

# Model for Planning an Athletic Facility

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The Hong Kong International School (HKIS) is a private coeducational day school that serves students (Grades PK–12) who seek an American-style college preparatory education in a Christian setting. Located on the south side of Hong Kong Island on two separate campuses, approximately 5 km apart, the school is divided into four divisions: Lower Primary, Upper Primary, Middle School, and High School.

The school is a member of the East Asia Regional Council of Schools and fully accredited by the Western Association of Schools and Colleges. The school serves 2,595 students, who come from business, government, and professional families. Of those enrolled in HKIS, 56% are from the United States, 8% are from Canada, and 6% are from Hong Kong, with the remaining 30% coming from approximately 30 other nations.

HKIS recruits faculty locally and internationally, with 72% holding advanced degrees and serving an average tenure of 8 years. The faculty–student ratio is 1:9.

In addition to the academic program, the school also targets growth in six domains, known as Student Learning Results: Academic Excellence, Spirituality, Character Development, Self-Motivated Learning, Contributing to Society, and Chinese Culture. The school offers a strong and vibrant cocurricular program with high student participation.

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This facility plan outlines the work and considerations involved in planning to repurpose a school sports facility, in this case two squash courts.

## **Access to Suitable Facilities**

Access to suitable facilities and open space in Asia can be a major challenge. Maximizing the use of facilities is the key to meeting the needs of the various programs within the school. Though HKIS is one of the lucky schools in Hong Kong, by international standards the physical space the school has to work with may be considered small. To maximize the footprint and offer as much educational, social, and athletic facility space as possible, the school was constructed on multiple levels and has a number of multipurpose facilities.

In an attempt to maximize the potential for future users and minimize the impact on current users, for this project we followed a “plan, review, and do” approach. This plan involved the following steps: collect information and data about the current use and users, talk to staff, consult with those that manage the Master Facility Plan (MFP), identify and communicate with the stakeholders most likely to be affected, identify an alternate venue for any displaced users, and work with the main stakeholders to develop plans and reach an agreement around the planned renovations before submitting an application for the approval of capital works.

The key stakeholders we identified for this project included director of facilities, high school athletic director, high school clubs and activities coordinator, middle school physical education chair, high school physical education chair, activities coordinator, middle school principal, high school principal, and the three staff members who were using the facility.

## **Planning Assumptions**

We undertook the project in the summer of 2012, although the initial work began late in 2010. The demise of squash at HKIS began a few years earlier when the varsity squash team was withdrawn from the local schools competition because of a lack of student interest. The remaining students formed a social club as part of the High School Clubs and Activities Department. The interest in the club program also dwindled over the next 2 years and the club folded, leaving the two courts idle.

The first step was to assess the use of the facility through the collection of data contained in the online booking system. The system can generate detailed reports for each facility, including hours of use per day and percentage of use for the various user groups. The reports confirmed that few to no bookings were occurring each week, but we also investigated faculty and student use that may have been occurring without a reservation. As it turned out, three staff members were using the space on occasion after school. They never reserved the facility through the system because they had never encountered anyone else using the space.

Having confirmed the lack of use for the facility, we met with the director of facilities to learn more about the Master Facilities Plan (MFP) and what the future plans were for this area of the school. There would be little benefit in establishing a plan to repurpose a space that had already been identified for renovations in the near future.

There was a wealth of information available regarding the use of the current facilities and their future plans. The MFP process at HKIS is conducted at a senior management level and is led by the director of facilities. Input and feedback is sought from all stakeholders including the wider community, teachers, administrators, consultants, and architects. This work is occasionally supplemented with fact-finding visits to schools in the region and beyond. The current MFP had recently been updated and outlines the major renovation plans and the sequencing for the next 10 to 15 years. The plan is not set in stone and is regularly reviewed to ensure it remains relevant.

The MFP plans for the coming 5 to 10 years are documented in detail. However, a less detailed review of this information with FAQs regarding each section of the plan is outlined on the school website (see HKIS, 2016).

