



Bird Friendly Windows - Corporate Sponsorship Funding

Park Board Committee Meeting
Monday, July 10, 2017



To seek Park Board approval for the expenditure of up to \$40,000 from Corporate Sponsorship Funds to increase the bird friendliness of the Park Board Administration Building at 2099 Beach Avenue by installing Feather Friendly® Bird Collision Deterrent on the majority of its windows.



- Use of Corporate Sponsorship Funds requires Board approval;
- Must be beneficial to overall Parks and Recreation system;
 - Vancouver Bird Strategy approved in January 2015, which included design guidelines;
 - City reinforced guidelines in May 2017 and targeted priority areas for their application; and
 - Park Board’s Strategic Framework includes a focus on “Healthy Ecosystems”.

Background

- Bird deaths as a result of collisions with man-made structures account for an estimated 1.25 billion deaths, or 10% of the total bird population in North America.
- Park Board Administration Building has a history of bird collisions, especially at the entry areas.



Toronto Green Standards for New Development

ECOLOGY



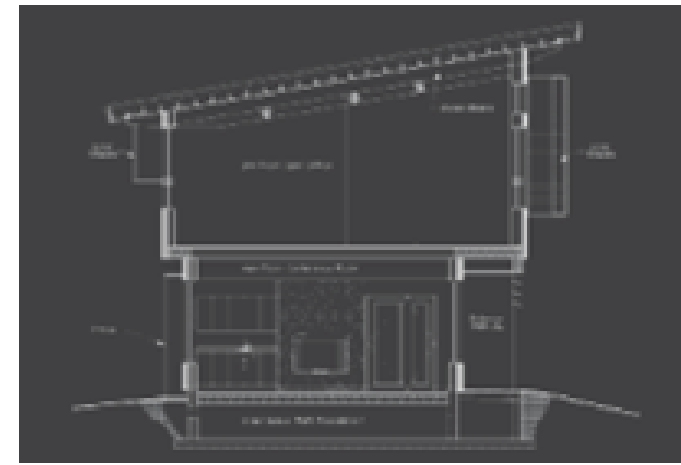
For New Mid to High-Rise Residential and All Industrial, Commercial and Institutional (ICI) Development

Development Feature	Required Tier 1	Voluntary Tier 2	Specifications, Definitions and Resources	Potential Strategies
Bird Collision Deterrence Design buildings to reduce bird collisions and mortality	<p>EC 4.1 Bird friendly glazing</p> <p>Use a combination of the following strategies to treat a minimum of 85% of all exterior glazing within the first 12 m of the building above grade (including balcony railings, clear glass corners, parallel glass and glazing surrounding interior courtyards and other glass surfaces):^{1,2}</p> <ul style="list-style-type: none"> • Low reflectance, opaque materials³ • Visual markers applied to glass with a maximum spacing of 100 mm x 100 mm⁴ • Building-integrated structures to mute reflections on glass surfaces.⁵ <p>Balcony railings: Treat all glass balcony railings within the first 12 m of the building above grade with visual markers provided with a spacing of no greater than 100 mm x 100 mm.^{4,6}</p> <p>Fly-through conditions: Glass corners: Within the first 12m of the building, treat all glazing located at building corners with visual markers at a spacing of no greater than 100 mm x 100 mm.⁷</p> <p>Parallel glass: Treat parallel glass at all heights with visual markers at a spacing of no greater than 100 mm x 100 mm.⁷</p> <p>City-owned buildings and all Agencies, Boards, Commissions and Corporations: For new buildings or major renovations, treat all exterior glazing within the first 16 m of the building above grade as per the requirements of EC 4.1 above; visual markers applied to glass must have a maximum spacing of 50 mm x 50 mm⁸.</p>	<p>EC 4.4 (Optional) Enhanced bird friendly glazing</p> <p>Use a combination of the following strategies to treat a minimum of 95% of all exterior glazing within the first 12 m of the building above grade (including all balcony railings, clear glass corners, parallel glass and glazing surrounding interior courtyards and other glass surfaces):^{1,2}</p> <ul style="list-style-type: none"> • Low reflectance, opaque materials³ • Visual markers applied to glass with a maximum spacing of 100 mm x 100 mm⁴ • Building-integrated structures to mute reflections on glass surfaces.⁵ <p>EC 4.5 (Optional) Opaque building materials</p> <p>Provide at least 50% of the exterior surface of the building as non-reflective opaque materials to significantly reduce bird collisions with buildings.</p>	<ol style="list-style-type: none"> 1. Bird friendly design aims to reduce bird collisions and mortalities caused by reflective glazing by: making glazed areas visually distinct to birds and by reducing images of trees or sky reflected in glass through shading/muting reflections. The most critical zone for bird collisions is 12 m minimum above grade (mature tree height). 2. If the site is adjacent to a natural area feature, glass must be treated to the first 12 m of the building or to the height of the top of the surrounding tree canopy at maturity, whichever is greater. 3. Low reflectance, opaque materials may include spandrel glass with one of the following: (i) Solid back-painted frit or silicone backing opaque coatings OR; (ii) Reflective or low-e coatings that have an outside reflectance of 15% or less. Spandrel glass with reflective or low-e coatings that have an outside reflectance of greater than 15% should be used in combination with other strategies. 4. Visual markers consist of opaque contrasting points or patterns etched into or applied onto the exterior or interior surfaces of glass and must have a minimum diameter of 5 mm and a maximum spacing of 100 mm x 100 mm. Patterns applied closer to the first (exterior) surface, in combination with low reflectance glass, are most visible and effective. 5. Building integrated structures include: opaque awnings, sunshades, exterior screens, shutters, grilles and overhangs or balconies that provide shading below a projection (assume 1:1 ratio of treatment below a projection) to mute reflections. Shade cast by the building or adjacent buildings cannot be included as a bird collision deterrence strategy. 6. Glass behind treated balcony railings is considered to be treated. 7. Fly-through conditions are created when clear glass corners meet or provide any clear line of sight to birds. Glass corners must be treated for 2.5 m extending on each side away from the corner. Parallel glass is glass installed at any height that is parallel at a distance of 5 m or less such as a clear glass corridor or bridge. 8. This requirement applies to City-owned non residential facilities. 	<p>Visual markers: Etched glass Fritted glass Films Decals Mullions</p> <p>Exterior screens, shutters, grilles and louvers to shield glass surfaces</p> <p>Shadows from opaque overhangs, awnings, exterior sunshades</p>



