

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 703 – BUILDINGS

Recreation, Culture and Amenities – Mixed amenity packages

55RG – Sports centre, community hall and district library in Area 14B, Sha Tin

Members are invited to recommend to Finance Committee the upgrading of **55RG** to Category A at an estimated cost of \$1,084 million in money-of-the-day prices for the construction of a sports centre, a community hall and a district library in Area 14B, Sha Tin.

PROBLEM

There are not enough sports, community or library facilities in Sha Tin to meet the needs of the people in the district.

PROPOSAL

2. The Director of Architectural Services, with the support of the Secretary for Home Affairs, proposes to upgrade **55RG** to Category A at an estimated cost of \$1,084 million in money-of-the-day (MOD) prices for the construction of a sports centre, a community hall and a district library in Area 14B, Sha Tin.

/ **PROJECT**

PROJECT SCOPE AND NATURE

3. The project site occupies an area of around 5 970 square meters (m²) at the junction of Sha Tin Wai Road and Ngan Shing Street in Area 14B, Yuen Chau Kok, Sha Tin. The scope of works under **55RG** includes —

(a) Sports Centre

- (i) a multi-purpose arena that could be used as two basketball courts or two volleyball courts or eight badminton courts, with a 700-seat spectator stand;
- (ii) two multi-purpose activity rooms separated by movable partitions, which would allow the rooms to be combined into one large activity room;
- (iii) a table-tennis room;
- (iv) a fitness room;
- (v) a children's play room;
- (vi) an artificial turf indoor lawn bowls green;
- (vii) an outdoor climbing wall;
- (viii) ancillary facilities including a booking office, a management office, a meeting room, a first aid room, a baby care room, toilets, changing and shower rooms and store rooms;

(b) Community Hall

- (i) a multi-purpose hall¹ with a full-height sliding partition, with a seating capacity of 450 persons and a stage;
- (ii) a stage store room;
- (iii) a multi-purpose stage meeting room;

/ (iv)

¹ Full-height sliding partition with sound insulation will be provided so that the venue could be flexibly converted into two smaller ones to meet different needs.

- (iv) male and female dressing rooms;
- (v) a multi-purpose conference room with a full-height partition²;
- (vi) ancillary facilities including a management office, a store room for office and toilets;

(c) District Library

- (i) an adult library, a children's library, a quick reference section, a newspapers and periodicals section, a multimedia library, a computer and information centre, an extension activities room, book drops and a students' study room;
- (ii) a customer service counter, a readers' advisory desk, a coffee corner, an exhibition/ display area, a public area for self-charging terminals, library catalogue terminals, internet express terminals, self-service electronic lockers and photocopying facilities;
- (iii) ancillary facilities including an office, express check-in area³, book processing and sorting rooms, computer equipment rooms, a store room, toilets and a baby care room;

(d) Ancillary facilities for shared-use by the sports centre, community hall and district library

- (i) a loading and unloading area;
- (ii) a public fee-paying car park;
- (iii) bicycle parking spaces; and
- (iv) landscaped areas and a covered bridge linking the sports centre and the district library.

/ A

² Full-height sliding partition with sound insulation will be provided so that the venue could be flexibly converted into two smaller ones to meet different needs.

³ The express check-in area will be located near the entrance of the library for readers to return library materials on their own through the slots provided without the assistance of the customer service counter. This arrangement will help minimise traffic and queuing at the customer services counter.

_____ A site plan, artist's impressions, layout plans, a sectional plan and a barrier free access plan for the project are at Enclosures 1 to 10. Subject to funding approval by the Finance Committee, we plan to commence construction in December 2012 for completion in February 2016.

JUSTIFICATION

Sports Centre

4. The Hong Kong Planning Standards and Guidelines (HKPSG) suggest a provision of 11 public indoor sports centres in Sha Tin for its projected population of 686 000 by 2019. Currently, there are only five such centres in the district, and their average usage rate has been about 90% in the past three years. There is a strong demand for sports facilities from schools and the local community. The proposed project will help meet this demand, providing a new venue for schools to organise sports training and competitions and encouraging greater public participation in sport. With five secondary schools, one primary school and five residential developments nearby, the sports centre is expected to be well utilised by students and residents in the area.

Community Hall

5. Since there is currently no community hall or centre in the vicinity, residents in Area 14B can only make use of the nearest Pok Hong Community Hall (PHCH) and Kwong Yuen Community Hall (KYCH), which are about 30 minutes away on foot. The average utilisation rate of PHCH and KYCH was 92% and 97% respectively in the past three years. With the further population growth in the district, there is a strong need for a new community hall to provide the local community with a venue for organising community activities to help cultivate a sense of belonging among local residents. The new community hall can also help relieve the pressure on PHCH and KYCH.

/ District

District Library

6. The HKPSG suggest the provision of a district library for every 200 000 residents. Apart from the aforesaid guidelines, the Administration may consider providing a major library in lieu of two district libraries for every 400 000 residents. With a current population of 640 000, Sha Tin District is provided with a major library - Sha Tin Public Library (STPL), a district library - Ma On Shan Public Library (MOSPL), a small library - Lek Yuen Public Library (LYPL) and 12 mobile library stops. However, the space provision of STPL and LYPL (which were commissioned in 1987 and 1977 respectively) falls behind the prevailing standards for the two types of public libraries⁴. The space constraint has limited the scope for further enhancement of services in the two libraries. To cater for the fast growing population in the Sha Tin District and to meet the rising expectation for improved library services and facilities, there is a need to provide a new district library in Sha Tin, which will meet the prevailing standard in terms of space, services and facilities. The provision of a district library at the project site will enhance the existing library services provision in Sha Tin District, in particular the Yuen Chau Kok area which is around 20 minutes and 25 minutes' drive from STPL and MOSPL respectively.

FINANCIAL IMPLICATIONS

7. We estimate the capital cost of the project to be \$1,084 million in MOD prices (please see paragraph 8 below), broken down as follows –

	\$ million
(a) Site works	10.2
(b) Piling	95.1
(c) Building	429.6
(d) Building services	139.4
(e) Drainage	5.9

/ \$ million....

⁴ The space provision of STPL at 3 318 m² falls behind the prevailing standard for a major library at 6 200 m² by 46%; while LYPL at 307 m² is short of space to meet the current expectation for a small library.

