

立法會

Legislative Council

LC Paper No. CB(1)1573/00-01
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by the Administration)

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LegCo Panel on Transport and LegCo Panel on Environmental Affairs

**Minutes of joint meeting held on
Wednesday, 7 February 2001, at 9:00 am
in the Chamber of the Legislative Council Building**

Members present : LegCo Panel on Transport

- * Hon Mrs Miriam LAU Kin-ye, JP (Chairman)
- * Hon Abraham SHEK Lai-him, JP (Deputy Chairman)
- Hon David CHU Yu-lin
- * Ir Dr Hon Raymond HO Chung-tai, JP
- Hon LAU Chin-shek, JP
- Hon LAU Kong-wah
- Hon Andrew CHENG Kar-foo
- Hon TAM Yiu-chung, GBS, JP
- * Hon Tommy CHEUNG Yu-yan, JP
- * Hon Albert CHAN Wai-yip
- * Hon LAU Ping-cheung

LegCo Panel on Environmental Affairs

Prof Hon NG Ching-fai (Chairman)
Hon Martin LEE Chu-ming, SC, JP
Hon Fred LI Wah-ming, JP
Hon Bernard CHAN
Hon WONG Yung-kan
Hon Emily LAU Wai-hing, JP
Hon LAW Chi-kwong, JP
Hon Henry WU King-cheong, BBS
Hon Michael MAK Kwok-fung
Dr Hon LO Wing-lok

(* Also members of the LegCo Panel on Environmental Affairs)

Non-Panel member attending : Hon CHAN Kam-lam

Members absent : LegCo Panel on Transport

Hon Albert HO Chun-yan
Hon Mrs Selina CHOW LIANG Shuk-ye, JP
Hon CHAN Kwok-keung
Hon Andrew WONG Wang-fat, JP
Dr Hon TANG Siu-tong, JP
Hon WONG Sing-chi

LegCo Panel on Environmental Affairs

Hon Cyd HO Sau-lan (Deputy Chairman)
Hon Eric LI Ka-cheung, JP
Hon CHOY So-yuk

Public officers attending : Environment and Food Bureau

Mr Thomas CHOW
Deputy Secretary for the Environment and Food

Mr Howard CHAN
Principal Assistant Secretary for the Environment and Food

Transport Bureau

Mr Benjamin MOK
Acting Principal Assistant Secretary for Transport

Environmental Protection Department

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

Mr K S CHAN
Principal Environmental Protection Officer

Highways Department

Mr C K WONG
Deputy Director of Highways

Transport Department

Mr LI Shu-ming
Assistant Commissioner for Transport (Urban)

**Attendance by
invitation**

: Organisation of Hong Kong Drivers

Mr IP Wai-chi

Container Truck Drivers Union

Mr NGAN Chiu-yuen
Spokesman

The Conservancy Association /
The Chartered Institute of Transport of Hong Kong

Dr HUNG Wing-tat
Director of the Conservancy Association
Council Member of the Chartered Institute of Transport of
HK

大角咀區民生關注會 / 西九龍詩歌舞區關注會 /
旺角區居民協會

Mr LEUNG Chiu-shing
Chairman of Tai Kok Tsui District Resident
Livelihood Concern Society

Mr CHAN Chung-kit
Yau Tsim Mong District Councillor

The Hong Kong Institution of Engineers

Ir Dr John W K LUK
President

Ir Dr CHAN Hon-fai
Chairman, Environmental Division

City University of Hong Kong - Building & Construction Department

Prof Andrew Y T LEUNG
Head, Department of Building & Construction

Dr Raymond Y Y LEE
Lecturer

The Hong Kong Institute of Architects

Mr Bernard HUI
Vice President

Mr Robert LAM
Chairman - Board of Local Affairs

The Hong Kong Institute of Surveyors

Mr David C LEE
Chairman of the HKIS Town Planning/
Sustainable Development/Urban Renewal Committee

Mr Francis LAU
Member of the HKIS Town Planning/
Sustainable Development/Urban Renewal Committee

Mr Eric HO
Member of the HKIS Town Planning/
Sustainable Development/Urban Renewal Committee

Kowloon Truck Merchants Association Ltd.

Mr LEUNG Kun-kuen
Chairman

中重型貨車關注組

Mr LAI Kim-tak
Chairman

落馬洲中港貨運聯會

Mr LAU Shek-tat, Simon
Managing Director

Hong Kong Dumper Truck Drivers Association

Mr HO Hung-fai
Secretary

Hong Kong (Cross Border) Transportation Drivers'
Association

Mr WONG Charn-kwan
Executive member

Hong Kong Guangdong Transportation Association
Ltd.

Mr SZETO Fai
Secretary

Hong Kong Container Tractor Owner Association
Ltd.

