

Subject: Adoption of the CSA Z98-24 Passenger Ropeway and Passenger Conveyor Standard

Issue: CSA Z98-24 Code Adoption and notable changes

Background: Municipal Affairs has issued a <u>notice</u> that declares the *CSA Z98-24* in force as of January 1st, 2026. The *CSA Z98-24* including *Annexes A, C, D, E, F, G, H, J and K* and any references to those annexes are mandatory in the Standard will come into force in Alberta on January 1st, 2026, with timely adoption under the *Alberta Passenger Ropeway and Passenger Conveyors Standards Regulation*.

Requirements: This bulletin explains the notable changes from the previous edition of the CSA Z98.

A. CSA Z98-24

4.2 Existing installations: operation, maintenance, and testing requirements

Existing installations shall meet the operation, maintenance, and testing requirements of this edition of the Standard.

Note: It is possible that equipment installed in compliance with previous editions of this Standard will not comply with new design requirements of this edition of this Standard

- **B.** The following updates apply to new or altered Lifts (I-IX):
 - I. sheave access rails <u>4.19.5 Work platforms and sheave access rails</u>;
 - For circulating passenger ropeways without saddles, sheave access rails shall be permitted parallel to the sheave assemblies.
 - Working load limits for work platforms and sheave access rails shall be posted at one or more locations on each tower conspicuous to maintenance personnel

Note: For additional information, see CSA Z98-24 Annex L.

- II. tower identification numbers 4.19.3 Tower identification;
 - Towers shall be identified with successive numbers that are greater than 150 mm high, located on the upper one-third of the total height of the tower, and visible when a viewer is looking up and down the passenger ropeway line.
- III. Table 2 required brakes, antirollback devices, and retarding devices <u>4.25.1.4 Brakes, antirollback</u> devices, and retarding devices;
 - table 2 Ropeway category Overhauling, reverse. A passenger ropeway that when not driven moves from standstill in reverse a distance greater than 500 mm measured at the drive sheave circumference.



- IV. grip resistance to sliding 4.29.2.1 Minimum resistance to sliding;
 - Except for insert-type grips, the minimum rope grip resistance to sliding shall be three times the maximum slope component of the loaded carrier weight.
- V. collapse of aerial cables or conductors <u>4.32.1.3 Collapse of aerial ropes, cables, or conductors</u>;
 - Collapse of aerial ropes, cables, or conductors Structural or mechanical failure or collapse
 of any aerial ropes, cables, conductors, or similar aerial systems carried between towers
 that support a passenger ropeway shall cause the passenger ropeway to stop.

Note: For additional information, see CSA Z98-24 Annex L.

- VI. wire rope grounding clamps <u>4.32.1.6 Grounding clamps</u>;
 - Grounding clamps shall be provided for grounding haul ropes and counter-ropes after
 daily operations are terminated. Deployment of grounding clamps shall cause the ropeway
 to stop and prevent the ropeway from starting. Grounding clamps shall not be required for
 ungrounded isolated haul ropes and counter-ropes used for safety, communication,
 control, remote control, monitoring, supervision, or signal circuits.
- VII. Table 3 pictogram signs 4.34.1.1 Sign locations;
 - Added a chart to provide clarity on signage requirements.
- VIII. prevention of carrier collisions <u>6.14. Detachable grip passenger ropeways</u>;
 - <u>6.14.2.2 Carrier spacing at terminal exits</u>

Carrier spacing at terminal exits shall be monitored to ensure minimum allowable carrier spacing between adjacent carriers. A carrier spacing fault shall cause the passenger ropeway to stop. Where carriers are occupied, action shall be taken as specified in *Clause* 13.10.1 j) anti-collision fault.

• <u>6.14.4.2 Design of the anti-collision system</u>

Design of the anti-collision system shall consider

- a) carrier spacing fault (see Clause 6.14.2.2);
- b) anti-collision system failure (i.e., rope impulse counter fault, proximity switch impulse missing or out of sequence, computer fault); and
- c) counter fault (i.e., zone transition impulse count too high or too low).



6.14.4.3 Anti-collision fault

An anti-collision fault shall cause the passenger ropeway to stop. The resulting stopping distance shall prevent contact between

- a) adjacent enclosed cabins where the speed differential is greater than 1.0 m/s; and
- b) adjacent chairs where passengers are normally present.
- IX. splice tail length increased to 60× rope diameter 11.6.1.1 Minimum splice and tail lengths;
 - The tails or lengths of the rope strands tucked into the core of the rope on splicing shall be a minimum of 60 times the nominal rope diameter in length.

Notes:

- It is intended that the change from 50× to 60× applies to new ropes, new installations, used replacement ropes, new strand replacements outside of splice, and repair replacement sections outside of splice.
- 2) It is not the intent to upgrade splices or rope repairs that existed prior to the change to 60× tails.
- C. The following updates apply to existing installations, new construction and altered lifts (I-III).
 - I. mechanical sockets 11.7.4.5 Mechanical socket instructions;
 - Mechanical sockets shall have installation, inspection, and maintenance instructions specified by the manufacturer or an engineer.

Note: The term "mechanical socket" is referred to as a "clamp socket" in BS EN 12927.

- New language- 11.7.4.6 Socket certificates
 c) measurements required by manufacturer or engineer (mechanical sockets)
- II. rope replacement criteria 11.11.2 Replacement criteria;
 - 11.11.2 Replacement criteria
 - e) the average diameter measured at design tension is less than 94% of the nominal rope diameter.

Note: For additional information, see *CSA Z98-24 Annex L and Figures L.3 a*) & *L.3 b*)



- III. daily inspection for abnormal fixed-grip migration 12.4.1.2 Before completion of daily operation;
 - Before completion of daily operation, a visual inspection of fixed grips for abnormal migration and appropriate separation from splice tucks and rope repair tucks shall be conducted

Note: For additional information, see CSA Z98-24 Clauses 11.11.3, 12.10.4, and 12.10.7)

- **D.** Additions to Annex L (informative)
 - I. 3.1 definitions and 4.19.5 Work platforms and sheave access rails
 - II. 4.31.7 Tension carriage and counterweight travel
 - III. 4.32.1.3 Collapse of aerial ropes, cables, or conductors
 - IV. 11.8.3 Non-destructive testing of ropes 11.11.2 Replacement Criteria and 11.14 splice certificate. Added figure on how to measure a rope properly, averaging the diameter and number of measurements
 - V. 12.4.1.2 Before completion of daily operation
 - VI. 12.17 Periodic load testing (5-year load test)
- E. Revised Annex H- Sample five-year load test procedure checklist
- F. Updated Referenced Standards

Implementation:

This information bulletin is implemented January 1st, 2026

Original signed by:

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