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# Panel on Environmental Affairs Panel on Transport and Panel on Planning, Lands and Works

#### Joint meeting on 15 January 2002

### **Background brief on Measures to address noise impact on existing roads**

#### Background

Under the existing policy, when planning for new roads, the relevant department or developer has to ensure that traffic noise will stay below the statutory noise limit of 70 dB(A)L(10)(1 hour)<sup>note</sup> (noise limit) in the Hong Kong Planning Standards and Guidelines. If it is envisaged that traffic noise generated will exceed the noise limit, practicable direct measures such as adjusting the alignment and erecting barriers should be adopted to reduce the impact on residents in the neighourhood. Where direct measures are inadequate, indirect technical remedies in the form of good quality window and air-conditioning should be provided to the affected residents. Such direct and indirect measures are however not applicable to existing roads that have been constructed before the current policy on new roads took effect. To this end, the Administration has proposed the following new policy to address the noise impact of existing roads on neighbouring residents -

- (a) engineering solutions, by way of retrofitting of barriers and enclosures, and resurfacing with low noise material, should be implemented where practicable at existing excessively noisy roads; and
- (b) traffic management solutions, such as speed control, traffic diversion and restricting use by heavy vehicles, should be fully explored and implemented where practicable on a case by case basis at roads where engineering solutions are impracticable or where engineering solutions alone are inadequate in reducing the noise to an acceptable level.

<sup>&</sup>lt;sup>note</sup> L10 (1 hour) is the noise level exceeded for 10% of an one-hour period, generally used for road noise at peak traffic flow.

### **Consultation with the District Councils**

2. District Councils have been briefed on the new policy during the period from mid-January 2001 to July 2001. According to the Administration, all District Councils are supportive of the new policy. A summary report of the main views expressed is at the **Appendix I**.

# Consultation with the Legislative Council

3. The Environmental Affairs Panel and the Transport Panel have held three joint meetings to discuss the new policy and have invited interested parties to express their views on the subject. It is noted that the transport trade is strongly opposed to the introduction of traffic management measures to restrain heavy vehicles from using certain roads at certain times as this will seriously hamper the operation of the trade and in turn will affect the livelihood of drivers. Notwithstanding, the trade welcomes a trial ban on speed limit as a short-term measure to reduce traffic noise.

4. To mitigate the impact of excessive traffic noise from existing roads on residents nearby, members have put forward the following suggestions -

- (a) installing double-glazed windows and air-conditioning for the affected residents taking into account the financial implications;
- (b) expediting engineering solutions, including the retrofitting and resurfacing programme where practicable;
- (c) constructing highways using in situ construction instead of pre-cast components to reduce the number of expansion joints and to using new noise-absorbing surfacing materials to fill the uneven joints so as to reduce wheel-passing noise;
- (d) providing financial assistance to the transport trade to improve the design of the latching mechanism of container vehicles which is believed to create loud bangs when passing expansion joints;
- (e) stepping up enforcement against sounding of horns in silent zones, speeding, converting of motor vehicles to high-speed vehicles and car racing to reduce traffic noise; and
- (f) re-considering the propriety of the current noise limit as a criterion for planning of improvement works to existing roads.

5. According to the Administration, the provision of noise insulation to residential units affected by excessive traffic noise is a passive method and very costly and will incur public expenditure of at least \$15 billion, without counting recurrent and replacement expenditure. The more cost effective remedy is to mitigate the problem at source. Where mitigation measures cannot be implemented at source, the

Administration will have to consider non-engineering solutions in the short term and rely on urban renewal in the longer term to address the noise problem. To expedite the implementation of the retrofitting programme and to take advantage of synchronizing the retrofitting projects and nearby planned major road projects, the Administration has arranged funding for the retrofitting works at a number of roads so that they will tie in with the adjoining road projects. Works for resurfacing the 72 identified local road sections with low noise materials are programmed to start in December 2001 and to be completed in phases over the next three years. As regards the use of low noise surfacing material on high speed roads, the Administration has identified a new material for testing of its durability and noise reducing properties. It will monitor the durability and noise reduction performance of this new material for review in two years.

6. The Administration also considers enforcement actions effective to reduce unnecessary or avoidable noise from inconsiderate use of vehicle horns, speeding, illegal modification of vehicles and illegal car racing. Such actions will also help to prevent further aggravation of the traffic noise. However, both enforcement actions and mitigation measures will need to be implemented in parallel where practicable to achieve a better result in tackling the problem. As regards noise generated by empty containers, the Administration is working with the trailer manufacturers and suppliers to see if enhanced locking device, noise insulation pads and other improvement measures can be developed.

7. On implementation of traffic management measures to address traffic noise problem, the Administration has selected some road sections for trial of traffic management schemes. It is consulting the relevant District Councils and the trade before proceeding with the trials. Surveys will be conducted to assess the potential noise benefit from the trial schemes.

# **Present position**

8. In view of the far-reaching implications of the new policy, both Panels agree to re-address the subject at the joint meeting on 15 January 2002.

9. When the subject of "Traffic noise near the entrance of Eastern Harbour Crossing of Tseung Kwan O" was discussed at the meeting between LegCo Members and Kwun Tong District Council members on 13 December 2001, Members noted that there had also been concerns about the traffic noise impact of existing roads in the Kwun Tong District. As similar noise problem also occurred in other districts, Members considered that the subject be included for discussion at the joint meeting of the Environment Affairs Panel and the Transport Panel on 15 January 2002. A summary of deliberation at the meeting on 13 December 2001 is at **Appendix II**.

