



# Designing for Birds

## TELUS Ocean Glass Treatments

 Ceramic frit will be applied to surface of glass in a pattern. The dots of the pattern will be spaced less than 2" apart from each other vertically and 4" horizontally.

 UV film interlayer will be applied to glass. Nearly invisible to human eye, it is more apparent to birds who perceive more ultraviolet colours.

Upper levels present danger to nocturnal migrating birds of the Pacific Oceanic Route as well as some local raptor birds.

Light acts as an attractor - especially for migrating song birds.

The proposed design will include smart lighting controls that will turn off all but emergency lights at night.

Vegetation near glass can lead to difficulty in perceiving glass as an obstacle.

The proposed design will add frit or other glass treatment to areas within 5 metres of the larger vegetation such as larger shrubs or trees.

As glass reflects the sky and can look like a clear flight path, birds do not perceive it as an obstacle until it is too late.

The proposed glass will have reflectivity under 30%, a safer reflectivity range.

While the building has mostly glazed along Douglas street, large portions of the building facing other two directions are clad in metal panels that increase in number closer to the ground.

Lower levels are high collision zones for local birds and migrant birds looking for shelter.

Many design standards and guidelines advocate anti-collision features up to 16 metres from the ground level.

Special features - such as film or frit applied to the glass - are included in the proposed design on all glass within that height.

Exterior lighting can attract migratory and local birds.

Public realm design will use lighting judiciously and will avoid uplighting and light spillage.

