

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 703 – BUILDINGS

Recreation, Culture and Amenities – Mixed amenity packages

53RG – Sports centre and community hall in Area 101, Tin Shui Wai

Members are invited to recommend to Finance Committee the upgrading of **53RG** to Category A at an estimated cost of \$629.8 million in money-of-the-day prices for the development of a sports centre and community hall in Area 101, Tin Shui Wai.

PROBLEM

There are insufficient recreational and community facilities in Yuen Long District to meet local needs.

PROPOSAL

2. The Director of Architectural Services, with the support of the Secretary for Home Affairs, proposes to upgrade **53RG** to Category A at an estimated cost of \$629.8 million in money-of-the-day (MOD) prices for the development of a sports centre and community hall in Area 101, Tin Shui Wai.

/PROJECT

PROJECT SCOPE AND NATURE

3. The project site occupies an area of about 6 200 square metres (m²) at the junction of Tin Shui Road and Tin Fai Road. The proposed scope of works under **53RG** includes —

Sports Centre

- (a) a main games arena that can be set as two basketball courts, two volleyball courts or eight badminton courts, and a spectator stand;
- (b) an indoor running track, two multi-purpose activity rooms that can be combined into a large activity room, a table tennis room, a fitness room and a children's play room;
- (c) an outdoor climbing wall and landscaped area;
- (d) ancillary facilities including a baby care room, a first aid room, toilets and changing facilities, a management office, a booking office, a conference room, a store room, a control room and parking spaces;

Community Hall

- (e) a multi-purpose hall (with a seating capacity of 450) with stage;
- (f) a stage store room;
- (g) a stage meeting room;
- (h) male and female dressing rooms;
- (i) a conference room; and
- (j) ancillary facilities including a management office, a store room, toilets and parking spaces.

_____ A site plan is at Enclosure 1. A section view and the view of the proposed
_____ development (artist's impression) are at Enclosure 2. We plan to start construction in November 2009 for completion in June 2012.

/JUSTIFICATION

JUSTIFICATION

Sports Centre

4. Yuen Long District (including Tin Shui Wai New Town) has a population of about 563 800, which is expected to increase by 15.3% to 650 200 by 2016. The Hong Kong Planning Standards and Guidelines suggests a provision of ten sports centres for the projected population in 2016. At present, there are four sports centres in the district, two in Yuen Long New Town and two in Tin Shui Wai New Town. One additional sports centre near Tin Shui Wai MTR Station is under construction. Two sports centres in Area 3, Yuen Long and Kam Tin/Pat Heung respectively are under planning. The utilisation rate of the main arenas of the two sports centres in Tin Shui Wai New Town in 2008 was 77%. This project will help to alleviate the shortfall of sports centres there.

5. The project site is adjacent to the Light Rail Tin Fu Stop and surrounded by one primary school, one secondary school and several public housing developments, including Tin Yan Estate, Tin Fu Court and Tin Yuet Estate. It is expected that the project will be welcomed by nearby students and local residents.

Community Hall

6. There are at present two community centres (CCs), namely Tin Shui CC (TSCC) and Tin Yiu CC (TYCC), in the southern part of Tin Shui Wai, and one community hall (CH), namely Tin Ching CH (TCCH), in the northern part of Tin Shui Wai. The average utilisation rates of TSCC, TYCC and TCCH in 2008 were 85%, 78% and 75% respectively. The proposed CH in the north-western part would help meet the need of rising population in Tin Shui Wai area particularly in the northern part.

7. Tin Shui Wai, particularly the northern part, has a high concentration of low-income groups. About 85% of the population in northern Tin Shui Wai live in public housing estates. The proposed CH would provide a venue in which non-government organisations could organise community activities or entertainment at a relatively low cost to residents, thereby helping to build up their sense of belonging to the community.

/ FINANCIAL.....

