

## Attachment 3

# **Telecommunication Antenna Placement and Design Guidelines**

## **POLICY FOR TELECOMMUNICATION ANTENNA POLE AND RELATED EQUIPMENT PLACEMENT WITHIN THE RIGHT OF WAY**

**The intent of these guidelines is to provide telecommunications companies with City criteria for placement of antenna poles under 15 metres in height and related equipment locations.**

*It should be understood that this infrastructure is always considered by the City to be unsightly and an impingement into the public right-of-way, and it is expected that telecommunications companies will use every effort to diminish the amount of such infrastructure to minimize its visual and functional impact.*

### **1.0 SITE SELECTION AND DESIGN GUIDELINES**

The following sections detail placement criteria/restrictions for antenna poles and equipment.

#### **1.1 Antenna Pole Placement Criteria**

The City will evaluate the location based on the following criteria with the preferred locations being:

- Arterial roads versus residential streets; based on the City's review poles may be located on streets where the right-of-way is 36m or greater;
- Locations adjacent to industrial areas;
- Flankage streets. If no flankage street exists, locations which will minimize impacts to view corridors; avoid view terminus and intersections;
- A preferred clearance of 20 metres from structures greater than nine metres in height;
- Locations that are not directly in front of a window, doorway, balcony or the frontage of a residence;
- Any other locations will be considered on a case-by-case basis;
- The placement of more than one antenna within a one-block radius shall not be permitted, except on a case-by-case basis;
- A preferred pedestrian clearance of 2.10 metres is desired; and
- The antenna pole locations and associated infrastructure must not impede on the City's ability to plant trees in the right-of-way.

## 1.2 Antenna Equipment Box Placement Criteria

All equipment boxes for antenna poles shall be placed underground, unless otherwise approved on a case-by-case basis by the General Manager of Transportation Services. The following restrictions apply to the location of underground equipment boxes:

- Underground equipment boxes shall not be located in front of a dwelling;
- Underground equipment boxes shall be located on a flankage street where possible, to minimize the visual impact of the streetscape;
- The lid of the underground equipment boxes shall be designed in a way to blend in with the surrounding surface treatment (i.e. if the surrounding surface is concrete, the lid must be concrete);
- The lid of the underground equipment boxes shall be made of a non-slip material;
- The lid of the underground equipment boxes shall not in any way interfere with pedestrian movements; and
- The lid of the underground equipment boxes shall be designed and located in an area with minimal visual impact.
- The location of the underground equipment box shall be located in an area that does not impede pedestrians or the potential for locating street trees or new development.

## 1.3 Pole and Antenna Design (Size, Height, and Appearance)

The design of the pole and antenna should be appropriate for the site context. There are three design approaches that can be explored: attach antenna onto existing pole of another use (such as a light pole); install separate pole for antenna; or camouflage an antenna. The guidelines below outline the general design expectations.

- Antennas that extend above the top of a supporting utility pole or light standard should appear to be a natural extension of the pole (e.g. in colour, shape and size);
- Cables and wires must be concealed and covered;
- Combined height of pole and antenna must be under 15 metres;
- The colour of pole must be in keeping with the colour of poles within the contextual streetscape;
- Antenna colour shall match appearance of pole;
- The height of the antenna on a pole shall not project more than 1m above the top of pole when the existing pole is greater than 12m in height and approval of this height is contingent on the antenna design integrating well with the surrounding environment and not interfering with any sight lines; and
- If appropriate and with City approval, the antenna may be designed and added to an existing City infrastructure, particularly in dense urban areas

## 2.0 DESIGN REQUIREMENTS

- The telecommunications company is responsible for all design work including, but not limited to, any required geotechnical investigation and foundation design work for antenna poles.
- Underground design work must be in compliance with City standards.
- Aesthetic design of antenna pole must be approved by Urban Design, City Planning and Public Realm Section, Transportation Services.

### **3.0 PLAN SUBMITTAL AND REVIEW PROCESS**

#### Approval Process

1. Preliminary site review
  - Preliminary site proposals must include:
    - Antenna pole location;
    - Pictures of the location;
    - Photo of the antenna; and
    - Location of underground equipment box or other equipment.
  - City will respond within three weeks.
2. Construction drawings
  - a. Approval (4-6 week turnaround unless revisions are required) – plans must be in compliance with all City Standards and Specifications for Construction within the public right-of-way.
  - b. A master plan indicating the locations of all underground and above ground facilities related to the antenna must be submitted to the City for approval by Urban Design, City Planning; Public Realm Section, Transportation Services; and Right-of-Way Management, Transportation Services.

### **4.0 CONSTRUCTION REQUIREMENTS**

- The telecommunications company must obtain all necessary permits issued by the City prior to any construction within the public right-of-way;
- The telecommunications company is responsible for the purchase and installation costs of the antenna pole and any associated equipment;
- The telecommunications company is responsible for all costs associated with providing and maintaining power to the antenna pole; and
- The telecommunications company is responsible for notifying the adjacent property owners of cabinet location.

### **5.0 APPURTENANCES**

Where determined by the City, appurtenances such as electric vehicle (EV) charging, power plugs and/or other elements may be required. The telecommunications company will be responsible for the upfront design and capital costs. In this case, the annual fee will be waived until the incremental costs for the appurtenances have been covered without interest.

### **6.0 RELOCATION**

Some poles may need to be relocated due to City construction or other work activity in the immediate area. The City will notify the telecommunications company three months prior to relocation and the telecommunications company shall pay all costs associated with the relocation.

## **7.0 HEALTH AND SAFETY INFORMATION**

All telecommunications companies are regulated by Industry Canada. Industry Canada uses Health Canada's guidelines, also known as Safety Code 6, to ensure the safety of each installation. The telecommunications companies must also adhere to the City's Prudent Avoidance Policy, as adopted by City Council in March 2008. In the event safety is challenged, the telecommunications company will address the issue directly with the complainant. It is the telecommunications companies' responsibility to ensure that each antenna installation is safe regarding limits of exposure to radiofrequency electromagnetic fields.

### **City Requirements**

- The telecommunications company shall verify compliance with the City's Prudent Avoidance Policy by providing a copy of the Safety Code 6 (SC6) Validation report required by Industry Canada for the proposed antenna.

## **8.0 ABANDONED EQUIPMENT**

The antenna, pole and underground equipment box shall be removed at no expense to the City if it is inactive for a consecutive 6-month period.

## **9.0 MAINTENANCE**

The telecommunications company is solely responsible for the ongoing maintenance and repair of the antenna pole and any ancillary equipment, to the satisfaction of the General Manager of Transportation Services.