

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 705 - CIVIL ENGINEERING

Civil Engineering - Land development

5660CL - Site formation, construction of associated infrastructure and provision of government, institution and community facilities for an international theme park on Lantau Island

Members are invited to recommend to Finance Committee –

- (a) to upgrade part of **5660CL**, entitled “Reclamation of Penny’s Bay Stage 1 works¹, design of site formation at Yam O and design of associated infrastructure and government, institution and community facilities for the development of Hong Kong Disneyland Phase 1 on Lantau Island”, to Category A at an estimated cost of \$6,923.9 million in money-of-the-day prices; and
- (b) to retain the remainder of **5660CL** in Category B.

/PROBLEM

¹ The Penny’s Bay Stage 1 reclamation works cover approximately 200 ha of land. The works include 126 ha for the HKD Phase 1 reclamation and a further 74 ha of reclamation to provide associated infrastructure and government facilities to enable HKD Phase 1 to open on schedule in 2005.

PROBLEM

The Administration needs to provide land, associated infrastructure and government, institution and community (GIC) facilities to support the development of an international theme park, to be known as Hong Kong Disneyland (HKD), at Penny's Bay on Lantau Island.

PROPOSAL

2. The Director of Civil Engineering (DCE), with the support of the Secretary for Economic Services, proposes to upgrade part of **5660CL** to Category A at an estimated cost of \$6,923.9 million in money-of-the-day (MOD) prices to -

- (a) carry out the Penny's Bay Reclamation Stage 1 works, and
- (b) engage consultants to undertake the design work for the site formation at Yam O, and for associated infrastructure and GIC facilities for the development of the HKD Phase 1 on Lantau Island.

PROJECT SCOPE AND NATURE

3. The scope of the project we now propose to upgrade to Category A comprises -

Land formation at Penny's Bay Stage 1

- (a) dredging and reclamation works for the formation of about 200 hectares (ha) of land at Penny's Bay with about 2.2 km of permanent sloping seawall, 50m of permanent vertical seawall and associated temporary access road and drainage works to support the development of HKD Phase 1;
- (b) provision of site staff for the works at (a) above;

/Land

Land formation at Yam O

- (c) investigation and engineering design for the formation of about 10 ha of land at Yam O;

Associated infrastructure & GIC facilities

- (d) investigation and engineering design for the following associated infrastructure and GIC facilities -
 - (i) a dual-2 lane/dual-3 lane carriageway (namely Road P2) of about 4.5 km in length connecting the proposed railway station at Yam O to the theme park and the reprovisioning of access to an existing power station;
 - (ii) a resort road about 1.8 km in length around HKD Phase 1;
 - (iii) a central pedestrian walkway of about 800 m in length in the centre of the retail, dining and entertainment area adjacent to HKD Phase 1;
 - (iv) an at-grade public transport interchange (PTI) near the proposed Penny's Bay railway station and a PTI at the proposed railway station at Yam O;
 - (v) a public pier;
 - (vi) landscaping berms, road side buffers, and other landscaping works for HKD Phase 1;
 - (vii) a public water recreation centre for water sports (including a lake of about 12 ha which will also provide water supply for irrigation);
 - (viii) a sewerage network to convey sewage from Penny's Bay to the existing sewage treatment plant at Siu Ho Wan;
 - (ix) a stormwater drainage system including box and pipe culverts in the Penny's Bay Reclamation Stage 1 and an open channel about 1.2 km in length on the west of the reclamation;

- (x) a fresh water service reservoir at Yam O Tuk (site investigation only), a fresh water pipeline from Yam O Tuk to HKD Phase 1 and a salt water supply system from Tai Ho to HKD Phase 1; and
- (xi) essential GIC facilities including two police posts and one fire/ambulance station (site investigation only) ;
- (e) investigation and design of the decommissioning works for an existing shipyard to be acquired for the roads works and the water recreation centre mentioned above; and
- (f) aesthetic design of the infrastructure and GIC facilities consistent with the requirements of the theme park development.

A site plan of the project is at Enclosure 1.

4. The balance of **5660CL** to be retained in Category B includes -
- (a) the actual dredging and reclamation works for the 10 ha of land at Yam O, and associated site supervision costs (as follow up to para. 3(c) above);
 - (b) the actual construction of the associated infrastructure and GIC facilities (as follow up to para. 3(d) to (f) above);
 - (c) dredging and reclamation works for the balance of the Penny's Bay Reclamation (80 ha); and
 - (d) investigation, engineering design and construction for the remaining associated infrastructure.