Mr LO Chung-tak
Vice-Chairman

Mr Ricky WONG
Secretarial General

港九及新界夾斗車商會

Mr SHUM Chu-shing

Ms Joanna LAM

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

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

I Election of Chairman

Mrs Miriam LAU was elected Chairman of the joint meeting.

II Measures to address noise impact of existing roads and other related issues

Meeting with individuals/deputations/the Administration

2. The Chairman welcomed the individuals and the representatives of the deputations and the Administration to the meeting to discuss measures to address noise impact of existing roads which were relevant to the local context, and other related issues such as:

- (a) the feasibility of introducing traffic management measures to restrain heavy vehicles from using certain roads at certain times;
- (b) the feasibility of eliminating transport noise at source during the earliest stages of planning and designing new transport projects; and
- (c) the effects of repeated and lengthy exposures of high levels of traffic noise on people and their health.

3. Members noted the written submissions provided by the Hong Kong Doctors Union Ltd (LC Paper No. CB(1)518/00-01(05)), Hong Kong Institute of Acoustics (LC Paper No. CB(1)518/00-01(06)) and the Goods Vehicle Fleet Owners Association Limited (LC Paper No. CB(1)518/00-01(07)) which were not available to attend the meeting.

4. The Chairman said that she had tabled two consultation papers provided by the Transport Department (TD) to the Traffic and Transport Committee of Yau Tsim Mong District Council (YTMDC) on "Trial Night Time Banning of Heavy Vehicles at West Kowloon Corridor" for members' information.

(Post-meeting note: The above papers were subsequently issued to members vide LC Paper No. CB(1)558/00-01(01).)

5. At the invitation of the Chairman, the individuals and the deputations took turn to present their views to members.

*Organisation of Hong Kong Drivers
(LC Paper No. CB(1)518/00-01(01))*

6. Mr IP Wai-chi of the Organisation of Hong Kong Drivers stated the Organisation's strong opposition to the introduction of traffic management measures to restrain heavy vehicles from using certain roads at certain times as the operation of the transport trade would be seriously hampered, affecting the livelihood of the drivers. In particular, he said that as many cities in the Mainland would only allow access of vehicles after dark, heavy vehicles engaging in cross-boundary freight transport would have to drive through certain major trunk routes at night. Moreover, he advised that in considering the factor of fuel consumption, heavy vehicles would only use certain roads if necessary and the shortest route possible would be chosen. If they were banned from using certain roads, the drivers would be forced to use alternative routes which would incur a higher cost of fuel and create air pollution unnecessarily. Such a move would ultimately affect the business, commercial and industrial sectors in Hong Kong and have far-reaching consequences on the economy. In order to minimize the disturbance of traffic noise on nearby residents, he suggested that drivers of heavy vehicles should be encouraged to reduce their speed when driving through excessively noisy roads and flyovers especially during night time.

Container Truck Drivers Union

7. Mr NGAN Chiu-yuen of the Container Truck Drivers Union said that the use of traffic management measures to restrain heavy vehicles from using certain roads was ineffectual because the problem was merely diverted to another area. He opined that instead of blaming heavy vehicles, it should be recognized that excessive noise was really caused by the following: a) close proximity of existing roads to the residential buildings due to the Administration's mistakes in the planning of transport infrastructure; b) excessive noise generated by modified vehicles; and c) uneven road surface. The Administration should therefore turn its attention to those causes.

*The Conservancy Association /
The Chartered Institute of Transport of Hong Kong
(LC Paper No. CB(1)518/00-01(04))*

8. The Chairman drew members' attention to the revised version of the joint submission provided by the Transport Policy Committee of the Chartered Institute of Transport in Hong Kong (CITHK) and the Conservancy Association (CA) (LC Paper No. CB(1)518/00-01(04)) which was tabled at the meeting.

(Post-meeting note: The revised joint submission was subsequently issued to members vide LC Paper No. CB(1)558/00-01.)

9. Speaking on behalf of the Transport Policy Committee of CITHK and CA, Dr HUNG Wing-tat expressed support for the measures proposed by the Administration to address the noise impact of existing roads. He said that it would be most important to eliminate traffic noise at source during the earliest stages of planning and designing new transport projects. However, when considering the mitigation measures to be adopted for a new road project, it would be more meaningful to distinguish the conditions before and after the implementation of the new road, instead of merely looking at the absolute level of noise created.

10. Dr HUNG further pointed out that with careful identification of sensitive locations and times, it would be feasible to impose restraint measures on heavy vehicles and the impact of road noise on the sensitive receivers would be very much reduced. This type of measure was common in many countries including the Mainland China. However, he stressed that such measures should not target any particular type of vehicles as restriction should be imposed on the basis of the noise emission level of the vehicles and not solely on their size. Another effective non-engineering measure would be speed reduction because speeding would generate excessive noise especially on trunk roads.