		\$ million	
(f)	External works	22.5	
(g)	Additional energy conservation measures	13.8	
(h)	Furniture and equipment ⁵	29.3	
(i)	Consultants' fees for	29.0	
	(i) contract administration	27.0	
	(ii) management of resident site staff (RSS)	2.0	
(j)	Remuneration of RSS	28.0	
(k)	Contingencies	77.3	
	Sub-total	880.1	(in September 2011 prices)
(l)	Provision for price adjustment	203.9	
	Total	1,084.0	(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 consultants' fees and RSS costs by man-months is at Enclosure 11. The construction floor area (CFA) of **55RG** is about 20 988 m². The estimated construction unit cost, represented by the building and building services costs, is \$27,111 per m² of CFA in September 2011 prices. We consider this comparable to that of similar projects built by the Government.

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

Year	\$ million (Sept 2011)	Price adjustment factor	\$ million (MOD)
2012 – 13	3.0	1.05325	3.2
			/ Year.....

⁵ The estimated cost is based on an indicative list of furniture and equipment required.

Year	\$ million (Sept 2011)	Price adjustment factor	\$ million (MOD)
2013 – 14	75.0	1.11118	83.3
2014 – 15	280.0	1.17229	328.2
2015 – 16	305.0	1.23677	377.2
2016 – 17	125.0	1.30479	163.1
2017 – 18	62.0	1.37656	85.3
2018 – 19	30.1	1.45227	43.7
	<hr/> 880.1 <hr/>		<hr/> 1,084.0 <hr/>

9. We have derived the MOD estimates on the basis of the Government's latest set of assumptions on the trend rate of change in the prices of public sector building and construction output for the period 2012 to 2019. We will deliver the construction works through a lump-sum contract because we can clearly define the scope of the works in advance. The contract will provide for price adjustments.

10. We estimate the annual recurrent expenditure arising from this project to be \$46.6 million. The capital and recurrent costs arising from the project would be taken into consideration when determining the affected fees and charges as appropriate in future.

PUBLIC CONSULTATION

11. We consulted the Culture, Sports and Community Development Committee of the Sha Tin District Council on the proposed project scope in June 2007, August 2007 and April 2008, and on the conceptual layout in August 2011. Members supported the proposed project and requested its early implementation.

12. We have also consulted the local community through the Sha Tin District Office and met the Owners Committee of Yu Chui Court (the residential development adjoining the project site) in September 2011. They raised no objection to the proposed project.

13. We submitted a paper on the proposed project to the Legislative Council Panel on Home Affairs on 4 May 2012. Members had no adverse comments on the project.

ENVIRONMENTAL IMPLICATIONS

14. The project is not a designated project under the Environmental Impact Assessment Ordinance (Cap. 499). The project will not cause long-term environmental impacts. We have included in the project estimates the cost to implement suitable mitigation measures to control short-term environmental impacts.

15. 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 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.

16. At the planning and design stages, we have considered measures 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 (e.g. use of excavated materials for filling within the site) on site or in other suitable construction sites as far as possible, in order to minimise the disposal of inert construction waste at public fill reception facilities⁶. We will encourage the contractor to maximise the use of recycled/ recyclable inert construction waste, and the use of non-timber formwork to further reduce the generation of construction waste.

/ 17.

⁶ 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.

17. At the construction stage, 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 at public fill reception facilities and landfills respectively through a trip-ticket system.

18. We estimate that the project will generate in total about 21 657 tonnes of construction waste. Of these, we will reuse about 3 814 tonnes (17.6%) of inert construction waste on site and deliver 14 393 tonnes (66.5%) of inert construction waste to public fill reception facilities for subsequent reuse. We will dispose of the remaining 3 450 tonnes (15.9%) 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 \$0.8 million for this project (based on a unit cost of \$27 per tonne for disposal at public fill reception facilities and \$125 per tonne⁷ at landfills).

HERITAGE IMPLICATIONS

19. 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

20. The project does not require any land acquisition.

ENERGY CONSERVATION MEASURES

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

/ (a)

⁷ 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 m³), nor the cost to provide new landfills (which is likely to be more expensive), when the existing ones are filled.

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

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

23. For greening features, we will provide greening on appropriate rooftops and facades of the buildings for environmental and amenity benefits.

24. For recycled features, we will adopt rainwater recycling system for landscape irrigation.

25. The total estimated additional cost for adoption of the above energy conservation measures is around \$13.8 million (including \$3.3 million for energy efficient features), which has been included in the cost estimate of this project. The energy efficient features will achieve 10.1% energy savings in the annual energy consumption with a payback period of about 4.4 years.

/ **BACKGROUND**

BACKGROUND INFORMATION

26. We upgraded **55RG** to Category B in October 2009. We engaged an architectural consultant in May 2011 to undertake the detailed design and site investigation, and a quantity surveying consultant in February 2012 to prepare tender documents. The total cost of the consultancy services and works is about \$18.6 million. The services and works by the consultants are funded under 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, and the quantity surveying consultant is preparing the tender documents.

27. Of the 8 trees within the project boundary, 7 trees will be felled and one tree will be replanted within the project site. All trees to be removed are not important trees⁸. We will incorporate planting proposals as part of the project, including the planting of about 13 trees, 1 500 shrubs and 3 500 ground covers.


28. We estimate that the proposed works will create about 415 jobs (371 for labourers and another 44 for professional/technical staff) providing a total employment of 10 125 man-months.

