

2015 Exhibition of School Planning and Architecture



GEMS World Academy at Yishun, Singapore

Category: New Construction

GEMS World Academy at Yishun, Singapore

GEMS World Academy (GWA), Singapore will be a full program Kindergarten to Year 12 school located at Yishun Town, accommodating over 3,000 students. This project presents a unique opportunity to develop the flagship GEMS School in South East Asia. The aim is to create a unique campus with a distinctive GWA identity, reflecting the ethos of GEMS. The campus reflects a strong sense of place, respecting the local context and culture.

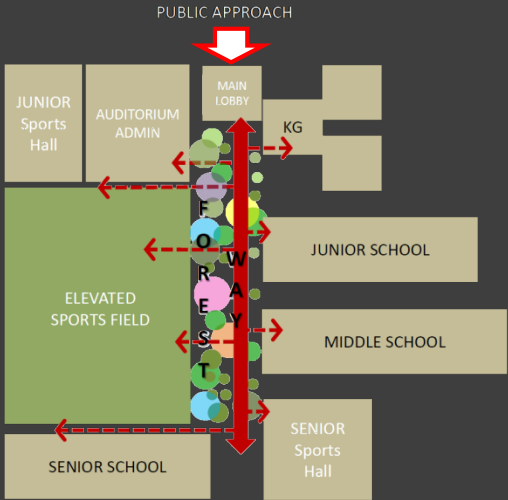


PHOTO OF PHASE 1 COMPLETED

MAIN SITE PLAN

Masterplan Concept Diagram

The whole campus has been designed to operate with interconnectivity in mind. The Forest Way has been created as a green corridor to connect each school along a major circulation spine from the school main entrance at the front to other facilities that string along this corridor, including the outdoor pitches.



LEGEND

BLOCK A: ADMINISTRATION & JUNIOR SPORTS HALL BLOCK

- A1 Entrance Foyer
- A2 Forest Way Walk
- A3 Media Resource Library
- A4 Junior Sports Hall/ Swimming Pool

BLOCK B: KINDERGARTEN BLOCK

- B1 Kindergarten Classrooms
- B2 KG Outdoor Play Area

BLOCK C: JUNIOR SCHOOL BLOCK

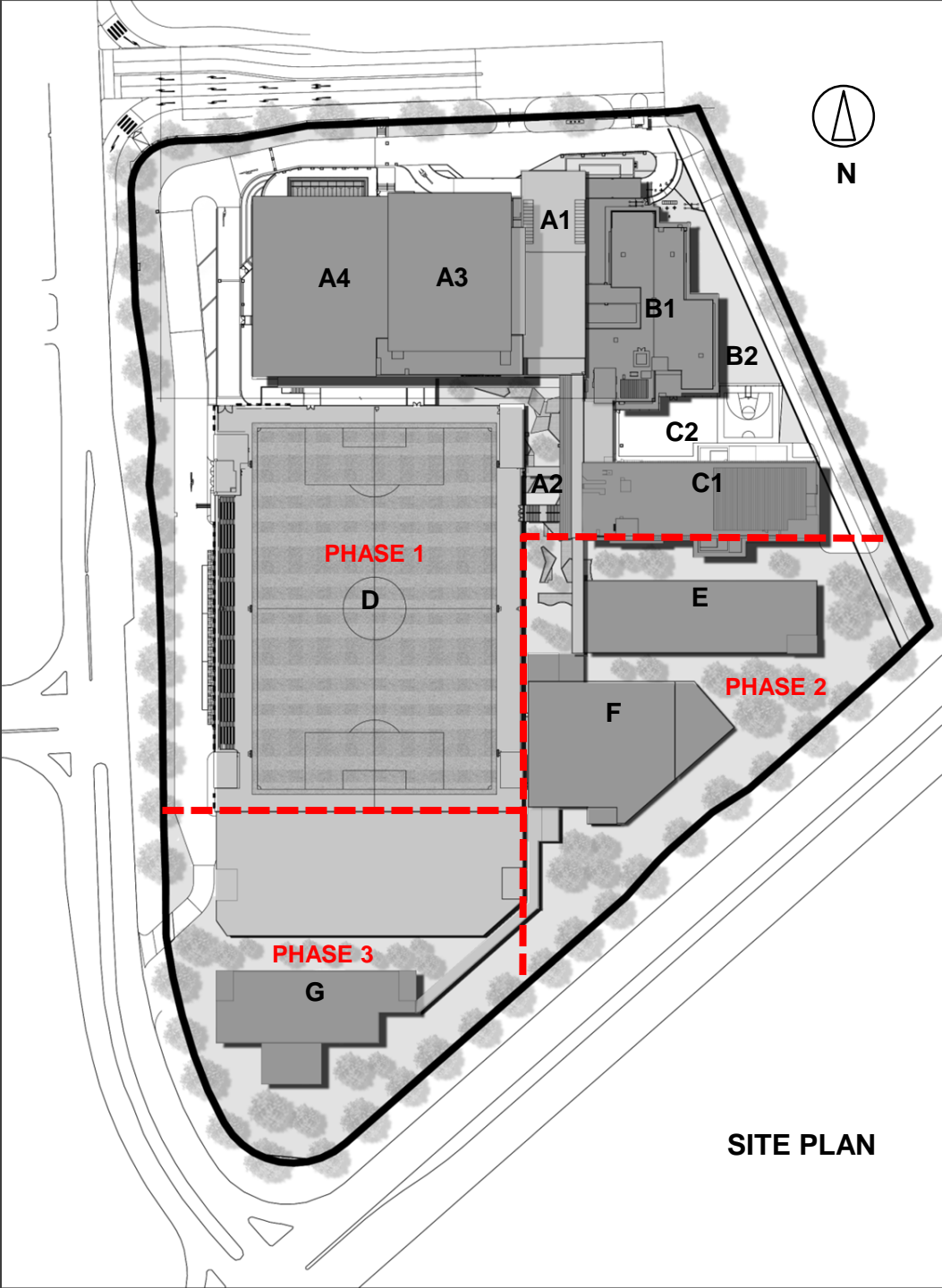
- C1 Elementary Classrooms
- C2 Elementary Outdoor Play Area

