

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 707 - NEW TOWNS AND URBAN AREA DEVELOPMENT
Hong Kong Island and Islands Development
Civil Engineering – Land development
653CL – Engineering infrastructure for Cyberport development at
Telegraph Bay

Members are invited to recommend to Finance Committee the upgrading of **653CL**, retitled “Construction of northern access road to the Cyberport development at Telegraph Bay”, to Category A at an estimated cost of \$231.8 million in money-of-the-day prices.

PROBLEM

The essential transport infrastructure to serve the Cyberport development at Telegraph Bay comprises the southern access road linking Victoria Road, and the northern access road (NAR) connecting Sha Wan Drive with the Cyberport. We need to proceed with construction of the NAR, to meet the overall timetable.

PROPOSAL

2. The Director of Territory Development (DTD), with the support of the Secretary for Information Technology and Broadcasting, proposes to upgrade **653CL** to Category A at an estimated cost of \$231.8 million in money-of-the-day (MOD) prices for the construction of the NAR to the Cyberport development at Telegraph Bay and associated drains and waterworks.

/PROJECT

PROJECT SCOPE AND NATURE

3. The scope of **653CL** comprises -
- (a) construction of the NAR (about 440-metre single two-lane carriageway) connecting Sha Wan Drive and Road D1 including sections of carriageway on elevated bridge structures (about 245 metres) and sections of carriageway at grade (about 195 metres);
 - (b) reconstruction of a section of Sha Wan Drive at its junction with the NAR;
 - (c) associated staircases, footpaths, drainage works and slope works;
 - (d) laying of about 1 550 metres of fresh and salt water mains (550 metres of fresh water trunk main and 1 000 metres of fresh and salt water distribution mains) along the NAR;
 - (e) reprovisioning of an existing electric substation serving the Queen Mary Hospital seawater pumping station;
 - (f) landscaping works; and
 - (g) an environmental monitoring and audit (EM&A) programme for items (a) to (f) above.

A site plan is at Enclosure 1.

JUSTIFICATION

4. At present, there is no road access to Telegraph Bay where the Cyberport will be built. In accordance with the Traffic Impact Assessment (TIA) Study we conducted for the Cyberport project, we need to provide road access at both the northern and southern ends of the site. The southern access road will connect the Cyberport to Victoria Road whereas the proposed NAR will connect the Cyberport to Sha Wan Drive. The northern and southern access roads will be connected by a distributor Road D1.

5. The southern access road and Road D1 are required to meet the traffic demand generated from the first two phases of the Cyberport development. To achieve the target completion for the first phase of the Cyberport development by end 2001, the construction of the southern access road and Road D1 commenced in December 1999, as part of **656CL** (see paragraph 20 below).

6. The TIA Study recommended that the NAR should be in place by end 2003 to cope with traffic generated from the subsequent phases of the Cyberport development and to serve as an alternative access to the southern access road. To meet this timetable, we need to commence construction of the NAR in September 2000.

7. In conjunction with the roadworks, we plan to lay about 1 550 metres of fresh and salt watermains which form part of the water supply system serving Cyberport and the Pok Fu Lam area as a whole. We also need to re-provision the electric substation serving the Queen Mary Hospital seawater pumping station affected by the NAR. To compensate for the loss of about 1.2 hectares of woodland, we will carry out the replanting of 800 trees on the soil cut slopes, in planters at the toe of rock slopes, and in the area of the realigned Sha Wan Drive. We will also use hydroseeding to protect formed slopes as appropriate.

FINANCIAL IMPLICATIONS

8. We estimate the capital cost of the project to be \$231.8 million in MOD prices (see paragraph 9 below), made up as follows -

	\$ million
(a) Earthworks and slope works	26.0
(b) Roads and drains	15.0
(c) Elevated bridge structures	110.5
(i) foundations	29.0
(ii) substructures	10.0
(iii) superstructures	71.5

/(d)

	\$ million	
(d) Reprovisioning of electric substation	5.5	
(e) Waterworks	8.0	
(f) Landscaping works	6.5	
(g) EM&A programme	1.0	
(h) Consultants' fees for	21.5	
(i) construction stage	2.5	
(ii) resident site staff costs	19.0	
(i) Contingencies	19.0	
Sub-total	213.0	(in December 1999 prices)
(j) Provision for price adjustment	18.8	
Total	231.8	(in MOD prices)

Owing to insufficient in-house resources, DTD proposes to employ consultants to carry out the construction supervision. A breakdown by man-months of the estimate for the consultants' fees is at Enclosure 2.

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

Year	\$ million (Dec 1999)	Price adjustment factor	\$ million (MOD)
2000 - 2001	25.0	1.00000	25.0
2001 - 2002	75.0	1.04500	78.4
2002 - 2003	69.0	1.10770	76.4

/2003 - 2004

2003 - 2004	40.0	1.17416	47.0
2004 - 2005	4.0	1.24461	5.0
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	213.0		231.8
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10. We have derived the MOD estimate on the basis of the Government's latest forecast of trend labour and construction prices for the period from 2000 to 2005. We will tender the proposed works under a standard remeasurement contract because the works involve extensive earthworks, the quantities of which will vary according to the actual ground conditions. The contract will provide for price adjustments as the contract period will exceed 21 months.

