



Queen's University Building and Design Standards

1. Elevation and detail drawings. Any required to communicate the design intent. All to include title, dimensions, scale and date.
2. Material samples
3. Product Technical Data Sheets.

3. Installation:

- a. Certified installer.
- b. Clean and dry surface prior to installation.
- c. Installation to be smooth and free of impurities and air blisters.

1. Product:

- a. Application of film for prevention of bird strike is considered a secondary or retrofit solution with preference for etched glass following the same Flap Standards (below).
- b. To be selected from manufacturers full line.
- c. 10 – year commercial warranty.
- d. Refer to the following Flap Canada Standard for Visual Markers:
 - i. Marker Density – separate visual markers by spaces no more than 10 cm (4 inches) apart vertically or 5 cm (2 inches) horizontally. To help make your marker pattern less visible to people, while perhaps helping to keep smaller birds safe, such as hummingbirds and kinglets, windows should not have reflective openings larger than 5 X 5 cm (2 X 2 inches).
 - ii. Marker Surface – apply visual markers to exterior surface (first surface) of glass to disrupt the illusion of a safe, natural environment reflected in the glass.
 - iii. Marker Contrast – make markers stand out in contrast to transparent or reflective exterior surfaces under varying daylight conditions.
 - iv. Marker Size – the dimension of a marker to be no less than .64 cm (1/4 inch).
 - v. Marker Coverage – markers are to cover entire exterior glass surfaces up to 20 metres above grade or to the top of the mature tree canopy, whichever is greater.

2. Approved Manufacturers include but not limited to:

- a. 3M
- b. Avery
- c. Walker Textures

3. Installation:

- a. Certified installer.
- b. Clean and dry surface prior to installation.
- c. Installation to be smooth and free of impurities and air blisters.

1. Product:

- a. To be selected from manufacturers full line.
- b. Etch mark is not acceptable for frosted film.
- c. Use 3M Dusted Crystal or equal for frosted film.

