



## STAFF REPORT ACTION REQUIRED

### Toronto Green Standard Review and Update: Review of Impacts of Proposed Revisions

<b>Date:</b>	November 6, 2013
<b>To:</b>	Planning and Growth Management Committee
<b>From:</b>	Chief Planner and Executive Director, City Planning
<b>Wards</b>	All
<b>Reference Number:</b>	P:\2013\Cluster B\PLN\PGMC\PG13089

#### SUMMARY

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This report responds to a request from City Council to report on the merits and feasibility of suggested changes to the Ecology section of the updated Toronto Green Standard (TGS) – Mid-to-High Rise Residential and Low Rise Non-Residential Development with respect to the “Bird Collision Deterrence” and “Light Pollution” performance measures.

It is recommended that the suggested change to the Light Pollution section of the TGS be adopted. With respect to the suggested changes to the Bird Collision Deterrence section, no changes to the TGS are recommended at this time. Some research into the effectiveness of these changes should be undertaken followed by consultation with stakeholders. The changes in the updated TGS reflect the consultation process which balanced the concerns of the development industry and bird protection advocates. With the exception of the change to the Light Pollution section, incorporating the changes suggested by the Council motion without further consultation would be seen as unfair to the stakeholders and participants in the TGS review.

## RECOMMENDATIONS

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**The Chief Planner and Executive Director, City Planning Division recommends that:**

1. City Council approve a change to the Light Pollution section in the updated TGS, increasing the shut-off hours from “11 p.m. and 5 a.m.” to “11 p.m. and 6 a.m.”.
2. The Chief Planner and Executive Director, City Planning Division incorporate into the criteria of a “Bird-Friendly Retro-fit Award” presented annually by the City of Toronto and Building Owners and Managers Association of Toronto: the treatment of glazing to 16 m above grade; the density of visual markers to 50mm x 50mm; and, changing the shut off hours for lights to “6 a.m.”.
3. The Chief Planner and Executive Director, City Planning Division incorporate into the City of Toronto’s “Best Practices” documents on bird-friendly glass and effective lighting: the treatment of glazing to 16 m above grade; the density of visual markers to 50mm x 50mm; and, changing shut off hours for lights to “6 a.m.”.
4. The Chief Planner and Executive Director, City Planning Division consider for the next review of the Toronto Green Standard: increasing the treatment of glazing from 12m above grade to 16 m above grade; and, increasing the density of visual markers from 100mm x 100mm to 50mm x 50mm.

### **Financial Impact**

The recommendations in this report have no financial impact beyond what has already been approved in this year’s budget.

### **DECISION HISTORY**

On July 16, 17, 18 and 19, 2013, City Council adopted as amended the report with Attachments 1 and 2, from the Chief Planner and Executive Director, City Planning Division dated May 23, 2013 on the Toronto Green Standard Review and Update.

City Council also requested that the Chief Planner and Executive Director of City Planning report back on the merits and feasibility of several suggested changes to the Ecology section of the TGS regarding Bird Collision Deterrence and Light Pollution performance targets for Mid-to-High Rise Residential and Low Rise Non-Residential Development. The suggested changes to both required Tier 1 and voluntary Tier 2 of the TGS are discussed in this report.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2013.PG25.10>

## **ISSUE BACKGROUND**

The Toronto Green Standard (TGS) is a two-tier set of environmental performance measures that promote more sustainable new development in Toronto. Tier 1 is the minimum level of environmental performance required for new development. It is implemented through Council's Site Plan Approval authority and other planning tools. Tier 2 is a higher level of performance measures that is voluntary but offers a development charge refund as an incentive. Tier 2 and the development charge refund program reward more resource-efficient developments by recognizing their decreased pressure on City infrastructure and servicing.

The TGS is an important performance management tool for new development aimed at lessening future infrastructure demands and environmental impacts. TGS integrates environmental performance requirements established through City policy, guidelines and regulations, and implements these through established land use planning processes. It represents strong policy in that it implements the broader policy objectives of the Official Plan and corporate climate change policy using authorities under the *City of Toronto Act* and the *Planning Act*.

The City of Toronto is a world leader in developing innovative bird-friendly policies and several cities in Canada and the U.S. have followed Toronto's lead in this emerging policy area. The Bird Collision Deterrence and Light Pollution features of the Ecology section in the updated TGS were derived from several sources, including: the 2007 City of Toronto *Bird-Friendly Design Guidelines*; consultation with the industry; the experience City staff have gained since bird-friendly design criteria became required of all new development subject to Site Plan Approval; the Leadership in Energy and Environmental Design (LEED) Pilot Credit 55: "*Bird Collision Deterrence*", and, a consultant's study undertaken for the City that evaluated the achievability of the TGS Bird Collision Deterrence performance measures in regards to glass treatment.