11. As regards the installation of noise barriers, Dr HUNG said that while being an effective means to reduce traffic noise, noise barriers should be considered as a last resort when it was technically not feasible to avoid the noise nuisance at source or to adopt traffic management measures. In that case, the visual impact of the barriers should be emphasized. Recently, research had been conducted in Hong Kong for the use of recycled materials, for example, shredded waste tyres as the filling materials of noise barriers. Apart from being more environmentally friendly, these noise barriers were also very effective. Finally, he urged the Administration to devise a noise exposure index to monitor the effects of noise abatement measures and to prioritize noise abatement schemes.

大角咀區民生關注會／西九龍詩歌舞區關注會／旺角區居民協會
(LC Paper Nos. CB(1)546/00-01(01) and (02))

12. Mr LEUNG Chiu-shing of the Tai Kok Tsui District Resident Livelihood Concern Society pointed out that the level of traffic noise at West Kowloon Corridor (WKC) was as high as 79 dB(A) during night time and the health of nearby residents had been seriously affected as a result of sleep deprivation. According to their observation, the problem was mainly caused by: a) engine noise of heavy vehicles; b) vehicles driving past movement joints on the flyover resulting in sudden bangs of loud noise, in particular empty container trucks; and c) modified vehicles and motorcycles driving at high speed. While noting the objections raised by the transport trade, he said that local residents had suffered in the past as they also recognized the important function served by WKC in linking West Kowloon and West New Territories. But with the opening of the

West Kowloon Highway (WKH) which offered an alternative route, the residents considered that a trial should be conducted to restrict heavy vehicles from using WKC at night time so as to provide them with much-needed relief from the disturbance of excessive traffic noise.

13. Mr CHAN Chung-kit, Yau Tsim Mong District Councillor, supplemented that the trial ban was effective from the local residents' point of view. However, due to limited manpower from the Police and the lack of publicity, the trial was not satisfactory as quite a large number of heavy vehicles still used the corridor during the trial and hence the noise reduction was not significant. On the one day when the Police conducted a special operation to divert heavy vehicles from entering the southbound of WKC at Lai Chi Kok Road, a noise reduction of about 2 dB(A) was recorded. He pointed out that according to the Administration's assessment, although there was an increase of noise levels of about 1.4 dB(A) along Lai Chi Kok Road, this worst case scenario was unlikely to happen during actual implementation as the majority of the diverted heavy vehicles would take WKH, while only a minority would go through Lai Chi Kok Road and Cheung Sha Wan Road. Hence, the Administration should realistically assess the impact of the trial ban on all parties concerned from a traffic engineering point of view. As a related development, he informed members that YTMDC had requested the Administration to conduct a trial on speed limit reduction at WKC so as to assess the effectiveness of this option. He hoped that the departments concerned could give a favourable response to this request.

*The Hong Kong Institution of Engineers
(LC Paper No. CB(1)518/00-01(02))*

14. Ir Dr John LUK of the Hong Kong Institution of Engineers (HKIE) stated support for the Administration's new measures to address the noise impact of existing roads and he said that priority should be given to roads with traffic noise affecting hospitals and schools. He pointed out that given the close proximity of many high-rise buildings to busy roadways, traditional noise barriers, i.e. plain barriers, cantilever barriers, partial enclosures, etc. might not be adequate. The Administration should therefore consider more innovative designs of noise barriers in order to minimize compartmentalization of pedestrians and maintain adequate air quality at the pedestrian level. Aesthetically, the barriers should be pleasing and be able to blend in with the urban fabric. However, he stated that HKIE did not support the use of full enclosures as the ultimate solution for "difficult" noise problems as it might create air quality problem for those living close to the exhaust ends or portals.

15. As it was impractical to retrofit or resurface more of the existing roads, Ir Dr LUK stated that HKIE would support the use of traffic management measures where no practical engineering solutions were available. On the other hand, the Government should actively promote the use of mass transit or electric vehicles as a means of reducing traffic noise. He added that innovative noise planning

concepts could be incorporated in the urban planning, such as the use of elevated decks for pedestrians, building podiums, fully air-conditioned commercial and industrial buildings etc. to serve as functional noise barriers for noise sensitive buildings behind.

*Prof Andrew Y T LEUNG and Dr Raymond Y Y LEE, Building and Construction Department of the City University of Hong Kong
(LC Paper No. CB(1)518/00-01(03))*

16. Prof Andrew LEUNG advised that many existing barriers had in fact failed to achieve their expected noise reduction due to various reasons such as insufficient height, insufficient length and gaps. Pointing out the importance of professional advice in the field of acoustics in ensuring the effectiveness of noise barriers as well as better planning of highway and road projects, he suggested that civil projects undertaken by the Government should involve qualified acoustic engineers for better acoustical design. In this connection, he also said that Hong Kong would need to set up an acoustics laboratory to conduct relevant quality assurance testings.