BLOCK D: ELEVATED FIELD BLOCK/ CARPARK AND BUS BAYS

BLOCK E: MIDDLE SCHOOL BLOCK (PHASE 2)

BLOCK F: SENIOR SPORTS HALL BLOCK (PHASE 2)

BLOCK G: SENIOR SCHOOL BLOCK (PHASE 3)



SITE PLAN

COMMUNITY

A Unique Identity

GWA Singapore has a distinctive and unique identity which reflects a sensitive response to its context and surroundings of the tropical climate. The use of the large extended roof, verandah like entry drop-off and sun screens all evoke a memory of tropical architecture.



School Entrance Foyer & Drop-off

COMMUNITY

A Welcoming Entry

The campus entrance lobby is the first point of contact between the campus and its students, parents, and visitors. The key components include a spacious and lofty lobby with a strategically located reception to greet visitors. Next to the lobby is a café where parents, staff, and visitors can meet in a relaxed setting. A gallery to showcase school achievements and students' activities, and an 'interactive information wall' where parents, students, and visitors can access the latest information about the school, including media of recent or upcoming school events are also within the lobby.



Reception Lobby

COMMUNITY

Learning in a Tropical Paradise

The design of GWA Singapore is unique with an underlying “Nature” theme in response to the tropical context. We are inspired by the lush greenery and spatial experience of the local rainforest. The building captures the essence of life by recreating the rainforest in the city. The rainforest is discovered, right in the heart of the school. The *Forest Way* linking different parts of the school creates a conducive outdoor environment to nurture young minds.



the Forest Way

COMMUNITY

The Social Hubs

Using the analogy of a tropical rainforest, the 1st Storey is known as the Shrub Layer where the Social Hubs are located. This is the level where most of the shared school teaching facilities such as the music, drama and art rooms are located. The Junior Canteen and future Senior Canteen are located at this level and provides the opportunity for students to interact, socialize and meet informally. All these facilities are linked together by the Forest Way.



the Forest Way



Canteen facing the Forest Way

LEARNING ENVIRONMENT

Collaborative Learning

Classrooms are clustered around a common Shared Activity Area that is flexible in catering for different uses such as play activities, reading and music appreciation. Each Shared Activity Area for each Year Group is customised based on age, curriculum and function.

The curriculum in GEMS school encourages independent and collaborative learning. Hence the student lounge is designed to bring students and teachers together for transfer and exchange of knowledge.



Student Lounge

LEARNING ENVIRONMENT

Collaborative Learning



Kindergarten Indoor Play Area

LEARNING ENVIRONMENT

Collaborative Learning



Kindergarten Break Out Area

LEARNING ENVIRONMENT

Performing Arts Centre



The auditorium is at the heart of GWA and it is used for performing arts as well as many activities such as assemblies, orchestras, choirs, theatre productions and conferences. Besides school events, the 750 seater auditorium will also be hired out for external use, helping to make the school a part of the wider community. The retractable lower-tier seating allows maximum flexibility for various performance and rehearsal needs.

