

CHAPTER 10

**Home Affairs Bureau
Leisure and Cultural Services Department
Architectural Services Department**

**Hong Kong Velodrome and
Hong Kong Velodrome Park**

**Audit Commission
Hong Kong
30 October 2018**

This audit review was carried out under a set of guidelines tabled in the Provisional Legislative Council by the Chairman of the Public Accounts Committee on 11 February 1998. The guidelines were agreed between the Public Accounts Committee and the Director of Audit and accepted by the Government of the Hong Kong Special Administrative Region.

Report No. 71 of the Director of Audit contains 10 Chapters which are available on our website at <https://www.aud.gov.hk>

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HONG KONG VELODROME AND HONG KONG VELODROME PARK

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HONG KONG VELODROME AND HONG KONG VELODROME PARK

Executive Summary

1. The Leisure and Cultural Services Department (LCSD) was the client department and the Architectural Services Department (ArchSD) was the works agent for the development of a town park and an indoor velodrome-cum-sports centre in Tseung Kwan O (hereinafter referred to as the Project). The town park and the velodrome-cum-sports centre were named the Hong Kong Velodrome Park (HKVP) and the Hong Kong Velodrome (HKV) respectively in November 2013. In February 2010, the Finance Committee of the Legislative Council approved the Project at an approved project estimate (APE) of \$1,129.7 million. In February 2014, the Secretary for Financial Services and the Treasury approved an increase in the APE by \$14.5 million to \$1,144.2 million. The total project expenditure was \$1,143.6 million (\$0.6 million below the final APE of \$1,144.2 million), comprising actual contract expenditure of \$1,061.2 million, consultancy fees of \$45.3 million, resident site staff costs of \$16.8 million, and costs of furniture, equipment and other miscellaneous items of \$20.3 million.

2. The HKV and the HKVP officially opened on 30 April 2014. They occupy an area of 1.3 hectares (with four floors) and 5.3 hectares respectively and provide a variety of leisure and sports facilities (including a 250-metre long wooden cycling track that meets the Union Cycliste Internationale (UCI) Category 1 standard with supporting facilities meeting international competition standards) for public use.

3. The HKV and the HKVP are managed by the LCSD. The LCSD and its works agents (mainly the ArchSD) are responsible for the maintenance of all internal/external facilities at the HKV and the HKVP. The Audit Commission (Audit) has recently conducted a review of the HKV and the HKVP.

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Project management

4. The ArchSD issued the tender in September 2009 and awarded a lump sum works contract (Contract A) to a contractor (Contractor A) in March 2010 for the implementation of the Project at a contract sum of \$1,002.7 million. Consultant X was the Architect responsible for supervising the contract works. Consultant Y was the Quantity Surveyor responsible for valuing the cost of works. The contract works were completed in December 2013 (about 12 months later than the original contract completion date of December 2012) and the final contract sum was \$1,063.9 million, representing an increase of \$61.2 million (6%) over the original contract sum. During the contract period of Contract A, Consultant X issued 271 architect's instructions (AIs) covering 1,613 variation items and amounting to \$80.8 million in total, among which there were 22 variation items with a value over \$1 million each and their total value amounted to \$46 million. Audit selected these 22 items for examination and noted room for improvement in the ArchSD's contract management work (paras. 2.2 to 2.4), including:

- (a) ***Need to incorporate fire engineering requirements for a specialised building into tender documents.*** Audit noted that the detailed requirements for the installation of smoke ventilators at the multi-purpose arena (located at the main hall of the HKV) under an approved fire engineering report for the HKV of August 2009 had not been fully incorporated into the tender documents of Contract A issued in September 2009. As a result, in September 2011, Consultant X issued an AI to Contractor A to cover this variation of works. In the event, the ArchSD paid \$4.2 million to Contractor A for the variation item (paras. 2.6 and 2.7);
- (b) ***Need to finalise building design and contract drawings before tender.*** According to the ArchSD, in the process of design development, Consultant X revised the architectural layout of the HKV building before the issue of the tender for Contract A in September 2009 and there was consequential change in loading for structural elements at various locations. However, Audit noted that: (i) Consultant X had not updated the structural loading schedules (which specified the loading of the structural elements such as columns and walls in the building) to match the revision in architectural layout before the issue of the tender for Contract A in September 2009; and (ii) the structural loading schedules were only updated after tendering of Contract A and provided to Contractor A through an AI in May 2010. In the event, the ArchSD paid \$1.1 million to Contractor A for the variation item (paras. 2.14 and 2.15);

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- (c) ***Need to improve cost estimation for contract variations.*** Audit noted that for 11 AIs (each containing 1 to 20 variation items and at least a variation item with value over \$1 million) under Contract A, the estimated costs differed significantly from the actual costs (ranging from \$0.9 million to \$4.2 million). According to the ArchSD, the difference between the estimated value and actual cost of the AIs was mainly attributed to: (i) inaccurate cost estimate of AIs by Consultant Y; (ii) unforeseen site conditions arising after the AIs were issued; and (iii) different scope and extent of an AI perceived among the project team when the estimate was prepared (paras. 2.17 and 2.18); and
- (d) ***Need to minimise contract variations made under a lump sum contract.*** Audit noted that there was scope for minimising contract variations through, for example, incorporating necessary requirements into the tender documents, and finalising building design and contract drawings before the issue of the tender. Audit considers that, in implementing a works project through a lump sum contract in future, the ArchSD needs to remind its staff and consultants to incorporate all works items into the contract as far as practicable with a view to facilitating fair and competitive tendering, and minimising the resources for handling contract variations and the risk of disputes arising therefrom (paras. 2.21 and 2.22).
5. ***Difficulties in meeting special user requirements.*** According to the LCSD, the HKV has a core mission to provide a local, stable and quality training base for the Hong Kong Cycling Team (HKC Team) and was designed to meet the training needs of the HKC Team. Notwithstanding this objective, it was after holding at the HKV the HKC Team's performance test in November 2013 and the International Track Cup in January 2014 that the LCSD was informed that: (a) the cycling track which achieved UCI Category 1 standard could not fully meet the training mode and practical needs of The Cycling Association of Hong Kong, China Limited (CAHK) which had reservation on using the HKV as the HKC Team's training base; and (b) the requirements for the cycling track needed to be enhanced beyond the UCI Category 1 standard in order to fully meet the CAHK's training mode and practical needs. In the event, the main hall (where the cycling track is located) in the HKV was closed for about two months for carrying out the cycling track surface enhancement at a cost of \$4.2 million to suit the training mode of the HKC Team. According to the LCSD, the CAHK had already been fully consulted during the planning, design and construction stages of the Project and the proposed enhancement of the cycling track was only raised after the test ride. Audit appreciates the difficulties encountered in

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building for Hong Kong the first ever indoor cycling facility that met international standards for world-class cycling training and competitions. In providing a specialised sports facility in future, there is a need for the LCSD to ascertain the special requirements, particularly those of the major stakeholders, as far as possible (paras. 2.29, 2.30, 2.32 and 2.34).

6. *Need to comply with requirements for changes in accommodation.* According to the Accommodation Regulations of the Government, where, for any reason after the approval of schedule of accommodation (SoA) by the Property Vetting Committee (PVC) for a specialist/departmental building, the net operational floor area (NOFA) of any individual item varies by more than 10% from the approved area, the user bureau/department should resubmit the SoA to the PVC for further approval. In September 2009, the PVC approved an SoA for the Project. Audit compared the NOFA of items approved in the SoA of September 2009 with those shown on the as-built records of December 2013 and noted that the NOFA for some items varied by more than 10%. For example, the NOFA for a control room varied by 1,130% from 10 square metres (m²) as per the approved SoA to 123 m² as per the as-built records. According to the ArchSD, the deviations from the area figures in the approved SoA were unavoidable in some cases and it was necessary to align with the LCSD's new initiative on enhancement of baby care provision. While appreciating such changes were unavoidable and were, in part, done to accommodate the need for baby care facilities, Audit considers that the changes to the NOFA of accommodation under the Project should have been approved by the PVC (paras. 2.35 to 2.38).

Operation and maintenance of facilities

7. *Need to tackle water seepage problem in main hall.* The cycling track, arena and spectator stand facilities are located at the main hall of the HKV. According to LCSD records, since the completion of the HKV in December 2013, water seepage had been found in the main hall. According to the ArchSD, during the period from December 2013 to June 2018, there were 129 water seepage cases. To tackle the water seepage problem in the main hall, the LCSD requested the ArchSD to instruct Contractor A to implement a series of rectification works from May 2014 to January 2017. However, after the completion of rectification works in January 2017 and up to June 2018, there were still 28 water seepage cases in the main hall. Audit noted that these 28 cases involved 17 spots, of which 8 (47%) spots with water seepage occurred more than once (paras. 3.3 to 3.6).

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8. *Need to keep under review effectiveness of pest control measures.* During the fieldwork of this audit review, Audit noted an incident of termite infestation in the two washrooms inside the doping control room in the HKV and informed the LCSD about the incident. The LCSD sought the assistance of the ArchSD which arranged a termite specialist to conduct inspections. The termite specialist found termite nests at the maintenance chamber locating above the false ceiling of the two washrooms and applied pest control treatments to the area concerned. In the event, the termite infestation problem was resolved in mid-June 2018. Given that wooden structure is susceptible to termite damage, any termite infestation in the HKV might cause damage to the wooden cycling track which in turn might pose risks to users of the cycling track. There is a need for the LCSD to keep under review the effectiveness of pest control measures taken at the HKV (paras. 3.9 and 3.11).

9. *Need to enhance inspection and control for proper use of facilities in HKVP.* The LCSD's venue staff at the HKVP are responsible for conducting daily inspections at the HKVP to ensure that the facilities are safe, clean and serviceable for use by the public, and controlling the proper use of facilities by the users. Audit conducted five site visits between June and August 2018 to the HKVP and found that while the management of facilities in the HKVP was generally in order, some cases of inadequacies were observed during Audit's site visits. These included some damaged benches (the conditions had remained unchanged as observed in Audit's first and last site visits on 28 June and 9 August 2018 respectively) and users riding in the skatepark without wearing head-protected safety helmets, which should not be allowed (paras. 3.19 and 3.20).

10. *Need to keep under review turf and drainage condition of central lawn.* According to the LCSD: (a) after the commissioning of the HKVP in April 2014, it found that the condition of the central lawn was unsatisfactory as stagnant water could hardly be drained away (in particular after torrential rain), which hindered the use of the lawn by the public; and (b) in order to address the drainage problem of the central lawn, improvement works were conducted in June 2014, and March and August 2016. However, Audit's site visit in May 2018 after days of heavy rain revealed that stagnant water accumulated in the lawn area and the turf condition was less than satisfactory, indicating that the drainage problem might still remain unresolved (paras. 3.24 and 3.25).

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Usage of facilities

11. ***Scope for enhancing utilisation of leisure and sports facilities.*** The leisure and sports facilities in the HKV include, among others, a cycling track, an arena in the centre of the cycling track, a fitness room, 3 activity rooms and a dance room. Audit examined the utilisation rates for these facilities since their commissioning in early 2014 and up to June 2018, and noted that the utilisation rates of the: (a) cycling track were below 35%; (b) fitness room ranged from 37% to 56% and had generally decreased from 56% in 2015 to 43% in 2018 (up to June); (c) activity rooms and dance room (measuring as a whole) ranged from 35% to 58% and were the second lowest among the six government sports centres in Tseung Kwan O area in recent years (since 2015); and (d) arena ranged from 67% to 74% and were the lowest among the six government sports centres in Tseung Kwan O area. According to the LCSD: (a) the HKV has a core mission to provide a local, stable and quality training base for the HKC Team and to develop the sports of track cycling in Hong Kong; (b) the availability of the cycling track for use by the public is lower in order to give priority to the training needs of the HKC Team; and (c) the venue management of the HKV does not accept priority booking by organisations for the use of the arena during the training sessions of the HKC Team in order to maintain the training flexibility for the HKC Team. While noting the mission of the HKV, there is still scope for the LCSD to further enhance the utilisation of these facilities (e.g. organising more related training courses) (paras. 4.2, 4.3, 4.5 and 4.10 to 4.13).

12. ***Need to explore possibility of putting function rooms into better beneficial use.*** The HKV is furnished with seven specific function rooms, including 2 VIP boxes, a judge referee box, technical areas (i.e. a function room for broadcasters and event organisers), a VIP room, a doping control room and a meeting room. They serve as supporting facilities when major international competitions are held at the HKV. These function rooms are available for booking by organisations and government bureaux/departments and are not available for booking by the general public. According to the LCSD, these function rooms: (a) had been put into use for 20 days when 7 major international competitions were held at the HKV; and (b) would be used for conducting various activities (e.g. guest reception rooms, classrooms and temporary meeting rooms) during the period with no international competitions being held at the HKV. However, Audit noted that the LCSD did not compile statistics on the utilisation of the function rooms for such activities. In May, July and August 2018, Audit conducted three site visits to the function rooms to ascertain their utilisation and found that all the function rooms were vacant (except the room which was assigned by the LCSD to Audit staff as a temporary office for conducting the

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fieldwork of this audit review). There is merit for the LCSD to explore measures for putting the function rooms into better beneficial use (paras. 1.8 and 4.16 to 4.20).

Audit recommendations

13. **Audit recommendations are made in the respective sections of this Audit Report. Only the key ones are highlighted in this Executive Summary. Audit has recommended that the Government should:**

Project management

- (a) **in implementing a works project in future:**
 - (i) **ensure that fire engineering requirements for a specialised building are duly incorporated into the tender documents for tendering as far as practicable (para. 2.23(a));**
 - (ii) **finalise the building design and contract drawings (including structural loading schedules) before the issue of the tender as far as practicable (para. 2.23(c));**
 - (iii) **take measures to strengthen checking of the cost estimate and scope and extent of works for contract variations with a view to enhancing cost control (para. 2.23(d)); and**
 - (iv) **incorporate all works items into a lump sum contract as far as practicable (para. 2.23(e));**
- (b) **in providing a specialised sports facility in future, ascertain the special requirements, particularly those of the major stakeholders, as far as possible (para. 2.33);**
- (c) **follow up with the PVC for the changes to the NOFA of accommodation under the Project in accordance with the requirements of the Accommodation Regulations (para. 2.39);**

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Operation and maintenance of facilities

- (d) **take effective measures to tackle the water seepage problem in the main hall of the HKV with a view to minimising nuisance and risks to users (para. 3.15(a));**
- (e) **keep under review the effectiveness of pest control measures taken at the HKV, including keeping alert of sign of pest infestation and taking control measures as appropriate (para. 3.15(b));**
- (f) **take measures to improve the effectiveness of the LCSD's inspections at the HKVP and enhance the LCSD's control for the proper use of HKVP facilities with a view to ensuring that HKVP facilities are safe and serviceable for use by the public (para. 3.28(a));**
- (g) **keep under review the turf and drainage condition of the central lawn in the HKVP and carry out improvement works as appropriate (para. 3.28(b));**

Usage of facilities

- (h) **make better use of the cycling track in the HKV with a view to further promoting track cycling in Hong Kong and enhance the utilisation of the fitness room, the activity rooms, the dance room and the arena in the HKV (para. 4.14(a) and (b)); and**
- (i) **compile statistics for the utilisation of the HKV function rooms for management review and explore measures for putting them into better beneficial use (para. 4.21(b) and (c)).**

Response from the Government

14. The Government agrees with the audit recommendations.

PART 1: INTRODUCTION

1.1 This PART describes the background to the audit and outlines the audit objectives and scope.

Background

1.2 The Hong Kong Velodrome (HKV — see Photograph 1) and the Hong Kong Velodrome Park (HKVP — see Photograph 2) officially opened on 30 April 2014. They are located at 105-107 Po Hong Road, Tseung Kwan O and provide a variety of leisure and sports facilities (including a cycling track with supporting facilities meeting international competition standards — see paras. 1.8 and 1.9) for public use.

