

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 703 – BUILDINGS

Recreation, Culture and Amenities – Open spaces

395RO – Ma On Shan waterfront promenade

Members are invited to recommend to Finance Committee the upgrading of **395RO** to Category A at an estimated cost of \$205.3 million in money-of-the-day prices for the development of a waterfront promenade at Ma On Shan.

PROBLEM

We need to provide more public open space in Ma On Shan.

PROPOSAL

2. The Director of Architectural Services, with the support of the Secretary for Home Affairs, proposes to upgrade **395RO** to Category A at an estimated cost of \$205.3 million in money-of-the-day (MOD) prices for the development of a waterfront promenade at Ma On Shan.

PROJECT SCOPE AND NATURE

3. The project site, with an area of about 5.2 hectare (ha), is a 3.2-kilometre (km) long strip of land stretching from Ma On Shan park in Area 100 to Kam Tai Court in Area 77, Ma On Shan. The scope of **395RO** comprises –

/(a)

- (a) a footpath and jogging trail with fitness stations suitable for people of different ages;
- (b) an extensive landscaped area with sitting-out facilities, including Tai Chi areas, fitness corners for the elderly, and a dog garden;
- (c) children play areas for different age groups;
- (d) ancillary facilities including toilet blocks, store room, loading and unloading area and cycle parking spaces etc; and
- (e) upgrading of about 2.5 km long existing seawall¹.

_____ A site plan showing the conceptual layout of the proposed waterfront promenade is at Enclosure 1. We will first start the seawall upgrading works from Sui Tai Road to Ma On Shan Park in May 2007 for completion between May 2008 and September 2008. To expedite the project, we plan to carry out the construction works of the waterfront promenade by phases. Phase 1 of the construction works covers a section from Kam Tai Court to Sui Tai Road where seawall upgrading work is not required. Phase 2 will cover the sections from Sui Tai Road to Hang Fai Street (roundabout) and from Marbella to Ma On Shan Park. Phase 3 will cover the remaining section from Hang Fai Street (roundabout) to Kam Fung Court. The works of Phase 1 will commence in September 2007 for completion in May 2009. To tie in with the completion of the seawall upgrading works, we will start the Phase 2 and Phase 3 construction works in June 2008 and October 2008 for completion in December 2009 and May 2010 respectively.

JUSTIFICATION

4. This project is among the 25 projects identified for priority implementation in the January 2005 Policy Address. Ma On Shan is a densely populated and fast developing new town with high-rise residential buildings. It has a current population of around 191 200, which is expected to increase by 15.2% to 220 200 by 2015. In view of the increase in population, there is a need to provide more recreational facilities such as jogging trail, fitness stations, children play areas, sitting-out facilities and landscaped areas to cope with the increasing demand.

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¹ The engineering works for upgrading the existing seawall will be carried out by the Civil Engineering and Development Department (CEDD).

5. As a reference, the Hong Kong Planning Standards and Guidelines suggests a provision of about 38 ha of public open space for the current population in Ma On Shan, and about 44 ha by 2015. At present, there are about 45 ha of public open space provided in Ma On Shan, including about 27 ha of local open space provided by the Housing Department. However, in considering the development of new leisure and cultural services projects, we also take into account other factors including the views of the Sha Tin District Council, the changing needs of the community and the utilisation rates of existing facilities. The District Council has urged for the provision of more recreational and leisure facilities, and there is no promenade facility along the waterfront area in Ma On Shan. The proposed waterfront promenade would help to further improve the provision of public open space in this new town, and is expected to be a popular recreational and leisure venue for residents and visitors.

FINANCIAL IMPLICATIONS

6. We estimate the capital cost of the project to be \$ 205.3 million in MOD prices (see paragraph 7 below), made up as follows –

	\$ million
(a) Site formation	4.9
(b) Engineering works (seawall upgrading)	41.0
(c) Building	6.2
(d) Building services	18.2
(e) Drainage works	9.6
(f) External works	76.9
(g) Soft landscaping works	11.9

/(h)

		\$ million	
(h)	Consultants' fees for	8.3	
	(i) contract administration	2.5	
	(ii) site supervision	5.8	
(i)	Furniture and equipment ²	0.5	
(j)	Contingencies	<u>16.6</u>	
	Sub-total	194.1	(in September 2006 prices)
(k)	Provision for price adjustment	11.2	
	Total	<u>205.3</u>	(in MOD prices)

We propose to engage consultants to undertake contract administration and site supervision for the construction works of the waterfront promenade. A detailed breakdown of the estimate for the consultants' fees by man-months is at Enclosure 2. We consider the estimated project cost reasonable as compared with similar projects undertaken by the Government. The design and construction supervision of the seawall upgrading works will be undertaken by in-house resources of CEDD.

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

Year	\$ million (Sept 2006)	Price adjustment factor	\$ million (MOD)
2007 – 08	15.0	1.01250	15.2
2008 – 09	31.0	1.02769	31.9
2009 – 10	53.0	1.04310	55.3
2010 – 11	35.0	1.05875	37.1
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² Based on the furniture and equipment provided in existing/planned facilities of similar scale (e.g. office furniture, litter bins and portable signages, etc).