FINANCIAL IMPLICATIONS

8. We estimate the capital cost of the project to be \$629.8 million in MOD prices (see paragraph 9 below) as follows –

	\$ million
(a) Site works	4.0
(b) Piling	173.5
(c) Building	211.2
(d) Building services	80.8
(e) Drainage	5.5
(f) External works	7.0
(g) Additional energy conservation measures	20.3
(h) Consultants' fee for	10.0
(i) contract administration	9.0
(ii) management of resident staff	1.0
(i) Remuneration of resident site staff	11.5
(j) Furniture and Equipment ¹	6.8
(k) Contingencies	52.4
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Sub-total	583.0 (in September 2008 prices)
(l) Provision for price adjustment	46.8
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Total	629.8 (in MOD prices)
	<hr/>

/We.....

¹ The estimated cost of furniture and equipment is based on an indicative list of items required, including recreation and sports equipments, office furniture, first aid equipments, public address systems, etc.

We propose to engage consultants to undertake contract administration and site supervision of the project. A detailed breakdown of the estimate for consultants' fees and resident site staff costs by man-months is at Enclosure 3. The construction floor area (CFA) of the **53RG** is about 12 291 m². The estimated construction unit cost, represented by the building and the building services costs, is \$23,757 per m² of CFA in September 2008 prices. We consider this comparable to similar projects built by the Government.

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

Year	\$ million (Sept 2008)	Price adjustment factor	\$ million (MOD)
2009 – 10	10.0	1.03500	10.4
2010 – 11	167.0	1.05570	176.3
2011 – 12	226.0	1.07681	243.4
2012 – 13	126.0	1.09835	138.4
2013 – 14	28.0	1.12032	31.4
2014 – 15	26.0	1.15113	29.9
	583.0		629.8

10. 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 2009 to 2015. We will deliver the piling and building works through one lump-sum contract because we can clearly define the scope of the works in advance. The contract will provide for price adjustments.

11. We estimate the annual recurrent expenditure arising from this project to be \$15.2 million.

/PUBLIC.....

PUBLIC CONSULTATION

12. We consulted the Culture, Recreation and Sports Committee of the Yuen Long District Council (YLDC) on the scope of the project on 7 November 2006 and 9 January 2007. Members supported the project and requested its early implementation.

13. We consulted the District Facilities Management Committee of YLDC on the conceptual layout of the project on 9 January 2009. Members supported the project and requested its early implementation.

14. We consulted the primary school and the secondary school nearby in December 2008, and the mutual aid committees of Tin Yan Estate and Tin Yuet Estate as well as the Incorporated Owners of Tin Fu Court in the vicinity of the project site on the development of the project in April 2009. All parties supported the early implementation of the project.

15. We circulated an information paper to the Legislative Council Panel on Home Affairs on 5 May 2009. Members did not raise any objection to this project.

ENVIRONMENTAL IMPLICATIONS

16. The project is not a designated project under the Environmental Impact Assessment Ordinance (Cap. 499). The project has very little potential of giving rise to adverse environmental impact.

17. 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 contract. These include the use of silencers, mufflers, acoustic lining or shields and the building of barrier wall for noisy construction activities, frequent cleaning and watering of the site, and the provision of wheel-washing facilities.

18. We have considered measures in the planning and design stages to reduce the generation of construction waste where possible (e.g. using metal site hoardings and signboards so that these materials can be recycled or reused in other projects). In addition, we will require the contractor to reuse inert construction waste on site (e.g. use of excavated materials for filling within the site) or in other suitable construction sites as far as possible, in order to minimise the disposal of inert construction waste to public fill reception facilities². We will encourage the contractor to maximise the use of recycled or recyclable inert construction waste, as well as the use of non-timber formwork to further minimise the generation of construction waste.

19. We will also require the contractor to submit for approval a plan setting out the waste management measures, which will include appropriate mitigation means to avoid, reduce, reuse and recycle inert construction waste. We will ensure that the day-to-day operations on site comply with the approved plan. We will require the contractor to separate the inert portion from non-inert construction waste on site for disposal at appropriate facilities. We will control the disposal of inert construction waste and non-inert construction waste to public fill reception facilities and landfills respectively through a trip-ticket system.