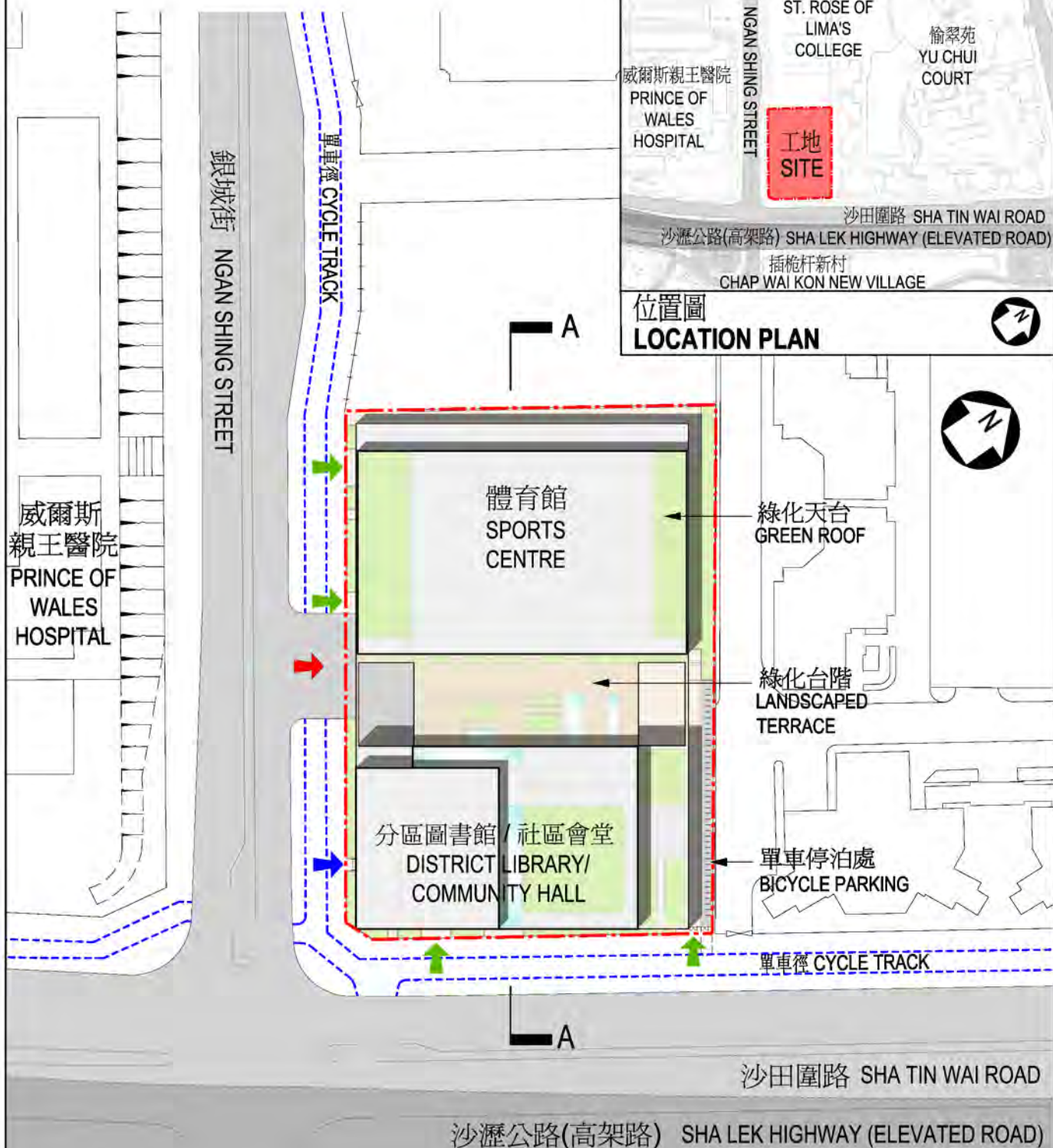
Home Affairs Bureau
June 2012

⁸ “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.

圖例說明 LEGEND

-  車輛出入口 VEHICULAR ACCESS
 無障礙出入口 BARRIER FREE ACCESS
 行人出入口 PEDESTRIAN ACCESS
 現有單車徑 EXISTING CYCLE TRACK



平面圖
SITE PLAN

55RG

沙田第14B區體育館、
社區會堂及分區圖書館
SPORTS CENTRE, COMMUNITY
HALL AND DISTRICT LIBRARY
IN AREA 14B, SHA TIN

drawn by

SL CHAN

date

05/2012

approved

FRANK WONG

date

05/2012

office

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從南面望向大樓的構思透視圖

PERSPECTIVE VIEW FROM SOUTHERN DIRECTION (ARTIST'S IMPRESSION)

從西面望向大樓的構思透視圖

PERSPECTIVE VIEW FROM WESTERN DIRECTION (ARTIST'S IMPRESSION)

55RG

沙田第14B區體育館、
社區會堂及分區圖書館
SPORTS CENTRE, COMMUNITY
HALL AND DISTRICT LIBRARY
IN AREA 14B, SHA TIN

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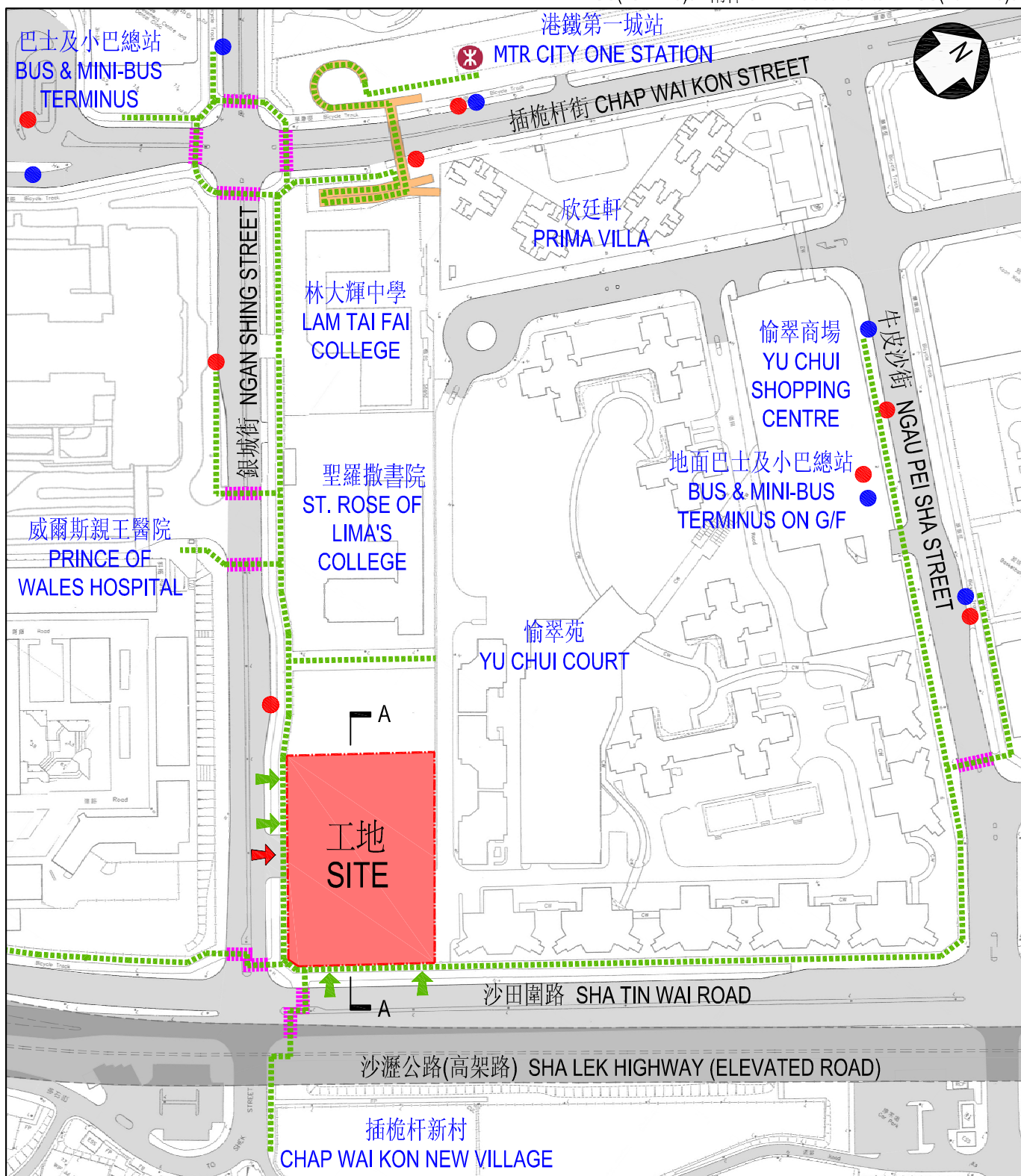
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圖例說明
LEGEND
 車輛出入口
VEHICULAR ACCESS

