

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 703 – BUILDINGS

Recreation, Culture and Amenities – Sports facilities

53RE – Improvement to Hong Kong Coliseum

54RE – Improvement to Queen Elizabeth Stadium

Members are invited to recommend to Finance Committee –

- (a) the upgrading of **53RE** to Category A at an estimated cost of \$168.6 million in money-of-the-day prices for carrying out improvement works at the Hong Kong Coliseum; and
- (b) the upgrading of **54RE** to Category A at an estimated cost of \$112.3 million in money-of-the-day prices for carrying out improvement works at the Queen Elizabeth Stadium.

PROBLEM

The existing facilities of the Hong Kong Coliseum (HKC) and the Queen Elizabeth Stadium (QES) cannot meet the requirements for holding major events and competitions at international level, including the 2009 East Asian Games (EAG).

/PROPOSAL

PROPOSAL

2. The Director of Architectural Services (D Arch S), with the support of the Secretary for Home Affairs, proposes to upgrade **53RE and 54RE** to Category A at an estimated cost of \$168.6 million and \$112.3 million respectively in money-of-the-day (MOD) prices for carrying out improvement works at the HKC and the QES.

PROJECT SCOPE AND NATURE

3. The scope of improvement works to HKC under **53RE** comprises –
- (a) refurbishment of the existing facilities including the rooms for athletes, sports officials, referees and organisers, media room, press conference room, anti-doping room, medical room, warm-up areas, etc.;
 - (b) renovation and face-lifting of all front-of-house and hospitality facilities, including additional facilities for people with disabilities;
 - (c) improvement and upgrading of the existing supporting and backstage facilities including the provision of video broadcast and sound systems, replacement of the existing aging scoreboards and replacement/enhancement of lighting fixtures/systems;
 - (d) replacement of all the ageing fixed arena seats (about 10 500 seats),(they are folding seats and the current seats produce noise nuisance when being vacated by audience; the current leg room is narrow) which have been used since the commissioning of the venue in 1983; and
 - (e) works to incorporate the thematic design to create a coherent sports identity for the 2009 EAG.
4. The scope of improvement works to QES under **54RE** comprises –

/(a)

- (a) refurbishment of the existing facilities and services areas to provide rooms for the athletes, sports officials, referees, organisers, anti-doping room, medical room, media room, press interview room, etc.;
- (b) renovation and face-lifting of the reception facilities;
- (c) improvement and upgrading of the existing supporting and backstage facilities including the replacement of the ageing LED wall-mounted scoreboard by a new scoreboard with video playback function, improvement of the existing lighting system, enhancement of the existing air-conditioning system to address the draught problem which affects the playing of ball games like badminton and upgrading of the ceiling/steel hangers at the arena area;
- (d) refurbishment of the front-of-house facilities for the public including the facilities for people with disabilities; and
- (e) works to incorporate the thematic design to create a coherent identity for the 2009 EAG.

5. The location plans of the HKC and the QES are at Enclosures 1 and 2 respectively. Computer-rendered drawings for the proposed improvement works are at Enclosures 3 and 4. We plan to start the proposed improvement works to both **53RE** and **54RE** in August 2007 for completion in February 2009. In order to minimise disruption to the public for using the two venues, we plan to close the two venues one after the other for about six months each during the construction period. The planned closure periods are the first half of 2008 for QES and the second half of 2008 for HKC. We have informed the regular hirers of the temporary closure plan for both venues and they will be advised to use alternative venues during the closure periods, including the Hong Kong Convention and Exhibition Centre, the Hong Kong International Trade & Exhibition Centre or the Asia-world Expo, etc.

/JUSTIFICATION

JUSTIFICATION

HKC

6. The HKC is the largest indoor multi-purpose stadium in Hong Kong that can be used to conduct a variety of major events. It is also earmarked as one of the venues for holding the volleyball and basketball events of the 2009 EAG¹. Opened in 1983, HKC has been in use for over 20 years and its existing facilities are grossly outdated and need to be upgraded to meet the requirements and standard for holding international events and competitions. We also need to provide the necessary basic facilities such as the doping control station, media room for press interviews and rooms for tournament players and sports officials of the events/competitions.

