

政府總部
民政事務局

香港灣仔
港灣道十二號
灣仔大樓二十五樓



GOVERNMENT SECRETARIAT

HOME AFFAIRS BUREAU
25/F, WANCHAI TOWER
12 HARBOUR ROAD
WAN CHAI
HONG KONG

Our Ref : SF(35) to HAB CS CR 7/1/27

電話號碼 Tel. No.: (852) 3102 5991
傳真號碼 Fax No.: (852) 3102 5997

By email

14 May 2019

Ms Doris LO
Clerk to the Public Works Subcommittee
Legislative Council Secretariat
Legislative Council Complex
1 Legislative Council Road
Central
Hong Kong

Dear Ms Lo,

Re: Matter Arising from PWSC(2018-19)46

754CL “Infrastructure Works for West Kowloon Cultural District, Phase 1”

In response to the letter dated 8 May 2019 jointly from Dr Hon KWOK Ka-ki, Hon Jeremy TAM Man-ho, Hon Alvin YEUNG, and Hon Tanya CHAN to the Chairman of the Legislative Council Public Works Subcommittee (PWSC) enquiring about the Artist Square Bridge under 754CL “Infrastructure Works for West Kowloon Cultural District, phase 1”, the reply from the Government and the West Kowloon Cultural District Authority (WKCD) is set out below:

- 1. Although the estimated cost of the new design of Artist Square Bridge is lower than that of the original design, the bridge length under the new design is shorter than that under the original design. Please further elaborate how the cost saving is achieved in the new design.**

The original design of the proposed footbridge adopted a semi-enclosed form and an artistic design that added an element of visual delight to the identity of West Kowloon Cultural District (WKCD), thereby providing visitors with a welcoming entry. This original scheme was planned to be implemented in two phases to match the construction of the integrated basement. Phase 1 works, planned for completion by the fourth quarter of 2020, mainly

comprised the construction of the main footbridge span across Austin Road West with two supporting piers to link the existing developments above the MTR Kowloon Station with the northern boundary of the Artist Square. To enhance visitors' perception of arriving WKCD, phase 2 works mainly comprised the construction of the remaining footbridge section and supporting pier which sought to extend the proposed footbridge into the central area of the Artist Square. As the basement structure of Zone 3B were to provide structural support to the said pier, the implementation programme of phase 2 works would hinge upon the basement construction programme.

On 21 April 2017, the Government consulted the Legislative Council Panel on Development and Panel on Home Affairs Joint Subcommittee to Monitor the Implementation of the WKCD Project (Joint Subcommittee) on the funding proposal of the originally proposed footbridge. At the meeting, Members raised concerns about the design and estimated cost of the proposed footbridge and the Joint Subcommittee did not support submission of the funding proposal to the PWSC. In view of Members' concerns, the Government and WKCDA critically reviewed the design of the proposed footbridge through a value engineering exercise with a view to reducing the construction cost. Compared to the original design, the new design has trimmed down the scope of phase 2 works so that the overall length of the proposed footbridge is reduced by about 18m, resulting in saving to the construction cost. In the new design, the landing location of the footbridge has been shifted from the central area to the northern side of the Artist Square and, as opposed to the originally proposed phased implementation approach, the proposed single span footbridge will be constructed in one go. All these reduce the number of supporting piers thus leading to further reduction of the construction cost. The new design also emphasizes on simplicity by employing simple structural form with open-sided bridge deck to reduce the construction cost. It is estimated that the new design of the proposed footbridge (including the above amendments) could achieve an overall construction cost saving of about 30% as compared to the original design.

2. Please provide the cost breakdown and detailed information of other similar on-going or completed projects for reference.

The proposed works have the following characteristics and constraints:

- As the proposed footbridge will span over the existing highway bridge at

Austin Road West, the deck of proposed footbridge will be built at a level about 15 metres above ground which is greater than the 7 metres height requirements for typical footbridges.

- As provision of intermediate pier support at the existing highway bridge is infeasible, the span of proposed footbridge is about 79m which is longer than that of typical footbridges.
- As the piling location of the proposed footbridge is situated at an area with deep bedrock, pile length is relatively long.
- As the proposed footbridge piling works are in the vicinity of the airport railway tunnel, the construction difficulties are increased.
- The proposed footbridge will span over the existing highway bridge at Austin Road West. Due to the restrictions arising from the existing highway bridge structure, the construction method and sequence including temporary traffic arrangement are different from those normally employed for typical footbridge construction, thus increasing the construction difficulties. For instance, uses of heavy lifting plants and provision of temporary supports on the existing highway bridge are all under restrictions.

Since each footbridge project has its own characteristics and construction conditions, it is hard to make a direct comparison. For the proposed footbridge, the construction cost per square metre is estimated to be:

	Estimated Cost (\$ million) (in money-of-the-day prices)
Footbridge (including main deck, pier, foundation, lifts, escalators and staircases)	280.0
Average Cost* (per square metre)	0.32

* Gross plan area of about 865 square metres, including escalators, staircase and lift tower

In view of the distinct characteristics and complexity of the proposed footbridge, we consider the above-mentioned cost per square metre a reasonable estimate.

3. Regarding the annual recurrent expenditures of \$3.0 million arising from the proposed works, please explain how it is worked out and provide the breakdown for 10 years in the future.

The annual recurrent expenditures of the proposed footbridge mainly include electricity charges for the operation of footbridge, costs for cleaning,

inspection and maintenance of the footbridge structures and lifts/escalators, as well as costs for maintenance of greening works. According to the general arrangement for public infrastructure, the completed facilities will be handed over to government departments concerned for management, operation and maintenance.

The budgeted annual recurrent expenditure of the proposed footbridge are about \$3.0 million with the breakdown as follows:

Items	Estimated Cost (\$ million)
Footbridge structures and ancillary provisions (including cleansing and greening works maintenance)	about 0.95
Lifts	about 0.94
Escalators	about 0.46
Electrical installations and other facilities	about 0.65
Total	about 3.00

The above estimate is prepared based on the average annual maintenance expenditures and will be the ceiling of annual recurrent budget. It has been agreed with the departments responsible for maintenance. Upon completion of the works, the departments concerned will work out the required annual maintenance expenses to accord with the actual circumstances.

Yours sincerely,



(YING Fun-fong)
for Secretary for Home Affairs

c.c.

Chief Executive Officer, West Kowloon Cultural District Authority
Project Manager (South), Civil Engineering and Development Department