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Dear Members of the Diocesan Community,

### **Proposed Installation of Artificial Turf on the School Field**

In late 2015, the School took a difficult decision in deciding to install a 4<sup>th</sup> Generation (“4G”) artificial turf only in the area inside the track. In this letter, I seek to explain the rationale behind the School’s proposal, address specific concerns regarding health and safety, and suggest actions for continued information gathering.

#### **The School’s Rationale**

Put succinctly, a significant increase in regular usage of the School Field has caused rapid deterioration of the natural grass. This has created a measurable safety hazard, obstructed athletic training, and imposed a severe financial cost in maintaining acceptable grass quality. An artificial turf would be an apt solution, as it would be both safer and less expensive.

#### *On Safety*

Increasing high usage of the Field has caused the grass to deteriorate at a rapid pace, causing frequent injuries such as bone fractures of legs and forearms. This measurable safety hazard for current students has stemmed from unfavourable field conditions, which have worsened significantly over the last decade.

Over 2200 students from the Secondary and Primary Division use the School Field six days a week. Our School Teams also train there, and in stark contrast to the past, far more sports teams than those that practice Track and Cricket now use this area. In aggregate, boys from six years old to national-level youth teams use our Field on a regular basis, including the softball and football teams and P.E. classes. This mounting demand is difficult to divert; there is no equivalent space in the Primary Division, and it would be preferable for P.E. lessons and School Team training sessions to occur on campus, since external venues are both difficult to secure and more expensive.

Safety concerns have also created undesirable effects on training. Our Football Team, amongst others, is now compelled to leave during school hours, since training venues are almost impossible to secure after classes. The balance between effective team development and class time is thus severely compromised.

Furthermore, possibilities for mitigating damage to the grass are very limited. In the past, the School reserved a grass-growing period from April to August; this is no longer possible due to consistent demand throughout the year. Without immediate and decisive action, the muddy, slippery conditions, aggravated by the cramps and holes of the uneven surface, will only deteriorate further. This presents a particular concern for students as young as those in Grades 1 and 2, as their bone structures are still developing and thus more susceptible to serious injury. Once the artificial turf is installed, the Field can be used consistently without fear of continued deterioration, even immediately after a period of adverse conditions such as heavy rain.

### *On Maintenance*

The School has conducted a comprehensive cost comparison between using natural grass and installing an artificial turf. The key findings are as follows:

1. The initial cost for installing an artificial turf, including drainage system (necessitating digging only 1 foot beneath the surface) is similar to the cost of natural grass: 16 million HKD
2. However, natural grass has four major limitations. It requires:
  - a. A monetary infusion of 2 million HKD every 2-3 years for resurfacing.
  - b. A limitation to usage for only 3-4 hours a day, or else the Field will become bald.
  - c. Complete replacement at a cost of 16 million HKD if bald, as it cannot regrow.
  - d. A full year of non-usage for installation.
  - e. Purchasing at least two types of grass: winter and summer.

### *On the Decision-Making Process*

The School has not taken this decision lightly; the Field is of great historical and aesthetic significance, and we are keen to preserve its best attributes whilst improving safety for our current and future students.

In 2015, the School established a Steering Committee which, in collaboration with the Habitat Office, conducted a lengthy process of researching possible alternatives to maintaining natural grass.

We also consulted neighbouring schools and institutions with similar experiences, including site visits, within the territory. In addition to information collected at these visits, we consulted universities in Hong Kong and secondary schools of similar calibre overseas. Furthermore, we have observed an upward trend in the conversion to artificial turf among government pitches in Hong Kong.

We further consulted with elected representatives of key stakeholder groups in the Diocesan community, including sports team leaders, coaches, Old Boys, Teachers-in-Charge, the Parent Teacher Association, student leaders, including the Prefect's Board and the Student Council, and representatives of the Primary Division.

The lengthy deliberation was soundly informed by a wide scope of in-depth research conducted by the Habitat and Tree Management Offices. They utilized research from a number of independent sources. This culminated in the conclusion that the installation of an artificial turf is a safer, and more cost-effective option than natural grass.

### **Addressing Health and Safety Concerns**

Understandably, myriad concerns have been raised amongst old boys in the Diocesan community concerning the health and safety of installing an artificial turf. The School is similarly concerned, and has conducted further research to resolve such issues. Some of the key concerns are addressed below.

### *Health Effects*

The 4th Generation “4G” artificial turfs which we propose to install do not feature the rubber crumbs which have previously attracted media attention. However, the school will continue to monitor all findings related to artificial turfs closely.

### *Safety Issues*

A theory persists that the resistant nature of artificial turfs increases sporting injuries. The key concerns are: that artificial turfs trap heat and create discomfort; and that friction from plastic increases the possibility of scratches. The academic literature on this subject is sparse and divided. However, we note that deteriorating natural grass has proven to be slippery, filled with “cramps” (bumps), and is clearly dangerous; in contrast, there is growing academic consensus that the new generation of artificial turfs has become significantly safer. The school will continue to educate our boys on safety and hygiene.

The School will also reference the English Football Association, the International Rugby Union, and FIFA’s accreditation standards for artificial turfs. These set clear guidelines for professional football teams, which have begun anew to use artificial turfs after a hiatus in the 1990s.

### **The School’s Principles**

The principle that I wish to affirm is that despite the proposed installation, the School is committed to maintaining a green and natural environment. DBS possesses one of the most beautiful campuses in Hong Kong, and we believe it is a core part of the student experience. Just recently, we converted the parking lot in front of the tuck shop into a lawn to increase the green area of the school. We will also resurface the parking lot adjacent to the Field with grass block paving stones.

In considering the advantages and disadvantages of various options, like all members of the Diocesan community, I experienced my own nostalgia, spurred by memories of days and nights spent in the field. The decision regarding the Field was not lightly made. Installing an artificial turf is a difficult decision for me, the School Committee and as well as the many concerned members of the community. We were only compelled after considering the irreconcilable drawbacks of the deterioration of grass and soil.

We hope that this decision will benefit all members of the Diocesan community, from the youngest to the earliest graduates. We especially look toward to nurturing current and future students in hopes of providing the safest environment possible and continuing the all-round tradition of DBS. Just like generations past, we want our current and future boys to continue to build precious memories for many years to come.

The decision we have come to is not static, and we hope to continually improve the student experience. With your support and feedback, we hope to strike the balance between safety and environmental preservation with an informed and rational mind-set. For now, that process has yielded a sound conclusion: that installing an artificial turf is the safer and more cost-effective option for current and future students.

Yours sincerely,



R.K.Y. Cheng  
Headmaster