11. We estimate the additional annually recurrent expenditure to be \$0.65 million.

PUBLIC CONSULTATION

12. We consulted the Traffic and Transport Committee of the Southern Provisional District Board (PDB) on 22 March 1999 on the proposed Cyberport project. Members raised no objection to the proposal. We submit regular reports to the Legislative Council Information Technology and Broadcasting (ITB) Panel on the progress of the project as it proceeds. We put up this proposal to the ITB Panel at its meeting on 8 May 2000, which was also attended by some non-Panel Members. Members raised no objection to the proposal.

13. We gazetted the road scheme for the whole Cyberport development, including the proposed NAR, under the Roads (Works, Use and Compensation) Ordinance on 30 April 1999 and received six objections. One objector subsequently withdrew her objection after we had addressed her concerns about traffic and environmental impacts. The remaining unwithdrawn objections were made mainly on the grounds that the road scheme would create adverse traffic and environmental impacts. On 26 October 1999, the Chief Executive in Council overruled these objections and authorized the proposed road works to proceed.

ENVIRONMENTAL IMPLICATIONS

14. The Cyberport development is a Designated Project under the Environmental Impact Assessment Ordinance (EIAO). The EIA study for the Cyberport development, which was approved under the EIAO in April 1999, assessed, inter alia, the environmental impacts associated with the construction and operation of the NAR. The Advisory Council on the Environment endorsed the EIA in April 1999 without conditions. The EIA report concluded that the noise and air quality would comply with the established standards and guidelines with the implementation of the recommended mitigation measures during the construction of the NAR. These mitigation measures included frequent watering of the site, provision of wheel-washing facilities to reduce emission of fugitive dust, use of silenced construction plant to reduce noise generation and other procedures as recommended in Environmental Protection Department's Recommended Pollution Control Clauses. The EIA also recommended compensatory planting to make up for the loss of woodland and habitat due to the construction of the NAR (see paragraph 7 above). We will implement the recommendations set out in the EIA report. An EM&A programme would be implemented to ensure compliance with the EIA recommendations.

15. The TIA Study concluded that the Cyberport development would not generate significant traffic impact on the surrounding road network and junctions. With minor improvements at five junctions, the existing road network and junctions would have sufficient capacity to accommodate the future demand.

16. Results of modelling of air quality impacts due to nitrogen dioxide (NO₂) and respirable suspended particulates (RSP) indicate that the air quality objectives for hourly NO₂ and daily RSP will not be exceeded in the design years at the identified sensitive receivers along the NAR.

17. When designing the alignment of the NAR, consideration has been given to the need to minimize the generation of construction and demolition material (C&DM). We now estimate that about 59 000 cubic metres (m³) of public fill will be delivered to public filling areas and less than 50m³ of construction and demolition waste will be disposed of at landfills. We shall require the contractor to implement necessary measures to further minimise the generation of C&DM and to reuse and recycle C&DM. We shall control the disposal of C&DM to the designated public filling facility and/or landfills through a trip-ticket system. We shall also record the disposal, reuse and recycling of C&DM for monitoring purposes.

/LAND

LAND ACQUISITION

18. We will resume about 338 square metres of land at the upper portion of a man-made slope of the Stanley Ho Sports Ground presently owned by the University of Hong Kong. The University has agreed in principle to surrender this area at no cost to the Government. Any associated clearance costs will be charged to Head 701 – Land Acquisition.

BACKGROUND INFORMATION

19. We included **653CL** in Category B in April 1999.

20. In May 1999, Finance Committee approved the upgrading of part of **653CL** to Category A at an estimated cost of \$964 million in money-of-the-day prices as **656CL** “Engineering infrastructure for Cyberport development at Telegraph Bay, phase 1” for the phase 1 works including the construction of the southern access road and Road D1 and for engaging consultants to carry out the site investigation and detailed design of the NAR.

21. The consultants have substantially completed the detailed design and drawings for the proposed works. We plan to start the works in September 2000 for completion in December 2003.

22. We estimate that the project will create some 120 new jobs comprising five professional staff, 15 technical/ancillary staff and 100 labourers during the construction period.

Information Technology and Broadcasting Bureau
May 2000

653CL – Engineering infrastructure for Cyberport development at Telegraph Bay

Breakdown of the estimate for consultants' fees

Consultants' staff costs			Estimated man months	Average MPS* salary point	Multiplier factor	Estimated fee (\$ million)
(a)	Consultants' fees for construction stage					
(i)	contract administration	Professional	11	40	2.4	1.7
		Technical	6	16	2.4	0.3
(ii)	preparation of as-built drawings	Professional	1	40	2.4	0.2
		Technical	6	16	2.4	0.3
(b)	Resident site staff costs	Professional	95	40	1.7	10.1
		Technical	250	16	1.7	8.9
Total consultants' staff costs						21.5

* MPS = Master Pay Scale

Notes

1. A multiplier factor of 2.4 is applied to the average MPS point to arrive at the full staff costs including the consultants' overheads and profit, as the staff will be employed in the consultants' offices. A multiplier factor of 1.7 is applied to the average MPS point in the case of site staff supplied by the consultants. (At 1.4.99, MPS pt. 40 = \$62,780 p.m. and MPS pt. 16 = \$21,010 p.m.)
2. The figures given above are based on estimates prepared by the Director of Territory Development. The consultancy works for this project have been included as part of the consultancy agreement for the design and construction of the northern access road for Cyberport development.