PHYSICAL ENVIRONMENT

Tropical Design

The wide and high circulation spine at the Forest Way is shaded by tropical pattern solar screens. This circulation spine offers users a naturally ventilated transition space to the outside while also acting as a buffer to the air-conditioned space on the inside; this works to reduce electrical energy consumption.

The play of light and shadow from the solar screens with specially designed patterns create the ambience of the rainforest within the circulation spine.



Walkway sheltered by solar screens



the Forest Way

PHYSICAL ENVIRONMENT

The Events Arena

The 3rd Storey is the Canopy level, also known as the Events Arena. The larger school facilities are located at this level, for example the Junior Sports Hall and the Library, to ease and minimize movement of students from these facilities to the classrooms. The elevated field is strategically located and linked to the Forest Way connection which provides a direct access for students onto this sports pitch.



Elevated School Field

PHYSICAL ENVIRONMENT

Sports Hub



The semi-open pool allows sunlight to heat up the water and brings in natural daylight while preventing glare and direct sunlight for swimmers.

PLANNING PROCESS

The planning process was intensive and carried out over a period of 8 months. Various stakeholders including GEMS Education leaders, Headmasters industry leaders and specialist, educators etc were actively engaged in different stages of the process. The design went through a series of critical and vigorous reviews (in Singapore and Dubai) carefully structured to ensure the best design outcome for this unique school campus.

PROJECT NAME : GEMS World Academy Singapore GEMS World Academy Singapore is a full program (K-12) school located in Yishun Town, Singapore, on Singapore’ s northern coast. At full capacity, it can accommodate over 3,000 students. The school will be the first GEMS school in Singapore, and also the Economic Development Board (EDB) of Singapore’ s first Foreign Systems School in the developing Yishun New Town neighbourhood.	
ACTIVITY	DATE
Project Kick Off meeting in Singapore (CPG Consultants, GEMS Education, Lendlease Project Management) <ul style="list-style-type: none">•Clarification of site information and local planning parameters•Confirmation of project goals, design vision and objectives•Confirmation of roles and responsibilities between GEMS Education, Project Manager and Architect•Confirmation on project schedule and identification of key project milestones	30 April 2012
Site Visit and Work Session in Dubai <ul style="list-style-type: none">•Orientation Visit to GEMS World Academy al Barsha, Dubai Campus•Benchmarking visit to key facilities eg Auditorium and Planetarium•Stakeholder discussion with Founding principal, Head of Departments, Faculty members, designers and educators•Design discussions with GEMS Education team to clarify Project Brief, user requirements and explore concept ideas	2 May 2012
Design Workshop <ul style="list-style-type: none">•Review of SWOT analysis and site constraints•Review of planning ideas•Confirmation of plot allocation, planning approach•Review of all planning parameters that may affect the site	9-11 May 2012
Work Sessions <ul style="list-style-type: none">•Review of preliminary master plan options based on feedback from Site Visit in Dubai and Design Workshop•Selection of preferred master plan option	20 May 2012

PLANNING PROCESS

Presentation to EDB <ul style="list-style-type: none"> •Presentation of preferred master plan to EDB •Highlight Key Drivers and Constraints of the Master Plan 	24 May 2012
Masterplan Development (4 weeks) <ul style="list-style-type: none"> •Development of Final master Plan incorporating all comments from EDB, Gems Education and Project Manager •Review preliminary Cost Analysis •Regular weekly meetings between consultants team, Project Manager, C&S, M&E engineers to coordinate structures and services 	25 May -22 June 2012
Masterplan Presentation <ul style="list-style-type: none"> •Presentation of Approved Master Plan to GEMS Education •Submission of Final Master Plan Report 	22 June 2012
Development of Concept Design (8 weeks) <ul style="list-style-type: none"> •Sketches, plans and layouts were discussed and reviewed regularly with GEMS Education •Regular fortnightly meetings between Project Manager, Architect, C&S, M&E engineers •Final Concept Design Report submitted to GEMS Education 	July to Aug 2012
Development of Schematic Design (8 weeks) <ul style="list-style-type: none"> •Development of plans, elevations and sections •Regularly reviewed with GEMS Education •Regular fortnightly meetings between Project Manager, Architect, C&S, M&E engineers •Final Schematic Design Report submitted to GEMS Education 	Oct to Nov 2012
Community Consultation and Presentation (Member of Parliament Patrick Tay, Community Leaders, EDB, Gems Education)	26 Nov 2012
Formal Presentation to GEMS Education (GEMS Representative from New York, Gems Singapore, Lendlease)	12 Dec 2012