7. Apart from the specific use of the venue for holding sports tournaments in Hong Kong, the facilities are multi-purposed and can be used for other major events such as the major cultural show for Hong Kong Film Award Presentation as well as spectacular pop concerts by both local and overseas artists, etc.

8. With a usage rate of over 90% for many years, HKC has been a very popular venue for holding a wide variety of large-scale activities ranging from sports tournament, entertainment and cultural events. Up to March 2006, the HKC has staged over 4 300 major presentations for enjoyment by over 32 million audience. Save for some small-scale refurbishment to upkeep certain reception and backstage facilities, the heavily used HKC has not undergone any major overhaul since its opening in 1983. Major improvement to the HKC is necessary to bring the facility in line with present-day standards and expectations of the community for holding large-scale events. Moreover, the improvement works should be carried out in one go to obviate the need to close the HKC again in the future. The improvement works will not only benefit sports development but also the holding of different varieties of major events in Hong Kong.

/QES

¹ A total of 13 existing venues designated for holding the 2009 East Asian Games are proposed to be upgraded. Of these 13 projects, 247RS – “Improvement to Victoria Park Tennis Centre” was submitted to the Public Works Subcommittee (PWSC) on 19 December 2006. The remaining 12 projects will be submitted to PWSC on 24 January 2007 under three separate papers.

QES

9. The QES is one of the leading sports and entertainment venues in Hong Kong. It will be used as the venue for holding the badminton and table tennis competitions in the 2009 EAG. Commissioned in 1980, the existing facilities of the QES are grossly outdated and need to be upgraded to enhance its functional efficiency and aesthetic image. We also need to provide the basic facilities such as the doping control station, media room for press interviews and rooms for tournament players and sports officials for the holding of international events and competitions including the EAG.

10. Apart from the specific use of the venue for holding sports tournaments in Hong Kong, the facilities are multi-purposed and can be used for other major local events such as International Arts Carnival, Fight Crime Conference as well as popular concert events by local and overseas artists, etc. The improvement works will benefit not only sports development but also the holding of other types of major events in Hong Kong.

11. The close proximity between the competition area/stage and the spectator grandstand at its arena provides an excellent ambience ideal for a wide variety of activities ranging from indoor sports events, medium-size cultural and entertainment programmes, school ceremonies, religious gatherings, organisation/club activities and variety shows. The QES is a popular venue with a usage rate of about 70% around the years. Except regular maintenance works, the QES has not undergone any major overhaul since its opening over 25 years ago. Major improvement to its facilities is necessary to bring the venue up to present-day standards and expectations of the community for holding various events.

FINANCIAL IMPLICATIONS

12. We estimate the capital costs of **53RE** and **54RE** to be \$168.6 million and \$112.3 million respectively in MOD prices (see paragraph 13 below), made up as follows –

/(a)

	\$ Million		
	53RE	54RE	
(a) Building	67.2	55.2	
(b) Building services	24.6	22.4	
(c) Drainage	3.1	-	
(d) External works	10.5	3.0	
(e) Furniture and equipment (F&E) ²	1.0	2.5	
(f) Electronic equipment ³	35.4	10.0	
(g) Consultancy fees for	6.1	5.6	
(i) contract administration	2.0	1.6	
(ii) site supervision	4.1	4.0	
(h) Contingencies	14.0	9.3	
Sub-total	161.9	108.0	(in September 2006 prices)
(i) Provision for price adjustment	6.7	4.3	
Total	168.6	112.3	(in MOD prices)

We propose to engage consultants to undertake contract administration and site supervision for the project. A detailed breakdown of the estimate for the consultants' fees by man-months is at Enclosure 5. The construction floor areas (CFAs) of **53RE** and **54RE** are 11 723 m² and 9 000 m² respectively. The estimated construction unit costs of **53RE** and **54RE**, represented by the building and building services costs, are \$7,831 per m² and \$8,622 per m² of CFA in September 2006 prices respectively. We consider these unit costs reasonable as compared with similar projects undertaken by the Government.