 無障礙入口
BARRIER FREE ENTRANCE

 現有無障礙通道
EXISTING BARRIER FREE ACCESS

 現有路面行人過路處
EXISTING AT-GRADE PEDESTRIAN CROSSING

 現有蓋行人天橋
EXISTING COVERED ELEVATED WALKWAY

 現有巴士站
EXISTING BUS STOP

 現有巴士站
EXISTING MINI-BUS STOP

無障礙通道平面圖

PLAN OF BARRIER FREE ACCESS

55RG

沙田第14B區體育館、
社區會堂及分區圖書館
SPORTS CENTRE, COMMUNITY
HALL AND DISTRICT LIBRARY
IN AREA 14B, SHA TIN

drawn by
SL CHANdate
05/2012approved
FRANK WONGdate
05/2012office
工程策劃管理處
PROJECT MANAGEMENT BRANCH

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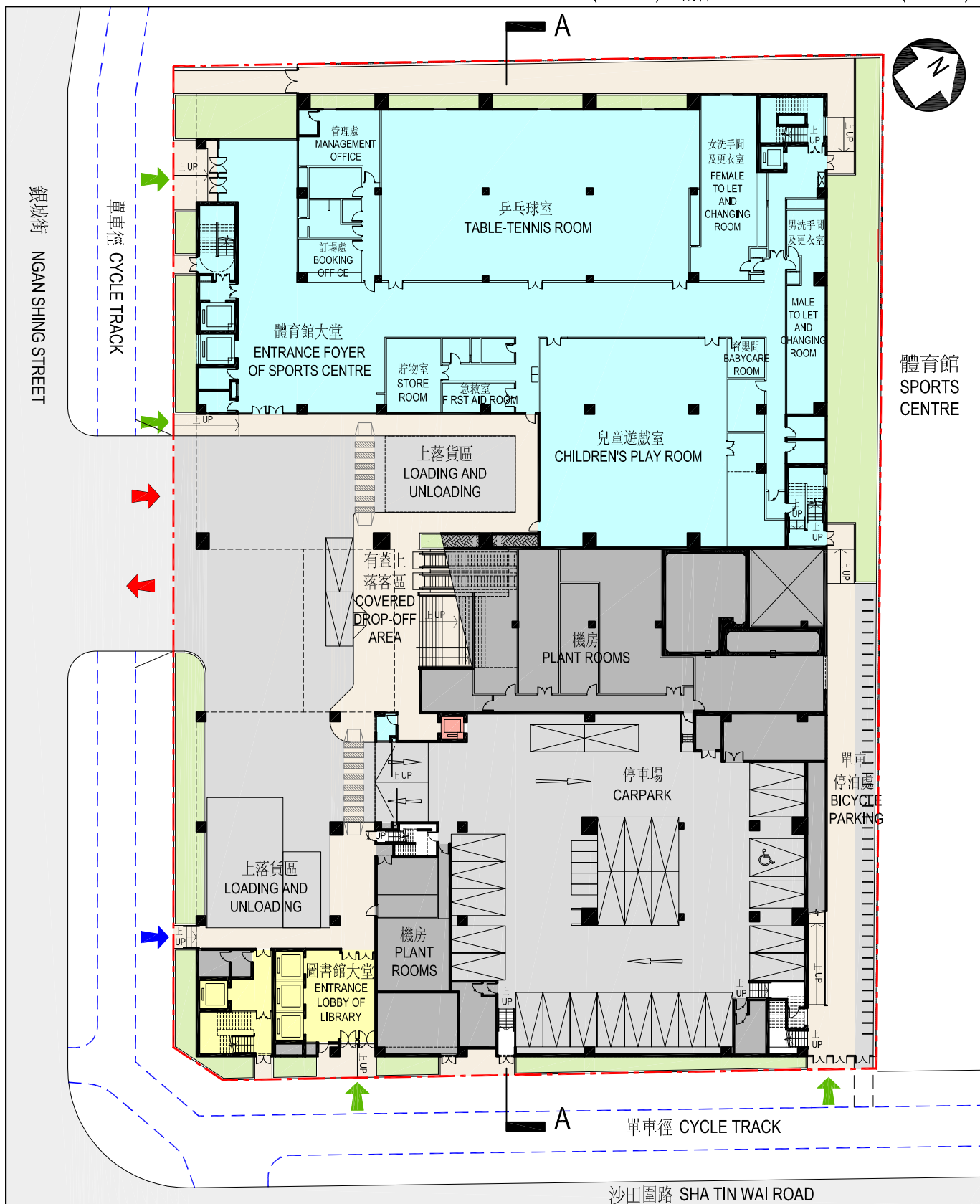
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地面平面圖
GROUND FLOOR PLAN

圖例說明
LEGEND



車輛出入口
VEHICULAR ACCESS



無障礙出入口
BARRIER FREE ACCESS



行人出入口
PEDESTRIAN ACCESS



行人過路處
PEDESTRIAN CROSSING



社區會堂電梯
LIFT FOR COMMUNITY HALL



現有單車徑
EXISTING CYCLE TRACK

55RG

沙田第14B區體育館、
社區會堂及分區圖書館
SPORTS CENTRE, COMMUNITY
HALL AND DISTRICT LIBRARY
IN AREA 14B, SHA TIN

