

For discussion
on 9 May 2007

PWSC(2007-08)15

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
728CL - Preservation of Queen's Pier

Members are invited to recommend to Finance Committee the direct injection of **728CL** to Category A at an estimated cost of \$50.0 million in money-of-the-day prices for the preservation of the Queen's Pier.

PROBLEM

We need to preserve the Queen's Pier (hereinafter called "the Pier") in a practically feasible and efficient manner whilst allowing the Central Reclamation Phase III (CRIII) project to continue to proceed with minimum disruption.

PROPOSAL

2. The Director of Civil Engineering and Development, with the support of the Secretary for Housing, Planning and Lands, proposes the direct injection of a new item at an estimated cost of \$50.0 million in money-of-the-day (MOD) prices for the preservation of the Pier.

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PROJECT SCOPE AND NATURE

3. The scope of **728CL** comprises –
- (a) preservation of the retainable parts of the above-ground structure of the Pier;
 - (b) transportation and storage of the preserved parts to/at a temporary location; and
 - (c) strengthening of the preserved parts and reassembly of the Pier.

————— A plan showing the current location of the Pier is at Enclosure 1.

4. The scope of works referred to in items 3(a) to (c) above covers the preservation, storage and reassembly of the Pier at a suitable location. The whole process would be carried out with reference to the relevant international charters and guidelines in respect of heritage preservation. Measured drawings and photographic records of the existing condition of the Pier would be taken, collected and retained and the entire reassembly process will be documented. A government architect with adequate seniority and proven experience in building preservation will advise and supervise the carrying out of items 3(a) and 3(c) having regard to the principles referred to above.

5. With regard to item 3(a), the above-ground structure of the Pier comprises the metal wares and non-structural parts, a big concrete roof of about 500 tonnes, 34 concrete columns and two load bearing walls with stone facing. For the metal wares and non-structural parts, these include bollards, balustrades, baluster columns, handrails, the Chinese and English “Queen’s Pier” plaques, other directory signs, navigation lights, precast concrete landing steps, planters and concrete benches. All these parts would be carefully dismantled, and preserved, one by one. The concrete roof is big and we will preserve the roof in parts by saw-cutting into four to five segments (with the central pitched roof portion divided into two halves). We will preserve the 34 existing concrete columns, one by one, by carefully saw-cutting at roof and deck level. We will carefully take down the stone facing of the two load bearing walls, block by block. All the preserved parts of the existing Pier would be meticulously labelled and diligently protected for temporary storage and future reassembly.

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6. With regard to item 3(b), we will construct a temporary store for proper storage of all the preserved parts in item 3(a). The item also includes dismantling of the store after use.

7. With regard to item 3(c), we will strengthen all the preserved parts before transporting them to the permanent site for reassembling. We will strengthen the columns by coring through them and providing structural steel column inserts. We will construct a flat roof in the form of a concrete and steel composite structure and join it to the structural steel column inserts. We will tie down the preserved pitched roof to the concrete and steel composite roof. We will construct a concrete foundation to support the columns. We will reconstruct the two load bearing walls and reinstate the original stone facing to the walls. All major load bearing parts of the Pier will thus be substantially strengthened without change of appearance. We will also re-install the metal wares and non-structural parts with reference to their original positions in the Pier. The relocation and reassembly would be carried out with precision, based on documentary evidence, using the preserved parts as far as practicable. Explanatory signage would be displayed to recount the history of the Pier and the reassembly process.

8. We plan to start the proposed works in items 3(a) and 3(b) after the approval of the funding so as to allow the CRIII works to continue to proceed. For the proposed works in item 3(c), the implementation schedule will depend on the permanent location of the reassembled Pier. In this regard, the Planning Department is now conducting the Central Reclamation Urban Design Study, under which the location and design ideas for the future reassembly of the Pier will be examined through extensive public engagement activities. The Study is scheduled for completion in end 2007.

9. If the location to be chosen is on land and is cleared of the planned infrastructures, we plan to start the proposed works in item 3(c) around December 2009 for completion around December 2010.

10. If the marine operation is to be provided for the reassembled Pier, gazettal under the Foreshore and Sea-bed (Reclamations) Ordinance and marine piled foundation will be required. The proposed works in item 3(c) will then start around December 2010 for completion around December 2011.

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11. If the Pier is to be reassembled at its original location (or in other position similarly in conflict with the proposed Airport Railway Extended Overrun Tunnel (AR EOT)), advance works for the AR EOT will be required. The advance works will take about two years to complete. We will then start the proposed works in item 3(c) around December 2011 for completion around December 2012. Road P2 will also need to be realigned. We will arrange for gazetting of the amendment to Road P2 after the completion of the Central Reclamation Urban Design Study.

