

## **ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE**

### **HEAD 703 - BUILDINGS**

#### **Recreation, Culture and Amenities – Sports facilities**

#### **243RS – Indoor Recreation Centre in Area 17, Tin Shui Wai**

Members are invited to recommend to Finance Committee the upgrading of **243RS** to Category A at an estimated cost of \$119.6 million in money-of-the-day prices for the construction of an indoor recreation centre in Area 17, Tin Shui Wai.

### **PROBLEM**

We need to construct an indoor recreation centre (IRC) in Area 17, Tin Shui Wai in Yuen Long.

### **PROPOSAL**

2. The Director of Architectural Services (D Arch S), with the support of the Secretary for Home Affairs, proposes to upgrade **243RS** to Category A at an estimated cost of \$119.6 million in money-of-the-day (MOD) prices for the construction of an IRC in Area 17, Tin Shui Wai in Yuen Long.

### **PROJECT SCOPE AND NATURE**

3. The scope of **243RS** comprises the construction of a two-storey IRC on a site of 5 300 square metres (m<sup>2</sup>), in Area 17, Tin Shui Wai to provide the following facilities –

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- (a) a main arena with a seating capacity of about 300 persons to accommodate one handball court (convertible into two basketball courts, two volleyball courts or eight badminton courts);
- (b) a secondary arena to accommodate three badminton courts (convertible for use by other sports such as table tennis and gymnastics, or for holding community activities such as seminars and small-scale cultural performances);
- (c) an activity-cum-dance room (convertible into two smaller activity rooms or dance rooms);
- (d) a fitness training room;
- (e) a children's play room; and
- (f) changing rooms, toilets and other ancillary facilities.

— A site plan and a three-dimensional perspective drawing of the proposed IRC are at Enclosures 1 and 2 respectively. We plan to start the construction works in November 2003 for completion in April 2006.

## **JUSTIFICATION**

4. The residential developments in Tin Shui Wai in the past few years have given rise to an increasing demand for recreational facilities in the area. The population of Tin Shui Wai will increase by 12% from 272 000 in 2003 to 305 000 in 2011. As a reference, the Hong Kong Planning Standards and Guidelines suggest a provision of four IRCs for the current population in Tin Shui Wai. The existing provision of one IRC in Tin Shui Wai is insufficient to cope with the local demand.

5. The project site is located at the main transport interchange on the western side of Tin Shui Wai and is surrounded by Tin Shui Estate and Tin Oi Court. In addition, three phases of Kingswood Villa (i.e. Chestwood Court, Locwood Court and Sherwood Court), two public housing estates (i.e. Tin Wah Estate and Tin Chung Court) and seven schools are located in the vicinity. Apart from the adjacent Tin Shui Light Rail Transit Station, the project site is also well served by a bus terminus at Tin Shui Estate. We expect that the proposed IRC will be well patronised by the local residents and students in the district.

6. The only IRC provided by the Leisure and Cultural Services Department in Tin Shui Wai is the Tin Shui Wai Sports Centre. It is located in Area 14, Tin Shui Wai (i.e. on the eastern side of Tin Shui Wai) and is about 30 minutes' walk from the project site. The Sports Centre provides a main arena with two basketball courts/two volleyball courts/eight badminton ball courts, activity/dance rooms and a fitness training room. It is very popular and heavily patronised by local residents. The proposed IRC would meet the shortfall of IRC facilities in Tin Shui Wai.

## FINANCIAL IMPLICATIONS

7. We estimate the capital cost of the project to be \$119.6 million in MOD prices (see paragraph 8 below), made up as follows –

	<b>\$ million</b>
(a) Site works	5.4
(b) Piling	19.3
(c) Building	51.1
(d) Building services	26.8
(e) Drainage and external works	6.3
(f) Furniture and equipment <sup>1</sup>	2.1
(g) Consultants' fees for –	6.5
(i) Contract administration	3.4
(ii) Quantity surveying services	0.8

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<sup>1</sup> The estimated cost of furniture and equipment is based on an indicative list of items required, including recreation and sports equipment, fitness equipment in fitness training room, office furniture, first aid equipment, etc.

(iii)	Advisory and project management services on electrical, mechanical and electronic installations	0.3	
(iv)	Resident site staff costs	2.0	
(h)	Contingencies	10.9	
	Sub-total	128.4	(in September 2002 prices)
(i)	Provision for price adjustment	(8.8)	
	Total	119.6	(in MOD prices)

A breakdown of the estimate for consultants' fees is at Enclosure 3. The construction floor area (CFA) of **243RS** is about 6 235 m<sup>2</sup>. The estimated construction unit cost, represented by the building and building services costs, is \$12,494 per m<sup>2</sup> of CFA in September 2002 prices. The construction unit cost is comparable to that of other similar projects built by the Government.