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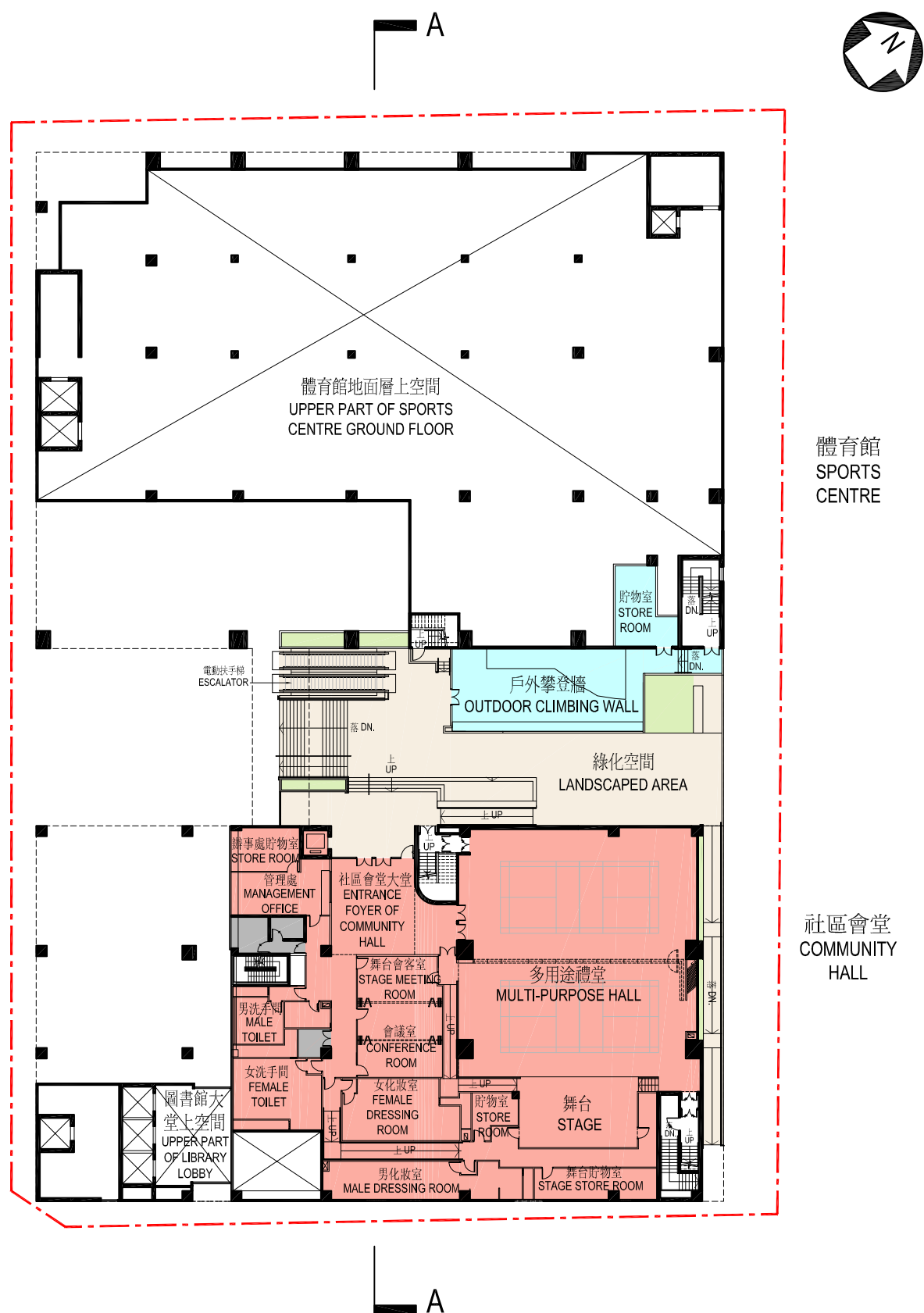
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地面上層平面圖
UPPER GROUND FLOOR PLAN

55RG

沙田第14B區體育館、
社區會堂及分區圖書館
SPORTS CENTRE, COMMUNITY
HALL AND DISTRICT LIBRARY
IN AREA 14B, SHA TIN

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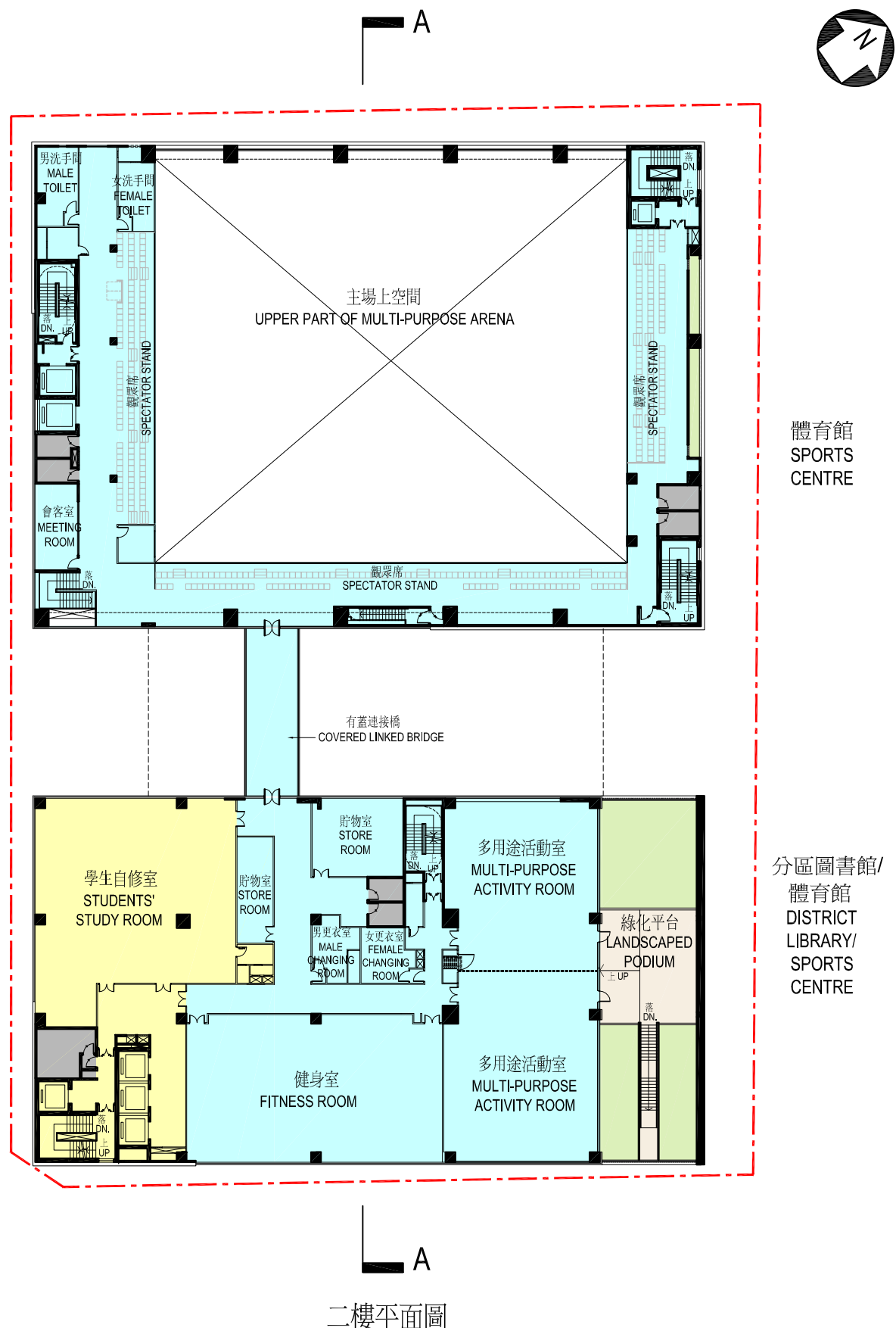
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55RG