Year	\$ million (Sept 2006)	Price adjustment factor	\$ million (MOD)
2011 – 12	33.5	1.08257	36.3
2012 – 13	26.6	1.10964	29.5
	194.1		205.3

8. We have derived the MOD estimates on the basis of the Government's latest forecast of trend rate of change in the prices of public sector building and construction output for the period 2007 to 2013. We intend to award two contracts on a lump-sum basis because we can clearly define the scope of the works in advance, leaving little room for uncertainty. One contract is for the construction works of the seawall upgrading. The other one is for the construction works of the waterfront promenade. The contract for the construction works of the waterfront promenade will provide for price adjustments because the contract period exceeds 21 months.

9. We estimate the annual recurrent expenditure arising from this project to be \$2.8 million.

PUBLIC CONSULTATION

10. We consulted the Culture, Sports and Community Development Committee of Sha Tin District Council on 29 June 2006 on the proposed design of the waterfront promenade. Members strongly supported the project and urged for its early implementation.

11. We circulated an information paper to the Legislative Council Panel on Home Affairs on 14 November 2006. Members did not raise any objection to the submission of the funding proposal to the Public Works Subcommittee.

ENVIRONMENTAL IMPLICATIONS

12. The project is not a designated project under the Environmental Impact Assessment Ordinance (Cap. 499). We have completed a Preliminary Environmental Review which found that no insurmountable environmental impacts would arise from the project.

13. During construction, we will control noise, dust and site run-off nuisances to within established standards and guidelines through the implementation of mitigation measures in the relevant contracts. These include the use of silencers, mufflers, acoustic lining or shields for noisy construction activities, frequent cleaning and watering of the site, and the provision of wheel-washing facilities, and treating the site run-off to acceptable levels before discharging.

14. We have considered measures in the planning and design stages 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 on site or in other suitable construction sites as far as possible (e.g. use suitable excavated materials for filling within the site, use metal site hoardings and signboards so that these materials can be recycled or reused in other projects), in order to minimise the disposal of C&D materials to public fill reception facilities³. 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.

15. 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 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.

16. We estimate that the project will generate about 50 750 tonnes of C&D materials. Of these, we will reuse about 14 560 tonnes (28.7%) on site, and deliver 35 750 tonnes (70.4%) to public fill reception facilities for subsequent reuse. In addition, we will dispose of 440 tonnes (0.9%) at landfills. The total cost for accommodating C&D materials at public fill reception facilities and

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³ 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.

landfill sites is estimated to be \$1,020,250 for this project (based on a unit cost of \$27/tonne for disposal at public fill reception facilities and \$125/tonne⁴ at landfills).

LAND ACQUISITION

17. The project does not require any land acquisition.

BACKGROUND INFORMATION

18. We upgraded **395RO** to Category B in October 2005. We engaged consultants to carry out the topographical survey and detailed design in May 2006. We employed a term contractor to carry out the site investigation in September 2006 and also engaged a quantity surveying consultant to prepare the tender documents in November 2006. The total cost of these services amounts to \$6.4 million. We have charged this amount to block allocation **Subhead 3100GX** "Project feasibility studies, minor investigations and consultants' fees for items in Category D of the Public Works Programme". The consultants have completed the topographical survey and detailed design of the project. The term contractor is carrying out the site investigation and the quantity surveying consultant is preparing the tender documents.

19. The proposed construction work will involve removal of 78 trees, including 58 to be transplanted elsewhere and 20 to be replanted within the project site. All trees to be removed are not important trees⁵. We will incorporate planting proposals as part of the project, including estimated quantities of 850 trees, 115 000 shrubs and 16 000m² of grassed area.