Photograph 1

HKV



Source: Architectural Services Department records

Photograph 2

HKV and HKVP



Source: Architectural Services Department records

Construction of HKV and HKVP

1.3 The Leisure and Cultural Services Department (LCSD) was the client department and the Architectural Services Department (ArchSD) was the works agent for the development of a town park and an indoor velodrome-cum-sports centre in Tseung Kwan O (hereinafter referred to as the Project). The town park and the velodrome-cum-sports centre were named the HKVP and the HKV respectively in November 2013. For simplicity, they were also referred to as the HKVP and the HKV before their naming (i.e. mainly during the construction stage) in this Audit Report. The ArchSD engaged two consultants for the Project (Note 1) as follows:

Note 1: *The consultancy fees for site investigation, detailed design, preliminary environmental review and preparation of tender documents of \$19.4 million in total were funded under the block allocation Subhead 3100GX of the Capital Works Reserve Fund Head 703 under the control of the ArchSD. The consultancy fees for contract administration and site supervision work as well as valuing the cost of works were funded under the project vote (see para. 1.5).*

- (a) a lead architectural consultant (Consultant X) was engaged in April 2008 for detailed design, site investigation, preliminary environmental review, preparation of tender documents, and contract administration and site supervision work; and
- (b) a quantity surveying consultant (Consultant Y) was engaged in July 2008 for preparation of tender documents and valuing the cost of works.

1.4 In 2010, in seeking funding approval from the Finance Committee (FC) of the Legislative Council (LegCo) for the implementation of the Project, the Home Affairs Bureau (HAB) informed LegCo that:

- (a) there was a need to provide more public open space to meet the demand for leisure facilities in Tseung Kwan O and the Project would help alleviate the shortfall of leisure space in Tseung Kwan O;
- (b) due to the lack of an indoor cycling track in Hong Kong, elite cyclists had to undergo training in the Mainland and other countries frequently. This arrangement was costly and disruptive to the athletes' preparation for competitions, especially as the timing and duration of training was subject to the availability of the facilities outside Hong Kong. To help Hong Kong's athletes realise their full potential, it was necessary to build an indoor velodrome that met international standards for top-level cycling training and international competition;
- (c) the proposed indoor velodrome could also serve as a multi-purpose facility suitable for other indoor sports and would help meet the increasing demand for indoor sports facilities in Tseung Kwan O; and
- (d) the Project was planned to start construction in March 2010 for completion in April 2013.

1.5 In February 2010, the FC of LegCo approved the Project at an approved project estimate (APE) of \$1,129.7 million. In February 2014, the Secretary for Financial Services and the Treasury approved an increase in the APE by \$14.5 million to \$1,144.2 million (see Table 1).

Table 1

**Funding approvals for the Project
(February 2010 to February 2014)**

Date	Particulars	Approved amount (\$ million)
February 2010	Implementation of the Project	1,129.7 (Note 1)
February 2014	Increase in APE to meet anticipated payments for contract price fluctuation	14.5 (Note 2)
	Total	1,144.2

Source: ArchSD records

Note 1: According to the ArchSD: (a) since the HKV and the HKVP were developed together as one single project, there was no cost breakdown between the building and the park; and (b) the breakdown of the APE by cost types (e.g. site works, piling, drainage, consultancy fees, and furniture and equipment) was provided in the paper submitted to LegCo.

Note 2: Under delegated authority from the FC of LegCo, the Secretary for Financial Services and the Treasury may approve an increase in APE which does not exceed \$15 million.

1.6 In March 2010, the ArchSD awarded a works contract (Contract A) to a contractor (Contractor A) for the implementation of the Project at a contract sum of \$1,002.7 million. In the event, the contract works were completed in December 2013, about 12 months later than the original contract completion date of December 2012. The account of Contract A was finalised in October 2016 and the final contract sum was \$1,063.9 million (of which \$1,061.2 million was funded under the project vote and \$2.7 million was funded under LCSD departmental vote). Subsequently, Consultancies X and Y were completed in December and July 2017 respectively.

1.7 The total project expenditure was \$1,143.6 million (\$0.6 million below the final APE of \$1,144.2 million — see para. 1.5), which comprised actual contract expenditure under Contract A (\$1,061.2 million), consultancy fees (\$45.3 million),

resident site staff costs (\$16.8 million — Note 2), costs of furniture and equipment (\$15.2 million) and other miscellaneous costs (\$5.1 million).

Facilities in HKV and HKVP

1.8 **HKV.** The HKV occupies an area of 1.3 hectares and, with four floors, provides various facilities, including:

- (a) **Cycling track (2,721 square metres (m²)) and supporting facilities (696 m²).** A 250-metre long wooden cycling track (located at the first floor — see Photograph 3) that meets the Union Cycliste Internationale (UCI — Note 3) Category 1 standard (Note 4) with supporting facilities (including 2 VIP boxes, a VIP room, a judge referee box, technical areas (a function room for broadcasters and event organisers), a doping control room and a meeting room located at the ground floor or the upper second floor) meeting international competition standards;
- (b) **Arena (2,592 m²).** A multi-purpose arena (located in the centre of the cycling track at the first floor — see Photograph 3) which can be converted into 8 badminton courts, 2 basketball courts or 2 volleyball courts, or used for organising cultural and sports events;

Note 2: *Consultants are required to employ resident site staff in different grades (e.g. professional grade and technical grade) for supervising contractors' works. The Government reimburses consultants the personal emoluments of resident site staff and pays an on-cost to consultants to cover their costs in managing the resident site staff.*

Note 3: *The UCI is the worldwide governing body for cycling which represents the interests of 190 National Federations from 5 Continental Confederations. It manages and promotes the nine cycling disciplines, including road, track, mountain bike, bicycle motocross (racing), bicycle motocross (freestyle), para-cycling, cyclo-cross, trials and indoor cycling. The UCI also organises cycling events at the highest level such as the World Championships and the World Cups.*

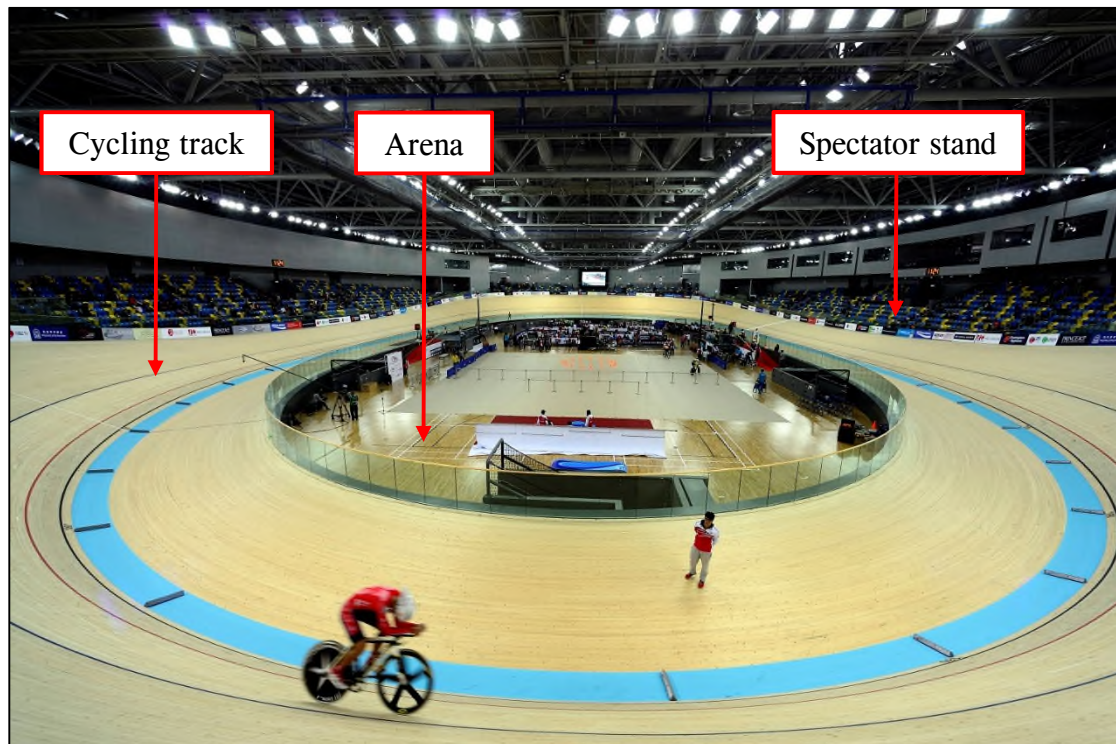
Note 4: *According to the UCI Cycling Regulations: (a) velodromes shall be classified into four categories on the basis of the technical quality of the track and installations; and (b) the category determines the level of competition which can be organised in the velodrome. A Category 1 track is of the highest standard which is suitable for organising UCI World Championships and Olympic Games.*

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- (c) ***Spectator stand facilities (2,211 m²).*** A spectator stand (located at the second floor — see Photograph 3) with 2,000 permanent seats and 1,000 retractable seats;

Photograph 3

Main hall of HKV



Source: ArchSD records

- (d) ***Other recreational facilities (1,699 m²).*** These facilities (located at the ground floor) include a children's playroom (see Photograph 4), a fitness room (see Photograph 5), 2 multi-purpose rooms (subsequently converted into a table tennis room (see Photograph 6) with 6 table tennis tables), 3 activity rooms, a dance room (see Photograph 7) and 2 dressing rooms; and

Photographs 4 to 7

Other recreational facilities in HKV

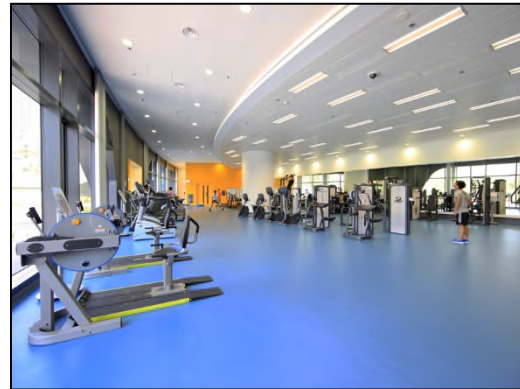
Photograph 4

Children's playroom



Photograph 5

Fitness room



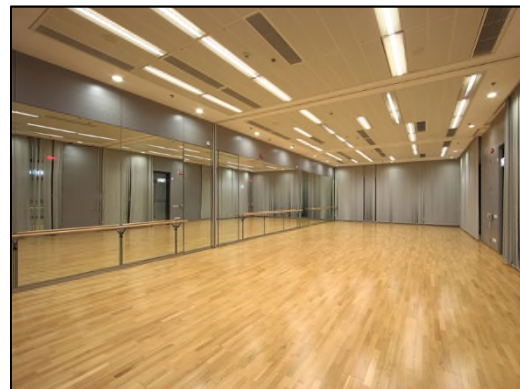
Photograph 6

Table tennis room



Photograph 7

Dance room



Source: ArchSD and LCSD records

- (e) **Other ancillary facilities (829 m²).** These facilities (located at the ground floor) include a restaurant, a pro-shop, a bike kiosk and offices (Note 5).

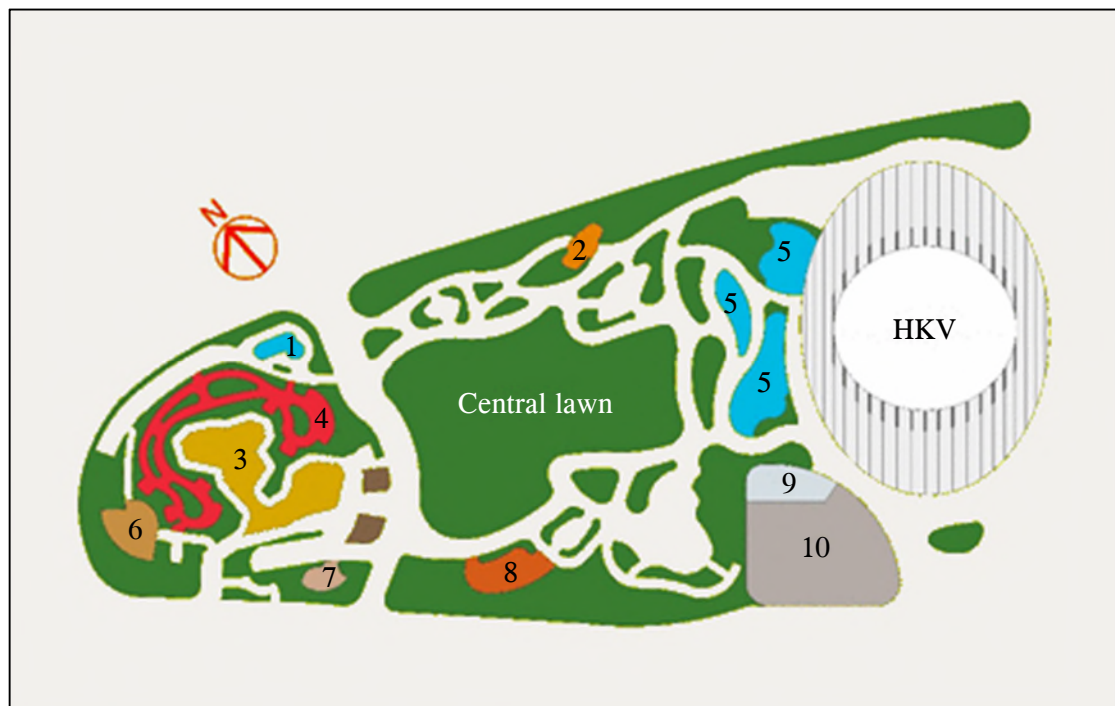
Note 5: *Apart from the facilities as mentioned in paragraph 1.8(a) to (e), there are also other facilities in the HKV, including sanitary facilities, plant and equipment rooms and a fee-charging car park.*

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1.9 **HKVP.** The HKVP occupies an area of 5.3 hectares and provides a variety of leisure and sports facilities (see Figure 1), including a central lawn (see Photograph 8), a sports climbing wall (see Photograph 9), an amphitheatre (see Photograph 10), a skatepark (see Photograph 11), a jogging track, a children's play area, a fitness corner for the elderly, 3 artificial lakes and a model boat pool.

