# ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 707 – NEW TOWNS AND URBAN AREA DEVELOPMENT Civil Engineering – Land development 270RS – Cycle tracks and associated facilities along seafront at Town Centre South, Tseung Kwan O

Members are invited to recommend to Finance Committee the upgrading of **270RS** to Category A at an estimated cost of \$107.1 million in money-of-the-day prices for the construction of cycle tracks and associated facilities along the seafront at Town Centre South, Tseung Kwan O.

#### **PROBLEM**

We need to provide cycle tracks, footpaths, landscaped open space and associated facilities along the seafront at Town Centre South, Tseung Kwan O (TKO) to meet public demands for leisure and recreational facilities.

#### **PROPOSAL**

2. The Director of Civil Engineering and Development, with the support of the Secretary for Development, proposes to upgrade **270RS** to Category A at an estimated cost of \$107.1 million in money-of-the-day (MOD) prices for the construction of cycle tracks, footpaths, landscaped open space and associated facilities along the seafront at Town Centre South, TKO.

#### PROJECT SCOPE AND NATURE

- 3. The scope of **270RS** comprises
  - (a) construction of about 1.6 kilometres (km) each of cycle tracks and footpaths, and three cycle track underpasses at the crossing points with the footpaths;
  - (b) construction of an open space of about 8 metres (m) wide along the seafront with landscaping; and
  - (c) construction of ancillary facilities including a bicycle parking area, a toilet, a pet garden, and associated sewerage, drainage, water works, lighting and signage.

A layout plan showing the proposed works is at Enclosure 1. Subject to the funding approval by the Finance Committee (FC), we plan to commence the proposed works in July 2011 for completion in July 2013.

#### **JUSTIFICATION**

- 4. In the "Further Development of Tseung Kwan O Feasibility Study" (the Study) completed in December 2005, one of the recommendations was to develop a vibrant seafront area with recreation and leisure activities at Town Centre South for public enjoyment. In fact, there has been increasing demand from the local residents for the provision of an integrated cycle track and footpath network, together with landscaped open space and ancillary facilities in Town Centre South. In June 2009, we obtained FC's funding approval for construction of the cycle tracks and footpaths in Town Centre South. These works started in September 2009 and are anticipated to be completed in early 2012. The proposed project will complete the network of cycle tracks and footpaths, and facilitate direct and convenient access to the waterfront by the public.
- 5. A plan showing the cycle track and footpath network at TKO Town Centre South is at Enclosure 2.

#### FINANCIAL IMPLICATIONS

6. We estimate the capital cost of the project to be \$107.1 million in MOD prices (please see paragraph 7 below), broken down as follows –

/(a) .....

		\$	million	
(a)	Footpaths and cycle tracks, including bicycle parking area and underpasses		28.8	
(b)	Landscaped open space, pet garden, lighting and signage		21.3	
(c)	Waterworks		9.2	
(d)	Drainage works		8.5	
(e)	Toilet and sewerage		8.9	
(f)	Environmental mitigation measures		1.2	
(g)	Consultants' fee for		1.0	
	(i) contract administration	0.7		
	(ii) management of resident site staff	0.3		
(h)	Remuneration of resident site staff		7.7	
(i)	Contingencies		8.7	
	Sub-total		95.3	(in September 2010 prices)
(j)	Provision for price adjustment		11.8	
	Total		107.1	(in MOD prices)

A breakdown of the estimate for the consultants' fees and resident site staff costs by man-months is at Enclosure 3.

7. Subject to approval, we will phase the expenditure as follows –

Year	\$ million (Sept 2010)	\$ million (MOD)	
2011 – 2012	16.7	1.04250	17.4
2012 - 2013	36.9	1.09463	40.4
2013 - 2014	25.9	1.14936	29.8

Year	\$ million (Sept 2010)	Price adjustment factor	\$ million (MOD)
2014 - 2015	10.4	1.20682	12.6
2015 - 2016	5.4	1.27169	6.9
	95.3	_	107.1

- 8. We have derived the MOD estimates on the basis of the Government's latest set of assumptions on the trend rate of change in the prices for public sector building and construction output from 2011 to 2016. We will deliver the proposed works under a lump-sum contract because we can clearly define the scope of works in advance. The contract will provide for price adjustments.
- 9. We estimate the annual recurrent expenditure arising from the proposed works to be about \$2.4 million.

