

8. PRIORITIZATION OF NOISE MITIGATION WORKS PROGRAMME

In order to prioritize the implementation works, a cost-effectiveness factor, defined as :

$$F = \text{number of dwellings protected} \times \text{dB(A) noise reduction} / \text{cost of implementation}$$

has been used to sort the noise mitigation works in order of increasing F. Works which result in more dwellings to be protected and larger noise reduction per unit cost have higher F values.

Table 6 gives a priority list based on the overall F values of the roads. These overall F values are calculated based on the total number of dwellings to be protected and the average noise reduction over the different road sections divided by the total cost of implementation. On an individual section, the F value is calculated based on the number of dwellings, the average noise reduction and the cost of implementation for that section.

Table 6 Prioritization of Noise Mitigation Works

Priority	Road Name	Section	Effectiveness Factor (Dwelling dB(A)/HKS) (x10 ⁻⁵)		
			Sectional		Overall
1	Ma On Shan Road	-	I	1.5	49.0
			II	51.8	
			III	83.9	
2	Tung Chau Tsuen Road	-	I	31.8	31.8
3	Po Lam Road North	-	I	14.7	25.6
			II	61.8	
			III	5.5	
			IV	20.4	
4	Tin Sum Street	-	IV	24.9	24.9
5	Hung Mui Kuk Road	-	III	22.4	22.4
6	Junk Bay Road	-	I	14.1	20.9
			II	27.7	
7	Tuen Mun Road	Tsuen Wan	I	14.6	18.8
		Tsing Lung Tau	II	21.3	
		Castle Peak Road	III	21.0	
8	Yuen Wo Road	-	II	16.6	15.0
			III	13.6	
9	Fung Shue Wo Road	-	I	12.3	14.0
			II	15.6	
10	Tai Chung Kiu Road	-	I	10.2	10.2
11	Po Hong Road	-	V	6.8	6.8
12	Cheung Pei Shan Road	-	I	3.5	6.1
			II	9.6	
			III	6.4	
			IV	5.8	
			V	6.1	
			VI	5.1	
13	Island Eastern Corridor	Tai Koo Shing	I	5.9	5.9
14	Ting Kok Road	-	I	5.0	5.0
15	Che Kung Miu Road	-	I	0.4	4.7
			II	8.7	
16	Tolo Highway	Ma Liu Shui	I	5.4	3.4
		Tai Po Kau	II	0.6	
17	Hiram's Highway	-	I	1.6	1.6
18	Castle Peak Road	Hung Shui Kiu	I	1.6	1.6
		Ping Shan	I	3.6	
			II	0.5	1.2