FLOOR PLANS

First Storey Plan

LEGEND

- 1.OUTDOOR PLAY AREA

2.FOREST WALK

3.LEARNER' S POOL

4.SWIMMING POOL

5.SCIENCE ROOM

6.READING AREA

7.CLASSROOM

8.INNOVATION CENTRE

9.LIBRARY

10.LABORATORY

11.BLACK BOX

12.TOILET/SERVICE

13.JUNIOR CANTEEN

14.SENIOR CANTEEN

15.ART & CRAFT

16.MUSIC ROOM

17.MEDIA ROOM

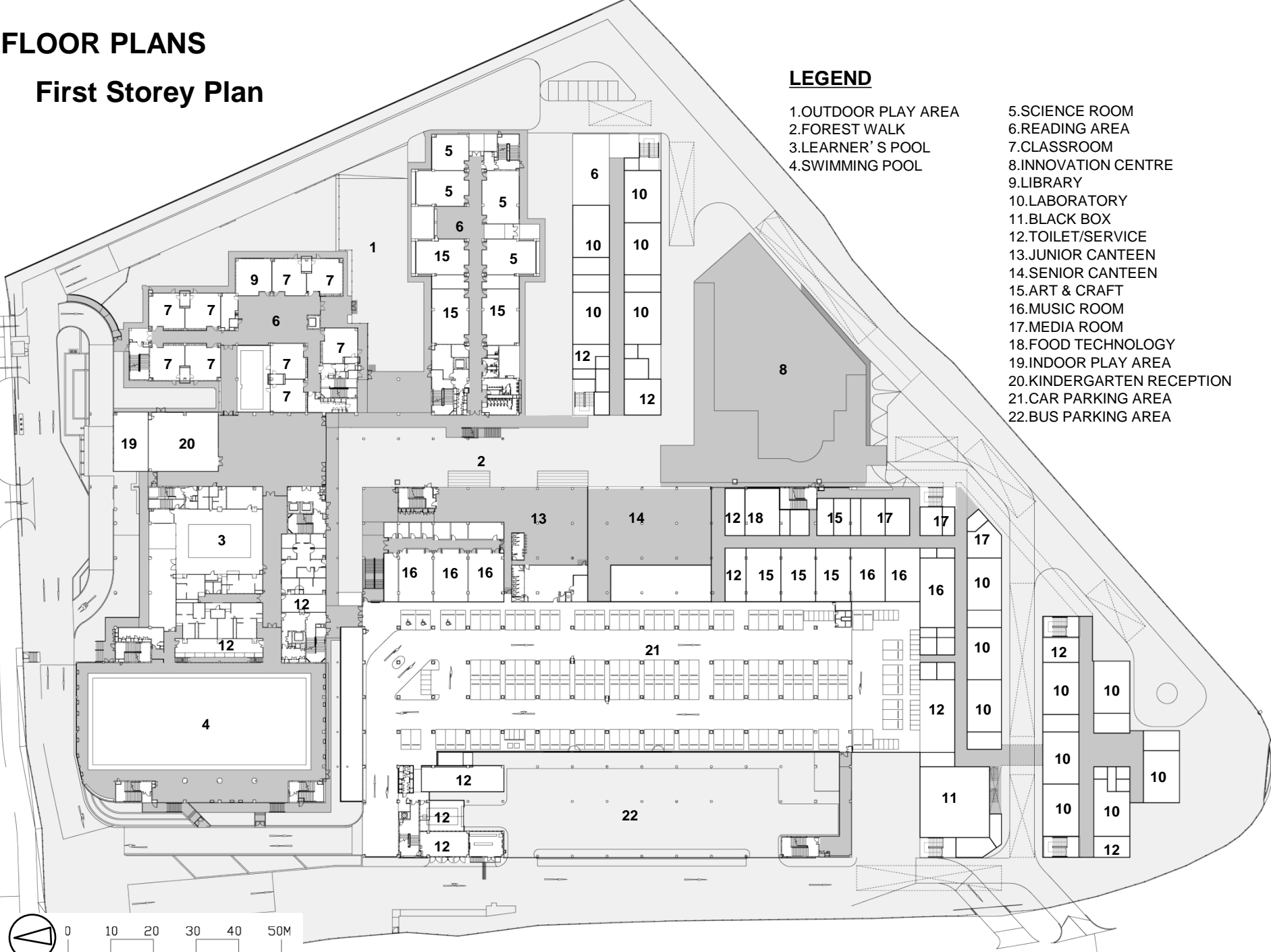
18.FOOD TECHNOLOGY

19.INDOOR PLAY AREA

20.KINDERGARTEN RECEPTION

21.CAR PARKING AREA

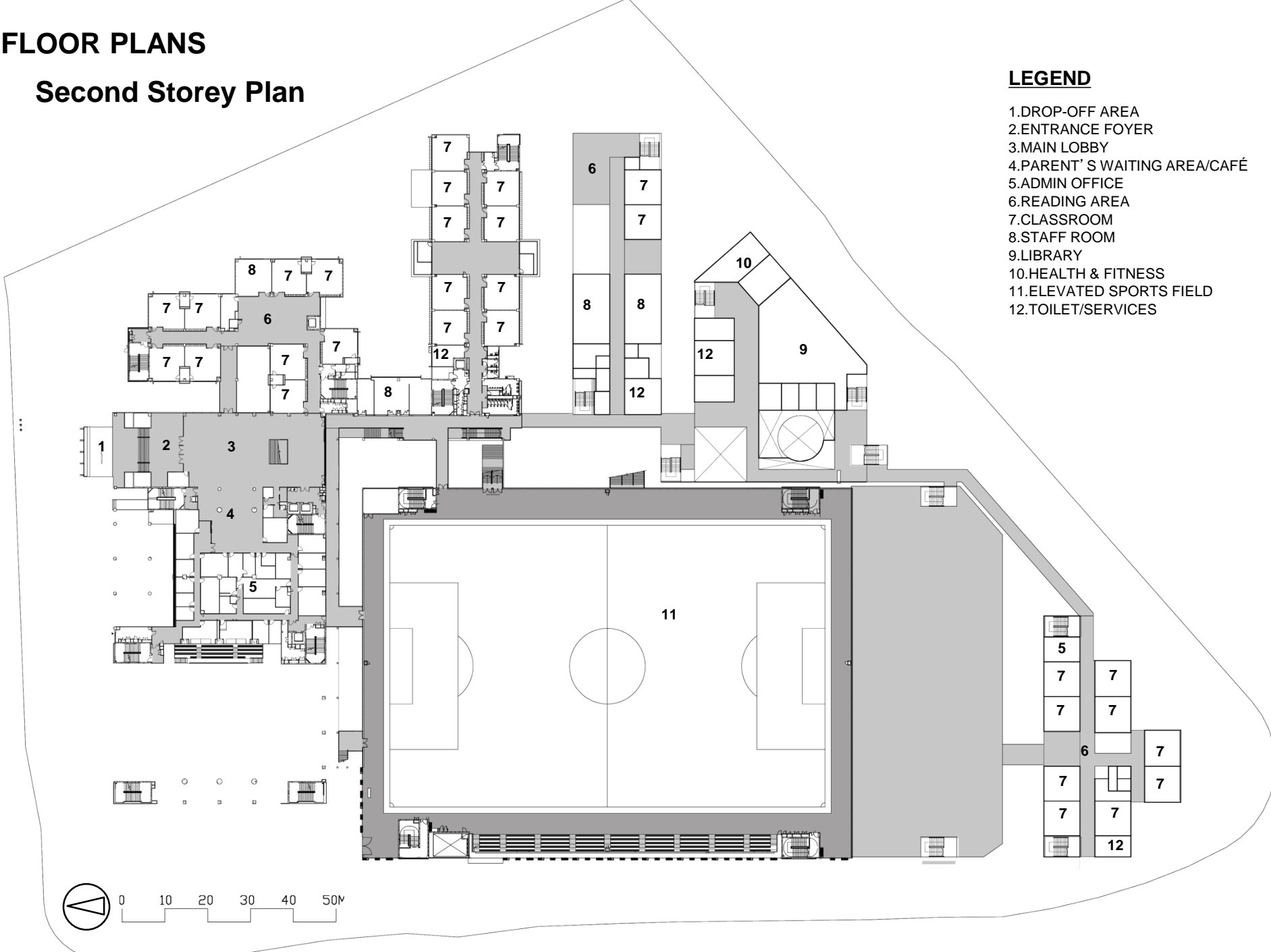
22.BUS PARKING AREA



FLOOR PLANS

Second Storey Plan

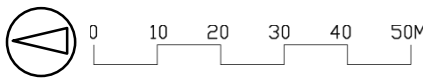