17. Echoing Ir Dr LUK's view on full enclosures, Prof LEUNG said that with proper design, the effectiveness of double-wall noise barriers would be comparable to full enclosures. Moreover, it was found that with the use of double-glazed windows, the level of noise reduction could be doubled. Hence, the Administration should consider providing this effective technical remedy to those residents affected by the construction of new roads nearby.

The Hong Kong Institute of Architects

18. Mr Bernard HUI of the Hong Kong Institute of Architects (HKIA) introduced the Institute's submission which was tabled at the meeting. He said that HKIA took the view that the problem of traffic noise should be tackled fundamentally from a planning point of view and the following suggestions were put forward for the Administration's consideration:

- (a) Preference on rail over roads as the mode of transportation of people and freight;
- (b) Roads to be submerged for better environment and urban space utilization;
- (c) Introduction of multi-level urban development concept so as to permit some form of development both above and below the roads;
- (d) Planning studies to start with a 3-dimensional concept instead of being transport-led;

- (e) More pedestrianization in dense urban areas; and
- (f) Suitable flexibility be permitted in the control of noise for luxury residential buildings in key urban areas.

Finally, he stated that HKIA was in full support of measures introduced to restrain heavy and noisy vehicles from using certain roads at certain times and to eliminate traffic noise at source.

(Post-meeting note: HKIA's submission was subsequently issued vide LC Paper No. CB(1)558/00-01(02).)

Hong Kong Institute of Surveyors

19. Mr David LEE of the Hong Kong Institute of Surveyors (HKIS) highlighted the salient points of the Institute's submission tabled at the meeting. He said that although the focus of discussion was the noise problem of existing roads, it was equally important for the Government to have an appropriate policy in the design of new roads as such roads would be existing roads tomorrow. At present, many new roads were constructed without noise barriers, resulting in significant noise nuisance to the sites adjoining these roads. The developers would then have to construct noise barriers within their own sites which were less effective and created undesirable design constraints. Another means of avoiding the nuisance at source was to give greater weight to the environmental aspects in urban and town planning.

20. Mr LEE added that an alternative means for removing the nuisance to existing buildings could be the provision of air-conditioning units, double glazing or thicker glazing. In addition to the cost of the mitigation work, the adverse impact of noise nuisance on the value of the property and other problems like capacity of the power supply, etc. should also be considered. Finally, he remarked that the Administration's paper was unclear as to how the Government set priority in the implementation of various measures under its new policy.

(Post-meeting note: HKIS's submission was subsequently issued vide LC Paper No. CB(1)558/00-01(03).)

Kowloon Truck Merchant Association Ltd

21. Mr LEUNG Kun-kuen of the Kowloon Truck Merchant Association Ltd drew members' attention to the plight faced by the truck drivers. Firstly, due to the shortage of overnight parking spaces, the drivers would have no choice but to drive home with their trucks when they finished work. Secondly, many trucks were used to transport fresh fruits from the Kowloon Wholesale Fruit Market in Yau Ma Tei and they had to operate from 12:00 midnight to 5:00 am. If the trucks were banned from using certain roads at certain times, much

inconvenience would be created and their operation would be seriously affected. Moreover, he was worried that even if the drivers were willing to use alternative routes, it would still attract strong opposition from the nearby residents who were not affected originally.

22. On the situation at WKC, Mr LEUNG pointed out that the so-called "alternative routes" would in fact create many new problems for both the drivers and the public, such as extra journey time and fuel consumption which would result in air pollution, excessive noise due to frequent stops and starts at ground level roads, etc. He also drew members' attention to the fact that there were many uneven movement joints at WKC, some of which were as wide as 14 to 16 inches. Under the circumstances, successive loud bangs would be created whenever a vehicle drove past such joints. As an illustration, a set of four photographs on WKC was tabled at the meeting for members' information. Mr LEUNG thus called for the Administration to take appropriate measures to tackle the problem, such as by improving the movement joints or by reducing the speed limit. He said that if restrictions were to be imposed, the objective of building road network to facilitate the movement of people and freight would be defeated. It would be even more unfair if only a particular type of vehicles was targeted.

(Post-meeting note: The photographs on WKC tabled at the meeting were subsequently issued vide LC Paper No. CB(1)558/00-01(04).)