沙田第14B區體育館、
社區會堂及分區圖書館
SPORTS CENTRE, COMMUNITY
HALL AND DISTRICT LIBRARY
IN AREA 14B, SHA TIN

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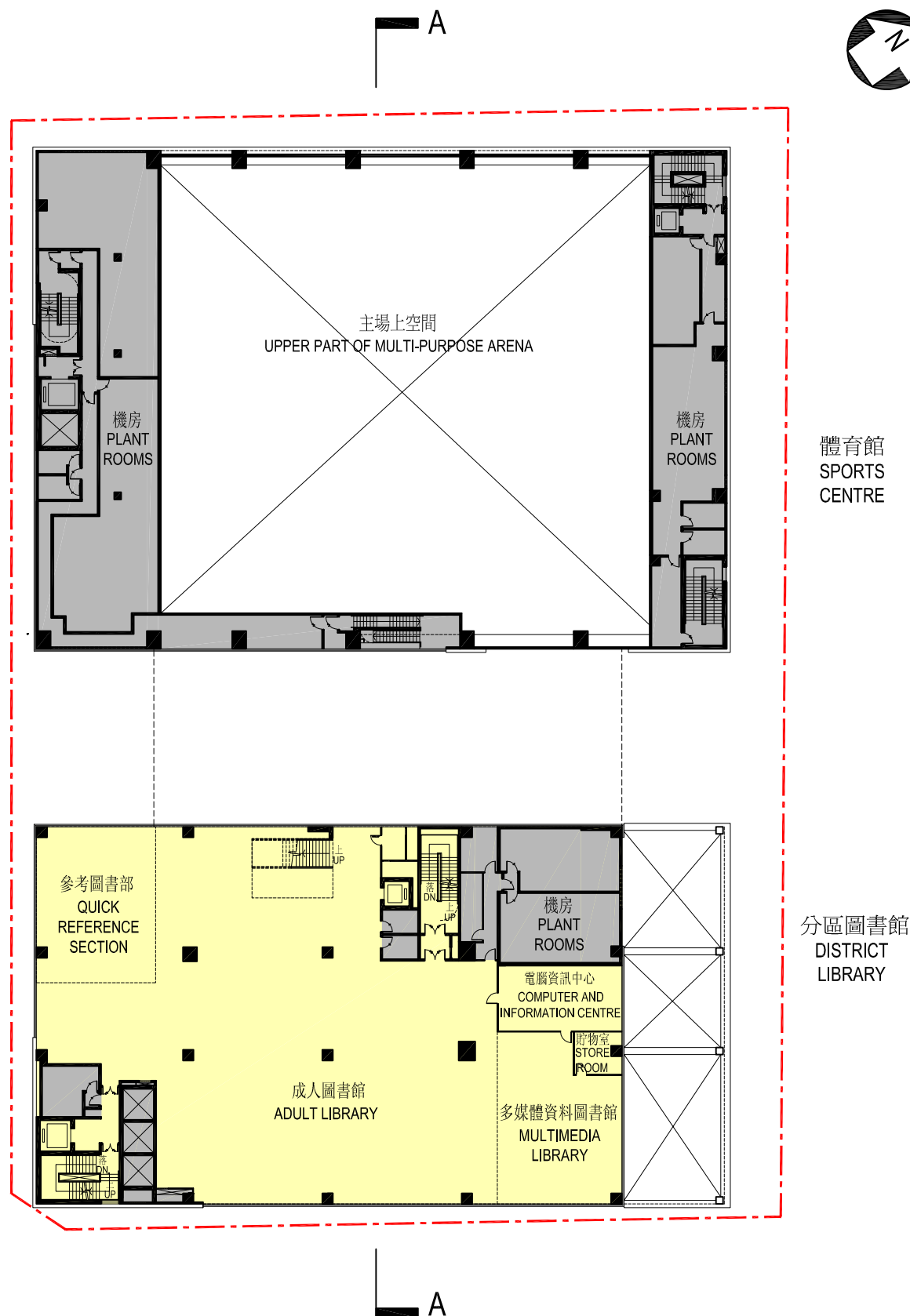
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三樓平面圖
THIRD FLOOR PLAN

55RG

沙田第14B區體育館、
社區會堂及分區圖書館
SPORTS CENTRE, COMMUNITY
HALL AND DISTRICT LIBRARY
IN AREA 14B, SHA TIN