#### **PUBLIC CONSULTATION**

- 10. We consulted the District Facilities Management Committee of the Sai Kung District Council on 21 July 2009 and 22 September 2009 on the proposed works. Members supported the project and urged for its early implementation.
- 11. We gazetted the proposed works under the Roads (Works, Use and Compensation) Ordinance on 13 November 2009 and received one objection. The objector's main concern was that the proposed works might create undue constraints on future development of water-related sports facilities along the seafront and leisure marine uses in the Eastern Channel and TKO. The objector also opined that the proposed cycle track underpasses would indirectly sever the seafront from the hinterland, and were contrary to the planning of the pedestrian desire lines from the Mass Transit Railway TKO Station to the seafront.
- 12. We advised the objector that the proposed works were outside the sites designated for marine uses and would not impose constraints on the development of future water-related sports facilities. We also explained to the objector that while the cycle track underpasses were required to segregate

pedestrians and cyclists for safety reasons, ample unrestricted and convenient access for pedestrians to the seafront area would be provided such that the seafront would integrate with the hinterland in a comprehensive manner. The objector, however, did not withdraw his objection.

- 13. After considering the objection, the Chief Executive in Council authorised the proposed works without modification on 2 November 2010. The notice of authorization was gazetted on 19 November 2010.
- 14. We circulated to the Legislative Council Panel on Development an information paper on 6 December 2010. Members raised no objection to the proposal.

#### **ENVIRONMENTAL IMPLICATIONS**

- 15. The project is not a designated project under Schedule 2 of the Environmental Impact Assessment Ordinance. The project will not give rise to adverse environmental impact. Standard pollution control measures will be implemented during construction, as promulgated by the Director of Environmental Protection. The project only involves roadworks and landscaping works and the site is located in an undeveloped area. The impact arising from the construction works is considered environmentally acceptable when the standard pollution control measures are adopted.
- 16. The project will not cause any long term environmental impact. We will incorporate into the works contract mitigation measures to control potential pollution arising from the construction works to within established standards and guidelines. These measures include frequent watering of the site, provision of wheel-washing facilities to reduce emission of fugitive dust, use of silenced construction plant, provision of movable noise barriers and other procedures as recommended by the Director of Environmental Protection. We have included \$1.2 million (in September 2010 prices) in the project estimate for the implementation of environmental mitigation measures.
- 17. The project site is located within the 250 m consultation zone of the TKO stage I landfill. A landfill gas hazard assessment was performed and confirmed that no hazard will be induced during the construction and operation of the project. Protection measures are therefore not required.

- 18. At the planning and design stages, we have considered the alignment and the design level of the proposed works so as to reduce the generation of construction waste where possible. In addition, we will require the contractor to reuse inert construction waste (e.g. excavated soil) on site or in other suitable construction sites as far as possible, in order to minimise the disposal of inert construction waste at public fill reception facilities. We will encourage the contractor to maximise the use of recycled or recyclable inert construction waste and the use of non-timber formwork to further reduce the generation of construction waste.
- 19. At the construction stage, we will also require the contractor to submit for approval a plan setting out the waste management measures, which will include appropriate mitigation means to avoid, reduce, reuse and recycle inert construction waste. We will ensure that the day-to-day operations on site comply with the approved plan. We will require the contractor to separate the inert portion from non-inert construction waste on site for disposal at appropriate facilities. We will control the disposal of inert construction waste and non-inert construction waste at public fill reception facilities and landfills respectively through a trip-ticket system.
- 20. We estimate that the proposed works will generate in total about 18 700 tonnes of construction waste. Of these, we will reuse about 5 100 tonnes (27%) of inert construction waste on site and deliver 12 570 tonnes (67%) of inert construction waste to public fill reception facilities for subsequent reuse. We will dispose of the remaining 1 030 tonnes (6%) of non-inert construction waste at landfills. The total cost for accommodating construction waste at public fill reception facilities and landfill sites is estimated to be \$468,100 for the proposed works (based on a unit cost of \$27 per tonne for disposal at public fill reception facilities and \$125 per tonne<sup>2</sup> at landfills).

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Public fill reception facilities are specified in Schedule 4 of the Waste Disposal (Charges for Disposal of Construction Waste) Regulation. Disposal of inert construction waste in public fill reception facilities requires a license issued by the Director of Civil Engineering and Development.