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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 signage, etc).

³ These include the provision of fixed and portable electronic scoreboards with video capability and live broadcast facilities.

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

Year	\$ million (Sept 2006)		Price Adjustment factor	\$ million (MOD)	
	53RE	54RE		53RE	54RE
2007 – 08	4.0	6.2	1.01250	4.1	6.3
2008 – 09	60.0	38.8	1.02769	61.7	39.9
2009 – 10	67.0	50.0	1.04310	69.9	52.2
2010 – 11	22.0	8.5	1.05875	23.3	9.0
2011 – 12	8.9	4.5	1.08257	9.6	4.9
	<u>161.9</u>	<u>108.0</u>		<u>168.6</u>	<u>112.3</u>

14. 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 2012. We intend to award a contract each to **53RE** and **54RE** on a lump-sum basis because we can clearly define the scope of works in advance. Both contracts will not provide for price adjustment because the contract period will not exceed 21 months.

15. We estimate the additional annual recurrent expenditures arising from **53RE** and **54RE** to be \$2.0 million and \$1.05 million respectively.

PUBLIC CONSULTATION

16. We consulted the Community Building Committee of Yau Tsim Mong District Council on 3 August 2006 and the Cultural and Leisure Services Committee of Wan Chai District Council on 7 September 2006 on the proposed improvement works to the HKC and the QES respectively. Members of the District Councils supported the projects.

17. We have consulted the concerned National Sports Associations, including the Hong Kong Table Tennis Association Limited, the Hong Kong Badminton Association, the Volleyball Association of Hong Kong, China and the Hong Kong Basketball Association, on the project scope and programme. They supported the proposed improvement works and have contributed to the design works. They considered the proposed upgrading sufficient for meeting the standard for holding international sports events, including the 2009 EAG. They have also written to Legislative Council Members to appeal for support of the funding applications.

18. We consulted the Legislative Council Panel on Home Affairs on 8 December 2006 and 12 January 2007. The Panel has agreed to the submission of the funding application to the PWSC on 24 January 2007.

19. We will also liaise with organisations representing the disabled on the works to be implemented at these venues to facilitate their use of the venues in future.

GREENING

20. Where feasible technically in respect of structure, loading, space, etc., we will take this opportunity to enhance greening and landscaping at the venues through appropriate means.

ENVIRONMENTAL IMPLICATIONS

21. **53RE** and **54RE** are not designated projects under the Environmental Impact Assessment Ordinance (Cap. 499). Both projects would not have long-term environmental impact.

22. 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

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the use of silencers, mufflers, acoustic lining or shields for noisy construction activities, and frequent cleaning and watering of the sites.

23. 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 facilities⁴. We will encourage the contractors 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 contractors 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.

25. We estimate that the projects will generate the following amount of C&D materials -

/C&D

⁴

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.

	53RE		54RE	
	tonnes	%	tonnes	%
C&D materials to public fill reception facilities for subsequent reuse	100	8.5	100	12.3
C&D materials to landfills	1 071	91.5 ⁵	711	87.7 ⁵
Total C&D materials generated	1 171	100	811	100

The total cost for accommodating C&D materials at public fill reception facilities and landfill sites is estimated to be \$228,150 for this project (based on a unit cost of \$27/tonne for disposal at public fill reception facilities and \$125/tonne⁶ at landfills).

LAND ACQUISITION

26. The project does not require any land acquisition.

BACKGROUND INFORMATION

27. We upgraded both **53RE** and **54RE** to Category B in October 2005. We engaged consultants to carry out detailed design in March 2006 and preparation of tender documents in December 2006 for **53RE** and **54RE** at the total cost of about \$3.4 million and \$2.6 million respectively. We have charged these amounts 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 detailed design for these projects. The consultants are now finalising the tender documents of these projects.