中重型貨車關注組

23. Mr LAI Kim-tak of 中重型貨車關注組 pointed out that medium and heavy vehicles were required by law to comply with prevailing noise emission standards and thus, they should have equal rights as other types of vehicles in the use of roads. Referring to the results of the trial ban, he said that even though heavy vehicles were restricted from using WKC, the noise level in the neighbourhood was still much higher than the permissible limit. Instead of sacrificing the interests of the transport trade, the Administration should face up to its responsibility and allocate more resources to expedite the process of urban renewal and to replace those flyovers built a long time ago with new ones which complied with statutory noise limits. As the most effective measure, the Administration should provide subsidies to the affected residents for the installation of double-glazed windows.

落馬洲中港貨運聯會

24. While agreeing with the views expressed by other transport trade organizations, Mr LAU Shek-tat of 落馬洲中港貨運聯會 stated that even if heavy vehicles were banned from using WKC, they would not switch to WKH as this longer route would incur much higher fuel costs for the drivers.

Hong Kong Dumper Truck Drivers Association

25. Mr HO Hung-fai of the Hong Kong Dumper Truck Drivers Association said that dumper trucks had been contributing to the development of Hong Kong in the construction industry and the interests of the transport trade should not be ignored. In particular, he raised strong opposition against any proposal to ban heavy vehicles from entering residential areas at night. He considered that as Hong Kong was densely-populated, such measures were impractical and would adversely affected the livelihood of the trucking industry, especially those heavy vehicles which had to be operated during early morning to transport fresh produce/poultry or to work on highway and road projects at night. In this connection, he urged the Administration to consider installing double-glazed windows for the residents living along WKC.

Hong Kong (Cross Border) Transportation Driver's Association

26. Mr WONG Charn-kwan of the Hong Kong (Cross Border) Transportation Driver's Association shared other trade organizations' general view that it was unfair to single out heavy vehicles as the target of traffic management measures to address excessive traffic noise, particularly in the absence of any conclusive evidence showing that heavy vehicles were the main cause of such noise. However, he said that as a short-term measure, the Association would welcome a trial to reduce the speed limit at particular road sections at certain times.

Hong Kong Guangdong Transportation Association Ltd

27. Mr SZETO Fai of the Hong Kong Guangdong Transportation Association Ltd drew members' attention to the fact that the trial ban at WKC had only brought about marginal noise reduction at the nearby residential premises and the noise level still exceeded the statutory limit of 70 dB(A). He pointed out that with stronger economic ties between Hong Kong and the Mainland, cross-boundary freight transport via land crossings would increase. Given that the Huanggang/Lok Ma Chau crossing was now operating round-the-clock to serve goods vehicles, it was inevitable that some of these traffic would switch to night time.

Hong Kong Container Tractor Owner Association Ltd

28. Sharing the views of other trade organizations, Mr Ricky WONG of the Hong Kong Container Tractor Owner Association Ltd reiterated that goods vehicles and container trucks were for business use and the drivers would only choose the most economical and shortest route possible. As shown from the results of the trial, the restriction on heavy vehicles had failed to achieve the desired effect and the problem was simply shifted to another location. He hoped that the Administration could seriously consider the various views expressed by the transport trade.

港九及新界夾斗車商會

29. Mr SHUM Chu-shing of 港九及新界夾斗車商會 supported the views expressed by other trade organizations at the meeting.

Discussion with individuals/deputations

Implementation of traffic management measures

30. Referring to the divergent views of the deputations on the implementation of traffic management measures, Miss Emily LAU asked whether it would be possible to find a balance that could address the concerns of the transport trade and the affected residents. In reply, Ir Dr CHAN Hon-fai of HKIE said that he supported the use of traffic management measures to address the noise impact of existing roads. However, the Government and the transport trades would have to bear the costs.

31. Dr HUNG Wing-tat opined that traffic management solutions should only be applied in the neighbourhood of sensitive noise receivers such as hospitals and residential areas, especially at night time. In this connection, the trades which were directly affected by such measures should be carefully consulted. Referring to the views expressed by some trade organizations, he agreed that inadequate parking space for heavy vehicles/container trucks might pose practical problems. Hence, the Administration should consider designating suitable sites for overnight parking of these vehicles, taking into account the actual demand in different areas and the availability of feeder public transport services for the drivers.

32. Responding to Mr David CHU, Dr HUNG advised that in predicting noise levels, traffic volume and traffic speed would be very important considerations. In this connection, Mr CHAN Chun-kit and Mr LEUNG Chiu-shing reiterated the request of Tai Kok Tsui residents for a trial to reduce the speed limit at WKC from 70 km/h to 50 km/h. While stating support for the suggestion, Mr IP Wai-chi considered that fully automated speeding enforcement cameras could be deployed to enhance the deterrent effect. Ir Dr CHAN Hon-fai however pointed

out that lowering the speed limit from 70 km/h to 50 km/h would only achieve a marginal noise reduction of 1 dB(A) which the affected residents could hardly notice.

