

# SEAB

SOUTHEAST ASIA BUILDING

## VietinBank Business Centre

Hanoi, Vietnam

ARCHITECTURE + INTERIOR • Skyscrapers & Upcoming projects in Southeast Asia

SPECIAL FEATURE • Iconic Playgrounds

ARCHITECT'S CORNER • Interview with Dr Liu Thai Ker, Chairman of Morrow

Architects & Planners Pte Ltd

Download our new Tradecards  
Global App on iOS and Android  
to read the latest issue!



# FENESTRATION BAU China— a must-attend event!



Save the Date!  
Beijing, October 31–November 3

New China International Exhibition Center  
(NCIEC)  
Beijing, China



**FENESTRATION BAU  
CHINA 2018**

October 31 – November 3 · Beijing  
[www.bauchina.com](http://www.bauchina.com)

Uided by:  
The Architectural Society of China  
China Civil Engineering Society

Sponsored by:  
Messe München  
MMU BAU Fenestration Co., Ltd.  
China Construction Metal Structure Association

Organized by:  
Messe München  
MMU BAU Fenestration Co., Ltd.

Supported by:  
Euro Window Association  
China Real Estate Chamber of Commerce  
The Architectural Society of Shanghai China

# QuadroClad™

Ventilated Façades

**Extremely Flat, Lightweight  
Yet Strong With Certified  
High Windload And  
Excellent Fire  
Performance**

*[www.hunterdouglas.asia](http://www.hunterdouglas.asia)*

**HunterDouglas**  
Architectural



MARK THE DATES  
**4-7 JULY 2018**  
KUALA LUMPUR CONVENTION CENTRE

AN EVENT OF  
**KLAF2018**  
KUALA LUMPUR ARCHITECTURE FESTIVAL



# **ARCHIDEX**<sup>®</sup>

THE 19TH INTERNATIONAL ARCHITECTURE, INTERIOR  
DESIGN & BUILDING EXHIBITION 2018, MALAYSIA

FEATURING



CONCURRENT EVENTS



JOINTLY ORGANISED BY



ENDORSED BY



SUPPORTED BY



OFFICIAL AIRLINE



OFFICIAL AIRLINE  
TRANSFER



PREMIER PARTNER



Copyright © ARCHIDEX 2018

**STAY CONNECTED  
WITH US!**



**ARCHIDEX APP**

Available for download on:



[www.ARCHIDEX.com.my](http://www.ARCHIDEX.com.my)



**SCAN HERE  
TO REGISTER  
FOR A HASSLE-  
FREE ENTRY  
INTO THE  
HALLS**



SINGAPORE  
GOOD DESIGN  
2018



## WINNER OF 2018 SINGAPORE GOOD DESIGN Happy Park @ Waterway Point

Playpoint is **2018 SINGAPORE GOOD DESIGN WINNER** awarded by  
Design Business Chamber Singapore.



PLAYGROUND | WATERPLAY | INTERACTIVE PLAY | 3G FITNESS | SKATEPARK | STREET FURNITURE

Singapore | Malaysia | Philippines | Vietnam | Indonesia

1 Sims Lane #06-12 Singapore 387355 | Tel: (+65) 6398 1558 | Fax: (+65) 6398 1559 | Email: [info@playpoint.com.sg](mailto:info@playpoint.com.sg)

# may - june 2018 CONTENTS

## Features

### ARCHITECTURE + INTERIOR – Skyscrapers

- 40 Mapei: Case study on Intercontinental Los Angeles Downtown Hotel
- 45 Victaulic: Case study on International Financial Centre (IFC) Jakarta
- 48 Winners of the SKYHIVE Skyscraper Challenge unveiled
- 51 Upcoming skyscrapers in Southeast Asia – Projects

### SPECIAL FEATURE – Playground Equipment

- 87 A look at some iconic playgrounds which are not only visually delightful but also offer creative and fun play spaces for children of all ages and abilities

### ARCHITECT'S CORNER – Interview

- 98 Interview with Dr Liu Thai Ker, a leading architect and urban planner in Singapore, who recently established his own practice Morrow Architects & Planners Pte Ltd

## Regulars

### NEWS

- 8 News from Asia Pacific, Middle East & the World

### EVENTS CALENDAR

- 37 Guide to international trade shows, expos & fairs



**On the Cover:** VietinBank Business Centre in Hanoi, Vietnam. Photo: © Foster + Partners  
Cover design by Fawzeeah Yamin

### PUBLISHER

Steven Ooi (steven.ooi@tradelinkmedia.com.sg)

### ASSOCIATE PUBLISHER

Eric Ooi (eric.ooi@tradelinkmedia.com.sg)

### EDITOR

Amita Natverlal (seab@tradelinkmedia.com.sg)

### MARKETING MANAGER

Felix Ooi (felix.ooi@tradelinkmedia.com.sg)

### SENIOR MARKETING EXECUTIVE

Jee Yin Woon (jeeyin.woon@tradelinkmedia.com.sg)

### HEAD OF GRAPHIC DEPT/ADVERTISEMENT CO-ORDINATOR

Fawzeeah Yamin (fawzeeah@tradelinkmedia.com.sg)

### GRAPHIC DESIGNER

Siti Nur Aishah (siti@tradelinkmedia.com.sg)

### CIRCULATION

Yvonne Ooi (yvonne.ooi@tradelinkmedia.com.sg)

### Disclaimer

All advertisers and contributors must ensure all promotional material and editorial information submitted for all our publications, must be free from any infringement on patent rights and copyrights laws in every jurisdiction. Failure of which, they must be fully liable and accountable for all legal consequences (if any) that may arise.

The Editor reserves the right to omit, amend or alter any press release submitted for publication. The publisher and the editor are unable to accept any liability for errors or omissions that may occur, although every effort has been taken to ensure that all information is correct at the time of going to press. No portion of this publication may be reproduced in whole or part without the written permission of the publisher.

The editorial contents contributed by consultant editor, editor, interviewee and other contributors for this publication, do not, in any way, represent the views of or endorsed by the Publisher or the Management of Trade Link Media Pte Ltd. Thus, the Publisher or Management of Trade Link Media will not be accountable for any legal implications to any party or organisation.

Southeast Asia Building is available free-of-charge to applicants in the building industry who meet the publication's terms of control. For applicants who do not qualify for free subscription, copies will be made available, subject to acceptance by the publisher, for a subscription fee, which varies according to the country of residence in the following manner:

### Annual Subscription

Airmail: America/Europe – S\$170, Japan, Australia, New Zealand – S\$170, Asia – S\$140, Brunei – S\$90, Malaysia – S\$90

Surface mail: Singapore – S\$45

(Incl 7% GST Reg No.: M2-0108708-2)

Printed in Singapore by KHL Printing Co Pte Ltd

MCI (P) 098/07/2017 KDN No: 1560 (1270) – (6)

ISSN 2345-7066 (Print) and ISSN 2345-7074 (E-periodical)

### Trade Link Media Pte Ltd also publishes:

- Bathroom + Kitchen Today
- Lighting Audio Visual Asia
- Lighting Today
- Security Solutions Today
- Southeast Asia Construction

**SOUTHEAST ASIA BUILDING** is published bi-monthly by:

**Trade Link Media Pte Ltd, 101 Lorong 23, Geylang,**

**#06-04, Prosper House, Singapore 388399**

**Tel: +65 6842-2580 Fax: +65 6842 2581**

**Editorial e-mail: seab@tradelinkmedia.com.sg**

**Website: www.tradelinkmedia.com.sg**

Co. Reg. no.: 199204277K

# Mapetherm<sup>®</sup> Flex RP

Traditional levelling mortar



**Mapetherm Flex RP**



HIGH IMPACT  
RESISTANCE



HIGH  
ELASTICITY



COLOURS BY  
TINTING SYSTEM



FOR INTERIORS  
AND EXTERIORS



RAPID  
INSTALLATION



MOULD  
RESISTANT

**Mapetherm Flex RP** is a ready-mixed, cement-free flexible levelling mortar that is extremely elastic and resistant to aggressive mould and mildew. It also features high impact resistance and can be used for repairing cracked render and form reinforced skim coats on facades.

Mapei is with you: take a closer look at [www.mapei.com.sg](http://www.mapei.com.sg)

**Mapei Far East Pte Ltd**

28 Tuas West Road, Singapore 638383  
Tel: +65 68623488 Fax: +65 68621012/13  
Website: [www.mapei.com.sg](http://www.mapei.com.sg) Email: [mapei@mapei.com.sg](mailto:mapei@mapei.com.sg)



 **MAPEI**<sup>®</sup>  
ADHESIVES - SEALANTS - CHEMICAL PRODUCTS FOR BUILDING





**H**ello readers and welcome to another issue of *Southeast Asia Building*. These days, buildings are getting taller and taller, and are changing the skyline of every city in the world. But one does not need to go so far to see this trend. In Southeast Asia alone, the number of high-rise buildings has grown so much that some of them have joined the ranks of existing skyscrapers in the world. In our Architecture + Interior section, we feature some of the upcoming and new skyscrapers which are set to transform the landscape of major cities in Southeast Asia.

In our Special Feature, you will get to read about iconic playgrounds and how they have made play more creative and fun for children of all ages and abilities. For our Architect's Corner, we have a put together an interview with veteran architect Dr Liu Thai Ker on forming his own new practice Morrow Architects & Planners Pte Ltd, his thoughts of good urban planning and his design philosophies.

Enjoy this issue and we welcome any feedback that you might have regarding the magazine.

*Amita Natverlal*

**NEXT ISSUE THEMES**

- Architecture + Interior – Educational Buildings
- Special Feature – Facade System
- Product Focus – Interiors (Wall coverings, screens & wall partitions, acoustics, access floor system and ceiling system)
- Architect's Corner – Interview



**Media Partners of SEAB**



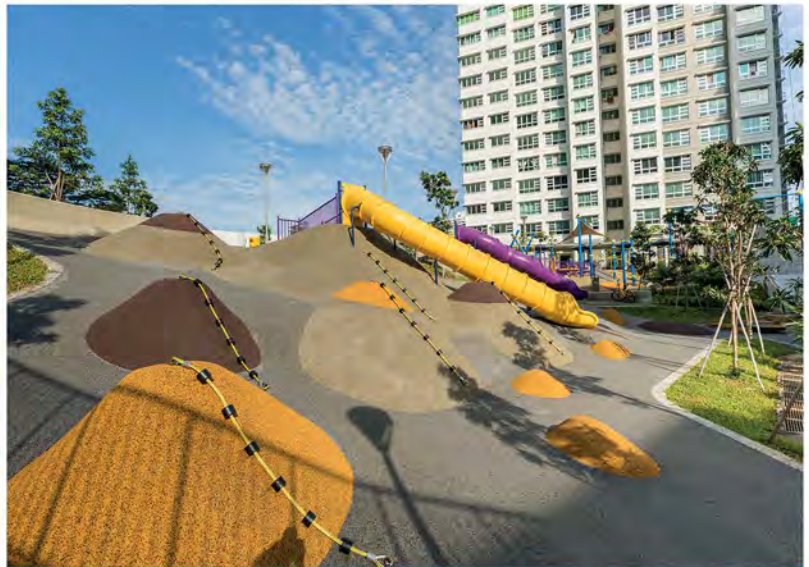
# CT-Art Creation Pte. Ltd.

PLAY • INNOVATION • QUALITY • SAFE



## Toa Payoh Crest

Blk 130B, Lorong 1 Toa Payoh, S 311128



### Developer

Housing & Development Board

### Landscape Architect

3fP Landscape Atelier Pte Ltd

### Architect

ADDP Architects LLP


### Main Contractor

QingJian International (South Pacific)  
Group Development CO.Pte Ltd



25 Mandai Estate #07-10 Innovation Place Tower 1 Singapore 729930

Tel: 6762 9891 Fax: 6762 7980 E-mail: sales@ctart.com.sg Website: www.ctart.com.sg

 CT-Art Creation Pte Ltd

## New continuing education and training (CET) courses to support the construction ITM

**Singapore** – To build a pipeline of professionals, managers, executives and technicians (PMETs) to support the transformation of the Built Environment sector, the Building and Construction Authority (BCA), together with its industry partners, has awarded more than 130 scholarships and sponsorships to students pursuing built environment courses at the Institute of Technical Education (ITE). This is part of BCA's and industry firms' efforts to build up a skilled and competent workforce by attracting more Singaporeans into the sector while offering opportunities for continuing education and training (CET).

As part of industry transformation, BCA has

partnered industry firms and institutes of higher learning (IHLs) to strengthen the quality of the workforce. Besides attracting new entrants through scholarship and sponsorship programmes, the tripartite partners are developing and progressively rolling out new CET courses for post-ITE and post-diploma graduates, to strengthen industry competency in the key transformation areas of Integrated Digital Delivery (IDD), Design for Manufacturing and Assembly (DfMA) and green buildings.

Starting from April 2018, ITE will begin offering the ITE Work-Learn Technical Diploma (WLTD) in Mechanical & Electrical Services Supervision for ITE graduates. This is to form a pipeline

of Mechanical & Electrical Coordinators and Resident Technical Officers (RTOs) and deepen ITE graduates' technical and basic design knowledge. The programme will also train students to use Building Information Modeling (BIM) software to interpret, amend and update the Mechanical, Electrical and Plumbing (MEP) systems of a building and extract the necessary information for coordination works.

For post-diploma graduates, there are two new BIM-related part-time Specialist Diplomas made available from this year. Both SkillsFuture Earn and Learn Programmes (ELPs) will offer diploma holders with skills deepening and continuing education in the area of IDD.

Temasek Polytechnic (TP) and BCA Academy (BCAA) will be rolling out the one-year Specialist Diploma in Building Information Modelling (Construction and Asset Management). Commencing in April 2018, this programme is open to polytechnic and BCAA graduates with relevant diplomas.

In October 2018, Singapore Polytechnic will be launching its Specialist Diploma in BIM Management programme. This one-year work and study programme is open to fresh diploma graduates with diploma in architecture, civil engineering with business, landscape architecture, mechanical engineering and electrical and electronic engineering.

## Australia's City of Townsville taps Surbana Jurong to boost regional growth and rejuvenation

**Singapore** – Surbana Jurong Private Limited signed a Memorandum of Cooperation (MOC) with the City of Townsville to collaborate in various areas with the aim of developing the City into a vibrant, smart and connected Hub.

Under the MOC, Surbana Jurong will collaborate with the City on economic, community and social innovation focused initiatives, including providing consultancy on the digitisation of Townsville and growing aviation links to Singapore.

Mr Wong Heang Fine, Group CEO of Surbana Jurong said: "The cooperation between Surbana Jurong and the City of Townsville is reflective of the strong relations between Australia and Singapore. Townsville is a city with immense potential. The building of defence training facilities near Townsville under the Australia-Singapore Military Training Initiative will provide the seed for the City's development, from defence-support services, to logistics, transport, R&R facilities and tourism."

Cr Jenny Hill, Mayor of the City of Townsville said: "These initiatives will see our city become a hive of innovation, allowing us to attract new businesses with new jobs in growth areas. We're looking forward to cooperating with Surbana Jurong on making it happen."



**Wong Heang Fine and Mayor Jenny Hill after the MOC signing.**  
Photo: © Surbana Jurong

Drama.



No drama.

## BONA SILANE ADHESIVES. SAFE GROUNDWORK.

Telling a good floor from a bad one is easy. Just look under it. Bona Silane Adhesives work on any subfloor. They produce fast initial bonding strength. They achieve optimal balance between strength and elongation. They are solvent-free, with very low emissions. They last for years and years, regardless of any drama that plays out on the floor. A good floor begins with safe groundwork. It's as simple as that. See the complete range at [bona.com](http://bona.com)

### Bona Far East & Pacific Pte Ltd

15 Jalan Kilang Barat, Frontech Centre #01-05 Singapore 159357  
Tel : +65 6377 1158 | Email : [info.apac@bona.com](mailto:info.apac@bona.com) | [www.bona.com](http://www.bona.com)



#040-001  
Low Emission/  
Low Toxicity Adhesive



PRODUCT CERTIFIED FOR  
LOW CHEMICAL EMISSIONS  
UL GREENGUARD  
10, 2016, 11, 2020



## Bona Titan – a new generation of powerful adhesives from Bona

**Singapore** – Bona, the wood floor experts, offers a supreme performance, silane-based adhesive for high value projects, very wide or oversized solid wood boards – or any installation where the quality of the bond has to be guaranteed.

Called "Bona Titan", the product contains Titanium Technology – a revolutionary new formula comprising quadruple crosslinking that delivers superior durability and an unbeatable initial bond speed – even under challenging subfloor conditions.

Bona Titan can be specified with confidence to bond all types of wood flooring. Its superb shear strength makes installation easy and keeps even the largest, solid boards securely in place. If the subfloor is sound and dry, no primer is required.

The hard, silane-based formula contains no ingredients that can migrate after curing, which eliminates all risk of discolouration at the joints. The smooth, thick consistency makes it easy to use and produces stable ribs, an extremely high initial grab and zero risk of hollow spots. The bond strength of Bona Titan will not diminish over time so the stability of the floor is guaranteed for the long term.

Bona Titan meets ISO 17178 standards and, in line with Bona's environmental strategy, is a safe, clean formulation which also carries EC1-R Plus, DIBt, Greenguard and A+ low emission certifications.



**Bona Titan specified to bond wide oak boards to metal subfloor.**  
Photo: © Bona AB

Bona Titan is compatible with underfloor heating and can be used directly on metal or tiles. Floors bonded with Bona Titan can be sanded after just 12 hours.

**For more information, contact Bona Far East & Pacific Pte Ltd at tel (+65) 6377 1158, email [info.apac@bona.com](mailto:info.apac@bona.com) or visit [www.bona.com](http://www.bona.com).**

## Brewin Design Office designs exclusive new penthouse for The Morgan

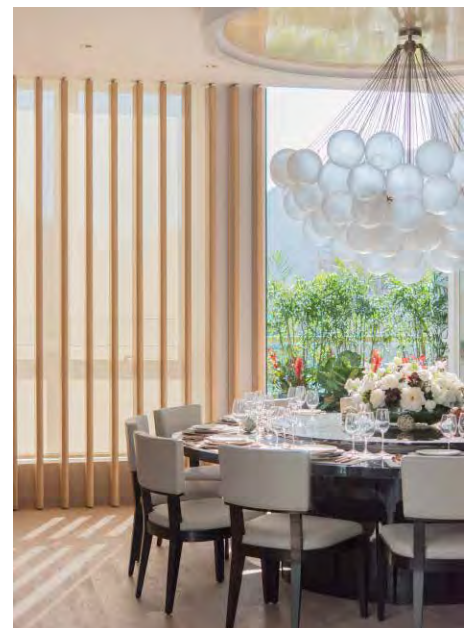
**Hong Kong** – Phoenix Property Investors ("Phoenix"), developer of THE MORGAN, the award-winning luxury Upper Mid-levels residence, has collaborated with acclaimed Singapore-based designer Robert Cheng, Founder of Brewin Design Office ("BDO") to create the lavish interiors for the property's stunning Penthouse. Reflecting Phoenix's ongoing commitment to quality design and excellence in craftsmanship, the Penthouse sets a new benchmark for contemporary luxury living in Hong Kong.

Located at 31 Conduit Road, one of the most sought-after addresses in Hong Kong, THE MORGAN has been conceived and created by some of the world's most celebrated design talents. The residential tower was designed by renowned New York-based firm Robert A. M. Stern Architects (RAMSA), one of Architectural Digest's Top 100 design practices in the world.

To complement the building's iconic

architecture, Phoenix appointed Robert Cheng, to design the interiors of the Penthouse.

For the Penthouse, Cheng has created a stunning contemporary interior design with thoughtful touches and meticulously crafted details. Measuring 3,962 square feet, this premium residence occupies the entire 30th floor. While providing unmatched privacy, the apartment enjoys dual entrances through an exclusive lift lobby. The interiors exemplify modern sophistication and elegance – open-planned living and dining areas offer the flexibility of transforming the home to a grand venue for parties, banquets and intimate gatherings. Themed bedrooms become quiet sanctuaries with subtle textures for extra warmth and comfort. Every space is adorned with subtle finishes and furnished with original pieces and fixtures, each handpicked by the designer.



**The Morgan Penthouse – Dining Room.**  
Photo: © Phoenix Property Investors



THROUGH PLAY,  
WE BUILD HOPE  
FOR OUR CHILDREN



All PARK GAMES products are designed and manufactured in accordance to the International Safety standards; EN 1176: TUV of Germany, ASTM of USA, MS 966 of Malaysia and the Quality Management System of ISO9001:2008

- Children Playground Equipment
- Indoor Children Play Centres
- Interactive Electronic Outdoor Play
- Rope And Climbing Structures
- Waterplay
- Skate Park
- Outdoor Fitness And Gym
- Safety Flooring
- Park Furniture

## GEBT 2018 aims to be a prominent trading platform for electrical engineering, intelligent building and smart home markets

**Guangzhou, China** – Headed by the biennial Light + Building event in Frankfurt, GEBT is set to hold its 15th edition from 9 to 12 June 2018 at the China Import and Export Fair Complex in Guangzhou, China. According to research by BSRIA, the market potential of China's building industry will be worth up to RMB1.04 billion by 2020. In order to capitalise on this booming industry, advances in building technologies will be spearheaded by developments in IoT, information and communication technology, and cloud computing. These developments are indicative of the lucrative opportunities in the building industry.

In order to stay at the forefront of the market, GEBT will once again unveil the latest innovations and organise a comprehensive event programme. Regarded by professionals as the premier platform for electrical engineering, intelligent building and smart home markets, the fair attracts industry-leading brands who will showcase their cutting-edge technologies. The fair is dedicated to promoting technical and business exchange in the building industry by presenting ground-breaking technologies to visitors ranging from system integrators, engineers, architects, designers, property developers, building contractors, energy suppliers and distributors from around the globe. A series of interactive



Photo: © Messe Frankfurt / Guangzhou Electrical Building Technology

forums will also be held concurrently to share industry insights by covering numerous topics of interests.

For more information, visit <http://guangzhou-electrical-building-technology.hk.messefrankfurt.com>.

## Westpac Barangaroo office awarded highest scoring 6 Star Green Star rating in Australia

**Sydney, Australia** – Westpac Group's fit-out in Tower Two of Barangaroo's International Towers Sydney has achieved a 6 Star Green Star Interiors rating from the Green Building Council of Australia (GBCA). The project received the highest number of Green Star points achieved by any office fit-out in Australia.

Notable design features of the fit-out include an extensive metering system that monitors major energy and water usage, using materials with lower environmental impact such as 95 percent reused, recycled, certified or best practice timber and PVC amongst other features.

Westpac's John Harries, Group General Manager, Operations, Property and Commercial Services said, "We are proud that we've been able to support the Barangaroo precinct's goal of becoming Australia's first carbon neutral community. In addition to receiving the highest score, we are also in a 6 Star Green Star Building, with the first 6 Star Green Star bank branch – St. George."






