

立法會

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Panel on Environmental Affairs and Panel on Transport

**Minutes of joint meeting held on
Thursday, 23 January 2003, at 4:30 pm
in the Chamber of the Legislative Council Building**

Members present : Members of the Panel on Environmental Affairs

Hon CHOY So-yuk (Chairman)
* Dr Hon CHU Yu-lin, JP
* Ir Dr Hon Raymond HO Chung-tai, JP
Hon Martin LEE Chu-ming, SC, JP
Hon SIN Chung-kai
* Hon LAU Kong-wah
Dr Hon LAW Chi-kwong, JP
Hon Henry WU King-cheong, BBS, JP
Dr Hon LO Wing-lok
* Hon LAU Ping-cheung

Members of the Panel on Transport

Hon Miriam LAU Kin-ye, JP (Chairman)
Hon Abraham SHEK Lai-him, JP (Deputy Chairman)
Hon Mrs Selina CHOW LIANG Shuk-ye, GBS, JP
Hon CHAN Kwok-keung
Hon Andrew WONG Wang-fat, JP
Hon LAU Chin-shek, JP
Hon Andrew CHENG Kar-foo
Hon TAM Yiu-chung, GBS, JP
Hon Tommy CHEUNG Yu-yan, JP
Hon Albert CHAN Wai-yip
Hon LEUNG Fu-wah, MH, JP
Hon WONG Sing-chi

Non-Panel Members attending : Hon Eric LI Ka-cheung, JP
Dr Hon LUI Ming-wah, JP

Members absent : Members of the Panel on Environmental Affairs

Hon Cyd HO Sau-lan (Deputy Chairman)
Hon WONG Yung-kan
Hon Emily LAU Wai-hing, JP
Hon Audrey EU Yuet-mee, SC, JP

Members of the Panel on Transport

Hon Albert HO chun-yan
Dr Hon TANG Siu-tong, JP

(* Also member(s) of the Panel on Transport
Also member(s) of the Panel on Environmental Affairs)

Public Officers attending : **Agenda item II**

Environment, Transport and Works Bureau

Dr Sarah LIAO
Secretary for the Environment, Transport and Works

Mrs Rita LAU
Permanent Secretary for the Environment, Transport and
Works (Env)

Mr Thomas CHOW
Deputy Secretary for the Environment, Transport and Works
(Env)

Mr C W TSE
Principal Assistant Secretary for the Environment, Transport
and Works (Env)

Environmental Protection Department

Mr Rob LAW
Director of Environmental Protection

Mr Elvis AU
Assistant Director of Environmental Protection
(Environmental Assessment & Noise)

Highways Department

Mr C K MAK
Director of Highways

Clerk in attendance : Mr Andy LAU
Chief Assistant Secretary (1)2

Staff in attendance : Ms Alice AU
Senior Assistant Secretary (1)5

Miss Winnie CHENG
Legislative Assistant 5

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I Election of Chairman

Ms Miriam LAU was elected Chairman of the joint meeting.

II Measures to abate traffic noise

- (LC Paper No. CB(1)755/02-03(01) - Information paper provided by the Administration; and
LC Paper No. CB(1)754/02-03 - Background brief on measures to abate traffic noise prepared by the Secretariat)

2. The Chairman advised that the purpose of the present meeting was to discuss the Administration's policies on mitigating road traffic noise and the principles guiding the implementation of these policies. Members agreed that issues relating to the proposed modifications to the noise barriers to be provided for the Tolo Highway widening project would be discussed at the Transport Panel's meeting scheduled to be held the next day.

3. Members noted the background brief on measures to abate traffic noise prepared by the Secretariat (LC Paper No. CB(1)754/02-03)).

4. At the invitation of the Chairman, the Secretary for the Environment, Transport and Works (SETW) introduced the Administration's paper (LC Paper No.

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CB(1)755/02-03(01)) and elaborated on the following guiding principles for implementing the Government's policies on mitigating road traffic noise:

- (a) Principle 1: Compliance with existing statutory requirements;
- (b) Principle 2: Timely implementation of mitigation measures, i.e. noise barriers;
- (c) Principle 3: Setting priority for existing roads in the retrofit programme according to excessive noise levels;
- (d) Principle 4: For existing roads, cost effectiveness of noise barriers; and
- (e) Principle 5: Paying due attention to aesthetic design of noise barriers.

5. While expressing support for these guiding principles, Mr WONG Sing-chi restated his request for the Administration to honour its own undertaking made as far back in 1994 to provide noise barriers in Fanling Highway. SETW responded that as an administrative measure, the Administration would actively seek to provide noise mitigation for dwellings affected by existing excessively noisy roads as far as possible.