/JUSTIFICATION

JUSTIFICATION

5. The justification for the Government entering into the agreement with The Walt Disney Company (WD) are the significant economic benefits deriving from the operation of the theme park itself, opportunities for employment creation as well as spin off benefits from business activities in support of the theme park and additional tourist spending elsewhere in Hong Kong. There will also be non-quantifiable benefits in terms of the enhancement to Hong Kong's international image and quality of life.

6. According to the agreed programme for the theme park project, the Administration is required to –

- (a) invite tenders for the first site formation contract “Penny’s Bay Reclamation Stage 1” in January 2000 for award of the contract by end of April 2000; and
- (b) award a consultancy agreement to commence investigation and design of the site formation at Yam O and the associated infrastructure for the development of the HKD Phase 1 by end April 2000.

Failure to achieve the above milestones will put the project timetable at risk and lead to deferment of the economic benefits. In order to meet the above programme, we funded the detailed design work and preparation of contract documents for the Penny’s Bay Reclamation Stage 1 in November 1999 under a Category D item of the Public Works Programme. We did so after the announcement by the Chief Executive of the conclusion of the negotiations with WD.

FINANCIAL IMPLICATIONS

7. The estimate for works proposed for upgrading to Category A is \$6,211 million in September 1999 prices or \$6,923.9 million in MOD prices, made up as follows –

/(a)

	\$m
(a) Land formation for HKD Phase 1 to be completed by 2002	
(i) Dredging and reclamation works at Penny's Bay (126 ha)	3,267
(ii) Consultants' fees for construction supervision and site staff costs	67
(iii) Contingencies for (a)(i) and (ii) above	326
	3,660
(b) Land formation to be completed by 2005	
(i) Dredging and reclamation works at Penny's Bay outside HKD Phase 1 area (74 ha)	2,128
(ii) Consultants' fee for construction supervision and site staff costs	46
(iii) Investigation and consultants' fee for design of land formation at Yam O (10 ha)	30
(iv) Contingencies for (b)(i) to (iii) above	220
	2,424
(c) Associated infrastructure & GIC facilities to be available by 2005	
(i) Investigation and consultants' fees for design of items in para. 3(d)-(f) above	115
(ii) Contingencies	12
	127
Total in September 1999 prices	6,211.0
Provision for price adjustment	712.9
Total amount sought in MOD prices	6,923.9

/A

A breakdown by man months of the estimate for the consultants' fees is at Enclosure 2.

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

Year	\$ million (Sept 1999)	Price adjustment factor	\$ million (MOD)
2000 – 2001	940.0	1.04250	980.0
2001 – 2002	2,603.0	1.09463	2,849.3
2002 – 2003	2,205.0	1.14936	2,534.3
2003 – 2004	437.0	1.20682	527.4
2004 – 2005	26.0	1.26717	32.9
	6,211.0		6,923.9

9. We derived the MOD estimates on the basis of Government's latest forecast of trend labour and construction prices for the period 2000 to 2005. We will award the reclamation contract on a re-measurement basis as the actual quantities of major items for dredging and filling cannot be accurately determined at the design stage. We have included an option in an existing consultancy agreement for the design and construction of the Penny's Bay Reclamation requiring the consultants to provide site staff for the supervision of the reclamation works, if instructed by DCE. The consultant for this agreement was selected through the usual competitive lump sum fee system. For the design of the infrastructure under this proposal, we will select the consultants through the normal competitive lump sum fee arrangement. The reclamation contract and consultancy agreements will have provisions for inflation adjustment as the duration of the contract will exceed 21 months and the duration of the consultancy agreements will exceed 12 months.

10. We estimate the annually recurrent expenditure for the maintenance of the seawall for the reclamation to be \$4.20 million. The proposed investigation and design work for the associated infrastructure and GIC facilities has no recurrent financial implications.

/PUBLIC

PUBLIC CONSULTATION

11. We briefed the Islands and the Tsuen Wan Provisional District Boards (PDBs) on 4 and 5 August 1999 respectively on the proposed changes of land use at North-East Lantau to tourism and recreation and the need for gazetting the Penny's Bay Reclamation under the Foreshore and Sea-bed (Reclamations) Ordinance. Members of the PDBs were generally supportive of the proposed theme park development. We gazetted the proposed amendments to the Outline Zoning Plan for North-East Lantau on 13 August 1999.

