Project name

ArchSD schools projects

Publication

Building Journal October 2002

ArchSD schools projects

New standards

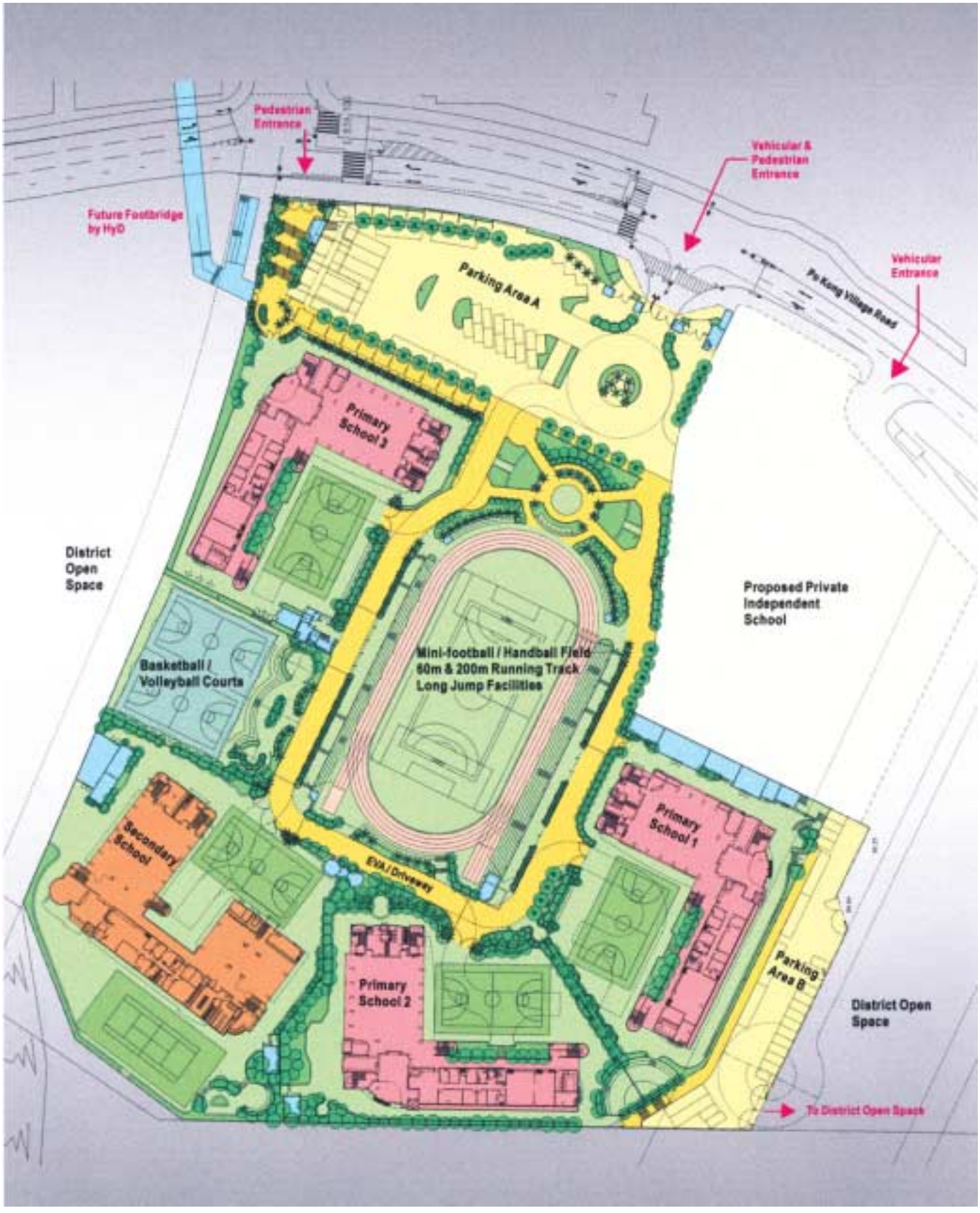
The completion of the Po Kong Village Road School Village marks a significant milestone in the planning of Hong Kong's education facilities. Departing from the model of small independent, yet sometimes clustered together, institutions, the new school village initiative scheme allows schools to share improved facilities and reap the benefits of fostering communities of learning. In this special supplement, BUILDING JOURNAL features the first school village alongside other recently completed Architectural Services Department (ArchSD) school projects.