33. Mr TAM Yiu-chung was concerned about the loud noise created by empty container trucks and asked whether the design of these vehicles could be suitably modified. In reply, Mr IP Wai-chi reported that the trade was also aware of the said problem. A simple device of rubber mounting had been identified to dampen the friction noise of the latching mechanism and many container trucks had already been installed with the device. To supplement, Mr LAI Kim-tak pointed out that uneven road surface, such as joints between newly-built and existing sections of flyovers, manhole covers and reflecting studs, would actually aggravate the problem.

34. In that case, Mr TAM opined that the manufacturers should also be approached to see if the design of the container trucks could be improved. The Chairman also hoped that the Administration would provide more technical assistance to the trade in this regard. In response, Mr Simon LAU said that the transport trade would work with TD to identify technical means for abating the traffic noise created by heavy vehicles. As a stop-gap measure, both Ir Dr CHAN and Ir Dr John LUK advised that noise-absorbing materials could be used to fill the uneven expansion joints so as to reduce wheel-passing noise.

35. Ir Dr Raymond HO remarked that the widespread use of pre-cast components in highway projects might be one of the reasons why flyovers were built with numerous expansion joints. He asked whether the problem could be avoided if insitu construction was used instead. In reply, Ir Dr John LUK said that the use of insitu construction method would depend on the design of the structure. If a flyover was built with continuous beam structures, the number of expansion joints could be reduced.

Retrofitting of noise barriers/enclosures

36. Mr LAU Kong-wah said that in some cases, the effectiveness of noise barriers/enclosures had been called into question. In response, Dr HUNG Wing-tat advised that many factors could affect the performance of noise barriers/enclosures such as insufficient height or inaccurate positioning during installation. More importantly, if there were changes in the traffic composition as opposed to the original design parameters, for example a sudden increase in the percentage of heavy vehicles due to diversion or other reasons, the noise barriers might not be able to achieve the desired level of noise reduction. Ir Dr CHAN also pointed out that noise barriers were either made of noise-absorbing or noise-reflective materials and each had its pros and cons. In order to achieve the desired noise mitigation effect, a careful consideration of all physical, design or landscape constraints was required.

37. Referring to the Administration's assessment that only a limited number of noisy roads could be retrofitted with noise barriers/enclosures, Mr Tommy CHEUNG asked whether it was indeed not feasible, from a technical point of view, to retrofit noise barriers/enclosures on all existing flyovers that were generating excessive noise. In reply, Ir Dr CHAN Hon-fai explained that it would not be feasible to retrofit noise barriers/enclosures in some locations, such as where space was inadequate or sightline obstruction would be created.

Wrap-up discussion with the Administration

Retrofitting and resurfacing programme

38. Noting the views and suggestions expressed at the meeting, the Deputy Secretary for the Environment and Food (DS(EF)) acknowledged that the situation at some of the excessively noisy roads was far from satisfactory. Although there was no ideal solution to address the problem which had existed for many years, the Administration was committed to doing all it could within the constraints to improve the living environment of those who were affected by excessive traffic noise from existing roads. Under the new policy, 29 existing roads had been identified for retrofitting of noise barriers/enclosures and 72 roads as candidates for resurfacing with low noise materials. He added that the retrofitting works would be implemented in phases, with priority given to areas with the highest noise exposure level and the largest number of affected residents.

39. While expressing disappointment with the 10-year implementation programme which would only benefit about 64 000 residential units, Miss Emily LAU was concerned about the plight of the remaining 236 000 residential units which were not covered under the present action plan and how long the residents would have to continue their suffering. She opined that the situation was clearly unacceptable by any standards and asked what further actions the Administration could take to give these residents what they could rightly expect.

40. In reply, DS(EF) advised that taking into account the practical constraints and the impact on traffic circulation, the programme would have to be implemented in phases as other road construction and maintenance work projects would also be undertaken concurrently. However, he assured members that the Administration would take appropriate steps to carry the programme forward and improvements could be seen gradually. As for the remaining households affected by excessive traffic noise, DS(EF) stated that as a short-term measure, the Administration would continue to examine the feasibility of introducing traffic management solutions in certain road sections. However, a long-term solution would only be forthcoming with urban renewal and a greater use of mass transit transport systems by commuters. He emphasized that the Administration would continue to monitor the situation and consider possible policy measures in view of actual circumstances.

41. In this connection, Mr TAM Yiu-chung pointed out that in view of the expectation of the affected residents, the implementation programme should be fast-tracked wherever practicable.

42. Pointing out that some of the existing noise barriers were as high as 11 metres, Ir Dr Raymond HO expressed great reservation about the installation of tall noise barriers which could create an eyesore. He also considered that noise barriers might not be very effective in noise reduction as the material commonly used was concrete which merely reflect rather than absorb sounds. Instead, he suggested that trees should be planted along the roads to abate traffic noise.

