

15. Re: Proposal to Reduce Noise
High Rise Apartment Condominium
4664 Loughheed Highway
Rezoning Reference #22/73

ITEM 15
MANAGER'S REPORT NO. 59
COUNCIL MEETING Aug. 6/73

Following is a report from the Director of Planning regarding a proposal to reduce traffic noise adjacent to a multiple dwelling complex that is proposed for construction at the north-west corner of Springer Avenue and Loughheed Highway.

This is for the information of Council

PLANNING DEPARTMENT

AUGUST 2, 1973

SUBJECT: NOISE ENQUIRY
HIGH RISE APARTMENT CONDOMINIUM
REZONING #22/73
4664 LOUGHEED HIGHWAY

BACKGROUND:

Council on July 23, 1973 gave approval in principle to this two tower apartment condominium project and authorized that the project be presented to a Public Hearing on August 7, 1973. At the same Council meeting a report was requested from the Planning Department with regard to noise emanating from traffic on the Loughheed Highway and steps that the developer may take to alleviate this situation.

The developer has engaged Acoustical Engineering, a consulting engineering division of Aero Acoustic Systems Ltd., to carry out a study on this development. The firm appears to be a reputable and experienced firm and a company resume is available for the perusal of Council.

CONSULTANTS REPORT

Acoustical Engineering has submitted a letter (attached) which suggests the provision of a solid 6-foot high fence on top of a berm along the property line adjacent to the Loughheed Highway. Further reductions in interior noise level attributable to the highway could be achieved by construction methods, such as the suggested use of double glazing.

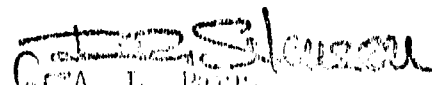
The use of dBA (decibels) may not be entirely comprehended by Council. However, Council should note that a major research reported has indicated that a residential indoor dBA (decibels) level of 45 dBA during the day and 35 dBA during the night would be allowable in suburban areas.

The consultant or a fully-informed representative will be present at the Public Hearing on August 7, 1973 to answer any further questions which Council may have concerning this project.

RECOMMENDATION:

The Planning Department recommends that this report be received by Council for its information.

Respectfully submitted,


A. L. PAPP,
DIRECTOR OF PLANNING

KI/ca

Attachment.

cc: Health Department

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acoustical engineering

A DIVISION OF AERO ACOUSTIC SYSTEMS LTD.
CONSULTING MECHANICAL ENGINEERS

2605 Alma Street, Vancouver, B.C.
Telephone (604) 228-9758 — 228-9759

August 2, 1973.

Imperial Ventures Ltd.,
575 Cedarbridge Way,
Richmond, B.C.

Attention: Mr. Alan Davies,
Development Coordinator.

Re: Proposed Condominium Apartment Development,
N.W. Corner Springer & Lougheed Highway,
Burnaby, British Columbia.

Dear Sir:

In response to your request regarding the noise reductions which could be achieved in the ground plane by erecting a barrier adjacent to the Lougheed Highway for the above project, we have reviewed the site topography and report the following:

TOWER NUMBER TWO

The facade of this tower is closest to the highway and thus has the greatest exposure to the highway noise. On July 30, 1973, at 2:00 pm the average noise level, obtained by visually averaging the noise level fluctuations on a Bruel and Kjaer Type 2204 sound level meter was 58 dBA at the proposed location of the south facade of Tower No. 2 (approximately 125 feet from the north side of the Lougheed Highway).

Berming the site at the property line to the elevation of the main floor of this tower (218 feet), and by erecting a 6 foot high fence on top of this berm at the property line, would provide an effective barrier height to the first floor of approximately 15 feet. This barrier would reduce the noise level at the main floor building facade by approximately 14 dBA.

Therefore, based on our measurement taken July 30, 1973, we predict that the average noise level at the main floor facade will be approximately 44 dBA. With windows partially open, the building facade can be expected to provide a further reduction of 10 dBA, and therefore, the noise levels from the

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highway traffic inside the suites on the main floor will certainly be less than 35 dBA if the barrier described above is erected.

TOWER NUMBER ONE

Tower No. 1 is approximately twice as far from the highway as Tower No. 2, and we would therefore expect the average noise level from the highway to be approximately 6 dBA less than the noise level at Tower No. 2 (58 - 6 = 52 dBA). Thus, considering the noise reduction provided by the building facade alone, the noise level from the highway when measured inside the suites should be approximately 42 dBA.

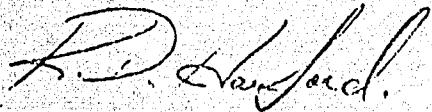
However, the existing grades provide an effective barrier to the main floor of Tower 1 approximately 8 feet high. This will result in a further reduction of approximately 6 dBA.

I trust this brief evaluation will satisfy your present requirements. Should you have any questions, I would be pleased to discuss them with you at your convenience.

Yours very truly,

ACOUSTICAL ENGINEERING

A Division of Aero Acoustic Systems Ltd.



K. D. HARFORD, P. Eng.,
President.