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⁵ There is a higher percentage of C&D materials to be disposed of at landfills as the works of these projects are for fitting-out works in the interior of buildings without involving any site formation or soil excavation works as in building construction projects. Most of the C&D materials generated by site formation or soil excavation works can be collected for subsequent reuse while most C&D materials generated by fitting-out works cannot and need to be disposed of at landfills.

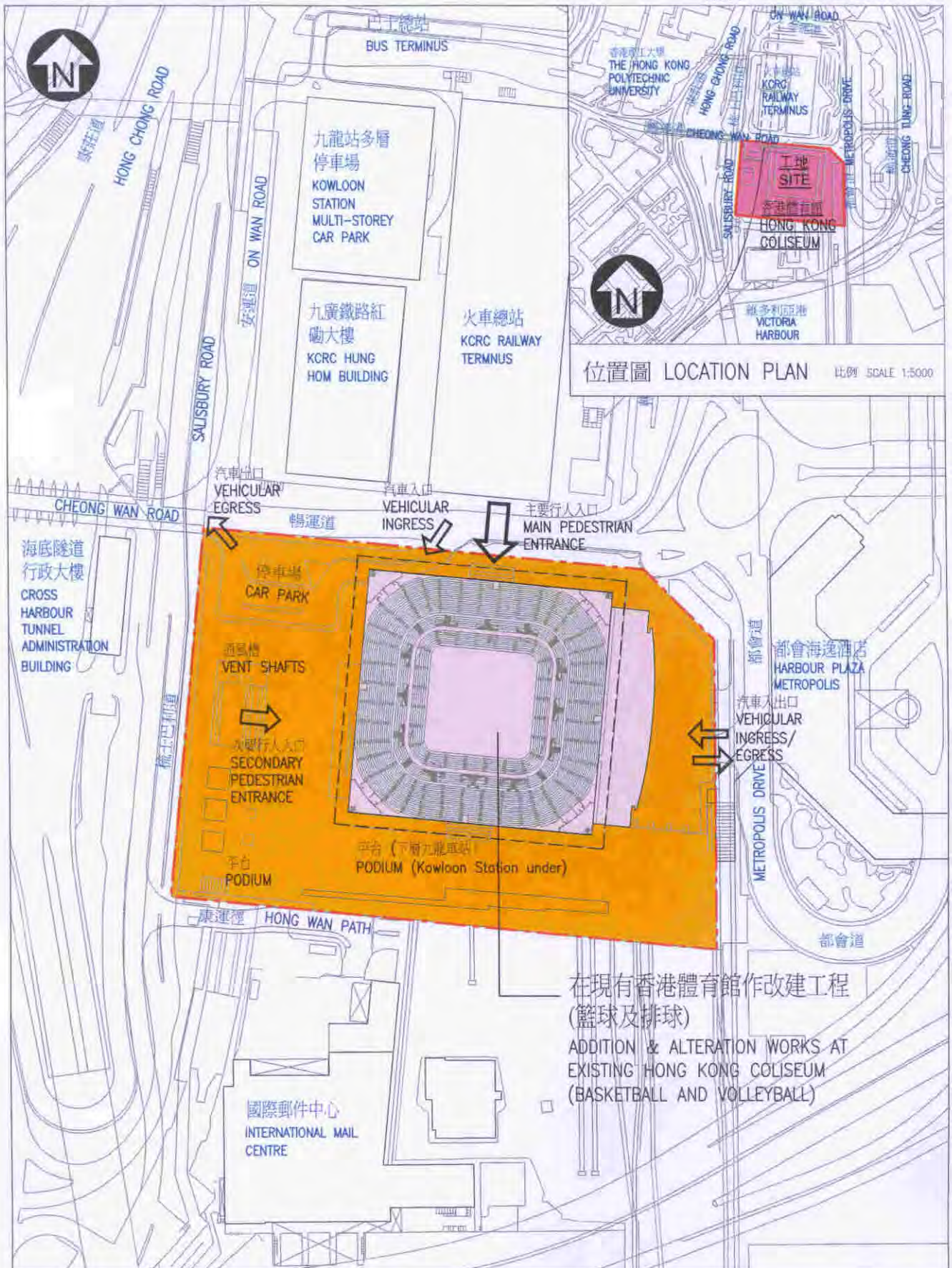
⁶ This estimate has taken into account the cost for developing, operating and restoring the landfills after they are filled and the aftercare required. It does not include the land opportunity cost for existing landfill sites (which is estimated at \$90/m³), nor the cost to provide new landfills, (which is likely to be more expensive) when the existing ones are filled.