The school village design concept originates from the idea of schools being grouped to share common facilities, since comprehensive design of a number of schools together ensures that a combined site can be more fully utilised. As a result, more space can be planned for by pooling land resources from each school to create and share improved sports facilities that complement standard-design school buildings. Concurrent to the provision of quality sports grounds, external play areas and outdoor learning corners, the school village's utility provisions such as vehicular access are kept to a minimum.

The benefits are not limited to creating focal points for students to gather, learn and play but also to creating a stimulating and community environment for schools. The closer relationships between schools will encourage an interflow of knowledge and resources, along with a sense of belonging and security. Ultimately, the designers hope that community spirit will extend to the wider area outside the schools and also involve parents and local residents.

Three primary schools and one secondary school in Po Kong Village

In 1999, the Po Kong Village Road schools development comprised three individual primary schools to be completed by 2001 and a secondary school together with a private independent school to be completed by 2002. The five schools were to be developed separately with a proposed new public road to be constructed by Highways Department to serve the area. Late in that year, however, the Public Works Subcommittee of the Finance Committee asked ArchSD to consider the feasibility of


Pedestrian Entrance
Vehicular & Pedestrian Entrance
Future Footbridge by HyD
Parking Area A
Po Kong Village Road
Vehicular Entrance
Primary School 3
District Open Space
Proposed Private Independent School
Basketball / Volleyball Courts
Mini-football / Handball Field
60m & 200m Running Track
Long Jump Facilities
Secondary School
Primary School 1
EVA / Driveway
Primary School 2
Parking Area B
District Open Space
To District Open Space

developing a school village. The concept was already under consideration by the Education Department and ArchSD for future schools projects, but not for these schools.

After liaising with other government departments, a revised proposal for the comprehensive development of the five schools was proposed, whereby the original area for the new public road was integrated into the school campus. Along with the inclusion of shared carparking close to the entrance, this has created a traffic-free environment within the school village campus. In addition to providing emergency vehicle access the new road has become a












pedestrian thoroughfare under this arrangement, and can also be used for jogging or other recreational activities.

The three primary schools and one secondary school and their individual school grounds are located at the site perimeter. The schools are placed as far as possible from Po Kong Village Road to create a quieter learning environment.

In devising the layout, the project team orientated the standard school buildings to have both direct access to common facilities and a good view of the surrounds.

As the design concept originates from the idea of grouping schools with shared common facilities to create a stimulating learning environment with ample









greenery, generous outdoor activity spaces and a sense of belonging and security for students, the provision of shared recreational and learning facilities is maximised. The main focus of the Po Kong Village project in this regard is in shared facilities such as a mini football field with a 200 m running track and two covered basketball courts. Walkways are integrated with pockets of seating areas and landscaped learning corners that link up the major facilities.

Other design features in the facilities include providing covers at basketball courts to add visual interest as well as offer shelter from the sun and rain. Landscaping initiatives include accent planting and feature seating incorporated in the design of the school fence walls that help to soften the boundaries between individual school compounds.