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

Year	\$ million (Sep 2002)	Price adjustment factor	\$ million (MOD)
2003 – 04	8.5	0.94300	8.0
2004 – 05	38.0	0.93003	35.3
2005 – 06	52.0	0.93003	48.4
2006 – 07	14.5	0.93003	13.5
2007 – 08	10.5	0.93003	9.8
2008 – 09	4.9	0.93003	4.6
	<u>128.4</u>		<u>119.6</u>

9. We have derived the MOD estimates on the basis of the Government's latest forecast of trend labour and construction prices for the period 2003 to 2009. We will deliver the construction works for the proposed IRC through a fixed-price lump-sum contract because we can clearly define the scope of works in advance.

10. We estimate the additional annual recurrent expenditure arising from the project to be \$3.2 million.

## **PUBLIC CONSULTATION**

11. We consulted the Yuen Long District Council on the scope and design of the project on 13 November 2002. Members strongly supported the project and urged for its early implementation.

## **ENVIRONMENTAL IMPLICATIONS**

12. This project is not designated under the Environmental Impact Assessment Ordinance. The project will have little potential for giving rise to long term environmental impacts. 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.

13. At the planning and design stages, we have considered measures to reduce the generation of construction and demolition (C&D) materials. D Arch S has introduced more prefabricated building elements into the project designs to reduce temporary formwork and construction waste. These include dry-wall partitioning and proprietary fittings and fixtures. We will use suitable excavated materials for filling within the project site to minimise off-site disposal. In addition, we will require the contractor to use metal site hoardings and signboards so that these materials can be recycled or reused in other projects.

14. D Arch S will 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. D Arch S will ensure that the day-to-day operations on site comply with the approved WMP. D Arch S will control the disposal of public fill and C&D waste to designated

public filling facilities and landfills respectively through a trip-ticket system. D Arch S 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. We estimate that the project will generate about 5 608 cubic metres (m<sup>3</sup>) of C&D materials. Of these, we will reuse about 1 731 m<sup>3</sup> (31%) on site, 3 612 m<sup>3</sup> (64%) as fill in public filling areas<sup>2</sup>, and dispose of 265 m<sup>3</sup> (5%) at landfills. The notional cost of accommodating C&D waste at landfill sites is estimated to be \$33,125 for this project (based on a notional unit cost<sup>3</sup> of \$125/m<sup>3</sup>).

## LAND ACQUISITION

15. The project does not require land acquisition.

## BACKGROUND INFORMATION

16. We upgraded **243RS** to Category B in May 2003.

17. On behalf of the former Regional Council, we engaged consultants in August 1996 to carry out part of the sketch work, detailed design and tender documentation for the project. In December 1996, we engaged a term contractor to carry out site investigation for the project. The cost of employing consultants and the term contractor is about \$2.3 million. We charged this amount to the project vote of the former Regional Services Department.

18. In January 2003, we instructed the consultants to continue with the remaining part of the assignments for the project at an estimated cost of \$2.5 million. In June 2003, we engaged another term contractor to carry out a topographical survey for the project at a cost of \$15,000. We 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 are preparing detailed design and tender documents. The term contractor is finalising the topographical survey.