12. We briefed the Ma Wan Rural Committee on 25 August 1999 on the above changes and requirements. Members of the Rural Committee were generally supportive of the proposed theme park development although some members were concerned about the possible impacts to fisheries during the dredging and filling operations and expressed reservations on the method for assessing fishermen's claims. We also briefed the Advisory Council of the Environment on 27 September 1999 on the review of the construction impact of the project due to changes in reclamation limits and the sequence of work for the theme park development. The Council noted the results of the review.

13. Subsequent to the changes in land use proposed under the North-East Lantau Outline Zoning Plan, we published a gazette notice under the Foreshore and Sea-bed (Reclamations) Ordinance on 15 October 1999 for the reclamation at Penny's Bay. We met the representatives of the Ma Wan Fisheries Rights Association Limited on 8 November 1999 and will meet them again to further discuss the details of the project and compensation issues. We will also meet other relevant bodies and organizations to brief them on the development of the reclamation works at Penny's Bay and Yam O, and to hear their views and concerns on the project.

14. We circulated a briefing paper to Members of the Legislative Council on 3 November 1999, including a site plan of the proposed HKD development and a full description of the economic and other benefits which will derive from the project. We briefed the House Committee and the Economic Services Panel of the Legislative Council on the HKD project several times thereafter.

/15.

15. On 26 November 1999, the Finance Committee accepted in principle the financial implications for formation of land and provision of the infrastructure and GIC facilities to support the development of the HKD at an estimated cost of \$13.569 billion in September 1999 prices. The Administration intends to enter into binding contracts with WD on 10 December 1999.

ENVIRONMENTAL IMPLICATIONS

16. The HKD development will be located on a reclaimed site at Penny's Bay. The area was originally earmarked for container port development under the Lantau Port and Western Harbour Development Studies in 1993. Three Environmental Impact Assessment (EIA) studies were completed in 1995 which thoroughly examined all environmental issues in relation to the reclamation works and associated infrastructures. The EIA reports showed that the environmental impacts of the works could be controlled to meet the relevant environmental criteria.

17. The EIA reports also concluded that the Penny's Bay area was less utilized by dolphins than North Lantau and was not an area of major significance to dolphins. This conclusion is supported by other extensive dolphin surveys initiated by CED (1996) and AFD (1995 to 1998). To minimize any potential impacts on the dolphins, the EIA studies recommended specific precautionary measures, which have been demonstrated to be effective for other projects in Hong Kong, such as undertaking dolphin monitoring during construction and providing a 500m buffer/safety zone during any construction activities which may be stressful to dolphins. These EIA reports were endorsed by the Advisory Council of the Environment (ACE) in 1995 and are now placed in the EIA Ordinance Register accessible by the public.

18. We completed an environmental review in July 1999 on the environmental impacts of the reclamation works. The review concluded that as the extent of reclamation work for the HKD development in Penny's Bay is less than that proposed for the original port development at the same location, the environmental impacts are anticipated to be less than those in previously endorsed EIA reports. The review report was presented to the ACE on 27 September 1999. There were no dissenting comments from Members of the Council.

/19.

19. The HKD development is a designated project under the EIA Ordinance and will be strictly controlled under that Ordinance and other environmental legislation. We are carrying out a further EIA study for the HKD development to reconfirm previous findings and to address any alterations as a result of the change in land use (e.g. changes in traffic demand). We will exhibit the EIA report for members of the public and the ACE to comment in accordance with the EIA Ordinance. Environmental permits will need to be obtained from the Environmental Protection Department for all the designated projects before construction works commence. We will implement all recommendations in the EIA study and comply with all conditions in the relevant environmental permits.

20. At the planning and design stages for the reclamation works we considered ways to minimise the generation of construction and demolition material (C&DM) and to maximize the use of public fill. The Penny's Bay Stage 1 reclamation works will use about 60 million cubic metres of fill material comprising both marine sand and public fill. We estimate that about 2 million cubic metres of public fill, which will be sorted for quality control requirements, will be placed in the reclamation. The use of public fill will be addressed further in the EIA study referred to in paragraph 19 above.

