



*GENERAL APPROACH TO RETROACTIVE  
NOISE MITIGATION*

## **2. GENERAL APPROACH TO RETROACTIVE NOISE MITIGATION**

### **2.1. Strategy**

2.1.1. Given the thousands of existing roads in Hong Kong, it is necessary to establish a scheme for assessing the applicability of a particular road or road section for retroactive road traffic noise mitigation. Based on the Scoping Study of all existing roads in Hong Kong and the various constraints with mitigating the noise, the proposed mitigation strategy is:

- (a) that the road must be “noisy” by reference to 70 dB(A) at the facade of a nominal or typical facade along the road.
- (b) that the road must not interfere with or adversely affect street level commercial activities, fire fighting, emergency access, road safety, and structural integrity of the existing highway infrastructure
- (c) that the proposed mitigation scheme must be acoustically effective and engineering sound, and this should be subject to a detailed engineering feasibility study
- (d) that the mitigation scheme is in the form of (See Figures 2.3 to 2.17):
  - plain barrier with a height up to 6m
  - bend-top barrier with a vertical height up to 5m and a cantilever extending up to about 2m into the carriageway
  - partial enclosure covering half of the carriageway.
  - full enclosure covering both bounds of the carriageway

Figure 2.1 shows a flow chart for the consideration of road/road sections with potential for retroactive noise mitigation.

### **2.2. Engineering Feasibility**

2.2.1. The engineering feasibility study comprises assessment of different mitigation options in terms of the:

- compliance with road safety requirements as stipulated in the Traffic Planning & Design Manual (TPDM)
- compliance with fire fighting and emergency access requirements of the Fire Services Department and other government departments
- conflict with pedestrian access
- conflict with existing utilities and services,
- conflict with existing structure
- acoustic effectiveness
- side effects, e.g. air quality, visual impact, fung shui, etc.

A ranking system has been established to weigh the various factors and the mitigation scheme with the highest score is recommended for implementation. In order to propose a program to the Government for implementation of similar mitigation schemes, a priority ranking system has also been established whereby these recommended schemes are assessed. The progress of the works is subject to the availability of funds and other government resources.

- 2.2.2. Figure 2.2 shows a flow chart for the establishment of a mitigation scheme and the priority of the scheme for implementation by the Government. Further details are described in Chapter 3.