

**TO:** CITY MANAGER

**DATE:** 1999 11 16

**FROM:** DIRECTOR ENGINEERING

**FILE:**

**SUBJECT: BERM ADJACENT GAGLARDI WAY - RESIDENT PROPOSAL**

**PURPOSE:** To respond to correspondence to Council regarding a proposal by residents to construct a 500 foot long noise attenuation berm adjacent the east side of Gaglardi Way north of Eastlake

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**RECOMMENDATION:**

1. **THAT** a copy of this report be sent to:
  - a. Serenna Romanycia  
2895 Neptune Crescent  
Burnaby, BC V3J 7A4
  - b. Dino Pastore  
Manager, Strata Plan NW97  
Vancouver Condominium Services Ltd.  
400-1281 West Georgia Street  
Vancouver, BC V6E 3J7

**REPORT**

**1.0 INTRODUCTION/BACKGROUND**

Council has received correspondence from Serenna Romanycia, a resident of Neptune Crescent, and the Manager of Strata NW97 where she resides. Both correspondents refer to a prior discussion regarding construction of a berm between NW97 and Gaglardi Way as shown on the attached plan. The berm proposal was initiated by the residents and was to be constructed at their cost, on road right-of-way with "free fill". That proposal was reviewed by city staff on the basis of sketches supplied by one of the residents. The dialogue regarding that proposal was concluded with the city staff recommending that residents should seek noise mitigation through receiver side measures rather than a berm which staff could not recommend for the reasons discussed below.

## 2.0 COUNCIL POLICY

Council adopted policy states “that arterial road improvements be designed to buffer adjacent residential areas from traffic noise and visual intrusion.” This policy is geared to construction of new facilities through existing residential areas. The assumption is that where highways already coexist with adjacent residential development the social costs of factors such as noise and visual intrusion have been internalized.

We note that residents perceive that there has been an increase in noise due to the construction of the “Broadway Connector” (i.e. the widening of Broadway between Gaglardi Way and Coquitlam by MOTH 3 - 4 years ago) and the expectation of significant traffic increases due to the new NE school. In regard to the latter we note that there will be no access to Gaglardi Way from the school site. The existing construction access to Gaglardi will remain only as an Emergency Vehicle access.

## 3.0 THE BERM PROPOSAL

### 3.1 Location

The residents proposed constructing the berm on the Gaglardi Way right-of-way more or less as shown on the attached sketch. Their intent was to utilize the flared width in the right-of-way that extends to the overpass of Eastlake. While the right-of-way width is generous enough to accommodate some future widening of the roadway it is also needed for the highway drainage. The right-of-way flare reflects the embankment required for Gaglardi to bridge over Eastlake. Accordingly, the length and height of a feasible berm that could be developed is less than the 500 feet length and 11 - 12 foot height estimated in the resident proposal. The length and continuity of the berm is a significant factor in its effectiveness as discussed below.

### 3.2 Berm Construction

While at first blush it may appear that constructing a berm is as simple as piling up free fill and grading it, this is not the case. It is a structure that would need to be properly designed and finished. Geotechnical and environmental issues would need to be addressed prior to design and the quality and placement of the fill would need to be monitored. In this case we would be particularly concerned about the highway runoff, which is currently intercepted and directed to Stoney Creek.

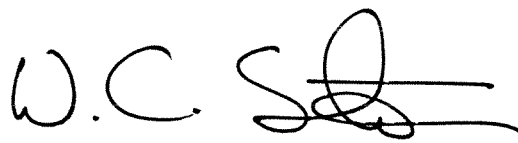
### 3.3 Effectiveness in Noise Attenuation

Were the berm proposed feasible it would be suboptimal in its location because it lies between noise source (the highway) and receiver (residents) and is not continuous. Ideally, sound attenuating barriers along roads should be as close to the noise source or the recipient as possible and extend longitudinally well beyond the residential area protected. In this case the location of a barrier berm is also compromised by the terrain; with the road being higher than the residential development most if not all of the berm height would not provide any attenuation of sound. The limited length over which a berm of the requisite height might be developed limits any potential benefit of the berm to a small proportion of the multifamily units adjacent Gaglardi in NW97.

