

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 705 – CIVIL ENGINEERING

Civil Engineering – Multi-purpose

36CG – Greening master plan for Hong Kong Island – studies and works

Members are invited to recommend to Finance Committee –

- (a) the upgrading of part of **36CG**, entitled “Greening master plan for Hong Kong Island – works for Central and studies for other selected areas”, to Category A at an estimated cost of \$40.0 million in money-of-the-day prices; and
- (b) the retention of the remainder of **36CG** in Category B.

PROBLEM

We need to improve the living environment in Hong Kong by implementing measures recommended in the greening master plan (GMP) for Central, and to proceed with development of GMPs for other selected areas on Hong Kong Island.

/PROPOSAL

PROPOSAL

2. The Director of Civil Engineering and Development, with the support of the Secretary for the Environment, Transport and Works, proposes to upgrade part of **36CG** to Category A at an estimated cost of \$40.0 million in money-of-the-day (MOD) prices to carry out the greening works in Central and to develop GMPs for other selected areas on Hong Kong Island.

PROJECT SCOPE AND NATURE

3. The scope of **36CG** comprises development of GMPs, detailed design and implementation of greening works for selected areas on the Hong Kong Island¹.

4. The part of **36CG** which we now propose to upgrade to Category A comprises the following –

- (a) implementation of greening works as recommended in the GMP for Central including –
 - (i) planting and establishment of about 300 trees and 50 000 shrubs; and
 - (ii) landscape hardworks;
- (b) development of GMPs and detailed design of greening works for the selected areas on Hong Kong Island other than Central; and
- (c) site investigation.

—————
—————
A plan showing the boundary of works to be carried out in Central and other selected areas on Hong Kong Island is at Enclosure 1. An illustration of some typical greening works is shown at Enclosure 2.

/5.

¹ These include Central & Western, Wan Chai, Eastern and Southern Districts. The development of GMP and detailed design of greening works for Central have been completed separately under a pilot scheme.

5. We plan to commence the proposed greening works for Central in March 2006 for completion in December 2006. We also plan to start developing the GMPs for areas between Sheung Wan and Causeway Bay in January 2006 for completion in late 2006, and the GMPs for other selected areas on the Hong Kong Island (including Sai Ying Pun, Kennedy Town, Aberdeen and Eastern District) in early 2007 for phased completion by end 2008.

JUSTIFICATION

6. A GMP seeks to define the overall greening framework of an area by identifying suitable locations for planting together with desirable themes and species, thus serving as a guide to the planning, design and implementation of greening works for continuous and consistent results.

7. Building on positive public response to the GMP for Central, we propose to implement the related greening works and embark on development of GMPs for other selected areas on the Hong Kong Island. Due to limited available in-house capacity, we will engage consultants to carry out the planning and detailed design involved.

FINANCIAL IMPLICATIONS

8. We estimate the capital cost of the project to be \$40.0 million in MOD prices (see paragraph 9 below), made up as follows –

	\$ million
(a) Greening works as recommended in the GMP for Central	9.5
(i) planting and establishment of trees and shrubs	3.8
(ii) landscape hardworks	5.7
(b) Consultants' fees	20.6
(i) development of GMPs for areas mentioned in paragraph 4(b)	16.5
(ii) detailed design of related greening works for areas mentioned in paragraph 4(b)	4.1

/(c)

		\$ million	
(c)	Site investigation	6.3	
(d)	Contingencies	3.6	
	Sub-total	40.0	(in September 2005 prices)
(e)	Provision for price adjustment	0.0	
	Total	40.0	(in MOD prices)

_____ A breakdown by man-months of the estimate for the consultants' fees is at Enclosure 3.

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

Year	\$ million (Sept 2005)	Price adjustment factor	\$ million (MOD)
2005 – 2006	0.8	1.00000	0.8
2006 – 2007	10.4	1.00125	10.4
2007 – 2008	15.8	1.00125	15.8
2008 – 2009	10.9	1.00125	10.9
2009 – 2010	2.1	1.00125	2.1
	40.0		40.0

10. We have derived the MOD estimates based on the Government's latest forecast of trend rate of change in the prices for public sector building and construction output from 2005 to 2010. The proposed greening works mentioned in paragraph 4(a) above will be tendered through a standard remeasurement contract because the quantities may vary depending on actual site constraints and underground utilities with no provision for price adjustment as the contract period will not exceed 21 months. The consultancies mentioned in paragraph 4(b) above will be awarded on a lump sum basis with provision for price adjustment where the consultancy period exceeds 12 months. Site investigation works mentioned in paragraph 4(c) above will be carried out by term contractor.

/11.

11. We estimate that the annual recurrent expenditure arising from the proposed greening works for Central to be \$400,000. The development of the GMPs and associated site investigation will not give rise to any additional recurrent expenditure.