Figure 1

Layout of HKVP



- Legend:
1. Model boat pool
 2. Fitness corner for the elderly
 3. Skatepark
 4. Jogging track
 5. Artificial lake
 6. Amphitheatre
 7. Sports climbing wall
 8. Children's play area
 9. Bike kiosk
 10. Car park

Source: LCSD records

Photographs 8 to 11

Facilities in HKVP

Photograph 8

Central lawn



Photograph 9

Sports climbing wall



Photograph 10

Amphitheatre



Photograph 11

Skatepark



Source: ArchSD and LCSD records

Management and maintenance of HKV and HKVP

1.10 The HKV and the HKVP are managed by the LCSD. An extract of the LCSD's organisation chart relevant to the management of the HKV and the HKVP is at Appendix A. Cleansing, security and horticultural maintenance services are outsourced to contractors through open tenders. The LCSD and its works agents are responsible for the maintenance of all internal/external facilities at the HKV and the HKVP. Regarding the cycling track in the HKV, the LCSD conducts daily inspection

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and minor touch-ups of the track while the ArchSD is responsible for the major and structural maintenance. Operation and maintenance services to electrical and mechanical systems and building services installations at the HKV are provided by the Electrical and Mechanical Services Department (EMSD) through the Electrical and Mechanical Services Trading Fund (Note 6). The ArchSD is responsible for the maintenance and repair of the HKV building as well as the facilities (other than the items under the purview of the LCSD and the EMSD) at the HKV and the HKVP. In 2016-17, the actual revenue and recurrent expenditure of the HKV amounted to \$5.1 million and \$18.3 million respectively, and the actual recurrent expenditure of the HKVP amounted to \$6.9 million.

Audit review

1.11 In April 2018, the Audit Commission (Audit) commenced a review of the HKV and the HKVP. The review focuses on room for improvement and lessons to be learned in the following areas:

- (a) project management (PART 2);
- (b) operation and maintenance of facilities (PART 3); and
- (c) usage of facilities (PART 4).

Audit has found room for improvement and lessons to be learned in the above areas, and has made a number of recommendations to address the issues.

Acknowledgement

1.12 Audit would like to acknowledge with gratitude the full cooperation of the staff of the LCSD and the ArchSD during the course of the audit review.

Note 6: *The Electrical and Mechanical Services Trading Fund (the trading arm of the EMSD) provides electrical and mechanical services to customers (including government bureaux/departments).*

PART 2: PROJECT MANAGEMENT

2.1 This PART examines the management of the Project by the ArchSD and the LCSD, focusing on:

- (a) variations of works under Contract A (paras. 2.4 to 2.24);
- (b) cycling track surface enhancement (paras. 2.25 to 2.34); and
- (c) changes in accommodation (paras. 2.35 to 2.42).

Contract A

2.2 Contract A was a lump sum contract (Note 7) for the implementation of the Project. The ArchSD issued the tender in September 2009 and awarded Contract A to Contractor A in March 2010 at a contract sum of \$1,002.7 million. The works commenced in March 2010 with a contract period of about 33 months. Consultant X was the Architect responsible for supervising the contract works. Consultant Y was the Quantity Surveyor responsible for valuing the cost of works. In the event, the contract works were completed in December 2013, about 12 months (366 days — Note 8) later than the original contract completion date of December 2012.

Note 7: *Under a lump sum contract, the contractor agrees in advance to undertake a specified amount of works for a lump sum price. Contract A was a lump sum contract with certain quantities in the Bills of Quantities firm and other quantities provisional (i.e. to be expended as directed by the Architect). Bills of Quantities, which form part of the tender documents and subsequently the contract documents after the award of a contract, contain quantities of various works items. A tenderer needs to provide a tender price for the relevant Bills of Quantities items. For the successful tenderer, the Bills of Quantities prices would be used for valuing the actual works performed.*

Note 8: *Extensions of time of 366 days were granted to Contractor A owing to inclement weather (288 days), additional improvement works conducted to satisfy the latest requirements under the Buildings Ordinance (Cap. 123) (38.5 days) and unforeseen utility diversion works (39.5 days).*

Project management

Cost increase under Contract A

2.3 The account of Contract A was finalised in October 2016 and the final contract sum was \$1,063.9 million, representing an increase of \$61.2 million (6%) over the original contract sum of \$1,002.7 million (see para. 2.2). Audit noted that the cost increase was mainly attributed to variations of works under Contract A (see Table 2).

Table 2

**Final contract sum of Contract A
(October 2016)**

Particulars	Amount	
	(\$ million)	(\$ million)
Original contract sum		1,002.7
Add: Variations of works	80.8	
Excess contract price fluctuation adjustments (Note)	40.4	
Less: Contingencies allowed in Contract A	(60.0)	
Cost increase under Contract A		61.2
Final contract sum		1,063.9

Source: ArchSD records

Note: The original contract sum of Contract A already included provision for price fluctuation adjustments of \$69.7 million. This amount is the additional sum to cover excess price fluctuation adjustments.

Variations of works under Contract A

2.4 During the contract period of Contract A, Consultant X issued 271 architect's instructions (AIs) covering 1,613 variation items and amounting to \$80.8 million in total. Audit noted that:

- (a) each approved AI covered 1 to 64 variation items; and
- (b) nearly all (1,591 (99%) of 1,613) variation items were of a value below \$1 million each. There were 22 items with a value over \$1 million each and their total value amounted to \$46 million (accounted for 57% of the total amount of contract variations of \$80.8 million).

In view of the relatively high value of these 22 items (over \$1 million each) and the fact that their total value accounted for over half of the total amount of contract variations, Audit selected them for examination and noted that there was room for improvement in the ArchSD's contract management work (see paras. 2.5 to 2.23).

Need to incorporate fire engineering requirements for a specialised building into tender documents

2.5 In order to achieve the objectives of providing fire service installations and equipment for the protection of life and property of the occupants within premises, it is the Government's established practice that government buildings need to comply with the Codes of Practice published by the Buildings Department and the Fire Services Department. For the Project, the applicable Codes of Practice were the Code of Practice for Fire Resisting Construction 1996, the Code of Practice for the Provision of Means of Access for Firefighting and Rescue Purposes 2004 and the Code of Practice for the Provision of Means of Escape in Case of Fire 1996 published by the Buildings Department (Note 9) and the Codes of Practice for Minimum Fire Service Installations and Equipment and Inspection, Testing and Maintenance of Installations and Equipment (Note 10) published by the Fire Services Department.

Note 9: *In September 2011, the three Codes of Practice were subsumed into the Code of Practice for Fire Safety in Buildings 2011 published by the Buildings Department.*

Note 10: *Compliance with the prescriptive provisions in the Codes of Practice published by the Fire Services Department may be regarded as a reliable way to satisfy the requirements for fire service installations or equipment. However, the Director of Fire Services may, in case of any particular building, vary any of the requirements of the Codes. For buildings of special designs or hazards which necessitate special considerations, the Director of Fire Services may accept, on a case by case basis, fire engineering approach as an alternative to the prescriptive provisions provided that the fire engineering approach shall not provide a level of safety inferior to that provided by prescriptive requirements.*

Project management

2.6 In September 2011, Consultant X issued an AI to Contractor A for the additional details for the supply and installation of smoke ventilators at the multi-purpose arena in accordance with a fire engineering report for the HKV (Note 11). In the event, the ArchSD paid \$4.2 million to Contractor A for the variation item.

2.7 Audit noted that:

- (a) in March 2009, the fire engineering report for the HKV was submitted to the relevant authority (Note 12) for endorsement. In May 2009, the relevant authority held a meeting to discuss the report. In August 2009, the relevant authority informed the ArchSD that it had no further comments on the fire engineering report of August 2009 and advised that referral back of the report for its further advice was not required. According to the ArchSD, the fire engineering report was approved in August 2009; and

Note 11: *According to Consultant X's fire engineering report for the HKV:*

- (a) *the objective of the fire engineering report for the HKV was to provide fire engineering solutions to achieve the fire safety level equivalent to the level with full compliance with the prescriptive requirements of the Codes of Practice, and to provide appropriate fire safety provisions as an effective solution to achieve a fire safety environment for the occupants to evacuate; and*
- (b) *due to the design constraint and operational need, there were several deviations from the prescriptive requirements of the Codes of Practice.*

Note 12: *According to the ArchSD, before May 2012, the relevant authority was the Fire Safety Committee (its membership included a representative from the Fire Services Department) of the Buildings Department (i.e. in force when processing the fire engineering report for the HKV). Since May 2012, the Fire Engineering Advisory Committee of the ArchSD is responsible for processing fire engineering reports for ArchSD building projects. A project consultant is required to submit a fire engineering report (which needs to comply with the Code of Practice for Fire Safety in Buildings 2011 published by the Buildings Department) separately to both the Committee and the Fire Services Department for comments and approval.*

- (b) the detailed requirements for the installation of smoke ventilators at the multi-purpose arena under the fire engineering report of August 2009 had not been fully incorporated into the tender documents of Contract A issued in September 2009. As a result, an AI was issued to cover this variation of works (see para. 2.6).

2.8 In September 2018, in response to Audit's enquiry, the ArchSD said that:

- (a) to meet the tight development programme of the Project (Note 13), Consultant X could not include all the detailed requirements for the installation of smoke ventilators into the tender drawings and decided to implement such requirements through issuing AI to the contractor during construction stage; and
- (b) Consultant X had endeavoured to submit the fire engineering report the earliest possible. However, it took five months for the report to be approved by the relevant authority, rendering no time for Consultant X to include all requirements in the tender documents before tendering, given the need to meet the tight development programme.

2.9 Audit considers that, in implementing a works project in future, the ArchSD needs to remind its staff and consultants to ensure that fire engineering requirements for a specialised building are duly incorporated into the tender documents for tendering as far as practicable.

Note 13: *The Project Definition Statement (see Note 15 to para. 2.11(a)) issued by the HAB in April 2007 stated that the Project was a priority item and urged that construction should commence no later than 2009 for completion as soon as possible.*

Project management

Need to address lighting design issue at design stage

2.10 In August 2011, Consultant X issued an AI to Contractor A for revising the lighting design (Note 14) in the HKVP. According to the ArchSD, the revision was to address public concern on park lighting design regarding glare and lighting intensity, and to meet the LCSD's latest operational requirements. In the event, the ArchSD paid \$1.9 million to Contractor A for the variation item.

2.11 Audit noted that:

Before award of Contract A

- (a) according to the ArchSD's Technical Feasibility Statement (Note 15) for the Project of August 2007, there were sensitive receivers including nearby residential developments and schools adjacent to the site, which meant that the ArchSD and Consultant X had already known this information before the issue of the tender for Contract A in September 2009;

Note 14: *Major revisions of the lighting design included: (a) provision of localised surface-mounted downlights at the rain shelters in the HKVP; (b) adoption of semi-concealed downlights at balustrades in lieu of the original exposed linear compact light type at the elevated walkway; and (c) adoption of bollard light fittings in lieu of the original bulkhead type at skirting level along pathways and ramp at the lawn terrace.*

Note 15: *A works department should submit a Technical Feasibility Statement of a proposed capital works project to the Development Bureau for approval after the receipt of a Project Definition Statement from the responsible policy bureau. The responsible policy bureau should submit bids for the necessary resources for implementing the proposed works project under the Government's Capital Works Resource Allocation Exercise by providing the Financial Services and the Treasury Bureau with an approved Technical Feasibility Statement.*

- (b) in October 2008, in vetting the Project, the then Project Brief and Design Vetting Committee (Note 16) of the ArchSD asked the project team to pay special attention to the lighting provision for the landscape areas and avoid light pollution due to over-provision of external lighting;
- (c) in April 2009, Consultant X revised the lighting provision to avoid light pollution due to over-provision of external lighting; and

After award of Contract A

- (d) according to the ArchSD, Consultant X revised the lighting provision to enhance the lighting design so as to improve the ambience of the HKVP and to avoid direct glare to park users and nearby residents through issuing the AI in August 2011.

2.12 In September 2018, in response to Audit's enquiry, the ArchSD said that:

- (a) the major reason for adjusting the numbers and types of lighting by issuing the AI (see para. 2.10) was to improve the lighting design so as to avoid glare and enhance the ambience for park users; and
- (b) the change of types of light fittings under the AI was to address glare to park users but not light pollution to the area in the vicinity. In fact, the site was separated from the nearby residential developments on both sides by 4-lane carriageways.

Note 16: *The Project Brief and Design Vetting Committee was renamed as the Project Quality and Design Vetting Committee in October 2010. The Committee comprises mainly ArchSD staff and its purpose is to ensure that a recognised standard has been attained for all ArchSD projects before they are presented to clients at the conclusion of each work stage from inception to completion.*

Project management

2.13 According to the ArchSD, concerning the environmental design of a project, ArchSD staff and its consultants are required to apply user-friendly lighting design to minimise glare and light pollution. Audit considers that, in implementing a works project in future, the ArchSD needs to take measures to ensure that its staff and consultants properly address lighting design issue at the design stage of the project.

Need to finalise building design and contract drawings before tender

2.14 After the commencement of Contract A in March 2010, Consultant X provided Contractor A with the HKV building's contract drawings relating to structural loading schedules (which specified the loading of the structural elements such as columns and walls in the building) on 23 April 2010. Later, Consultant X provided Contractor A with a revised set of structural loading schedules on 30 April 2010 and issued an AI on 7 May 2010 to cover such variation of works. According to the ArchSD:

- (a) in the process of design development, Consultant X revised the architectural layout of the HKV building before the issue of the tender for Contract A in September 2009 and there was consequential change in loading for structural elements at various locations;
- (b) however, the structural loading schedules in the tender documents were not updated before tendering of Contract A; and
- (c) the AI of 7 May 2010 was issued to Contractor A to reflect the loading schedule amendments.

In the event, the ArchSD paid \$1.1 million to Contractor A for the variation item.

2.15 Audit noted that:

- (a) Consultant X had not updated the structural loading schedules to match the revision in architectural layout before the issue of the tender for Contract A in September 2009; and
- (b) the updated structural loading schedules to match the design development was provided to Contractor A through a contract variation on 7 May 2010.

2.16 In Audit’s view, in implementing a works project in future, the ArchSD needs to remind its staff and consultants to finalise the building design and contract drawings (including structural loading schedules) before the issue of the tender as far as practicable.

Need to improve cost estimation for contract variations

2.17 For Contract A, Consultant Y was responsible for providing estimate of cost for a proposed AI, and Consultant X was required to obtain prior approval from the ArchSD (approving authority based on the estimated cost for the proposed AI — Note 17) before issuing an AI to Contractor A for ordering any variations of works. As far as could be ascertained, for 11 AIs (AIs A to K in Table 3, each containing 1 to 20 variation items and at least a variation item with value over \$1 million) under Contract A, the estimated costs differed significantly from the actual costs (see Table 3).

Note 17: *The approving authority for a proposed AI is determined based on the estimated cost for the AI as follows:*

<i>Estimated cost for proposed AI up to</i>	<i>ArchSD approving officer</i>
<i>\$0.2 million</i>	<i>Professional</i>
<i>\$0.4 million</i>	<i>Senior professional</i>
<i>\$1.3 million</i>	<i>Chief professional</i>
<i>\$4 million</i>	<i>Project Director/Assistant Director</i>
<i>No limit</i>	<i>Controlling Officer</i>

For an AI with an estimated cost exceeding \$300,000, referral to the Project Director/Assistant Director of the ArchSD separately for confirmation of no objection is required before ordering the variation.

