

For discussion  
on 12 May 1999

PWSC(1999-2000)13

## **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 –

- (a) the upgrading of part of **653CL**, entitled  
“Engineering infrastructure for Cyberport  
development at Telegraph Bay, phase 1” to  
Category A at an estimated cost of \$964 million  
in money-of-the-day prices; and
- (b) the retention of the remainder of **653CL** in  
Category B.

### **PROBLEM**

There are no roads, drains and essential infrastructure to support the  
proposed Cyberport development at Telegraph Bay.

### **PROPOSAL**

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2. The Director of Territory Development (DTD), with the support of the Secretary for Information Technology and Broadcasting (SITB) and the Secretary of Works (S for W), proposes to upgrade part of **653CL** to Category A at an estimated cost of \$964 million in money-of-the-day (MOD) prices for the provision of roads, drains and the essential infrastructure for the Cyberport development.

### **PROJECT SCOPE AND NATURE**

3. The full scope of **653CL** comprises –
- (a) advance works on the reclamation including installation of vertical drains, surcharging the reclamation area using both public fill and imported fill, construction of a box culvert and associated earthworks;
  - (b) construction of the southern access road (about 1 100 metres long), Road D1 (about 760 metres long), Road D2 (about 160 metres long), and associated footpaths, noise barriers, stormwater drains and sewers;
  - (c) waterworks (including about 1 500 metres of fresh water trunk main);
  - (d) construction of a sewage treatment plant including a 300 metres long sewage submarine outfall;
  - (e) construction of a public transport interchange;
  - (f) reprovisioning of part of the Government kennels; and
  - (g) construction of the northern access road (about 440 metres long) and associated footpaths, waterworks (including fresh water trunk main) and drainage works.

4. The part of the project we now propose to upgrade to Category A comprises -

- (a) detailed design and construction of the works described in paragraphs 3(a) to 3(f) above; and
- (b) site investigation and engagement of consultants to carry out the detailed design of the works described in paragraph 3(g) above.

## **JUSTIFICATIONS**

5. The Financial Secretary announced in the 1999-2000 Budget Government's intention to proceed with the proposed Cyberport project. The Cyberport is an information infrastructure project which aims to create a strategic cluster of top information technology and services (IT and IS) companies and a critical mass of professional talent in Hong Kong in the shortest possible time. By providing a high quality living and working environment, top IT/IS companies as well as local and overseas talent could be attracted to, and retained in, Hong Kong. There will be common facilities, including the latest telecommunications backbone and equipment for the development of IT applications and IS for shared use by tenants. The Cyberport will be designed as a flagship project to put Hong Kong firmly on the global IT map. Upon full development, the Cyberport will provide some 12 000 jobs and accommodate a residential population of about 10 000.

### The Essential Infrastructure

6. The development area of Cyberport is on reclaimed land. In 1989, the Director of Civil Engineering (DCE) completed the reclamation works at Telegraph Bay by way of public filling using barges. The area has not been occupied so as to allow the residual settlement to take place for an appropriate period of time. However, there will be settlement in excess of the current design standard if development proceeds now without any ground treatment. We therefore need to carry out ground improvement work to accelerate the settlement process prior to handing over the site to the Cyberport developer. In addition, we need to complete a box culvert and the associated earthworks in the northern part of the site which is inside the first phase of the Cyberport development. To tie in with the development programme of the first phase of the Cyberport, we need to carry out these advance works in late 1999 for completion in mid 2001.

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7. At present, there is no road access to Telegraph Bay. In accordance with a traffic impact assessment (TIA) study, we need to provide road access at both ends of the Cyberport development. The proposed southern access road will connect the site to Victoria Road whereas the proposed northern access road will connect the site to Sha Wan Drive. The northern and southern access roads will be connected by a distributor Road D1 within the site. Another distributor Road D2 within the site will be connected to the future Telegraph Bay Interchange of Route 7. The southern access road and Road D1 are required to meet the traffic demand generated from the first phase of the Cyberport development. In conjunction with the roadworks, we will construct the associated public transport interchange, drainage and sewerage to serve the Cyberport development. We plan to complete necessary water works in conjunction with the road construction. We also need to re-provision part of the Government kennels affected by the southern access road.

8. At present, Telegraph Bay is unsewered. In the long term, the sewage from the Cyberport development will be discharged into the proposed Strategic Sewage Disposal System (SSDS) Stage III/IV when the system starts to operate around 2007/2008. Before the commissioning of the SSDS, there is a need for a short term sewage treatment and disposal facility. We will provide a sewage treatment plant at Telegraph Bay to serve the Cyberport development and will discharge the treated effluent to the waters in East Lamma Channel via a 300 metres long submarine outfall.