Compliance with existing statutory requirements

6. Stressing the importance to protect the public against the nuisance caused by excessive traffic noise, Mr Albert CHAN stated support for the Administration's pledge to comply with the requirements of the Environmental Impact Assessment Ordinance (Cap. 499) (EIAO). The Administration should also consider whether the statutory noise limits should be lowered to ensure that the affected residents were adequately protected. Notwithstanding the recent criticism of the noise barriers in Tolo Highway, he said that the level of protection for the public should never be compromised simply because the aesthetic design of the noise barriers was in question. Nonetheless, the Administration would need to improve the aesthetic design of noise barriers so as to avoid any future disputes. Conveying the view of some structural engineers, Mr CHAN suggested that the Administration should review whether the existing structural requirements for noise barrier foundations were too stringent and that aesthetic designs of noise barriers were precluded.

7. Citing the unsatisfactory case of the Tolo Highway widening project, Ir Dr Raymond HO stated his observations on the Administration's policies to mitigate road traffic noise as follows:

- (a) Notwithstanding the Administration's assertion that it must comply with existing statutory requirements, he queried whether this was indeed the

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case if the noise barriers originally planned for the project could now be removed or trimmed down.

- (b) The requirements of the EIAO were too rigid and it had generally led to the excessive provision of noise barriers in Hong Kong.
- (c) Under EIAO, the project proponent was required to consider planned developments within the next 15 years. However, provision of noise barriers for such developments might lead to wastage of resources as circumstances could easily change over such a long period of time. New technologies to abate traffic noise might also emerge which obviated the need for the noise barriers. As such, the Administration should avoid putting noise barriers for planned developments in advance.
- (d) The environmental impact assessment (EIA) process should also take into account community response.
- (e) The L_{10} (1 hour) calculations which only took into account the measurement of traffic noise for one hour during peak periods could not accurately reflect the level of traffic noise during night-time.

For these reasons, Ir Dr HO was strongly of the view that there was an urgent need to review the EIAO.

8. Mr LAW Chi-kwong suggested that the existing statutory planning and EIA requirements might need to be refined in the following areas:

- (a) The responsibility of real estate developers vis-à-vis the Government for the provision of noise mitigation measures should be clearly delineated, particularly for cases where excessive traffic noise was created as a result of increasing traffic flow caused by planning changes in the neighbouring areas.
- (b) As in Australia, the developers should have a duty to adopt acoustic architectural designs for the buildings. This could be included as a condition for land grant. It was only when such designs were inadequate would the Administration be required to provide noise mitigation for such developments.
- (c) The statutory noise limit of 70 dB(A) was too rigid as it failed to take into account the level of ambience noise. It could not offer adequate protection for residents in quiet areas.

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9. In response, SETW stated that the statutory noise limits of 70 dB(A)L₁₀(1 hour) for residential premises and 65 dB(A)L₁₀(1 hour) for schools were prescribed for the purpose of protecting the public from excessive traffic noise generated from designated projects under EIAO. These limits were adopted taking into account the experience of developed overseas countries/cities and represented a level of noise that was considered to be generally acceptable. While some overseas countries adopted noise standards into which account was taken of the background noise level, such practice had led to frequent disputes and affected the progress of the concerned construction projects.

10. SETW also called on members' understanding that after all, road infrastructures built to meet the transport needs of the community would inevitably generate traffic noise. Given Hong Kong's unique high-density city setting, the Administration would strive to ensure that the noise impact of new roads on users of noise sensitive buildings in the neighbourhood would meet the statutory requirements while striking a right balance among economic development, environmental protection and social acceptability.

11. SETW added that, in assessing the noise impact on NSRs, the EIA study would consider the overall traffic impact of a designated project on the highway network taking into consideration planned changes. Hence, traffic noise created as a result of planning changes brought by new or improved roads would already be accounted for.

12. Responding to Ir Dr Raymond HO's concern about the methodology currently used for calculating traffic noise levels, the Director of Environmental Protection (DEP) explained that the best index for describing road traffic noise disturbance was the L₁₀ (18 hour), i.e. the noise level that was exceeded for 10% of the time over an 18 hour period between 6:00 am to 12:00 midnight. However, under normal circumstances, the noise level for the one hour peak traffic flow could be used as a surrogate for the L₁₀ (18 hour) noise level with a very high degree of accuracy. Under normal circumstances, the one hour peak traffic flow noise level would be the same as the L₁₀ (18hour) noise level plus 2 dB(A). Hence, the traffic noise levels during the day as well as the evening were covered within the L₁₀(1 hour) measurements.

13. DEP added that for new roads, the noise impact on various existing and planned developments would be calculated according to a well-established and highly accurate traffic noise model. A variety of factors such as traffic flow, mix of vehicles, gradient and vehicle speed would be taken into account. As circumstances could change over the years, he said that it was acceptable from an environmental point of view to erect the noise barriers so as to align with the programme of planned developments.

