



City of Vancouver *Planning - By-law Administration Bulletins*

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ANTENNAS (NON-RESIDENTIAL INSTALLATIONS) - REVIEW PROCESS AND DESIGN ISSUES

*Authority - Director of Planning
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1 Application and Intent

Section 10.27 of the Zoning and Development By-Law states:

“Except as exempted by the provisions of 5.16 (antenna used for residential purposes), no person shall erect an antenna, including a satellite dish, without first obtaining a development permit from the Director of Planning”.

This By-law Administration Bulletin is to be used in conjunction with those District Schedules of the Zoning and Development By-law, and Official Development Plans, which permit the erection of non-residential antenna systems.

The Bulletin summarizes the consultation and review processes necessary to obtain the City’s concurrence for any non-residential antenna installation. It is also intended to help improve the design appearance of these installations, and reduce visual impacts on surrounding property owners and residents.

It is the legal responsibility of the property owner to obtain, or to ensure that others obtain, the necessary City permits for any work done to their property. Property owners should consult with the City of Vancouver before installing, or allowing others to install, any antennas for non-residential purposes.

2 Consultation and Process

2.1 **General**

Proponents should contact Development Services to discuss any proposed antenna installation or modification. Staff will determine whether the proposed installation is an Outright or Conditional use according to the zoning regulations for the site.

2.2 Outright and Conditional Uses

Depending on their specific purpose, non-residential antennas will generally be classified as either a Public Utility use or a Radiocommunication Station under the Zoning and Development By-Law.

Radiocommunication Station is an Outright use in many Industrial zones and a Conditional use in many Commercial zones. Public Utility use is a Conditional use in all zoning districts and Official Development Plans in the City of Vancouver. If you are unsure of the zoning or use issues with respect to a specific installation or site, please contact the Enquiry Centre of Development Services.

Outright uses: Under the provisions of the Zoning and Development By-Law, Outright uses are approvable subject to compliance with regulations only (e.g. height, yards, etc.). Applicants should refer to the relevant District Schedule for the applicable regulations.

Conditional uses: In addition to compliance with regulations, Conditional uses require the discretionary review of the Director of Planning. In considering any Conditional use, the Director of Planning is required to consider impacts on surrounding residents, as well as a range of urban and architectural design issues. Notification of surrounding property owners by letter may be undertaken if impacts are considered significant.

2.3 Consultation and Processing

Outright uses: If the use is Outright under the relevant District Schedule and if the installation meets all regulations of the Schedule, an application for a combined Development Building Permit may be made.

In this approval stream, Planning issues can be cleared at the time of application, and the application is then forwarded to the Building Group. The Building Group will review the antenna installation for compliance with the Vancouver Building Bylaw. Structural letters of assurance from a Professional Engineer registered in the Province of British Columbia will be required.

The issuance of a combined Development Building Permit will indicate the City's concurrence with the proposed installation.

Conditional uses: If the use is Conditional, or if any relaxation of zoning regulations is required, proponents will be asked to meet with a Development Planner to discuss the proposal.

If Planning issues or concerns can be resolved through this discussion, and if the City concludes that additional consultation with surrounding property owners is not required, the combined Development Building Permit process may also be used.

For situations where Planning issues cannot be resolved through a simple discussion process, or in those instances where the City determines that direct consultation with affected property owners is required, separate Development Permit and Building Permit applications will be required. The City will undertake formal notification of affected property owners as part of the Development Permit process.

Issuance of separate Development and Building Permits will indicate the City's concurrence with the proposed installation.

3. Design Issues

3.1 General Design Concerns

Design concerns often come under one of three main categories:

a) Impacts on specific property owners or tenants

This includes impacts on views, and the visibility and general appearance of installations as seen from surrounding properties and suites.

b) Impacts on building design

This involves a determination of how the proposed installation impacts the architectural design of the building on which it is located (or the design of a tower if the installation is free standing).

c) General urban design concerns

This is a review of any impact on the general public realm, streetscape, or overall urban environment.

3.2 Design Principles and Considerations

While every installation is different, the following design principles may be helpful in achieving an acceptable design and should be carefully considered:

a) Avoid mounting antennas directly on major building faces.

Mounting an antenna on a major exterior wall can have a negative impact on the architectural expression of a building, and often also increases its visibility.

Antennas are generally best located in areas set back from the outer wall of the building, so as to reduce visibility from the street and not interfere with the architectural expression of the building.

Rather than mounting antennas on a major exterior wall, one commonly approvable option is to flush-mount panel antennas on the face of an existing mechanical penthouse, set back from the main exterior wall, and to paint the antennas to match the background wall colour.

Cable trays should generally not be run up the exterior faces of buildings.

b) Avoid the 'skylining' of antennas.

Individual antennas should not project above the height of the wall face they are mounted on, in order to avoid visual clutter. This also applies when antennas are mounted on mechanical penthouse walls.

If an antenna height significantly above the height of the existing building is necessary, an alternate location or other building in the vicinity may be preferable. See also item (c) below.

Antenna installations on pitched roofs are generally not acceptable.

- c) Shrouding of antennas can be an option in some cases.

If antennas must project a small distance above the height of a mechanical penthouse, or must be mounted within a flat roof area, shrouding may be an option. In some cases a small addition (vertical or horizontal) to an existing mechanical penthouse may be possible, subject to view impacts on surrounding development.

In some cases it may be appropriate to surface mount the antennas directly on the shroud form – for example, where there is a small increase to the height of an existing mechanical penthouse. In other cases it may be preferable to construct the shroud form out of a material transparent to the signal waves, and conceal the antennas within the shroud structure. Solutions are often unique to the particular design circumstance being faced, and a high degree of creativity is sometimes necessary.

In a small number of cases, other shroud forms, such as ‘chimney forms’ or additional parapets, have been considered. However, shroud design must always be compatible with, and sympathetic to, the individual design character of the building. Achieving a reasonable and attractive overall expression for the building will be the dominant concern. The size, design, and number of shrouds are all important issues to consider.

- d) Antennas or their shrouds should be finished in a colour to suit their location.

Colour will vary depending on the context and the design approach taken. Shroud material may also vary depending on the design approach.

- e) Not all buildings are suitable for cell antenna installations.

Some buildings may already have a large number of antennas, and additional installations may not be possible without negatively impacting the appearance of the building or affecting views.

Buildings listed on the Vancouver Heritage Register require special attention, and may not be appropriate for any installations.

Some buildings may also, because of a particular architectural style or design quality, not be appropriate for antenna installations.

- f) Equipment visibility should be limited.

Small amounts of equipment (cabinets) may be mountable on the flat roof of a larger building, adjacent to an existing mechanical penthouse and located in a manner to limit visibility from surrounding buildings. For larger installations however, locating the equipment within the building (in an existing mechanical space for example, or in the basement) may be expected.

- g) Freestanding towers for antennas may not be approvable in or near residential and commercial areas, and will require a full Development Application in all circumstances.

Freestanding towers are generally limited to Industrial areas, or other less controversial locations. Architectural design considerations should play a large part in any freestanding tower proposals.