20. We estimate that the project will generate in total about 24 010 tonnes of construction waste. Of these, we will reuse about 6 050 tonnes (25.2%) of inert construction waste on site and deliver 16 310 tonnes (67.9%) of inert construction waste to public fill reception facilities for subsequent reuse. In addition, we will dispose of 1 650 tonnes (6.9%) of non-inert construction waste at landfills. The total cost for accommodating construction waste at public fill reception facilities and landfill sites is estimated to be \$646,620 for this project (based on a unit cost of \$27/tonne for disposal at public fill reception facilities and \$125/tonne³ at landfills).

/ENERGY.....

² Public fill reception facilities are specified in Schedule 4 of the Waste Disposal (Charges for Disposal of Construction Waste) Regulation. Disposal of inert construction waste 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.

ENERGY CONSERVATION MEASURES

21. The project has adopted various forms of energy efficient features, including –

- (a) water cooled chillers (fresh-water cooling tower);
- (b) automatic demand control of chilled water circulation system;
- (c) automatic condenser tube cleaning equipment;
- (d) demand control of fresh air supply with carbon dioxide sensors;
- (e) heat wheels for heat energy reclaim of exhaust air;
- (f) T5 energy efficient fluorescent tubes with electronic ballast and lighting control by occupancy sensors and daylight sensors;
- (g) light-emitting diode (LED) type exit signs;
- (h) heat pump for domestic hot water, space heating and dehumidification; and
- (i) automatic on/off switching of lighting and ventilation fan inside the lifts.

22. For renewable energy technologies, we will adopt photovoltaic system, solar hot water system and solar light for environmental benefits.

23. For greening features, we will provide landscape in the appropriate area on the roof and podium deck for environmental and amenity benefits.

24. For recycled features, we will adopt environmentally friendly materials for construction and a rainwater collection system for landscape irrigation with a view to conserving water.

25. The total estimated additional cost for adoption of the energy conservation measures is around \$20.3 million (including \$3.0 million for energy efficient features), which has been included in the cost estimate for this project. The energy efficient features will achieve 10.0% energy savings in the annual energy consumption with a payback period at about 6.8 years.

HERITAGE IMPLICATIONS

26. This project will not affect any heritage site, i.e. all declared monuments, proposed monuments, graded historic sites/buildings, sites of archaeological interest and Government historic sites identified by the Antiquities and Monuments Office.

LAND ACQUISITION

27. The project does not require any land acquisition.

BACKGROUND INFORMATION

28. We upgraded **53RG** to Category B in September 2007. In May 2008, we engaged an architectural consultant to undertake site investigation and detailed design. In July 2008, we engaged a quantity surveying consultant to prepare tender documents. The total cost of the consultancy services and works is about \$9.2 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 architectural consultant has completed the site investigation and detailed design. The quantity surveying consultant is preparing the tender documents.

29. The proposed works will involve felling of one tree. The tree to be removed is not an important tree⁴. We will incorporate planting proposals as part of the project, including an estimated quantity of 22 trees and 4 000 shrubs.

30. We estimate that the proposed works will create about 350 jobs (315 for labourers and another 35 for professional/technical/ancillary staff) providing a total employment of 8 850 man-months.

