

Mechanical Equipment Screening Guide

The City of Calgary Mechanical Equipment Screening Guide



In accordance with the [Land Use Bylaw 1P2007](#), mechanical systems or equipment located outside of a building must be positioned, camouflaged or screened from view of a public space, or from view of a parcel designated as a residential district, located within 30 metres of the equipment, using a line of sight of 1.7 metres above grade. This applies to all development, with the exception of low-density residential housing and the Industrial I-O and I-H districts.

Definitions

“adjacent” means contiguous or contiguous if not for a street, lane, river or stream.

“public space” means any publicly accessible amenity space, park, sidewalk or walkway.

“residential district” means any of the land use districts in the low density residential districts and the multi-residential districts.

“screen”, “screened” and “screening” means the total or partial concealment of a building, equipment, structure or activity by a berm, fence, vegetation or wall.

Why do we regulate mechanical equipment?

Mechanical equipment typically has an industrial appearance that can disrupt streetscapes. Screening limits the negative visual impacts of equipment on residences, as well as public spaces.



Camouflaging of rooftop equipment by painting the venting with a colour that is harmonious with the roof.



Screening a large area of rooftop equipment with metal rooftop screens.



Decorative metal screening of at grade mechanical equipment.



Screening of rooftop equipment with coloured awning fabric that is consistent with the building form and finish.

Options for rooftop and wall mounted mechanical equipment

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Position

Ideally, rooftop equipment should be clustered and located away from the edges of the roof to minimize visual exposure to public spaces or residential districts. If this is not possible, the equipment should be concealed either through camouflage where appropriate, or with screening.



Equipment is located central to the rooftop, not visible from public spaces, houses or apartments.



Equipment should be located out of view of public spaces, otherwise camouflaged or screened.

Camouflage

Where appropriate, equipment can be camouflaged with paint or materials that allow the equipment to blend in with the building design. This is appropriate only where screening would be more impactful than the camouflaged equipment, such as with smaller heat vent stacks, unusually shaped equipment and as some wall mounted equipment. Where equipment is camouflaged with paint, the painted surfaces will require regular maintenance



Wall mounted equipment is camouflaged with materials that enhance the building architecture.



The attempted camouflage is not harmonious with the building and does not conceal the equipment.

Screening

Screening can take many forms, including; architectural (parapet), decorative, landscape, heavy duty, and light (screens made from awning material, etc.). Screening materials should be compatible with the building architecture (materials, colour, and scale) and with the surrounding landscape.



Equipment is partially screened, and partially exposed in a way that is harmonious with the building.



Screening should blend into the building design, rather than draw pedestrians' attention to the screen.

Considerations for rooftop and building mounted mechanical equipment

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Compatibility

The screening materials surrounding the equipment should be compatible with the building architecture (materials, colour, scale, texture, etc.). Where appropriate, landscape materials can be used on the building, using the guidelines from the plant materials section, as detailed on page 3.

Line of sight

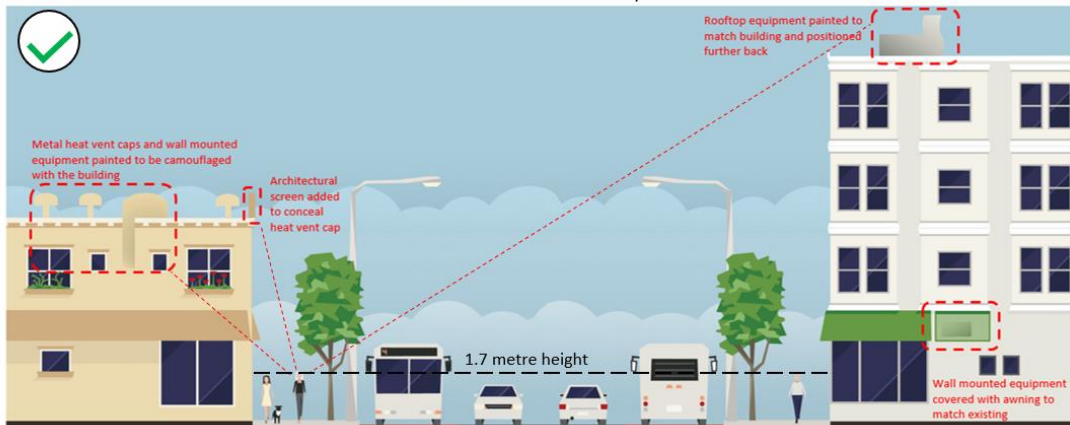
The degree of visibility from public spaces, houses and apartments within 30 metres of the subject parcel must be evaluated. There should be minimal visibility of equipment from a pedestrians' view at 1.7 metres above grade. The effectiveness of the equipment placement, camouflage or screening should also take into consideration future development in the surrounding area.

Utility hardware

All utility equipment (vents, stacks, gas and water meters, etc.) and associated protective materials (bollards, etc.) should be screened or painted to blend in with the roof or building. Fencing or screens must allow for maintenance. Means should be taken to avoid highly visible roof venting equipment. Material screening or painting of equipment should use complementary colours to the building.