JUSTIFICATION

12. The CRIII project is needed to provide land for essential transport infrastructure including the Central-Wan Chai Bypass and Road P2 network, the AR EOT and the North Hong Kong Island Line. It will also provide land for a vibrant waterfront promenade for public enjoyment. The existing waterfront facilities including, inter alia, the Pier are affected by the reclamation. Under the CRIII work contract, the relocation of the marine operation of the Pier to the new Pier No. 9 and the demolition of the Pier were originally scheduled for February 2007.

13. We understand the nostalgic feelings attached to the Pier and the wish for its preservation. In the past few months, we have engaged four professional bodies (namely Association of Engineering Professionals in Society, Conservancy Association, Hong Kong Institute of Architects and Hong Kong Institution of Engineers) in four meetings during which the feasible preservation options were examined. We have also invited and exchanged views with concerned organisations/individuals on the subject. Four proposals have been examined in detail, as follows:

- ◆ Proposal (a): In-situ preservation by shifting the alignments of the planned infrastructures which are in conflict with the Pier.
- ◆ Proposal (b): In-situ preservation by filling the void underneath the Pier by sand/grouting; constructing the underground AR EOT and drainage culvert by underpinning and tunnelling method; and constructing a temporary road to buy time for completing the statutory procedures for the amendment scheme of Road P2.

/Proposal

- ◆ Proposal (c): In-situ reinstatement by rolling the superstructure (roof and column) away for construction of the underground infrastructure and rolling it back upon completion of the construction; and shifting Road P2 away from the Pier.

- ◆ Proposal (d): Preserve the above-ground structure of the Pier as far as practicable and store for reassembling in close proximity to its original location or at other appropriate location.

14. In evaluating the different options for preserving the Pier, the prime consideration is whether the options are technically feasible. After the discussions with the professional bodies (as referred to in paragraph 13 above) and taking account of the professional advice given, our conclusion is that Proposal (d) should be adopted to preserve the Pier. This option is the most practically feasible way forward, with minimum impact on project delay and least additional cost. We have not specified the exact location for reassembly of the Pier under this Proposal, and wish to stress that reassembly at the Pier’s original location is one option we will pursue (as referred to in paragraph 11 above). We shall identify the location for reassembling the Pier under the Central Reclamation Urban Design Study, with the participation of professional bodies and the general public (as mentioned in paragraph 8 above).

FINANCIAL IMPLICATIONS

15. We estimate the capital cost of the project to be \$50.0 million in MOD prices (see paragraph 16 below), made up as follows –

	\$ million
(a) Preserving Pier Components	10.0
(b) Transport and store at a temporary location	9.0
(c) Strengthening Works	6.0

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(d)	Transport to final location	4.0	
(e)	Reassembling the Pier	10.0	
(f)	Consultants' fees for -	6.0	
	(i) detailed design and tender stages	2.4	
	(ii) construction stage	0.6	
	(iii) resident site staff costs	3.0	
(f)	Contingencies	4.2	
		49.2	(in September 2006 prices)
	Sub-total		
(g)	Provision for price Adjustment	0.8	
		50.0	(in MOD prices)
	Total		
		50.0	(in MOD prices)

We will carry out items 3(a) and 3(b) under the existing contract no. HK12/02: Central Reclamation Phase III – Engineering Works (CRIII contract). We will implement item 3(c) under a separate contract. The contract will not provide for price adjustments as the construction period will not exceed 21 months. Due to insufficient in-house resources, we propose to engage consultants for the detailed design, preparation of tender document, assessment of tender and construction supervision of the proposed works in item 3(c) above under the supervision of a government architect as mentioned in paragraph 4 above. A breakdown by man-months of the estimate for consultants' fees is at Enclosure 2.

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

Year	\$ million (Sept. 2006)	Price adjustment factor	\$ million (MOD)
2007 – 08	17.0	0.99900	17.0
2008 – 09	2.2	1.00649	2.2
2009 and beyond	30.0	1.02676 ¹	30.8
	49.2		50.0

17. We have derived the MOD estimates on the basis of the Government's latest forecast of trend rate of change in the prices for public sector building and construction output.

18. Depending on the permanent location of the reassembled Pier, additional costs will be involved if marine piled foundation for provision of the marine operation of the Pier is required (paragraph 10 above) and if AR EOT advance works need to be done (paragraph 11 above).

19. The current recurrent expenditure on the existing Pier is about \$700,000. Whether there will be additional recurrent expenditure arising from the project would depend on the final design concept of the Pier to be considered under the Central Reclamation Urban Design Study.

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¹ The price adjustment factor for 2009 and beyond is the average of the price adjustment factors for three consecutive fiscal years starting from 2009-10. Yearly expenditure for 2009 and beyond will depend on the location for the reassembly of the Pier.