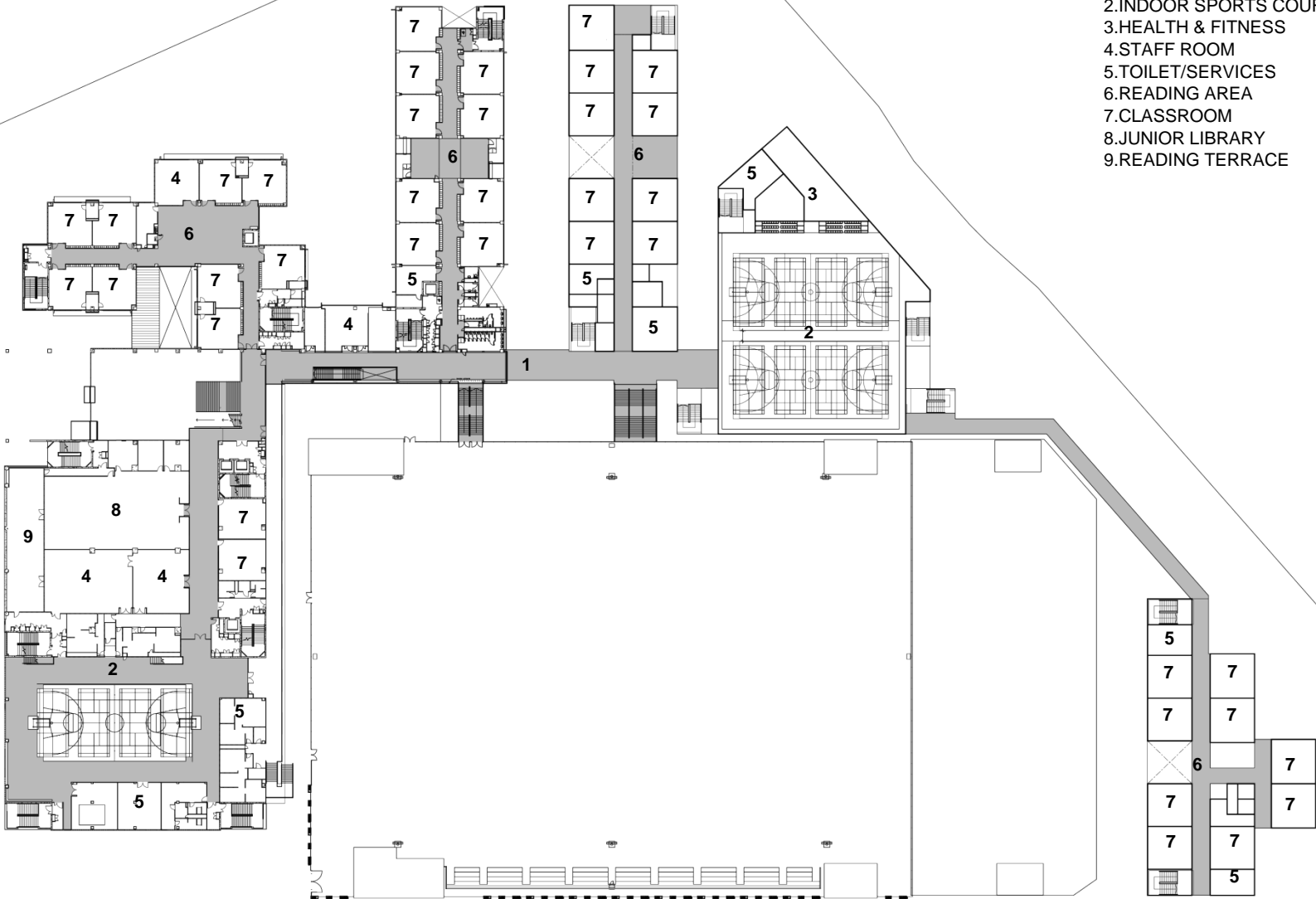
- LEGEND**
- 1.DROP-OFF AREA
 - 2.ENTRANCE FOYER
 - 3.MAIN LOBBY
 - 4.PARENT’ S WAITING AREA/CAFÉ
 - 5.ADMIN OFFICE
 - 6.READING AREA
 - 7.CLASSROOM
 - 8.STAFF ROOM
 - 9.LIBRARY
 - 10.HEALTH & FITNESS
 - 11.ELEVATED SPORTS FIELD
 - 12.TOILET/SERVICES



