DESIGNING BIRD-SAFE BUILDINGS

Green Building Alliance

Up to two billion birds are killed each year in the United States due to collisions with glass, and many birds can die during mass collision events in urban areas.[1]

In partnership with:

Erie Bird Observatory

The way we design and light our homes, buildings, cities, and communities can mitigate and, in some cases, eliminate these events, protecting bird populations that are already under tremendous stress due to habitat and food source losses and other environmental factors.

While windows and other glass components of a building add beauty and daylighting to indoor spaces, these design elements can be hazardous for birds. Birds do not recognize windows as solid surfaces and will fly toward reflections of natural habitat such as trees, sky, or plants.

The National Aviary Garden Room looks out onto the surrounding Allegheny Commons park. Vitro Architectural Glass and Walker Glass bird-safe treatment ensures that windows are visible to flying birds.

Photo credit: Emma Saunders

Within the design and construction industry, there are increasing calls for change. A variety of glass and window types, treatments, and applications are now available that create visual barriers for birds and reduce mortality from collisions.

- **Acid-etching and fritting** incorporates the use of ceramic lines, dots or other patterns. Existing glass also can be frosted by on-site sandblasting during remodeling.

  These glass treatments not only reduce the risk of bird collisions but can also increase energy conservation by reducing solar heat gain (27 SHGC) and glare and reducing cooling loads.[2]

- **Shutters, grilles, or screens** can reduce the amount of visible or reflective glass without interfering with the inside view.

- **Window tape and decals** are also effective in creating a visible surface, are available in a variety of patterns, and are easy to apply.

LIGHTS-OUT INITIATIVES

Migrating birds are affected and may become confused by the glare of nighttime lighting. The national Lights Out movement encourages building owners and tenants to turn off as much internal and external building lighting as possible in the evening and when buildings are not in use, particularly on upper floors and lobbies. This is especially important during peak bird migration in the fall and spring.

INCENTIVIZING BIRD-FRIENDLY DESIGN

The U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) certification program offers points for project design elements that help to deter bird collisions. In LEED v5, both **Building Design + Construction (BD+C)**, which applies to new construction or major renovations; and **Operations + Maintenance (O+M)**, which focuses on whether day-to-day operations meet sustainable and green standards, include a new credit for **Bird Collision Deterrence**. The scoring criteria incorporate *Light Pollution and Bird Collision Reduction*, which encourages buildings to reduce nighttime light pollution and adopt bird-friendly materials and designs—such as using opaque, non-reflective surfaces—to lower collision risks.

Learn more and/or showcase your bird friendly project!

Green Building Alliance members and partners receive invitations to building tours that showcase examples of bird friendly design. We are also seeking building owners and architects looking to highlight their work. Reach out to us at info@gba.org to learn more.

[1]Source: www.usgs.gov/labs/bird-banding-laboratory/science/bird-window-collisions

[2] Source: www.fws.gov/story/threats-birds-collisions-buildings-glass

Visit American Bird Conservancy at www.abcbirds.org/glass-collisions for additional information.

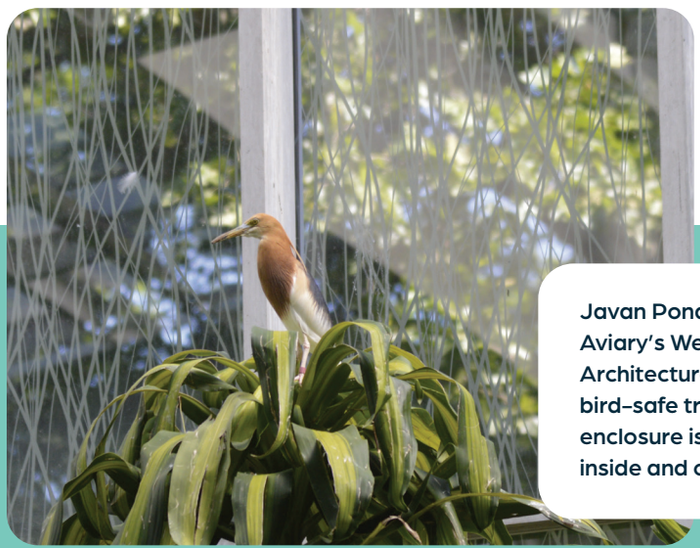

Photo credit: Emma Saunders

Javan Pond Heron in the National Aviary's Wetland Habitat. Vitro Architectural Glass and Walker Glass bird-safe treatment ensure that the enclosure is visible to flying birds inside and outside the habitat.

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