This estimate has taken into account the cost for developing, operating and restoring the landfills after they are filled and the aftercare required. It does not include the land opportunity cost for existing landfill sites (which is estimated at \$90 per m³), nor the cost to provide new landfills (which is likely to be more expensive), when the existing ones are filled.

#### HERITAGE IMPLICATIONS

21. The proposed works will not affect any heritage site, i.e. all declared monuments, proposed monuments, graded historic sites/buildings, sites of archaeological interest and Government historic sites identified by the Antiquities and Monuments Office.

### LAND ACQUISITION

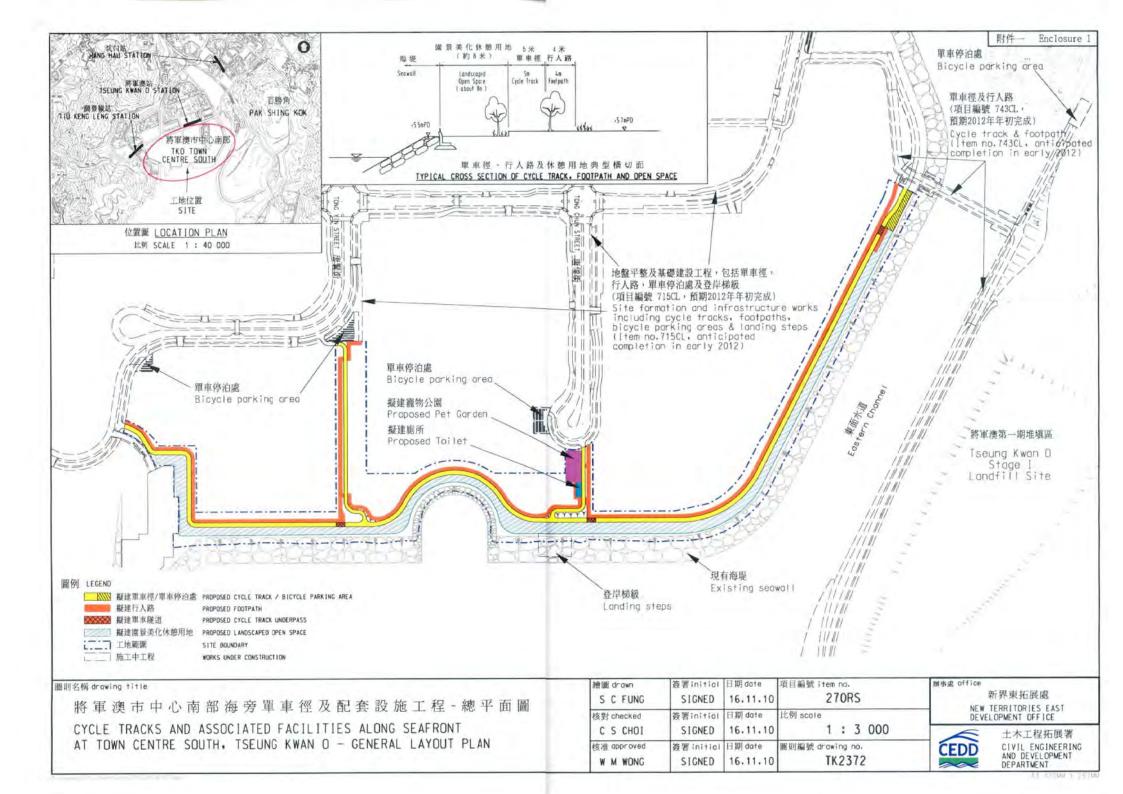
22. This project does not require any land acquisition and clearance.