The work outlined in this phase of the plan includes the current decanting of the Lower Primary, containing approximately 650 students, while HKIS undertakes a complete redevelopment of the building. The work is scheduled to take 3 years to complete and a considerable investment. Once the Lower Primary is built, the next phase of work will involve refurbishing the Upper Primary building, which is connected to the Lower Primary. The Upper Primary refurbishment plans will be influenced by the new shared facilities

being constructed in the Lower Primary building, such as a pool and a large chapel area, enabling more repurposing to take place in the Upper Primary.

The MFP further outlines the possible construction of a major sports and activity center adjacent to the High School campus. This facility plan is currently in the feasibility phase and if the project proceeds, it will significantly affect cocurricular programming in the Middle School and High School. The building plans are very basic at this stage and focus on maximizing the footprint of the building and seeking building approval from the relevant authorities. The internal layout and any planning will involve input from a cross section of the school to ensure the plan meets the needs of the students now and remains an effective educational facility well into the future. The MFP leadership team has indicated that they are focused on the future when designing and planning new buildings or major renovation work (HKIS, 2016).

The information outlined in the MFP enables anyone considering a minor renovation to ensure it will complement the long-term facility plans. During these discussions, it was established that no works were planned for this facility in the near future. If a better use could be proposed and agreed to by all stakeholders, it could be presented as part of the capital project request process the following year.

The next phase involved identifying groups that would most likely be affected by the closing of the current facility. We identified the faculty members that were utilizing the facility for personal use as the key group to meet. This group would most likely have an understanding of the interest level in the student body and the future use of the courts. During the meeting, it was confirmed that there was little student interest in squash at this time. The staff members liked the convenience of practicing their personal game at school, but understood that the space could be more effectively utilized if it were repurposed.

However, the teachers and the high school clubs and activities coordinator raised a valid concern that if the squash courts were lost, teachers may not be able to introduce squash at a later time should the interest levels rise. Though the school is a little isolated on the south side of the island, HKIS is fortunate that it has a members club

located within 5 min of the school. This club had also seen a decline in its squash program and when approached about making use of the facility, the club was open to renting the space at a reasonable rate. With a suitable facility secured for any future squash club, the coordinator and faculty members were happy to learn more about the proposed changes to the facility.

We now focused attention on the possible conversion of the space and what could be achieved. The High School Physical Education Department had identified the need to increase the weight training facility, which was located behind the top section of the front wall of the squash courts. The department also wanted to identify a suitable space for a martial arts studio because of significant growth in this area of the program. We felt it was important that the space was multipurpose and could be utilized for a variety of activities during the school day and after school.

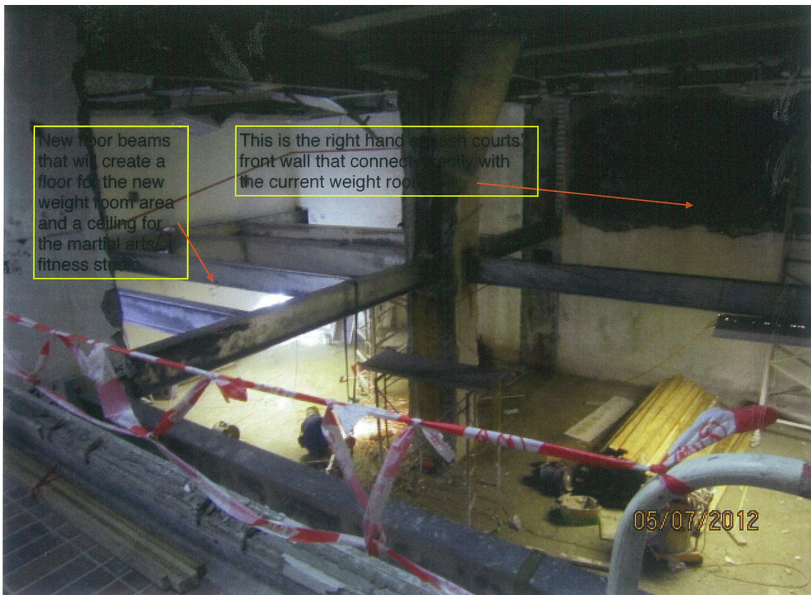
We raised these ideas with the director of facilities, who developed a comprehensive plan for the site and estimated the costs to convert the space. The floor space of two squash courts would be used to open up the current weight room, with much of it devoted to an open aerobic space that would also act as a great area to gather physical education classes for demonstration and teaching points during class. The fitness/martial arts studio under the new floor would still have a good ceiling height and could easily accommodate a group of 20 students in a martial arts class.