# STRENGTHENING THE INDUSTRY'S GLOBAL PRESENCE


Draw on the Malaysian Timber Council's experience in the international timber and timber products trade to strengthen your competitive position and promote export growth. Our growth drivers are pursued and guided by:

- ▶ creating value through innovation
- ▶ extending our global outreach
- ▶ executing with excellence

To learn more about Malaysian timbers and timber products, and the Council's 2018 events and programmes, please visit [www.mtc.com.my](http://www.mtc.com.my)



 malaysiantimbercouncil

 malaysiantimber

 MTC\_twt

 mtc\_my



**MALAYSIAN TIMBER COUNCIL**

MTC HEADQUARTERS  
T +60 3 9281 1999  
E council@mtc.com.my

MTC LONDON  
T +44 207 222 8188  
E mtclondon@mtc.com.my

MTC GUANGZHOU  
T +86 20 3877 3019  
E mtcchina@mtc.com.my

MTC DUBAI  
T +971 4 4279 823  
E mtcdubai@mtc.com.my

MTC BENGALURU  
T +91 80 4853 8888  
E mtcindia@mtc.com.my

● SUSTAINABLE ● PROGRESSIVE ● ROBUST

## Design Forum International designs new Skywalk for Kolkata City



Artist's impression of the Dakshineswar Sky Walk. Photo: © Design Forum International

**New Delhi, India** – Kolkata is the city which is home to some of the most revered places of worship of Hinduism, such as the "Dakshineswar Kali temple". Located on the banks of Ganges at the northern tip of the metropolis, this place of worship was originally built by Rani Rashmoni. Today, Dakshineswar continues to draw huge numbers of devotees all around the year and is one of the most visited places of worship in Kolkata

The approach road to the temple, that was once predominantly pedestrian, now has to cater to a growing vehicular traffic of private cars, taxis, two wheelers and goods vehicles. Increased footfalls over the years has brought in a lot of shops and kiosks catering to the visitors, offering *Prasad*, *pooja* material, embellishments for the deity and assorted food, sweets, snacks and tea stalls.

The West Bengal Government tasked Kolkata Metropolitan Development Authority to create a design brief and project report to enable floating of tenders leading up to design and build solutions for resolving the situation. Primary concerns were Segregation of traffic and pedestrian movement. Further segregation of traffic into motorised and non-motorised, Ensuring livelihood of the shop keepers. Ease of movement, comfort and safety of the devotees along with seamless connectivity from point of disembarkation to the temple gates for the devotees. The resulting idea therefore aimed to transfer

both the pedestrian circulation and the shops to an elevated con-course, thereby leaving the grade level space for traffic, exclusively and providing for multiple access means to and from the elevated concourse such as escalators, elevators and staircases.

A crystallised design brief from Design Forum International emerged, crafting the Skywalk; 380 metres long and 10.5 metres wide, creating a connection between the traffic rotary and the entrance gates of the temple compound with a provision of 12 escalators, 4 elevators and 8 staircases to allow devotees and users to embark and disembark from the Skywalk. The skywalk also relocates over 200 shops that are currently operating on the Rani Rashmoni Road, it integrates the walking con-course,

shops, escalators and elevators with a provision to connect it to the Railways footbridge as well, with separate lanes for motorised and non-motorised traffic.

By adopting one of the oldest approaches in design, that of Form Follows Function and adding some critical ingredients to a contextually responsive design; dynamism, fluidity and most importantly modularity, The Skywalk is conceived structurally as an extremely basic formation; a tube mounted on top of a platform supported on two legs. The platform turns and adapts to the street it is laid over, the tube twists and turns in sync with it.

Construction on the Skywalk is currently underway and is expected to complete this year.



Dakshineswar Sky Walk under construction. Photo: © Design Forum International

TECHNAL PRESENTS

AMAZONIE TOWER  
RENOVATION PROJECT

IMAGINE  
WHAT'S NEXT

Sliding systems - Windows - Doors - Façades  
[www.technal.asia](http://www.technal.asia)

✉ [contact@technal.asia](mailto:contact@technal.asia) ☎ +[65] 6240 0170 📍 10 Changi South Lane #06-01 Singapore



#### Creating new possibilities with Technal

Amazonie Tower, designed in the 70s, has been restored to give new life and a new dynamic to the building. Technal created tailor-made aluminium closure systems, including guardrails and suspended slide windows. These loggias not only give more space and more comfort to the inhabitants but also create a buffer zone which improves the tower's thermal performance and acoustic insulation.

Technal has made-to-measure solutions for all your projects, adding personality and unique levels of comfort.

For more information about this project and our solutions, please visit our website:

[www.technal.asia](http://www.technal.asia)



## SMU to introduce residential learning-and-living concept at Prinsep Street Residences



**Singapore** – In the new academic year (AY) 2018–2019 starting August this year, the Singapore Management University (SMU) will introduce a new residential learning-and-living concept at its existing student residence – Prinsep Street Residences (PSR). At PSR, SMU aims to build a community for the Community, where students co-live/work/learn together, and are also nurtured to be change agents by giving back to the Bras Basah community.

Staying true to SMU's hallmark holistic approach to education, the University will offer programming guided by five themes – (i) Entrepreneurship, (ii) Social Entrepreneurship, (iii) Community Service, (iv) Grooming Future Leaders, and (v) Social Integration and Diversity. Through this thematic approach, PSR will provide a supportive environment that will nurture well-rounded students with strong esprit de corps, as they collaborate in projects and activities to make a meaningful impact in their immediate communities.

Professor Lily Kong, SMU Provost, said, "The SMU residential living-and-learning model is very much an extension of our holistic approach towards education, which has been a hallmark since SMU's inception in 2000. As a university, we are committed to nurturing well-rounded students who will make a meaningful impact in their communities. We are confident that students will benefit richly from the residential experience, while contributing to the larger community around them."

Refurbishment works are currently underway at the PSR estate, located about 650 metres (or 8 minutes by foot) from the SMU campus. When completed in July 2018, PSR will offer 23 large-sized shared apartments for 255 student residents, as well as purpose-built communal spaces that will facilitate and support co-living/working/learning. The PSR residential population will comprise undergraduates from across all four years of study, and a mix of Singaporean and international students. In line with SMU's commitment towards developing a smart, green and sustainable campus, several new technology and green features are being integrated with innovative smart building technology, so as to enhance energy efficiency and human comfort. The efforts are expected to bring about significant energy savings of approximately 45–50 percent per year.

## WorldHotels welcomes three new Dorsett properties



**Dorsett Grand Chengdu – Lobby.**

**Singapore** – Worldhotels continues its regional expansion and proudly adds three new properties under Dorsett Hospitality International's portfolio, comprising of Dorsett Grand Chengdu, Dorsett Grand Subang, and Dorsett Kuala Lumpur.

This strategic alliance between WorldHotels and the three above Dorsett hotels, brings the total number of WorldHotels properties in Malaysia and China to seven and 27 respectively, further strengthening WorldHotels presence in these two countries.



**Dorsett Kuala Lumpur – Checkers Café.**



**Dorsett Grand Subang Deluxe King Room.**



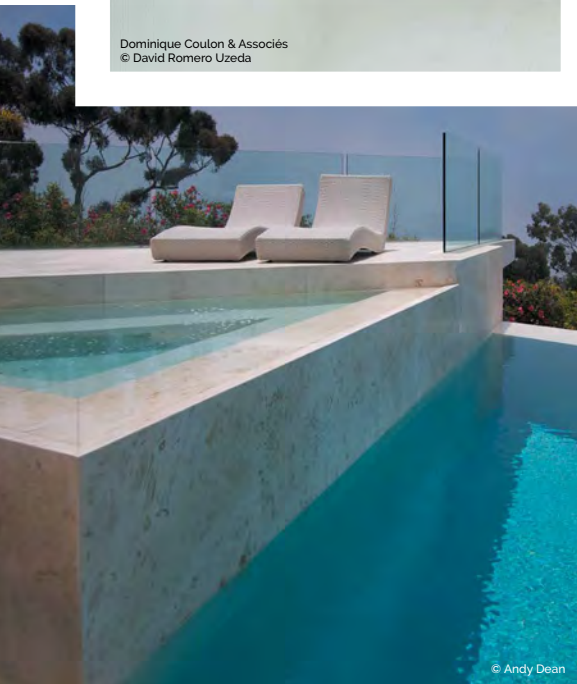
Landau+Kindelbacher  
Architects Interior Designer  
© All rights reserved

POOL  
DESIGN  
AWARD

# POOL DESIGN AWARD



Dominique Coulon & Associés  
© David Romero Uzeda



© Andy Dean

POOLS HAVE BECOME FEATURES THAT ADD SIGNIFICANT VALUE TO REAL-ESTATE PROJECTS, WHETHER THEY BE RESIDENTIAL, PUBLIC (MUNICIPAL), OR FACILITIES IN HOTELS, LEISURE CENTRES, CAMP SITES, ETC.

It is to showcase the creativity and technical prowess displayed by architects when they design exceptional pools that the Pool Design Awards competition has been created in the context of the 2018 Piscine Global Europe exhibition, the benchmark event for professionals in the sector, which will bring together 596 exhibitors and close to 18,000 visitors.

Construction techniques, water treatment, fittings, liners, aesthetics: Piscine Global Europe aims to promote the architect's profession in the field of swimming pools and spas by showcasing the latest trends in France and around the world.

This competition is open to architects, interior architects, designers and landscapers.

Do you practise one of these professions and have you already completed one or several pool projects?

**Enter one of your projects in one of the following categories to put the spotlight on your know-how and creative talent:**

- Most beautiful public pool
- Most beautiful residential pool
- Most beautiful tourism/leisure pool
- Most beautiful renovated pool
- Most innovative pool

The project must have been completed less than 5 years ago.

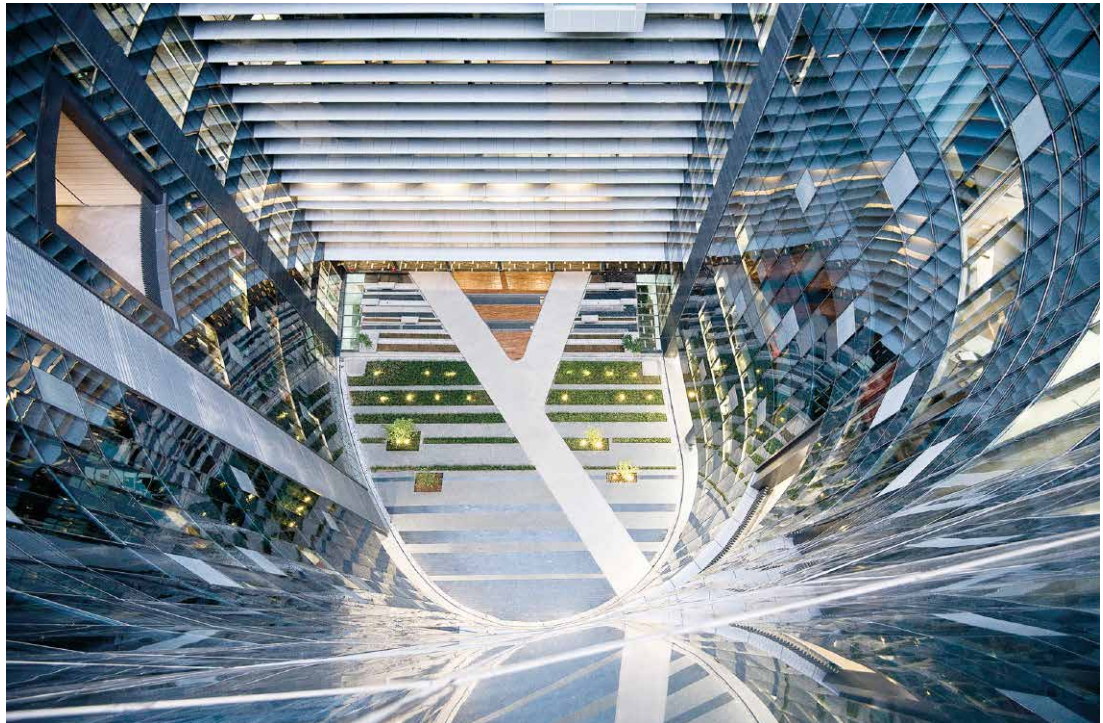
You have until **15 May 2018** to enter the competition on [www.piscine-global.com](http://www.piscine-global.com), where you can also find the entry procedures and the regulations.

**CONTACT:** Carole ROUX  
[carole.roux@gl-events.com](mailto:carole.roux@gl-events.com)  
+ 33 4 78 176 323

## Inaugural Archi-Skin Design Competition unveils winners

**Singapore** – The results of the inaugural Archi-Skin Design Competition organised by Singapore Institute of Architects (SIA) in partnership with Luxx Newhouse Group, have been announced at an award ceremony held on 8 March 2018.

Three honourable mentions were selected by the jury panel consisting of Mr. Ashvinkumar, Past President and Chairperson for Design Competition Committee of Singapore Institute of Architects; Associate Professor Eric L'Heureux, Lecturer of the NUS Department of Architecture and Mr. Jimmy Tong, President of Luxx Newhouse Group.



The Edge. Photo: © HB Design

### Category 1 – Completed Projects

**Project title:** The Edge

**Architectural Firm:** HB Design

**Team members:** Hans David Brouwer, Jan Appelman, Naline Paitchouy

**Award:** Honourable Mention with prize money of 3000 SGD

### Category 2A – Conceptual Design by Professional

**Project title:** Corrigarden

**Architectural firm:** A.M. Architects

**Team members:** Shane Ang Chee Sheng

**Award:** Honourable Mention

### Category 2B – Conceptual Design by Student

**Project title:** Ramp

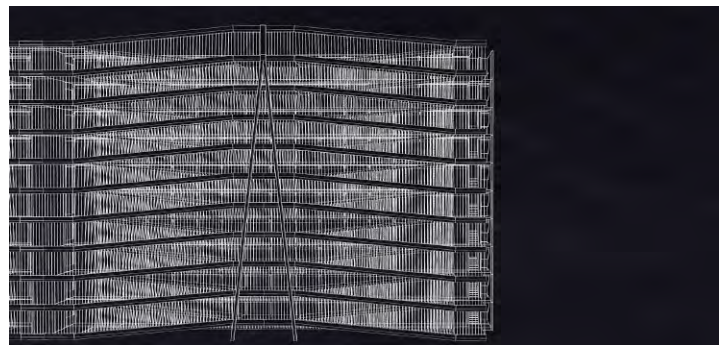
**School:** National University of Singapore

**Student name:** Fong Shi Yuan

**Award:** Honourable Mention with prize money of 1000 SGD



Corrigarden. Photo: © A.M. Architects



Ramp. Photo: © Fong Shi Yuan

The winning entries of the Archi-Skin Design Competition were exhibited at SIA Building from 8 to 15 March 2018.

## R+T Asia 2018 draws large crowd

**Shanghai, China** – R+T Asia 2018 attracted some 34,000 visitors to Shanghai, which represents a 10 percent increase in visitor numbers compared with the previous year.

With 500 exhibitors and the same occupied exhibition space as 2017 (50,000 gross square metres), it retained its position as the most important trade fair for sun protection systems and doors/gates in the Asia-Pacific zone. The number of international exhibitors of 13 percent just a few weeks after R+T, proved that the show is one of the world's leading trade fairs for roller shutters, doors/gates and sun protection systems in Stuttgart.

In 2018, the organisers Messe Stuttgart and VNU Exhibitions Asia collaborated more closely than ever to implement the special InnovActionHub show. For the first time, the winners of the Innovation Prize from Stuttgart also introduced themselves in Shanghai.

The International Window and Door Summit (IWDS), whose motto for 2018 was think bigger & think better, is an established fixture within the R+T Asia framework programme.

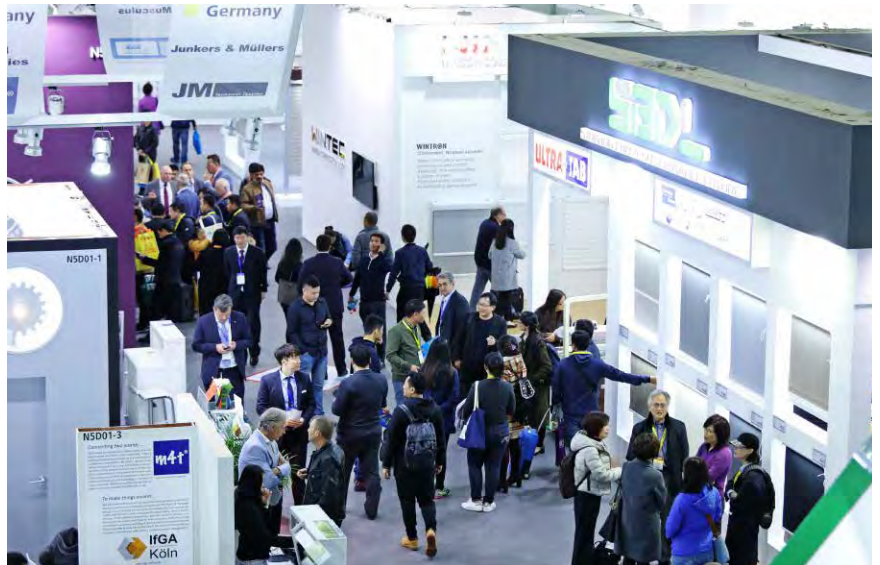


Photo: © Messe Stuttgart

The R+T Asia 2019 will be held at the Shanghai New International Expo Centre (SNIEC) from the February 27 to March 1. **For more information, visit [www.rtasia.org/en](http://www.rtasia.org/en).**

# RISER PIPING SOLUTIONS

Three ways to accommodate thermal movement in riser piping with Victaulic® couplings:

Free floating with movement accommodated at the top of the riser



Use Victaulic® flexible couplings in accommodating linear movement within each coupling



Use of all Victaulic rigid couplings in accommodating movement with an in-line Victaulic expansion compensator



[victaulic.com](http://victaulic.com)

9583 REV A 04/2018  
© 2018 VICTAULIC COMPANY. ALL RIGHTS RESERVED.





## Aedas designs new blocks of vertical urban space for Zhengzhou, China

**Hong Kong** – Zhenghong Property Air Harbour Office Project, designed by Aedas, comprises three interconnecting office buildings in Zhengzhou, the provincial capital of Henan Province and a major transportation hub in central China.

The design scheme delivers a straightforward solution by laying three office blocks along a narrow site, catering to government, corporate tenants and the client. The blocks are connected by shared facilities and rooftop terraces to deliver three-dimensional vertical urban spaces.

The building form is inspired by the famed Yellow River which winds like a dragon. The 45-degree-angled layout provides an outlook that resembles the winding course of the river, and at the same time maximising both views towards Zhenghong Central Park in the north and distance away from the residential blocks in the south. Such orientation also creates more open spaces on ground level



Photo: © Aedas

and facilitates ventilation.

Strategically located near Zhengzhou Xinzheng International Airport with multiple public transport options, the project enjoys excellent connections with a design that enhances accessibility.

## USG Boral relocates Corporate Headquarters to Singapore to boost Asia Pacific growth

**Singapore** – USG Boral has announced the relocation of their Corporate Headquarters from Kuala Lumpur to Shenton Way in Singapore.

The company's key executive team will now be based in the Singapore office, including the Chief Executive Officer (CEO), Chief Technical Officer (CTO), General Counsel and Senior Vice President of Human Resources (HR), while the Kuala Lumpur office will continue to serve the crucial function as its Operations Headquarters.

"We want to ensure our organisation is primed for strong and continued growth in the region. Being located

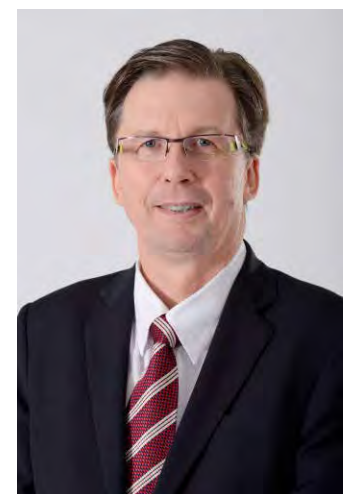
in Singapore will enable us access to a broader talent pool in the market and enhance our corporate profile in the construction industry," said Frederic de Rougemont, CEO, USG Boral.

"This is an exciting and significant milestone in USG Boral's journey to constantly innovate with the best and brightest in the region," added Frederic de Rougemont.

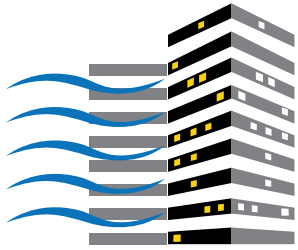
According to the company, this strategic move will allow USG Boral to leverage opportunities to support its business growth and succession planning.

"Singapore's connectivity to the region, diverse talent

pool, strong ecosystem of partners and pro-business environment are key attributes that companies value, which can help them accelerate business growth and strengthen their global footprint. This is especially crucial in light of new opportunities driven by rising infrastructure demand in Asia. We are excited that USG Boral has chosen Singapore as its Corporate Headquarters, and look forward to the company capturing new business opportunities in the region through Singapore," said Lim Kok Kiang, Assistant Managing Director, Singapore Economic Development Board.



Frederic de Rougemont, CEO, USG Boral. Photo: © USG Boral



# ASEAN M&E SHOW

ASEAN'S PREMIER MECHANICAL & ELECTRICAL ENGINEERING SHOW

## 17-19 JULY 2018

KUALA LUMPUR CONVENTION CENTRE, MALAYSIA

FEATURING  POWER-PACKED ENGINEERING  
EVENTS UNDER ONE ROOF



South East Asia's Premier Refrigeration,  
Ventilation & Air-Conditioning Expo & Forum



South East Asia's Premier  
Power & Electrical Industry Expo & Forum



South East Asia's Premier  
Green Energy Expo & Forum



South East Asia's Premier  
Solar Energy Expo & Forum



South East Asia's Premier  
Lift & Escalators Technology Expo & Forum



Organised By



Endorsed By



Supported By



[www.aseanmne.com](http://www.aseanmne.com)

# MUNDUS – The patch fitting with a unique design for toughened glass assemblies from dormakaba

**Ennepetal, Germany** – The MUNDUS patch fitting offers unique and inspiring design combined with easy and fast installation.



### Optimum gap dimensions

Thanks to the variable, multi-dimensional adjustability of the patch fittings, the door can be optimally aligned following installation.

### Suitable for different glass thicknesses

Glass thicknesses of 8 to 12 mm, 12 to 15 mm, 15 to 19 mm and 19 to 22 mm can be each installed with a single, adjustable fitting. The extra gaskets that would otherwise have to be ordered are thus no longer needed.

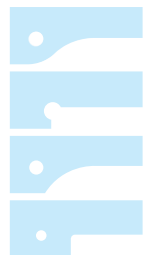


### Easy to retrofit

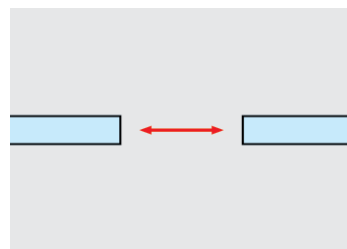
MUNDUS can also be retrofitted to existing installations by simply replacing the patch fittings. Through its variability it is able to cover the most common glass cut-outs used or required around the world, making it particularly suitable as a retrofit solution.