Fast Facts

Site Area: 6,200 sq m (each primary school), 7,000 sq m (secondary school)
Approx. construction cost: $400 million
Commencement date: 17 November 2000
Completion date: 13 July 2002
Main contractor: Shun Shing Construction & Engineering Co Ltd

Primary and secondary schools in Area 12, Tai Po, NT: PLK Tin Ka Ping Millennium Primary School & Hong Kong and Kowloon Kaifong Women's Association Sun Fong Chung College

The Tai Po schools development is built on a platform site partway up a hill and overlooking Tolo Harbour. As a result, the two schools enjoy a natural environment beside hillsides, unlike the majority of schools located in built-up areas. Taking advantage of the sea view, balcony corridors in the primary school and special viewing lobbies in the secondary school are oriented to face the harbour. Colour accents for both schools are also designed to be in harmony with nature, with sky blues for the primary school and shades of green for the secondary school.

As the site is located on a hillside, part of which is a sensitive geotechnical zone, the school buildings are set back to avoid any adverse impact on existing slopes. Flat areas nearer the slopes that cannot be built on with foundations or structures have been used for open active recreational areas. Shared facilities for common use at the peripheral portions of the site include a mini-soccer pitch-cum-two tennis courts, a volley ball court, carparking, a loading and unloading area for school coaches and a refuse storage and collection area.

To create a safe, green and vehicle-free open compound for the main school activities, all vehicular access including that for maintenance and operation works for major plants are confined to the entrance portion of the site and separated from the main school premises by feature fences.

Fast Facts

Site Area: 6,200 sq m (primary school)
5,710 sq m (secondary school)
Approx. construction cost: $176 million
Commencement date: 1 February 2001
Completion date: 19 July 2002
Main contractor: Penta-Ocean Construction Co Ltd

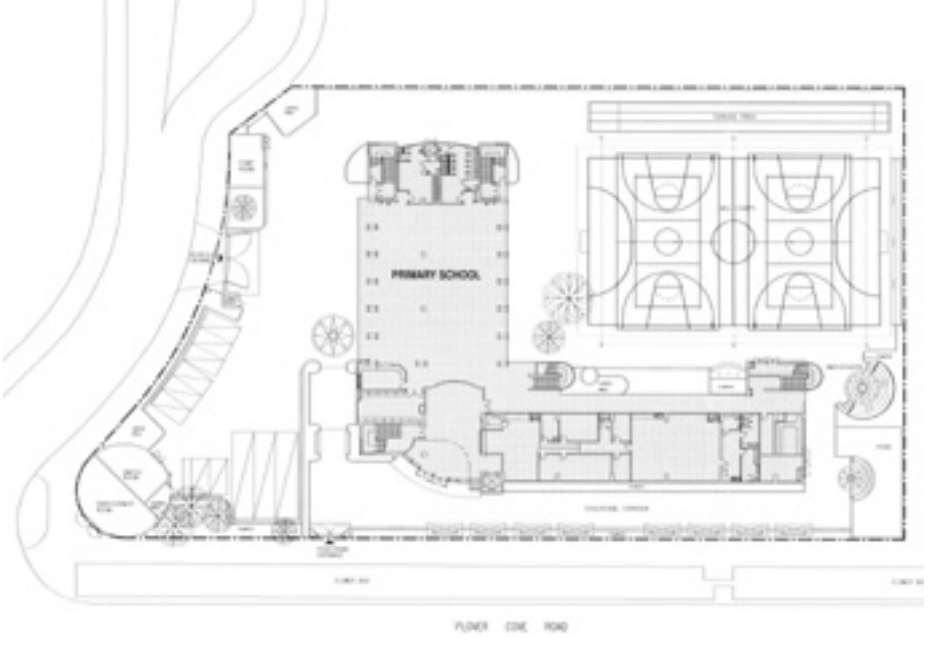
A primary school at Area 1 Tai Po, NT: Tai Po Old Market Public School

Oriented along the site's east-west axis, the layout of this school has the advantage in that the facade of the classroom block is parallel to Plover Cove Road, thereby avoiding direct sun in mornings and afternoons. The school layout has been set as close as possible to the southern boundary of the site to provide for spacious outdoor ball courts.