Environment
Canada Offices
Pacific Wildlife
Research Station

by Number TEN Architectural Group



Centennial
Beach
Park
Pavilion

by PUBLIC



- Feather Friendly, a 3M product, was installed by the local accredited installer on the seven upper windows of the rear entrance area in October 2014
- Bird collisions were dramatically reduced



Seeing Spots at Aberthau

project proposal:



seeing spots.

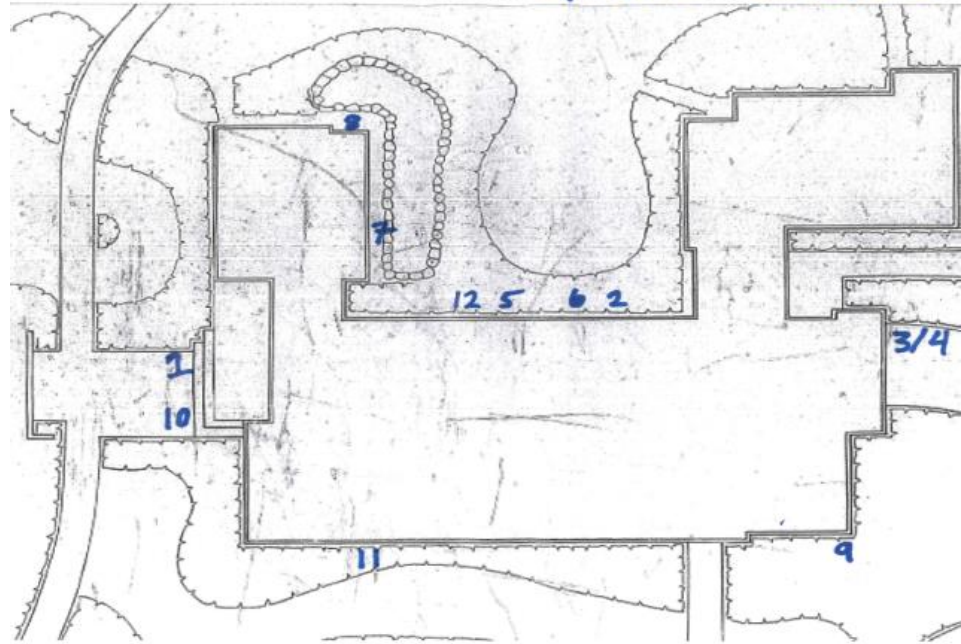


Collision Data at Beach Avenue



Bird strikes at the Administration Building were tracked in September and October 2015 as part of a Bird Studies Canada project which found evidence of at least 12 bird strikes.

Bird Collision Locations at 2099 Beach Avenue Dates: Sept 1, 2015 to Oct 31, 2015



Vancouver Park Board Window Collision Survey- Incidental Form
 Location: GAO office - 2099 Beach Ave Observer(s): Manning Gill / Alan Duester