PUBLIC CONSULTATION

12. The draft preliminary GMP for Central was first presented to the Working Group on Greening and Beautification Works in the Central & Western District formed under the Central & Western District Council on 10 June 2005. Having incorporated the comments received, a draft recommended GMP was later presented to the District Council on 21 July 2005. An information paper on the GMP for Central was submitted to the Town Planning Board on 7 October 2005.

13. We consulted the Legislative Council Panel on Planning, Lands and Works on the development of GMPs and implementation of related planting works on 13 July 2005 and consulted it again on 22 November 2005 regarding the financial implications and detailed scope of works seeking upgrading to Category A. Members indicated no objection to the proposal on both occasions.

14. We will solicit early input from stakeholder groups such as District Councils and the Town Planning Board when developing GMPs for other selected areas on Hong Kong Island.

ENVIRONMENTAL IMPLICATIONS

15. This is not a designated project under the Environmental Impact Assessment Ordinance (Cap. 499). The project has no long-term environmental impact, whilst short-term construction impacts could be mitigated through measures to control noise, dust, and site run-off nuisances.

16. We have considered different construction methods, such as the use of precast instead of cast-in-situ planter boxes, in planning and designing the proposed greening works in Central to reduce the generation of construction and demolition (C&D) materials where possible. In addition, we will require the contractor to reuse inert C&D materials (e.g. 'excavated soil') on site or in other suitable construction sites as far as possible, so as to minimize the disposal of C&D materials to public fill reception facilities. We will encourage the contractor to maximize the use of recycled or recyclable C&D materials as well as the use of non-timber formwork to further minimize the generation of construction waste.

17. We will require the contractor to submit a waste management plan (WMP) for approval. The WMP will include 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 and will control the disposal of public fill and C&D waste to public fill reception 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 also record the disposal, reuse and recycling of C&D materials for monitoring purpose.

18. We estimate that the project will generate about 6 000 tonnes of C&D materials. Of these, we will reuse about 600 tonnes (10%) on site, deliver about 4 900 tonnes (82%) to public fill reception facilities² for temporary storage before reuse and dispose of about 500 tonnes (8%) at landfills. The total cost for accommodating C&D materials at public fill reception facilities and landfills is estimated to be \$194,800 for this project (based on unit cost of \$27/tonne for disposal at public fill reception facilities and \$125/tonne³ at landfill sites).

LAND ACQUISITION

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

BACKGROUND INFORMATION

20. We upgraded **36CG** to Category B in September 2005.

/21.

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 are likely to be more expensive) when the existing ones are filled.

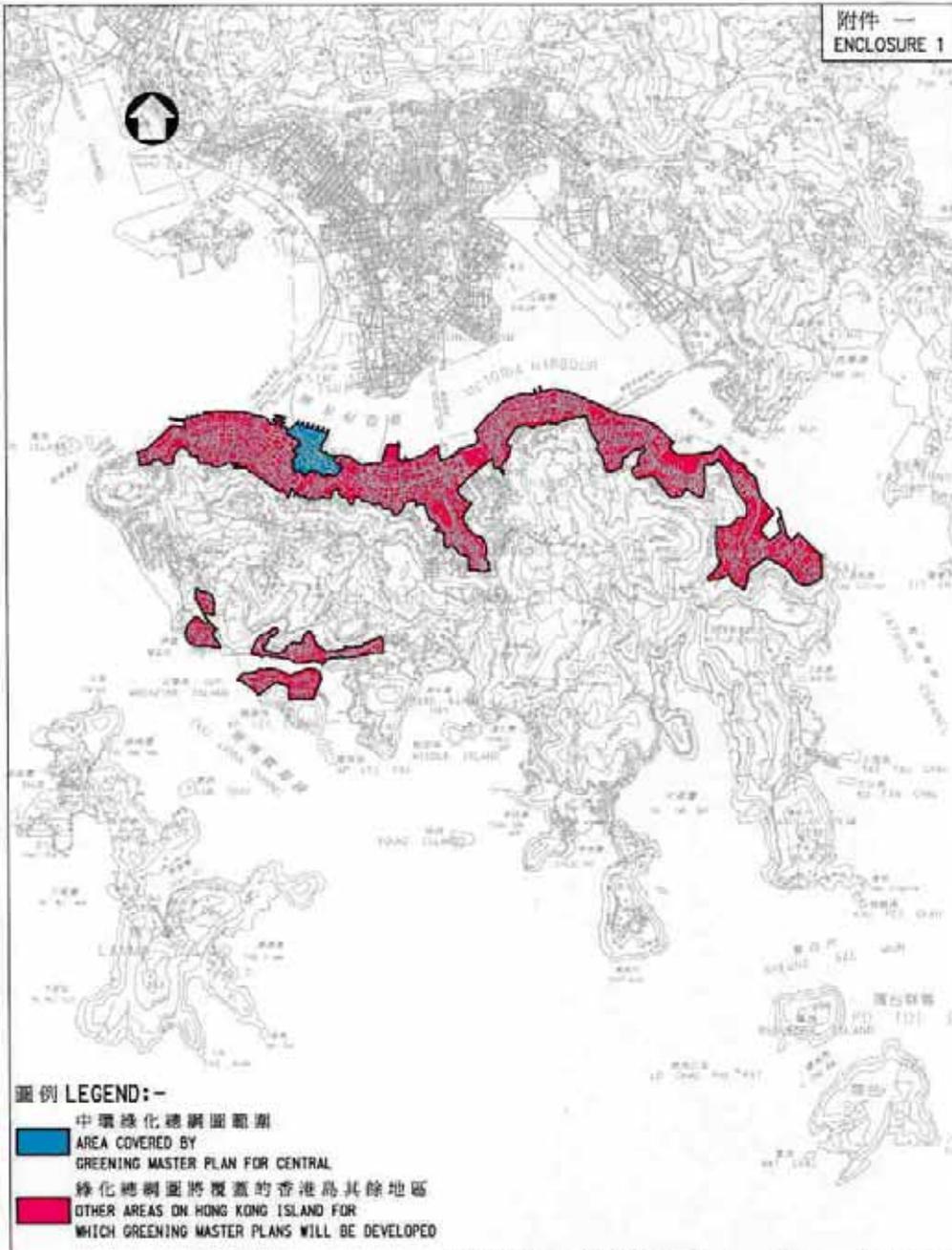
21. We engaged consultants to undertake the development of GMP for Central as a pilot scheme in December 2004 under the block allocation **Subhead 5101CX** “Civil engineering works, studies and investigations for items in Category D of the Public Works Programme” at a cost of \$1.3 million. Detailed design of the greening works in Central was subsequently carried out using in-house staff resources.

