

Wind Studies Terms of Reference

Recommendation

That the December 1, 2020, Urban Form and Corporate Strategic Development report CR_7702, be received for information.

Previous Committee Action

At the October 15, 2019, Urban Planning Committee meeting, the following motion was passed:

That Administration provide a report on terms of reference for wind studies, including testing and comfort criteria.

Executive Summary

Wind studies are an important tool for evaluating and mitigating adverse wind conditions in the City's development review process. At this time, a comprehensive framework in managing wind impacts caused by new development does not exist. Consequently, this results in inconsistent and undesired outcomes. A background information report, produced by Rowan Williams Davies & Irwin Inc. (RWDI), outlines testing and comfort criteria for wind studies. Using this report and feedback received from stakeholder and public engagement, Administration will develop a finalized terms of reference document and prepare amendments to Zoning Bylaw 12800 to have it come into effect. This work is in alignment with the draft City Plan to support Edmonton's identity as a winter city.

Report

Current State and Policy Considerations

Currently, Zoning Bylaw 12800 identifies that the development officer may require a wind impact study or statement for developments greater than 20 metres in height. However, detailed requirements for wind statements and studies in Zoning Bylaw 12800 are minimal (See Attachment 1 - Zoning Bylaw 12800 - Section 14 Excerpt). This makes it difficult to be consistent with submission and review requirements for both Land Development and Development Permit applications. The provisions of Section 14 of the Zoning Bylaw are administrative regulations that deal with procedure. They are not development regulations that are reviewed for compliance like setbacks or density and therefore may not have a defined impact on decision making.

Proposed Terms of Reference

A background information report that provides a framework for a wind studies terms of reference document was developed (See Attachment 2 - RWDI Background Information Report). A wind studies terms of reference is a document outlining the technical requirements of wind impact statements, and qualitative and quantitative wind impact studies. It provides guidance to identify when a wind study is required within the context of Edmonton's land development and development permitting processes. It also provides guidelines on mitigation strategies, thermal comfort criteria, and consistent criteria for testing.

The background report includes technical guidance for testing methodologies and thermal comfort criteria that is specific to Edmonton's geographical location and meteorological conditions. The report provides recommended development characteristic trigger points for types of wind studies and their requirements that is consistent with best practice, nationally and internationally. The background report also provides guidelines for wind impact mitigation strategies.

Administration will use the findings of the background report to develop a formal terms of reference for wind studies. The focus of the proposed terms of reference is to provide clarity and consistency to the wind impact statement and study evaluation process, without negatively impacting development review timelines. It does not consider additional enforcement measures or penalties at this time.

Next Steps

Administration will use the background report and feedback received during stakeholder and public engagement to produce a finalized wind studies terms of reference document.

Administration will prepare text amendments to Zoning Bylaw 12800 that are consistent with the finalized wind studies terms of reference document and return to a future City Council Public Hearing.

Public Engagement

Specific industry stakeholders were engaged on the initial draft of the background information report submitted by RWDI on March 10, 2020. The specific stakeholders were determined by the volume of applications submitted to the City for developments that would be most impacted by the terms of reference document.

Administration also conducted online engagement through a public webpage, access to the draft terms of reference, and a Google Form to provide feedback. The period to submit feedback was from June 22, 2020 to July 10, 2020. The engagement was

advertised through social media channels, professional bodies' newsletters, and various industry advocacy bodies. Information about the draft background report and opportunity for feedback was also shared to Urban Development Institute - Edmonton Region on July 14, 2020 at the Edmonton Region Planning Committee meeting.

Respondents generally supported the approach. The most common themes were concerns around increased costs and review timelines. A summary of feedback and list of engaged stakeholders with Administration's response was developed (see Attachment 3 - What We Heard).

Corporate Outcomes and Performance Management

Corporate Outcome(s): Edmonton is attractive and compact			
Outcome(s)	Measure(s)	Result(s)	Target(s)
Negative wind impacts on pedestrians and surrounding sensitive land uses due to new developments are low	The number of hours per year that unsafe wind conditions occur due to built form	TBD	<88 hours per year (2021)

Attachments

1. Zoning Bylaw 12800 - Section 14 Excerpt
2. RWDI Background Information Report
3. What We Heard

Others Reviewing this Report

- C. Owen, Deputy City Manager, Communications and Engagement
- M. Persson, Chief Financial Officer and Deputy City Manager, Financial and Corporate Services
- J. Meliefste, Acting Deputy City Manager, Integrated Infrastructure Services
- B. Andriachuk, City Solicitor