PUBLIC CONSULTATION

20. On 23 January 2007, we briefed the Legislative Council Panel on Planning, Lands and Works (PLW Panel) on our proposal to preserve the Pier. After listening to deputations of professional and community bodies at the same meeting, the Panel suggested that the Administration should discuss with the professionals on the arrangements for preserving the Pier.

21. We then held four meetings with the four professional bodies mentioned in paragraph 13 above on the methods for preserving the Pier. We exchanged views with concerned organisations on the preservation options through meetings with them and at a town hall meeting organised by some of these organisations. We also carefully studied the written submissions by interested organisations to the PLW Panel. Having considered all the views and professional opinions obtained, the conclusion we made and our recommendation for Proposal (d) were presented to the PLW Panel vide the paper CB(1)1184/06-07(04) at its meeting held on 23 April 2007. The Panel voted down a motion on the preservation of the Pier at its original location and supported the Administration's proposal to seek funding support of the Public Works Subcommittee for the preservation of the retainable parts of the above-ground structure of the Pier for reassembly at a suitable location after public consultation.

ENVIRONMENTAL IMPLICATIONS

22. This is not a designated project under the Environmental Impact Assessment Ordinance. The project will not cause long term environmental impact. We have included in the project estimates the cost to implement suitable mitigation measures to control short term environmental impacts.

23. We shall preserve the above-ground structure of the Pier as described in paragraph 4 above. The proposed works will generate small amounts of construction and demolition (C&D) materials. We will require the contractor to reuse inert C&D materials (e.g. excavated materials) on site or in other suitable construction sites as far as possible, in order to minimise the disposal of C&D materials to public fill reception facilities. We will encourage the contractor to maximise the use of recycled or recyclable C&D materials, as well as the use of non-timber formwork to further minimise the generation of construction waste.

24. We will also require the contractor to submit a waste management plan (WMP) for approval. The WMP will include appropriate mitigation measures to avoid, reduce, reuse and recycle C&D materials. We will ensure that the day-to-day operations on site comply with the approved WMP. We will control the disposal of public fill, C&D materials and C&D waste to public fill reception facilities, sorting facilities and landfills respectively through a trip-ticket system. We will require the contractor to separate public fill from C&D waste for disposal at appropriate facilities. We will record the disposal, reuse and recycling of C&D materials for monitoring purposes.

25. We estimate that the project will generate about 900 tonnes of C&D materials mainly from the temporary store for the Pier components. Of these, we will reuse about 250 tonnes (27.78%) on site, deliver 600 tonnes (66.67%) to public fill reception facilities² for subsequent reuse and dispose of 50 tonnes (5.55%) at landfills. The total cost for accommodating C&D materials at public fill reception facilities and landfill sites is estimated to be \$22,450 for this project (based on a unit cost of \$27/tonne for disposal at public fill reception facilities and \$125/tonne³ at landfills).

LAND ACQUISITION

26. The proposed works do not require any land acquisition.

BACKGROUND INFORMATION

27. The proposed preservation works will not involve any tree removal or planting proposals.

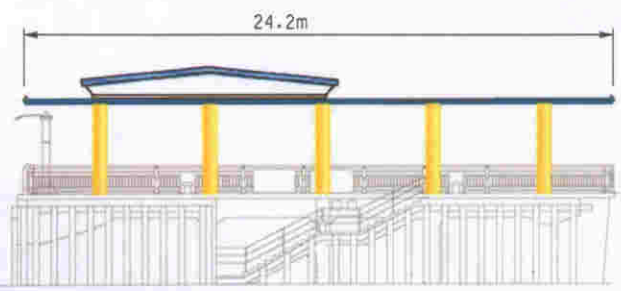
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² Public fill reception facilities are specified in Schedule 4 of the Waste Disposal (Charges for Disposal of Construction Waste) Regulation. Disposal of public fill in public fill reception facilities requires a licence issued by the Director of Civil Engineering and Development.