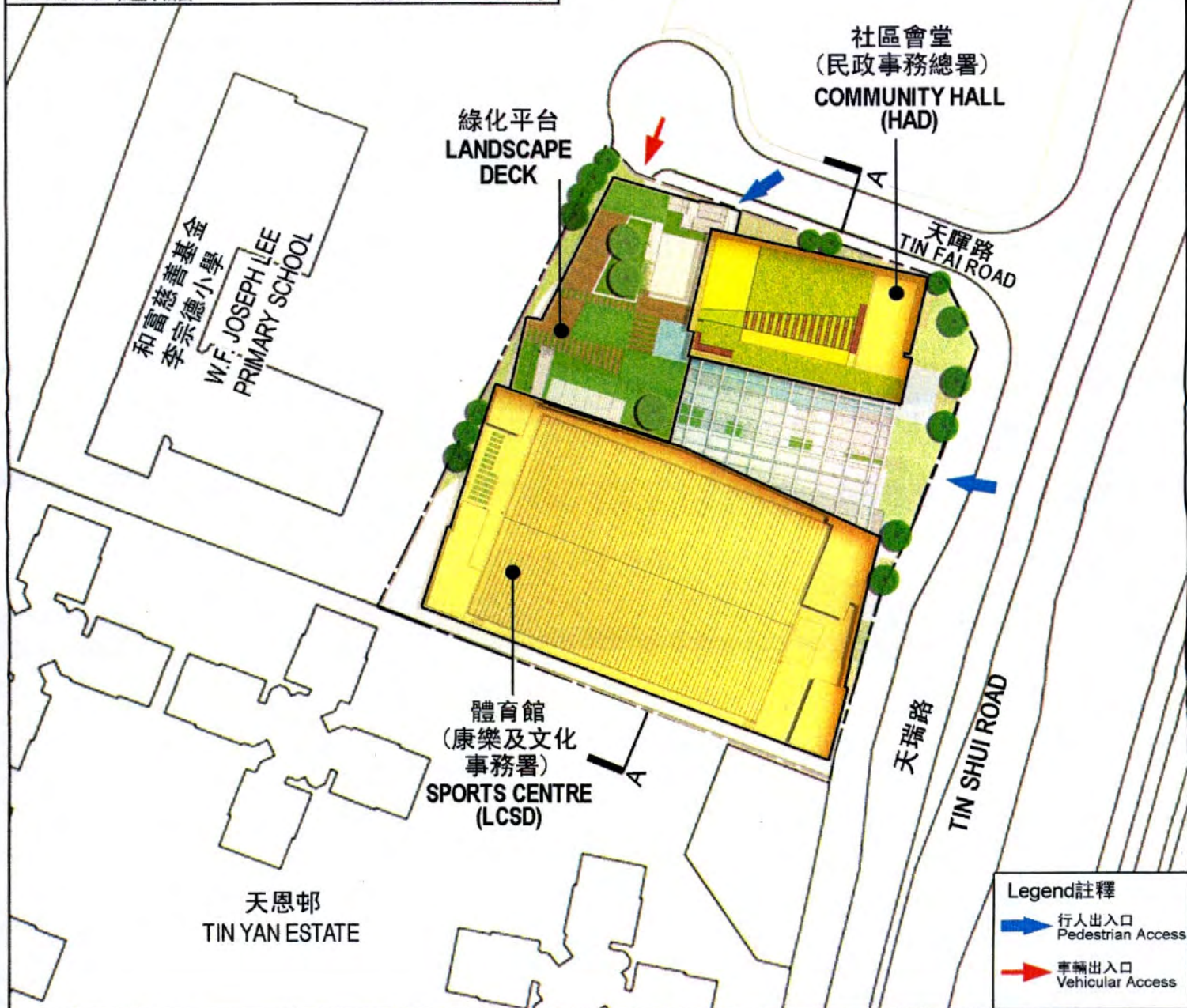
Home Affairs Bureau
May 2009

⁴ “Important trees” refer 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 tree, tree as landmark of monastery or heritage monument, and trees in memory of an important person 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 (m) (measured at 1.3 m above ground level), or with height/canopy spread equal or exceeding 25 m.



政府、機構、或社區用地
G/C SITE



Project title 53 RG

Sports centre and community hall in Area 101,
Tin Shui Wai
天水圍第101區體育館及社區會堂

Drawn by

Larry Chan

Approved by

Raymond Zhou

Office

Project Management Branch

Date

27/04/09

Date

27/04/09

Drawing no.