Project management

Table 3

Selected AIs issued under Contract A with significant difference between estimated and actual costs (October 2016)

AI (No. of variation items involved)	Nature of variation	Estimated additional cost/(saving) per AI approved by the ArchSD	Actual cost addition	Cost increase
		(Note)		
		(a)	(b)	(c) = (b) – (a)
		(\$)	(\$)	(\$)
A (1 item)	Landscape	(22,000)	4,193,680	4,215,680
B (8 items)	Landscape	261,000	4,339,264	4,078,264
C (20 items)	Architectural	(4,000)	3,038,536	3,042,536
D (14 items)	Architectural	7,600	2,363,582	2,355,982
E (1 item)	Building services	Nil	2,210,627	2,210,627
F (6 items)	Architectural	279,000	2,219,296	1,940,296
G (1 item)	Building services	(230,000)	1,597,956	1,827,956
H (4 items)	Architectural	16,000	1,541,868	1,525,868
I (8 items)	Architectural	170,000	1,353,317	1,183,317
J (2 items)	Landscape	224,000	1,331,616	1,107,616
K (2 items)	Building services	219,000	1,112,281	893,281

Source: ArchSD records

Note: The amounts shown in this column were Consultant Y's estimated additional cost or saving (in bracket) arising from contract variations under Contract A as approved by the ArchSD.

- 2.18 In September 2018, in response to Audit's enquiry, the ArchSD said that:
- (a) the difference between the estimated value and actual cost of the AIs as shown in Table 3 in paragraph 2.17 was mainly attributed to:
 - (i) inaccurate cost estimate of AIs by Consultant Y;
 - (ii) unforeseen site conditions arising after the AIs were issued; and
 - (iii) different scope and extent of an AI perceived among the project team when the estimate was prepared; and
 - (b) warning letters had been issued to Consultant Y regarding poor performance of cost estimates and requesting immediate improvement of the same.

2.19 According to the Project Administration Handbook issued by the ArchSD, regarding variations and cost control, ArchSD staff and its consultants must ensure that the cost implications of an instruction will not lead to the contract sum being exceeded, and are required to monitor and ensure that every effort is made to meet the set standards relating to quality, cost control and programme. In Audit's view, in implementing a works project in future, the ArchSD needs to take measures to strengthen checking of the cost estimate and scope and extent of works for contract variations (e.g. reminding its consultants to make a more accurate cost estimate and a better assessment of scope and extent of works) with a view to enhancing cost control.

Need to minimise contract variations made under a lump sum contract

2.20 In 2010, in seeking funding approval from LegCo for the implementation of the Project, the HAB informed LegCo that it would deliver the construction works through a lump sum contract because it could clearly define the scope of the works in advance. Accordingly, in March 2010, the ArchSD awarded a lump sum contract (Contract A) to Contractor A.

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2.21 Under Contract A, Contractor A agreed in advance to undertake a specified amount of works for a lump sum price (i.e. the scope and quantities of works were substantially measured firm with few variations of works expected). However, 271 AIs covering 1,613 variation items and amounting to \$80.8 million (8% of the original contract sum of \$1,002.7 million) were made under Contract A. Audit noted that there was scope for minimising contract variations through, for example, incorporating necessary requirements into the tender documents, and finalising building design and contract drawings before the issue of the tender (see paras. 2.5 to 2.19).

2.22 Audit considers that, in implementing a works project through a lump sum contract in future, the ArchSD needs to remind its staff and consultants to incorporate all works items into the contract as far as practicable with a view to facilitating fair and competitive tendering, and minimising the resources for handling contract variations and the risk of disputes arising therefrom.

Audit recommendations

2.23 **Audit has recommended that, in implementing a works project in future, the Director of Architectural Services should:**

- (a) **remind ArchSD staff and consultants to ensure that fire engineering requirements for a specialised building are duly incorporated into the tender documents for tendering as far as practicable;**
- (b) **take measures to ensure that ArchSD staff and consultants properly address lighting design issue at the design stage of the project;**
- (c) **remind ArchSD staff and consultants to finalise the building design and contract drawings (including structural loading schedules) before the issue of the tender as far as practicable;**
- (d) **take measures to strengthen checking of the cost estimate and scope and extent of works for contract variations (e.g. reminding ArchSD consultants to make a more accurate cost estimate and a better assessment of scope and extent of works) with a view to enhancing cost control; and**

- (e) **remind ArchSD staff and consultants to incorporate all works items into a lump sum contract as far as practicable with a view to facilitating fair and competitive tendering, and minimising the resources for handling contract variations and the risk of disputes arising therefrom.**

Response from the Government

2.24 The Director of Architectural Services agrees with the audit recommendations. She has said that the ArchSD will:

- (a) remind its staff and consultants to finalise the design including fire engineering requirements, lighting design and structural loading schedules as far as practicable before tender invitation so that the relevant details can be incorporated into the tender documents with a view to minimising contract variations; and
- (b) remind its consultants that accurate cost estimates should be provided for contract variations and that clear scope and extent of works should be provided to enable accurate cost estimation for contract variations.

Cycling track surface enhancement

2.25 According to the LCSD:

- (a) the HKV has a core mission to provide a local, stable and quality training base for the Hong Kong Cycling Team (HKC Team);
- (b) during the detailed design stage of the Project, the ArchSD, in conjunction with the LCSD and Consultant X, had sought the advice of The Cycling Association of Hong Kong, China Limited (CAHK — Note 18), which is the “national sports association” responsible for training and developing the HKC Team, on the provisions and operational requirements of the HKV

Note 18: *The main duties of the CAHK include promoting different cycling activities, organising local and international events, and training and developing the HKC Team, which have been taken over from the then Hong Kong Cycling Association since July 2014. For simplicity, the Hong Kong Cycling Association is also referred to as the CAHK in this Audit Report.*

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and had incorporated the CAHK's requirements into the tender documents of Contract A. Regarding the cycling track, Consultant X consulted the CAHK in September and November 2008, and confirmed with the CAHK the surface material and design parameters (which would comply with the then latest requirements of the UCI for homologation with a Category 1 standard — see Note 4 to para. 1.8(a)) in March and April 2009 respectively; and

- (c) the design requirements for the cycling track were included in the tender documents of Contract A. Subsequent to the award of Contract A, provisional approval for the velodrome was issued by the UCI on 1 May 2012 and the CAHK confirmed no further comment on the design of the velodrome on 4 May 2012.

2.26 Under Contract A, Contractor A was required to construct a cycling track meeting UCI Category 1 standard in the HKV. In September 2013, the construction of the HKV was substantially completed. In October 2013, the HKV was handed over to the LCS D. In December 2013, the cycling track in the HKV was granted with a Category 1 standard by the UCI with validity until December 2023. According to the ArchSD, the HKV had achieved the standard as specified from the outset.

2.27 After the handover of the HKV to the LCS D in October 2013, the CAHK would use the cycling track for the HKC Team's training and holding competitions. In late November 2013, the LCS D invited the HKC Team to conduct a performance test to ascertain whether the track could fully meet their training mode and practical needs. Subsequently, during the International Track Cup held at the HKV in mid-January 2014, the LCS D received some comments from the professional cyclists on the track surface performance (Note 19). After the performance test and the International Track Cup, the CAHK commented that:

- (a) certain problems (i.e. wavy problem and track surface performance — see para. 2.28) of the track had distracted the attention of the riders during high level training and the performance of the track was below their expectation;

Note 19: *The participating teams (including both local and foreign teams) during the International Track Cup held at the HKV in mid-January 2014 had comments about the level difference and gaps between the wooden slats on the cycling track.*

- (b) enhancement was needed to be carried out to resolve the wavy problem of the track and enhance the track surface performance; and
- (c) if no enhancement was being implemented, it had reservation on using the HKV as the HKC Team's training base since the track could not fully meet their training mode and practical needs.

2.28 To address the CAHK's comments on the cycling track, the following enhancement was carried out:

- (a) **Wavy problem.** The ArchSD required Contractor A to carry out track improvement in December 2013 and March 2014 to the satisfaction of the CAHK for resolving the wavy problem of the track. After the improvement, the CAHK was satisfied with the result and Contractor A's responsibility for track installation under Contract A was discharged; and
- (b) **Enhancement of track surface performance.** In April 2014 (i.e. after the completion of works under Contract A in December 2013), the LCSD, in collaboration with the CAHK, requested the ArchSD to carry out cycling track surface enhancement in accordance with the requirements set by the CAHK to suit the training mode of the HKC Team. According to Consultant X, the specific and stringent technical requirements set by the LCSD in collaboration with the CAHK in May 2014 for the track surface enhancement (Note 20) were higher than the then prevailing UCI requirements on track surface for a Category 1 track. The enhancement for the track surface was procured through a single quotation contract to Contractor A (Note 21). In September 2014, Contractor A was engaged to

Note 20: *In May 2014, the LCSD, in collaboration with the CAHK, finalised the specifications of the cycling track surface enhancement, including: (a) the tolerance of flatness for the track surface be 1 millimetre over 2 metres; (b) the level difference between adjoining wood strips be not exceeding 0.3 millimetre; and (c) the gaps between adjoining wood strips be not exceeding 0.5 millimetre.*

Note 21: *In May 2014, the Director of Architectural Services approved the use of a single quotation contract to Contractor A for carrying out the enhancement due to the following reasons: (a) Contractor A had proven knowledge on the HKV building which would facilitate the enhancement; (b) Contractor A gained knowledge and experience on various aspects of timber cycling track construction; (c) the Project was under maintenance period of Contract A so that attendance by Contractor A was reasonable; and (d) Contractor A would maintain full liabilities of the track under both the original and newly provided guarantee.*

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carry out the enhancement, which commenced in November 2014. In the event, the cycling track surface enhancement was completed in January 2015 to the satisfaction of the LCSD and the CAHK at a total cost of \$4.2 million (including the consultancy fee of \$0.5 million paid to Consultant X) which was funded under LCSD departmental vote.

Difficulties in meeting special user requirements

2.29 Audit noted that:

- (a) in 2010, in seeking funding approval from LegCo for the implementation of the Project, the HAB informed LegCo that it was necessary to build an indoor velodrome that met international standards for top-level cycling training and international competition to help Hong Kong's athletes realise their full potential (see para. 1.4(b)); and
- (b) according to the LCSD, the HKV has a core mission to provide a local, stable and quality training base for the HKC Team (see para. 2.25(a)) and was designed to meet the training needs of the HKC Team.

2.30 Notwithstanding the objective of the HKV as abovementioned, it was after the HKC Team's performance test in late November 2013 and the International Track Cup in mid-January 2014 (see para. 2.27) that the LCSD was informed that:

- (a) the cycling track which achieved UCI Category 1 standard could not fully meet the training mode and practical needs of the CAHK which had reservation on using the HKV as the HKC Team's training base (see para. 2.27(c)); and
- (b) in order to fully meet the CAHK's training mode and practical needs, the requirements for the cycling track needed to be enhanced beyond the UCI Category 1 standard (see para. 2.28(b)).

In the event, the main hall (where the cycling track is located — see Photograph 3 in para. 1.8) in the HKV was closed for about two months (from late November 2014 to late January 2015) for carrying out the cycling track surface enhancement at a cost of \$4.2 million to suit the training mode of the HKC Team.

2.31 In September 2018, in response to Audit’s enquiries, the ArchSD and the LCSD said that:

ArchSD

- (a) according to Financial Circular No. 11/2001 “Requirement for Project Definition Statement and Technical Feasibility Statement for Capital Works Projects” of November 2001 (which was superseded by Financial Circular No. 4/2012 of July 2012 (Note 22)), the policy bureaux were required to justify and define the scope of each proposed capital works project with a Project Definition Statement (see Note 15 to para. 2.11(a)). The Circular also required that the description of project scope/special requirements should be included in the Project Definition Statement. Hence, the special performance requirements for the sports facilities should be provided by the LCSD (e.g. the requirement on the cycling track to comply with the latest requirements of the UCI for homologation as a UCI Category 1 velodrome was stated in the Project Definition Statement of the Project);

LCSD

- (b) the HKV was the first ever indoor cycling facility built in Hong Kong, which was new to all major stakeholders including the LCSD, the ArchSD and the CAHK at that time. All major stakeholders had tried their best at the early planning and design stages to draw up the design parameters to suit the objectives and specifications of the cycling track as required by the UCI; and

Note 22: *Following the issuance of Financial Circular No. 4/2017 in June 2017, consequential amendments have been made to the relevant parts of Financial Circular No. 4/2012.*

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- (c) the cycling track was constructed in accordance with the user requirements, which had already taken into account the CAHK's advice at the time. The HKV was granted a Category 1 standard by the UCI, thereby achieving the standard as specified from the outset. However, after the conduct of a performance test and the International Track Cup, there were some comments from the professional cyclists (both local and foreign teams) concerning the level difference and gaps between the wooden slats on the cycling track. Given the aforesaid professional cyclists' comments, the LCSD considered that post-contract enhancement proposed by the CAHK should be implemented as soon as possible to improve the track surface performance and to better suit the training mode and practical needs of the HKC Team. Since the requirements for the enhancement arose after the test ride on the cycling track, it was not possible to incorporate them into the user requirements in advance.

2.32 Audit appreciates the difficulties encountered in building for Hong Kong the first ever indoor cycling facility that met international standards for world-class cycling training and competitions. In Audit's view, in providing a specialised sports facility in future, the LCSD needs to ascertain the special requirements, particularly those of the major stakeholders, as far as possible.

Audit recommendation

2.33 **Audit has recommended that, in providing a specialised sports facility in future, the Director of Leisure and Cultural Services should ascertain the special requirements, particularly those of the major stakeholders, as far as possible.**

Response from the Government

2.34 The Director of Leisure and Cultural Services accepts the audit recommendation. She has said that the CAHK had already been fully consulted during the planning, design and construction stages of the Project and the proposed enhancement of the cycling track was only raised after the test ride.

Changes in accommodation

2.35 The Accommodation Regulations of the Government set out the policy and guiding principles on government accommodation and related matters for government bureaux/departments (B/Ds). According to the Accommodation Regulations:

- (a) the user B/D of a specialist/departmental building (Note 23) has to prepare a schedule of accommodation (SoA) and seek the approval of the Property Vetting Committee (PVC — Note 24) for the accommodation concerned; and
- (b) where, for any reason after the approval of SoA, the net operational floor area (NOFA — Note 25) of any individual item varies by more than 10% from the approved area or the total NOFA varies by more than 5% from the approved area, the user B/D should resubmit the SoA to the PVC for further approval (Note 26).

As the HKV is a specialist/departmental building, the LCSD, as the user department, should abide by the above requirements. In addition, according to the ArchSD's

Note 23: *According to the Accommodation Regulations, specialist/departmental buildings include buildings (e.g. standalone departmental headquarters buildings, law courts, police stations, libraries, museums, clinics, town halls and community centres) and structures (e.g. sewage treatment plants) used to meet the policy objectives and/or operational needs of pertinent B/Ds.*

Note 24: *The PVC is the approving authority in respect of SoAs for specialist/departmental buildings. It is chaired by an Assistant Director of the ArchSD and comprises representatives from the Financial Services and the Treasury Bureau and the Government Property Agency as members.*

Note 25: *The NOFA refers to the floor area actually allocated to the users for carrying out their intended activities. For example, the NOFA does not include areas for toilets, bathrooms and shower rooms, lift lobbies, stair halls, public/shared corridors, stairwells, escalators and lift shafts, parking spaces, loading and unloading areas and mechanical plant rooms.*

Note 26: *According to the Accommodation Regulations: (a) the PVC will not allow alterations to the approved SoA except for minor refinements during the design stage agreed by a directorate officer of the relevant works department; and (b) such refinements must not incur significant additional staff resources, cause delay to the construction programme or lead to an increase in the project estimate as assessed by the works department.*

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operational instructions, the ArchSD, as the works agent, also needs to ensure compliance with the Accommodation Regulations in implementing an ArchSD building project.