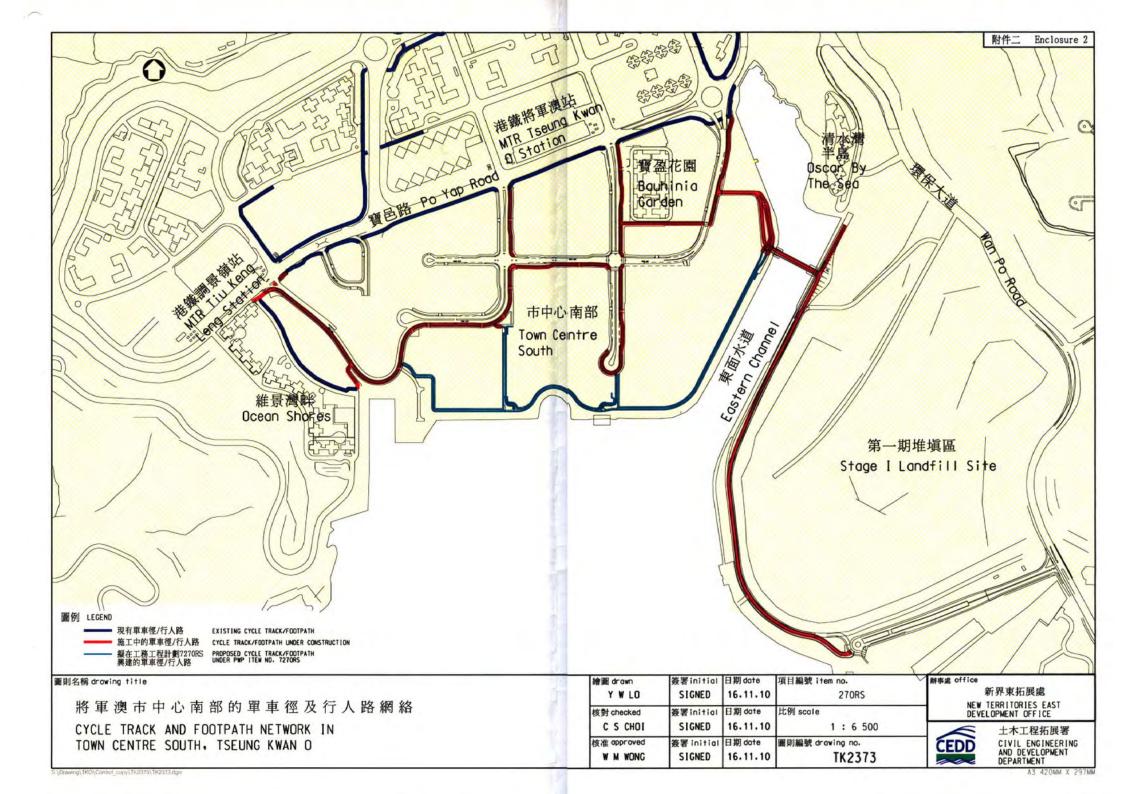
#### BACKGROUND INFORMATION

- 23. We upgraded **270RS** to Category B in December 2008. We engaged consultants to carry out site investigation and detailed design for the proposed works in 2009, and charged the cost of about \$1.3 million to block allocation **Subhead 7100CX** "New towns and urban area works, studies and investigations for items in Category D of the Public Works Programme". We have completed the site investigation, detailed design and preparation of tender documents for the proposed works.
- 24. The proposed works will not involve any tree removal. We will incorporate planting proposals as part of the project, including estimated quantities of 400 trees and 37 000 shrubs.
- 25. We estimate that the proposed works will create about 68 jobs (57 for labourers and another 11 for professional/technical staff) providing a total employment of 1 480 man-months.

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Development Bureau January 2011





270RS – Cycle tracks and associated facilities along seafront at Town Centre South, Tseung Kwan O

## Breakdown of the estimates for consultants' fees and resident site staff costs (in September 2010 prices)

			Estimated man- months	Average MPS* salary point	Multiplier (Note 1)	Estimated fee (\$ million)
(a)	Consultants' fees for contract administration (Note 2)	Professional Technical	<u>-</u> -	<u>-</u> -	<u>-</u>	0.4 0.3
					Sub-total	0.7
(b)	Resident site staff costs (Note 3)	Professional Technical	40 134	38 14	1.6 1.6	3.7 4.3
					Sub-total	8.0
	Comprising –					
	(i) Consultants' fees f management of resident site staff	Cor				0.3
	(ii) Remuneration of resident site staff					7.7
					Total	8.7

<sup>\*</sup> MPS = Master Pay Scale

#### Notes

- 1. A multiplier of 1.6 is applied to the average MPS salary point to estimate the cost of resident site staff supplied by the consultants. (As at now, MPS salary point 38 = \$58,195 per month and MPS salary point 14 = \$19,945 per month.)
- 2. The consultants' staff cost for contract administration is calculated in accordance with the existing consultancy agreement for the design and construction of **270RS**. The construction phase of the assignment will only be executed subject to Finance Committee's approval to upgrade **270RS** to Category A.
- 3. The actual man-months and actual costs will only be known after completion of the construction works.