21. We estimate that only about 5000 cubic metres of C&D waste will need to be disposed of at landfills.

22. We estimate the reclamation works for the project will produce some 30 million cubic metres of uncontaminated mud. There will be sufficient capacity in the disposal areas at East Ninepins, East of Tung Lung Chau and North of Lantau for the disposal of this mud. About 10,000 cubic metres of Class C contaminated mud generated by the project will be disposed of at East Sha Chau.

LAND ACQUISITION

23. The proposed reclamation at Penny's Bay does not require land clearance and acquisition at this stage although the marine access of an existing shipyard at Penny's Bay will be cut off by the reclamation works. Compensation, if any, will be determined by the Lands Tribunal in accordance with the provisions of the Foreshore and Seabed (Reclamations) Ordinance. In due course, we will initiate the required statutory procedures to acquire the land occupied by the existing shipyard for the construction of the water recreation centre and road works.

/BACKGROUND

BACKGROUND

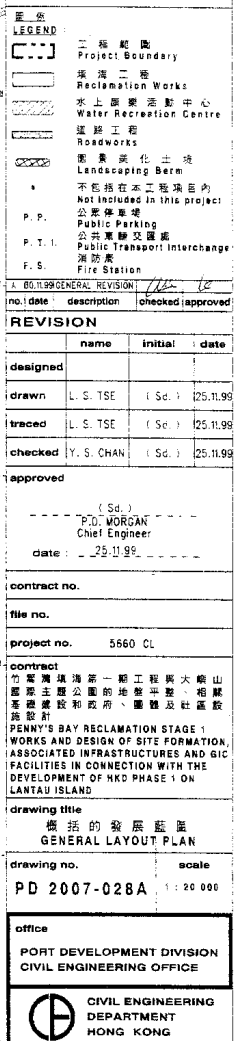
24. We included **5660CL** in Category B of the Public Works Programme in November 1999.

25. We funded the detailed design work for the Penny's Bay Reclamation Stage 1 works in November 1999 for completion in January 2000 under block allocation **Subhead 5101CX**.

26. We plan to invite tenders for the first site formation contract "Penny's Bay Reclamation Stage 1" in January 2000 for award of the contract by end of April 2000 but not before the necessary environmental permits have been obtained. We will commence the works in May 2000 for handing over the HKD Phase 1 theme park site in 2002.

27. We plan to invite expressions of interest from consultants in January 2000 for the investigation and design of the site formation at Yam O, associated infrastructure and GIC facilities for the development of the HKD Phase 1. We will commence the work in April 2000 for completion in 2003.

Tourism Commission
Economic Services Bureau
December 1999



Enclosure 2 to PWSC(1999-2000)74

Breakdown of estimates for consultants' costs (in September 1999 prices)

			Estimated man months	Average MPS salary point	Multiplier factor	Estimated fee (\$ million)
Land Formation at Penny's Bay (Stage 1 Reclamation)						
Consultants' staff costs						
(a)	Consultants' fees for construction stage	Professional	23	40	2.4	4.0
		Technical	11	16	2.4	
(b)	Site supervision (including environmental monitoring) by resident site staff employed by the consultants	Professional	560	40	1.7	109.0
		Technical	1378	16	1.7	
Total :						113.0
Land Formation at Yam O and Associated infrastructure & GIC facilities						
Consultants' staff costs						
(a)	Consultants' fees for design stage	Professional	460	40	2.4	85.0
		Technical	312	16	2.4	
Out-of-pocket expenses						
(a)	Site investigation works					60.0
Total :						145.0

Notes

1. A multiplier factor of 2.4 is applied to the average MPS point to arrive at the full staff costs including the consultant's overheads and profit, for the staff who will be employed in the consultant's offices. (At 1.4.99, MPS pt.40 = \$62,780 p.m. and MPS pt.16 = \$21,010 p.m.).
2. A multiplier factor of 1.7 is applied to the average MPS point to arrive at the full staff costs including the consultant's overheads and profit, for resident site staff who will be employed in the site offices. (At 1.4.99, MPS pt.40 = \$62,780 p.m. and MPS pt.16 = \$21,010 p.m.).
3. Out-of-pocket expenses are the actual costs incurred. The consultant is not entitled to any additional payment for overheads or profit in respect of these items.
4. The figures given above are based on estimates prepared by the Director of Civil Engineering. The consultancy works are proposed to be carried out by consultants which will be selected through the usual competitive lump sum fee bid system.