Need to comply with requirements for changes in accommodation

2.36 In September 2009, the PVC approved an SoA for the Project. The contract works for the implementation of the Project were substantially completed in December 2013. Audit compared the NOFA of items approved in the SoA of September 2009 with those shown on the as-built records of December 2013 and noted that the NOFA for some items varied by more than 10% (see Table 4 for some examples).

Table 4

Examples of items with NOFA varied by more than 10% from approved SoA (December 2013)

Facility	NOFA		
	Per SoA of September 2009	Per as-built records of December 2013	Percentage variation
	(a) (m ²)	(b) (m ²)	(c) = $\frac{(b) - (a)}{(a)} \times 100\%$ (%)
(a) Control room	10.0	123.0	1,130%
(b) Baby care facility	7.5	64.0	753%
(c) Staff room cum roll-call room	9.0	70.0	678%
(d) First aid room	15.0	32.0	113%
(e) Dressing room for stage performance	70.0	132.0	89%
(f) Physiotherapy/massage room	30.0	48.0	60%
(g) Booking office	15.0	23.0	53%
(h) Judge referee box	50.0	70.0	40%

Source: Audit analysis of ArchSD and LCSD records

2.37 Audit noted that the changes to the NOFA of accommodation (see Table 4) under the Project had not been approved by the PVC. Between August and October 2018, in response to Audit's enquiries, the LCSD and the ArchSD said that:

LCSD

- (a) it was of utmost importance that the cycling track with all supporting facilities should be built up to international standards for hosting large-scale international events. It was also equally essential to meet ever-increasing demands from the public and to follow the latest government policies (e.g. provision of baby care facilities);
- (b) the LCSD had attended some client meetings with the ArchSD and the CAHK during the planning and design stages to ensure that the provisions of the HKV could meet the requirements for hosting large-scale international events. The LCSD was not aware of or specifically being informed of the extent of accommodation changes of the HKV after the SoA was approved by the PVC in September 2009 and hence was not able to resubmit the SoA to the PVC accordingly;

ArchSD

- (c) the variations identified by Audit arose from a lack of sensitivity in the LCSD and the ArchSD to strictly comply with the approved SoA during the design development process;
- (d) during the design and construction stages, the ArchSD and the LCSD held meetings to review the design of the internal space to suit various functional requirements by specialist sports associations, media, venue management, etc. In the long process of coordination, the NOFA of certain accommodation had exceeded the area figures in the approved SoA without going back to the PVC for approval;
- (e) regarding the reasons for changes to the NOFA of accommodation under the Project:
 - (i) the HKV building was a special building uniquely designed for specific purposes as per LCSD's operational needs, statutory

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requirements and good architectural practice. As the layout of the building was dominated by the oval shape and specific dimensions of the cycling track and the building's external appearance, the planning of internal spaces was much constrained. In some cases, the deviations from the area figures in the approved SoA were unavoidable. In addition, the approved SoA included many items (including the cycling track, the arena, the spectator stand, and the toilet/changing facilities, etc.) with areas marked "as appropriate", meaning that their areas were subject to the architectural layout. The area of these "as appropriate" items accounted for a substantial portion of the total floor area provided in the building and the configuration of these items reduced the flexibility in the planning of those items with area figures in the approved SoA. Although the area of some individual items deviated from the area figures in the approved SoA by more than 10%, the total area involved in such deviations was not significant, taking into account the bulk of floor area provided in the building; and

- (ii) it was necessary to align with the LCSD's new initiative on enhancement of baby care provision. Social awareness of the need for baby care facilities had arisen during the design development of the Project. As the HKV was not only the focal venue of Sai Kung District, but also the first ever local indoor cycling facility that met international standards, more baby care rooms had been provided at the HKV building to achieve a high level of customer satisfaction. In addition, to match with the LCSD's initiative to change the catering services at the HKV from food factory licence to full restaurant licence, the size and associated provision of the restaurant had to be augmented; and
- (f) since 2014 (i.e. after the completion of works under Contract A in December 2013), the ArchSD had already tightened control on compliance with approved SoA by implementing a series of enhancement measures for new projects, as follows:
 - (i) the ArchSD had set up an electronic room data sheet information system, under which information technology was used to compare the accommodation requirements from user departments against the approved SoA;

- (ii) on project administration level, the ArchSD issued an internal instruction highlighting the procedures in carrying out building projects so as to ensure that government accommodations and facilities were constructed in accordance with the approved SoA; and
- (iii) more check points had been added at different work stages of a project to remind project officers to timely follow up the discrepancies between the user requirements and the approved SoA with user departments.

2.38 While appreciating some changes were unavoidable and were, in part, done to accommodate the need for baby care facilities (see para. 2.37(e)), Audit considers that the changes to the NOFA of accommodation under the Project should have been approved by the PVC. In Audit's view, the LCSD needs to, in collaboration with the ArchSD, follow up with the PVC for the changes to the NOFA of accommodation under the Project in accordance with the requirements of the Accommodation Regulations. In implementing a project in future, the LCSD and the ArchSD need to take measures (e.g. through improving their coordination and communication and the ArchSD's enhanced control measures on compliance with approved SoA) to ensure that subsequent changes to an approved SoA are properly approved by the PVC in accordance with the requirements of the Accommodation Regulations.

Audit recommendations

2.39 **Audit has recommended that the Director of Leisure and Cultural Services should, in collaboration with the Director of Architectural Services, follow up with the PVC for the changes to the NOFA of accommodation under the Project in accordance with the requirements of the Accommodation Regulations.**

2.40 **Audit has recommended that, in implementing a project in future, the Director of Leisure and Cultural Services and the Director of Architectural Services should take measures (e.g. through improving the coordination and communication of the LCSD and the ArchSD, and the ArchSD's enhanced control measures on compliance with approved SoA) to ensure that subsequent**

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changes to an approved SoA are properly approved by the PVC in accordance with the requirements of the Accommodation Regulations.

Response from the Government

2.41 The Director of Leisure and Cultural Services agrees with the audit recommendations.

2.42 The Director of Architectural Services agrees with the audit recommendations. She has said that:

- (a) in handling future projects, the ArchSD will continue to enhance its communication with the LCSD to ensure compliance with the approved SoA; and
- (b) the ArchSD will check the NOFA provided for various accommodations at the design and construction stages against the area figures in the approved SoA and alert the LCSD the need to seek the PVC's approval for changes as necessary.

PART 3: OPERATION AND MAINTENANCE OF FACILITIES

3.1 This PART examines the LCSD's work in the operation and maintenance of facilities in the HKV (paras. 3.2 to 3.17) and the HKVP (paras. 3.18 to 3.29).

Operation and maintenance of facilities in Hong Kong Velodrome

3.2 The LCSD is responsible for the management of the HKV. Audit has found room for improvement in its operation and maintenance of facilities in the HKV (see paras. 3.3 to 3.15).

Need to tackle water seepage problem in main hall

3.3 The cycling track, arena and spectator stand facilities are located at the main hall of the HKV (see Photograph 3 in para. 1.8). According to the LCSD, the roof of the main hall of the HKV is a huge metallic structure with numerous windows, smoke ventilators and gutters, and all these installations contribute to numerous joints (Note 27) where sealant, flashing and other architectural details were used for ensuring water tightness (see Photograph 12).

Note 27: *According to the ArchSD, water droplets or moisture could penetrate through the joints of the roof into the main hall of the HKV.*

Photograph 12

Roof of main hall of HKV



Source: LCSD records

3.4 According to LCSD records, since the completion of the HKV in December 2013, water seepage had been found in the main hall. Under the LCSD's practice, its venue staff conduct daily inspection at the main hall to monitor the water seepage situation and would report the situation to both the ArchSD and Contractor A. Contractor A would then liaise directly with the LCSD to conduct urgent inspections and repair works (Note 28). During the period from December 2013 to June 2018, the LCSD had made 77 requests involving 234 water seepage incidents (Note 29) to both the ArchSD and Contractor A for carrying out urgent inspections and repair works. According to the ArchSD, it treated the incidents as 129 water seepage cases (Note 30).

Note 28: *The roof of the HKV is under warranty provided by Contractor A for a period of 20 years from December 2013. As such, all costs of the repair and rectification works (see para. 3.5) were borne by Contractor A. According to the ArchSD, repair works could only be conducted: (a) in fine weather and after the roof components were completely dried; (b) when access to the facilities was allowed by the LCSD as the repair works may occupy certain areas of the arena or the cycling track; and (c) on the pre-scheduled maintenance days for the whole venue (works involving smoke ventilators were only carried out on these venue maintenance days due to technical reason).*

Note 29: *According to the LCSD: (a) the 77 requests involved 234 water seepage incidents and each request involved 1 to 10 incidents; and (b) in order to facilitate the necessary follow-up actions by the ArchSD and Contractor A, the LCSD had provided them with a layout plan showing the spots relating to water seepage incident together with relevant photographs.*

Note 30: *According to the ArchSD: (a) water seepage incidents involving the same spot were repeatedly reported by the LCSD before repair works could be carried out; (b) each batch of repair works conducted by Contractor A addressed a number of water seepage incidents; (c) to comprehensively reflect the water seepage situation, the reported incidents involving the same spot addressed by each batch of repair works should be grouped and treated as one water seepage case; and (d) accordingly, it considered that the 234 reported incidents should be treated as 129 water seepage cases.*

Operation and maintenance of facilities

3.5 To tackle the water seepage problem in the main hall, the LCSD requested the ArchSD to instruct Contractor A to implement a series of rectification works (implementation of some of the works required closure of the main hall for 104 days) from May 2014 to January 2017 (Note 31). According to the ArchSD, from December 2013 to December 2016 (i.e. before the completion of the series of rectification works in January 2017), there were 101 water seepage cases. Audit noted that:

- (a) for the 101 cases, 47 spots were involved. For 25 (53%) of the 47 spots, water seepage occurred more than once (see Table 5); and

Note 31: *The rectification works included:*

- (a) *from May to June 2014 (with closure of the main hall for 18 days), installation of five drip trays (see Photograph 12 in para. 3.3) at the rooftop over some parts of the cycling track (i.e. those parts with more serious water seepage problem);*
- (b) *in November 2015, installation of waterproof membrane at the gutter joints;*
- (c) *from March to August 2016, cleaning, checking and rectifying all sealant joints surface, rectifying the defective gutter joint membrane, and applying protective roof coating to all gutter joints; and*
- (d) *from November 2016 to January 2017 (with closure of the main hall for 86 days), installation of additional drip trays at the rooftop over the remaining parts of the cycling track (i.e. those parts not involved in the rectification works in 2014 (see (a) above)).*

According to the ArchSD, installation of waterproof membrane (see (b) above) and application of sealant and protective coating (see (c) above) would help ensure water tightness at joints of the roof of the main hall, and installation of drip trays over the cycling track (see (a) and (d) above) acted as a second line of defence against water seepage.

Table 5

**Spots in main hall relating to water seepage cases
(December 2013 to December 2016)**

No. of cases	No. of spots			
	Cycling track	Arena	Spectator stand	Total
1	13	3	6	22 (47%)
2	4	6	1	11
3	4	1	1	6
4	3	1	—	4
5	—	1	2	3
8	—	—	1	1
Total	24	12	11	47 (100%)

Source: ArchSD records

- (b) the water seepage problem at the cycling track was apparently more serious as there were more spots on the cycling track during the period from December 2013 to December 2016.

3.6 According to the ArchSD, after the completion of rectification works in January 2017 and up to June 2018, there were still 28 water seepage cases in the main hall. Audit noted that:

- (a) the 28 water seepage cases involved 17 spots, of which 12 spots (70%) were on the cycling track, 2 spots (12%) were on the arena and 3 spots (18%) were on the spectator stand (see Table 6). For 8 (47%) of the 17 spots, water seepage occurred more than once; and

Operation and maintenance of facilities

Table 6

**Spots in main hall relating to water seepage cases
(January 2017 to June 2018)**

No. of cases (Note)	No. of spots			
	Cycling track	Arena	Spectator stand	Total
1	8	—	1	9 (53%)
2	3	1	2	6
3	—	1	—	1
4	1	—	—	1
Total	12	2	3	17 (100%)

Source: ArchSD records

Note: For those spots with water seepage occurring more than once, the most recent cases were found on the cycling track and the spectator stand in June 2018, and on the arena in September 2017.

- (b) the water seepage problem at the cycling track was again apparently more serious as there were more spots on the cycling track.

3.7 In Audit's view, the LCSD needs to, in collaboration with the ArchSD, take effective measures to tackle the water seepage problem in the main hall of the HKV with a view to minimising nuisance and risks to users.

Need to keep under review effectiveness of pest control measures

- 3.8 According to the LCSD, its pest control measures are as follows:
- (a) since March 2013, the LCSD has engaged a contractor to provide cleansing services (including the pest control work) at the HKV and the HKVP;
 - (b) since December 2013, in order to keep the wooden cycling track in the HKV in good condition and avoid any termite (Note 32) infestation, the LCSD has engaged a termite specialist to conduct regular termite prevention work on a monthly basis;
 - (c) since October 2017, the LCSD has engaged a service provider to conduct additional pest control work targeting two types of pests (Note 33) in the changing rooms, washrooms and baby care rooms in the HKV in response to users' complaints; and
 - (d) the LCSD would seek the assistance of the ArchSD and the Food and Environmental Hygiene Department in enhancing the pest control work as and when required.

3.9 During the fieldwork of this audit review, Audit noted an incident of termite infestation in the doping control room in the HKV. On 23 May 2018, Audit staff discovered 20 to 30 termites in the two washrooms inside the doping control room and informed the LCSD about the incident. On 1 June 2018, the situation worsened with hundreds of termites found by Audit staff in the two washrooms (see Photograph 13) and nearby areas. The LCSD sought the assistance of the ArchSD which arranged a termite specialist to conduct inspections. The termite specialist found termite nests at the maintenance chamber (containing pipes for air conditioners and drainage) locating above the false ceiling of the two washrooms and

Note 32: *Termites are insects which consume any cellulose-containing materials like living or dead wood, paper, cardboard, fibreboard and cotton fabrics as their food. Wooden fixtures and furniture are susceptible to damages caused by termites, which in turn cause property loss.*

Note 33: *The two types of pests are psychodidae and tinea pellionella. According to the LCSD, while these two types of pests are not harmful to humans and fixtures and furniture, they would cause nuisance to the users of the HKV.*

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applied pest control treatments to the area concerned. In the event, the termite infestation problem was resolved in mid-June 2018.

Photograph 13

Termites found in a washroom inside doping control room



Source: Photograph taken by Audit staff on 1 June 2018

3.10 In July and September 2018, in response to Audit's enquiry, the LCSD said that:

- (a) as the termite nests were hidden in a concealed maintenance chamber of the two washrooms inside the doping control room, the LCSD could not detect the termite infestation during its regular inspections; and
- (b) before July 2018, the regular termite prevention service (see para. 3.8(b)) covered the wooden cycling track and the timber store area (where the spare wood for repair of the cycling track is stored). In view of the incident of termite infestation, the service had been extended to the doping control room since July 2018.

