

## LCQ17: Traffic noise nuisance of Tolo Highway

Following is a question by the Hon Dominic Lee Tsz-king and a written reply by the Secretary for the Environment, Mr Wong Kam-sing, in the Legislative Council today (February 23):

Question:

Some residents living in the housing courts near Shan Tong Road in Tai Po have relayed that the traffic noise from Tolo Highway has caused serious nuisance to their lives. According to the results of the residents' own measurement, the noise levels recorded in some residential units were close to 80 decibel (dB). However, they said that the measurement results were not agreed by the Environmental Protection Department (EPD). In this connection, will the Government inform this Council:

(1) whether EPD has formulated criteria or guidelines for the measurement of traffic noise levels at residential units located near vehicular roads; if so, of the details (including the criteria for selecting locations for measurement); if not, the reasons for that; whether EPD will visit the units of the housing courts located near Shan Tong Road to measure the traffic noise levels;

(2) given that the Government has installed noise barriers and paved roads with low noise surfacing materials along the relevant sections of Tolo Highway, whether it has evaluated the effectiveness of such measures in reducing noise; if so, of the details (including the noise level reduced in terms of dB); if not, the reasons for that;

(3) whether it has plans to replace the solid sound absorptive panels currently installed along Tolo Highway with transparent noise barriers, so as to further reduce the noise nuisance to the residents nearby; if so, of the details and timetable; and

(4) whether it will consider imposing more stringent noise restrictions on the relevant sections of Tolo Highway, as well as paving roads with low noise surfacing materials and retrofitting noise barriers along more sections of the highway, so as to reduce the traffic noise nuisance to the residents nearby; if so, of the details; if not, the reasons for that?

Reply:

President,

The Government has all along committed to adopting a multi-pronged approach in mitigating road traffic noise impact on members of the public. Our initiatives include requiring project proponents that are planning for new developments (such as those of roads, residential or new towns) to conduct traffic noise impact assessments to reduce potential noise problems;

regulating by law the noise emission levels of first registered vehicles; and where practicable and subject to resource availability, resurfacing existing roads with low noise materials and retrofitting noise barriers/enclosures thereon.

When planning for the construction of new expressways or improvements to existing ones (such as Tolo Highway), the government departments concerned are required under the Environmental Impact Assessment Ordinance (EIAO) to provide suitable noise barriers/enclosures and low noise road surface to reduce road traffic noise, with a view to ensuring that the noise levels at nearby residential premises comply with the required standards. When planning for new residential development projects, project proponents are also required under the Hong Kong Planning Standards and Guidelines (HKPSG) to conduct traffic noise impact assessments and adopt necessary noise mitigation designs and measures to tackle potential noise issues. Such noise mitigation designs and measures, as well as their purposes, have to be stipulated in the deeds of mutual covenant and sales brochures of the residential buildings concerned.

Our reply to the question raised by the Hon Dominic Lee Tsz-king is as follows:

(1) As required under the EIAO technical memorandum or HKPSG, traffic noise impact assessments and measurements are made at one metre from the external facade of noise sensitive receivers (such as living rooms and bedrooms) that rely on opened windows for ventilation.

As required under the EIAO, upon completion of the construction of new expressways or improvements to existing ones, the government departments concerned have to monitor traffic noise during the operational phase to verify that the mitigation effects of the noise barriers/enclosures and low noise surfacing materials provided are no less than the estimations made in the corresponding environmental impact assessment (EIA) reports.

Regarding the housing court near Tolo Highway and Shan Tong Road as mentioned by the Hon Lee, the Environmental Protection Department (EPD) measured traffic noise levels at the bedrooms of the two most affected units in November 2021 upon receipt of traffic noise complaints. The noise levels measured were 67 dB(A) and 64 dB(A), reflecting that traffic noise levels at the two units did not exceed the traffic noise limit of 70 dB(A) L10(1 hour).

(2) When the Highways Department (HyD) carried out the widening of Tolo Highway between Island House Interchange and Tai Hang in 2009, an EIA was completed in accordance with the EIAO requirements. As recommended in the EIA report and subsequent environmental review (ER), the HyD took necessary noise mitigation measures, which included installing noise barriers of about 10 kilometres in total length and laying low noise surfacing materials along the carriageway of that section of Tolo Highway, to mitigate traffic noise impact on nearby residential premises such as those in Shan Tong New Village and Lai Chi Shan, etc. After completion of the widening works, the HyD proceeded with the measurement of traffic noise as required in the Environmental Monitoring and Audit Manual to verify effectiveness of the

noise mitigation measures. The results indicated that their mitigation effects were comparable to those concluded in the EIA report and subsequent ER. Hence the measures were effective in mitigating the impact of traffic noise on nearby residential premises.

(3) The choice between solid sound absorptive panels and transparent panels always depends on the actual circumstances. Replacement of solid sound absorptive panels used on the section of Tolo Highway near Shan Tong Road in Tai Po by transparent panels will, rather than reducing noise nuisance, increase traffic noise levels at nearby residential premises because transparent panels are not sound absorptive and will reflect traffic noise instead. Since transparent panels can improve visual quality and make drivers feel more comfortable, the EPD and HyD have explored the feasibility of replacing certain solid sound absorptive panels by transparent panels on other sections (e.g. between Island House Interchange and Ma Liu Shui Interchange) of Tolo Highway that are not subject to the influence of noise reflection by transparent panels. Replacement works will be carried out when the relevant noise barriers are repaired or replaced in future.

(4) The Government has provided proper noise barriers on Tolo Highway as required under the EIAO, and the whole Tolo Highway has been paved with low noise surfacing materials to reduce road traffic noise. In addition, the impact of traffic noise from the said section of Tolo Highway on the recently built residential premises has been addressed by their developers in accordance with the HKPSG requirements through adoption of appropriate noise mitigation designs and measures (e.g. one of the newly built housing courts in Shan Tong Road has its units designed in such a way that the noise tolerant parts like kitchens and toilets are arranged facing Tolo Highway and architectural fins are also installed). Since the traffic noise impact on these newly built residential premises has been duly addressed, it is not necessary to retrofit additional noise barriers on Tolo Highway.