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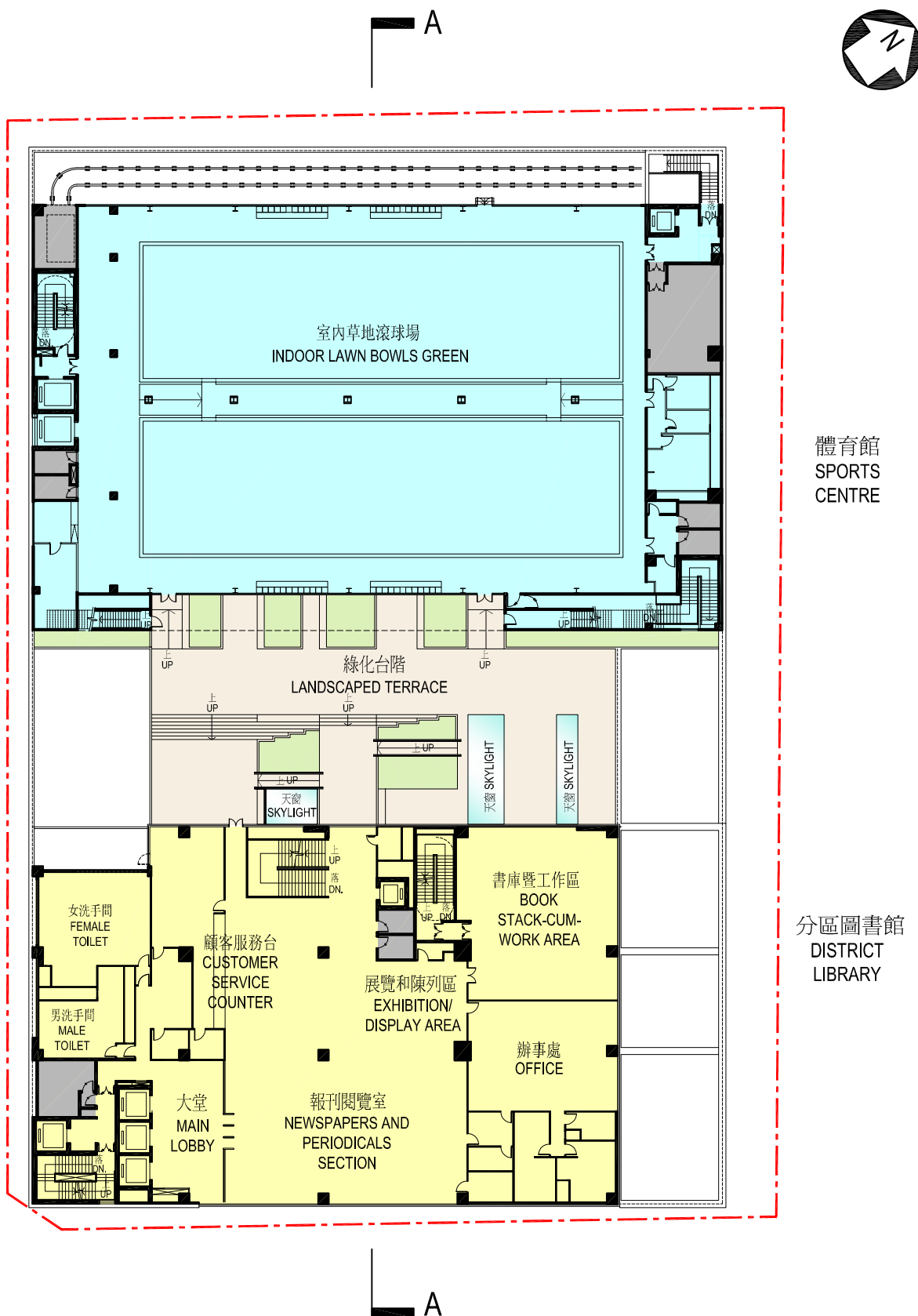
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四樓平面圖
FOURTH FLOOR PLAN

55RG

沙田第14B區體育館、
社區會堂及分區圖書館
SPORTS CENTRE, COMMUNITY
HALL AND DISTRICT LIBRARY
IN AREA 14B, SHA TIN

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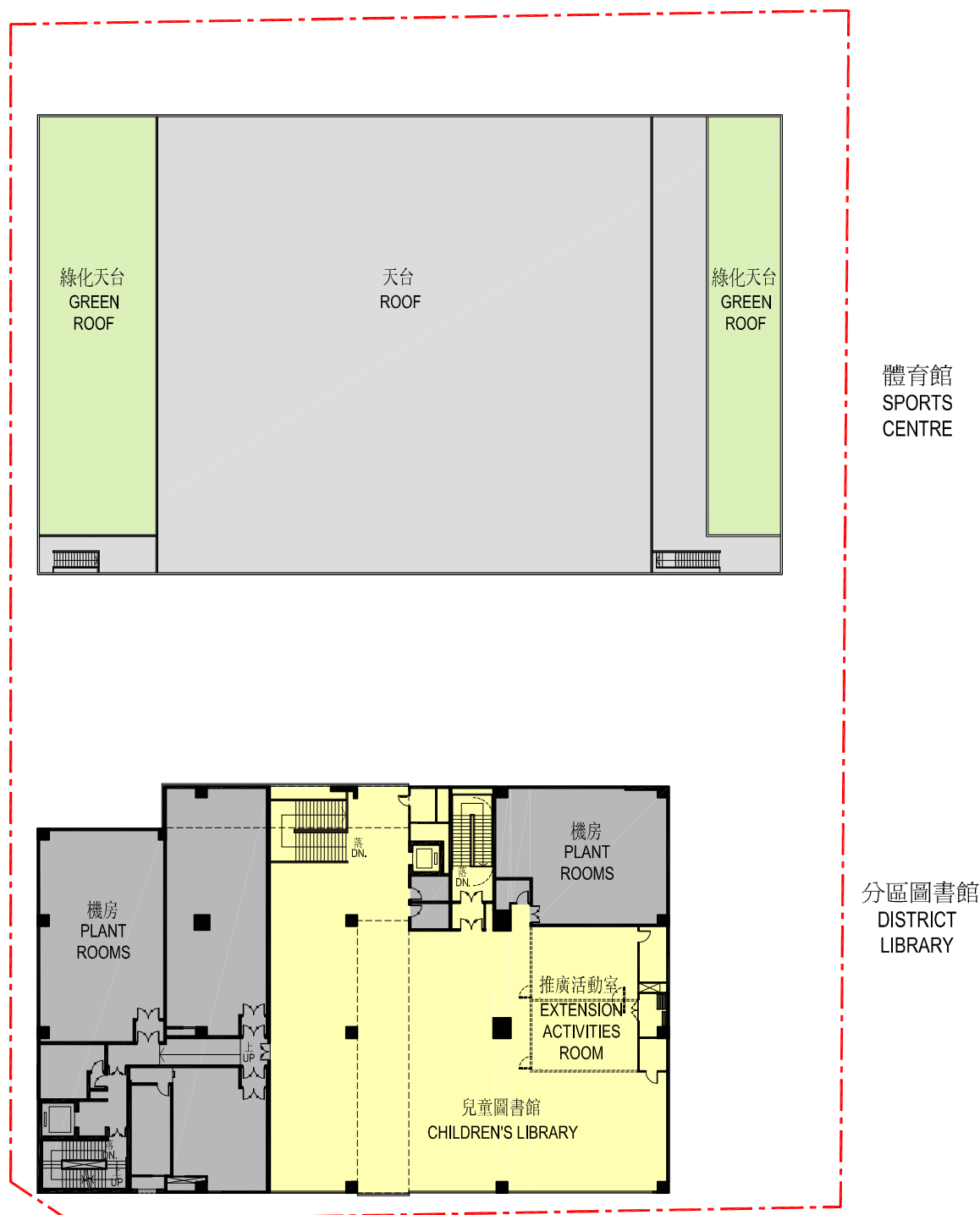
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五樓平面圖
FIFTH FLOOR PLAN