### For worry-free hold – Clamp & Glue technology

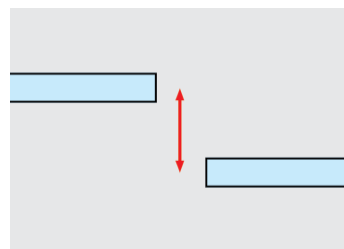
The Clamp & Glue technology for the installation of laminated safety glass. Additional adhesive bonding ensures a firm hold with the fitting permanently joined to the glass.



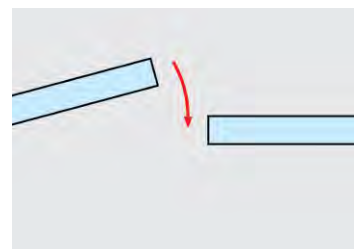
Optimum gap dimensions



X-axis alignment



Z-axis alignment



Zero position adjustment

For more information on Mundus patch fitting, email [cheekeong.chan@dormakaba.com](mailto:cheekeong.chan@dormakaba.com).

# ASEAN's Largest International Exhibition and Conference on Renewable Energy, Energy Efficiency, Environmental and Electric Vehicle Technology



## ASEAN SUSTAINABLE ENERGY WEEK

**6-9 JUNE 2018**  
BITEC, BANGKOK (10.00-18.00 hrs.)

In conjunction with

**First Time**



The event will showcase technology and infrastructure related to efficient power conversion systems. This includes electrical power-trains and components, battery management systems, monitoring & control equipment and charging stations.

### THE FUTURE OF ASEAN'S ENERGY JOURNEY

E-mobility • Smart Grid • Smart City



**ASEAN's Most Comprehensive International Exhibition on Energy Segment**



**Showcase of the latest technologies**  
over 1,000 Brands from 45 Countries



**8 National Pavilions** from Germany, Switzerland, Singapore, USA and more!



**International Conference on Renewable Energy**  
on *The Future of ASEAN's Energy Journey*  
"E-mobility – Smart Grid – Smart City"



**TEC 2018 Asia-Pacific**  
**First time in Thailand and ASEAN**  
covering *E-mobility – A Journey From Now and Beyond*



**Over 80 Seminars and Activities**  
Presented by Leading Specialists, Speakers and Experts

Organised by



Officially supported by



Supported by



Conference Partners



Platinum Sponsor



Gold Sponsor



T : +66 2 036 0500  
E-mail: asew-th@ubm.com

Find us on:



**PRE-REGISTER ONLINE NOW**  
Receive your FREE CD Directory via  
[www.asew-expo.com](http://www.asew-expo.com)

## MVRDV's Dawn Bridge near Shanghai offers seats to view a historic town and river scenery

### Rotterdam, The Netherlands

– MVRDV won the competition for Dawn Bridge, Shanghai, a new 80-metre-long dual use crossing conceived as a landmark for fostering daily life and social activities.

The bridge is located near the historical town of Zhujiajiao, between the famous Fangsheng Bridge and the low-key Qingpu Road Bridge.

The 24-metre-wide bridge signals to the future of the area, with a design that adds value to its surrounding, fostering social activities at the riverfront. Completion is anticipated for 2019.

Dawn Bridge lies between new residential developments at the edge of Zhujiajiao and close to the historical crossing of Fangsheng Bridge, a landmark since 1571. The bridge establishes a relationship with the delicate surrounding by absorbing its contextual palette of colours and materials. Gray roofs are recalled by the grey asphalt, whilst white walls are expressed with the prominent white bridge structure. The reddish wood used in houses nearby inspires the



Photo: © MVRDV

pedestrian deck and landings, whilst the green water and nature appear in the form of trees on top of the deck similar to those currently found at the Fangsheng Bridge.

MVRDV's design responds to constraints both in construction area and clearance envelope and addresses the challenge of building the shortest bridge with an accommodating slope. In addition, the bridge proposes a solution to favour the view over the old town of Zhujiajiao and maximise the space available

for pedestrians. To minimise the noise and air pollution from the road on the bridge, the middle truss is clad and covered by a new structure: a flat deck which morphs into a tridimensional structure and becomes a tribune for meetings, gatherings and to experience views of the Dianpu river and the old town.

MVRDV won the competition-winning design selected by Zhujiajiao Municipality and the completion date is anticipated for 2019.

## Schmidt Hammer Lassen Architects joins Perkins+Will

**Copenhagen, Denmark** – One of Scandinavia's most recognised design firms, Schmidt Hammer Lassen Architects, has joined global architecture firm Perkins+Will in a strategic partnership that extends Schmidt Hammer Lassen's international reach and reinforces Perkins+Will's commitment to sustainability and design excellence.

By combining Perkins+Will's 83-year legacy of design excellence with Schmidt Hammer Lassen's illustrious Danish design pedigree, the united firms will make even greater contributions to the canon of cultural and civic architecture, according to Perkins+Will CEO Phil Harrison.

"Part of what makes this partnership so special is that Perkins+Will and Schmidt Hammer Lassen share a common set of values: design excellence, sustainability, innovation, and the highest level of client service," said Mr Harrison.

Bjarne Hammer, founding partner of

Schmidt Hammer Lassen, agreed: "Our firms share a clear mission: through architecture and design, we make a positive difference in the world and in the lives of others. We both believe strongly in the transformative, healing power of design to address some of the most pressing social and environmental issues of our time. And, we both thrive in a design culture that encourages collaboration."

In addition to a shared vision and purpose, the two firms have symbiotic market strategies. Perkins+Will aims to diversify its global talent, expand its cultural and civic practice, and reinforce the caliber of its design portfolio. At the same time, Schmidt Hammer Lassen aims to expand into new geographic markets, grow its client base, and apply groundbreaking design research to practice.

Perkins+Will's global platform also provides a host of benefits to Schmidt Hammer Lassen's international clients

because they now have all of the resources, talent, and expertise—including research—they need within a single firm. This streamlines collaboration, facilitates communication, and ensures smooth project delivery.

The union of Perkins+Will and Schmidt Hammer Lassen is supported in large part by both firms' legacies of, and commitments to, design excellence. Additionally, both Schmidt Hammer Lassen and Perkins+Will are known leaders in sustainability. Through their high-performing, environmentally responsive designs, the firms contribute significantly to the reduction of greenhouse gas emissions that cause climate change, and to the improvement of human and ecological health. The partnership is also a celebration of differences in culture, customs, language, and heritage—and of the design innovation that occurs when those differences interplay.

The international exhibition & conference on building maintenance and facilities management



**12-14 SEPTEMBER 2018**

**HALL 5-6, IMPACT, BANGKOK, THAILAND**

## **INTEGRATED FM OF THE FUTURE**

**BMAM Expo Asia 2018 offers exciting possibilities for businesses keen to be at the forefront of innovation and technology in facilities management.**



**EXHIBIT NOW!**

FM Products & Services | Plant Maintenance | Facilities Management Software  
Workspace Management | Smart Building Solutions | Cleaning Products & Services  
Security | Interior & Landscape Design | Green Building Technologies | Health & Safety

Scan to book  
your booth



Organized by



[www.bmamexpoasia.com](http://www.bmamexpoasia.com)



BMAM Expo Asia



+66 (0) 2833 5208

## WorldGBC launches Asia Pacific Leadership in Green Building Awards for 2018



**Construction Industry Council – ZCB, Hong Kong – Winner of the 2016 Leadership in Sustainable Design and Performance (Institutional) award. Photo credit: Construction Industry Council**



**Double Cove, Hong Kong (the one by the water) – Winner of the 2016 Leadership in Sustainable Design & Performance (Residential) award. Photo credit: SRT Design Group**

**London, UK** – The World Green Building Council has opened nominations for its prestigious WorldGBC Asia Pacific Leadership in Green Building Awards 2018. The biennial Awards, first held in 2014, showcase and celebrate the achievements of businesses and innovators leading on sustainability in buildings across the Asia Pacific region.

2018 sees an exciting change to the Awards programme, with a new Women in Green Building Leadership Award, which will be presented to an inspiring female leader in the green building movement.

This complements the two existing awards – the Business Leadership in Sustainability Award, given to companies which are truly integrating sustainability into their business models, and the Leadership in Sustainable Design and Performance Award, which recognises pioneering green building projects that deliver a range of benefits through a holistic approach to sustainability. This award is split into three categories for commercial, institutional and residential building projects.

Terri Wills, CEO of WorldGBC, said: "Green building is accelerating across the Asia Pacific region in response to significant population growth, environmental pressures and a strong business case. We look forward to receiving high

quality nominations from the Asia Pacific Network which show how green buildings can help cities and countries cut carbon emissions while creating healthy, livable places for people."

Tai Lee Siang, Chair of WorldGBC, added: "As the engine room of the world's growth, the Asia Pacific region has an unmatched opportunity to lead the way in sustainable building practices. Many organisations and individuals are firmly committed to sustainability, and the Asia Pacific Leadership Awards celebrates this local entrepreneurship and leadership. We invite you to participate!"

Nominations for the 2018 Awards close on 1 June 2018, with finalists announced in July ahead of the main awards ceremony in September.

Please contact your local GBC if you are interested in applying for any one of these three award categories:

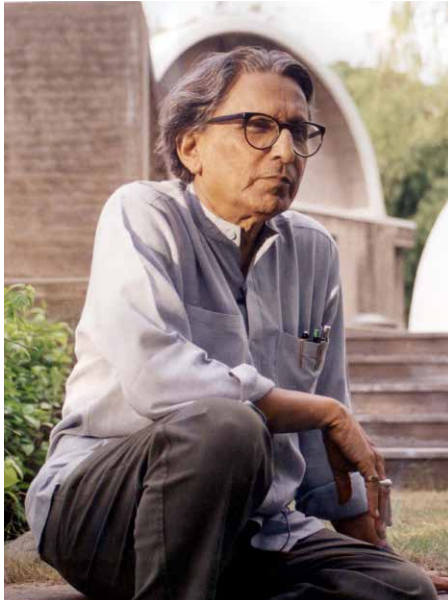
- Business Leadership in Sustainability Award
- Leadership in Sustainable Design and Performance Award
- Women in Green Building Leadership Award

Please note that nominations are only accepted from organisations which are members of Green Building Councils in the Asia Pacific Regional Network. **For more information, visit [www.worldgbc.org](http://www.worldgbc.org).**



**Do you have news?**  
 Don't keep it to yourself....  
*Share it with us!*  
 Email [seab@tradelinkmedia.com.sg](mailto:seab@tradelinkmedia.com.sg)

## Balkrishna Doshi receives the 2018 Pritzker Architecture Prize



Balkrishna Doshi, courtesy of the Pritzker Architecture Prize/VSF

**Chicago, Illinois, USA** – Professor Balkrishna Doshi, of India, has been selected as the 2018 Pritzker Architecture Prize Laureate, announced Tom Pritzker, Chairman of Hyatt Foundation, which sponsors the award that is known internationally as architecture's highest honour.

Architect, urban planner, and educator for the past 70 years, Doshi has been instrumental in shaping the discourse of architecture throughout India and internationally. Influenced by masters of 20th-century architecture, Charles-Édouard Jeanneret, known as Le Corbusier, and Louis Khan, Doshi has been able to interpret architecture and transform it into built works that respect eastern culture while enhancing the quality of living in India. His ethical and personal approach to architecture has touched lives of every

socio-economic class across a broad spectrum of genres since the 1950s.

"My works are an extension of my life, philosophy and dreams trying to create treasury of the architectural spirit. I owe this prestigious prize to my guru, Le Corbusier. His teachings led me to question identity and compelled me to discover new regionally adopted contemporary expression for a sustainable holistic habitat," commented Doshi. He continued, "with all my humility and gratefulness I want to thank the Pritzker Jury for this deeply touching and rewarding recognition of my work. This reaffirms my belief that, 'life celebrates when lifestyle and architecture fuse.'"

Doshi's architecture explores the relationships between fundamental needs of human life, connectivity to self and culture, and understanding of social



Aranya Low Cost Housing, courtesy of the Pritzker Architecture Prize/VSF



**Centre for Environmental Planning and Technology, courtesy of the Pritzker Architecture Prize/VSF**



**Institute of Indology, courtesy of the Pritzker Architecture Prize/VSF**

traditions, within the context of a place and its environment, and through a response to Modernism. Childhood recollections, from the rhythms of the weather to the ringing of temple bells, inform his designs. He describes architecture as an extension of the body, and his ability to attentively address function while regarding climate, landscape, and urbanization is demonstrated through his choice of materials, overlapping spaces, and utilization of natural and harmonizing elements.

"Professor Doshi has said that 'Design converts shelters into homes, housing into communities, and cities into magnets of opportunities,' commented Mr Pritzker. "The life's work of Balkrishna Doshi truly underscores the mission of the Prize – demonstrating the art of architecture and an invaluable service to humanity. I am honoured to present the 40th anniversary of this award to an architect who has contributed more than 60 years of service to us all," he added.

His studio, Sangath (Ahmedabad, 1980), translates to "moving together." The placement of communal spaces, including a garden and outdoor amphitheater, highlights Doshi's regard for collaboration and social responsibility. Vaulted roofs, porcelain mosaic tile coverings, grassy areas, and sunken spaces mitigate extreme heat. The mosaic tile detail is echoed in the tortoise-shell inspired roof of Amdavad Ni Gufa (Ahmedabad, 1994), an undulating, cave-like, ferro-cement art gallery, positioned underground, featuring works of Maqbool Fida Husain.

Other notable works include academic institution Centre for Environmental Planning and Technology (CEPT University) (Ahmedabad, 1966–2012); cultural spaces such as Tagore Memorial Hall (Ahmedabad, 1967), the Institute of Indology (Ahmedabad, 1962), and Premabhai Hall (Ahmedabad, 1976); housing complexes Vidhyadhar Nagar Masterplan and Urban Design (Jaipur, 1984) and Life Insurance Corporation Housing or "Bima Nagar" (Ahmedabad, 1973); and private residence Kamala

House (Ahmedabad, 1963), among many others.

Doshi is the 45th Pritzker Prize Laureate, and the first to hail from India. The 2018 Pritzker Architecture Prize ceremony commemorates the 40th anniversary of the accolade, and will take place at the Aga Khan Museum in Toronto, Canada, this May.

The Laureate will present a public lecture, in partnership with the John H. Daniels Faculty of Architecture, Landscape, and Design at the University of Toronto on 16 May 2018.

# No. 1 Tradeshow for Building, Electrical Engineering and Security Industries

## 9-11 MAY 2018

Hong Kong Convention & Exhibition Centre

Featuring



### 500 Top International Brands

Art Chain (Asia) Co Ltd, AUB Ltd, Ever Cool Refrigerating & Air Conditioning Co Ltd, GELEC (HK) Ltd, Kwong Man Kee Engineering Ltd – Flowcrete, Lutron GI Ltd, Sonic Guard Technology Company Ltd etc.



### Get First-hand Experience

Intelligent Building Solution, Indoor Air Quality System, Water Treatment Solutions, Total Surveillance System, etc.



### Discover Future Trends

Professional conferences on Climate Change, Security Trends, Architectural Design & Idea-sharing networking events etc.

Organiser:



UBM HKES

+852 2827 6211

visit@build4asia.com

**Register Now!** [www.Build4Asia.com/enroll](http://www.Build4Asia.com/enroll)

follow us



Build4Asia

## School built for children of Syrian refugees bags top architecture prize

**Copenhagen, Denmark** – The 100 schools for Refugee Children, a project initiated by NGO Emergency Architecture and Human Rights (EAHR) based in Copenhagen, Denmark, has won the top prize at the XX Architecture Urbanism Biennial in Chile and the award of Small Structure Building of the Year bestowed by ArchDaily.

The Syrian civil war has displaced millions of people, most of them are children who do not have access to basic education due to lack of schools. EAHR is building 100 sandbag schools and football fields as public spaces in order to educate refugee children in the Middle East.

The classroom is built with the superadobe technique. The construction is inspired by the Great Mosque of Djenné, the traditional earth architecture from Mali and the vernacular beehive house structures of Syria originated from Aleppo and Homs, where many of the refugees come from.

Due to the limited choice of building methods and materials, as well as the harsh environment characterised by hot summers and cold winters, the beehive style is a viable solution for a school construction. This kind of building technique does not require high-tensile-strength reinforcements, and can be built quickly with unskilled labour while performing better than tents, cement blocks and corrugated metal sheets in terms of thermal insulation and cost.

Za'atari village is currently housing 15,000 people from Syria and 13,000 from Jordan. EAHR have, in collaboration with the



Photo: © Emergency Architecture & Human Rights

local community and the local NGO, Acting for Change Jordan, implemented an extension to the existing school in order to increase the number of people who have access to education. The school will therefore be used by children in the morning and by adults during the afternoon to learn reading and writing skills.

The EAHR is now looking for funds to achieve its goal to build other classrooms for the Syrian refugee children. **For more information, [www.ea-hr.org](http://www.ea-hr.org).**

## Reiulf Ramstad Arkitekter designs new copper residential tower in Ski Vest



Photo: © Reiulf Ramstad Arkitekter

**Ski Vest, Norway** – Reiulf Ramstad Arkitekter has been appointed to design a new copper residential tower in Ski Vest for Solon Eiendom. The new high quality housing project in Ski Vest will offer innovative apartments sheltered in a green new neighbourhood in Ski Vest, Norway. On the site of a former military camp, the residential building will band together with the adjacent historical landscape and built environment of buildings from the 1890s in an attractive and humble manner.

Through the conscious use of qualitative and location-oriented architecture, the project will reinforce and develop the inherent identity of the site. The copper housing complex consists of 50 apartments with generous openings and private spaces. The play of the tower geometry allows all apartments generous ceiling heights and sheltered terraces. Ski Vest RRA's tower is wrapped by linear copper terraces with a characteristic pattern giving the project a unique language.

## A green space for green learning

**Singapore** – Bukit View Secondary School (BVSS) students can look forward to having lessons in a green classroom fitted out with environmentally-preferred green building materials and eco-features.

Officially opened on 22 February 2018 by Mr Masagos Zulkifli, Minister for the Environment and Water Resources, the JOULES (Junior Outstanding Leaders in Environment for Sustainability) Smart Centre @ BVSS is a prime

example of green building consciousness. With the support of the Singapore Green Building Council (SGBC), BVSS worked with various like-minded environmentally-conscious industry partners to make the facility a reality.

As BVSS is an advocate for sustainability education and environmental stewardship, the JOULES Smart Centre is intended to bolster their four-year JOULES enrichment programme in order to better educate their students on key environmental issues and developments. Constructed with sustainability in mind, the JOULES Smart Centre was of the brainchild of SGBC's Green Schools Initiative (GSI) educational outreach programme. These



SGBC Green-certified professional services and products have helped the Centre to be energy efficient while creating a healthier indoor environment for the students.

Mr Masagos said: "The JOULES Smart Centre, with its green products and features, is a good example of sustainability practiced. I hope the facility will inspire students to think about incorporating sustainable living in every aspect of their life, and to turn some of these ideas into action."

Fitted out with a wide range of certified green building products ranging from paint to the flooring, the facility also makes use of proven green building design features to overcome building issues. For example, using a combination of ceiling fans with air-conditioning set to higher temperatures can maintain comfort while reducing electricity consumption at the same time. An indoor green wall located at the front of the room improves indoor air quality and reduces noise levels by absorbing acoustic energy, giving students a healthy, positive place for learning. Apart from these, fittings and furniture provide for a conducive and attractive learning facility.

## Singapore Interior Design Awards (SIDA) 2017 honours winners at award ceremony

**Singapore** – Over 400 professionals from the interior design community in Singapore and overseas gathered at the Pan Pacific Hotel Singapore on March 9th 2018 to celebrate the Singapore Interior Design Awards (SIDA) 2017 Gala Night & Awards Presentation.

Guest of honour Senior Minister of State for Law and Finance, Ms Indraneel Rajah, presented the awards to the winners and encouraged the interior design industry to embrace the spirit of innovation. "I would like to congratulate SIDA for organising today's (SIDA Gala Night) event to celebrate professionalism, creativity and distinction in the interior design industry. To compete globally, the interior design industry must position itself higher up the value chain of design, innovation and technology," said Ms Indraneel.

She added that the Singapore government has in place various schemes and grants to support companies in terms of

equipment and technology solutions as well as for human capital development.

A total of 150 awards were presented to 92 unique winners to honour them for the design excellence in the global interior design industry. SIDA 2017 was open to all interior designers, space designers and architects who share the common goal of creating better spaces through sensible, responsible, and innovative design solutions. Award submissions were received from Southeast Asia as well as Japan, China, Hong Kong and Taiwan.

SIDA 2017 saw the debut of new awards and recognition categories including SIDA Concept, SIDA Luminary Awards, and SIDA Recognition Awards.

Commenting on the success of the event, Prof. Keat Ong, President of the Society of Interior Designers, Singapore (SIDS) said: "SIDS has made great strides with SIDA since its debut last

year. We are now celebrating the second edition of the Awards, which has expanded with three new categories: SIDA Concept, SIDA Luminary Awards, and SIDA Recognition Awards. The purpose of our award is to celebrate the entire interior design value chain, from conceptualisation to actualisation as well as all the supporting partners (suppliers, contractors and vendors)."

Singapore-based interior designers swept 33 of the SIDA 2017 awards. Among them was Mr Dennis Cheok, Creative Director of UPSTAIRS\_, who took home the Gold Award (SIDA) and a Silver Award (SIDA).

The SIDA Best of the Best title was clinched by local commercial interior design firm, Orb Associates Pte Ltd. Their awards included two golds in the SIDA Concept competition for a rooftop bar entitled "MBC BUFFET LOUNGE AND ROOF", and the other for "Medical Suites".



Minister Indranee Rajah (second from left) receives her token of appreciation from Prof Keat Ong (far left), President of SIDS at the SIDA 2017 Awards Gala Night. Photo: © SIDS



Mr Dennis Cheok of UPSTAIRS\_ (second from left) receives his Gold SIDA 2017 Award at the SIDA 2017 Awards Gala Night. Photo: © SIDS



Mr Lee Li Ming of Orb Associates (second from left) receives his Gold SIDA 2017 Award at the SIDA 2017 Awards Gala Night. Photo: © SIDS



The SIDA 2017 winners with their awards at the SIDA 2017 Awards Gala Night. Photo: © SIDS

# Top interior designers convene at 'East Gathering' event to exchange, learn and share ideas

**Singapore** – East Gathering is a multi-cities and cross-cultural event featuring top interior designers from Singapore, Hong Kong, Japan, Korea and Taiwan. The inaugural East Gathering kicked off in Hong Kong in December 2010. Since then, it has been taking place in many countries annually to present a series of design events, including forums, workshops and exhibitions.

For the first time, Singapore hosted the East Gathering on March 10th 2018 at the Pan Pacific Hotel. It was well attended by more than 100 participants.

Singapore collaborated with four Asian cities from Hong Kong, Taiwan, Japan and Korea to create an interior design forum. Celebrated designers from 5 of Asia's top trendsetting design hubs, presented their response to the challenges and opportunities of designing in today's multi-faceted, fast paced environment.

This event was jointly presented by Society of Interior Designers, Singapore (SIDS), Hong Kong Interior Design Association (HKIDA), Japan Commercial Environmental Design Association (JCD), Korean Society of Interior Architects Designers (KOSID) and Chinese Society of Interior Designers (CSID).