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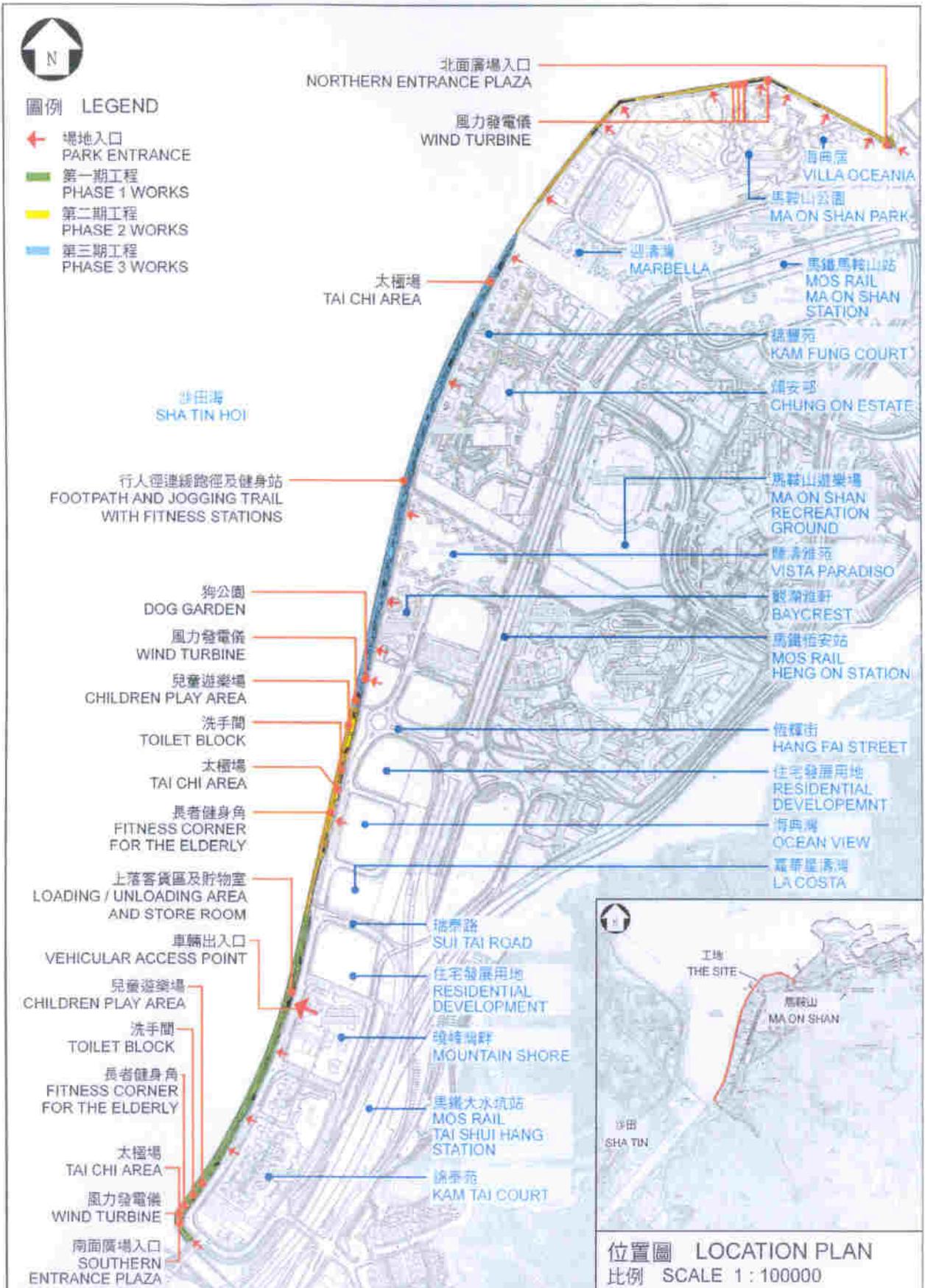
⁴ This estimate has taken into account the cost for developing, operating and restoring the landfills after they are filled and the aftercare required. It does not include the land opportunity cost for existing landfill sites (which is estimated at \$90/m³), nor the cost to provide new landfills (which is likely to be more expensive) when the existing ones are filled.

⁵ "Important tree" refers to trees in the Register of Old and Valuable Trees, or any other trees that meet one or more of the following criteria -

- (a) trees of 100 years old or above;
- (b) trees of cultural, historical or memorable significance e.g. Fung Shui trees, trees as landmark of monastery or heritage monument, and trees in memory of important persons or event;
- (c) trees of precious or rare species;
- (d) trees of outstanding form (taking account of overall tree sizes, shape and any special features) e.g. trees with curtain like aerial roots, trees growing in unusual habitat; or
- (e) trees with trunk diameter equal or exceeding 1.0 metre (measured at 1.3 metre above ground level), or with height/canopy spread equal or exceeding 25m.

20. We estimate that the proposed works will create about 140 jobs (125 for labourers and another fifteen for professional/technical staff) providing a total employment of 3 000 man-months.

Home Affairs Bureau
December 2006



title 395RO MA ON SHAN WATERFRONT PROMENADE 馬鞍山海濱長廊	drawn by L. L. LAU	date 15/11/2006	drawing no. AB/6335/XA001	scale 1:11000
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Enclosure 2 to PWSC(2006-07)53

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Breakdown of the estimate for consultants' fees

Consultants' staff costs		Estimated man- Months	Average MPS* salary point	Multiplier <small>(Note 1)</small>	Estimated fee (\$ million)
(i)Contract administration <small>(Note 2)</small>	Professional	–	–	–	1.46
	Technical	–	–	–	1.00
(ii)Site supervision <small>(Notes 3)</small>	Technical	201	14	1.6	5.79
Total					8.25

*MPS = Master Pay Scale

Notes

1. A multiplier of 1.6 is applied to the average MPS point to estimate the cost of resident site staff supplied by the consultants. (As at 1 January 2006, MPS point 14=\$18,010 per month)
2. The consultants' staff cost for contract administration is calculated in accordance with the existing consultancy agreement for the design and construction of **395RO**. The construction stage of the assignment will only be executed subject to Finance Committee's approval to upgrade **395RO** to Category A.
3. We will only know the actual man-months and actual costs after completion of the construction works.