#### The Works Programme

9. The current programme is to start construction of the first phase of the proposed Cyberport in mid 2000 for completion by end 2001. The last phase of the Cyberport is scheduled for completion by end 2003/early 2004, and the associated residential development by end 2007. To achieve the target completion of the first phase of the Cyberport development by end 2001, we need to provide the necessary supporting engineering infrastructure in a timely manner. The construction must start by end 1999 at the latest. This is only achievable through entrustment of both design and construction of these works to the Cyberport developer. This arrangement would expedite the design and construction process through effective co-ordination of the Cyberport developer. Furthermore, the construction period of the infrastructure work will overlap with that of the Cyberport development. Entrustment of the works to the Cyberport developer will

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avoid interface problems due to multiple contractors working on the same site and using temporary jetties<sup>1</sup>. Subject to the signing of a Project Agreement, the Administration will develop the Cyberport in collaboration with the Pacific Century Group (PCG), a leading information technology and services company. To ensure cost effective and timely completion of the proposed infrastructure works, we propose to entrust to the developer the design and construction of works described in paragraphs 3(a) to 3(f) above.

10. The TIA study recommended that the northern access road should be completed by end 2003 to meet the traffic demand arising from the subsequent phases of the Cyberport development. DTD plans to start construction work on the road in September 2000 for completion by end 2003. To tie in with this programme, DTD needs to start the detailed design of the road and the watermains beneath it in September 1999 for completion in May 2000.

## FINANCIAL IMPLICATIONS

11. We estimate the capital cost of the project to be \$964 million in MOD prices (see paragraph 12 below), made up as follows –

	<b>\$ million</b>
(a) Design and construction of works to be entrusted to Cyberport developer	795.0
(i) advance works	130.0
(ii) roadworks	293.0
(iii) sewage treatment works including submarine outfall	203.0

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<sup>1</sup> During the initial stage of the construction, all fill and construction materials will be transported to the site by barges.

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	<b>\$ million</b>	
(iv) noise mitigation measures	73.0	
(v) waterworks, drainage and sewerage works	77.0	
(vi) reprovisioning works and public transport interchange	15.0	
(vii) Fees for independent checking engineer <sup>2</sup>	4.0	
(b) Site investigation and detailed design of northern access road including the watermains	8.5	
(i) site investigation	3.0	
(ii) consultants' fees	5.5	
(c) Contingencies	80.5	
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Sub-total	884.0	(at December 1998 prices)
(d) Provision for price adjustment	80.0	
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<sup>2</sup> The duty of the independent checking engineer (ICE) is to check the adequacy of the design produced by the developer's consultants, method statements and complicated temporary works design submitted by the contractor, and inspection of works before handing over to Government. The employment of the ICE is to be approved by Government in advance and there will be provisions in the Entrustment Agreement to enable Government to monitor the ICE's work. The ICE is also required to submit checking certificates to Government.

Total 964.0 (in MOD prices)

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Item (a)(v) above includes the installation of a fresh water trunk main beneath the roads at an estimated cost of \$23 million. This trunk main is to serve not only the Cyberport, but Pok Fu Lam area as a whole. We propose entrustment of this item to the Cyberport developer in order to avoid the need to open up the roads soon after their completion. Owing to insufficient in-house resources, DTD proposes to engage consultants to undertake supervision of site investigation and to carry out the detailed design for the northern access road and the watermains under item (b) above. A breakdown by man-months of the estimate for consultants' fees is at the Enclosure. The Civil Engineering Department's term contractor and Government Public Works Central Laboratory will undertake the necessary site investigation and laboratory testing respectively.

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

<b>Year</b>	<b>\$ million (Dec 1998)</b>	<b>Price adjustment factor</b>	<b>\$ million (MOD)</b>
1999 – 2000	50.0	1.02625	51.3
2000 – 2001	320.0	1.06217	339.9
2001 – 2002	345.0	1.09934	379.3
2002 – 2003	138.0	1.13782	157.0
2003 – 2004	31.0	1.17765	36.5
	<hr style="width: 50%; margin: 0 auto;"/> 884.0		<hr style="width: 50%; margin: 0 auto;"/> 964.0

13. We have derived the MOD estimate on the basis of the Government's latest forecast of trend labour and construction prices for the period between 1999 and 2004. The proposed entrusted works to the Cyberport developer will be executed on a lump sum basis. DTD will award the proposed consultancy for the northern access road on a lump sum basis. The consultancy will provide for inflation adjustments as the consultancy period will exceed 12 months.