3.11 Given that wooden structure is susceptible to termite damage, any termite infestation in the HKV might cause damage to the wooden cycling track which in turn might pose risks to users of the cycling track. Infestation of termites or other types of pests at the facilities of the HKV would also cause nuisance to the users. Audit considers that the LCSD needs to keep under review the effectiveness of pest control measures taken at the HKV, including keeping alert of sign of pest infestation and taking control measures as appropriate.

Need to draw lessons from tendering of general restaurant business

3.12 In the HKV, there is a restaurant located at the ground floor. From August 2013 to July 2016, the LCSD invited four rounds of tenders for the light refreshment/general restaurant business at the HKV. However, there were no bids received in the first three rounds of tender exercises and the LCSD could only award the contract for the general restaurant business to an operator in December 2016 (for a contract period of seven years up to November 2023) in the fourth tender exercise. In March 2017, the restaurant in the HKV commenced operation, nearly three years after the commissioning of the HKV in April 2014.

3.13 In this connection, Audit noted that, to make the tender for the general restaurant business at the HKV more attractive to potential operators:

- (a) the LCSD had reviewed the tender requirements by making reference to the comments on the unsuccessful tender exercises as well as the feedbacks from current operators in the industry and made changes to the tender requirements in each of the four rounds of tender exercises (see Table 7 for examples); and

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Table 7

**Examples of changes to tender requirements
(August 2013 to July 2016)**

Particulars	First tender exercise	Second tender exercise	Third tender exercise	Fourth tender exercise
Type of tender	Restricted to non-governmental organisations	Open	Open	Open
Minimum industry experience of tenderer	3 years	3 years	2 years	2 years
Type of business	Light refreshment restaurant	General restaurant (non-Chinese style cuisine)	General restaurant	General restaurant
Business area	307 m ² (including indoor seating area and kitchen)	346 m ² (including indoor and outdoor seating area, and kitchen)	346 m ² (including indoor and outdoor seating area, and kitchen)	387 m ² (including indoor and outdoor seating area, kitchen, store room and kiosks)
Vending machine operating rights	Nil	Nil	Nil	5 vending machines

Source: LCSD records

- (b) in March 2016 (before the fourth tender exercise with tender period from June to July 2016), the LCSD requested the ArchSD to carry out improvement works (Note 34) at the restaurant. The related works commenced in August 2016 and were completed in November 2016 at a cost of \$280,000. According to the LCSD, the tenderers were informed of such improvement works through tender documents, tender briefing and site visit.

Note 34: *The improvement works included: (a) levelling the kitchen floor; (b) providing floor drains connecting to the existing drainage system; (c) providing a food serving opening between the kitchen and the indoor seating area; and (d) converting part of the corridor space into a store room of the restaurant.*

3.14 Audit considers that the LCSD needs to draw lessons from the long time taken in sourcing the catering services at the HKV with a view to improving the sourcing of such services at sports centres in future.

Audit recommendations

3.15 Audit has *recommended* that the Director of Leisure and Cultural Services should:

- (a) **in collaboration with the Director of Architectural Services, take effective measures to tackle the water seepage problem in the main hall of the HKV with a view to minimising nuisance and risks to users;**
- (b) **keep under review the effectiveness of pest control measures taken at the HKV, including keeping alert of sign of pest infestation and taking control measures as appropriate; and**
- (c) **draw lessons from the long time taken in sourcing the catering services at the HKV with a view to improving the sourcing of such services at sports centres in future.**

Response from the Government

3.16 The Director of Leisure and Cultural Services agrees with the audit recommendations.

3.17 The Director of Architectural Services agrees with the audit recommendation in paragraph 3.15(a). She has said that the ArchSD will continue to monitor and take effective measures with relevant parties to tackle the water seepage problem in the main hall of the HKV.

Operation and maintenance of facilities in Hong Kong Velodrome Park

3.18 The LCSD is responsible for the management of the HKVP. Audit has found room for improvement in its operation and maintenance of facilities in the HKVP (see paras. 3.19 to 3.28).

Need to enhance inspection and control for proper use of facilities in HKVP

3.19 The LCSD's venue staff at the HKVP are responsible for conducting daily inspections at the HKVP to ensure that the facilities are safe, clean and serviceable for use by the public, and controlling the proper use of facilities by the users. Apart from the venue staff, the District Leisure Manager (Sai Kung) would conduct inspections at the HKVP every six months while the Chief Leisure Manager (New Territories East) would conduct surprise inspections as and when necessary. According to the LCSD, the venue-based officers who are responsible for the day-to-day management and maintenance of the facilities in the venue should record any damaged item/observation on the occurrence book and take immediate follow-up action as well as report to their supervisors on any significant issues.

3.20 ***Inadequacies in HKVP.*** Between June and August 2018, Audit conducted five site visits (Note 35) to the HKVP to examine the conditions of its facilities and the control for the proper use of its facilities. Audit found that while the management of facilities in the HKVP was generally in order, some cases of inadequacies were observed during Audit's site visits, as follows:

- (a) ***Damaged fixtures.*** During the five site visits to the HKVP, Audit observed that some benches were damaged and that the paint of some columns at the amphitheatre was peeled off. Photograph 14 (taken on 9 August 2018) shows a damaged bench with a screw sticking out, which might cause injury to users. Photograph 15 shows a column with paint peeled off at the amphitheatre. The conditions of damaged fixtures had remained unchanged as observed in Audit's first and last site visits (on 28 June and 9 August 2018 respectively). Audit examined the occurrence book of the

Note 35: *The dates of visits were 28 June, 31 July and 7, 8 and 9 August 2018.*

LCSD's venue staff for the period from January to early August 2018 and noted that these damaged fixtures were not recorded; and

Photograph 14

Damaged bench



Source: Photograph taken by Audit staff on 9 August 2018

Photograph 15

Column with paint peeled off at amphitheatre



Source: Photograph taken by Audit staff on 9 August 2018

Operation and maintenance of facilities

- (b) *Control inadequacies.* There were two cases of control inadequacies, as follows:
- (i) according to the LCSD, the skatepark in the HKVP is provided with extreme sports facilities, which is open for co-use of freestyle bicycle motocross, skateboarding, aggressive inline skating and freestyle scootering activities, and a bilingual standard notice of Players' Guide (Note 36) is posted up at the conspicuous locations of the skatepark. According to LCSD guidelines, all users of the skatepark must wear a head-protected safety helmet when riding in the skatepark, and the venue staff deployed to the skatepark should keep alert on whether users have worn the required helmets and remind them to read the Players' Guide (see Photograph 16) before entry to the play area. As stipulated in LCSD guidelines, if users are found not wearing the required helmets, they should not be allowed to ride in the skatepark. However, Audit's site visits on 28 June and 31 July 2018 found that there were users riding in the skatepark without wearing head-protected safety helmets (see Photograph 17), which should not be allowed. In this connection, Audit noted that the LCSD had received complaints on users riding in the skatepark without wearing safety helmets in 2014 (one complaint) and 2016 (two complaints). In response, the LCSD said that it would continue to monitor the performance of the venue staff to ensure that they would require users to follow the wearing of helmet requirement; and

Note 36: *According to the LCSD, to enhance public safety awareness, all skatepark users must read thoroughly the Players' Guide before admission to the skatepark. The Players' Guide stipulates, among others, that: (a) all players are advised that they must assess their ability to use the skatepark; and (b) all players use/skate at the facility at their own risk as extreme sports can be dangerous and may cause serious injury.*

Photograph 16

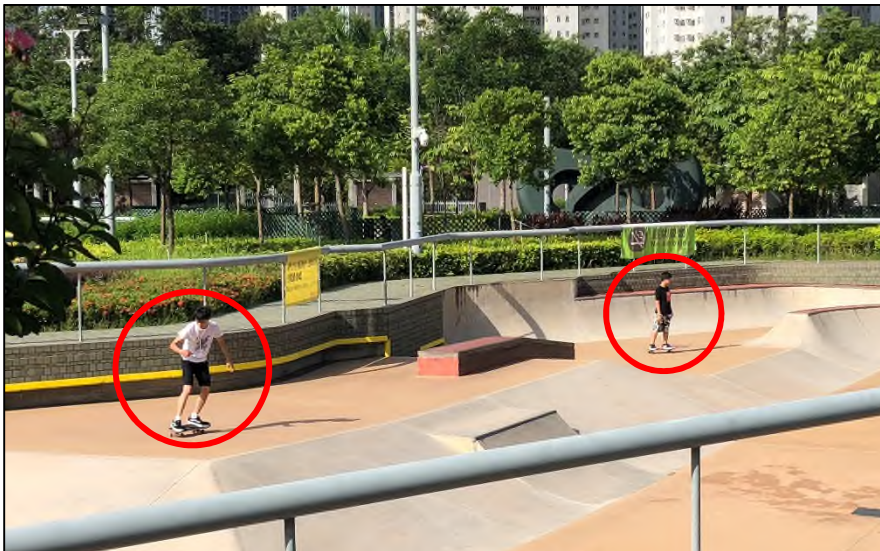
Signage showing Players' Guide for use of skatepark



Source: LCSD records

Photograph 17

Users riding in skatepark without wearing safety helmets



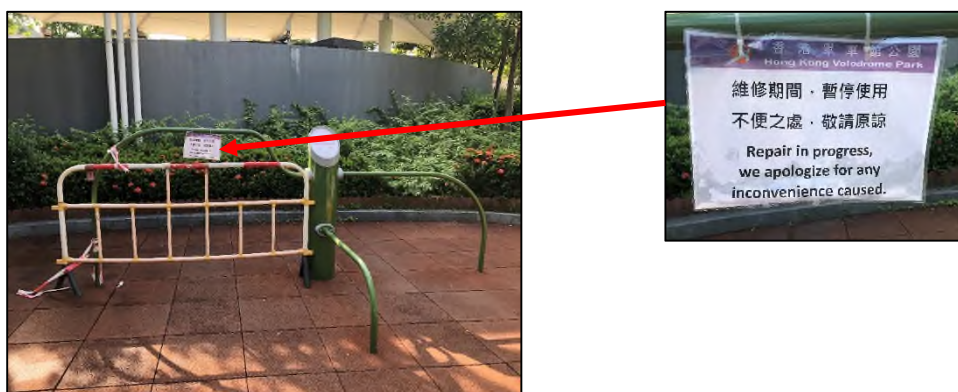
Source: Photograph taken by Audit staff on 31 July 2018

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- (ii) according to LCSD guidelines, when defects were found at playground equipment, the venue staff should immobilise the equipment, and put up a warning notice and cordon off the defective equipment. Photograph 18 shows a defective fitness equipment with a warning notice and cordoned off to prevent the public from using the defective equipment and getting injured. According to the LCSD, repair works of the fitness equipment was completed in the afternoon of 8 August 2018 and the equipment was reopened for public use on 10 August 2018 after inspection by venue staff and site clearance. However, Audit's site visits on 7 (afternoon) and 8 (morning) August 2018 found that while the repair works of the fitness equipment had not yet been completed, the warning notice was missing and the mills barrier had been moved aside from the defective equipment (see Photograph 19).

Photograph 18

Defective fitness equipment with warning notice and cordoned off



Source: Photograph taken by Audit staff on 28 June 2018

Photograph 19

Defective fitness equipment without warning notice and
with mills barrier moved aside



Source: Photograph taken by Audit staff on 8 August 2018

- 3.21 In September 2018, in response to Audit’s enquiry, the LCSD said that:
- (a) regarding the damaged fixtures (see para. 3.20(a)), the repair works for 7 damaged benches in the HKVP and the repainting works for 12 columns with paint peeled off at the amphitheatre were completed on 12 September 2018 by the ArchSD;
 - (b) regarding the control inadequacy at the skatepark (see para. 3.20(b)(i)), the venue management of the HKVP faced great difficulties in implementing the requirement of wearing safety helmet in the skatepark. It was the LCSD’s established practice to encourage skatepark users to wear safety helmets during their riding and playing in the skatepark. However, with the background of street culture where extreme sports players (including skatepark users) were aware of the risk but prided themselves on being informed of the risk and working to explore their own comfort zones, the attitudes of skatepark users towards the wearing of helmet requirement were widely negative and the users often disregarded the safety requirements and came into conflict with the venue staff. Based on the venue staff’s observation, most users entered the skatepark with safety helmets but did

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not wear them when riding despite being given repeated verbal advices by the venue staff. According to LCSD records, over 10 incidents of clashes in the skatepark were reported to the Police for assistance in the past; and

- (c) regarding the control inadequacy concerning the defective fitness equipment (see para. 3.20(b)(ii)), the venue staff found the fitness equipment defective in mid-June 2018 and accordingly, put up a warning notice and temporarily cordoned off the defective equipment by warning tape and mills barrier. However, according to the surveillance camera record of the HKVP, the mills barrier was removed by a user during nighttime of 6 August 2018. During the inspection on 9 August 2018, the venue staff cordoned off the equipment again until its reopening on the next day.

3.22 In its Controlling Officer's Report, the LCSD has pledged to provide safe and good quality recreation facilities (including parks) for the public. In Audit's view, the various cases of inadequacies noted during Audit's site visits show room for improvement in this regard. Audit considers that the LCSD needs to take measures to improve the effectiveness of its inspections at the HKVP and enhance its control for the proper use of HKVP facilities with a view to ensuring that HKVP facilities are safe and serviceable for use by the public.

Need to keep under review turf and drainage condition of central lawn

3.23 Shortly after the commissioning of the HKVP in April 2014, there were media reports in May 2014 on the drainage problem of the central lawn in the HKVP, leading to accumulation of stagnant water in the lawn after rain and breeding of mosquitoes (Note 37) in the nearby area. In addition, since the commissioning of the HKVP in April 2014 and up to June 2018, the LCSD received six complaints about the mosquito infestation within the area of the HKVP.

Note 37: *Mosquitoes are the vectors for the transmission of some diseases such as dengue fever (through *Aedes albopictus*) and Japanese encephalitis (through *Culex* mosquitoes). People get the disease by the bite of mosquitoes infected with the virus.*

3.24 According to the LCSD:

- (a) after the commissioning of the HKVP in April 2014, it found that the condition of the central lawn was unsatisfactory as stagnant water could hardly be drained away (in particular after torrential rain), which hindered the use of the lawn by the public;
- (b) in order to address the drainage problem of the central lawn, it requested the ArchSD to instruct Contractor A to carry out defects rectification works in June 2014 (Note 38). To further improve the drainage of the central lawn, it also implemented improvement works in March and August 2016 (Note 39) at a total cost of \$394,000; and
- (c) according to the daily inspections at the HKVP, no apparent water ponding problem was identified after the implementation of improvement works at the central lawn, and it was observed that stagnant water could be drained away properly after raining.

3.25 However, Audit's site visit in May 2018 after days of heavy rain revealed that stagnant water accumulated in the lawn area and the turf condition was less than satisfactory (see Photograph 20), indicating that the drainage problem might still remain unresolved.