Installing double-glazed windows/air-conditioning for affected residents

43. Miss Emily LAU noted that under the existing policy, residents affected by excessive level of noise generated by new road projects would be provided with indirect technical remedies in the form of good quality windows and air-conditioning if direct abatement measures were inadequate to bring the noise below the permissible level. As the nuisance suffered by the residents affected by new road projects and existing roads was no different, she considered that there was a strong case for the Government to extend this policy to those residents affected by excessive noise from existing roads.

44. In reply, DS(EF) reiterated the Administration's stance that it did not support the idea of installing double-glazed windows and air-conditioning for the affected residents. Notwithstanding the substantial financial implication involved (assuming that 300 000 residential units were affected by the 655 excessively noisy roads, the total cost for installation works would be at least \$15 billion if \$50,000 was to be provided for each residential unit), he cautioned that new questions would arise from such a move, including higher electricity bills for the residents, ownership of the air-conditioners and increasing air pollution.

45. In this regard, Ir Dr HO commented that air ventilation would be affected if the residents had to close their windows all the time which might not be good for their health. The Chairman also remarked that it would be very important to have the acceptance of the affected residents if such measures were taken.

46. Unconvinced by the Administration's explanation, Miss Emily LAU questioned the equity of the Administration's policies in this regard. Considering that the same criteria should be adopted for all the residents who were affected by excessive traffic noise, she said that given the other initiatives proposed by the Government, the total number of residential units to be installed with air-conditioning and double-glazed windows would be less than 300 000. Concurring with Miss LAU's assessment, both the Chairman and Mr David CHU opined that those residents living right beside excessively noisy flyovers should be given priority.

47. Mr LAU Ping-cheung also pointed out that there were precedent cases where subsidies were provided by the Government to bring about environmental improvements, such as those granted under the Administration's comprehensive programme to reduce motor vehicle emissions. Hence, the use of public money to help relieve the nuisance created by excessively noisy roads was justified.

48. Noting the views expressed by members, DS(EF) replied that for equity reasons, the same policy would be adopted to address the noise impact of existing roads at a level in excess of 70 dB(A) and it would not be fair to other affected residents if special arrangement was only made for those who lived near noisy flyovers. According to the Administration's assessment, about 110 000 residential units were exposed to noise levels up to 75 dB(A), while the noise level of about 180 000 residential units was in excess of 75 dB(A). Miss Emily LAU however maintained that the Administration had the responsibility to help relieve the plight of these affected residents. Although a hefty sum was involved, she considered that it would be money well-spent if the livelihood of the residents was improved.

49. In addition to efforts to eliminate sources of traffic noise during the early stages of planning and designing of new roads, Mr LAU Ping-cheung suggested that the Administration could consider involving private developers in the provision of noise barriers and double-glazed windows within their developments. As an inducement, such facilities would be excluded from the calculation of land premium. DS(EF) stated that as land premium fell outside the purview of the Environment and Food Bureau, he would relay the member's suggestion to the relevant bureaux/departments for follow-up. However, he stressed that under the existing policy, the proponents of new road projects were required to ensure that traffic noise would stay below the noise limit. If it was envisaged that traffic noise generated would exceed the noise limit, they would have to adopt practical direct measures or indirect technical remedies to reduce the impact on residents in the neighbourhood.

Implementation of traffic management measures

50. DS(EF) advised that in cases where engineering solutions were impracticable or where engineering solutions alone could not reduce the noise level to below the noise limit, various non-engineering options such as traffic management measures would be explored and implemented where practicable on a case-by-case basis. He assured members that in doing so, the Administration would be mindful of the need to balance the interests of all parties concerned.

51. Miss Emily LAU said that notwithstanding the various new initiatives proposed by the Government, the reality was that no short-term relief would be provided to the affected residents. While agreeing that it would be no easy task to strike the right balance between the interests of all parties concerned if access

restrictions were to be applied and that no traffic management measure should target any particular type of vehicles, she stressed that the very real suffering of the residents should not be ignored. In this connection, Miss LAU referred to the view taken by some professional bodies that traffic management measures would be an effective solution and considered that the Administration should consider whether fuel cost subsidies could be provided for drivers of heavy vehicles if they were required to take a longer alternative route.

52. On the suggestion to lower the speed limit at WKC, the Assistant Commissioner for Transport (Urban) stated that in line with the latest transport policy, the speed limit of roads should tie in with their geometric characteristics. If the speed limit was reduced to 50 km/h arbitrarily at night, safety hazards and confusion to drivers would be created. Moreover, variable message signs would be required to display the different speed limits at different time of the day. However, he assured members that the Administration was planning to install speed enforcement cameras at WKC to address the speeding activities.

