



**City of Kingston
Report to Council
Report Number 24-012**

To: Mayor and Members of Council
From: Paige Agnew, Commissioner, Growth & Development Services
Resource Staff: Tim Park, Director, Planning Services
Date of Meeting: December 19, 2023
Subject: Class 4 Noise Area – 18 Queen Street and 282 Ontario Street

Council Strategic Plan Alignment:

Theme: 1. Support Housing Affordability

Goal: 1.2 Promote increase in purpose-built rental housing.

Executive Summary:

The lands at 18 Queen Street and 282 Ontario Street are currently under construction with a new 23 storey building that will contain 151 residential homes and both ground floor commercial space and office space located on floors six and seven. The site, known as Block 5 in the North Block area of downtown, went through an Official Plan amendment, zoning by-law amendment, and Site Plan Control application.

Through the Site Plan Control stage, it was identified that the rooftop mechanical equipment on top of the Smith Robinson (S&R) Building, located at 27 Princess Street, exceeded the Class 1 noise parameters under the NPC-300, which are provincial regulations that provide for acceptable levels of noise exposure to sensitive land uses. To address the noise levels, an acoustical consultant recommended mitigation measures on the roof of 27 Princess Street. These mitigation measures were intended to be implemented through an amendment to the site plan control agreement applicable to the S&R building and would effectively reduce the noise levels at the Block 5 residential building to acceptable Class 1 levels.

As part of the construction phase, a structural engineer further reviewed the rooftop changes planned for 27 Princess Street and found that the roof is unable to support the additional weight

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which would result from the mitigation measures without more extensive structural works to the roof surface. Based on the conclusions of the structural engineer, the applicants are unable to implement the original mitigation measures to achieve Class 1 noise levels and are requesting that the Block 5 lands be considered a Class 4 area to allow for the residential building to proceed without off-site mitigation. This request is in accordance with the parameters established by the province for acceptable noise impacts.

Staff are supportive of this re-classification for the noise regulations on the site as the applicants have demonstrated they have reviewed all options for noise management. Class 4 areas have been supported on several other developments to allow for re-development applications to proceed along with the proper onsite mitigation for residents of the new buildings.

Recommendation:

That the lands at 18 Queen Street and 282 Ontario Street be designated as a Class 4 Area under the Provincial Environmental Noise Guideline – Stationary and Transportation Noise Sources – Approval and Planning (NPC 300).

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Authorizing Signatures:

ORIGINAL SIGNED BY COMMISSIONER

**Paige Agnew, Commissioner,
Growth & Development Services**

ORIGINAL SIGNED BY CHIEF

ADMINISTRATIVE OFFICER

**Lanie Hurdle, Chief
Administrative Officer**

Consultation with the following Members of the Corporate Management Team:

Jennifer Campbell, Commissioner, Community Services	Not required
Neil Carbone, Commissioner, Corporate Services	Not required
David Fell, President & CEO, Utilities Kingston	Not required
Peter Huigenbos, Commissioner, Major Projects & Strategic Initiatives	Not required
Brad Joyce, Commissioner, Infrastructure, Transportation & Emergency Services	Not required
Desirée Kennedy, Chief Financial Officer & City Treasurer	Not required

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Options/Discussion:**Background**

The Official Plan and zoning by-law changes for the site were approved by the Ontario Land Tribunal on November 4, 2021. Following the approval, the Site Plan Control application was submitted on June 6, 2022.

Noise and vibration impact studies evaluate the surrounding transportation and stationary noise sources to identify potential impacts requiring mitigation in order to ensure a sensitive land use provides appropriate living conditions for residents. Typically studies at the time of zoning focus on feasibility with the detailed noise studies taking place through the site plan control application.

The October 17, 2022, a detailed Noise Study was submitted by Pinchin in support of the Site Plan Control application. The study identified that the noise generated from the residential development (mechanical and HVAC) and the surrounding transportation noise sources (traffic noise from the nearby streets) met applicable noise limits and mitigation was not required. However, the noise generated from nearby rooftop mechanical equipment on 27 Princess Street exceeded the noise limits at the residential receptor. The study recommended onsite mitigation of the noise source to address the exceedance. This mitigation would surround the rooftop equipment with an outer shell to shield the residential building from the noise. This mitigation was reviewed and incorporated into the site plan control approval for the development.

