BIRD-FRIENDLY BUILDING DESIGN
LATEST CANADIAN STANDARD UPDATE
CSA A460:19

THIRSTY THURSDAY
JUNE 20, 2019
PRESENTED BY: SYLVAIN DENIS
WALKER GLASS COMPANY LTD.
AGENDA

• Presentation goals
• Background – CSA
• CSA bird friendly standard
• North American bird friendly regulations
PRESENTATION GOALS

• Understand CSA and their goal in developing a bird friendly building standard

• CSA's approach in creating the standard & the implications for the Canadian and US markets

• CSA A460:19 in detail

• Standards adopted by cities and municipalities across North America to date
CSA GROUP – ABOUT US FROM THEIR WEBSITE

• Similar “raison d’être” as ASTM
At CSA Group, we excel in addressing emerging, complex issues and technologies. CSA Group is comprised of two organizations: Standards Development and Testing, Inspection, & Certification.

Not-for-Profit Standards Development

The mission of CSA Group’s Standard Development organization is to enhance the lives of Canadians through the advancement of standards in the public and private sectors. We are a leader in standards research, development, education, and advocacy. The technical and management standards developed with our 10,000 members improve safety, health, the environment, and economic efficiency in Canada and beyond.
CSA – STANDARDS DEVELOPMENT GROUP

Helping hold the future to a higher standard

CSA Group has a member base of over 9,000 volunteer experts with deep technical knowledge and expertise. These members help to develop standards that meet the needs of a broad array of industries and stakeholders. CSA Group:

- Has more than 1,300 committees focused on standards development
- Has developed and maintained over 3,000 codes and standards – many referenced in legislation
- Develops training and other value-added products that provide additional understanding of our standards and support their implementation
- Proactively conducts research that facilitates future standards development and provides guidance into new and emerging topics and technologies

Accredited by Standards Council of Canada (SCC) in Canada and American National Standards Institute (ANSI) in the U.S, CSA Group actively participates in international standards development and harmonization efforts through other global organizations, including the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC).
The CSA standards development process combines technical rigor with a transparent, consensus-based approach that:

- Integrates feedback from a range of voices, so everyone has an opportunity to be heard.
- Draws on the expertise of over 1,600 in-house technical experts and more than 9,000 volunteer subject-matter experts from across the globe.
CSA BIRD FRIENDLY BUILDING DESIGN COMMITTEE

- Municipalities
- Interest groups
- Floaters
- Transformers
- Fabricators
- Building owners
- Architects
- Ornithological experts

Date: September 26th, 2018

Draft Minutes
Meeting of the Bird Friendly Building Design TC (A505)
September 26th 2018 from 9:30 am – 4:00 pm
Metro Hall of Toronto, Executive Boardroom 22nd Floor

TC meeting #2

Members Present
Kelly Snow (Chair)  City of Toronto
Michael Muscarella  FLAP
Christian Fraysse  Environment and Climate Change Canada (Ontario)
Bob Albig  FLAP
Jesse Herren  Praxico
Dan Klem  Acopian Centre for Ornithology
Charles Alexander  Walker Glass
Sylvain Denis  Walker Glass
Kayla Nahidid  NGC
Paul Grofalso  Convenience Group
Terry Flynn  Bentall Kennedy (Canada)
Bala Gnanam  SOMA
John Robert Carley  Architect Incorporated
Marco Carreno  Quadangle
Roma Haddad  Prolaska Engineering

Staff Present
Andy Kwong (Project Manager)  CSA Group

Regrets
Glenn De Baereenscherer  City of Toronto
Bruno Drolet  Environment and Climate Change Canada (Quebec)
Jamie Flaggal  MOECC
Keith Hobson  University of Western Ontario
Eli Bayne  University of Alberta
Neil McSparron  Pilkington North America
Stephen Morren  Walker Glass
Alan Vrabac  City of Toronto
Shayna Stott  City of Markham
Yoanne Yeung  City of Toronto
Public review ended Jan 20th, 2019.
Standard was approved & published in May 2019.
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CSA A460:19 – BIRD-FRIENDLY BUILDING DESIGN

Preface

This is the first edition of CSA A460, Bird-friendly building design.

CSA A460 covers bird-friendly building design in both new construction and existing buildings.

This Standard has been developed in compliance with Standards Council of Canada requirements for National Standards of Canada. It has been published as a National Standard of Canada by CSA Group.
1.1 General
This Standard covers bird-friendly building design in both new construction and existing buildings and is intended to reduce bird collisions with buildings. The Standard provides bird-friendly design requirements for glazing, building-integrated structures, and overall building and site design.

1.2 Exclusions
This Standard considers design aspects of glazing, buildings, and sites only from the point of view of bird strikes. Other standards and codes make recommendations regarding building characteristics that are not addressed in this Standard (e.g., energy efficiency, building occupant comfort, glazing safety).

Certification procedures are not part of this Standard.
3.2 Required elevation treatment
Bird collision mitigation strategies shall be present to a height of 16m from grade or to the height of the adjacent mature tree canopy, whichever is greater.

Where there is glaxing adjacent to green roofs and/or other rooftops vegetation, the bird collision mitigation strategy shall be applied to a height of 4m from the surface of the green roof or the height of the adjacent mature vegetation, whichever is greater.
3.3.1 General
To minimize the risk of bird collision, treatment of glazing within the elevation specified in clause 3.2 shall apply to
a) a minimum of 90% of all glazing material;
b) all glazing material that creates fly-through conditions; and
\[\text{c) all glazing material adjacent to natural heritage features.}\]

Fly-through condition — a condition created when architectural elements provide birds with a clear line of sight to sky or vegetation on the other side.
IE: glass corners, parallel glass, glass parapets...
3.3.2 Full-surface glazing treatment for non-vision glazing

When vision is not required (e.g., in application involving spandrel glass, shadow boxes, privacy glazing), a full-surface treatment that renders the glazing visible, with a maximum of 15% reflected light on the first surface, may be used as described in Clause 3.3.1 to deter bird strikes.
3.3.3 Visual markers

3.3.3.1 General

Visual markers shall consist of absorbing and reflecting elements that creates a visible barrier that can be seen by birds. Visual markers may consist of, but are not limited to, the following:

a) acid etch visual markers;

b) UV markers;

c) fritted glass;

d) film; or

e) non-film adhesive markers.
3.3.3.2 Size
Visual markers shall be a minimum of
a) 4mm in diameter for individual elements; or
b) 2mm wide by 8mm long for linear elements.

3.3.3.3 Density pattern
There shall be no more than 50mm (2 inches) between visual markers.
3.3.3.4 Contrast
Visual markers shall be in high contrast to the glazing material on which they are present.

3.3.3.5 Glass surface
Visual markers shall be on the first (exterior) surface of the glazing.
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<th>City</th>
<th>Mandatory/Voluntary</th>
<th>Description/Markers</th>
<th>Surface</th>
<th>Portion of Building Affected</th>
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<td>Portland</td>
<td>Mandatory</td>
<td>2 x 4 Rule</td>
<td>#1 if acid etch; otherwise #2</td>
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<td>City</td>
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<td>Description/Markers</td>
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<td>Mandatory</td>
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<td>not specified</td>
<td>16 metres from grade</td>
</tr>
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</table>
This is Kyle.
Kyle will be at GlassBuild... talking to your prospects.
Kyle wants to eat your lunch.
Don’t let Kyle eat your lunch.

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The Glass, Window & Door Expo

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Learn from the "Old Guard" of glass fabrication

Register now at glass.org
Thirsty Thursday
June 20, 2019

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