The key speakers representing each of the countries were:

- Mr Theodore Chan, Architect/Director, CIAP ARCHITECTS PTE LTD
- Mr William Lim, Managing Director, CL3 Architects Limited, HongKong
- Mr Ryu Kosaka, Executive Creative Director, Nomura Co., Ltd./ A.N.D, Japan
- Mr In Hark Park, Chairman of GA-IN DESIGN GROUP, Korea
- Mr Johnny Chiu, founder of JC Architecture, Taiwan

They shared some of their unique ideas and insights on changing trends, environmental issues and how the industry can seize new opportunities to transform and grow.

### Excerpts of the speakers' presentations

Mr Theodore Chan focused on the importance of environmental impact of building design and how architects and



Group photo of the East Gathering attendees. Photo: © SIDS



Mr. Theodore Chan, Keynote Speaker, Singapore. Photo: © SIDS



Mr In Hark Park, Keynote Speaker, Korea. Photo: © SIDS



Mr Johnny Chiu, Keynote Speaker, Taiwan. Photo: © SIDS



Mr Ryu Kosaka, Keynote Speaker, Japan. Photo: © SIDS

designers can play a bigger role in creating sustainable cities. He highlighted that good designs should be "socially-responsible, contribute to the wellness of the built environment, simple to build and add meaning and value to life."

He also outlined some new design paradigms for Singapore to boost productivity, sustainability, safety as well as overall aesthetics. These include the use of more manufactured and modular



Mr William Lim, Keynote Speaker, Hong Kong. Photo: © SIDS

components (pre-fab) under approved National Standards and the use of more productive technologies to boost productivity and speed up the building process while reducing waste and inconvenience to the community.

Mr William Lim shared his insights on how art can be incorporated into architecture to create refreshing and captivating concepts to uplift the urban landscape. He also produced examples of how buildings can be transformed through more creative use of space and resources. He cited examples such as H Queen's in Hong Kong which was transformed into a vertical art gallery.

Mr In Hark Park showcased the different styles of Korean designers

over the years and how the past design cultures have been adapted and passed down to the present and future. The accumulated design values over the years have contributed much to the quality and uniqueness of Korean interior design and architecture. Their contribution was by way of using various sustainable and natural materials and how they are placed in harmony with the natural environment to create new living spaces and exceptional city landscapes.

Mr Ryu Kosaka shared his thoughts on exceptional designs and the inspirations behind his exclusive award-winning works in Japan and China – including the W Hotel in Guangzhou. He also enlightened the audience with his design philosophies and

approach to harmonise buildings with the different cityscapes.

Mr Johnny Chiu drew attention to the transformation of contemporary design thinking and the importance of relationship, concept, processes and strategy in today's design approach. He also shared some of his experiences and emphasised the application of science and technology to enhance design. He pointed out that good designers have to be good communicators as well in order to raise wider awareness of the importance of design in our urban environment. Good communications is also critical "because the design environment is cross-boundary, and cross-domain cooperation is a trend."

## PHILGBC celebrates 10 years of market transformation

**Manila, Philippines** – On 17 November 2017, members of the Philippine Green Building Council (PHILGBC), guests and partners from industry and government came together at the Isabela Ballroom of Makati Shangri-La hotel to celebrate PHILGBC's 10 years of market transformation.

Members of PHILGBC, organisations and partners, who have been significant in the advancement of green buildings in the country in the past 10 years, were recognised during the event.

The gala event was a venue for a meaningful exchange of ideas and learnings, and was a great opportunity for business networking and fostering relationships for the advancement of greener buildings and green business agendas.

"I think this is the spirit of the Philippines, you have such a power, you have such an inert spirit that cannot be extinguished. And I think this is really happening in the green building council. From seven people to what we have tonight, I think it is fantastic achievement. Let me congratulate you and let me wish you to continue to do more good work and be one of the shining light in the Asia Pacific and maybe in the world," remarked Mr Tai Lee Siang, World Green Building Council Chairman, during the anniversary gala of the PHILGBC.

The Philippine Green Building Council (PHILGBC) is a multi-sectoral organisation, composed of organisations and professionals from the various sectors related to the building industry, including: building owners and developers, building professionals and service providers, manufacturers and suppliers, contractors and specialty trade contractors, academe, civil society, and financial institutions. Its membership consists of more than 300 corporations and hundreds of individuals that



**From left to right: PHILGBC CEO Mr Christopher de la Cruz, WorldGBC Chairman Mr Tai Lee Siang and PHILGBC Chairman Mr Ramon Rufino at the PHILGBC's 10th year anniversary gala at Makati Shangri-La in Makati City. Photo: © Philippine Green Building Council**

are working together with the PHILGBC in advancing the green building movement in the Philippines. The PHILGBC is the only national Green Building Council in the Philippines recognised by the World Green Building Council.

Witnessing the anniversary celebration were representatives from National GBCs in the WorldGBC-Asia Pacific regional network including the Green Building Council-Australia, Green Building Council-Indonesia, Malaysian Green Building Confederation, Taiwan Green Building Council, Singapore Green Building Council, and the Indian Green Building Council.

# BuildTech Asia 2018

## International Building Technology Expo

Enhancing Construction Productivity Through Digital Transformation



OCTOBER 2018 | SINGAPORE EXPO, HALL 3 & MAX Atria

### 2017 ACHIEVEMENTS



**12,500 sqm**  
Gross Exhibition Space



**10,548**  
Trade Visitors



**41**  
Visiting Countries



### Unlimited Opportunities



**International Pavilion**  
Expand your Brands Presence



**Sponsorship**  
Leverage on Vast Network and Business Connections

### Booth Enquiry

**Ms Oh Li Ling**  
T: +65 9776 7477  
E: lingoh@sph.com.sg

**BOOK YOUR PREFERRED BOOTH SPACE NOW!**

Organised by:



Supported by:



[www.buildtechasia.com](http://www.buildtechasia.com)



1-6  
MAY

**ARCHITECT EXPO 2018**

Impact Exhibition and Convention Center  
Bangkok, Thailand  
T: +66 2 717 2477  
E: info@TTFintl.com  
W: www.architectexpo.com



9-11  
MAY

**Build4Asia 2018**

Hong Kong Convention & Exhibition Centre,  
Hong Kong  
T: +852 2827 6211  
E: exhibit@build4asia.com  
W: https://build4asia.com



10-11  
MAY

**LED Expo Thailand**

IMPACT Exhibition & Convention Center  
Bangkok, Thailand  
T: +66 2 833 5328 F: +66 2 833 5127 to 9  
E: panvisutb@impact.co.th  
W: www.ledexpothailand.com



6-9  
JUN

**ASEAN Sustainable Energy Week**

BITEC, Bangkok, Thailand  
T: +66 2 036 0500 F: +66 2 036 0588  
E: asew-th@ubm.com  
W: www.renewableenergy-asia.com



7-9  
JUN

**LaoBuild'18**

National Convention Centre  
Vientiane, Laos  
T: +60 3 2692 6888 F: +60 3 2692 2788  
E: rina@ambtarsus.com  
W: www.laobuild.com



9-12  
JUN

**Guangzhou Electrical Building Technology 2018**

China Import and Export Fair Complex  
Guangzhou, China  
T: +852 2802 7728 F: +852 2598 8771  
E: info@hongkong.messefrankfurt.com  
W: http://guangzhou-electrical-building-technology.hk.messefrankfurt.com



4-7  
JUL

**ARCHIDEX 2018**

Kuala Lumpur Convention Centre  
Kuala Lumpur, Malaysia  
T: +60 3 7982 4668  
E: info@archidex.com.my  
W: https://archidex.com.my



17-19  
JUL

**ASEAN M&E Show 2018**

Kuala Lumpur Convention Centre  
Kuala Lumpur, Malaysia  
T: +60 3 2176 8788 F: +60 3 2164 8786  
E: aseanmne@ubm.com  
W: http://aseanmne.com



23-25  
AUG

**LankaBuild'18**

SLECC  
Colombo, Sri Lanka  
T: +60 3 2692 6888 F: +60 3 2692 2788  
E: syed@ambtarsus.com  
W: www.lankabuild.org



12-14  
SEP

**BMAM Expo Asia 2018**

Hall 5-6, Impact Exhibition Center  
Bangkok, Thailand  
T: +66 2 833 5208 F: +66 2 833 5127-9  
E: chanone@impact.co.th  
W: http://bmam-gbr.com

**CAMBODIA'S BIGGEST INTERNATIONAL BUILDING,  
CONSTRUCTION AND M & E INDUSTRY SHOW**

# **CAMBUILD'18**

**CAMBODIA BIGGEST INTERNATIONAL BUILDING & CONSTRUCTION INDUSTRY SHOW**

**12-14 SEPTEMBER 2018  
DIECC (KOH PICH), PHNOM PENH**

To Book Your Booth at the Expo, Contact  
Mr. Richard +603 2692 6888 or  
[richard@ambtarsus.com](mailto:richard@ambtarsus.com)

Co-located with:



**CAMBODIA ARCHITECTS  
FORUM 2018**

12-14 SEPT 2018-KOH PICH, PHNOM PENH

Endorsed by:



Ministry of  
Commerce  
Cambodia

Hosted by:



Board Of  
Cambodia  
Architects

Organised by:



**AMBTarsus**  
EVENTS GROUP



**12-14**  
**SEP**

### CamBuild 2018

DIECC, Phnom Penh  
Cambodia

**T:** +60 3 2692 6888 **F:** +60 3 2692 2788  
**E:** yeo@ambtarsus.com  
**W:** www.cambuildexpo.com

**2-4**  
**OCT**

### ArchXpo 2018

Halls B and C, Marina Bay Sands  
Singapore

**T:** +65 6278 8666 **F:** +65 6278 4077  
**E:** aes@cems.com.sg / info@cems.com.sg  
**W:** www.archxpo.com.sg

**4-6**  
**OCT**

### Myanmar Build & Decor 2018

Myanmar Event Park (MEP) at Mindama  
Yangon, Myanmar

**T:** +66 2 713 3033 **F:** +66 2 713 3034  
**E:** info@icvex.com  
**W:** www.myanmarbuilddecor.com

**16-18**  
**OCT**

### BuildTech Asia 2018

Singapore EXPO Hall 3 & Max Atria  
Singapore

**T:** +65 6319 4021 **F:** +65 6319 6140  
**E:** buildtechasia@sph.com.sg  
**W:** www.buildtechasia.com

**8-10**  
**NOV**

### Thailand Lighting Fair 2018

BITEC, Bangkok, Thailand

**T:** +852 2802 7728 **F:** +852 2598 8771  
**E:** info@hongkong.messefrankfurt.com  
**W:** http://thailandlightingfair.  
hk.messefrankfurt.com

**13-16**  
**NOV**

### Piscine Global Europe

Eurexpo Lyon  
France

**T:** +33 (0) 4 78 17 62 61  
**E:** exhibitorpiscine@gl-events.com  
**W:** www.piscine-global-europe.com

**16-18**  
**NOV**

### Myanbuild'18

MEP Mindama  
Yangon, Myanmar

**T:** +60 3 2692 6888 **F:** +60 3 2692 2788  
**E:** darren@ambtarsus.com  
**W:** www.myanbuild.net

**Stay Connected**  
**With Us On**  
**SOCIAL MEDIA**

Connect with us on any of our social media channels where we share the latest news on architecture, interior design and landscape design.

[www.facebook.com/  
southeastasiabuilding](http://www.facebook.com/southeastasiabuilding)



[twitter.com/  
SEA\\_Building](https://twitter.com/SEA_Building)



<http://seab.tradelinkmedia.biz/>

***MAPEI TAKES GREAT  
PRIDE IN INSTALLING  
THE CARPET IN THE  
TALLEST SKYSCRAPER  
IN THE CITY AND IN THE  
WHOLE OF CALIFORNIA***



# INTERCONTINENTAL LOS ANGELES DOWNTOWN HOTEL

**T**he Wilshire Grand Center is a luxury, mixed-use skyscraper in the heart of Los Angeles. It has been constructed on the same site as the old hotel, which was demolished in 2012. Work on the skyscraper started on the 15 February 2014 with a 20-hour pour of 16,500 cubic metres of concrete to form the foundation for the structure.

With its ornamental spire, 73 floors (plus 5 more below ground level) and a maximum height of 335.3 metres, it is the tallest building in the city and in the whole of California. The skyscraper was completed last summer and now houses the 900-room InterContinental Los Angeles Downtown Hotel, more than 37,000 square metres of office space, various restaurants, shopping and commercial areas and a garage with 1,089 parking spaces on the lower floors.

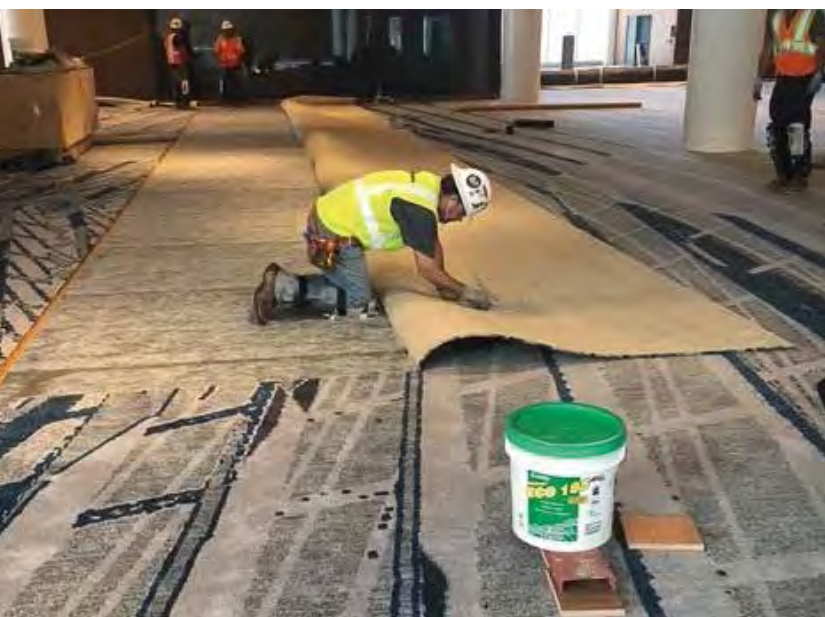
Mapei played an important role in the installation of carpet flooring in the

hotel. To ensure the work was carried out to perfection in compliance with eco-sustainable criteria, and that the flooring remains durable over the years, different products were used to prepare the surfaces and bond the floorings.

## **Preparation and waterproofing of the surfaces**

All the floors in the hotel were treated with ECO PRIM GRIP, a low odour, ready-to-use bonding promoter with very low emission of volatile organic compounds (VOC).

Once the surfaces had been treated, they were smoothed over and levelled with NOVOPLAN 2 PLUS, a self-levelling, rapid-hardening smoothing and levelling compound for new and existing substrates, to make them suitable for resilient and textile flooring in areas requiring good resistance to loads and the levels of traffic typically found in offices and public areas.



MAPECEM QUICKPATCH ready-mixed, ready-to-use mortar, which is used to make controlled-shrinkage, rapid-setting and drying screeds, was used to repair the concrete surfaces, while PLANIPREP SC controlled shrinkage, rapid-setting, fibre-reinforced cementitious mortar, was used as a final smoothing and levelling layer to guarantee the substrates were perfectly smooth and flat.

To alleviate the problem of moisture in certain areas of the cast concrete, the surfaces were treated with PLANISEAL VS before installing 450 square metres of vinyl flooring by Altro. This is a two-component, alkali-resistant epoxy product specifically developed to form a protective barrier against rising damp before installing floor coverings. PLANISEAL VS eliminates the waiting time for uncured concrete to dry out and enables installation of floor coverings to be anticipated. Apart from ECO PRIM GRIP, all these products are available on the American market.

### Installation of the floor coverings

Once the preparation work on the substrates had been completed, two types of floor covering were installed in the hotel.

Around 800 square metres of Shaw self-laying carpet tiles were installed using ULTRABOND ECO 810 adhesive. Apart from guaranteeing rapid drying times, ULTRABOND ECO 810 may be used for both "wet installation", to bond carpet permanently in place, or left to dry and remain permanently tacky, if you wish to remove the carpet tiles and then reposition

them to carry out maintenance work. The special formulation of ULTRABOND ECO 810 provides excellent resistance to moisture, which means flooring may also be installed on the surface of concrete before it is fully cured, as in this case. This product is available on the American market.

Most of the work went into the installation of almost 10,000 square metres of Axminster carpet which had been imported by the Spanish company Alarwool. The flooring installers used ULTRABOND ECO 185, an adhesive in water dispersion with high initial tack and very low emission of volatile organic compounds (VOC).

Thanks to its characteristics, ULTRABOND ECO 185 ensures rapid, secure installation of carpet. The logistics for the work was conditioned by the very tight delivery schedule and the versatile, reliable products supplied by Mapei was one of the decisive factors in guaranteeing completion of the work within the specified timeframe and prepared the hotel for its grand opening in the summer of 2017.

### Mapei Products

Preparation and waterproofing of the surfaces: Planiseal VS\*, Eco Prim Grip, Novoplan 2 Plus\*, Planiprep SC\*, Mapecem Quickpatch\*, Planiseal VS\*

Installation of carpet: Ultrabond Eco 185

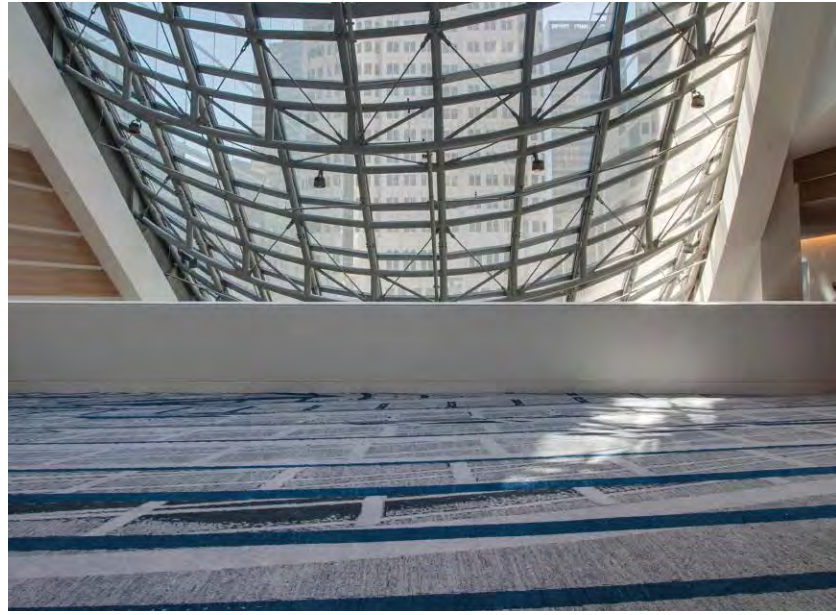
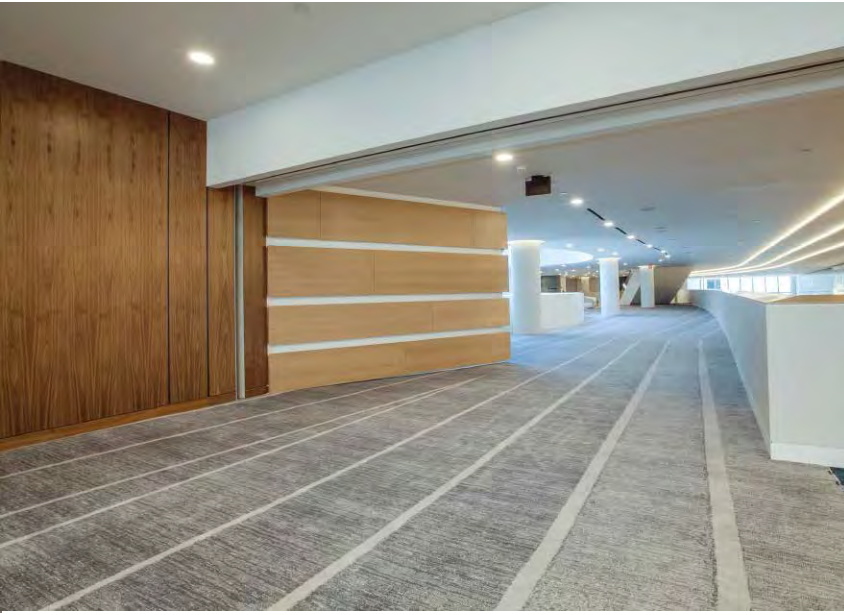
*\*Products available on the American market*



### PROJECT DATA

**Project:** InterContinental Los Angeles Downtown Hotel  
**Location:** Los Angeles, California (USA)  
**Period of Construction:** 2014-2017  
**Period of Mapei Intervention:** 2017  
**Intervention by Mapei:** preparation and waterproofing of substrates, installation of carpet  
**Client:** Hanjin Group  
**Main Contractor:** Turner Construction  
**Works Director:** Jeremy Manuel  
**Project:** AC Martin Partners  
**Flooring Contractor:** Tangram Interiors (Santa Fe Springs, CA)  
**Mapei Distributor:** Big D  
**Mapei Coordinator:** Lisa Fyke (Mapei Corp.)

Article source: *Realtà Mapei International* no. 65/2017. For more information, email [mapei@mapei.com.sg](mailto:mapei@mapei.com.sg).



In these photos: Shaw and Alarwool carpet floorings have been installed respectively with ULTRABOND ECO 810 and ULTRABOND ECO 185. The first product is solely sold on the American market.



# guangzhou electrical building technology

Asia's premier platform for the  
electrical engineering, intelligent building  
and smart home markets

9 – 12 June 2018

China Import and Export Fair Complex  
Guangzhou, China

[www.building.messefrankfurt.com.cn](http://www.building.messefrankfurt.com.cn)

#### Contact

Messe Frankfurt (HK) Ltd

Tel: +852 2238 9961

Fax: +852 2519 6079

[building@china.messefrankfurt.com](mailto:building@china.messefrankfurt.com)



Official website



光亞 · Guang ya



messe frankfurt

The Keppel logo is positioned at the top of the central skyscraper, illuminated against the dark sky. It consists of the word "Keppel" in a white, sans-serif font, with a small orange and white graphic element above the letter 'e'.

Keppel

# Keeping Cool at International Financial Centre Jakarta

Photo: © Keppel Land Limited

**The International Financial Centre (IFC) Jakarta Tower 2 is amongst the tallest buildings in Indonesia. Standing at 215 metres high, the complex offers 48 storeys of modern office space. Victaulic was proud to be involved in this prestigious project.**

**Text by Victaulic**

**D**eveloped by PT Kepland Investama (a subsidiary of Keppel Land), the building is the first in Indonesia to receive the internationally recognised Green Mark Platinum Award from the Building and Construction Authority (BCA) of Singapore.

Eco-friendly innovations in the building include a highly efficient chiller plant system. In a city that averages temperatures of 30°C, an efficient air-conditioning system is critical. The footprint of the air-conditioning system was also a concern in order to maximise liveable space in the building.

**Movement in risers**

Supplying air-conditioning from a central plant room to all areas of a building this size requires the use of vertical risers – pipes that move cooling and condenser water vertically in hidden shafts within the building. However several key design considerations must be addressed, including movement within the piping system.

