

For Discussion

Legislative Council Panel on Transport
Supplementary Information Paper on
Widening of Tolo Highway
Section between Ma Liu Shui Interchange
and Island House Interchange
Noise Barriers

INTRODUCTION

At the meeting of the Legislative Council Panel on Transport held on 22 November 2002, Members considered LC Papers No. CB(1)308/02-03(03) and CB(1)309/02-03, which gave information on the design and installation of noise barriers along the Tolo Highway. The Administration undertook to review the provision of the noise barriers along this Highway.

THE ADMINISTRATION'S RESPONSE

Present Situation

2. In accordance with the Environmental Impact Assessment (EIA) Study for the Tolo Highway widening project, the total length of noise barriers to be built under the construction contract is 7 510 m. Of this, 570 m of barriers along the kerbside of the south-bound carriageway adjacent to the Pak Shek Kok Development have already been excluded from the contract. This leaves 6 940 m of barriers. These barriers are now in varying stages of construction and they are located in three main areas – the northern section (2 550 m), section near Tai Po Area 39 (3 230 m) and the southern section near the Chinese University of Hong Kong (CUHK) (1 160 m).

3. At present, the foundations of these barriers are 100% complete, the supporting steel framework 95% complete, and the installation of the noise barrier panels 60% complete.

4. We have completed a review of the noise impact assessment and the design of these noise barriers. We are able to distinguish the barriers into three

categories by their function, viz. those barriers intended to mitigate traffic noise on planned future developments and those for existing developments or for both.

Barriers Solely for Planned Developments

5. We have identified that the length of noise barriers which are solely for planned future developments, is about 1 920 m, i.e., 28% of the total length of the revised noise barrier provision. They are for the planned development at Tai Po Area 39 and at CUHK, and the location of these lengths of barriers is shown on the plan at **Annex A**. According to the principle that the erection of noise barriers should align with the programme of planned developments, the provision of these barriers can be deferred to a later date. For those which have been erected (about 1 470 m fully completed and 450 m with post only), they can be removed.

Barriers for Existing and Planned Developments

6. Of the remaining sections of the noise barriers, we have identified that some sections are required for both existing and planned developments. For these barriers, the upper portions of the vertical panels and/or the canopy panels are for planned developments. We have found that it is feasible to reduce the height of the noise barriers by removing the upper portions or the canopy sections.

7. The length of the barriers in this category which have been erected is about 1 460 m (930 m fully completed and 530 m with post only). The location of these barriers is also shown on the plan at **Annex A**. In the section near Tai Po Area 39, it is feasible to remove the upper 1 m to 2.5 m of about 460 m of the vertical barriers in the central median, and the canopy portions together with the upper 2 m of 610 m of the vertical barriers along the kerbside of the north-bound carriageway. In the southern section near CUHK, it is feasible to remove the upper 3 m of about 230 m of the vertical barriers along the central median and the upper 5 m of 160 m of the vertical barriers along the kerbside of the north-bound carriageway.

Costs

8. The table below summaries the modifications that can be carried out to the noise barriers at Tolo Highway and the estimated costs involved. **Annex B** provides a detailed breakdown of the noise level at the existing noise sensitive receivers after the removal of the noise barriers described above. If the proposed modifications were adopted, the mitigated noise levels at the existing noise sensitive receivers will still comply with the requirements of the EIA Ordinance.

Modification	Length of barriers (m)	Estimated Cost (\$ million)
(a) Removal of the noise barriers solely for planned developments	1 920	3.5
(b) Trimming down of the noise barriers along kerbsides and central median for both existing and planned developments	1 460	4.5

9. To implement the modifications, an application for a Variation to the Environmental Permit would be submitted to the Environmental Protection Department for the deferment of the barriers required for planned future developments.