As shown in Figures 1 and 2, the current weight training facility was behind the main back wall of the squash court, at the level S301, allowing the floor space of the weight room to be extended and still enabling a single height studio to be created.

We consulted with the key stakeholders and user groups most likely to use the facilities to ensure the plans would meet the required specifications. After a few modifications, we had a proposed plan ready to share with key stakeholders. These plans outlined the basic building modifications and focused on the inclusions, dimensions, and what we expected would be accommodated in each space.



**Figure 1.** Original state of the two squash courts before the construction and renovation work.



**Figure 2.** This photo was taken during the construction phase and provides the best view of the work undertaken. The large hole on the right upper section of the photo is the partial completion of the wall removal. Steel floor beams were added to separate the double height space.

With support from all stakeholders, we submitted the proposed plans to the capital planning process for consideration and board approval. The board approved the plans with work to be undertaken during the summer vacation period. The High School Physical Education Department, in consultation with the Facilities Management Department, developed a new layout and design to maximize the new floor space created in the weight room. The weight room plans were shared with the booster club, which agreed to support the project with the purchase of new machines and equipment. Once the plans and inclusions were all agreed on, the Facility Management Department managed the remaining technical plans, tendering, and supervision of construction crews. The director of facilities took advantage of the opportunity the renovation work presented and remodeled the aquatics office that sits adjacent to the weight room facility. See Figures 3 and 4.



**Figure 3.** Photo was taken from within the existing weight room. The floor is now complete and the wall that was being removed in Figure 2 is now completely removed. The rough edges of that wall are shown on the right side of the picture, near the air-conditioning duct.



**Figure 4.** Photo taken from a similar position as Figure 3 providing a view of the new floor area created in the weight room. The center square pillar was the center wall between the squash courts, and the ventilation duct cover on the corner can also be used as a reference point.

Figures 5 and 6 provide a good view of the multipurpose fitness/martial arts studio. The space has a full-length mirror and 30-plus hooks fixed into the steel beams in the ceiling that can accommodate TRX systems, rings, punching bags, cargo nets, and so forth. As shown in Figure 6, the space could be multipurpose with jigsaw-style cushioned floor mats in place. This setup has been utilized for our younger students' physical education class while the Lower Primary is being housed on the Tai Tam campus.



*Figure 5.* Gymnastics and tumbling space.



*Figure 6.* Martial arts space.

## **Assessment**

The past 3 years have seen an incredible increase in the use of this space. The increased weight room space alone has enabled the cocurricular program to offer weight training programs for faculty and students, with classes running before and after school each day. As for the fitness studio, it has been a key component for the early year's physical education program during the decanting of the Lower Primary division in Tai Tam. The facility is also utilized 4 days a week after school for martial arts programs. On average since the conversion, the number of students utilizing this space has changed from zero to 350 each week.

The area is a hub of activity, which is remarkable considering it was previously a dead spot in the school, where the occasional physical education class was pushed when it rained. The acoustics posed an issue with larger groups, and supervising two courts was difficult for a single teacher. All in all, the conversion in this instance was a major success.

## **Conclusion**

Though the lead time and preparation work was significant, the end result was worth the effort. Having a “plan, review, and do approach” certainly reduced the surprise factor when construction started; all stakeholders had a clear picture of what was being constructed and how it would be utilized. The new facilities continue to be well utilized and have increased the opportunities for athletes. The increased fitness area has improved athlete preparation and will hopefully lead to a decrease in injuries and an increase in performance levels among students. Another positive effect has been the opportunities for staff to train and get active alongside the student athletes and to join faculty-focused fitness classes.

## **References**

Hong Kong International School. (2016). Master facilities plan. Retrieved from <http://www.hkis.edu.hk/about/facilities/master-facilites-plan/index.aspx>