Movement in piping systems is a normal occurrence and can be caused by any number of phenomena including building settlement (from ground compression), sway (from wind), and thermal movement (from changes in temperature). Air-conditioning systems commonly see movement in the form of temperature change. Heat causes pipes to expand while cold causes them to shrink. So how did the contractor, Jaya Teknik, and Engineers Ciriayasa and Asdi Swasatya accommodate for this movement and provide a safe, efficient air-conditioning system in the International Financial Centre Jakarta?

Simple calculations that take into account the height of the riser and the temperature fluctuations within the pipe provided the team with the required

range of movement within the piping system. Once the range of movement was confirmed, they considered their options – do they utilise a traditional flanged expansion unit or something more compact?

Calculating Thermal Movement in Pipe:  
 $\Delta L = L \times a \times \Delta T$   
 Where:

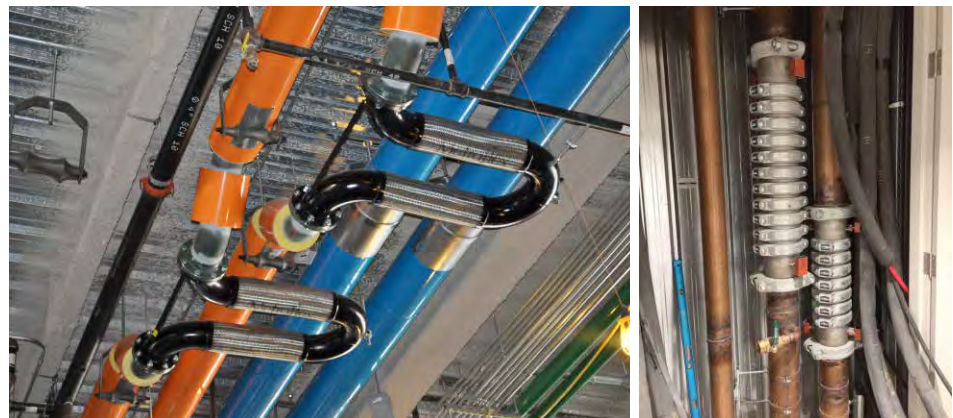
- $\Delta L$  = total change in the length of the pipe [mm]
- L = original pipe length [m]
- a = linear expansion coefficient
- $\Delta T$  = difference in temperature [°C]

Traditional flanged expansion units can have a very large footprint, and usually need to be replaced every five years due to standard wear and tear. Considering the large diameter of the piping systems (up to 500mm OD), a traditional flanged expansion unit would be prohibitively heavy and require additional engineering for a safe and resilient installation. Jaya Teknik, Ciriayasa and Asdi Swasatya

found a unique solution to overcome the challenges of the project – an in-line expansion joint utilising flexible grooved couplings.

Unlike specialty flanged expansion units designed to *only* provide movement in the system, expansion joints utilising grooved couplings are inherently designed to provide movement while also acting as a robust, restrained pipe joint. Used independently, flexible couplings provide joints that last the life of the system. When installed in a series of flexible couplings, like the Victaulic Style 155 Expansion Joint, the trusted joint also acts as a specialty unit that allows for the required movement of the system. Available in sizes up to 600mm, Jaya Teknik was able to utilise sixteen (16) Style 155 Expansion Joints on all chilled and condenser water risers ranging from 150 – 500mm.

"Style 155 Expansion Joints were a critical component in minimising system footprint," said Henry Sasongko, Project Director from Jaya Teknik Indonesia. "We were able to maximise the small space in the shafts, and had plenty of room to



**When compared side by side, there's no question as to which expansion joint provides a smaller footprint. The Victaulic Style 155 Expansion Joint is an in-line unit that allows for movement of the system. Photos by Victaulic**

**“Victaulic Style 155 Expansion Joints were a critical component in minimising system footprint,” said Henry Sasongko, Project Director from Jaya Teknik Indonesia.**

install the units. Flanged expansion joints would have interfered with other systems in the shafts, and would have been very difficult to install,” he added.

**Speed of installation**

Another critical factor was the project timeline. As a landmark project for the developer, it was crucial that Jaya Teknik delivered the project on or ahead of schedule. In addition to utilising Victaulic Style 155 Expansion Joints in the building's risers, the contractor also opted to use Victaulic grooved couplings, fittings, valves and accessories for the mechanical pump room. Grooved couplings provided a faster, easier installation than flanged or welded joints for a number of reasons: 1) Couplings provided a cold formed joint – no hot works were required on site; 2) Couplings installed with only two (2) bolts and nuts on all sizes, as opposed to flanges which require a growing number of bolts and nuts as the sizes increase; and 3) Couplings installed five times faster than flanges and 10 times faster than welding. Overall Jaya Teknik completed the project

in 50 percent less man hours than a welded system would have required.

“Using Victaulic products is the easiest and fastest way to install the HVAC mechanical systems in the pump room,” said Sasongko. “With a tight project schedule, Victaulic products helped us finish the installation in 50 percent less time. We were able to focus on other areas of the project to ensure an on-time delivery to the owner,” he added.

**Small footprint**

Tenantable space in the IFC needed to be maximised to offer as many rentable units as possible. Therefore, the footprint of the air-conditioning equipment in the mechanical pump room was a large concern for both the developer and the consultants, Ciriajasa and Asdi Swasatya. Victaulic pump dressing products – including couplings, fittings, valves and specialty components – helped the team achieve a much smaller footprint than a welded/flanged system would have required.

In particular, Victaulic suction diffusers

provided huge space savings. Suction diffusers are installed on the suction side of the mechanical pumps, reduce turbulence by streamlining the flow of water and allow for an immediate, 90° angle change of direction at the pump. This differs from welded systems, which require a long radius elbow measuring five (5) times the pipe OD to be installed before the pump. For the pumps feeding 400mm pipe, that is an additional two (2) metres of space for every pump in the mechanical room.

“If we had installed a flanged/welded system, the mechanical room would have been exponentially larger. We were able to cut the footprint and pass along those extra metres to the owner as billable space,” remarked Sasongko.



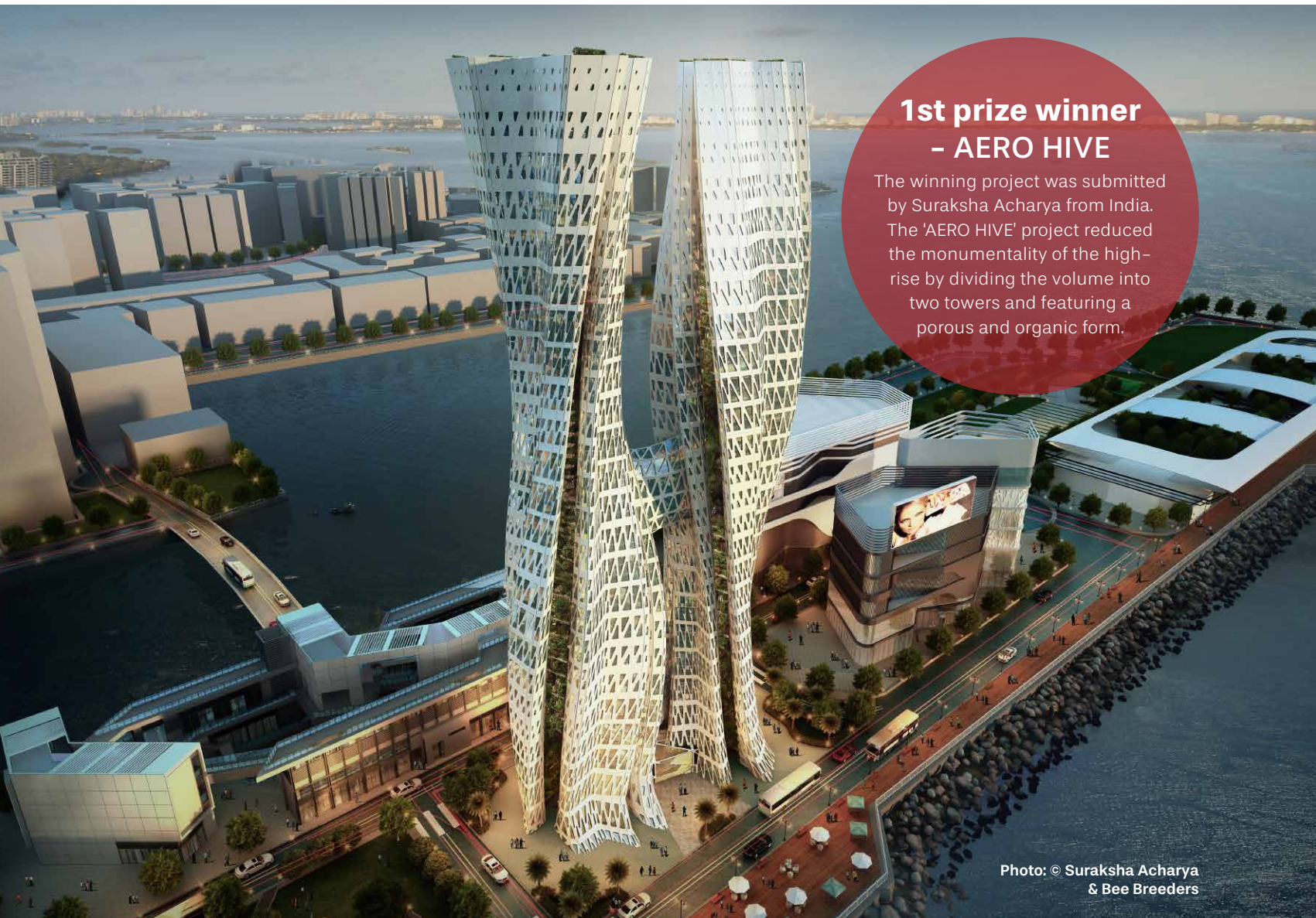
Photo by Victaulic

Service	Size Range	Pipe Material	Victaulic Products Utilized
Chilled Water	150 – 400mm	Carbon Steel	Style 155 Expansion Joints Rigid & Flexible Couplings
Condenser Water	500mm	Galvanized Carbon Steel	Style 155 Expansion Joints Rigid & Flexible Couplings
Mechanical Pump Room	100 – 400mm	Carbon Steel	Series 731 Suction Diffusers Series 761 Butterfly Valves Series 716 Check Valves Rigid & Flexible Couplings Fittings

For more information, visit [www.victaulic.com](http://www.victaulic.com).

# TOWERING SUCCESS

Winners of the **SKYHIVE Skyscraper Challenge** have been announced. The purpose of the SKYHIVE Skyscraper Challenge was to generate design ideas for iconic high-rise buildings in cities around the globe. The winners were chosen for the originality and creativity of their designs to create a potential iconic landmark.



## 1st prize winner – AERO HIVE

The winning project was submitted by Suraksha Acharya from India. The 'AERO HIVE' project reduced the monumentality of the high-rise by dividing the volume into two towers and featuring a porous and organic form.

Photo: © Suraksha Acharya & Bee Breeders

### << Jury Commentary >>

The design resolves a large site by dividing the volume into two towers, reducing the monumentality of the high-rise with a porous and organic form. Each tower is further fragmented into three semi-opaque vertical elements connected by spaces in transparent glass which allow daylight to reach the core, and permit outward views surrounding the proposed Hong Kong site. The towers are connected at mid-height by a sky-bridge and each features a dense rooftop garden open to the sky. The method of how the proposed design meets the ground plane is unclear, but given the facade porosity it seems feasible for the building to have positive interaction at the street level. The entry shows great potential for becoming a beacon of sustainable design.



**2nd prize winner  
– Chicago Pillar**

The second prize winner was 'Chicago Pillar' by Jon Carag from the USA. The former created an almost entirely universal design, attractive in its simplicity.

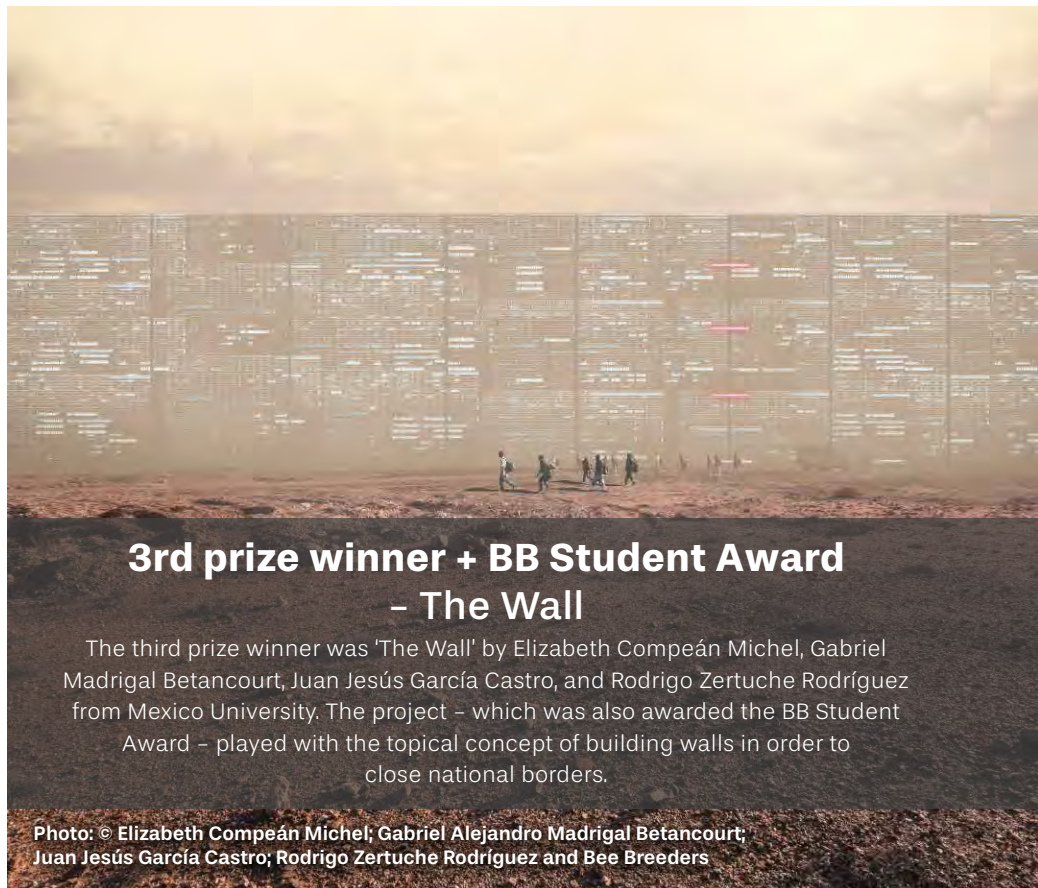
Photo: © Jon Carag & Bee Breeders

**<< Jury Commentary >>**

There has been much demand for proposals considering the famous 'Chicago Spire' site which awaits development in that city's downtown. Though the submission focuses on this particular site, the design has the potential to be used anywhere. A simple cylindrical tower is wrapped in a ribbon of perimeter green spaces that transform the typical office, and which are well-designed with details showing deep planters permitting the growth of trees and appropriate drainage. The resulting form is attractive and unique, related directly to its program. The jury would encourage the designer to further express the 'green' nature of the design in the exterior rendering and sections.

**<< Jury Commentary >>**

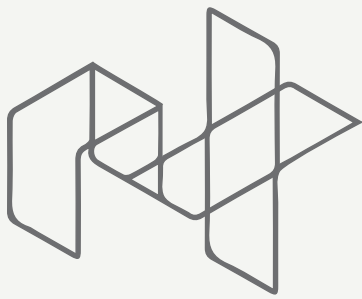
While among the least developed designs in the winner's category, this was also one of the judges favorites. There is so much tension and debate today concerning desires to close national borders by building walls, or making them more impenetrable by increasing their security. This proposal poses the very interesting question of how to spacialize the number of people crossing America's border – what would happen if immigrants were to be given housing at the border? As shown in these images, towers stretch across the frontier, reminiscent of the watchtowers stretched along China's Great Wall, somehow giving order and rhythm to an infrastructure otherwise so winding and vast. The towers as shown in this submission become part of this infrastructure, forming a sort of intermediary nation of people in-between, the basis for a great design project with so much more to explore.



**3rd prize winner + BB Student Award  
– The Wall**

The third prize winner was 'The Wall' by Elizabeth Compeán Michel, Gabriel Madrigal Betancourt, Juan Jesús García Castro, and Rodrigo Zertuche Rodríguez from Mexico University. The project – which was also awarded the BB Student Award – played with the topical concept of building walls in order to close national borders.

Photo: © Elizabeth Compeán Michel; Gabriel Alejandro Madrigal Betancourt; Juan Jesús García Castro; Rodrigo Zertuche Rodríguez and Bee Breeders



# ArchXpo 2018

The 5<sup>TH</sup> International Exhibition of Architecture & The Built Environment

**Halls B and C**  
**Marina Bay Sands, Singapore**  
**2 - 4 October 2018**

## Where the architectural community gathers!

Co-organised by Singapore Institute of Architects, ArchXpo 2018 is the key showcase of the latest technologies in the architectural and built environment.

Join us to meet the movers and shakers of the industry!

### Event Projections\*

10,000sqm  
gross exhibition area

250  
exhibitors from  
20 countries

9,000  
trade professionals  
from 40 countries

\*Combined statistics across Architecture & Building Services 2018

## Meet quality buyers at Singapore's most comprehensive building show!

- Builders
- Contractors
- Developers
- Engineers
- Facility Managers
- Government Agencies
- Facility Managers
- Government Agencies
- Housing Developers
- Interior Designers and many more!

ArchXpo spearheads Architecture & Building Services (ABS) 2018.

**6 established exhibitions | 6 conferences**

**4,000 quality delegates**

[www.archxpo.com.sg](http://www.archxpo.com.sg)

For more information, please email [aes@cems.com.sg](mailto:aes@cems.com.sg) or call (65) 6278 8666

Organised By



A Part Of



Concurrent Events





# UPCOMING SKYSCRAPERS IN SOUTHEAST ASIA

**B**uildings in Southeast Asia are getting taller and taller as engineers find innovative ways to construct taller buildings in a quicker way than before. Technology has allowed engineers and even architects to design and build taller buildings which are not only visually attractive but also sustainable and more energy efficient.

According to the Council on Tall Buildings and Urban Habitat (CTBUH), which developed the international standards for measuring and defining tall buildings, says that "there is no absolute definition of what constitutes a 'tall building'; the definition is subjective." It is considered against one or more of the following categories: Height Relative to Context, Proportion and Embracing Technologies Relevant to Tall Buildings.

#### **Height relative to context**

A 14-storey building may not be considered a tall building in a high-rise city such as Chicago or Hong Kong, but in a provincial European city or a suburb this may be distinctly taller than the urban norm.

#### **Proportion**

There are numerous buildings that are not particularly high, but are slender enough to give the appearance of a tall building. Conversely, there are numerous big/large-footprint buildings that are quite high, but their size/floor area rules them out of being classed as a tall building.

#### **Embracing technologies relevant to tall buildings**

There are numerous buildings that are not particularly high, but are slender enough to give the appearance of a tall building. Conversely, there are numerous big/large-footprint buildings that are quite high, but their size/floor area rules them out of being classed as a tall building.

If a building can be considered as subjectively relevant to one or more of the above categories, then it can be considered a tall building.

#### **Is the number of floors an indicator of a tall building?**

Although number of floors is a poor indicator of defining a tall building due to

the changing floor to floor height between differing buildings and functions (for example, office versus residential usage), a building of 14 or more storeys – or more than 50 metres (165 feet) in height – could typically be used as a threshold for a "tall building."

CTBUH added that tall buildings that achieve great heights can be grouped into supertall and megatall buildings. A "supertall" is a tall building over 300 metres (984 feet) in height, and a "megatall" is a tall building over 600 metres (1,968 feet) in height. As of today, there are 127 supertalls and only three megatalls completed globally.

The three megatall buildings are Burj Khalifa in Dubai, UAE (Height of 828 metres and 163 floors); Shanghai Tower in Shanghai, China (Height of 632 metres and 128 floors); and Makkah Royal Clock Tower in Mecca, Saudi Arabia (Height of 601 metres and 120 floors).

In this theme on Skyscrapers, we look at some new and upcoming buildings which are set to transform the skyline of Southeast Asia by 2025.