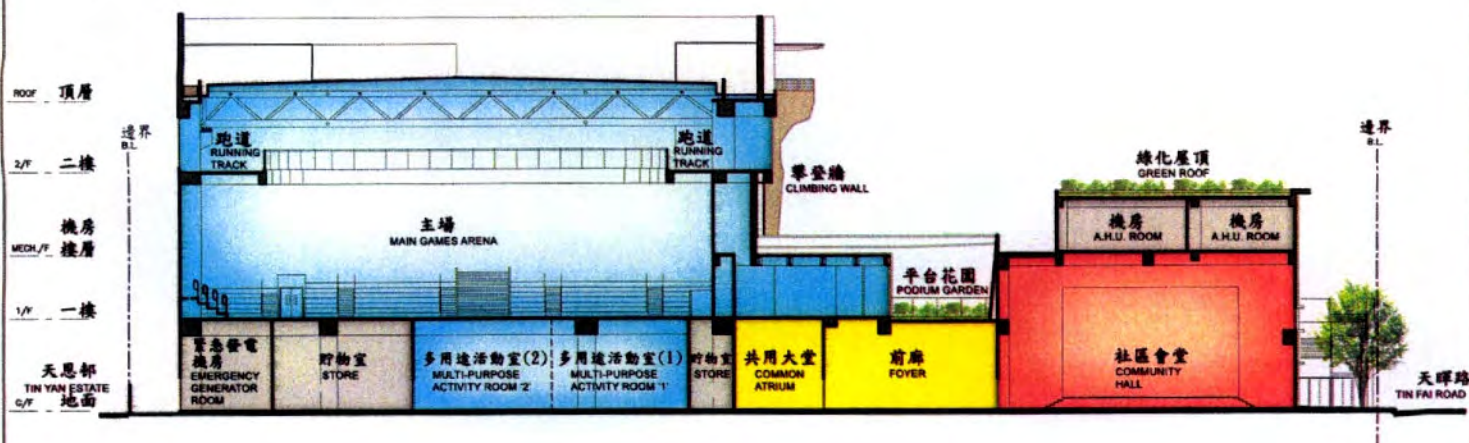
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ARCHITECTURAL
SERVICES
DEPARTMENT



剖面圖 A-A
SECTION A-A



從東北面望向體育館及社區會堂的構思圖

PERSPECTIVE VIEW OF THE PROPOSED SPORTS CENTRE AND COMMUNITY HALL FROM NORTH-EASTERN DIRECTION (ARTIST'S IMPRESSION)

Project title **53 RG**

Sports centre and community hall in Area 101,
Tin Shui Wai

天水圍第101區體育館及社區會堂

Drawn by
Larry Chan

Approved by
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Office
Project Management Branch

Date
27/04/09

Date
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Drawing no.
AB/5664/SK02

Scale
N.T.S.



ARCHITECTURAL
SERVICES
DEPARTMENT

53RG – Sports centre and community hall in Area 101, Tin Shui Wai**Breakdown of the estimates for consultants' fees and resident site staff costs
(in September 2008 prices)**

			Estimated man- months	Average MPS* salary point	Multiplier (Note 1)	Estimated fee (\$ million)
(a)	Consultants' fee for contract administration (Note 2)	Professional	–	–	–	5.1
		Technical	–	–	–	3.9
					Sub-total	9.0
(b)	Resident site staff costs (Note 3)	Professional	43.4	38	1.6	4.2
		Technical	261.5	14	1.6	8.3
					Sub-total	12.5
Comprising –						
(i)	Consultants' fees for management of resident site staff					1.0
(ii)	Remuneration of resident site staff					11.5
					Total	21.5

* 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 April 2008, MPS pt. 38 = \$60,535 per month and MPS pt. 14 = \$19,835 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 **53RG**. The assignment will only be executed subject to Finance Committee's approval to upgrade **53RG** to Category A.
3. The consultants' staff cost for site supervision is based on the estimate prepared by the Director of Architectural Services. We will only know the actual man-months and actual costs after completion of the construction works.