### 4.0 Alternatives

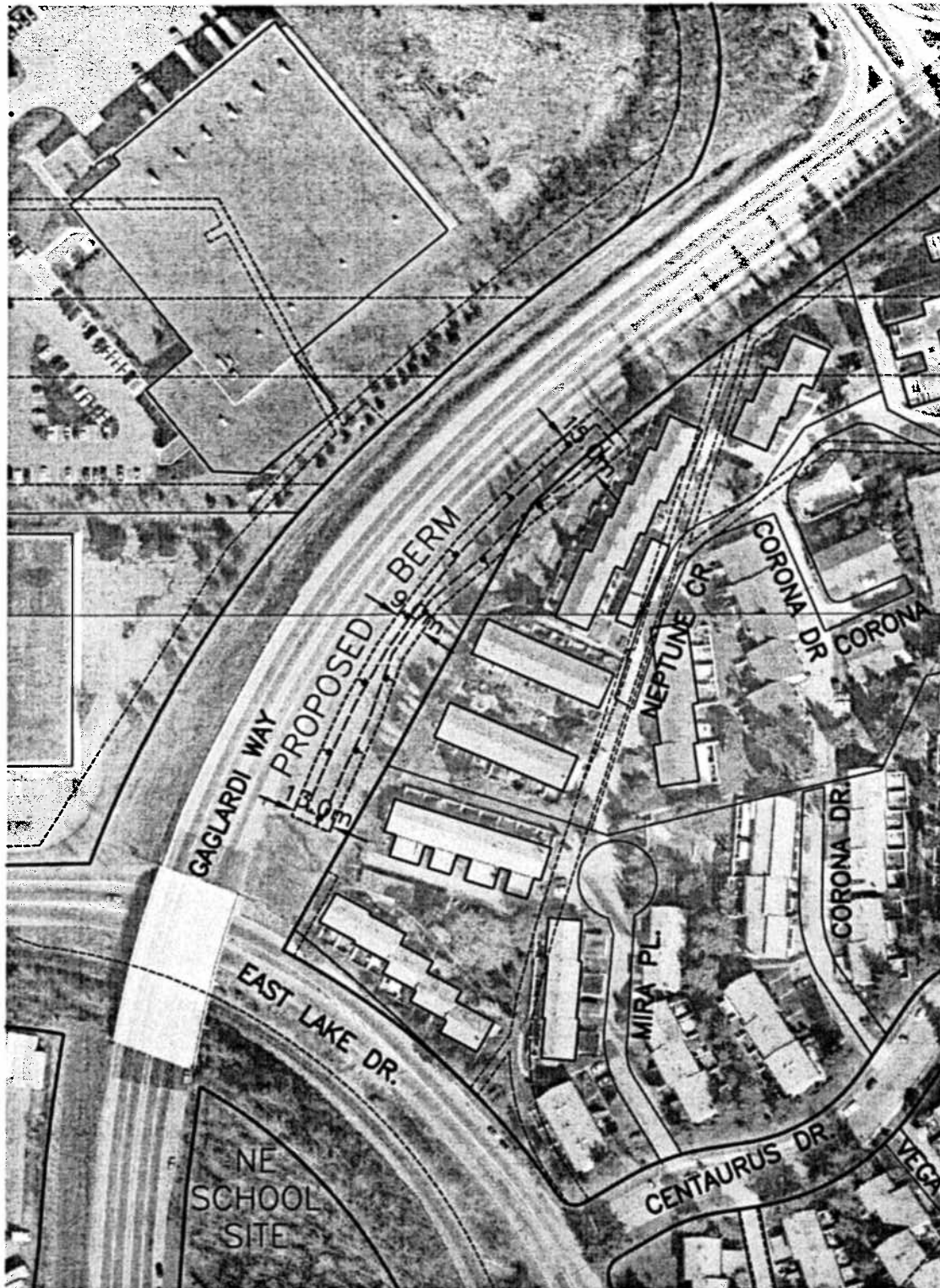
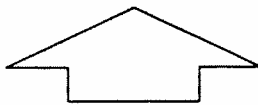
Given Council Policy and the significant drawbacks to the berm proposal staff suggested that the residents of NW97 individually or as a strata should focus on “receiver side” measures to mitigate highway noise. We noted that “this could include double glazing windows to minimize interior noise and “enclosing” outdoor activity areas such as patio seating with fencing. Although there is some question as to how effective vegetation can be in blocking noise, the potential screening effect of evergreen planting on your property should also be considered.”

It is recommended that a copy of this report be sent to the correspondents.



W.C. Sinclair, P. Eng.  
DIRECTOR ENGINEERING

PL:jh



NO.	DATE	REVISION



BERM PROPOSED BY RESIDENT  
NE of GAGLARDI / EASTLAKE

DRAWN BY: HLOUIE	SCALE: N.T.S.	<b>A</b> 521
APPRV'D BY: CDL	DATE: 99-11-12	