Legislative Council Secretariat 14 January 2002

# **Consultation with the District Councils**

# Main Views of District Council Members

# Introduction

The Environment and Food Bureau in collaboration with Environmental Protection Department, Highways Department and Transport Department have been briefing the District Councils on the new policy to address the noise impact of existing roads on residents in the neighbourhood. The briefing commenced in mid January and up to now 17 out of the 18 District Councils have been briefed. We are scheduled to brief the remaining one, the Yau Tsim Mong District Council, on 5 July 2001. Main views expressed by the District Council members are summarized below.

# Main Views of District Council Members

2. Members of the District Councils in general supported the new policy. Many of them proposed that specific road sections in their districts should be retrofitted with barriers/enclosures or resurfaced with low noise material to abate the traffic noise. Members also requested the Administration to expedite the retrofitting works as far as possible. We explained the various technical and practical considerations on retrofitting barriers or enclosures and resurfacing with low noise material, and offered joint site inspection with members to facilitate exchange of views. Whilst the massive retrofitting programme would need time to complete, we would consider speeding up the implementation of the retrofitting works where opportunities arise.

3. Some members raised and shared their views on what they would consider a good looking barrier. We undertook to carefully consider the visual aspects in the design of barriers and to adopt landscaping as practicable to enhance the aesthetical quality. We assured members that we would provide more details including the design of the barriers to brief the District Councils of projects in their respective districts before the construction of the barriers.

4. Some members suggested the Government to consider adopting more stringent traffic noise standard. We clarified that the current noise standard adopted in Hong Kong was comparable to those of other developed countries. Due to the high population density of our city, we were required to pay extra effort to achieve similar noise standard of other places. In most cases, road sections with noise exceeding the current noise standard could not be retrofitted with noise barriers due to technical constraints, not because of them not meeting the noise standard.

5. Some members suggested the Government to consider other non-engineering measures for example banning vehicles at night on particular roads in their districts. We are finalizing a preliminary list of a few potential road sections which may be practicable for trial of traffic management schemes. We will consult the relevant District Councils and trade on the schemes before the trial.

# LegCo Members' meeting with Kwun Tong District Council members on 13 December 2001

### Problem of traffic noise in the Kwun Tong District

The subject of "Traffic noise near the entrance of Eastern Harbour Crossing of Tseung Kwan O Road" was discussed at the meeting between LegCo Members and Kwun Tong District Council (KTDC) members on 13 December 2001. KTDC members expressed concern about the traffic noise generated from the Tseung Kwan O Road and the traffic noise impact of existing roads in the Kwun Tong District.

### **Retrofitting of noise barriers and enclosures at existing roads**

2. KTDC members are concerned about the unduly long time for retrofitting noise barriers and enclosures along the designated road sections. By way of illustration, Hong Wah Court and Tsui Ping (South) Estate are currently affected by excessive traffic noise from Tseung Kwun O Road. While Tseung Kwan O Road and Tseung Kwan O Road Flyover are two of the 29 road sections identified for retrofitting of enclosures and barriers under the new policy to address the noise impact of existing roads on neighbouring residents, the retrofitting works at these two road sections will not be completed until 2008. LegCo Members who attended the meeting on 13 December 2001 also consider that the Administration should expedite the retrofitting works to bring early relief for the affected residents.

### Planning of new housing developments in close proximity to existing roads

3. Doubt has been cast on whether adequate noise mitigation measures have been implemented in new residential development projects. An example is the Departmental Quarters for Disciplined Services staff at Lee On Road, which have been completed in recent years but are now subject to excessive traffic noise from the New Clearwater Bay Road. Members also note KTDC members' concern about the future traffic noise impact on Lei On Court which is under development at a site adjacent to the Lei Yue Mun Road. They question whether a clear policy and a proper mechanism are in place to ensure that the traffic noise impact of existing roads has been or will be duly taken into account in planning for new residential developments.

### Noise impact of aerial MTR sections on nearby residents

4. The noise generated by the Mass Transit Railway (MTR) trains at the aerial sections from Kowloon Bay to Kwun Tong has caused serious nuisance to residents nearby. The problem is aggravated by the aging of the MTR trains and tracks. According to KTDC members, the Administration and the Mass Transit Railway Corporation (MTRC) have refused to provide mitigation measures on the grounds that installation of noise barriers along the railway tracks is technically not feasible. Members concur with KTDC members that with the advancement in technology over the past years, the Administration and MTRC should review the feasibility of providing noise mitigation measures along the aerial sections to alleviate the noise impact.

### Traffic management measures to alleviate the noise impact of existing roads

5. According to KTDC members, the excessive traffic noise from a number of existing roads in Kwun Tong such as Pik Wan Road and Lin Tak Road have been affecting the residents nearby. However, the Administrations has advised that no direct noise mitigation measures, including retrofitting of noise barriers/enclosures and low-noise road surfacing, can be provided at these roads for technical and other reasons. Members agree that if this is the case, the Administration should explore traffic management measures such as imposing speed limit control and restricting the use of these roads by heavy vehicles during specific hours to alleviate the traffic noise impact on residents nearby.

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