Following site plan approval, as the applicants proceeded to the first stages construction of the mitigation, their consulting structural engineer determined that the roof was not able to support the additional weight of the required noise shield without significant structural alterations to the heritage building. Given the nature of the equipment, the applicant further confirmed that noise mufflers on the exhausts were not an option as they would pose a fire risk.

As mitigation was deemed to no longer be feasible, staff revisited the original detailed noise study which confirms that the noise levels exceed Class 1 when unmitigated but do not exceed Class 4 limits. The study identifies that the rooftop equipment at 27 Princess Street generates noise exceeding the Class 1 limit by 6 decibels when unmitigated. The study recommends that applying a Class 4 classification to the site would be appropriate where mitigation is not possible and would facilitate the development of 151 homes at Block 5.

With respect to the classification system under the MECP's NPC-300 Guidelines, the following are the definitions for the four classification types:

Class 1 area means an area with an acoustical environment typical of a major population centre, where the background sound level is dominated by the activities of people, usually road traffic, often referred to as "urban hum".

Class 2 area means an area with an acoustical environment that has qualities representative of both Class 1 and Class 3 areas:

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- sound levels characteristic of Class 1 during daytime (07:00 to 19:00 or to 23:00 hours); and
- low evening and night background sound level defined by natural environment and infrequent human activity starting as early as 19:00 hours (19:00 or 23:00 to 07:00 hours).

Class 3 area means a rural area with an acoustical environment that is dominated by natural sounds having little or no road traffic, such as:

- a small community;
- agricultural area;
- a rural recreational area such as a cottage or a resort area; or
- a wilderness area.

Class 4 area means an area or specific site that would otherwise be defined as Class 1 or 2 and which:

- is an area intended for development with new noise sensitive land use(s) that are not yet built;
- is in proximity to existing, lawfully established stationary source(s); and
- has formal confirmation from the land use planning authority with the Class 4 area classification which is determined during the land use planning process.

The difference in maximum allowable sound levels for daytime and nighttime sound levels is ten decibels for daytime sound levels (Class 1 – 50 decibels, Class 4 – 60 decibels) and night-time sound levels (Class 1 – 40 decibels, Class 4 – 50 decibels).

Analysis

Noise assessments are an important part of the development approvals process to assess impacts on and from new developments. In a re-urbanizing and intensifying city, it has not been uncommon for new developments to come forward with mitigation measures to reduce the impacts of noise on new residential buildings from existing nearby buildings. Mitigation measures are the first step in dealing with the impacts of noise. Examples of mitigation include equipping all residential homes with air conditioning so occupants can close their windows and doors and maintain habitable temperatures in their homes, sound mufflers on mechanical equipment, and more robust cladding on buildings to absorb sound.

Where mitigation alone cannot reduce noise impacts, new development can consider a re-classification to a Class 4 noise area to raise allowable noise impacts. This does not mean that where Class 4 noise levels are deemed acceptable that mitigation measures are not required. City staff work with applicants of a Class 4 noise area on a combination of re-classification and mitigation.

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With the application of Class 4 on this site, the applicants are providing air-conditioning for each of the homes allowing occupants to close their doors and windows at night to lower indoor sound levels.

The designation as a Class 4 area allows the development to proceed within allowable provincial standards while not significantly modifying a nearby building. It should be noted that the building at 223 Princess Street underwent the same re-classification to a Class 4 noise area due to the rooftop mechanical at 170 Queen Street.

Public Engagement

The public was consulted throughout the review of the development applications. This designation does not change the or alter the development.