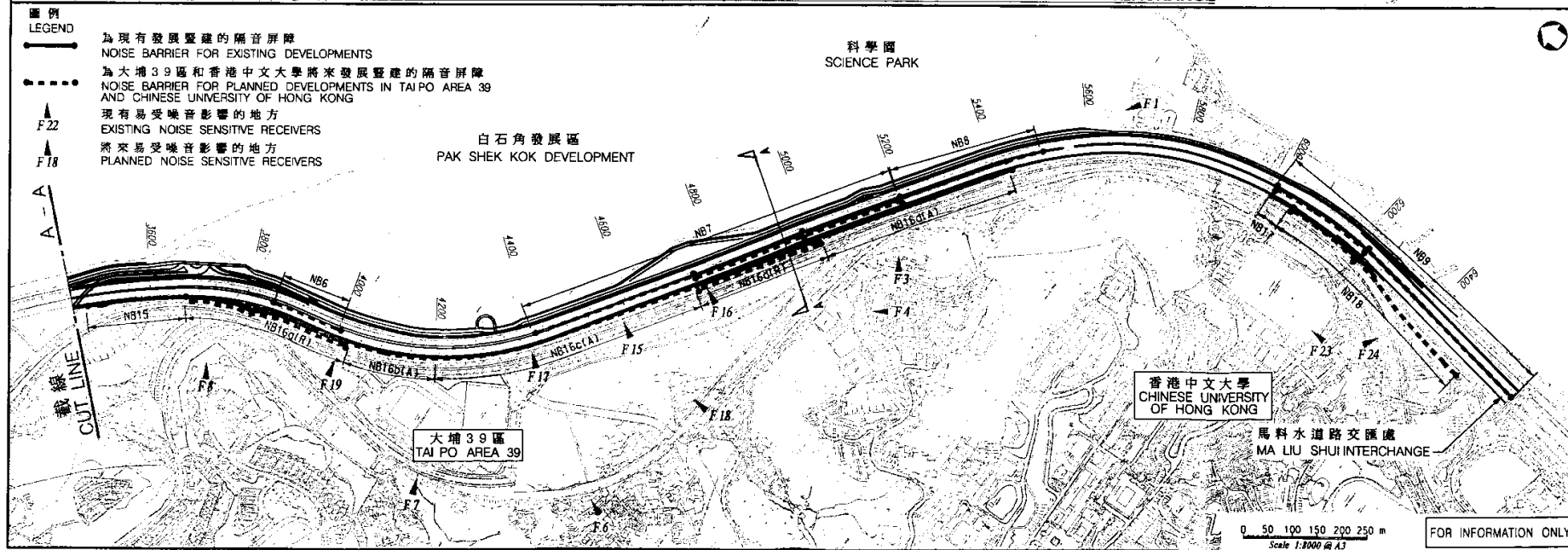
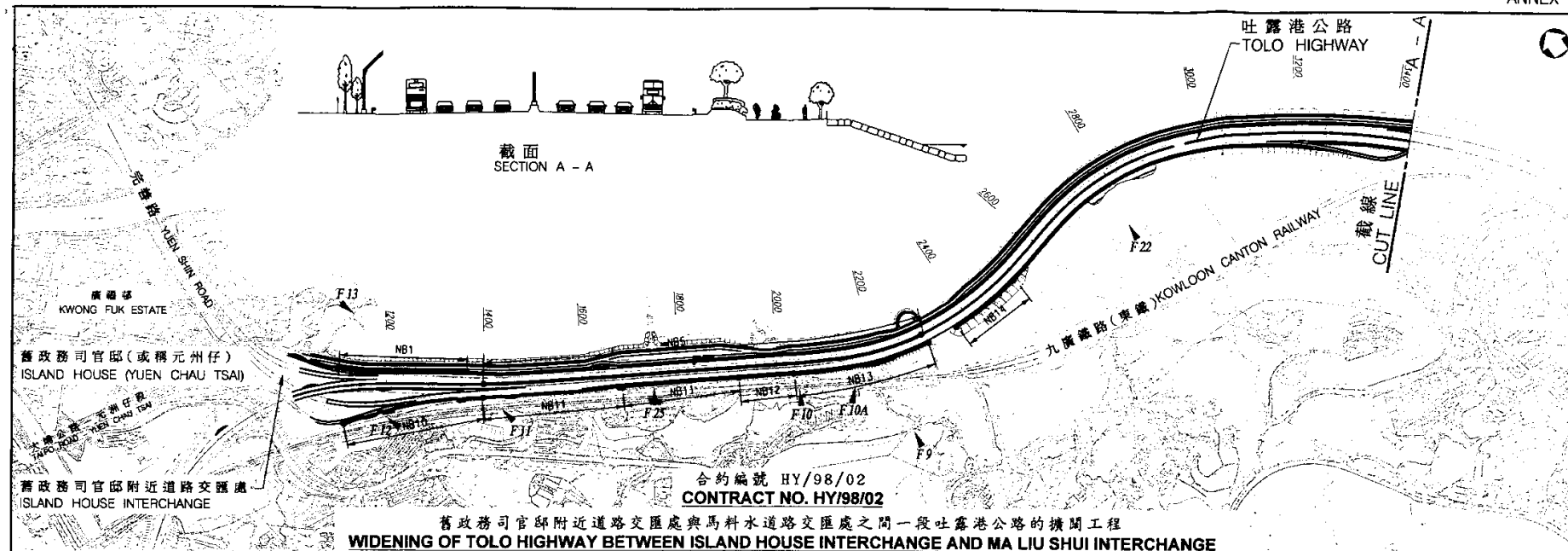
Effect on the existing contract