Note 38: *The defects rectification works in June 2014 included enhancement of percolation of soil, plantation of water resistance plantings and excavation of vertical drain pits.*

Note 39: *The improvement works in March and August 2016 included the installation of main carriers and lateral pipe drains at underground of the central lawn in two phases.*

Photograph 20

Drainage problem and less-than-satisfactory turf condition of central lawn



Source: Photograph taken by Audit staff on 8 May 2018

3.26 In August and September 2018, in response to Audit's enquiry, the LCSD said that:

- (a) it was observed that some common problems such as soil compaction and thatch accumulation impeded rapid drainage of the central lawn. Holding of some large-scale events (e.g. Sai Kung District Music Arts and Cultural Festival and New Territories East Lunar New Year Lantern Carnival) in 2017-18 at the central lawn might have caused further deterioration of the condition of the lawn as these events attracted over thousands of visitors to the HKVP who trampled on and damaged the lawn, resulting in soil compaction which would prevent rapid drainage of the lawn;
- (b) routine maintenance measures (e.g. application of enhanced cultivation techniques including coring, spiking and splitting on a regular basis to relieve soil compaction) had been carried out by the horticultural maintenance contractor to improve the drainage condition of the lawn;
- (c) in order to improve the condition of the central lawn and enhance the visual amenity of the HKVP, the LCSD arranged to returf the central lawn and

re-establish the top soil of the damaged area. The returfing works were conducted from June to mid-August 2018 in two phases. The phasing arrangement ensured that the remaining portion of the lawn could still be open for public use. After the returfing exercise, the condition of the central lawn had improved; and

- (d) in response to the complaints about the mosquito infestation within the area of the HKV and the HKVP, the LCSD had stepped up inspection on the cleanliness of the venues. The LCSD had also carried out a series of mosquito control measures (e.g. removing stagnant water and fallen leaves and applying larvicidal oil regularly) to keep the environment clean and to eliminate breeding of mosquitoes. Moreover, the cleansing contractor (see para. 3.8(a)) conducted special preventive work and fogging services at the venues weekly to reduce the nuisance to the users caused by mosquitoes.

3.27 In Audit's view, given that the accumulation of stagnant water and poor turf condition in the central lawn of the HKVP may hinder its use by the public and pose a risk for breeding of mosquitoes, the LCSD needs to keep under review the turf and drainage condition of the central lawn in the HKVP and carry out improvement works as appropriate.

Audit recommendations

3.28 **Audit has recommended that the Director of Leisure and Cultural Services should:**

- (a) **take measures to improve the effectiveness of the LCSD's inspections at the HKVP and enhance the LCSD's control for the proper use of HKVP facilities with a view to ensuring that HKVP facilities are safe and serviceable for use by the public; and**
- (b) **keep under review the turf and drainage condition of the central lawn in the HKVP and carry out improvement works as appropriate.**

Response from the Government

3.29 The Director of Leisure and Cultural Services agrees with the audit recommendations. She has said that:

- (a) regarding the requirement of wearing safety helmet in the skatepark, the LCSD will put the issue under close monitoring and review with the concerned “national sports associations” to enhance the users’ safety in playing at the venue; and
- (b) to tackle the ponding problem of the central lawn in the HKVP, action has already been taken to reurf the field with sandy soil to further improve its drainage capacity.

PART 4: USAGE OF FACILITIES

4.1 This PART examines the usage of leisure and sports facilities (paras. 4.2 to 4.15) and the usage of function rooms (paras. 4.16 to 4.22) in the HKV.

Usage of leisure and sports facilities

4.2 The leisure and sports facilities in the HKV include, among others, a 250-metre long wooden cycling track, an arena in the centre of the cycling track, a children's playroom, a fitness room, a table tennis room, 3 activity rooms and a dance room (see para. 1.8 and Photographs 3 to 7). The LCSD has compiled utilisation rates for these facilities since their commissioning in early 2014 (see Table 8 and Note 40).

Note 40: *It is the LCSD's established practice not to compile utilisation rates for non-fee charging facilities (including those facilities in the HKVP) under its management.*

Usage of facilities

Table 8
Utilisation rates of leisure and sports facilities in HKV
(2014 to 2018)

Facility	Utilisation rate (Note 1)				
	2014 (Note 2)	2015	2016	2017	2018 (up to June)
(a) Cycling track	21%	16%	11%	24%	31%
(b) Fitness room	37%	56%	48%	51%	43%
(c) Activity rooms and dance room (Note 3)	35%	44%	51%	55%	58%
(d) Arena	72%	67%	74%	74%	69%
(e) Table tennis room	48%	57%	70%	74%	75%
(f) Children's playroom	93%	92%	97%	93%	84%

Source: LCSD records

Note 1: The facilities' utilisation rates were calculated as follows:

(a) for the fitness room (item (b)) and the children's playroom (item (f)), the utilisation rate in a period was calculated as follows:

$$\frac{\text{Actual number of users}}{\text{Total capacity}} \times 100\%$$

(b) for other facilities (i.e. items (a), (c), (d) and (e)), the utilisation rate in a period was calculated as follows:

$$\frac{\text{Actual number of hours used}}{\text{Total available hours}} \times 100\%$$

Note 2: The commissioning dates for the facilities were as follows:

Facility	Commissioning date
Fitness room (item (b))	27 January 2014
Activity rooms and dance room (item (c))	
Table tennis room (item (e))	
Children's playroom (item (f))	16 April 2014
Cycling track (item (a))	30 April 2014
Arena (item (d))	

Note 3: According to the LCSD, activity rooms are designed for serving as committee rooms or team storage areas during major cycling events and can be used for various types of sports activities, including dance. As such, the LCSD compiles utilisation rates for activity rooms and dance room as a whole.

4.3 Audit selected the facilities with utilisation rates below 70% in 2018 (up to June) (see items (a) to (d) in Table 8) for further examination and notes that there is still scope for the LCSD to further enhance the utilisation of the cycling track (see paras. 4.4 to 4.9), the fitness room (see para. 4.10), the activity rooms and the dance room (see para. 4.11), and the arena (see para. 4.12).

Scope for enhancing utilisation of leisure and sports facilities

4.4 ***Cycling track.*** Regarding the usage of the cycling track in the HKV, only holders of a valid track pass (Note 41) issued by the LCSD are allowed to use the cycling track in order to ensure the safety of the users and the proper use of the cycling track. As of June 2018, there were 561 track pass holders (Note 42). In general, members of the public could make 10-day advance booking for the use of the cycling track through the Internet or the LCSD’s booking counters on a first-come-first-served basis. According to the LCSD, the following parties are eligible to reserve the cycling track up to 12 months in advance in descending order of priority, as follows:

- (a) the HAB or the LCSD;
- (b) the Hong Kong Sports Institute (see para. 4.5(b) and (c)); and

Note 41: *The following categories of riders may apply to the LCSD for track passes:*

- (a) *inexperienced riders who have attended and passed the track cycling training courses organised by the LCSD or the CAHK;*
- (b) *experienced riders who have attended and passed the track pass workshop organised by the CAHK;*
- (c) *riders possessing equivalent qualification(s) issued by an organisation recognised by the CAHK; and*
- (d) *members of the HKC Team who joined after 2000.*

Note 42: *The number of track passes issued by year were as follows:*

2013	2014	2015	2016	2017	2018 (up to June)	Total
49	119	72	68	169	84	561

Usage of facilities

- (c) organisations eligible for priority booking as stipulated in LCSD guidelines (Note 43).

4.5 As shown in item (a) in Table 8 in paragraph 4.2, the utilisation rates of the cycling track in the HKV were below 35% since its commissioning in April 2014 and up to June 2018. According to the LCSD:

- (a) the HKV has a core mission to provide a local, stable and quality training base for the HKC Team;
- (b) the HKC Team normally conducts cycling training six days a week (Monday to Saturday) from 9 a.m. to 6 p.m. and the elite training at the HKV will highly depend on race schedules and on-the-spot physical condition of individual athletes;
- (c) in order to allow flexibility in using the cycling track to meet the training needs of the HKC Team, the cycling track in the HKV during the aforementioned timeslots has been reserved under the Hong Kong Sports Institute;
- (d) when the Hong Kong Sports Institute does not conduct training for the HKC Team during the aforementioned timeslots, the public could book and use the cycling track on-the-spot;
- (e) as a result, the availability of the cycling track for use by the public is lower; and
- (f) if counting the total hours available for public use (i.e. excluding the timeslots reserved under the Hong Kong Sports Institute — see (b) and (c) above), the utilisation rate of the cycling track would be around 45% during the period from January to June 2018.

Note 43: *Examples of organisations eligible for priority booking are “national sports associations” (such as the CAHK), schools and those organisations supported by the LCSD or District Councils.*

4.6 While recognising the mission of the HKV as mentioned in paragraph 4.5(a) to (f), in view of the spare capacity of the cycling track in the HKV available for meeting further demand, there is merit for the LCSD to explore measures to make better use of the track with a view to further promoting track cycling in Hong Kong, including the possibility of organising more track cycling training courses for the public (see paras. 4.7 to 4.9).

4.7 *Track cycling training courses.* Since September 2015, the LCSD has organised track cycling training courses (with the assistance provided by the CAHK — Note 44) for the public to enable them to obtain track passes (Note 45). According to the LCSD, after satisfying the priority booking of the cycling track by eligible parties (see para. 4.4), it would make use of the residual timeslots to conduct training courses. The track cycling training courses are classified into three levels, namely Levels I, II and III. Participants must attend and pass the assessment of a training course before proceeding to the next level and those participants who passed the assessment of a Level III training course may apply to the LCSD for track passes.

4.8 Each track cycling training course of Levels I, II and III has 20 training places and lasts for 4 hours. Levels I and II training courses were held in a temporary outdoor velodrome in Ma On Shan during the period from September 2015 to July 2017, and have been held in the HKV since August 2017 (Note 46). All Level III training courses have been held in the HKV since September 2015. Up to June 2018, a total of 83 training courses for all these 3 levels had been organised. The number

Note 44: *According to the LCSD, the CAHK would provide qualified coaches for a track cycling training course for a service fee.*

Note 45: *According to the LCSD, during the period between the commissioning of the HKV in April 2014 and the launch of the track cycling training courses in September 2015, it had collaborated with the CAHK in conducting the preparatory work for organising the training courses, including the design of course syllabus and sourcing of qualified coaches.*

Note 46: *According to the LCSD, to avoid causing damages to the cycling track in the HKV, all Levels I and II training courses (participants being less experienced in track cycling) were not held in the HKV before August 2017. After reviewing the syllabus of Levels I and II training courses and the accident statistics of participants of such training courses, the LCSD and the CAHK decided that it would be appropriate to hold Levels I and II training courses in the HKV since August 2017.*

Usage of facilities

of training courses by level organised and their average enrolment rates during the period from September 2015 to June 2018 are shown in Table 9. The average passing rates for Levels I, II and III training courses during the period from September 2015 to June 2018 were 54%, 63% and 79% respectively.

Table 9
Number and average enrolment rates
of track cycling training courses by level
(September 2015 to June 2018)

Level	No. of training courses (average enrolment rate)					
	2015 (since September)	2016	2017 (up to July)	2017 (since August)	2018 (up to June)	Overall
	Held in Ma On Shan			Held in HKV		
I	6 (100%)	19 (89%)	10 (83%)	6 (100%)	10 (95%)	51 (91%)
II	2 (55%)	6 (66%)	2 (53%)	4 (74%)	5 (87%)	19 (71%)
	Held in HKV					
III	2 (40%)	4 (29%)	1 (70%)	2 (43%)	4 (68%)	13 (48%)
Overall	10 (79%)	29 (76%)	13 (77%)	12 (82%)	19 (87%)	83 (80%)

25
(79%)

Source: Audit analysis of LCSD records

4.9 As shown in Table 9, 19 training courses had been organised during the first six months in 2018, which already reached 76% and 66% of the 25 and 29 courses organised in the full year of 2017 and 2016. While relatively more courses had been held in the first half of 2018, the overall enrolment rate had still been increasing from 76% in 2016 to 87% in 2018, which indicated the popularity of the

courses. In particular, for Level I training courses (which accounted for over half of the courses organised each year), they were highly popular and nearly fully enrolled (average enrolment rates ranged from 95% to 100%) since August 2017 (when all these courses have been held in the HKV). In view of the popularity of the track cycling training courses, and that the passing of the assessment of a Level III training course is a prerequisite for applying for a track pass to use the cycling track, Audit considers that the LCSD needs to explore the possibility of organising more training courses with a view to further promoting track cycling in Hong Kong.

4.10 ***Fitness room.*** According to the LCSD, individuals aged 15 or above and with a fitness training qualification (Note 47) may use the LCSD's fitness rooms. Audit examination found that, since the commissioning of the fitness room in the HKV in January 2014 and up to June 2018, the utilisation rates of the fitness room ranged from 37% to 56% and were the third highest among the six government sports centres in Tseung Kwan O area in recent years (since 2016 — see Table 10). Nevertheless, its utilisation rates had generally decreased from 56% in 2015 to 43% in 2018 (up to June), while the utilisation rates of the other five fitness rooms had generally increased or remained unchanged. In Audit's view, there is scope for the LCSD to explore measures (e.g. organising more fitness training courses as mentioned in Note 47) to enhance the utilisation of the fitness room in the HKV.

Note 47: *Individuals with any one of the following qualifications may use the LCSD's fitness rooms:*

- (a) *participants who have completed the "Fitness (Multi-gym) Training Courses" organised by the LCSD from May 2006 onwards and attained 80% or higher attendance rate;*
- (b) *participants who have completed the "Briefing on Proper Ways to Use Fitness Equipment" and passed the assessment organised by the LCSD;*
- (c) *holders of LCSD Fitness Gold Card; or*
- (d) *holders of equivalent qualifications recognised by the Physical Fitness Association of Hong Kong, China.*

Usage of facilities

Table 10

**Utilisation rates of fitness rooms in sports centres in Tseung Kwan O area
(2014 to 2018)**

Sports centre	Utilisation rate				
	2014	2015	2016	2017	2018 (up to June)
Tseung Kwan O Sports Centre	27%	21%	19%	23%	25%
Po Lam Sports Centre	39%	31%	29%	30%	31%
Tsui Lam Sports Centre	56%	41%	34%	38%	39%
HKV	37% (Note 1)	56%	48%	51%	43%
Hang Hau Sports Centre	50%	54%	57%	60%	62%
Tiu Keng Leng Sports Centre	N/A (Note 2)	48% (Note 2)	69%	79%	76%

Source: LCSD records

Note 1: The fitness room in the HKV opened for public use on 27 January 2014.

Note 2: Tiu Keng Leng Sports Centre opened for public use on 23 April 2015.

4.11 **Activity rooms and dance room.** Audit examination found that, since the commissioning of the activity rooms and the dance room in the HKV in January 2014 and up to June 2018, the utilisation rates of these rooms measuring as a whole (see Note 3 to Table 8 in para. 4.2) ranged from 35% to 58% and were the second lowest among the six government sports centres in Tseung Kwan O area in recent years (since 2015 — see Table 11). In Audit's view, there is scope for the LCSD to explore measures (e.g. publicising the HKV to schools and other organisations for holding events and activities) to enhance the utilisation of the activity rooms and the dance room in the HKV.

Table 11

**Utilisation rates of activity rooms in sports centres in Tseung Kwan O area
(2014 to 2018)**

Sports centre	Utilisation rate				
	2014	2015	2016	2017	2018 (up to June)
Tsui Lam Sports Centre	48%	43%	48%	54%	51%
HKV	35% (Note 1)	44%	51%	55%	58%
Po Lam Sports Centre	55%	63%	65%	67%	64%
Tseung Kwan O Sports Centre	66%	63%	67%	72%	67%
Hang Hau Sports Centre	69%	70%	71%	74%	72%
Tiu Keng Leng Sports Centre	N/A (Note 2)	58% (Note 2)	68%	76%	79%

Source: LCSD records

Note 1: The activity rooms and the dance room in the HKV opened for public use on 27 January 2014.