**“In addition to strong activity in established centres, relatively new markets such as Vientiane, Laos; Phnom Penh, Cambodia; Hanoi, Da Nang and Ho Chi Minh City are showing robust growth in terms of tall buildings under construction. Vietnam, for instance, is only slightly behind The Philippines in terms of projects underway.**

**Although skyscrapers are generally considered lagging indicators of economic trends, it is fair to say the burgeoning economies of Southeast Asia are beginning to demonstrate their accomplishments via their skylines.”**



– **Daniel Safarik**, CTBUH Editor, Council on Tall Buildings and Urban Habitat

# TALL BUILDINGS UNDER CONSTRUCTION IN **SOUTHEAST ASIA**

## by Height to Architectural Top

### >> Quick Facts – Global

Tallest building: **Burj Khalifa, Dubai, 828 metres**  
 Number of 300 metres plus buildings: **127**  
 Number of 200 metres plus buildings: **1,319**  
 Number of 150 metres plus buildings: **4,253**

*Source: CTBUH Skyscraper Center*

■ **Merdeka PNB118**  
**Height: 644 metres**

**Location:** Kuala Lumpur, Malaysia  
**Floors:** 118  
**Use:** Hotel / Office  
**Completed:** 2021

■ **Grand Rama 9 Tower**  
**Height: 615 metres**

**Location:** Bangkok, Thailand  
**Floors:** 125  
**Use:** Hotel / Residential / Office  
**Completed:** 2021

■ **Vincom Landmark 81**  
**Height: 460 metres**

**Location:** Ho Chi Minh City, Vietnam  
**Floors:** 81  
**Use:** Mixed use development including residential, hotel and retail

■ **The Exchange 106**  
**Height: 445.5 metres**

**Location:** Kuala Lumpur, Malaysia  
**Floors:** 96  
**Use:** Office  
**Completed:** 2019

■ **Coronation Square Tower 1**  
**Height: 370 metres**

**Location:** Johor Bahru, Malaysia  
**Floors:** 78

■ **Fairmont Kuala Lumpur Tower 1**  
**Height: 370 metres**

**Location:** Kuala Lumpur, Malaysia  
**Floors:** 78  
**Use:** Serviced Apartments / Residential / Hotel  
**Completed:** 2020

■ **Icon Tower 1**  
**Height: 350 metres**

**Location:** Jakarta, Indonesia  
**Floors:** 76  
**Use:** Hotel / Office  
**Completed:** 2019

■ **Four Seasons Place**  
**Height: 342 metres**

**Location:** Kuala Lumpur, Malaysia  
**Floors:** 77  
**Use:** Mixed Development  
**Completed:** 2018

■ **SO Sofitel Kuala Lumpur Hotel & Residences**  
**Height: 341.2 metres**

**Location:** Kuala Lumpur, Malaysia  
**Floors:** 78  
**Use:** Branded Residences and Hotel  
**Completed:** Q4 2021

■ **Thamrin Nine Tower 1**  
**Height: 333.5 metres**

**Location:** Jakarta, Indonesia  
**Floors:** 70  
**Use:** Hotel / Office  
**Completed:** 2019

■ **The Peak Residential Tower 1 and Tower 2**

**Location:** Phnom Penh, Cambodia  
**Floors:** 55  
**Use:** Residential  
**Completed:** 2020

■ **Sky Office at Vientiane World Trade Center**  
**Height: 150 metres**

**Location:** Vientiane, Laos  
**Floors:** 33  
**Use:** Office  
**Completed:** 2018

■ **The Mega Tower**  
**Height: 249.7 metres**

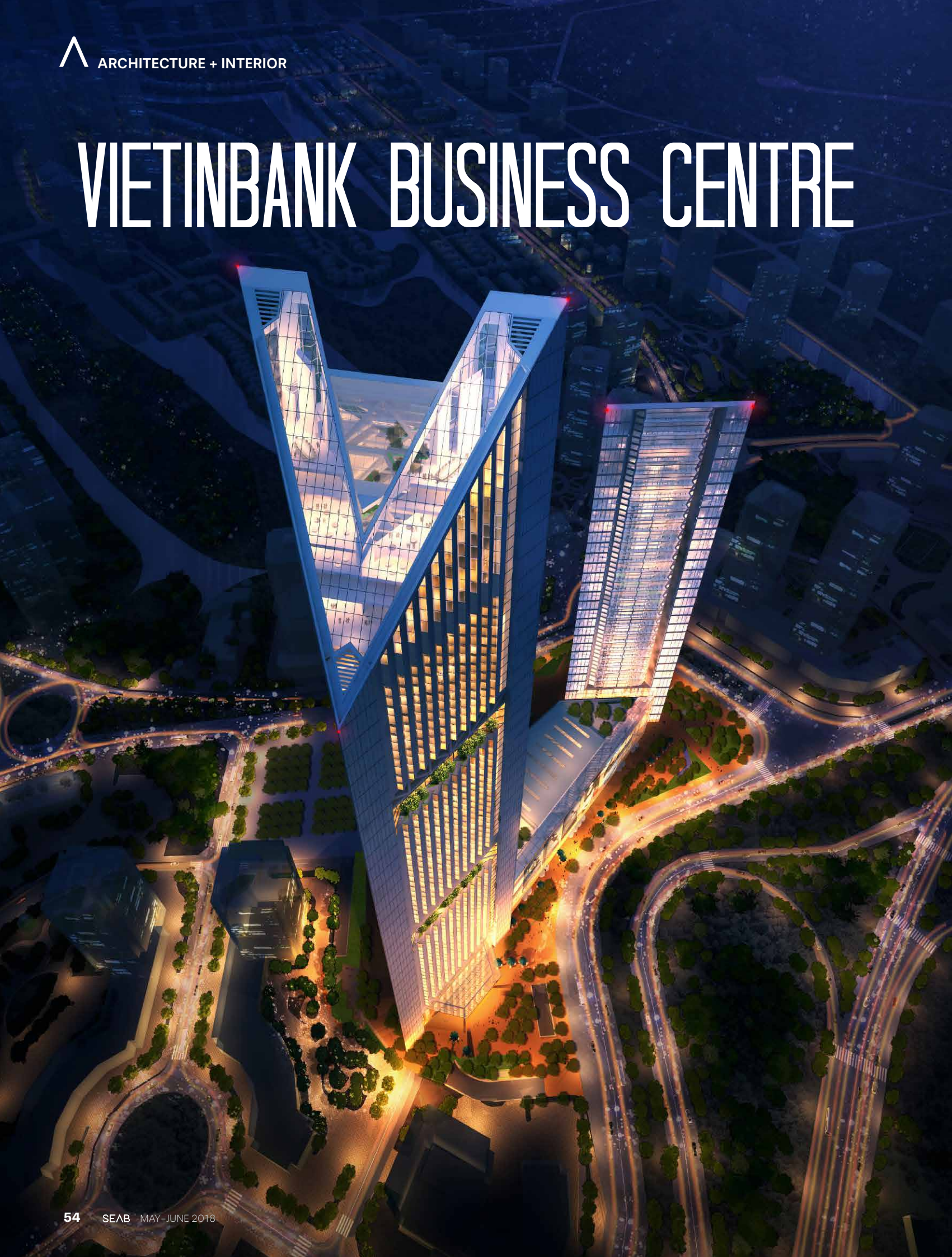
**City:** Mandaluyong, Philippines  
**Floors:** 50  
**Use:** Office  
**Completed:** 2020

■ **Century Spire**  
**Height: 245 metres**

**City:** Makati, Philippines  
**Floors:** 60  
**Use:** Residential / Office  
**Completed:** 2019

Source: CTBUH Skyscraper Center

# VIETINBANK BUSINESS CENTRE



**V**ietinBank Business Centre is Foster + Partners first project in Vietnam and pioneers an ambitious sustainable agenda, while demonstrating the emergence of Hanoi as an international financial centre. The development comprises two landmark towers, which are strategically located between central Hanoi and the airport, and form a striking new gateway to the city.

As well as providing a new headquarters for VietinBank, one of Vietnam's largest banking groups, the 300,000-square-metre mixed-use scheme includes a range of leisure facilities. The taller tower, at 68-storeys, will provide an energy-efficient new headquarters for the Bank, while the second, 48-storey tower will house a five-star hotel, spa and serviced apartments. The towers are connected by a seven-storey podium building, which contains a range of shops, cafes and restaurants and is topped by roof gardens. The upper levels of each building have been sheared diagonally to create V-shaped peaks, which face away from the adjoining podium to address views of the city and surrounding landscape. Rising from a triangular footprint, the two wings of the towers are braced by a central green spine, formed by a series of connected atria, which contribute to the building's ventilation strategy.

The scheme has a progressive environmental agenda and is designed to mitigate the effects of the area's high levels of humidity using a low-energy, desiccant wheel. The system draws in humidity, separating the water from the atmosphere and exhaling hot, dry air, which can then be cooled by ground water and released back into the buildings. This is the first time this technology has been applied in the region on such a large scale. A serrated facade, made up of projecting fins at 4.5-metre intervals, provides both shade and a unit of measurement for cellular offices around the perimeter of the floor plate.



**"This is our first project in Vietnam, designed as a mixed use landmark – positioned between the airport and the city centre – as the gateway to Hanoi. It will provide modern flexible working spaces for Vietinbank alongside a luxury 5-star hotel and hospitality spaces for visitors and locals. A true exemplar of sustainability, the design responds to the climate and traditions of Hanoi, and symbolises the rise of Hanoi as an global centre for finance."**

**- Luke Fox**, Head of Studio and Senior Executive Partner, Foster + Partners



#### PROJECT DATA

**Project:** VietinBank Business Centre  
**Location:** Hanoi, Vietnam  
**Client:** VietinBank  
**Architect Firm:** Foster + Partners  
**Type:** Mixed-use development (Office & Hospitality)  
**Gross Area:** 295,000 square metres  
**Height:** 365 metres  
**Floors:**  
*First tower:* 68 storeys  
*Second tower:* 48 storeys  
**Estimated Completion:** 2019  
**Photos:** © Foster + Partners



# FOUR SEASONS PRIVATE RESIDENCES BANGKOK





**T**hailand-based international real estate developer Country Group Development PCL (CGD) and Four Seasons Hotels and Resorts have developed masterplans for Bangkok's Chao Phraya Estate, featuring Four Seasons Private Residences Bangkok at Chao Phraya River; and two ultra-luxury hotels including Four Seasons Hotel Bangkok at Chao Phraya River.

The baht 32 billion development will span over 350 metres of waterfront across 35-2-68 Rai (14.2 acres), making it one of the largest waterfront plots of land in Bangkok's CBD area.

Strategically positioned at the heart of the Chao Phraya Estate, Four Seasons Private Residences Bangkok at Chao Phraya River is fashioned to elevate waterfront living to new heights; drawing inspiration from its spectacular waterfront location, and one-of-a-kind geometric design, it features all corner units with unobstructed panoramic views of both river and city skyline, across all 355 residences; bringing together ample living spaces, modern amenities, and legendary Four Seasons service.

**"We were inspired by the upward and downward flow of the currents of the river which were partly the generator behind the final design; a geometric design concept which essentially made all units a corner unit to create dual views of both the river and city."**

– **Richard Scott-Wilson**, Founder of Hamiltons International and Masterplan Consultant of Four Seasons Private Residences Bangkok at Chao Phraya River



The overall design of the Private Residences was conceptualised by internationally acclaimed masterplan and design consultants Hamiltons International and interior design firm BAMO. Using complements of local and imported materials and designers, underpinned by a vision of providing owners and residents with modern contemporary design along with a sense of timeless elegance, Four Seasons Private Residences will feature a mix of floor plans, starting from 115 square metres for a 2 bedroom residence and 1,050 square metres for a penthouse residence.

Four Seasons Hotel Bangkok at Chao Phraya River will be a 300 keyed; low-rise, urban resort, sprawled over nine acres across the southern span of Chao Phraya Estate. Set on one of the largest land areas directly allocated to one hotel, with an unprecedented 200 metres of river frontage, it is poised to become a truly unique urban resort arranged in a series of cascading green courtyards and lush landscapes. Four Seasons Hotel Bangkok at Chao Phraya River offers state-of-the-art meeting and function spaces, including the largest riverfront Grand Ballroom in Bangkok, specialty conservatory concept meeting and function spaces with sky terrace garden, as well as a myriad of world-class entertainment offerings from restaurants and bars along the property's waterfront promenade.

## PROJECT DATA

**Project:** Four Seasons Private Residences Bangkok at Chao Phraya River

**Location:** Bangkok, Thailand

**Client:** Country Group Development PCL

**Masterplan & Consulting Firm:** Hamiltons International

**Interior Design Firm:** BAMO Inc.

**Contractor:** Beijing Construction Engineering Group (BCEG)

**Type:** Mixed-use development (Residence & Hospitality)

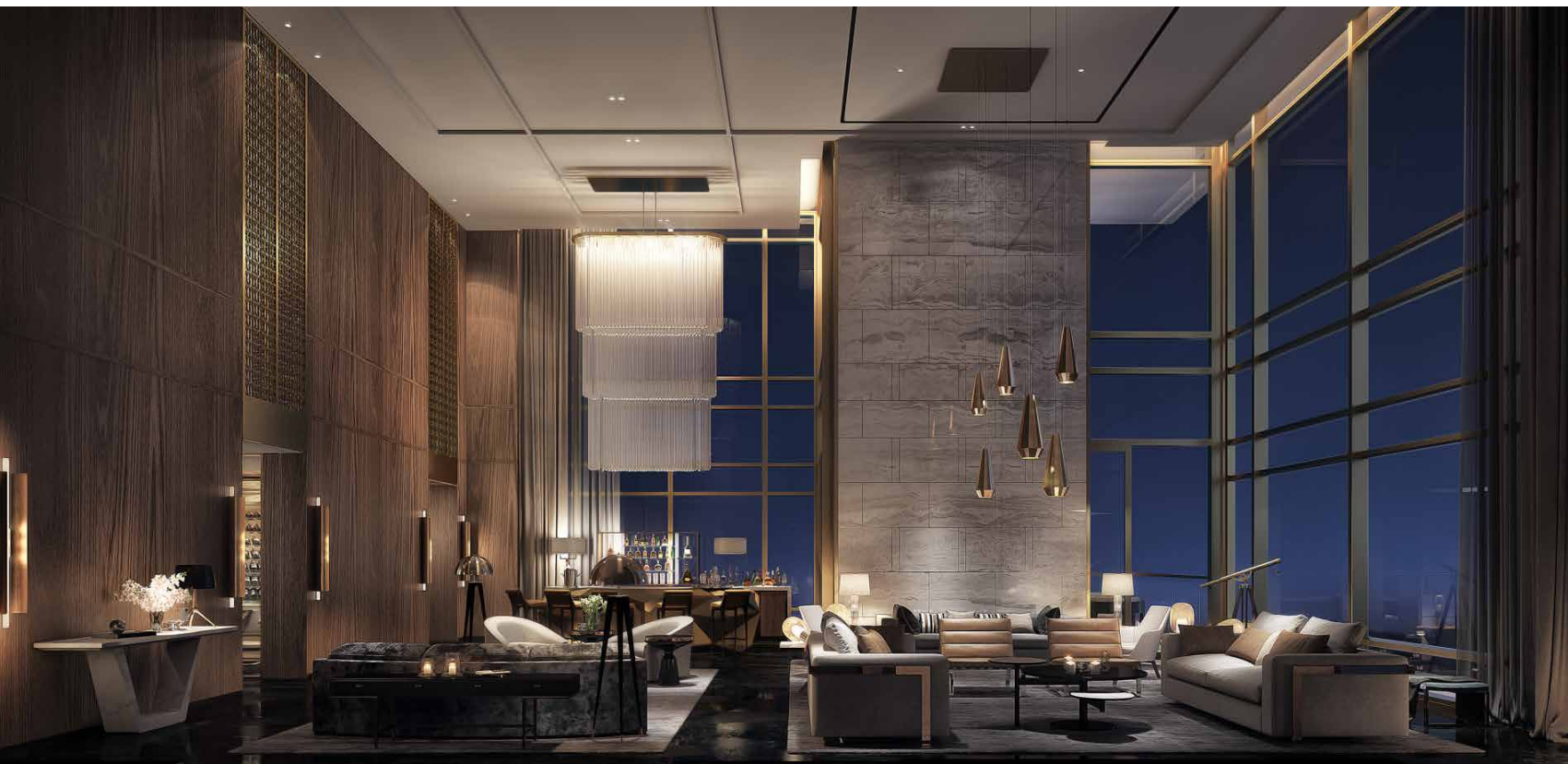
**Site Area:** 14 acres (Entire Chao Phraya Estate Development)

**Height:** 301 metres

**Floors:** 73

**Estimated Completion:** Q4, 2018

**Photos:** © Four Seasons Private Residences Bangkok at Chao Phraya River



# SIGNATURE TOWER JAKARTA



Located as the centerpiece of the Sudirman Central Business District (SCBD) in the heart of the business and financial district of Jakarta, the design of Signature Tower Jakarta sets a high standard of luxury development and accommodation. It is a well-integrated tower and mixed-use development, with state-of-the-art architectural design that is efficient, functional and iconic.

#### Cutting edge standards

As the design has evolved, the small building footprint and appropriate floor areas help to minimise and optimise the use of land and precious building materials. In return, the efficient floor plans help to maximise usable rental space and therefore the owner's return on investment.

The design of the development considers issues related to the environment and sustainable design, such as striving to reduce the amount of energy consumed (through thoughtful selection of materials and building systems) and maximise the use of recycled materials.

Signature Tower Jakarta is an elegant and contextual design that is intended to become an iconic representation of Jakarta and raise the level of quality for corporate developments in the region and the world.

#### Design approach

With a combined site area measuring 50,674.0 square metres, and an allowable development area more than 461,000 square metres, the 111-storey development will include:

- An Observatory,
- A 6-Star Luxury Hotel,
- International Class A Office Space,
- A Conference Center and Banquet Facilities, and
- A Luxury Retail Mall.

Signature Tower Jakarta is organised by situating the Observatory and Hotel spaces on the highest floors, supported by the office floors and resting on the conference and retail podium levels.

**"The sheer size of the building means it will have an impact on the city skyline and the immediate surrounding area. From a planning viewpoint, the development is in the heart of the CBD – it is intended to be the heart of the city – not only during business hours but after – and is designed to have pedestrian access from mass transit – to counter the stifling traffic jams that currently exist. The city is a modern metropolis, and design of the building is such that it will lead but also reflect the energy and style of the city. This is accomplished through the form of the tower and use of building materials."**

- **John Gerondelis**, Principal, Smallwood, Reynolds, Stewart, Stewart & Associates, Inc.



This organisation and structural arrangement has been successfully tested and repeated in some of the world's tallest and notable super-high rise towers, such as the ICC Tower in Hong Kong and the Shanghai World Financial Center.

Site Planning for the Signature Tower development places the iconic tower in the centre of the SCBD, between the existing Pacific Place Jakarta mixed-use development and the proposed 8-storey retail / convention / restaurant podium.

The Signature Tower retail development is planned to have covered, direct pedestrian connections to the existing adjacent developments above ground and below ground, including an elevated pedestrian connector between the existing Pacific Place Jakarta and

below grade connectors between Lots 5, 9, 10 and 22.

The design objectives for the development include providing an integrated, distinctive and symbolic world-class environment that is economically viable to construct, operate and maintain. An environment that is safe, secure, and ecologically responsible, and one that establishes a new style for Indonesian architecture for the new millennium.

**National spirit**

Signature Tower Jakarta celebrates the Indonesian spirit through the reinforcement of the date of the National Day of Independence, 17 August 1945, viewed on each façade of the tower. Visible during the day using highly





polished stainless steel, 17 leaves grow and blossom upward through the shaft of the tower.

At the crown, these 17 leaves are bound together by 8 louver grill elements, culminating to embrace a single 45 metre tall spire: the 17th day of the 8th month in the 45th year.

Central to the four building elevations of the crown, these elements in turn are supported by 5 crystalline glass buds accentuating the five principals of Pancasila rising to support a single central spire – the united Indonesian people. Hence the budding flower (Pancasila) spreading from all corners of the tower, spreading to all corners of Indonesia.

## PROJECT DATA

**Project:** Signature Tower Jakarta

**Location:** Jakarta, Indonesia

**Client:** PT Grahamas Adisentosa

**Design Architect:** Smallwood, Reynolds, Stewart, Stewart & Associates, Inc. / Atlanta, Georgia, USA

**Architect of Record:** PT Pandega Desain Weharima / PDW Architects

**Type:** Mixed-use development (Office, Retail & Hotel)

**Site Area:** 50,674 square metres (12.5 acres)

**Height:** 638.0 metres / 2,093.2 feet

**Observatory Height:** 534.5 metres / 1,753.4 feet

**Floors above Ground:** 111

**Floors below Ground:** 6

**Parking:** 5,046 spaces

**Estimated Completion:** Q4, 2022

**Images:** © Smallwood, Reynolds, Stewart, Stewart & Associates, Inc.

# VINCOM LANDMARK 81

**T**he Landmark 81 tower will be Vingroup's centerpiece for their Central Park Development in Ho Chi Minh City, Vietnam. Atkins, member of the SNC-Lavalin Group, is the lead architect of the project. With an expected height of 460m, this building will be the tallest building in Vietnam once completed, adding a new iconic landmark to Ho Chi Minh City's ever growing skyline. Construction has started in 2015 and is progressing well.

The tower will contain primarily residential apartments from levels 6 to 45. Above which is a hotel and at the slender peak of the tower is a number of public floors offering an observation deck and exhibition space. The setbacks will offer many of these spaces spectacular roof terraces. The 81st floor of the tower is at just under 389 metres, while the peak of its spire extends to just over 461 metres. At the time of writing this will make it the tallest tower in Ho Chi Minh City by a significant margin. Indeed it will be taller than the Petronas Towers in Kuala Lumpur, currently the tallest tower in Southeast Asia at (451 metres to its top and 379 metres to its roof). At the base of the residential tower, on the roof of the podium will sit a dramatic terrace complete with expansive infinity pools overlooking the Saigon River. Next to these within the tower will be an elegant club house.



**"It is a rare privilege to design the tallest building in a city, even more so a country. It is also rare to find a client with such a clear vision of what they wish to achieve. In developing our design we have looked towards the essence of the skyscraper and to Vietnamese cultural ideas."**

- **Ian Milne**, Senior Design Director at SNC-Lavalin's Atkins' Business, Asia Pacific





The retail podium is spread over three levels and links down to a large basement retail floor. All are linked via an atrium mall space. The modular nature of the tower's plan is extended to the podium. This provides an interesting set of shop fronts, many of which are corner shops. Many ground level shops are accessed both from the internal mall and from the landscaped plaza. Retail units at upper levels enjoy access to roof terraces, permitting customers to restaurants and cafes to enjoy views of the park and river. The hotel and apartments have independent separate access from the retail directly into the base of the tower.

The tower is designed to the highest standards for fire escape using the latest NFPA 5000 standards which have been upgraded based on events at the World Trade Centre in New York. For this tower, Vingroup have chosen to go even beyond these standards in some areas related to fire and life safety. One example providing fire escape from upper floors via specially designed lifts in addition to conventional stairs. This innovative approach will significantly speed up the time that it takes to evacuate all occupants from every floor of the tower. While an innovative solution, it uses tried and tested systems and components.

## PROJECT DATA

**Project:** Landmark 81  
**Location:** Ho Chi Minh City, Vietnam  
**Client:** Vingroup  
**Architect Firm:** Atkins, member of SNC-Lavalin Group  
**Landscape:** Atkins, member of SNC-Lavalin Group  
**Type:** Residential, Hotel and Retail  
**Height:** 460 metres  
**Floors:** 81  
**Photos:** © Atkins, member of SNC-Lavalin Group

# 51-STOREY INTEGRATED DEVELOPMENT ON 88 MARKET STREET



**"BIG's design seeks to continue Singapore's pioneering vertical urbanism with the 280m tall diverse community of places to work, live and play inside as well as outside. At multiple elevations, the facade peels open to reveal urban oases for its users and the surrounding city - animating the elegant smoothness of modern architecture with the ubiquitous tropical nature."**

**- Bjarke Ingels, Founding Partner, BIG**



**Bjarke Ingels**  
Photo: © Stephen Voss



On 9 February 2018, CapitaLand Limited (CapitaLand), CapitaLand Commercial Trust (CCT) and Mitsubishi Estate Co., Ltd (MEC), together held a groundbreaking ceremony for the redevelopment of Golden Shoe Car Park in Singapore.

On par with the tallest buildings in the heart of Singapore's Central Business District (CBD), the 280-metre development is scheduled for completion in the first half of 2021.

The groundbreaking ceremony was officiated by Guest of Honour Mr Lawrence Wong, Singapore's Minister for National Development and Second Minister for Finance.

The former Golden Shoe Car Park will be transformed into a 51-storey vertically integrated community comprising 635,000 square feet of Grade A office space, a 299-unit Citadines serviced residence to be managed by The Ascott Limited and ancillary retail space. The popular Market Street Food Centre will also return, occupying two floors in the development.

Mr Lim Ming Yan, President & Group CEO of CapitaLand Limited, said: "Buildings can no longer be designed with a singular purpose or customer profile in mind – the definition of work is rapidly evolving and will continue to take on new forms. With our deep expertise in developing and managing offices, malls, serviced residences and integrated developments, CapitaLand is in a unique position to lead the charge in creating future-ready, work-live-play developments that will galvanise the community. Anchoring the rejuvenation of Raffles Place, the upcoming integrated development will set a new benchmark for workspaces of the future as we harness the best-in-class design, engineering and smart technologies to empower occupants with new levels of flexibility and mobility.

This will be complemented by active placemaking initiatives in the integrated social spaces to build a vibrant work-live-play as we harness the best-in-class design, engineering and smart technologies to empower occupants with new levels of flexibility and mobility.