FLOOR PLANS

Third Storey Plan

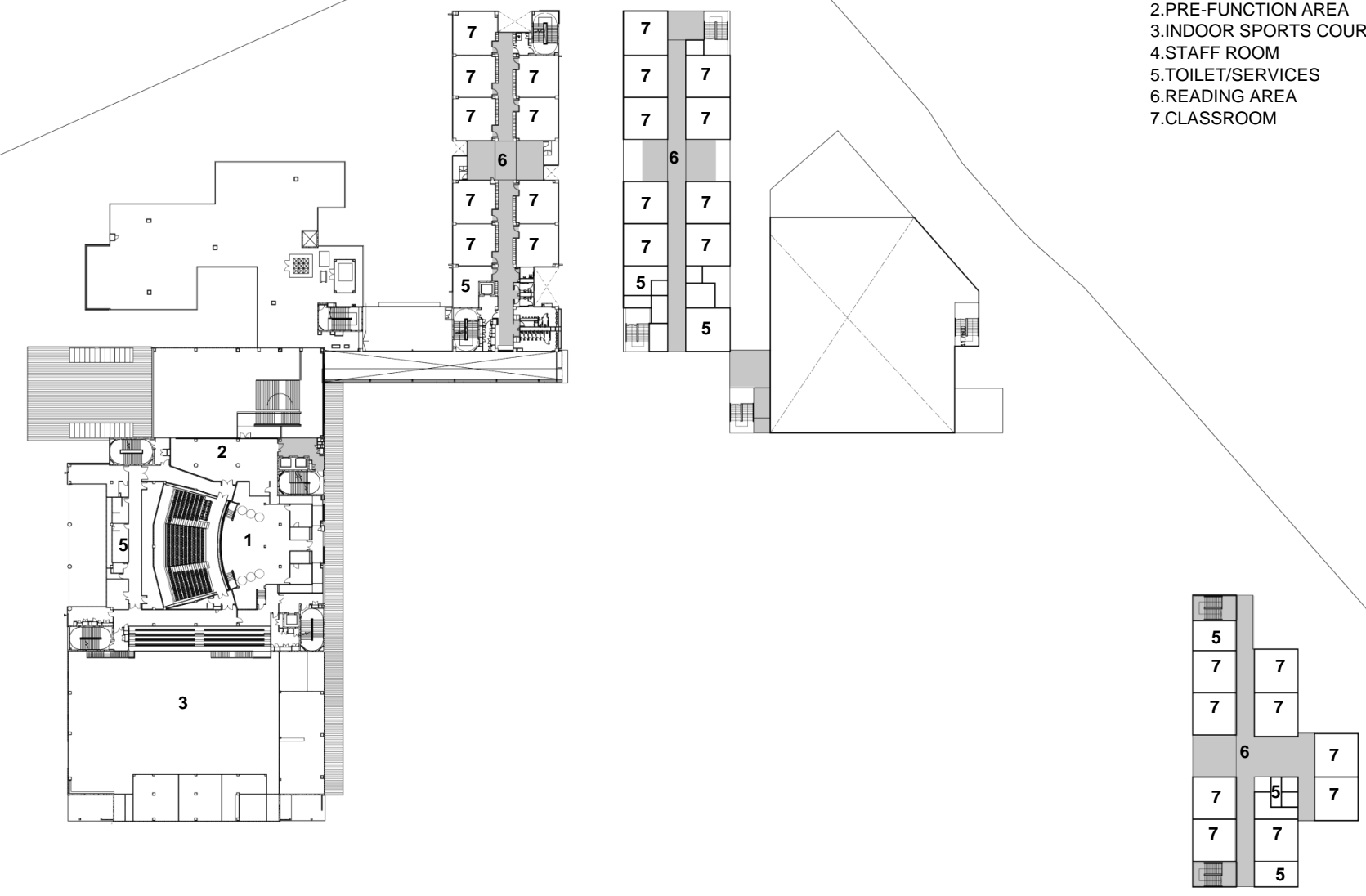
- LEGEND**
- 1.MAIN CORRIDOR
 - 2.INDOOR SPORTS COURT
 - 3.HEALTH & FITNESS
 - 4.STAFF ROOM
 - 5.TOILET/SERVICES
 - 6.READING AREA
 - 7.CLASSROOM
 - 8.JUNIOR LIBRARY
 - 9.READING TERRACE



FLOOR PLANS

Fourth Storey Plan (Typical)

- LEGEND**
- 1.AUDITORIUM
 - 2.PRE-FUNCTION AREA
 - 3.INDOOR SPORTS COURT BELOW
 - 4.STAFF ROOM
 - 5.TOILET/SERVICES
 - 6.READING AREA
 - 7.CLASSROOM



PROJECT DATA

Submitting Firm :	CPG Consultants Pte Ltd
Project Role	Architectural Consultant
Project Contact	Patrick Tan Yu-Jin
Title	Vice President
Address	238B Thomson Road, Novena Square, Tower B, #12-00, Singapore 307685.
City, State or Province, Country	Singapore, Singapore.
Phone	+65 6357 4530

Joint Partner Firm:	Nil
Project Role	Nil
Project Contact	Nil
Title	Nil
Address	Nil
City, State or Province, Country	Nil
Phone	Nil

Other Firm:	Nil
Project Role	Nil
Project Contact	Nil
Title	Nil
Address	Nil
City, State or Province, Country	Nil
Phone	Nil