The design of the open areas surrounding the standard school reflects the school's beliefs regarding education. With the school's mission of nurturing each student to achieve his or her full potential in academic work, character development and love for nature and the environment in mind, ArchSD worked with the principal to design an educational corridor. Located along the seating and landscaped path at the southern boundary, the educational corridor features chess tables along with space for themed posters, paintings or other art. At the end of the corridor, a fishpond and cascade serves as a focal point.

In line with the school's green concepts, planning also maintained three mature trees at the centre and the entrance of the site. The architects proposed to move the outdoor basketball court as close as possible to the northeast corner and relocate the bleacher in order to keep the trees in place.

Elsewhere on the campus, students, parents and teachers collaborated to make a wall-size mural painting over the round elevation of the transformer room facing the public road, creating a unique visual identity for the school.



Fast Facts

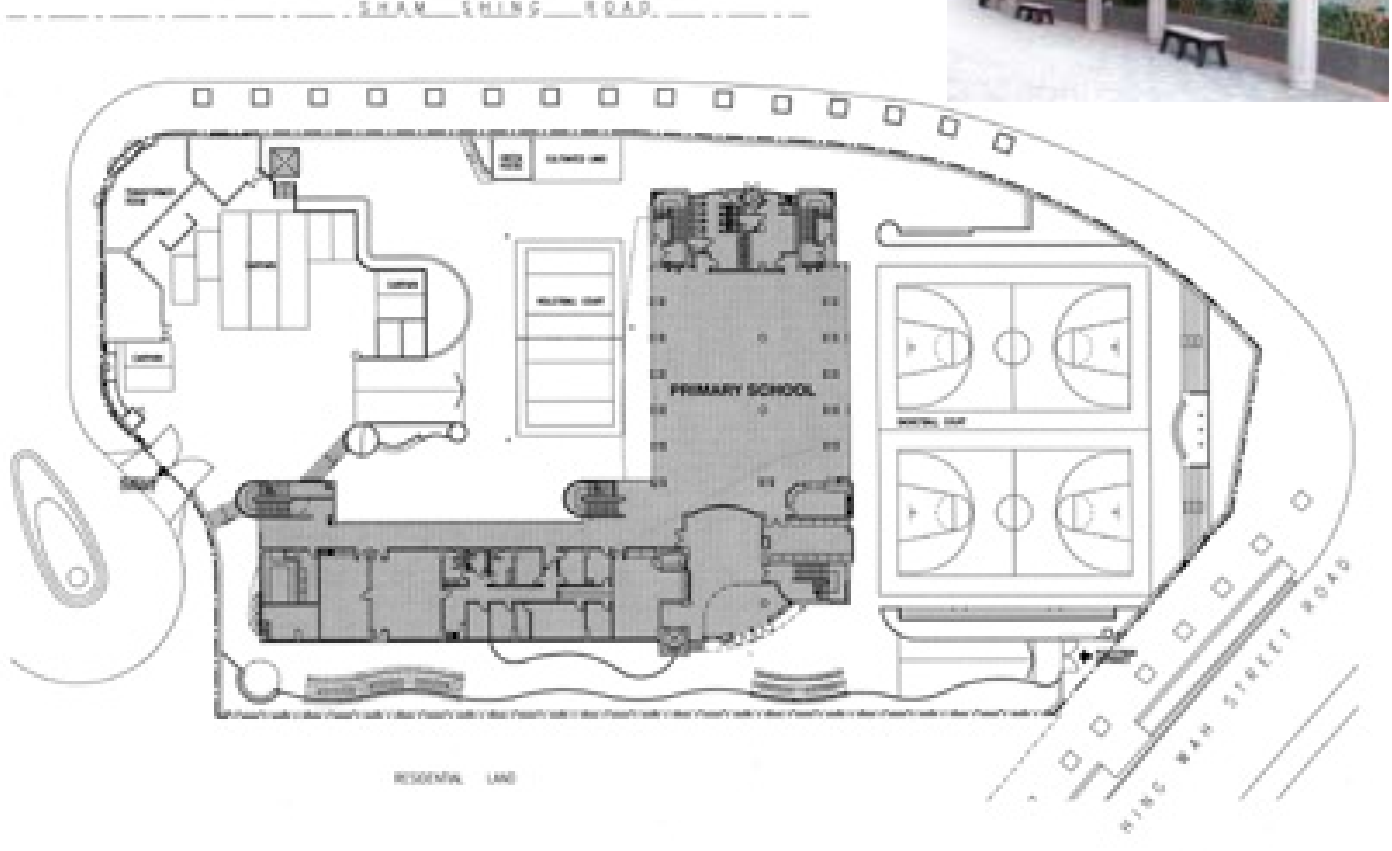
Site Area: 6,200 sq m
Approx. construction cost: $78 million
Commencement date: 1 March 2001
Completion date: 3 July 2002
Main contractor: Hopewell Construction Co Ltd