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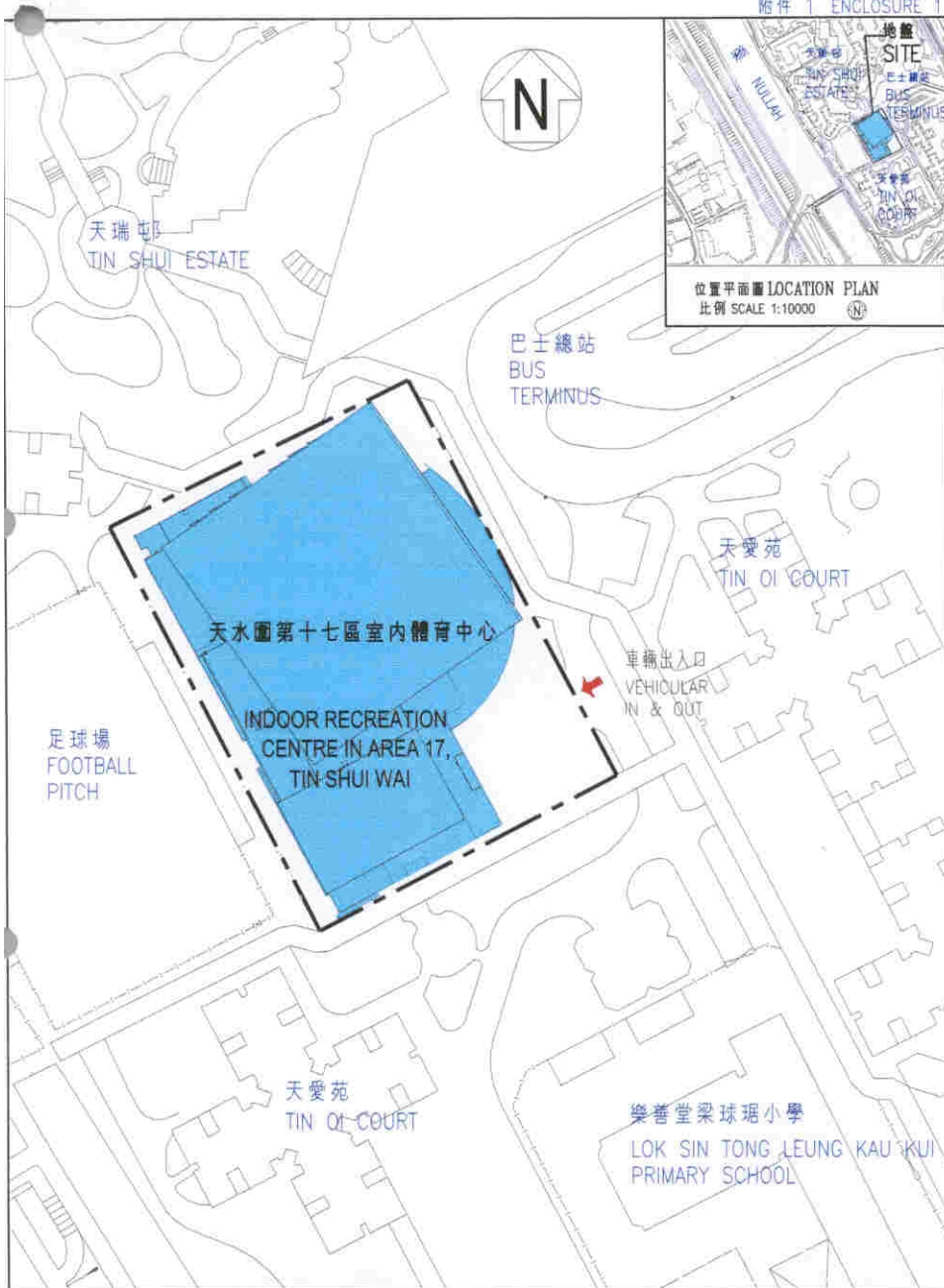
<sup>2</sup> A public filling area is a designated part of a development project that accepts public fill for reclamation purposes. Disposal of public fill in a public filling area requires a licence issued by the Director of Civil Engineering.


<sup>3</sup> 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 per m<sup>3</sup>), nor the cost to provide new landfills (which is likely to be more expensive) when the existing ones are filled. The notional cost estimate is for reference only and does not form part of this project estimate.

19. We estimate that the project will create some 110 jobs, comprising five professional staff, ten technical staff and 95 labourers, totalling 1 800 man-months.

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Home Affairs Bureau  
June 2003




title 天水圍第十七區室內體育中心 243RS-INDOOR RECREATION CENTRE IN AREA 17, TIN SHUI WAI	drawn by IPY	date 16-5-2003	drawing no. AB/5128/XA101	scale 1:1000
	approved PPC	date	 ARCHITECTURAL SERVICES DEPARTMENT	
	office ARCHITECTURAL BRANCH			





透視圖  
PERSPECTIVE

title 天水圍第十七區室內體育中心 243RS-INDOOR RECREATION CENTRE IN AREA 17, TIN SHUI WAI	drawn by IPY	date 16-5-2003	drawing no. AB/5128/XA102	scale N.T.S.
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	office ARCHITECTURAL BRANCH			

**Enclosure 3 to PWSC(2003-04)43**

**243RS - Indoor Recreation Centre in Area 17, Tin Shui Wai**

**Breakdown of the estimate for consultants' fees**

<b>Consultants' staff costs</b>		<b>Estimated man- months</b>	<b>Average MPS* salary point</b>	<b>Multiplier (Note 1)</b>	<b>Estimated fee (\$ million)</b>
(a) Contract administration <sup>(Note 2)</sup>	Professional	—	—	—	2.5
	Technical	—	—	—	0.9
(b) Quantity surveying services <sup>(Note 2)</sup>	Professional	—	—	—	0.6
	Technical	—	—	—	0.2
(c) Advisory and project management services on electrical, mechanical and electronic installations <sup>(Note 3)</sup>	Professional	—	—	—	0.2
	Technical	—	—	—	0.1
(d) Resident site staff costs <sup>(Note 4)</sup>	Professional	21.7	38	1.6	2.0
<b>Total</b>					6.5

\*MPS = Master Pay Scale

**Note**

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. (At 1.10.2002, MPS point 38 = \$57,730 per month)
2. The consultants' staff costs for items (a) - (b) above are calculated in accordance with the existing consultancy agreement for the provision of consultancy services at post-contract stage. The post-contract stage of the assignments will only be executed subject to Finance Committee's approval to upgrade **243RS** to Category A.
3. The works will be carried out by Electrical and Mechanical Services Trading Fund under separate agreement subject to Finance Committee's approval to upgrade **243RS** to Category A.
4. The consultants' staff cost for site supervision is based on estimates prepared by the Director of Architectural Services. We will only know the actual man-months and actual costs after completion of the construction works.