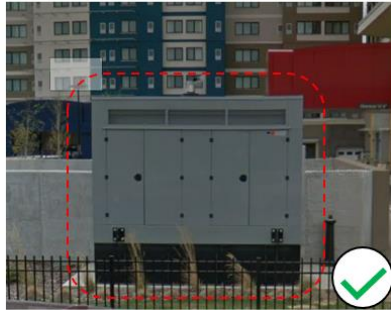


Line of sight – all proposed rooftop and building mounted mechanical equipment must consider line of sight from public spaces, houses and apartments that are within 30.0 metres of the subject parcel. Diagrams should show multiple views to proposed rooftop mechanical equipment from a 1.7 m height at the curb of the opposite side of the road from the property. Additionally, sight lines from a 1.7 metre height at the front or rear of any residential properties within 30.0 metres should be provided.



Considerations for mechanical equipment located at grade

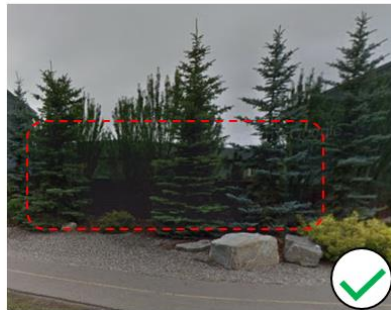
3



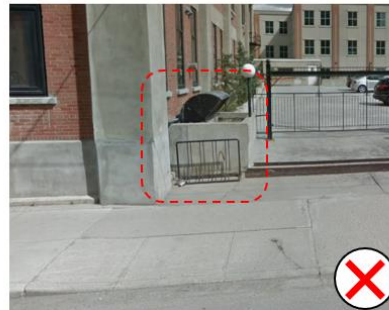
Equipment is entirely screened within a metal box, however landscaping should be increased.



Screening should be compatible with the building, rather than draw attention to the screen.



Vegetation has been planted to obscure view of equipment from the pathway.



The exhaust is located alongside the sidewalk and is fully visible.

Wherever possible, at grade mechanical or electrical equipment should be located so as to not be visible from public spaces or residential districts. Where this isn't possible, architectural elements, year-round landscaping if appropriate, or a combination of both, may be used to screen equipment located at grade.

Compatibility

Screening materials should be compatible with the building architecture (materials, colour, texture and scale) and with the surrounding landscape.

Plantings

Quality and maintenance

Using a variety of year-round live plant species is ideal when screening equipment. Use plant species that are capable of withstanding southern Alberta climates. Maintenance of the plant materials used for screening is required. When landscaping is planted, there should be room provided for access to equipment and for plant maintenance, and the plants should not be near to the exhaust.

Size and scale

When using landscaping to screen equipment, plants should conceal at least 50% of the equipment at the time of installation. Ideally, the installed plants should grow to fully screen or shield the equipment.

Location

There should be little to no view of the equipment from pedestrians' view. The degree of visibility from all adjacent public spaces must be evaluated. The existing view of equipment should also take into consideration future development in the surrounding area.

Note: Approval by a registered professional is required for any proposed rooftop landscaping, which will require review through a development permit.

Frequently Asked Questions

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When is a development permit required?

In accordance with Section 25(1)(h), a development permit is not required for mechanical and electrical work on a building provided the intensity of use of the building does not increase. As such, where outdoor mechanical equipment is proposed, it must be screened in accordance with the Land Use Bylaw rules as well as this Guide in order to be exempt from requiring a Development Permit.

If a development permit is not required, how is screening enforced?

Regardless of whether proposed mechanical or electrical equipment is exempt from requiring a development permit, in most situations a mechanical permit is still required. Upon receiving a mechanical permit, The City will examine the plans against the rules of the Land Use Bylaw to confirm compliance. If proposed equipment is considered to not meet the screening rules of the Bylaw, the applicant will be asked to amend their plans or submit a development permit for a relaxation to the Bylaw rules. An advisory condition will also be placed on all building permits and mechanical permits, identifying that visible equipment must be screened in accordance with the Land Use Bylaw.

Does rooftop screening increase a building's height, when considering building height maximums?

No. In accordance with Section 24 of the Bylaw, "building height" means the height of a building, excluding ancillary structures. As per Section 7 of the Land Use Bylaw, "Ancillary structure" means, with reference to building height, an essential component, other than a sign or flag pole, that protrudes above the roof of a building and which is necessary for the functioning of a building, including a mechanical penthouse as well as portions of a building or a structure used to provide screening of mechanical systems or equipment located outside of a building.

Screening is more expensive than I thought it would be. Can I paint the equipment instead?

Equipment can be camouflaged with paint or by using materials that are harmonious with the building architecture in situations where screening would be more visually impactful. Such situations include small equipment like vents, stacks and meters, as well as some building wall mounted equipment.

What distance should my screening be from the equipment?

It is important that screening is constructed in a way that will not negatively impact the function of the mechanical equipment, and that it meets the manufacturers specifications, as well as code requirements for such equipment. Consideration must be given to clearances to intakes, clearance to black iron kitchen exhaust ducting, painting etc.)

Refer to the manufacturer's installation information regarding warranty of the equipment – both paint and clearance could void the warranty.