## **COMMENTS**

### **Stakeholder Consultation**

The process of preparing the 2013 update of the TGS included lengthy consultation with the development industry and internal staff on all sections of the TGS.

The consultation process for updating the TGS began in May 2011 and carried through until December 2012. During this time stakeholders were invited to participate. The updated TGS is a result of this process that took the concerns of all interested parties and stakeholders into consideration. In particular, the Bird Collision Deterrence section went through several versions that became successively reflective of the many concerns of the stakeholders. During this process, the development industry indicated that the current bird-friendly performance measures were challenging to implement due to a delayed

market acceptance for the visual appearance of treated glass in new developments, particularly residential buildings and commercial space at grade.

In addition, a study was undertaken, “*TGS 2013 Update – Mid to High Rise Residential and Institutional Development Analysis*”, that evaluated the typical exterior building materials that are used in bird friendly target achievements. The study also examined real case scenarios that applied the TGS requirements. It was recommended that the TGS performance measures be adjusted to reflect what is currently achievable in terms of market acceptance and building material advancements.

The adjustments to the Bird Collision Deterrence section as a result of the consultation process were:

- 1) remove the accepted spacing range of visual markers from 280 mm x 280 mm to 100 mm x 100 mm to a set spacing range of 100 mm x 100 mm (Tier 1 and 2)
- 2) eliminate untreated glazed corners and fly-through conditions [such as glass bridges] (Tier 1)
- 3) allow for a maximum of 15 percent of untreated glazing within the first 12 m above grade (Tier 1)
- 4) reduce the required treatment of glazing adjacent to a green roof from 12 m to 4 m (Tier 1)
- 5) allow for a maximum 5 percent untreated glazing within the first 12 m above grade (Tier 2)

### **Review of the Merits and Feasibility of Suggested Changes:**

The updated and revised TGS was brought before Council in July 2013. At that time, changes were suggested for the performance measures in the Bird Collision Deterrence and Light Pollution sections. These are summarized below.

Updated TGS	Suggested Change
<p><b>1.</b> Treat a minimum of 85 percent of the first 12 m of the building above grade (Bird Collision Deterrence)</p>	<p>Treat the first 16 m of the building above grade or to the top of mature tree canopies that exceed 16m (Tier 1 and 2)</p> <p>Assess the potential for bird collisions for the remainder of the untreated exterior glazing, such assessment to be conducted by a third party satisfactory to the City of Toronto (Tier 1 and 2)</p>
<p><b>2.</b> Visual markers applied to glass with a maximum spacing of 100 mm x 100 mm (Bird Collision Deterrence)</p>	<p>Visual markers applied to glass with a maximum spacing of 50 mm x 50 mm (Tier 1 and 2)</p>
<p><b>3.</b> Rooftop architectural lighting turned off between 11 pm and 5 a.m.</p>	<p>Change all references from 5 a.m. to 6 a.m. (Tier 1 and 2)</p>

Updated TGS	Suggested Change
(Light Pollution)	

With respect to the visual markers applied to glass, the TGS update did recommend a change to a denser pattern. Previously, the windows were to be treated with a pattern between 100 mm and 280 mm apart. The revised TGS requires a pattern of 100 mm by 100 mm. This density of pattern has been proven effective in reducing bird collisions. There is no body of evidence to express the difference in bird collisions between the 100 mm x 100 mm pattern and the 50 mm x 50 mm pattern but it is possible to surmise that the denser pattern may be more effective. How much more effective has not been quantified. However, doubling the density pattern without consultation with stakeholders is not recommended.

The extent of the area of glass has been slightly revised. Previously, the TGS required treatment of the glass on a building between 10 and 12 metres above grade. The revised TGS requires the full 12 metres. On ravine lots, the TGS specifies that the glass on a building be treated to a height equivalent to the surrounding tree canopy or expected height of the canopy at maturity. Council's motion suggests changing the height requirement for the treatment of glass to 16 metres. Some research into the effectiveness of a 16 metre versus a 12 metre requirement should be undertaken followed by consultation with stakeholders. Until such time, this change is not recommended

In the Light Pollution section of the revised TGS, rooftop architectural illumination is to be shut off between the hours of 11:00 p.m. and 5:00 a.m. The Council motion suggests that the shut off time for such lights should be extended to 6:00 a.m. This is part of the voluntary Tier 2 package of performance targets and as a result can be implemented without further consultation.

The TGS applies to all new construction subject to Site Plan Approval across the City. As a result, the TGS is designed to create achievable objectives that enhance the environmental performance of proposed new development sites. By regularly reviewing the TGS, the performance targets are improved in pace with City policy direction and the ability of the development industry to shift to the changing requirements. This occurs through research and study of proposed changes and a rigorous consultation process involving stakeholders and interested parties.

The suggested changes to the TGS reflect some of the bird-friendly elements being installed in retro-fit projects currently underway in the GTA, which draws attention to the differences between implementing bird-friendly criteria into new construction and existing buildings. The next section of the report discusses this in greater detail.