10. The contract for the Tolo Highway Widening commenced in 1999 and the works are 95% completed. We opened the widened southbound carriageway last December and anticipate that the rest of the works would be completed by March this year. Due to the review of the noise barrier provisions, we have suspended temporarily the noise barrier installation works. We are discussing with the contractor to carry out the noise barrier modifications as a variation to the contract. Subject to negotiation, our preliminary assessment of the cost of the modification works, including the associated temporary traffic diversions, is given in the table above. If we can carry out the modification works in parallel with the rest of the works, we estimate that the delay to the overall completion of the contract would be limited to between one and two months.

ADVICE SOUGHT

11. Members are requested to note and comment on the above proposed modifications to the noise barriers in the Tolo Highway Widening project.

Environment, Transport and Works Bureau
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Widening of Tolo Highway

Section between Island House Interchange and Ma Liu Shui Interchange

Noise Levels at Existing Noise Sensitive Receivers
(after removal of barriers for planned uses)

Existing Development	Barrier Type	Barrier No.	Level Above Ground Level in mPD	Anticipated Noise Level in 2011 dB(A)L ₁₀ (1-hr)	
				Without Noise Mitigation Measures	With Modified Noise Mitigation Measures
F3 (CUHK – Residence No. 10)	5.5m vertical barrier and 2.5m canopy	NB16d(A)	35	79	62
			41	79	63
	3.5m vertical barrier along NB carriageway	NB16d(R)	47	79	63
			53	79	64
	4.0 vertical barriers along central median	NB7 (part) & NB8	62	79	65
F4 (CUHK – Residence No. 13)	5.5m vertical barrier and 2.5m canopy	NB16d(A)	64	73	60
			52	74	61
	3.5m vertical barrier along NB carriageway	NB16d(R)	58	75	61
			76	75	62
	2.5m & 4.0m vertical barriers along median	NB7 (part)	82	75	63
F8 (Deerhill Villa)	5.5 vertical barrier along NB carriageway	NB15 & NB16a(R)	48.9	66	63
			51.9	68	65
			57.9	70	68
			60.9	72	70
			63.9	73	70
F23 (CUHK – Wen Chih Tang)	2.0m vertical barrier along NB carriageway	NB17 & NB18 (part)	37	64	61
			40	68	65
	2.0m vertical barrier along median	NB9 (part)	43	70	68
			46	72	70
			49	73	70