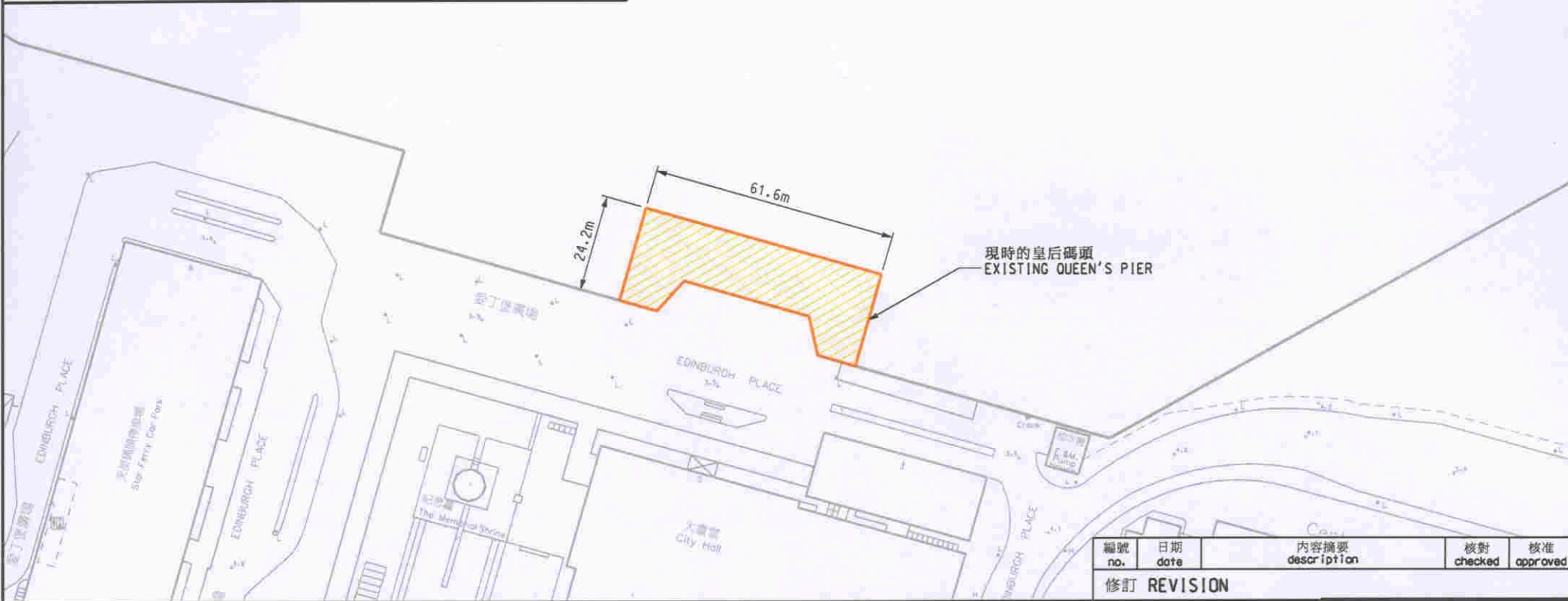
³ This estimate has taken into account the cost for developing, operating and restoring the landfills after they are filled and the aftercare required. It does not include the land opportunity cost for existing landfill sites (which is estimated at \$90/m³), nor the cost to provide new landfills, (which is likely to be more expensive) when the existing ones are filled.

28. We estimate that the proposed works will create about 68 new jobs (16 for professional/technical staff and another 52 for labourers) providing a total employment of 814 man-months during the construction period.

Housing, Planning and Lands Bureau
April 2007



側面圖 Side View



編號 no.	日期 date	內容摘要 description	核對 checked	核准 approved
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修訂 REVISION

二零零七年至二零零八年度工務小組委員會文件 PWSO SUBMISSION 2007/2008

圖則名稱 drawing title

皇后碼頭現時位置
CURRENT LOCATION OF QUEEN'S PIER

繪圖 drawn Y.W.YIP	簽署 initial SIGNED	日期 date 26/04/07
核對 checked S.K.KEUNG	簽署 initial SIGNED	日期 date 26/04/07
核准 approved K.W.FUNG	簽署 initial SIGNED	日期 date 26/04/07

項目編號 item no. NEW ITEM
比例 scale N.T.S.
圖則編號 drawing no. HK1-481

辦事處 office
港島及離島拓展處
HONG KONG ISLAND AND ISLANDS
DEVELOPMENT OFFICE



土木工程拓展署
CIVIL ENGINEERING AND
DEVELOPMENT DEPARTMENT

728CL – Preservation of Queen’s Pier

Breakdown of the estimate for consultants’ fees

Consultants’ staff costs			Estimated Man- months	Average MPS* salary point	Multiplier (Note 1)	Estimated fees (\$ million)
(a)	Detailed design and tendering stages	Professional	15	38	2.0	1.6
		Technical	21	14	2.0	0.8
(b)	Construction stage	Professional	5	38	2.0	0.5
		Technical	3	14	2.0	0.1
(c)	Resident site staff	Professional	13	38	1.6	1.1
		Technical	65	14	1.6	1.9
Total consultants' staff costs						6.0

* MPS = Master Pay Scale

Notes

1. A multiplier of 2.0 is applied to the average MPS point to arrive at the full staff costs including the consultant’s overheads and profit, as the staff will be employed in the consultant’s offices. (As at 1 January 2007, MPS pt. 38 = \$54,255 per month and MPS pt. 14 = \$18,010 per month.) A multiplier factor of 1.6 is applied in the case of resident site staff supplied by the consultant.
2. The figures given above are based on estimates prepared by the Director of Civil Engineering and Development. We will only know the actual man-months and actual fees when we have selected the consultant through the usual competitive lump sum fee bid system.