

CITY OF OAKLAND

BIRD SAFETY MEASURES

The following applies to all construction projects which include glass as part of the building's exterior AND at least one of the following:

- a) The project is located immediately adjacent to a substantial water body larger than 1 acre (i.e. Oakland Estuary, San Francisco Bay, Lake Merritt or other lake, reservoir or wetland). OR
- b) The project is located immediately adjacent to a substantial recreation area or park (i.e. a region-serving park, resource conservation area, neighborhood park, linear park, or special use park and generally over 1 acre in size) which contains substantial vegetation. OR
- c) The project includes substantial vegetated or green roof or green wall (roof or wall with growing medium and plants taking the place of conventional roofing such as asphalt, tile, gravel or shingles) but excluding container gardens OR
- d) The project includes an existing or proposed substantial vegetated area (generally contiguous one acre in size or larger) located directly adjacent to project buildings.
- e) The structure contains an atrium which will contain vegetation.

I. Bird Collision Reduction Measures

A. Bird Collision Reduction Plan Required

Requirement: The project applicant shall submit a Bird Collision Reduction Plan for City review and approval to reduce potential bird collisions to the maximum feasible extent. The Plan shall include all of the following mandatory measures, as well as applicable and specific project Best Management Practice (BMP) strategies to reduce bird strike impacts to the maximum feasible extent. The project applicant shall implement the approved Plan.

B. Mandatory measures include **all** of the following:

1. Comply with federal aviation safety regulations for large buildings by installing minimum intensity white strobe lighting with three second flash instead of solid red or rotating lights.
2. Minimize the number of and co-locate rooftop-antennas and other rooftop structures.
3. Monopole structures or antennas shall not include guy wires.
4. Avoid the use of mirrors in landscape design.
5. Avoid placement of bird-friendly attractants (i.e. landscaped areas, vegetated roofs, water features) near glass unless shielded by architectural features taller than the attractant that incorporate the bird friendly treatments no more than two inches horizontally, four inches vertically, or both (the "two-by-four" rule).

C. Glazing Treatments

Apply bird friendly glazing treatments to no less than 90 percent of all windows and glass between the ground and 60 feet above ground or to the height of existing adjacent landscape or the height of the proposed landscape. Examples of bird friendly glazing treatments include the following:

1. Use of opaque glass in window panes instead of reflective glass.
2. Uniformly cover the interior or exterior of clear glass surface with patterns (e.g., dots, stripes, decals, images, abstract patterns). Patterns can be etched, fritted, or on films and shall have a density of no more than two inches horizontally, four inches vertically, or both (the “two-by-four” rule).
3. Install paned glass with fenestration patterns with vertical and horizontal mullions no more than two inches horizontally, four inches vertically, or both (the “two-by-four” rule).
4. Install external screens over non-reflective glass (as close to the glass as possible) for birds to perceive windows as solid objects.
5. Install UV-pattern reflective glass, laminated glass with a patterned UV-reflective coating, or UV-absorbing and UV-reflecting film on the glass since most birds can see ultraviolet light, which is invisible to humans.
6. Install decorative grilles, screens, netting or louvers, with openings no more than two inches horizontally, four inches vertically, or both (the “two-by-four” rule).
7. Install awnings, overhangs, sunshades, or light shelves directly adjacent to clear glass which is recessed on all sides. Another option is to use louvers with 2” x 4” spacing.
8. Install opaque window film or window film with a pattern or design or marketing message which also adheres to the 2” x 4” rule for coverage..

D. Reduce Light Pollution.

Examples include the following:

1. Extinguish nighttime architectural illumination treatments during bird migration season (February 15 to May 31 and August 1 to November 30).
2. Install time switch control devices or occupancy sensors on non-emergency interior lights that can be programmed to turn off during non-work hours and between 11:00 p.m. and sunrise.
3. Reduce perimeter lighting whenever possible.
4. Install full cut off, shielded or directional lighting to minimize light spillage, glare or light trespass.
5. Do not use beams of lights during the spring (February 15 to May 31) or fall migration (Aug 15 to November 30).

E. Bird Safety

B.M.P.s to include the implementation of a building operation and management manual that promotes bird safety. Example measures in the manual include the following:

1. Donation of discovered dead bird specimens to an authorized bird conservation organization or museum (i.e. U.C. Berkeley Museum of Vertebrate Zoology) to aid in species identification and to benefit scientific study, as per all federal, state and local laws.
2. Distribution of educational materials on bird-safe practices for the building occupants. Contact Golden Gate Audubon or American Bird Conservancy for materials.
3. Asking employees to turn off task lighting at their work stations and draw office blinds, shades, curtains or other window coverings at end of work day.
4. Install interior blinds, shades, or other window coverings in windows above the ground floor visible from the exterior as part of the construction contract, lease agreement, or CC&Rs.
5. Schedule nightly maintenance during the day or to conclude before 11 p.m., if possible.

When Required: Prior to approval of construction-related permit

Initial Approval: Planning and Zoning Division

Monitoring/Inspection: Building Services Division

II. Implementation of Bird Collision Reduction Plan After Construction

Requirement: The project applicant shall continue to implement the approved Bird Collision Reduction Plan following construction of the project.

When Required: Ongoing

Initial Approval: N/A

Monitoring/Inspection: Building Services Division