14. Regarding the EIAO, SETW said that the Administration had been assessing closely the application of the EIAO since its commencement, taking into account views from different professions and concerned parties. Issues arising from the noise barriers provided for the Tolo Highway widening project were merely related to the implementation of EIAO but not its stipulated requirements. EIAO had already provided

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for flexibility in the timing of erecting the noise barriers so long as they were in place in time to properly protect the noise sensitive receivers (NSRs).

15. The Director of Highways (DHy) supplemented that having reviewed the noise impact assessment and the design of noise barriers for the Tolo Highway widening project, the Administration was able to distinguish the barriers into three categories by their function, viz. those barriers intended to mitigate traffic noise on planned developments and those for existing developments or for both. For barriers solely for planned developments, the principle was that their erection should align with the programme of planned developments. As such, their provision could be deferred to a later date. Against this principle, the Administration had proposed to either defer or trim down some noise barriers for the Tolo Highway widening project. He stressed that if the proposed modifications were adopted, the mitigated noise levels at the existing NSRs would still comply with the requirements of EIAO.

16. Highlighting the importance for the proper and prudent use of public funds, Mr WONG Sing-chi saw the need to clearly differentiate between the responsibility of the Government vis-à-vis the developers as regards the provision of noise mitigation for future developments, say in the case where a developer sought to change the land use zoning from agricultural to residential after a new road had been built.

17. SETW replied that the responsibility of providing noise mitigation for future developments which came after the planning or construction of road projects would rest with the developer. The relevant requirements had already been clearly stipulated in the Town Planning Board Guidelines. On the other hand, it would be the Administration's responsibility to provide noise mitigation for those existing and planned developments affected by the designated projects under EIAO. The law as it stood was very clear on the respective responsibilities of the Government and the developers. The Administration had to ensure the fairness in law. Nonetheless, flexibility was also allowed administratively for the developers concerned to adopt mitigation measures within their premises. It was for that reason that the noise barriers for Pak Shek Kok development area were not included in the Tolo Highway widening project.

18. In view of Hong Kong's high-density city setting, Mr CHENG Kar-foo pointed out that road construction or improvement projects would inevitably create noise impact for the residents nearby. While supporting the Administration's objective to mitigate road traffic noise to protect the public from excessive noise, he cited the unsatisfactory case of the Tolo Highway widening project where public monies were spent on noise barriers that were not accepted by the community, and opined that the Administration should instead allow more flexibility in the implementation of the relevant statutory requirements. Incentives such as preferential plot ratio could be provided to encourage the developers to adopt suitable noise mitigation measures within their premises. Apart from obviating the need for noise barriers and avoiding any visual intrusion, this

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approach could in fact be more cost-effective, particularly when only a small number of dwellings was affected.

19. Miss CHOY So-yuk also agreed that the Administration would need to consider whether more effective means were available to provide noise mitigation for planned developments. She suggested that as part of the planning process, the Administration should approach the developers of large residential development sites and encourage them to provide noise mitigation measures within their premises in exchange for a preferential plot ratio.

20. In response, SETW stressed that the Administration had to comply with the statutory requirements and protect the affected residents. Under this premise, the Administration could, as far as possible, encourage developers to adopt noise mitigation measures within their premises from the planning point of view, but such administrative arrangements were not statutory requirements. She would relay the views expressed by members on the planning process to the Housing, Planning and Lands Bureau for consideration.

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21. Mr CHENG Kar-foo however maintained that given the current fiscal deficit, the existing administrative arrangements should become a policy direction so that the most cost-effective noise mitigation solution could be identified. To ensure effective implementation, this arrangement should be given legislative effect. In this connection, the Administration was requested to provide a paper on overseas legislation in respect of the responsibility of real estate developers vis-à-vis the Government for the provision of noise mitigation measures.

22. Mr Albert CHAN pointed out that in some cases, the affected residents were still not adequately protected from excessive traffic noise despite the statutory requirements on the developers and the Government. Notwithstanding the mitigation measures adopted by the developers, e.g. changing the orientation of the buildings or installing double-glazed windows and air-conditioners, the noise level at some dwellings could still exceed the statutory noise limit if the windows were opened. To address the problem, the Administration should consider allowing the developers to erect noise barriers on Government land surrounding the site. The responsibility of the developers in this respect could then be specified as a condition of land grant.

23. In reply, DEP advised that residential developments were explicitly excluded from the EIAO in most of the cases. If the site had already been zoned for residential use, the developer was not required to conduct an EIA for the development except in very special circumstances. Under the current practice, the Administration would always encourage the developers to adopt their design and layout so that adequate protection was provided for the residents, for example, setting back the development away from the road, provision of podium structures or putting non-sensitive buildings closer to the roads. However, given the limited amount of space in Hong Kong, some of

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the sites were quite small and such measures were not always feasible. In those circumstances, it was accepted that noise insulation in the form of quality windows and air-conditioning should be adopted. While stressing that the Administration did not have any legislative power to mandate the developers to provide noise barriers, DEP said that the Administration had already introduced a policy to retrofit noise barriers where practicable on existing excessively noisy roads.

