CITY OF BURNABY

TRAFFIC AND TRANSPORTATION COMMITTEE
(TRAFFIC SAFETY DIVISION)

HIS WORSHIP, THE MAYOR
AND COUNCILLORS

NOISE GENERATED BY PAVEMENT TEXTURING ON MARINE DRIVE

RECOMMENDATION:

1. ***THAT*** Council forward a copy of the *attached* report to Mr. and Mrs. Slater of 3831 S.E. Marine Drive, Burnaby, B.C. and Mr. and Mrs. Jackes of 3819 S.E. Marine Drive, Burnaby, B.C.

REPORT

The Traffic and Transportation Committee (Traffic Safety Division), at its meeting held on 1999 September 07, adopted the *attached* report to respond to correspondence from concerned residents of Marine Drive.

Respectfully submitted,

Mr. D. Berardine
Mr. K. Friederici
Mr. E. Fourchalk
Mr. P. Herring
Ms. L. Kapp
Mrs. D. Mumford
Mrs. R. Oostlander
Mr. J. Parminter
Mr. D. Richardson

Councillor J. Young
Chair

Councillor D. Evans
Member

Councillor N. Volkow
Member

COPY - CITY MANAGER
- DIRECTOR ENGINEERING

City of Burnaby

INTER-OFFICE COMMUNICATION

TO: TRAFFIC SAFETY COMMITTEE **DATE:** 1999 08 30

FROM: ASST. DIRECTOR ENGINEERING, TRAFFIC & ENGINEERING SYSTEMS **FILE:**

SUBJECT: Noise Generated by Pavement Texturing on Marine Drive

Purpose: To Respond to Correspondence from Concerned Residents of Marine Drive

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RECOMMENDATION:

1. **THAT** a copy of this report be sent to Mr & Mrs Slater of 3831 S.E. Marine Drive, Burnaby, and Mr & Mrs Jackes of 3819 S.E. Marine Drive, Burnaby

REPORT

1.0 Introduction

Resulting from correspondence on the 1999 April 06 meeting of the Traffic Safety Committee, staff were directed to report back on the noise generated by the experimental pavement texturing on Marine Drive. Staff were also requested to review the effectiveness of the treatment on vehicle speed on the approaches to the Joffre Avenue intersection.

2.0 Review

Speed data has been recorded on the approaches to the Joffre Avenue intersection both before and after the textured pavement sections were installed. Initially, there appeared to have been a minor reduction in vehicle approach speeds. However, more recent data suggests that speeder have reverted to prior levels as drivers gain familiarity with the devices. As a caveat we note that the 'before' speeds were for a rough failing pavement which of itself may have attenuated speeds.

Sound levels at the roadway edge were recorded prior to and following the re-paving and texturing of this section of Marine Drive. The table below illustrates the resulting average recorded levels, as well as the median value for each data set.

57	Before		After	
	Eastbound	**Westbound**	**Eastbound**	**Westbound**
Average Noise Reading	83.1 dB	80.7 dB	81.3 dB	80.5 dB
Median	83.0 dB	79.6 dB	81.4 dB	80.9 dB

There appears to be little change in the noise levels recorded before and after the re-paving and texturing of this roadway but the character of the noise is undoubtably different. In particular we observed that while the before levels appear to be the same as the textured surfaces, noise levels recorded on the adjacent re-paved section of Marine Drive (which does not have additional texturing) are perceptively lower with an average reading of 77.4 dB and a median value of 77.7 dB. This creates a 'spike' in noise when the vehicle hits the textured strip.

We do note that the textured coloured surface strips appear to have been effective in drawing motorists' attention to some of the signing concurrently installed relative to the intersection and the school bus stopping area.

3.0 Options For Improvement

Considering that these devices have not proven themselves effective in reducing vehicle approach speeds over the long term, and given the level of noise generated by these devices appears to be disruptive to neighbouring property owners, some means of attenuating noise from these devices would be appropriate.

Various modifications have been considered, and some tested, for levelling the textured sections adjacent to the complainants properties in hopes of reducing the level of intrusive noise. The grooved sections which run perpendicular to the direction of travel have recently been filled in with a rubberized polymer to reduce the amount of tire slap. To date this treatment has proven somewhat effective, however, it has yet to be seen how the filler will stand up during inclement weather.

Staff will look to the residents for feedback as to the effectiveness of the remedies and are prepared to test other "fillers" prior to recommending removal of the strips altogether. This latter course of action will require grinding and patching and may in the end not be totally satisfactory as the seams at the patches will result in some tire impact noise.

ASST. DIRECTOR ENGINEERING,
TRAFFIC & ENG. SYSTEMS

AE:

cc: City Manager