22. We also included an item under block allocation **Subhead 5101CX** to engage term contractor at an estimated cost of \$500,000 to conduct site investigation in Central for completion in February 2006.

23. The proposed works will not involve any tree removal.

24. We estimate that the proposed works will create about 50 jobs (20 for labourers and another 30 for professional/technical staff) providing a total employment of 600 man-months.

Environment, Transport and Works Bureau
December 2005



版權所有, 不得翻印
COPYRIGHT RESERVED

編號 no.	日期 date	內容描述 description	核對 checked	批准 approved
名稱 title		姓名 name	簽署 initial	日期 date
工務計劃項目第36CG號 GREENING MASTER PLAN FOR HONG KONG ISLAND - STUDIES & WORKS		C P SUEN	<i>[Signature]</i>	6/10/05
繪圖 drawn		K M CHIU	<i>[Signature]</i>	6/10/05
核對 checked		P M CHAN	<i>[Signature]</i>	6/10/05
批准 approved		總部 HEADQUARTERS		
圖號 drawing no.		核對 checked		
HQS G150		批准 approved		
比例 scale		1:100000		
CADD		土木工程拓展署 CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT		



樹槽植樹
Tree Planting in Tree Pit.



花槽種植
Planting in Planter



牆腳花槽種植攀緣植物
Climber Planting in Toe Planter



籬笆種植
Hedge Planting



中央分隔帶種植
Planting in Central Median



花盆種植
Planting in Movable Planter

典型綠化工程
Illustration of Typical Greening Works

36CG - Greening master plan for Hong Kong Island – studies and works

Breakdown of the estimates for consultants' fees

Consultants' staff costs		Estimated man-months	Average MPS* salary point	Multiplier (Note 1)	Estimated fee (\$ million)	
(a) Development of GMPs for Hong Kong Island (except Central) ^(Note 2) _						
(i) Review of current greening status and collation of background information	Professional	14.0	38	2.0	1.5	
	Technical	30.0	14	2.0	1.1	
(ii) development of conceptual GMPs	Professional	33.0	38	2.0	3.6	
	Technical	38.0	14	2.0	1.4	
(iii) formulation of preliminary GMPs	Professional	52.5	38	2.0	5.7	
	Technical	30.0	14	2.0	1.1	
(iv) drawing up of greening measures and finalized GMPs	Professional	15.0	38	2.0	1.6	
	Technical	15.0	14	2.0	0.5	
				Sub-total	16.5	
(b) Detailed design of greening works ^(Note 2) _						
		Professional	28.0	38	2.0	3.0
		Technical	29.5	14	2.0	1.1
				Sub-total	4.1	
				Total	20.6	

* MPS = Master Pay Scale

Notes

1. A multiplier of 2.0 is applied to the average MPS salary point before arriving at full cost including overheads and profits as the staff concerned will be employed by the consultants (as at 1.1.2005, MPS point 38 = \$54,255 per month and MPS point 14 = \$18,010 per month).
2. We will only know the actual man-months and the actual cost after completion of works.