

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.