14. We estimate the annually recurrent expenditure to be \$9.63 million.

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## **PUBLIC CONSULTATION**

15. We consulted the Traffic and Transport Committee of the Southern Provisional District Board on 22 March 1999 on the proposed road scheme. Members had no objection to the proposal. We briefed the Legislative Council Information Technology and Broadcasting Panel on the Cyberport project on 29 April and 5 May 1999. We provided projections of the possible financial return to Government and the developer under various scenarios, the justification for proceeding with this project on the current arrangement, the key terms in the letter of intent signed with the developer, including the undertakings Government has obtained from it. We also supplied supplementary information related to examples of entrustment works to private developers and a breakdown of the construction cost of the Cyberport.

16. We gazetted the proposed construction of the sewage submarine outfall and temporary jetties under the Foreshore and Sea-bed (Reclamations) Ordinance and the construction of roads under the Roads (Works, Use and Compensation) Ordinance on 30 April 1999. To provide for the Cyberport development, a revised Outline Zoning Plan (OZP) was gazetted under the Town Planning Ordinance on 30 April 1999.

## **ENVIRONMENTAL IMPLICATIONS**

17. The Cyberport development is a Designated Project (DP) under Schedule 3 of the Environmental Impact Assessment Ordinance (EIAO) and requires an EIA report to be approved under the EIAO. In addition, the distributor Roads D1 and D2, the sewage treatment works and a 300 metres long sewage submarine outfall are also DPs under Schedule 2 of the EIAO for which environmental permits are required for their construction and operation.

18. We have prepared an EIA report for the Cyberport development in accordance with the requirements of the EIA study brief and the Technical Memorandum on EIA process. In April 1999, the EIA report was approved under the EIA Ordinance. The EIA concluded that with the implementation of

the recommended mitigation measures, the environmental impacts arising from the project could be mitigated to within the established standards and guidelines. We exhibited the EIA report for public inspection on 12 March 1999 for a period of 30 days. We also presented the EIA report to the EIA Subcommittee of the

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Advisory Council for the Environment (ACE) and the ACE Full Council endorsed the EIA report on 26 April 1999. We shall implement the mitigation measures set out in the approved EIA report. The key measures include the provision of noise barriers and low noise road surfacing at critical sections of the roads. We estimate the cost of implementing the environmental mitigation measures to be \$73 million. We have included this cost in the overall project estimate.

## **LAND ACQUISITION**

19. The proposed works do not require any land acquisition. The clearance of the government land at Kong Sin Wan Tsuen will affect about 22 households involving some 66 persons. The Director of Housing will offer the eligible families accommodation in public housing in line with the existing housing policy. We will charge the cost of clearance, estimated at \$0.25 million, to Head 701 – Land Acquisition.

## **BACKGROUND INFORMATION**

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

21. Subject to funding approval, we plan to enter into an entrustment agreement with the Cyberport developer in June 1999. The entrusted works will start as soon as possible thereafter for completion in phases from mid 2001 to early 2002.

22. We plan to start the site investigation and detailed design for the northern access road in September 1999 for completion in May 2000. We plan to construct the northern access road in September 2000 for completion by end 2003.

## **URGENCY**

23. We need to obtain Finance Committee's approval of this project as soon as practicable so that the proposed works could start early. In view of the urgency and subject to Members' approval, we intend to submit this item to

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Finance Committee earlier for consideration at its meeting to be held on 21 May 1999 rather than at the meeting on 4 June 1999 in accordance with normal procedure.

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Information Technology and Broadcasting Bureau  
May 1999

**653CL – Engineering infrastructure for Cyberport development  
at Telegraph Bay**

**Breakdown of the estimate for consultants' fees for the detailed design of the  
northern access road and the watermains beneath the road**

<b>Consultants' staff costs</b>			<b>Estimated man months</b>	<b>Average MPS* salary point</b>	<b>Multiplier factor</b>	<b>Estimated fee (\$ million)</b>
(a)	Supervision of site investigation	Professional	1.0	40	2.4	0.15
		Technical	1.0	16	2.4	0.05
(b)	Detailed design	Professional	27.0	40	2.4	4.07
		Technical	24.5	16	2.4	1.24
<b>Total consultants' staff costs</b>						5.51

\* 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. (At 1.4.98, 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. We will only know the actual man months and fees when we have selected the consultants through the usual competitive fee bidding system.



