

## ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

### HEAD 711 - HOUSING

Transport - Footbridges and pedestrian tunnels

131TB - Footbridge across Wong Chuk Hang Road near  
Aberdeen Sports Ground

Members are invited to recommend to Finance Committee the upgrading of **131TB** to Category A at an estimated cost of \$19.8 million in money-of-the-day prices for the construction of a footbridge across Wong Chuk Hang Road near Aberdeen Sports Ground.

### PROBLEM

The section of Wong Chuk Hang Road near Aberdeen Sports Ground will not be able to cope with future traffic demand arising from the new housing developments in Wong Chuk Hang, Ap Lei Chau and Aberdeen.

### PROPOSAL

2. The Director of Highways, with the support of the Secretary for Housing and Secretary for Transport, proposes to upgrade **131TB** to Category A at an estimated cost of \$19.8 million in money-of-the-day (MOD) prices for the construction of a footbridge across Wong Chuk Hang Road near Aberdeen Sports Ground to replace the existing signalized pedestrian crossing.

/ PROJECT .....

## PROJECT SCOPE AND NATURE

3. The scope of the project comprises -
- (a) the construction of a covered footbridge of 2.5 metres clear width across Wong Chuk Hang Road near Aberdeen Sports Ground with associated staircases and lifts;
  - (b) the cutting back of a slope to make way for staircase and lift at the northern end of the proposed footbridge; and
  - (c) the provision of an ancillary footpath, drainage and landscaping works.

A site plan is at Enclosure 1.

## JUSTIFICATION

4. Wong Chuk Hang Road is a primary distributor in the Southern District. It serves as part of Route 1 linking various areas such as Wong Chuk Hang, Aberdeen, Tin Wan and Pok Fu Lam to Wan Chai.

5. To cope with additional traffic demand on the Road following the gradual completion of new housing developments in Wong Chuk Hang, Ap Lei Chau and Aberdeen areas<sup>1</sup>, we commenced the construction of Wong Chuk Hang Road Flyover<sup>2</sup> in June 1998 for completion in late 2001. The Flyover will enable uninterrupted flow of east-west traffic movements along the Road, overpassing its junction with Nam Long Shan Road.

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<sup>1</sup> Planned housing developments in Wong Chuk Hang, Ap Lei Chau and Aberdeen areas will be completed between 2001 and 2005 with a total estimated population intake of about 26 000 persons.

<sup>2</sup> On 27 February 1998, Finance Committee approved to upgrade **578TH** – ‘Wong Chuk Hang Road flyover and associated road widening’ to Category A at an estimated cost of \$305.8 million in MOD prices.

6. However, traffic forecast shows that the existing signalized pedestrian crossing at Wong Chuk Hang Road near Aberdeen Sports Ground will be operating in excess of capacity by 8% during peak hours in 2001. The situation will deteriorate to 33% in excess of capacity in 2011 due to continued increase in traffic and pedestrian demand. The under-capacity problem will cause severe traffic congestion along Wong Chuk Hang Road. We therefore propose to replace the crossing with a footbridge, which can provide uninterrupted traffic flow at Wong Chuk Hang Road and also enhance pedestrian safety.

7. It is impossible to construct the proposed footbridge at the location of the existing signalized pedestrian crossing due to the lack of space for the footbridge associated structure, and the conflict between the footbridge and the Flyover. As a result, we propose to construct the footbridge about 25 metres east of the Flyover. We also need to cut back the slope at the northern end and require permanent alienation of a small part (about 325 square metres) of the Aberdeen Sports Ground at the southern end to make way for the proposed footbridge. Due to the site constraints, we will provide a lift at each end of the footbridge in lieu of access ramp.

