

Trolley Overhead Limits of Approach

Safety Requirements for Work Near Trolley Overhead Infrastructure

Trolley Overhead Risk Profile

Overview

The Trolley Overhead (TOH) System spans across Burnaby and Vancouver, powering its trolley buses which carries thousands of passengers each day. The system, which includes 315 km of overhead network, powers 262 trolley buses and supplies 22 rectifier stations, occupies city streets above sidewalks and are also in close proximity to roadway structures. The overhead wires are energized with 600 volts of direct current (VDC) in which the overhead feeder lines are mounted onto power poles or lamp standards, and the feeder lines are extended between adjacent lamp standards on which running wires for the trolley buses are run on to be powered.

Potentially Hazardous Work

Work activities occurring close to Trolley Overhead can increase risk to bus operations, energized line integrity, public and worker safety. Of particular concern are activities that might:

- Result in a collision with Trolley Overhead's lines, poles and especially buses;
- Involve heavy equipment operating within 3 meters of any powered and non-powered TOH infrastructure;
- Lead to unauthorized persons entering within 1 meter of any powered or non-powered wire territory either inadvertently or purposefully;

Examples Include:

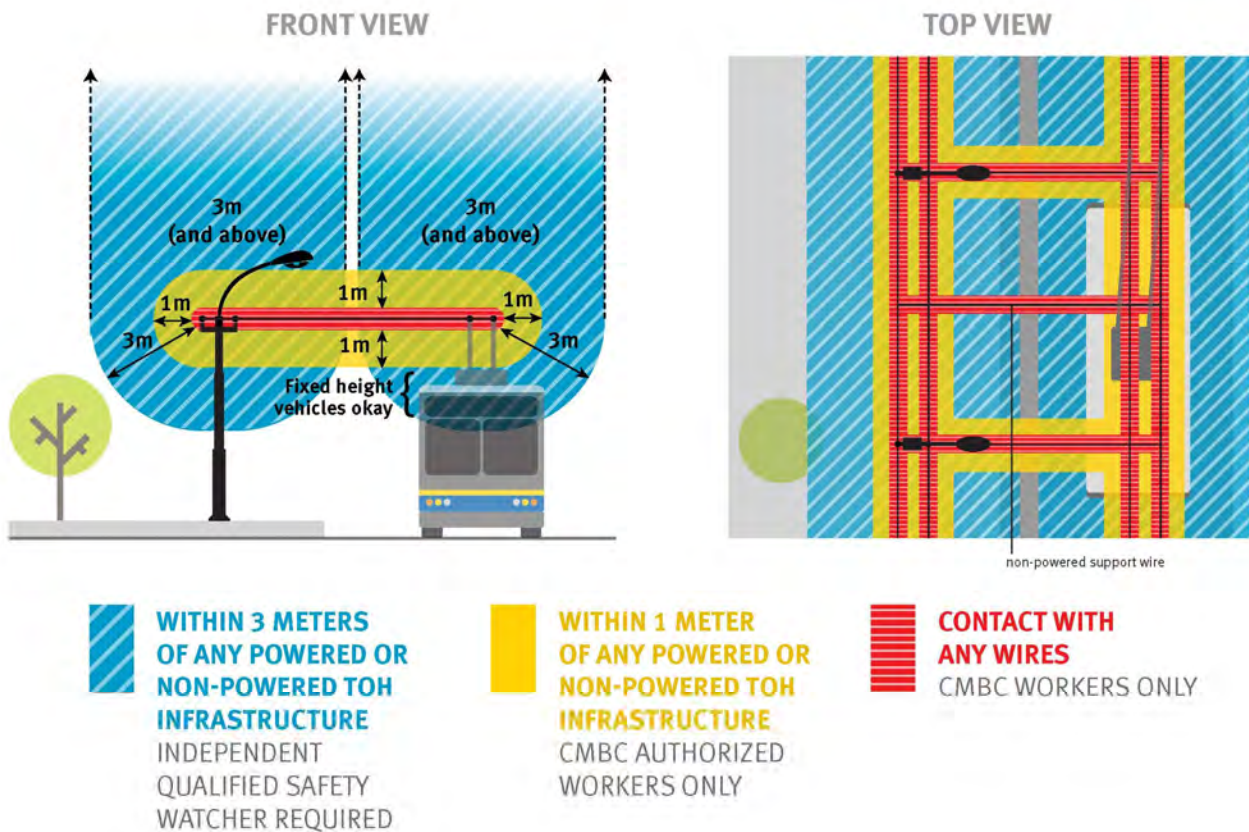
- Scaffolding erected adjacent to trolley poles or wires;
- Tall equipment (such as cranes or bucket trucks) next to the infrastructure;
- A new building that provides easy access or results in material(s) falling onto the infrastructure;
- Cranes working above energized wire territory while transporting materials;

Prior to any work commencing in the vicinity of Trolley Overhead infrastructure, the responsible parties preparing to commence work must contact TransLink to identify the risks and determine the appropriate precautions, based on the following information.

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Limits of Approach

The closer the planned work is to take place near Trolley Overhead infrastructure, the greater the potential risk. There are three limits of approach as shown in the following diagram. Each limit warrants slightly different precautions and authorization requirements to undertake work or activities within them. These limits also apply to all parts of the Trolley Overhead system, such as poles and wires.



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Within 3 meters of Any Powered and Non-Powered TOH Infrastructure

When working within 3 meters of any powered and non-powered TOH infrastructure.

Precautions

- Ensure TransLink is aware of your work at the planning phase and prior to commencement. Visit the TransLink Real Estate – Working near TOH Lines webpage for more guidance and information (https://www.translink.ca/realestate?utm_source=direct&utm_medium=shorturl&utm_campaign=realestate#working-near-trolley-overhead-lines).
- In most cases, a detailed work plan describing the hazards, risks and mitigations specific to the tasks involved in the work must be submitted for acceptance by TransLink.
- Ensure that all employees are made aware of Trolley Overhead “Limits of Approach”. Additional training may be required by TransLink or CMBC.
- The Owner shall ensure that an Independent Qualified Safety Watcher is physically present at the project site at all times while Equipment is located or operating, or activities are occurring, within 3 meters of any powered and non-powered infrastructure.

In case of an emergency or unexpected imminent hazard, call Bus Emergency:

CMBC Transit Communications (TCOMM) 778.593.5536

Within 1 meter of Any Powered and Non-Powered TOH Infrastructure

In addition to the precautions for working within 3 meters of any powered and non-powered TOH infrastructure, the following apply when you are within 1m of any powered and non-powered TOH infrastructure.

Precautions

- Ensure a safe work plan has been submitted to TransLink for approval.
- Only employees with proper training and authorized by CMBC are allowed to work within 1 meter of any powered and non-powered TOH infrastructure.

Contact with Any Wires

In addition to the precautions for work within 3 meters and 1 meter, the following applies to work if wire contact is required.

Precautions

- Only qualified CMBC TOH workers are allowed to work on any powered and non-powered wires.
- If relocation of TOH wires is required for the project, please provide TransLink with at least 1 month notice.