Timely implementation of noise barriers

24. Miss CHOY So-yuk stated support for the five guiding principles and underlined the importance for the Administration to ensure that the installation of noise barriers would align with the programme of the planned developments.

25. SETW responded that in implementing this guiding principle, the Administration would as far as possible build the foundation first and defer installation of the noise barrier panels to align with the programme of the planned developments. In the light of the experience gained from the Tolo Highway widening project, relevant government departments had been reminded to observe the guiding principle of timely implementation of noise barriers more diligently, while also taking into account other implications such as costs and disruption to traffic.

26. Responding to Ir Dr Raymond HO's concern about the cost-effectiveness of advance noise barrier foundation works for planned developments, SETW said that in general, the cost of such works only amounted to a very small percentage in the total project cost. After all, noise barrier was an effective means to protect the affected residents as road traffic noise could be mitigated at source.

Paying due attention to aesthetic design of noise barriers

27. While agreeing that due attention should be paid to the aesthetic design of noise barriers, Mr Tommy CHEUNG opined that another important consideration was road safety. In view of the potential safety hazard, multi-coloured noise barrier panels such as those adopted for the Tolo Highway widening project should be avoided as drivers might suffer from dizziness and discomfort when driving through. Monochrome noise barriers should be used.

28. Concurring with the member's concern about safety, SETW said that all relevant traffic, engineering and safety considerations would be taken into account when designing the noise barriers. On the choice of colours and materials for noise barriers, the Advisory Committee on the Appearance of Bridges and Associated Structures would be responsible for vetting the aesthetic aspect of noise barriers. While a judgement on aesthetics was subjective, the Administration would try to ascertain some standard designs that were more readily accepted by the public, say through consultation or a design competition. The Permanent Secretary for the Environment, Transport and

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Works (Env) also said that the Administration would actively consult local views on the design of noise barriers for future road projects.

29. Mr LAU Ping-cheung conveyed the support expressed by the Urban Design Alliance, a collaboration of the Hong Kong Institute of Architects and the Hong Kong Institute of Planners, on the Administration's proposed modifications to the noise barriers for the Tolo Highway widening project. The Alliance also called on the Administration to apply EIAO with greater sensitivity and pay due attention to the visual impact and spatial aspects in the design of noise barriers. The Administration should also encourage the use of innovative ideas for architectural designs for mitigation purpose. To allow more room for the design of noise barriers, greater flexibility in the choice of construction materials and more competitive bidding, Mr LAU suggested that the Administration should package the works relating to the provision of noise barriers in road projects separately as a design-and-build sub-contract for open tender. The Chairman also considered that the tendering system should allow the contractors free rein in respect of the design and choice of materials for the noise barriers, and even the adoption of new technologies, other than noise barriers, to achieve the required mitigation effect.

30. In reply, DHy explained that it was an established practice to bundle the main contract works together with the subcontract works for the noise barriers, thus making it the responsibility of the main contractor to co-ordinate the works. As the installation of noise barriers and the construction of the carriageway were inter-related, interface problems and hence safety risks might occur if different contractors were engaged for the works. The construction programme might also be affected.

31. DHy further said that the Administration would normally specify in the tender documents the necessary requirements on the noise reduction effect and the expected performance of the noise barriers. Proprietary construction materials were not quoted in tender documents and there were clear provisions that the use of other materials with equivalent quality or effect would be accepted. Hence, the contractors would have flexibility in the choice of suitable construction materials to achieve the desired mitigation effect.

32. Mrs Selina CHOW considered that the installation of noise barriers in Hong Kong's high-density city setting would invariably create visual impact. To address the problem, the Administration should adopt an open attitude and actively explore whether other new technologies, other than noise barriers, were available. The Administration should also learn from the experience of overseas countries in abating traffic noise.

33. In reply, SETW assured members that the Administration would always be on the look-out for more effective solutions to the problem. Continuous efforts would be made to keep abreast of the latest technological developments around the world, such as the use of new construction materials for noise barriers as well as other new technologies in

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noise mitigation. If proven to be effective, these new technologies could be applied in Hong Kong. DEP added that the Environmental Protection Department would exchange experience with other countries by conducting overseas study tours and receiving visiting deputations. Interested parties with new ideas and technologies could always approach the department.

III Any other business

34. There being no other business, the meeting ended at 6:10 pm.

Council Business Division 1
Legislative Council Secretariat
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