Measures to reduce wheel-passing noise generated from uneven road surface

53. Referring to the perceived problem of wide and uneven movement joints, the Deputy Director of Highways (DD(Hy)) clarified that the width of movement joints at flyovers would vary depending on the design requirements to absorb displacements caused by changes of temperature. As the drivers drove past the elastomeric movement joints between the concrete bridge structures, they might have the wrong perception that the surface was uneven. In this regard, the Highways Department (HyD) would closely monitor the condition of flyovers to ensure that they were properly serviced. If broken joints were found, they would be promptly replaced.

54. As a related issue, Ir Dr Raymond HO suggested that instead of rigid concrete pavement, flexible asphalt pavement should be used for road/highway surfacing. The Administration should also make reference to the experience of overseas countries as regards the use of new noise-absorbing surfacing materials. DD(Hy) replied that HyD had set up a dedicated team to test various types of low noise materials and such materials would be used to resurface excessively noisy roads, such as those 72 roads identified under the resurfacing programme. Citing the case of the Island Eastern Corridor, he reported that good noise reduction effect was achieved by adding an asphalt layer onto the concrete surface of the highway structures. In that case, the Chairman requested for the Administration to expedite the resurfacing programme.

55. As regards the planning and construction of roads/highways, Ir Dr HO opined that some of the existing practices might have to be changed to bring about improvements and he put forward the following suggestions for the Administration to consider:

- (a) In the construction of highways, insitu construction should be used over pre-cast components;
- (b) More work should be done to explore ways in which noise generated by vehicles driving past manhole covers could be reduced, such as by aligning their positions on the road, using new materials for the covers, or adding an asphalt layer on top of the covers, etc.; and
- (c) There should be tighter control over unnecessary sounding of horns on the roads, speeding, converting of motor vehicles to high-speed vehicles and illegal car-racing.

56. In response, DD(Hy) assured members that great efforts would be made by HyD to identify ways in which the problem of traffic noise could be addressed. However, insitu construction might not always be possible for highway projects due to various site constraints. In this regard, special attention would be paid to the design of new road/highway projects so that the number of joints could be minimized. Likewise, manhole covers would be positioned in the centre of the carriageway so that no wheel-passing noise would be created. As for the suggestions to use new materials for the manhole covers or to add an asphalt layer on top, he said that they would not be feasible from a technical point of view.

57. Dissatisfied with the Administration's reply, the Chairman considered that in order to tackle the difficult task ahead, the Administration would need to have a new approach in its thinking and come up with innovative solutions. If the Administration refused to adopt an open attitude and still clung to old ideas, the problem would never be resolved. Hence, she called on the Administration to consider the suggestions put forward by members in this light and to maintain regular dialogue with members and all parties concerned to solicit their views. If there were new solutions that proved to be effective, members would give their support even if a higher cost might be involved. Concurring with the views expressed by the Chairman and Ir Dr Raymond HO, Prof NG Ching-fai urged the Administration to conduct more researches into the matter and identify more effective solutions to the problems raised.

58. In response, DS(EF) stated that the Administration would always be on the look-out for new technical developments that could be applied to address the problem. Apart from making reference to overseas experience, the Administration would also conduct trials to ascertain the effectiveness of new materials and designs. DD(Hy) also agreed to further examine the technical suggestions made by members.

59. On Miss Emily LAU's enquiry about the involvement of acoustic engineers in road/highway projects, the Assistant Director of Environmental Protection (Env. Assessment & Noise) explained that as such projects would

have to comply with statutory environmental impact assessment requirements, it would certainly require the input and technical advice from experienced professionals in the field of acoustics.

Admin

60. Summing up the discussion, the Chairman highlighted the following matters raised by members and the deputations for follow-up by the Administration:

- (a) To revisit its stance on the provision of air-conditioning and double-glazed windows for residents affected by excessive traffic noise from existing roads and re-examine the financial implication arising therefrom;
- (b) To expedite the implementation timetable of the retrofitting and resurfacing programme where practicable;
- (c) To consider conducting a trial on speed limit reduction at WKC as requested by YTMDC;
- (d) To relay members' concerns to the Police so that enforcement actions against sounding of horns in silent zones, speeding, converting of motor vehicles to high-speed vehicles and illegal car-racing would be stepped up, and to examine the effectiveness of the enforcement actions in reducing traffic noise;
- (e) To explore the feasibility of improving the design of the latching mechanism of container vehicles; and
- (f) To conduct experiments to ascertain the effectiveness of new materials and designs to address the traffic noise problem.

61. Members agreed that the Administration should provide a progress update on the above matters together with relevant noise monitoring records and enforcement statistics to the joint Panels in about three months' time.

III Any other business

62. There being no other business, the meeting ended at 12:10 pm.