Date (dd/mm/yyyy)	Time (24 hour)	Building #	Species	Façade (N, S, E, W)	Type of Evidence	Outcome (death, stunned-flew away, rehab, unknown)
03/09/2015	10:00		Unknown	<input type="checkbox"/> N <input checked="" type="checkbox"/> S <input type="checkbox"/> E <input type="checkbox"/> W	6	Unknown (1)
05/09/2015	15:17		Unknown	<input type="checkbox"/> N <input type="checkbox"/> S <input type="checkbox"/> E <input checked="" type="checkbox"/> W	2	Unknown (2)
10/09/2015	16:10		Unknown	<input type="checkbox"/> N <input type="checkbox"/> S <input type="checkbox"/> E <input checked="" type="checkbox"/> W	2	Unknown (3)
11/09/2015	09:00		Unknown	<input type="checkbox"/> N <input type="checkbox"/> S <input type="checkbox"/> E <input checked="" type="checkbox"/> W	7	death (4)
05/10/2015	12:45		Unknown	<input type="checkbox"/> N <input type="checkbox"/> S <input type="checkbox"/> E <input checked="" type="checkbox"/> W	1	death (5)
06/10/2015	13:00		Unknown	<input type="checkbox"/> N <input type="checkbox"/> S <input type="checkbox"/> E <input checked="" type="checkbox"/> W	6	Unknown (6)
14/10/2015	15:20		Unknown	<input type="checkbox"/> N <input type="checkbox"/> S <input type="checkbox"/> E <input checked="" type="checkbox"/> W	2	death (7)
20/10/2015	13:11		Unknown	<input type="checkbox"/> N <input type="checkbox"/> S <input type="checkbox"/> E <input checked="" type="checkbox"/> W	2	Unknown (8)
21/10/2015	14:00		Unknown	<input type="checkbox"/> N <input type="checkbox"/> S <input checked="" type="checkbox"/> E <input type="checkbox"/> W	2	Unknown (9)
23/10/2015	09:00		House Wren	<input type="checkbox"/> N <input type="checkbox"/> S <input type="checkbox"/> E <input checked="" type="checkbox"/> W	1	death (10)
23/10/2015	10:00		Unknown	<input type="checkbox"/> N <input type="checkbox"/> S <input type="checkbox"/> E <input checked="" type="checkbox"/> W	7	Stun away (11)
26/10/2015	09:30		Unknown	<input type="checkbox"/> N <input type="checkbox"/> S <input type="checkbox"/> E <input checked="" type="checkbox"/> W	2	Unknown (12)
				<input type="checkbox"/> N <input type="checkbox"/> S <input type="checkbox"/> E <input type="checkbox"/> W		
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If you find a stunned bird:

- Gently place bird in paper bag
- Place clean tissues or paper towels rolled into a donut shape in bag
- Never feed the bird or give it water
- Place the bag in a quiet, dark and secure area
- After an hour, take the box or bag to an area away from other buildings and windows and open the box or bag.
- If the bird is unable to fly off or there are visible signs of injury, contact Wildlife Rescue Association of BC at 5216 Glencairn Drive, Burnaby (604-526-7275).

- Type of evidence code:**
- Bird carcass
 - Feather pile or partial carcass
 - Stunned/injured bird
 - Feathers stuck to window
 - Blood smear on window
 - Body smudge or dust imprint
 - Saw bird hit window
 - Heard bird hit window



Collision Data at Beach Avenue

- These included three carcasses, five partial carcasses, two dust imprints, one blood smear on a window, and one report of seeing a bird hit a window.
- Prior to this trial, various staff throughout the building reported but did not record bird collisions, which they typically found distracting and disturbing.



Technologies and Visual Impacts

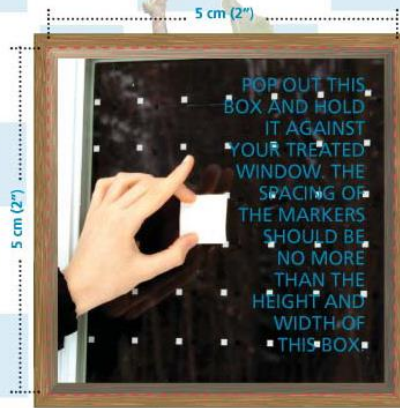


We can all take simple, effective measures to help prevent bird collisions

Be creative by treating your glass like a canvas. Here are some attractive and cost-effective techniques.

Bird-Safe Design

Uniformly cover the outside of windows with a contrasting pattern of any shape, keeping these visual markers no more than 10 cm (4 inches) apart vertically or 5 cm (2 inches)



horizontally. To help keep smaller birds such as hummingbirds and warblers safe, a window must have no reflective openings larger than 5 x 5 cm (2 X 2 inches).

Saving Birds

PHOTOGRAPH COURTESY THE CONVENIENCE GROUP



PLACE THIS OPENING OVER VARIOUS AREAS OF YOUR TREATED WINDOW. IF NO MARKERS CAN BE SEEN, THE SPACING IS TOO BIG.



FEATHER FRIENDLY® RESIDENTIAL TAPE AVAILABLE AT FEATHERFRIENDLY.ORG

This brochure was funded in part by The Convenience Group.

ACOPIAN BIRDSAVERS



PHOTOGRAPH BY JEFF ACOPIAN

City's Heritage Group had no concerns:

“The golden rule of heritage is that it is ‘reversible’ i.e. one day the film could be removed and replaced with the same or other product without damaging the windows. Our feathered friends are more important than a loss of visual consecutiveness to an interior.”



THAT the Vancouver Park Board approve an expenditure of up to \$40,000 from the Corporate Sponsorship Funds to apply a bird collision deterrent treatment to windows at the Park Board Administration Building at 2099 Beach Avenue.