大埔舊墟公立學校(實湖道)

Two Primary Schools at Site 5, Sham Shui Po: Lai Chi Kok Catholic Primary School and Sham Shui Po Government Primary School

Located on adjacent sites along Sham Shing Road, these two schools present separate identities by the use of different architectural treatments to fence wall details, outdoor spaces, facade details and colours.

In response to the sites' locations, the classroom blocks of both schools are located away from the main road to minimise traffic noise and are oriented along a North-South axis to decrease solar gain. The Sham Shui Po


SHAM SHING ROAD
PRIMARY SCHOOL
RESIDENTIAL LAND
SHING WAN STREET ROAD

Government Primary School development also benefits from a larger site than found at similar developments. About 1,000 sq m of additional space at the west of the site, originally zoned as 'O' under the Zoning Plan, was allocated for amenity use only.

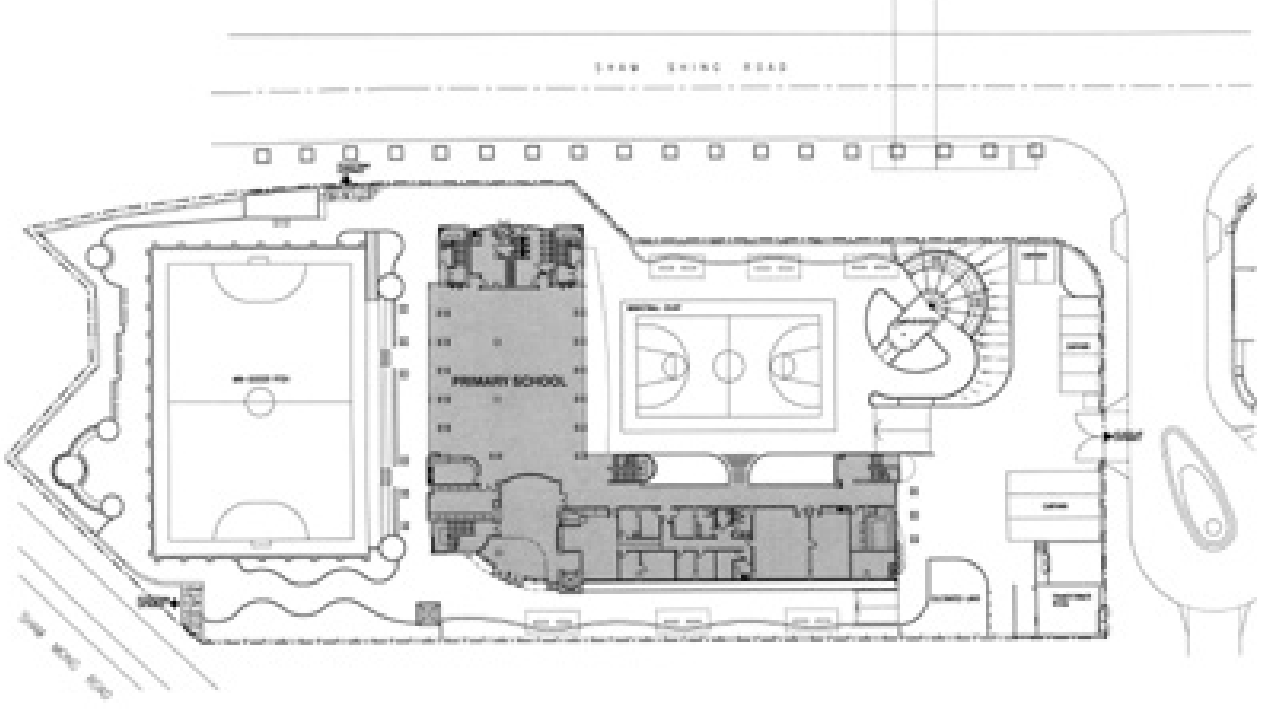
The main concept of the external space in the schools aims to produce a more friendly and warm atmosphere for the school users. Shaded areas, landscaped space and small pocket locations are designed to achieve better social interplay while the introduction