Existing Policy/By-Law:

The Planning Act

Official Plan

Zoning By-Law Number 96-259

NPC-300

Financial Considerations:

None

Contacts:

James Bar, Manager, Development Approvals, 613-546-4291 extension 3213

Other City of Kingston Staff Consulted:

None


Exhibits Attached:

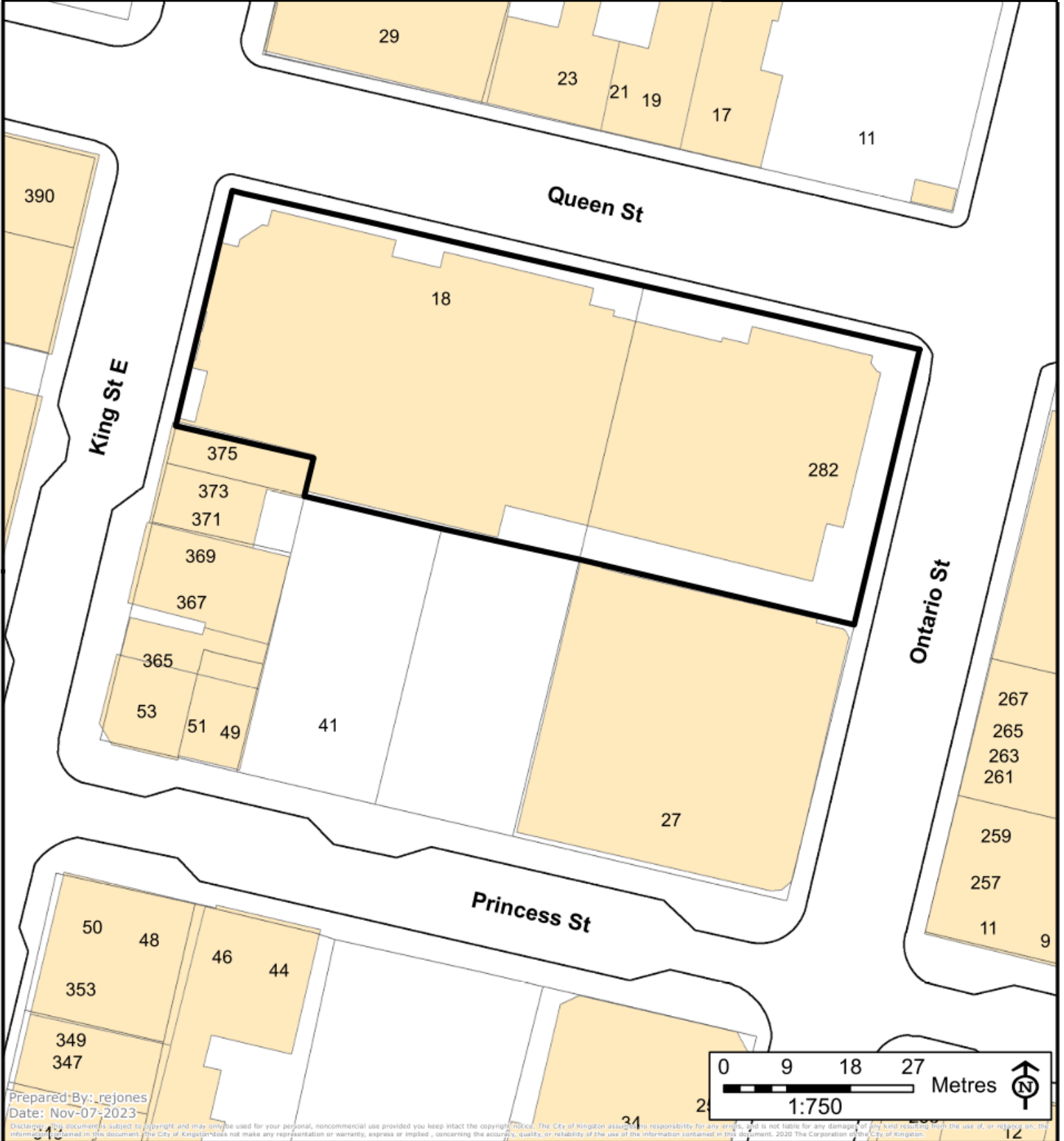
Exhibit A Key Map



CITY OF KINGSTON

**Class 4 Noise Area – 18 Queen Street
and 282 Ontario Street**

 Subject Lands



Prepared By: rejones
Date: Nov-07-2023