**"At CRA, we aim to design spaces that can become settings for novel interactions. In this building, green areas are made accessible to the public at different heights, allowing the city's exuberance to extend throughout the entire tower. Working in nature will be as essential to the experience of the building as the most advanced digital technologies, offering us a glimpse of tomorrow's offices."**



Carlo Ratti  
Photo: © Lars Kruger

- **Carlo Ratti**, Founding Partner, CRA; Director, MIT Senseable City Lab



**Community-centric**

The upcoming development will define the possibilities for workspaces of tomorrow, seamlessly integrating commercial and community spaces. In line with the government's efforts to transform Raffles Place into a vibrant green zone with more public spaces, wider walking and cycling paths, enhancements that will be made to the streetscape include the partial conversion of Market Street into a 12,500-square-foot public park.

redevelopment period, the stallholders are operating from an interim food centre located next to Telok Ayer MRT station on Cross Street.

Whether you work at one of the offices in the development, stay at the Citadines serviced residence or simply enjoy the local fare at the new food centre, you will be able to join in the fitness sessions, appreciate art installations or unwind at one of the many free lunchtime performances in the green community spaces.



Providing a spacious green expanse for leisure activities, the park will blend into the 19-metre high *CityRoom* at the ground floor of the integrated development which will offer activity pockets that can be used for community events.

The unique charm and heritage of the former Golden Shoe Car Park will also be preserved with the return of the well-loved Market Street Food Centre, home to a plethora of local favourites. The new food centre which will be owned by the Ministry of Environment and Water Resources, will be located on the second and third levels of the development. In the

**City oasis**

Situated in the downtown core, the architectural inspiration of the new development stems from the lush greenery, central location as well as people-centric innovations. Designed by Bjarke Ingels Group, in collaboration with Carlo Ratti Associati, the redevelopment of Golden Shoe Car Park marks the first built project in Southeast Asia by the socially-conscious Danish architect Bjarke Ingels. The design features orthogonal lines running through the façade that pull back to reveal the organic greenery and social spaces at the base, core and rooftop.

**23-25 AUGUST 2018**  
SLECC, COLOMBO, SRI LANKA

# LANKA BUILD '18

SRI LANKA INTERNATIONAL BUILDING AND CONSTRUCTION EXHIBITION

## SRI LANKA'S NO.1 INT'L BUILDING, CONSTRUCTION AND M&E INDUSTRY SHOW

**“This is definitely a 5-STAR  
exhibition in Sri Lanka”**

To Book Your Booth at the Expo, Contact  
Mr. Darren +603 2692 6888 or  
darren@ambtarsus.com

Organised by:



Co-organised by:



[www.lankabuild.org](http://www.lankabuild.org)  
f [lankabuild](#)



The new development will be one of the greenest buildings in Raffles Place with a four-storey *Green Oasis*. At a breathtaking 100 metres above ground, the tropical *Green Oasis* will feature a jungle gym, treetop cocoons, sky hammocks, a café, and a spiral stairway set within a botanical promenade, offering stunning views of the cityscape. The development also will feature cascading landscapes at the rooftop which will house a restaurant and Singapore's highest urban farm.

### Connectivity

The upcoming development will define the possibilities for workspaces of tomorrow. With facial recognition technology, executives will enjoy seamless and secure access to their offices with a mere glance at a camera. Imagine cycling to work via the park connector, storing your bicycle in one of the available lots, freshening up at the end-of-trip facilities and booking a meeting room via an all-in-one lifestyle app before you even arrive at the office.

With a simple touch on your mobile device, adjust your ambient thermal comfort or lighting to customize your workspace preferences. To further optimise user experiences and business operations, sensors, Internet of Things and artificial intelligence technology will be deployed throughout the development. Robots and digital technologies will supplement cleaning and security services, enhancing productivity and efficiency in building maintenance.

The development will also enjoy unrivalled transport connectivity island-wide, with sheltered access to three train lines via Raffles Place MRT interchange and Telok Ayer MRT station as well as connectivity to major expressways. Complementing the government's strategy for a car-lite Singapore, the upcoming integrated development will incorporate a cycling path in its perimeter, 165 bicycle lots and end-of-trip facilities for users.

### PROJECT DATA

**Project:** 51-storey integrated development on 88 Market Street  
**Location:** Singapore  
**Client:** CapitaLand  
**Concept Architect:** Bjarke Ingels Group and Carlo Ratti Associati  
**Project Architect:** RSP Architects Planners & Engineers (Pte) Ltd  
**Contractor:** Dragages Singapore Pte Ltd  
**Type:** Integrated development (Office, residential and retail)  
**Site Area:** 65,700 square feet  
**Total Gross Floor Area:** 1,005,000 square feet  
**Height:** 280 metres  
**Floors:** 51  
**Estimated Completion:** First half of 2021  
**Photos:** © CapitaLand

New Technology & Processes For Green Building and Designs

# LAOBUILD'18

LAOS INTERNATIONAL BUILDING AND CONSTRUCTION EXHIBITION

LAOS' BIGGEST INTERNATIONAL  
BUILDING, CONSTRUCTION AND  
M & E INDUSTRY SHOW

7-9 JUNE 2018  
NATIONAL CONVENTION CENTRE,  
VIENTIANE

To Book Your Booth at the Expo, Contact  
Ms. Rina +603 2692 6888 or  
[rina@ambtarsus.com](mailto:rina@ambtarsus.com)

 laobuild  
 [www.laobuild.com](http://www.laobuild.com)

Co-located with:



Hosted by: Organised by:



 AMBTarsus  
EVENTS GROUP

# ICONE TOWER

**"We are proud and excited to sign the contract for this iconic project. In a few years, we will stand by the foot of this tower that celebrates the people of the Philippines. It is envisioned to be a symbol of humanity and the Filipino culture. The Icone Tower is about giving back to the city with generous public spaces. It sets a shining example of what contemporary Filipino architecture can be while defining a new standard for sustainability in this challenging climate."**

**– Claude Bøjer Godefroy**, Partner and Design Director at Henning Larsen's office in Hong Kong.

**T**he Icone Tower is a new iconic skyscraper in the heart of Manila, developed to pay tribute to the Filipino soldier. Arup and Henning Larsen Architects have signed a JV contract to deliver the detailed architectural and engineering design for the Icone Tower. It is located in Bonifacio Global City – a business district developed from former army camp, Fort Bonifacio.

The tower is envisioned as an edifice that honours and recognizes the service of the members of the Armed Forces of the Philippines, (AFP) – biggest stakeholder of the Bases Conversion and Development Authority (BCDA), client of the Arup-Henning Larsen for the Icone Tower.

At 275 metres tall, the 40-storey structure will host areas dedicated to the Filipino troops, public plaza that promote engagement, exhibition and conference spaces, a rooftop observatory, dining facilities, and a new corporate office for the BCDA.

As a structure that promotes humanity, it is designed to set an example of how a tall building should give back to a city and its people with the ambition of revitalising an entire urban area.

**“We are delighted to design engineer this landmark building which perfectly reflects our vision for tall buildings – a vertical mini-community that respect and respond to the wider local community. As the structural, MEP, facade and fire engineers, we will not only help realise the distinctive diagrid structure with highly recognisable facades, but also make sure that all MEP systems and services in the development are seamlessly integrated to best serve the occupants and local community as well.”**

– **YL Cheng**, Director of Arup in Hong Kong.



The project will be designed out of Henning Larsen's Hong Kong office led by Design Director Claude Bøjer Godefroy and Managing Director Elva Tang, with Arup providing total engineering services from Hong Kong and Manila offices led by Director YL Cheng.

One of the tower's most distinctive features is a large public plaza at the tower base – used for activities and social gatherings, an important part of the Filipino culture – with a canopy of trees designed in alignment with local climate to provide both shade, shelter and the ambiance of a Filipino tropical forest.

The Icone Tower is expected to be completed by end of 2021.

## PROJECT DATA

**Project:** Icone Tower

**Location:** Manila, Philippines

**Client:** Bases Conversion and Development Authority (BCDA)

**Lead & Design Architect:** Henning Larsen Architects, Hong Kong

**Architect of Record:** Casas + Architects

**Engineering Firm:** Arup

**Interior Design Firm:** Henning Larsen Architects, Hong Kong

**Type:** Office, Museum level, Observatory and Sky Restaurant

**Site Area:** Construction Floor Area of ~55,000 square metres on a ~ 8,500 square metres site

**Height:** 275 metres

**Floors:** 40

**Estimated Completion:** End of 2021

**Photos:** © Henning Larsen



# MYANMAR'S NO.1 INT'L BUILDING & CONSTRUCTION INDUSTRY EXHIBITION AND CONFERENCE

## MYANBUILD'18

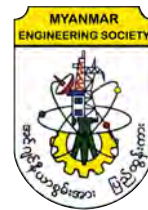
MYANMAR INTERNATIONAL BUILDING & CONSTRUCTION INDUSTRY SHOW

16-18 NOVEMBER 2018  
MEP MINDAMA, YANGON

*"INNOVATIONS IN MYANMAR'S  
ARCHITECTURAL LANDSCAPE"*

To Book Your Booth at the Expo, Contact  
Mr. Darren +603 2692 6888 or  
darren@ambtarsus.com

Hosted by:



Organised by:

**M** AMBTarsus  
EVENTS GROUP



[www.myanbuild.net](http://www.myanbuild.net)



[www.fb.com/Myanbuild](https://www.facebook.com/Myanbuild)

# OXLEY TOWERS



**O**xley Towers, located at Jalan Ampang, is a high-rise mixed development that will rise in the heart of Kuala Lumpur, standing tall in the iconic company of the tallest twin towers in the world, the Petronas Twin Towers. Set in 3.1 acres of sparkling leafy surrounds of the city centre, Oxley Tower comprises of three magnificent columns of glass, steel and lush greenery. It will house two top-of-its-class luxury hotels So Sofitel Kuala Lumpur Hotel and Jumeirah Kuala Lumpur Hotel, two five-star branded residences So Sofitel Kuala Lumpur Residences and Jumeirah Living Kuala Lumpur Residences, and a signature office tower set atop a vibrant retail podium.

**Design concept and facade**

In ode to the rich cultural heritage of Malaysia and its iconic neighbour, the Oxley Towers facade is inspired by the intricate art of local weaving to create a distinctive shape evocative of a thousand diamonds winking in the skyline of Kuala Lumpur. Dotted with lush sky decks and multifaceted facilities, the three towers will endlessly dazzle with its daily mosaic of urban enterprise, unexpected vistas of the city and surprising sights of the beautifully landscaped KLCC park.

There are two facility skybridges connecting the three towers. It provides facilities as well as framing vistas throughout the city centre location. The towers' massing becomes a unique iconic statement leveraging on the location and a vibrant high-end commercial destination, luxury and exclusive address. A sustainable, high performance & efficient building which exudes state-of-the-art technology in construction and operations.

The development of the structural system and selection of materials merge together with the overall architectural façade statement, helping to reinforce the design concept and resulting in a more economical and sustainable structure, larger column free areas with greater flexibility for future occupancies and programmatic variations.

**PROJECT DATA**

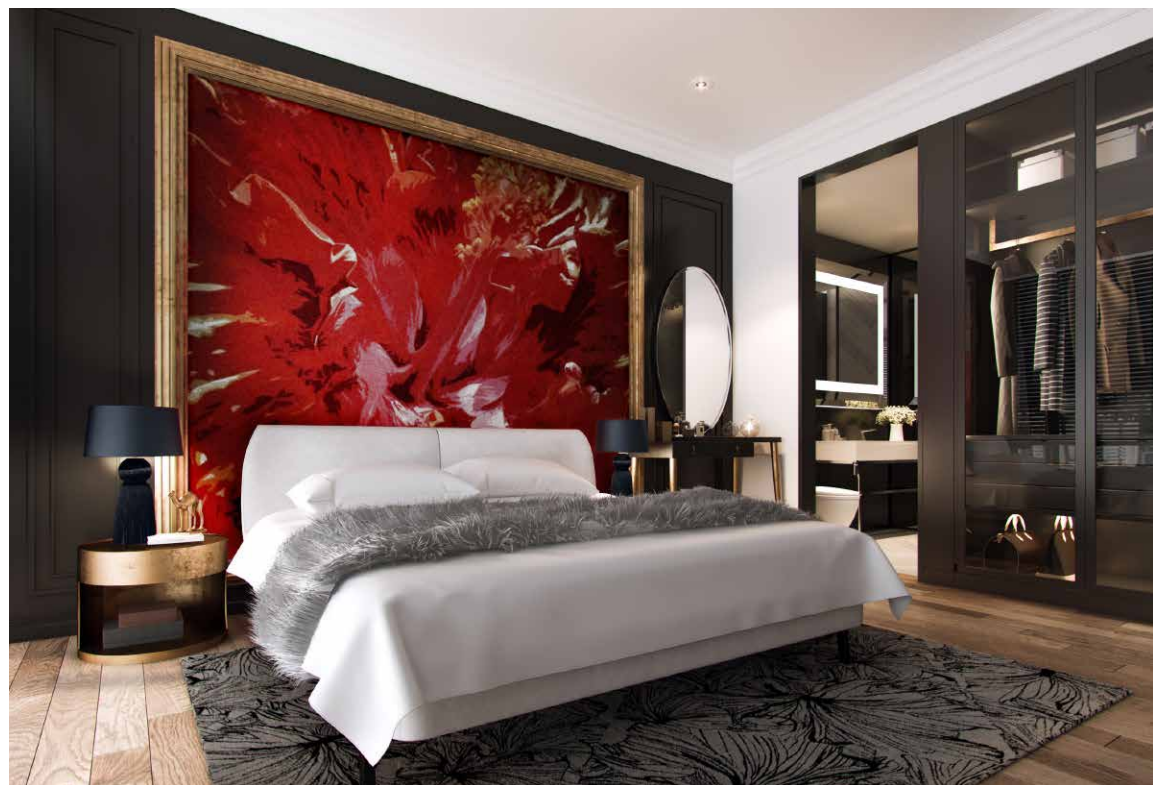
**Project:** Oxley Towers, Kuala Lumpur City Centre  
**Location:** Kuala Lumpur, Malaysia  
**Client:** Oxley Holdings  
**Architect Firm:** Veritas Architects Sdn. Bhd  
**Interior Design Firm:** AEDAS and SODA  
**Type:** Mixed-use development  
 (Branded Residences, 5-Star Hotels, Office, Retail)  
**Site Area:** 12,575 square metres  
**Height:** 155.5 metres, 233.6 metres, 341.2 metres  
**Floors:** 29, 49, 78  
**Estimated Completion:** Q4 2021  
**Photos:** © Oxley Holdings





**Green features of the development**

The building development has been designed with high quality and environmental sustainability integrity. The building is targeted to achieve Singapore Green Mark Building Certification, Gold for Office and Certified for the residences and retail. Oxley Towers is unique in its sustainability goals as it targets to minimise 20 percent energy savings for the tenant and occupier alike. It has been designed to provide a holistic and centric living in an urban and centralised environment, besides world renowned hoteliers Jumeirah and Accor.



The 5<sup>th</sup> Edition of Myanmar Build & Decor



MYANMAR

# BUILD & DECOR

Building Materials, Interior, Furniture & Decor

## 4-6 October 2018

MYANMAR EVENT PARK (MEP)  
AT MINDAMA  
YANGON, MYANMAR

Myanmar's Best Source for  
Architectre/Interior Building Materials,  
Interior Design, Furniture and Decor

[www.myanmarbuilddecor.com](http://www.myanmarbuilddecor.com)

Organized by



**IndoX**  
CREATIVE VILLAGE

Officially supported by



Supporting Media



MORE INFORMATION  
OR SPACE BOOKING

**Ms.Salela**

**ICVeX Co.,Ltd.**

**Tel : +66 2 713 3033**

**Email : [salela@icvex.com](mailto:salela@icvex.com)**



# FOUR SEASONS PLACE, KUALA LUMPUR



**N**estled within Kuala Lumpur City Centre (KLCC) with the renowned Petronas Twin Towers located just next to it, the Four Seasons Place Kuala Lumpur is a stunning new addition to the city's most exclusive neighbourhood. Developed by Venus Assets Sdn. Bhd., this prestigious 77-storey mixed-use development boasts luxury, convenience and prestige, all in one integrated development.

The project consists of 6-storey luxury retail podium, 204-key Four Seasons Hotel, 27 units of Hotel Serviced Residences and 242 units of Four Seasons Private Residences. Standing at 342 metres with a total 77 floors, it is currently dubbed as the second tallest building in Malaysia, the Four Seasons Place will enjoy both



**"Sleek without being understated, the Four Seasons Place Kuala Lumpur is not designed to intimidate but rather as a pleasant addition to the charming Kuala Lumpur city skyline. Its elegance lies in the carefully planned layouts, spatial quality, efficiency, quality of materials, interior, landscape design and the facilities offered, amongst others. One needs to not just look at the façade but be in the building to truly experience and appreciate its splendour and grandiosity."**

**- Alis Marlinna**, Project Director of NRY Architects Sdn Bhd and Architect of Four Seasons Place, Kuala Lumpur



the unobstructed panoramic view of and a direct access to the beautifully landscaped KLCC Park and its surrounding neighbourhoods.

The Shoppes at Four Seasons Place Kuala Lumpur will offer a unique retail experience, with designer boutiques, speciality stores, and premium food and beverage outlets. This retail podium is envisioned to set a new architectural benchmark in the city with its cutting-edge design which features three-dimensional faceted glass façade with 'falling leaves' motifs to symbolise the essence of four seasons, in line with the brand it carries.

The Four Seasons Hotel Kuala Lumpur is an ideal venue for both luxury business and leisure, offering a myriad of facilities and impeccable signature services to

ensure ultimate comfort and convenience to the hotel guests.

Designed as an extension to the luxury hotel, the Four Seasons Private Residences will enjoy a variety of services such as 24-hour security, concierge, valet parking and more, as well as a selection of à la carte additions, from housekeeping and away-from-home maintenance, to in-residence dining and event catering. Residents will also have an incomparable range of recreational options with state of the art facilities, including a rooftop sky lounge, outdoor swimming pools, a fitness centre and spa, and a tempting selection of dining options. All units feature generous floor to ceiling double glazed walls and are readily fitted with high quality built-ins, building finishes and fixtures.

#### PROJECT DATA

**Project:** Four Seasons Place  
**Location:** Kuala Lumpur, Malaysia  
**Client:** Venus Assets Sdn. Bhd.  
**Architect Firm:** NRY Architects Sdn Bhd  
**Interior Design Firm:** Wilson Associates (Hotel & Residence), AB Concept (Chinese Restaurant), Benoy (Retail)  
**Contractor:** CRCC Malaysia Berhad  
**Type:** Mixed Development  
**Site Area:** 10,648 square metres / 114,614 square feet / 2.64 acres  
**Height:** 342 metres  
**Floors:** 77  
**Estimated Completion:** July 2018  
**Photos:** © NRY Architects Sdn Bhd

# thailand lighting fair

The future of light:  
Smart, sustainable, human-centric

8 – 10 November 2018

Bangkok International Trade & Exhibition Centre  
(BITEC), Bangkok, Thailand

[www.thailandlightingfair.com](http://www.thailandlightingfair.com)



**Contact:**

Messe Frankfurt New Era Business Media Ltd

Tel: +852 2238 9969 / 2802 7728

[light@china.messefrankfurt.com](mailto:light@china.messefrankfurt.com)

Concurrent event

# thailand building fair



The Electric Utility of the Future

4.0

The ExhibiZ



messe frankfurt



# Children's Playground by the Beach Puts the Fun in the Sun

**PROJECT**

Destination Park  
Playground, Marine Cove

**LOCATION**

1000 East Coast  
Parkway, Singapore

**CLIENT**

National Parks  
Board

**PHOTOS**

CT-Art Creation  
Pte Ltd

**PLAYGROUND  
EQUIPMENT SUPPLIER**

CT-Art Creation Pte Ltd

**YEAR COMPLETED**

June 2016

**AWARD**

Gold Award in the Playground Category  
at LIAS Awards of Excellence 2017



**T**he National Parks Board in Singapore planned for additional recreation facilities to include play at the longest stretch of beach front in Singapore. A specialist Landscape Architect, Mr Grant Smith, partnered with Surbana Jurong Consultants to design a play area that would be different, unique and consistent with the lifestyle at East Coast Park.

The resulting design was a 16,478 square metre family-friendly and outdoor public playground for children of all ages and abilities. CT-Art Creation Pte Ltd, a specialist in providing quality playground equipment in Singapore, was engaged to manage the project from start to finish.

Called 'Destination Park Playground', the play areas are separated into adventure, families, toddlers, children, electronic zones. Creating multi-level terrains with rich colours encourages a sense of discovery and developmental learning for young children where they can experience different play activities as they grow up with more motor and social skills.

An Iconic Tower was specially designed by "The Leisure Way" with multi-level slides and connecting bridges that allow for hundreds of children to play with a sense of risk and adventure. The playground meets with the highest level of safety standards and practices. Regular maintenance is also carried out to ensure sustainability and safety.

## Interview with Kartini Omar, Group Director, Parks Development & Jurong Lake Gardens, National Parks Board, Singapore

**What were your reasons for choosing this playground design/concept/theme for Marine Cove?**

The playground at Marine Cove adopts a marine theme that is inspired by its environment and aquatic life that inhabits the sea. This is subtly revealed through the design and use of contours, colours and materials.

**How did you select the location for this playground at Marine Cove?**

The redevelopment of Marine Cove was part of a phased master plan to create new nodes to strengthen the coastal character of the park and to meet the increasing recreational needs of park visitors. It was developed based on a family and lifestyle concept with family-friendly facilities including the popular 3,500 square metres children's playground.

**What is the targeted age range of this playground? And did you consider children with disabilities?**

The playground offers a range of play

equipment suitable for children from two to 12 years old.

Older children aged five to 12 years can explore the three-storey play tower at the centre of the playground. The tower is connected to three slides of different levels and a rope bridge. Kids can also climb up the tower through a funnel net in the middle. Children aged two to five years can also have fun with talking tubes, fun mirrors and a drum set.

The playground has incorporated inclusive elements to encourage children of different abilities to play together. The inclusive play equipment is designed with a range of motions, such as spinning, rocking and swinging to improve muscle control. For example, the swing set stimulates a child's sense of balance and eye movement and there is an accessible swing seat equipped with a safety harness. Other special needs-friendly equipment include sensory play panels that help to develop a sense of discovery, motor skills, hand-eye coordination, rhythm and movement, and lengthen attention span. The play zones have been designed to allow children on wheelchairs to join in the play.



It is extremely important to have a safe play structure. How closely did you work with the playground equipment supplier, CT-Art Creation, to ensure that the design is safe for children as well as adults?

Safety is of utmost importance in developing playgrounds. Singapore's playground designs and construction have to comply with the Singapore Playground Safety Standards, which adopts international standards. When building a playground, NParks works closely with all our consultants, contractors and play specialists from conceptualisation to implementation and construction of the playground. Rigorous internal and external playground audits are also conducted before the playground is opened to the public.

What are your plans for incorporating playgrounds in your future park projects in Singapore?