28. The proposed improvement works for **53RE** and **54RE** will not involve any tree removal or planting proposals.


29. We estimate that the proposed improvement works will create the following job opportunities –

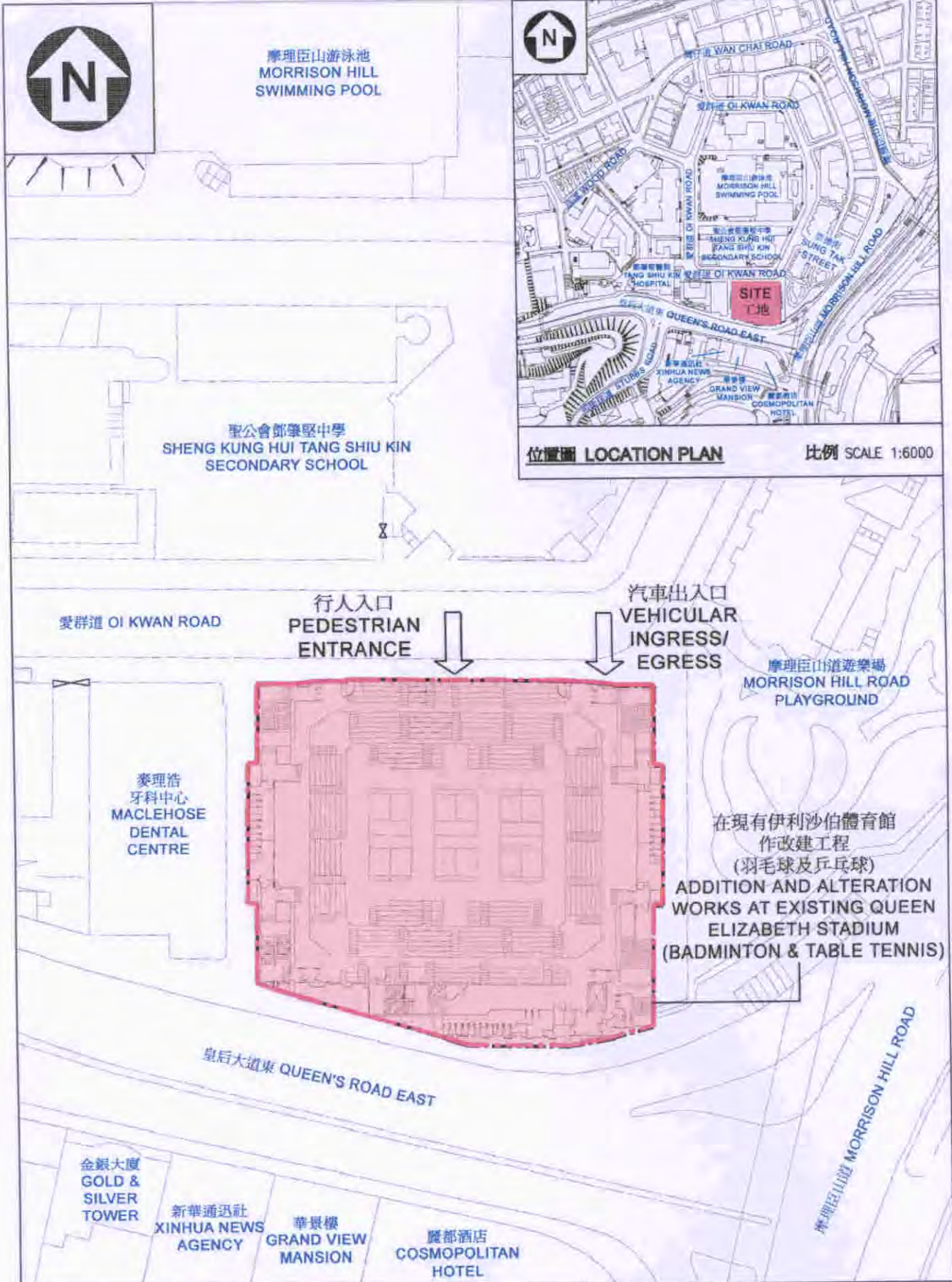
	Professional / Technical staff	Labourer	Total jobs created	Estimated total man- months
53RE	15	150	165	2 500
54RE	11	100	111	1 600

