

NOTE FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

Supplementary information on 643TH – Trunk Road T7 in Ma On Shan

INTRODUCTION

In considering PWSC(2000-01)34 on 24 May 2000 on **643TH - Trunk Road T7 in Ma On Shan**, Members asked the Administration to clarify the basis for recommending the construction of cantilever, as against semi-enclosed, noise barriers along various sections of the proposed road. Members also queried the adequacy of the cantilever noise barriers proposed at three sections near Heng On Estate, Kam Ying Court and Symphony Bay.

2. At a special meeting held on 2 June 2000, representatives of Territory Development Department (TDD) presented supplementary information which was distributed to Members on 30 May 2000. TDD briefed the Members on the standards used for assessing traffic noise impacts and on the criteria for selecting different types of noise barriers for noise mitigation purposes. TDD reassured Members that the proposed combination of noise barriers would mitigate the traffic noise to levels which comply with current environmental standards.

3. While Members noted that the traffic noise at the two sections near Heng On Estate and Symphony Bay would be adequately mitigated by cantilever noise barriers, they maintained that semi-enclosed noise barriers should be installed at the section near Kam Ying Court because the existing background noise level at that site was very low. Members also asked if the Administration could consider replacing some of the semi-enclosed noise barriers at the northern part of the Road by cantilever ones (provided noise standards could be met) to minimise the overall expenditure on noise barriers.

4. In the light of Members' advice, the Administration undertook to -
- (a) provide a further information note on the resulting noise levels of the Noise Sensitive Receivers (NSRs) near Kam Ying Court assuming semi-enclosed noise barriers were used, and on the associated additional costs; and
 - (b) consider the feasibility of replacing semi-enclosed noise barriers further north of Kam Ying Court by cantilever noise barriers.

THE ADMINISTRATION'S RESPONSE

5. At the detailed design stage, we have studied different combinations of noise barriers for mitigating traffic noise to acceptable levels so that cost-effective designs can be achieved. At Members' requests and the special meeting on 2 June 2000, we have carried out further noise impact assessments based on the following options -

- (a) changing the proposed cantilever noise barriers opposite to Kam Ying Court to semi-enclosed noise barriers and
- (b) swapping the arrangements - i.e. changing the proposed cantilever noise barriers opposite to Kam Ying Court to semi-enclosed noise barriers, but replacing the semi-enclosed noise barriers at the sections towards Cheung Muk Tau in the north-east direction with cantilever noise barriers.

6. For option (a) above, noise calculations indicate that the traffic noise levels at the NSRs at Kam Ying Court will be reduced by a maximum of 13dB depending on the location of the various receivers. A comparison of the predicted noise levels after mitigation by different types of noise barriers and their respective costs are shown in the table below -

Noise sensitive receivers at Kam Ying Court	Existing Conditions	Predicted noise levels with mitigation measures (dB)	
		Cantilever noise barriers	Semi-enclosed noise barriers
Kam Yuet House	Not directly affected by traffic noise from highways	52 - 66	50 - 61

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Noise sensitive receivers at Kam Ying Court	Existing Conditions	Predicted noise levels with mitigation measures (dB)	
Kam Chi House	ditto	53 - 69	46 - 60
Kam Keung House	ditto	53 - 68	40 - 56
Kam Leung House	ditto	53 - 68	40 - 58
Estimated cost of noise barriers		\$14 million	\$33 million

7. For option (b) above, noise calculations show that the traffic noise level at some NSRs at Saddle Ridge Garden and Lee On Estate will exceed 70dB. This option, therefore, was not pursued further.

8. We are satisfied that cantilever noise barriers at Kam Ying Court would suffice to keep noise levels from T7 within 70dB. Also, cantilever noise barriers are generally less visually intrusive compared with semi-enclosed ones. Thus, as a general practice, we prefer this option whenever other requirements are satisfied. However, we accept that the background noise at Kam Ying Court is very low at present and in this case we believe there is scope for considering a higher level of mitigation to minimise the difference between the “before and after” situations. We believe it is not unreasonable therefore to change the proposed cantilever noise barriers near Kam Ying Court to semi-enclosed noise barriers, especially since the additional cost can be absorbed by the contingencies in the project estimates. A revised plan showing the latest layout of noise barriers is at Enclosure 1. We plan to upgrade this project to Category A in June 2000 for construction to commence in November 2000. The timely completion of the Trunk Road T7 is essential to improve the traffic condition in Ma On Shan.
