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of the People's Republic of China

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[English translation]

**By e-mail (ssylau@legco.gov.hk)**

Council Business Division  
Legislative Council Secretariat  
Legislative Council Complex  
1 Legislative Council Road, Central  
Hong Kong  
(Attn: Ms Sophie LAU)

13 March 2024

Dear Ms LAU,

**Panel on Transport  
Subcommittee on Matters Relating to Railways  
Meeting on 2 February 2024**

**Supplementary Information Related to Kwu Tung Station and Tuen Mun South  
Extension**

Thank you for your e-mail of 2 February 2024. We are writing to provide for Members' reference following supplementary information on the follow-up actions concerning the Kwu Tung (KTU) Station and Tuen Mun South Extension (TME) raised at the captioned meeting.

**(a) Internal Rate of Return of Railway Projects**

In taking forward infrastructure projects, the Government will consider the overall social benefits to be brought by respective project and the Economic Internal Rate of Return (EIRR) is one of the references.

The EIRR of a project generally refers to the rate of return of cumulative economic benefits of the project (i.e. the monetized passenger time savings due to the project, including the saving in travelling time due to alleviation of traffic congestion, savings in operating expenses of other public transport, and the savings arising from fewer traffic accidents) net of the construction and operating costs of the project.

Apart from the direct economic benefit reflected by the EIRR, the Government will also consider other social benefits that are indirect and relatively difficult to quantify. For the TME project, the proposed Tuen Mun South Station and A16 Station would offer opportunities for residential development in the nearby areas. Welfare facilities for the elderly, public transport interchange as well as shopping malls would be provided in the development of Area 16 to further enhance supporting facilities in the community. TME project will also bring benefits to local residents through reprovisioning and improvement of the Tuen Mun Swimming Pool and various leisure and community facilities in the district. In addition, the TME, upon commissioning, will improve the connectivity and accessibility of the community south of the Tuen Mun town centre, thereby helping unleash the full development potential of the area and further generating social benefits through better support for housing development, more efficient transport services and building a greener community, etc.

**(b) Capital Cost of the KTU Station Project**

As indicated in the reply issued to the RSC on 13 December 2023, apart from the adjustment in price levels, the increase in the estimated capital cost for the KTU Station project was due to the need to implement additional risk mitigation measures, following site investigation and tests during the detailed planning and design stage, to ensure safe operation of the Lok Ma Chau (LMC) Spur Line during construction; as well as the improved station design and equipment in accordance with the latest design standards. These were provided in the response dated 13 December 2023 with details as follows -

- (i). the groundwater level at the KTU Station was relatively high. Upon on-site drainage investigation and tests conducted by MTRCL during the detailed planning and design stage, it was confirmed that implementation of additional safety measures including underground grouting, provision of recharging wells and dewatering wells, etc. would be required so as to mitigate the risks to the operating LMC Spur Line brought by the excavation works;
- (ii). installation of new electrical and mechanical systems and equipment supporting the railway operation is required in constructing the KTU Station on the LMC Spur Line. Following on-site checking of the existing electrical and mechanical systems during the detailed planning and design stage, MTRCL finalised the number of interface equipment required and the relevant technical requirements

for connecting the new electrical and mechanical systems and equipment to the existing ones;

- (iii). during the detailed design stage, MTRCL confirmed the need of an independent safety assessment mechanism, which includes detailed simulation tests, on-site safety tests, operational tests under normal and emergency situations, and testing for software modifications, etc., with a view to further securing the safety and reliability of the signaling system of the new railway project; and
- (iv). in accordance with the station design standards updated in 2021, MTRCL improved the design and equipment provision of the KTU Station to enhance the efficiency of station management and maintenance, as well as enhanced security surveillance of station to safeguard passenger safety. Relevant enhancements include addition of canopies at station entrances, optimisation of station rooftop design to increase daylighting, increasing the number of station communication and surveillance devices, use of innovative technologies (such as the Internet of Things) to collect data for optimising the operation of air-conditioning and escalators systems and their maintenance schedule, and addition of network security provisions to ensure the safe operation of the electrical and mechanical systems.

(c) **Project Cost of the KTU Station Project**

As indicated by the Government in the Legislative Council Brief on KTU Station financial arrangement, the KTU Station is an ownership project according to the terms of the Operation Agreement between the Government and MTRCL signed in 2007 at the time of the rail merger.

Under the ownership approach, MTRCL will be responsible for the financing, design, construction, operation and maintenance of the KTU Station and will own it. The independent checking consultant engaged by the Highways Department scrutinized the project estimates of the KTU Station prepared by MTRCL, which cover capital cost, revenues and expenditures of the design, construction as well as operating stages including those for the daily operation, maintenance and asset replacement during the operation period.

Yours sincerely,



(Jacqueline CHEUNG)

for Secretary for Transport and Logistics

c.c.:

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