Construction Firm:	Lend Lease Singapore Pte Ltd
Project Role	Builder
Project Contact	Tim O'Neil
Title	Senior Project Manager
Address	60 Anson Road, #17-01 Mapletree Anson, Singapore 079914
City, State or Province, Country	Singapore, Singapore.
Phone	+65 6671 6600

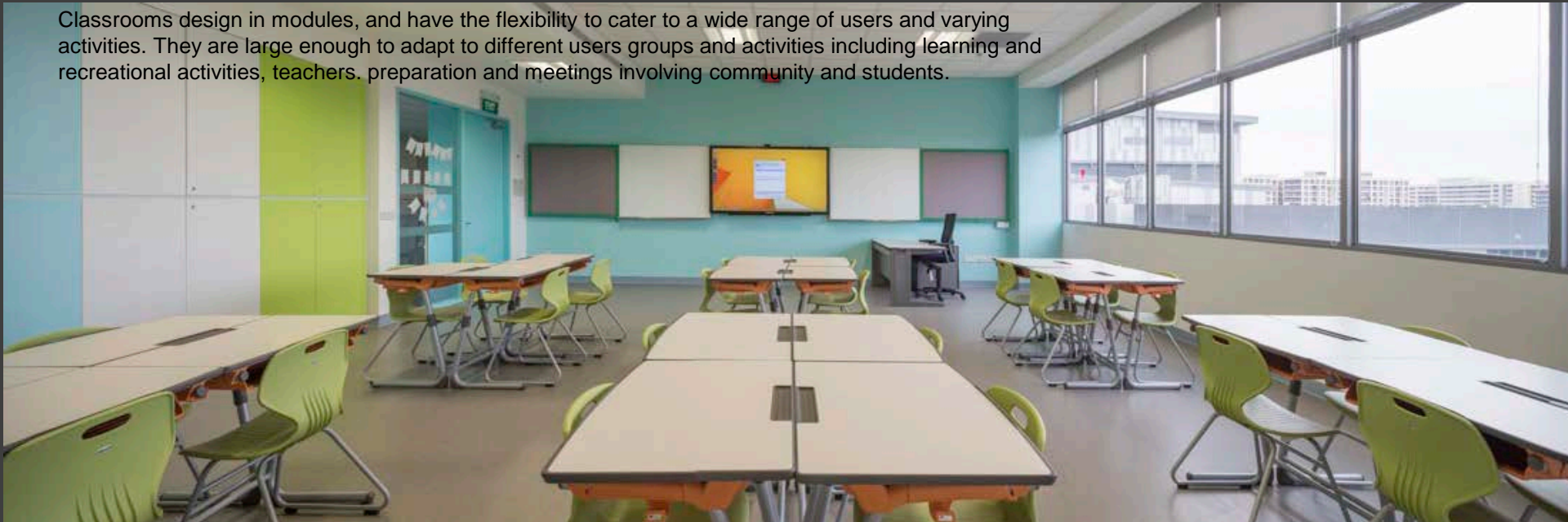
PROJECT DATA

Project Name	GEMS World Academy, Singapore.
City	Singapore
State	Singapore
District Name	Yishun New Town
Supt/President	David Edwards
Occupancy Date	September 2014
Grades Housed	K-12 International school Kindergarten to Grade 12 (4 yrs old to 19 yrs old)
Capacity(Students)	1,500 (Phase 1) Total 3020 students
Site Size (acres)	48,828.6 sqm (4.88Ha)
Gross Area (sq. ft.)	35,147.58 sqm (Phase 1)
Per Occupant(pupil)	23.43 sqm/occupant (Phase 1)
gross/net please indicate	
Design and Build?	Yes
If yes, Total Cost:	SGD \$137,514,735
Includes:	Design fees & construction costs
If no,	
Site Development:	Nil
Building Construction:	Nil
Fixed Equipment:	Nil
Other:	Nil
Total:	SGD\$137,514,735

LEARNING ENVIRONMENT

Flexibility and Adaptability

Classrooms design in modules, and have the flexibility to cater to a wide range of users and varying activities. They are large enough to adapt to different users groups and activities including learning and recreational activities, teachers. preparation and meetings involving community and students.



LEARNING ENVIRONMENT

Student Commons

Circulation areas are combined with program space to create Students Commons, a shared learning areas which allows small groups to 'hang out' and use as niches for impromptu gatherings, meeting spaces providing meaningful interaction and rest areas outside the classrooms



Elementary School Break-out Area

LEARNING IN A TROPICAL PARADISE

GEMS World Academy at Yishun, Singapore

