Appendix A – Summary of CSA Group Bird Friendly Design Standard

Introduction

Birds are an important part of the natural environment. Preserving bird populations contributes to environmental sustainability and reduces human-induced environmental impacts.

The way buildings are designed causes approximately 25 million bird deaths each year (ace-eco.org). Mirrored glass is particularly dangerous for birds, but non-mirrored glass also poses a hazard. Illuminated buildings at night can also unintentionally attract night-migrating birds.

Bird friendly design Standard

CSA Group is a global organization dedicated to standards development and testing, inspection and certification around the world including Canada, the U.S., Europe, and Asia. This group develops standards in areas like Construction and Infrastructure, Electrical, Environment, Fuel, Health Care & Wellbeing, and Information & Communication Technology.

CSA developed the Bird Friendly Building Design Standard and published it in compliance with Standards Council of Canada as a National Standard of Canada.

This Standard covers bird-friendly building design in both new construction and existing buildings and is intended to reduce bird collisions with buildings. It recommends that mitigation strategies be implemented to a height of 16m or to the height of the adjacent mature tree canopy (whichever is greater). Strategies include:

a) Treatment of glazing materials
    a. A minimum of 90% of all glazing should be treated (up to the recommended height of 16metres). This includes all glazing that creates fly-through conditions, and all glazing adjacent to natural heritage features.
    b. Visual markers (visible barriers that can be seen by birds) should have a minimum diameter (4mm) and dimensions (2mm x 8mm for linear elements), must contrast the glazing material, must exist on the exterior of the glazing, and should be spaced no more than 50mm apart.
    c. Glass corners must be treated (5m in each direction), and glass balconies must be treated as well.

b) Building-integrated structures
    a. Building-integrated structures are intended to provide visual ‘noise’ for birds. These include permanently fixed objects like shades (which should be parallel or angled to the glass and have a solid-to-void ratio of at least 50%, and not placed more than 1m from the glass pane)
    b. Screens, grilles, and mesh should be installed in front of the glazing.
    c. If stationary exterior shutters are 50mm apart or less, glazing does not need to be treated.

c) Site design, lighting and additional considerations
    a. Site design should take into account nearby bird habitats or known migration paths. Ideally, sites close to these should exceed the standards.
    b. Attention should be paid to ventilation grates (no more than 20mm x 20mm or 40mm x 10mm), exterior lighting (should be dark sky compliant), interior lighting (reduced after business hours and/or from sunset to sunrise).
    c. Interior plants should not be visible from untreated window glazing, and exterior bird feeders should be located 0.5m or closer to exterior glazing.

The entire CSA Bird Friendly Building Design standard (plus appendices) can be viewed free of charge through the CSA Group website. Those accessing this free resource will be asked to create a username and password. Alternately, it is possible to purchase a PDF copy of this resource through the CSA Group website.