Fast Facts

Site Area: 12,430 sq m (two primary schools)
Approx. construction cost: $158 million
Commencement date: 18 January 2001
Completion date: 8 July 2002
Main contractor: Hopewell Construction Co Ltd

of an amphitheatre with tensioned fabric cover in Sham Shui Po Government Primary School provides an outdoor learning area. A mini-soccer pitch has been provided as shared a facility for both schools, with direct pedestrian access from both Sham Shing and Sham Mong Roads.

Outdoor recreation areas are well separated from the vehicular maneuvering zones to create a largely vehicle-free and safe campus for students.



List for standard secondary school main facilities

- Classroom
- Small group teaching room
- Music room
- Multi-purpose room
- Design & technology workshop
- Art & design room
- Needlework room
- Home management room
- Geography room
- Computer room
- Computer assisted-learning room
- Preparation room for computer assisted-learning
- Biology laboratory
- Preparation room for biology laboratory
- Physics laboratory
- Chemistry laboratory
- Preparation room for physics and chemistry laboratory
- Dark room for physics
- Integrated science laboratory
- Preparation room for integrated science
- Language room
- Library
- Guidance activity room
- Interview room
- Assembly hall
- Covered playground
- Multi-purposed area
- Student activity centre

List of standard primary school main facilities

- Classrooms
- Supportive education room
- Music room
- Art and craft room
- General studies room
- Preparation room for general studies
- Multi-purpose room
- Computer assisted-learning room
- Language room
- Preparation room for computer assisted-learning room
- Library
- Guidance activity room
- Interview room
- Assembly hall
- Covered playground
- Multi-purpose area
- Student activity centre

Products & Services

New generation of semi-precast concrete slabs comes to Hong Kong

The innovative Superslab product has been introduced by Daido Group to replace conventional semi-precast slabs in Hong Kong's construction industry. Architectural Services Department (ArchSD) is among the first the embrace the product, taking the lead by specifying it in the Po Kong Village Road school project.

The proprietary precast concrete slab system, originating from German technology, comes in the form of precast reinforced 50mm-thick concrete panels strengthened with lattice girders. The reinforcement improves the rigidity and stabilises panels during transportation, handling and installation.

The lattice girders also introduce a shear connector to improve the bonding of the semi slab and in-situ concrete topping, as a result eliminating the debonding and cracking problems commonly that occur in conventional semi-precast slabs.

Superslab is manufactured in Hong Kong in an automatic production process with an extremely flat mould, thus providing a superior flat and smooth surface which in turn saves on maintenance costs. Local production also ensures on-time delivery to meet ongoing site demand throughout the duration of a construction project, thereby solving the problem of having limited storage areas on sites.

Daido's Superslab is now being used at another ArchSD project — a school at Fat Cheung Street — as well as at Housing Authority projects and various private developments.

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