## FINANCIAL IMPLICATIONS

8. We estimate the capital cost of the project to be \$19.8 million in MOD prices (see paragraph 9 below), made up as follows -

|  | <b>\$ million</b> |                           |
|--|-------------------|---------------------------|
| (a) Footbridge                               | 10.8              |                           |
| (b) Electrical & mechanical works for lifts  | 2.7               |                           |
| (c) Geotechnical works                       | 3.0               |                           |
| (d) Footpath, drainage and landscaping works | 1.0               |                           |
| (e) Contingencies                            | 1.7               |                           |
| Sub-total                                    | 19.2              | (at December 1999 prices) |

/ (f) ....

|                                    |      |                 |
|------------------------------------|------|-----------------|
| (f) Provision for price adjustment | 0.6  |                 |
| Total                              | 19.8 | (in MOD prices) |

9. Subject to approval, we will phase the expenditure as follows -

| Year        | \$ million<br>(Dec 1999) | Price<br>Adjustment<br>Factor | \$ million<br>(MOD) |
|-------------|--------------------------|-------------------------------|---------------------|
| 2000 - 2001 | 8.4                      | 1.00000                       | 8.4                 |
| 2001 - 2002 | 9.1                      | 1.04500                       | 9.5                 |
| 2002 - 2003 | 1.7                      | 1.10770                       | 1.9                 |
|             | 19.2                     |                               | 19.8                |

10. We have derived the MOD estimate on the basis of the Government's latest forecast of trend labour and construction prices over the period between 2000 and 2003. We will tender the works under a lump sum contract with firm Bill of Quantities. The contract will not include provisions for price fluctuation because the contract period will be less than 21 months.

11. We estimate the additional annually recurrent expenditure to be \$266,000.

## **PUBLIC CONSULTATION**

12. We consulted the Traffic and Transport Committee of the Southern Provisional District Board on 22 March 1999 and members supported the proposed works.

13. We gazetted the proposed works under the Roads (Works, Use and Compensation) Ordinance on 8 October 1999 and received no objection. Secretary for Transport authorized the execution of the proposed works on 7 January 2000.

## **ENVIRONMENTAL IMPLICATIONS**

14. We completed a Preliminary Environmental Review (PER) of the project in July 1997. The PER concluded that the project would not give rise to impacts that exceed established criteria. The Director of Environmental Protection vetted the PER and agreed that an Environmental Impact Assessment would not be necessary. For short term impacts, we will control noise, dust and site run-off nuisance to comply with established standards through the implementation of appropriate mitigation measures in the contract. Examples of mitigation measures to be taken during construction include installation of temporary noise barriers next to operating equipment, avoidance of simultaneous noisy activities, application of water sprays to reduce fugitive dust.

15. We have considered in the planning and design stages to reduce the generation of construction and demolition material (C&DM) as much as possible. We adopted a steel truss design for the proposed footbridge and designed the slope with minimum cutting to reduce C&DM generation. We estimate that about 60 cubic metres of construction and demolition (C&D) waste will be disposed of at landfills and 1 200 cubic metres of public fill will be delivered to public filling areas. We shall require the contractor to submit a disposal plan for public fill to the Engineer for approval. We shall require the Engineer to ensure that the day-to-day operations on site comply with the disposal plan. We shall require the contractor to separate public fill from C&D waste for disposal at appropriate locations and to sort the C&DM by category on-site to facilitate reuse/recycling in order to reduce the generation of waste. We shall require the contractor to reuse the excavated material on site or in other sites to minimize the disposal of public fill to public filling facilities. We shall also require the contractor to use steel instead of timber for site hoarding and signboards to further minimize the generation of C&DM. We shall control the disposal of C&D waste through a trip-ticket system. We shall record the disposal, reuse and recycling of C&DM for monitoring purpose.

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**LAND ACQUISITION**

16. The project does not require any land acquisition but we require the permanent alienation of 325 square metres of land at Aberdeen Sports Ground. Members of Recreation & Culture Select Committee of the former Provisional Urban Council at its meeting on 9 June 1999 agreed on the permanent alienation for the proposed works.

**BACKGROUND INFORMATION**

17. We upgraded **131TB** to Category B in May 1998. In August 1998, we charged the estimated cost of \$1.28 million to **Subhead B100HX** - "Minor housing development related works, studies and investigations for items in Category D of the Public Works Programme" for site investigation costs and design fees of the lifts associated with the footbridge.

18. We have completed the design, working drawings and tender documents of the proposed works. We plan to start construction works in August 2000 for completion in November 2001.

19. We estimate that the project works will create some 36 new jobs comprising four professional/technical staff and 32 labourers during the construction period.

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Housing Bureau  
April 2000