55RG

沙田第14B區體育館、
社區會堂及分區圖書館
SPORTS CENTRE, COMMUNITY
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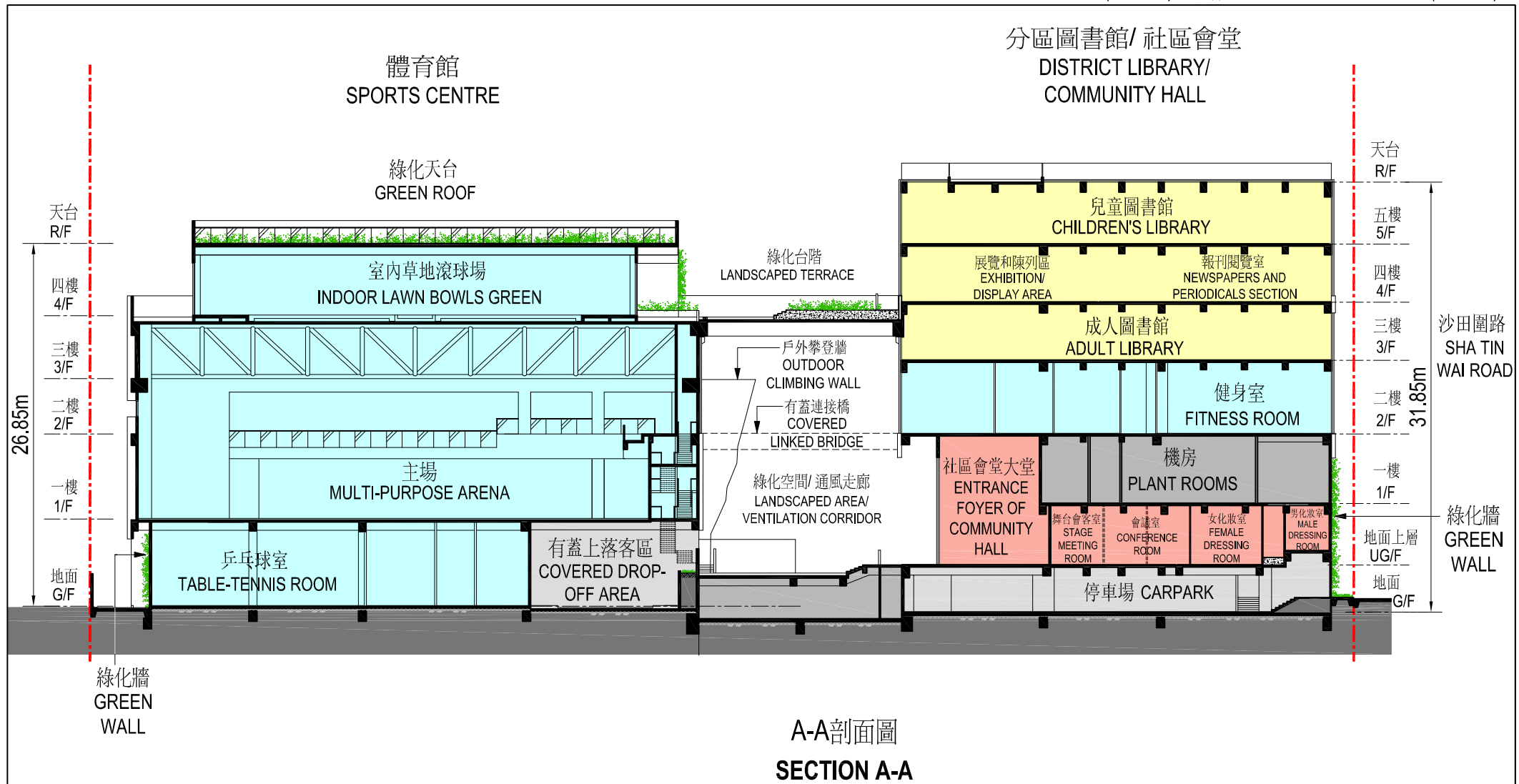
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55RG
沙田第14B區體育館、
社區會堂及分區圖書館
SPORTS CENTRE, COMMUNITY
HALL AND DISTRICT LIBRARY
IN AREA 14B, SHA TIN

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**55RG – Sports centre, community hall and district library
in Area 14B, Sha Tin**

**Breakdown of the estimates for consultants' fees and resident site staff costs
(in September 2011 prices)**

		Estimated man- months	Average MPS* salary point	Multiplier (Note 1)	Estimated fee (\$ million)
(a) Consultants' fees for contract administration (Note 2)	Professional	—	—	—	22.0
	Technical	—	—	—	5.0
				Sub-total	27.0
(b) Resident site staff (RSS) costs (Note 3)	Professional	120	38	1.6	12.0
	Technical	531	14	1.6	18.0
				Sub-total	30.0
Comprising -					
(i) Consultants' fees for management of RSS				2.0	
(ii) Remuneration of RSS				28.0	
				Total	57.0

* MPS = Master Pay Scale

Notes

1. A multiplier of 1.6 is applied to the average MPS salary point to estimate the cost of RSS supplied by the consultants. (As at now, MPS salary point 38 = \$62,410 per month and MPS salary point 14 = \$21,175 per month.)
2. The consultants' fees for contract administration are calculated in accordance with the existing consultancy agreement for the design and construction of **55RG**. The construction phase of the assignment will only be executed subject to Finance Committee's funding approval to upgrade **55RG** to Category A.
3. The actual man-months and actual costs will only be known after completion of the construction works.