Note 2: Tiu Keng Leng Sports Centre opened for public use on 23 April 2015.

4.12 **Arena.** According to the Controlling Officer's Reports of the LCSD, the targets for the average usage rate of arena in sports centres in Hong Kong were 73% in 2014 and 2015, 75% in 2016 and 2017, and 80% in 2018. Audit examination found that, in the five years from the commissioning of the arena in the HKV in April 2014 and up to June 2018, the utilisation rates of the arena (ranging from 67% to 74%) were below the target average rates in all the five years and were the lowest among the six government sports centres in Tseung Kwan O area (see Table 12). In Audit's view, there is scope for the LCSD to explore measures (e.g. publicising the HKV to schools and other organisations for holding events and activities) to enhance the utilisation of the arena in the HKV.

Usage of facilities

Table 12

**Utilisation rates of arenas in sports centres in Tseung Kwan O area
(2014 to 2018)**

Sports centre	Utilisation rate				
	2014	2015	2016	2017	2018 (up to June)
HKV (Note 1)	72% (Note 2)	67%	74%	74%	69%
Tsui Lam Sports Centre	72%	72%	75%	76%	71%
Po Lam Sports Centre	80%	79%	82%	81%	80%
Tseung Kwan O Sports Centre	81%	82%	82%	82%	82%
Hang Hau Sports Centre	85%	85%	85%	87%	85%
Tiu Keng Leng Sports Centre	N/A (Note 3)	88% (Note 3)	89%	89%	89%
Target average rate	73%	73%	75%	75%	80%

Source: LCSD records

Note 1: According to the LCSD: (a) while the arena and the cycling track of the HKV could be used concurrently when conducting badminton activities in the arena which would not interfere with the cyclists' training at the cycling track, the arena and the cycling track could not be used concurrently when conducting basketball and volleyball activities in the arena which would pose safety risks to the cyclists; (b) to maintain the training flexibility for the HKC Team, the venue management of the HKV does not accept priority booking by organisations (see para. 4.4(c)) for the use of the arena during the training sessions of the HKC Team (see para. 4.5(b) and (c)); and (c) the abovementioned arrangements would affect the utilisation of the arena.

Note 2: The arena in the HKV opened for public use on 30 April 2014.

Note 3: Tiu Keng Leng Sports Centre opened for public use on 23 April 2015.

4.13 In September and October 2018, in response to Audit's enquiry, the LCSD said that:

- (a) **Cycling track.** The HKV had a core mission to provide a local, stable and quality training base for the HKC Team and to develop the sports of track cycling in Hong Kong. In view of this objective, the LCSD had worked closely with the major stakeholders, such as the CAHK, the Hong Kong Sports Institute, the Sai Kung District Sports Association and other sports organisations, on various aspects to promote the usage of the HKV;
- (b) **Fitness room.** The drop in usage of the fitness room in the HKV might be due to the opening of Tiu Keng Leng Sports Centre, which was located near the Mass Transit Railway station, in April 2015. Currently, the quota of the fitness room of each session was divided into two user types, namely the hourly ticket users and the monthly ticket users. In order to fully utilise the quota of the fitness room of each session, the venue management of the HKV had released the remaining quota of a user type at the start of each session to another user type on a first-come-first-served basis;
- (c) **Activity rooms and dance room.** As the activity rooms in the HKV were designed for serving as committee rooms or team storage areas during major cycling events, the equipment provision in these rooms was not the same as that in activity rooms in other government sports centres (e.g. the activity rooms in the HKV had not been equipped with public address system and mirrors, which were usually provided at activity rooms in other government sports centres). As a result, the popularity of activity rooms in the HKV was lower; and
- (d) **Arena.** Unlike other government sports centres, there was no priority booking by schools and organisations for the use of the arena in the HKV during the training sessions of the HKC Team (see para. 4.5 (b) and (c)) in order to maintain the training flexibility for the HKC Team.

Audit recommendations

4.14 **Audit has recommended that the Director of Leisure and Cultural Services should explore measures to:**

- (a) **make better use of the cycling track in the HKV with a view to further promoting track cycling in Hong Kong (including exploring the possibility of organising more track cycling training courses for the public); and**
- (b) **enhance the utilisation of the fitness room, the activity rooms, the dance room and the arena in the HKV.**

Response from the Government

4.15 The Director of Leisure and Cultural Services agrees with the audit recommendations. She has said that the LCSD:

- (a) recognises the unique role of the HKV to provide a local, stable and quality training base for the HKC Team and to develop the sports of track cycling in Hong Kong; and
- (b) will continue to work closely with the major stakeholders, such as the CAHK, the Hong Kong Sports Institute, the Sai Kung District Sports Association and other sports organisations to promote the usage of facilities in the HKV.

Usage of function rooms

4.16 According to the LCSD:

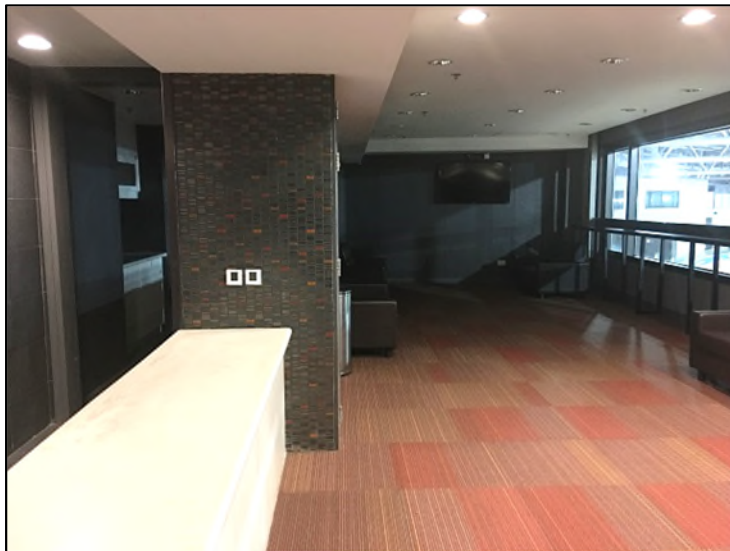
- (a) the HKV is the unique indoor cycling venue in Hong Kong that meets the international standards of the UCI for holding international track cycling events at the highest level; and

- (b) to ensure that the HKV achieves its objective to provide a competition ground and an elite training base for track cycling, the HKV is furnished with various specific function rooms, including:
- (i) 2 VIP boxes (78 m² each — see Photograph 21), a judge referee box (70 m² — see Photograph 22) and technical areas (i.e. a function room (see para. 1.8(a)) of 156 m²) located at the upper second floor; and
 - (ii) a VIP room (112 m² — see Photographs 23 and 24), a doping control room (99 m² — see Photograph 25) and a meeting room (103 m² — see Photograph 26) located at the ground floor.

These function rooms serve as supporting facilities when major international competitions are held at the HKV.

Photograph 21

VIP box at upper second floor



Source: Photograph taken by Audit staff on 6 July 2018

Photograph 22

Judge referee box



Source: Photograph taken by Audit staff on 6 July 2018

Photographs 23 and 24

VIP room at ground floor

Photograph 23

One end of VIP room



Photograph 24

Another end of VIP room



Source: Photographs taken by Audit staff on 2 August 2018

Photograph 25

Doping control room



Source: LCSD records

Photograph 26

Meeting room



Source: LCSD records

Usage of facilities

Need to explore possibility of putting function rooms into better beneficial use

4.17 The seven function rooms mentioned in paragraph 4.16(b) are available for booking by organisations and B/Ds (see Table 13 for the booking arrangements). However, according to the LCSD, it had not informed other B/Ds of the booking arrangements of the function rooms. Furthermore, they are not available for booking by the general public.

Table 13

Booking arrangements for HKV function rooms

Function room	Booking arrangement (Note)
<i>Upper second floor</i>	
2 VIP boxes (78 m ² each)	Available for booking by organisations (e.g. “national sports associations”) when the main hall (where the cycling track, arena and spectator stand facilities are located) is exclusively used for holding events and activities (e.g. international competition)
Judge referee box (70 m ²)	
Technical areas (i.e. a function room — 156 m ²)	
<i>Ground floor</i>	
VIP room (112 m ²)	Available for booking by B/Ds, “national sports associations” and the Hong Kong Sports Institute
Doping control room (99 m ²)	
Meeting room (103 m ²)	

Source: LCSD records

Note: Except for the 2 VIP boxes and technical areas located at the upper second floor, the use of all other function rooms is free of charge.

4.18 According to the LCSD:

- (a) since the commissioning of the HKV in 2014 and up to June 2018, all the 7 function rooms had been put into use for 20 days when 7 major international competitions (Note 48) were held at the HKV; and
- (b) during the period with no international competitions being held at the HKV, the function rooms would be used for conducting various activities, such as:
 - (i) guest reception rooms for receiving VIPs during events in the HKV and the HKVP;
 - (ii) classrooms for hosting training courses and seminars by B/Ds; and
 - (iii) temporary meeting rooms for conducting meetings with government works departments, service contractors and other sports organisations.

However, Audit noted that the LCSD did not compile statistics on the utilisation of the function rooms for such activities.

4.19 In May, July and August 2018, Audit conducted three site visits to the function rooms to ascertain their utilisation and found that all the function rooms were vacant (except the room which was assigned by the LCSD to Audit staff as a temporary office for conducting the fieldwork of this audit review).

4.20 In Audit's view, the LCSD needs to inform all B/Ds of the booking arrangements of the HKV function rooms and compile statistics for their utilisation for management review. There is also merit for the LCSD to explore measures for putting the function rooms (e.g. the meeting room shown in Photograph 26) into better beneficial use.

Note 48: *Examples of international competitions are: (a) 2015/16 UCI Track Cycling World Cup — Hong Kong (in 2016); (b) 2017 UCI Track Cycling World Championships (in 2017); (c) Asian Judo Championships 2017 (in 2017); and (d) Hong Kong International Track Cup 2018 (in 2018).*

Audit recommendations

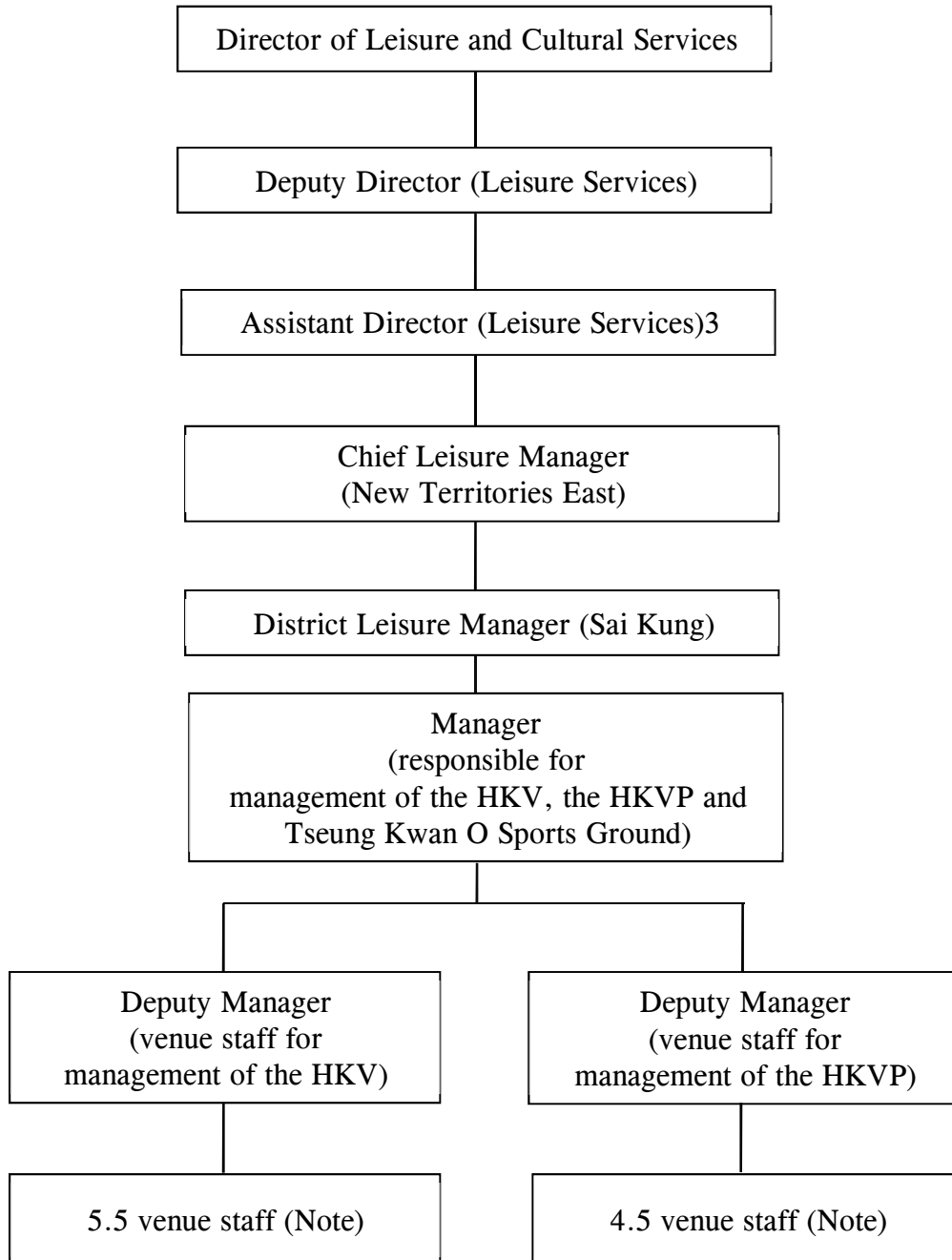
4.21 **Audit has *recommended* that the Director of Leisure and Cultural Services should:**

- (a) **inform all B/Ds of the booking arrangements of the HKV function rooms;**
- (b) **compile statistics for the utilisation of the HKV function rooms for management review; and**
- (c) **explore measures for putting the HKV function rooms (e.g. the meeting room shown in Photograph 26) into better beneficial use.**

Response from the Government

4.22 The Director of Leisure and Cultural Services agrees with the audit recommendations.

**Leisure and Cultural Services Department:
Organisation chart (extract)
(30 June 2018)**



Source: LCSD records

Note: One venue staff was responsible for the management of the HKV and the HKVP.

Acronyms and abbreviations

AI	Architect's instruction
APE	Approved project estimate
ArchSD	Architectural Services Department
Audit	Audit Commission
B/Ds	Government bureaux/departments
CAHK	The Cycling Association of Hong Kong, China Limited
EMSD	Electrical and Mechanical Services Department
FC	Finance Committee
HAB	Home Affairs Bureau
HKC Team	Hong Kong Cycling Team
HKV	Hong Kong Velodrome
HKVP	Hong Kong Velodrome Park
LCSD	Leisure and Cultural Services Department
LegCo	Legislative Council
m ²	Square metres
NOFA	Net operational floor area
PVC	Property Vetting Committee
SoA	Schedule of accommodation
UCI	Union Cycliste Internationale