF:sla

cc: City Manager  
Deputy City Managers  
Director Engineering  
Director Finance  
City Solicitor  
City Clerk