### **Implementation in New Construction Verses Existing Buildings**

Newly constructed developments enter the marketplace with the need to compete for retail tenants and residential buyers. As a result, developers are generally reluctant to

treat the glazing of their retail and residential uses as these treatments may be perceived as unattractive to potential tenants and buyers. Their concerns are that the more stringent the bird-friendly requirements of the TGS, the more difficult it will be to find retail tenants and buyers for units with treated glazing. The updated TGS incorporates these concerns by allowing for 15 percent of glazing within the first 12 m above grade to go untreated.

Existing buildings pose a much greater risk due to the simple fact that there are much more of them and many were built at a time when bird collisions were not a concern. However, currently there is no mechanism for regulating the design of existing buildings. Thus, it is the responsibility of owners and managers of existing buildings that acquired Site Plan Approval prior to January 2010 to ensure their buildings are bird-friendly.

For the most part, existing developments already have tenants in place, and thus it is easier to implement bird-friendly elements into the development as the tenants are often aware of any issues with bird collisions occurring at the site and are thus more willing to accept bird-friendly treatments to their windows. Also, it is possible for building owners to survey their tenants to get an understanding of what they would be willing to accept.

In addition, the potential threat of liability related to this issue arose on February 11, 2013 when Ontario Court Justice Melvyn Green ruled that owners and managers of buildings whose windows cause death or injury to birds are violating s. 14 of the *Environmental Protection Act* (EPA), as well as s. 32 of the federal *Species at Risk Act* (SARA) where death or injury occurs to threatened or endangered species. In *Podolsky v Cadillac Fairview* Judge Green ultimately acquitted the corporate accused on the basis that it had exercised due diligence; however, the case makes clear that others who kill or injure birds in similar circumstances would be guilty of a serious offence if they fail to take all reasonable measures to prevent harm. This presents another significant motivating factor to existing buildings, which would help explain why they are installing more stringent criteria on their properties in cases where there is a documented history of bird collisions.

However, application of bird-friendly elements into an existing building is subject to the limitations of annual capital budgets and thus they are often done sporadically and only in certain areas of a site, which would not meet the performance measures in the TGS. Thus, it is difficult to compare the application of bird-friendly elements in a retro-fit project to the performance measures found in the Bird Collision Deterrence section of the TGS.

For these reasons, it is proposed that the suggested changes to the Bird Collision Deterrence section not be incorporated into the updated TGS.

### **City of Toronto / BOMA-Toronto Award**

As an alternative approach to incorporating bird-friendly elements into existing buildings, City Planning and the Building Owners and Manager's Association of Toronto (BOMA-Toronto), are exploring options to develop an awards program for BOMA members whereby they are acknowledged for their efforts to retrofit their existing buildings with

bird-friendly design elements. This award would become part of BOMA-Toronto's BOMA Environmental Standards (BOMA BESt) program, which was launched in 2005 by BOMA Canada to address an industry need for standards for energy and environmental performance of existing buildings based on accurate, independently verified information.

This award would go to a BOMA-Toronto member that has successfully incorporated bird-friendly elements into their overall design by their own initiative. The award would be based on the BOMA BESt criteria of Assessment, Education, Verification, Certification and Improvement. The details are in development but the award would be decided by a third-party jury of local experts based on the agreed upon award criteria. This program may successfully offer a motivating "carrot" by acknowledging the efforts of good corporate citizens as opposed to the "stick" currently being offered by the threat of litigation.

It is proposed that the suggested changes to the Bird Collision Deterrence section of the TGS be incorporated into the City of Toronto / BOMA-Toronto Bird-Friendly Award criteria, which would ensure a high standard of bird-friendly elements being incorporated into existing retro-fit projects voluntarily undertaken by members of BOMA-Toronto.

### **Best Practices**

City Planning is developing "*Best Practices for Bird-Friendly Glass*" and "*Best Practices for Effective Lighting*", to be complete in early 2014 and which offer examples and strategies for City staff, planners, urban designers, architects, developers, building owners and managers, tenants and residents. These examples and strategies will not only illustrate how to meet the performance measures set out in the updated TGS, but they will offer options as to how to voluntarily go beyond the TGS. The suggested changes to Bird Collision Deterrence and Light Pollution sections of the updated TGS will be incorporated into these Best Practices documents.

## **Future Revisions to the TGS**

It is proposed that the more stringent suggested changes to the Bird Collision Deterrence and Light Pollution sections of the updated TGS be revisited and considered for the next review of the TGS set to commence in 2017. The potential for acceptance of these amendments at that future review will likely be greater due to increasing public awareness, increasing industry familiarity with these innovative policies, and successful examples of retro-fit projects having been completed, which would all contribute to an increase in general market acceptance.

## **CONTACT**

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## **SIGNATURE**

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