Home Affairs Bureau
January 2007




在現有香港體育館作改建工程
(籃球及排球)
ADDITION & ALTERATION WORKS AT
EXISTING HONG KONG COLISEUM
(BASKETBALL AND VOLLEYBALL)

file 053RE 香港體育館改善工程 IMPROVEMENT TO HONG KONG COLISEUM	drawn by ALEXANDER NGAI	date 08.12.'06	drawing no. AB/7066/XA001	scale 1:2000
	approved TERESA LEUNG	date 08.12.'06	 ARCHITECTURAL SERVICES DEPARTMENT	
	office: PROJECT MANAGEMENT BRANCH 3			



位置圖 LOCATION PLAN

比例 SCALE 1:6000


title 054RE 伊利沙伯體育館改善工程 IMPROVEMENT TO QUEEN ELIZABETH STADIUM	drawn by KENNY NGAI	date 08/11/06	drawing no. SK-QESLP01	scale 1 : 750
	approved BENNY NG	date 08/11/06	 ARCHITECTURAL SERVICES DEPARTMENT	
	office PROJECT MANAGEMENT BRANCH 3			



Improvement to Hong Kong Coliseum (Before)
香港體育館改善工程 (工程前)



Improvement to Hong Kong Coliseum (After)
香港體育館改善工程 (工程後)


title 053RE 香港體育館改善工程 IMPROVEMENT TO HONG KONG COLISEUM	drawn by ALEXANDER NGAI	date 08.12.'06	drawing no. AB/7066/PER01	scale N.T.S.
	approved TERESA LEUNG	date 08.12.'06		
	office: PROJECT MANAGEMENT BRANCH 3	 ARCHITECTURAL SERVICES DEPARTMENT		



Improvement to Queen Elizabeth Stadium (Before)
 伊利沙伯體育館改善工程 (工程前)



Improvement to Queen Elizabeth Stadium (After)
 伊利沙伯體育館改善工程 (工程後)

title 054RE 伊利沙伯體育館改善工程 IMPROVEMENT TO QUEEN ELIZABETH STADIUM	drawn by K. N.	date 29/11/06	drawing no. SK-QESPER01	scale N.T.S.
	approved BENNY NG	date 29/11/06	 ARCHITECTURAL SERVICES DEPARTMENT	
	office PROJECT MANAGEMENT BRANCH 3			

Enclosure 5 to PWSC(2006-07)64

**53RE – Improvement to Hong Kong Coliseum
54RE – Improvement to Queen Elizabeth Stadium**

Breakdown of the estimate for consultants' fees

Consultant's cost	staff	Estimated man-months		Average MPS* salary point	Multiplier (Note 1)	Estimated fee (\$million)	
		53RE	54RE			53RE	54RE
(i) Contract Administration (Note 2)	Professional	-	-	-	-	2.0	1.6
	Technical	-	-	-	-	0.0	0.0
(ii) Site Supervision (Note 3)	Technical	142	138	14	1.6	4.1	4.0
Total						6.1	5.6

*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 consultant. (At 1 January 2006, MPS point 14 is \$18,010 per month.)
- (2) The consultant's staff costs for contract administration are calculated in accordance with the existing consultancy agreements for the design and construction of **53RE and 54RE**. The construction stage of the assignments will only be executed subject to Finance Committee's approval to upgrade **53RE and 54RE** to Category A.
- (3) We will only know the actual man-months and actual fees after completion of the construction works.