Last October, NParks re-opened Admiralty Park where we took advantage of the undulating terrain to build a playground featuring 26 slides that cater to users of different age groups and abilities. We also doubled the size of the Jacob Ballas Children's Garden within the Singapore Botanic Gardens and introduced attractions and programmes geared towards youngsters up to 14 years old to enable them to learn about a range of eco-systems. Jurong Lake Gardens West is set to open in 2019 featuring a nature-themed adventure playground that is inspired by the rich diversity of our fauna to encourage children to imagine through play.





# Subscription Form

Fax your order today  
+65 6842 2581

(Please tick in the boxes)

**Southeast Asia Building**

**SEAB**  
SINCE 1974

1 year (6 issues)

Singapore	S\$45.00
Malaysia / Brunei	S\$90.00
Asia	S\$140.00
America, Europe	S\$170.00
Japan, Australia, New Zealand	S\$170.00
Middle East	S\$170.00

**Bathroom + Kitchen Today**

**Bathroom + Kitchen Today**  
SINCE 2001

1 year (4 issues)

Singapore	S\$32.00
Malaysia / Brunei	S\$65.00
Asia	S\$80.00
America, Europe	S\$130.00
Japan, Australia, New Zealand	S\$130.00
Middle East	S\$130.00

**Southeast Asia Construction**

**CONSTRUCTION**  
SINCE 1994

1 year (6 issues)

Singapore	S\$45.00
Malaysia / Brunei	S\$90.00
Asia	S\$140.00
America, Europe	S\$170.00
Japan, Australia, New Zealand	S\$170.00
Middle East	S\$170.00

**Lighting Today**

**lighting today**  
SINCE 2002

1 year (4 issues)

Singapore	S\$32.00
Malaysia / Brunei	S\$65.00
Asia	S\$80.00
America, Europe	S\$130.00
Japan, Australia, New Zealand	S\$130.00
Middle East	S\$130.00

**Security Solutions Today**

**Security Solutions Today**  
SINCE 1992

1 year (6 issues)

Singapore	S\$45.00
Malaysia / Brunei	S\$90.00
Asia	S\$140.00
America, Europe	S\$170.00
Japan, Australia, New Zealand	S\$170.00
Middle East	S\$170.00

**IMPORTANT**

Please commence my subscription in \_\_\_\_\_ (month/year)

**Personal Particulars**

NAME: \_\_\_\_\_

POSITION: \_\_\_\_\_

COMPANY: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

TEL: \_\_\_\_\_ FAX: \_\_\_\_\_

E-MAIL: \_\_\_\_\_

Professionals (choose one):

- Architect     
  Landscape Architect     
  Interior Designer     
  Developer/Owner  
 Property Manager     
  Manufacturer/Supplier     
  Engineer     
  Others

I am sending a cheque/bank draft payable to:

**Trade Link Media Pte Ltd, 101 Lorong 23, Geylang, #06-04, Prosper House, Singapore 388399**  
 RCB Registration no: 199204277K \* GST inclusive (GST Reg. No: M2-0108708-2)

Please charge my credit card (circle one): Amex / Diner's Club

Card Number: \_\_\_\_\_ Expiry Date: \_\_\_\_\_

Name of Card Holder: \_\_\_\_\_ Signature: \_\_\_\_\_

# Happy Park – Making Kids Happier and Healthier

**PROJECT**  
Happy Park

**LOCATION**  
Waterway Point,  
Singapore

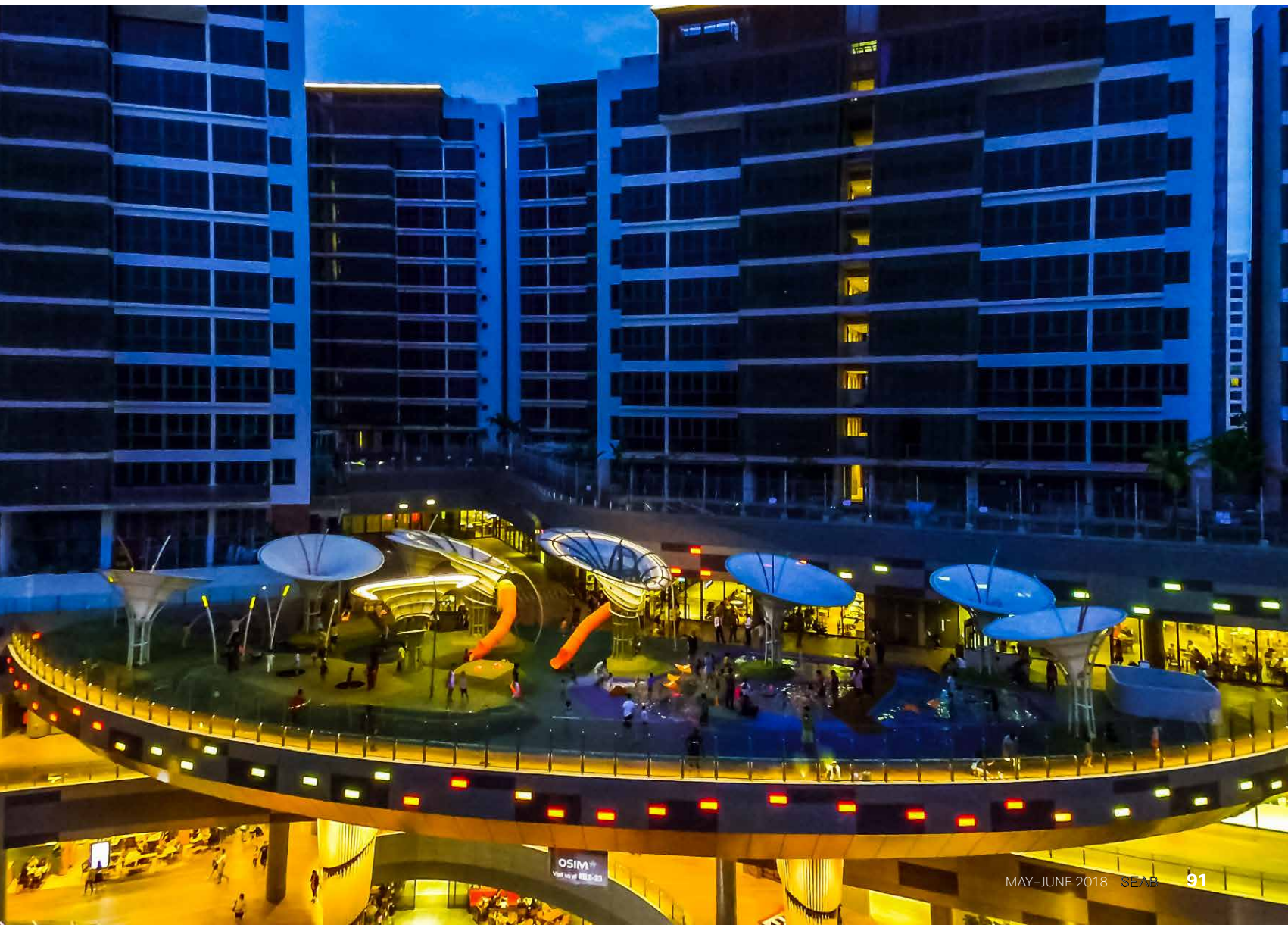
**CLIENT**  
Fraser  
Centrepoint

**PHOTOS**  
Playpoint (Singapore)  
Pte Ltd

**PLAYGROUND  
EQUIPMENT SPECIALIST**  
Playpoint (Singapore)  
Pte Ltd

**YEAR COMPLETED**  
2016

**AWARDS**  
Singapore Good Design 2018 and  
LIAS Silver Award 2017



**H**appy Park has become the first-ever attraction in Singapore to integrate lights to a wet and dry playground, creating a fun and playable sculpture to be enjoyed by kids and adults. Located at the new Waterway Point suburban shopping mall in Punggol New Town, the 1,124 square metres playground consists of two main play areas – dry and wet. The cosy area and the lily trees are two extra elements of the playground. Happy Park is a project of Playpoint (Singapore) Pte Ltd, a leading regional playground specialist in Asia.

### Dry play area

The dry play area is designed as a terraced landscape, accessible for everyone and for all ages. Young children can crawl on and slide down from its soft rubber surface, older children can run, jump and slide on the hills and parents can keep an eye on their kids while using the terraces as seating.

The dry play area has terraced hills, which define its 'inner' world. The whole area is covered with EPDM rubber. Two slides enter this zone, which are accessible from the two highest hills. Long lily-tree roots add extra play elements to this zone. These roots (orange, metal tubes) connect the slides, and can be used for climbing, sliding, swinging and tumbling.

On the elevated platform in the dry play area, Playpoint integrated spinners. Kids can imagine they are a rabbit in the rabbit holes, which are all ground level entry points to the dry play area. These rabbit holes can be lined with led-lights, which makes them safe and visible at night.

### Wet play area

The wet play area consists of four essential elements: a river loop with flowing water, a lake, an island and a bridge.

### River loop

The river loop flows around the island. At some points it varies in width. The river loop invites children to play with water in various ways; they can put their feet in, they can make a little paper boat and let it sail away. They can add obstacles and change the flow of the water, creating

little ponds. The outer edge of the river loop is designed neatly, while its inner edge is rougher, so that the island really seems to sit in the water.

### Lake

The second water element is a large, shallow lake. Children can easily play in this water, which is not deeper than 20 to 30 cm. Water lily stepping stones cover the surface. Children can hop from one side to the other without getting wet feet. Some of the water lily stepping stones are jumping elements, creating a lot of water fun; the water splashes to all sides! Playpoint intentionally kept this area 'low', enabling views to the waterfront panorama, which can be enjoyed from the restaurant.

### Bridge

An iconic, orange bridge (same colouring as orange tubes) is a visible connector on the balcony. It is a low (one-step) element, which crosses the narrow part of the lake and the river loop. The water flows underneath it. Children can play different fantasy games on the bridge, imagining they are Three Giant Lily Trees form the highlight of the playground. They are brightly lit at night, with LEDs covering the tubes, illuminating the water that sprays out of their canopy.

The trees are very transparent tube structures, with a core that can be entered. Children can climb safely to the top, which is designed as a calyx with a stigma. The calyx/canopy of the lily trees is covered with a transparent textile, which offers shade to the playing children. The colour of the trees changes from green at the bottom to white on the top, like a real lily flower. The structures subtly blend with their surroundings. The orange tubes are the 'roots' and contain and connect different playing elements.

They are climbing tubes, partly covered with netting. The orange tubes are also structural to the lily trees, reaching out from their top to keep the trees stable. From the netting and tubes, children can access the two giant slides which are connected to the trunk of the lily trees. Little 'bird houses' are the entry of the slides. Two of the top-to-bottom roots are giant spinners, marked with bright orange colour.

## Interview with Lim Poh Tin, Senior Vice President, Asset Management (Retail), Frasers Centrepoint Asset Management Ltd

What were your reasons for choosing this playground theme 'Happy Park' for Waterway Point?

Parks are supposed to be places where children are happiest and where they can expand their energy and their imagination.

How did you select the location for this playground at Waterway Point?

Logical choice as anything at ground level would minimise retail space.

What is the targeted age range of this playground? And did you consider children with disabilities?

Children with disabilities were taken into consideration and the playground is accessible to children from one year old (subject to close adult supervision) to 12 years old (subject to height limit).

How much space did you have to include the playground in the design of Waterway Point?

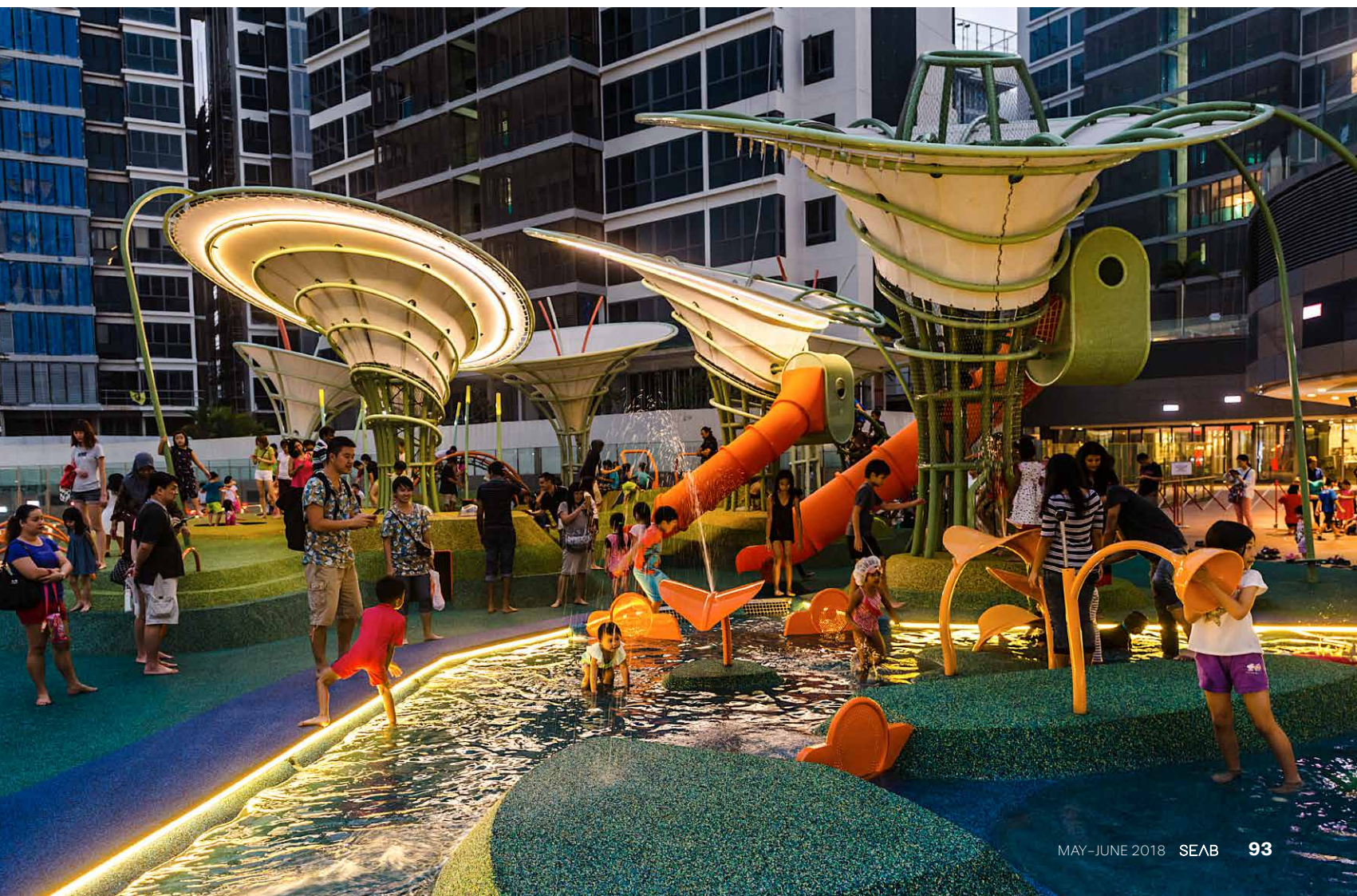
Specifications were furnished to the project architect. We are unable to advise the exact area at this point.

It is extremely important to have a safe play structure. How closely did you work with the playground equipment supplier, Playpoint, to ensure that the design is safe for children as well as adults?

Safety is paramount. The playground is only meant for children and we require the supplier to comply with international safety standards.

What are your plans for incorporating playgrounds in your future malls in Singapore?

It is a standard feature in all our sub-urban malls.



# Life-Sized Lego Sets Make Play More Creative

**PROJECT**

Legoland Malaysia (Ship Yard and Duplo Play Areas)

**PLAYGROUND EQUIPMENT SUPPLIER**

Park Games Equipment (M) Sdn Bhd

**LOCATION**

Medini, Johor, Malaysia

**YEAR COMPLETED**

2011

**OWNER**

Merlin Entertainments

**PHOTOS**

Park Games Equipment (M) Sdn Bhd





**L**egoland Malaysia is located in Medini, Johor, Malaysia. It is a huge Lego-themed amusement park, with a variety of play features, and rides. Park Games Equipment (M) Sdn Bhd [PGE] was given the opportunity to design, manufacture and install play structures for children from the ages of 1 to 12 years old for the play areas Ship Yard and Duplo. Together, they have a play area of approximately 1,800 square metres.





All items and play equipment in both areas were customised and specially designed according to actual Lego sets. PGE's design team, assembled an actual Lego ship as example, and duplicated its detailed size, shape and structure to produce a real size life ship. PGE also worked closely with Merlin Entertainment, to prepare and produce designs for the Duplo play area.

Once suitable designs were submitted and accepted, PGE added playable features and elements suitable for children to all the play equipment. All proposed equipment were then subjected to stringent safety and quality standards before they were finalised and manufactured.



# Let Your Kids' Imagination Take Flight

**Project:** Aeroplane-themed playground  
**Location:** Seletar Aerospace Park in Singapore  
**Client:** Seletar Aerospace Park  
**Playground Equipment Supplier:** Swan-Li (Singapore) Pte Ltd  
**Year completed:** 2017

The Oval Estate at Seletar Aerospace Park, Singapore, boasts a strong aviation heritage. And nestled among the quaint colonial houses dotted in the area is a themed playground that reflects just that.

Designed and built by Singapore playground manufacturer, Swan-Li (Singapore) Pte Ltd, this aeroplane-themed playground is one that lets the kids' imagination take flight. Here, play components are specially designed around the striking silhouette of a propeller plane. Complementing this is a stand-alone Control Tower that takes the thrill to new heights. A secondary toddler playground system was also installed to engage younger aspiring aviators aged 2 to 5 years old.

Unlike traditional modular playground systems, this design-and-build play structure takes on a unique form that was conceptualised entirely from the drawing board. And because of its novel design, there was a challenge to ensure it conforms



Photo: © Swan-Li (Singapore) Pte Ltd

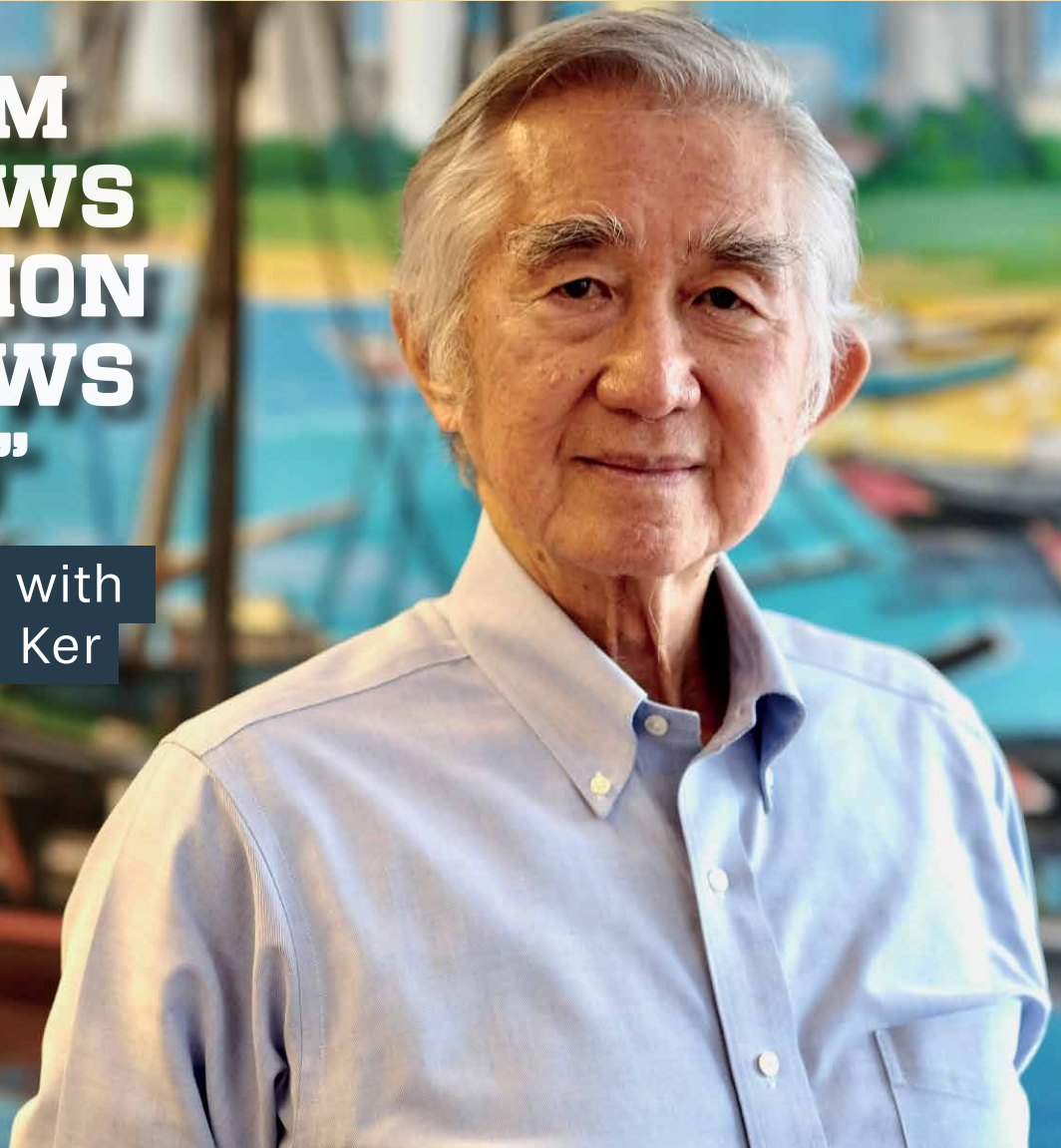
to stringent safety guidelines, without compromising on the overall visual aesthetics. To overcome this, extra attention was paid at every stage of the design. Close communication between Swan-Li's manufacturing team and in-house designers made this possible. The result is today an easily-recognisable landmark that blends gracefully into its surroundings.

Southeast Asia Building is now on issue!  
[issuu.com/southeastasiabuilding](http://issuu.com/southeastasiabuilding)



# “FORM FOLLOWS FUNCTION FOLLOWS FUN”

– Interview with  
Dr Liu Thai Ker



**D**r Liu Thai Ker, a leading architect and urban planner in Singapore, established his own practice Morrow Architects & Planners Pte Ltd – in December last year. Born in Muar, Malaysia, in 1938, Dr Liu studied architecture at the University of New South Wales, Sydney, and Yale University, USA, graduating in 1965. After having carved out a promising career in I.M. Pei & Partners, HDB (Housing and Development Board), URA (Urban Redevelopment Authority) and RSP (RSP Architects Planners and Engineers), Dr Liu wanted to do more quality work and help create better cities around the world through his new firm. In this interview, Dr Liu shares with SEAB, his philosophy of design, his thoughts on planning for rapid urbanisation, the challenges ahead for architecture and urban planning and his advice to the next generation of competent architects and planners.

*All photos courtesy of Morrow Architects & Planners Pte Ltd*



**Q** Congratulations on the launch of your new firm Morrow. The name sounds like 'Tomorrow'. Why did you choose this name for your firm?

**A:** Yes it was indeed derived from the word Tomorrow. The name came from my father's studio. In the 40s and 50s, my father, Mr Liu Kang one of the pioneer artists, set up a studio called 'Morrow Studio' in Dhoby Ghaut to paint shop signages and create huge posters for cinemas. In those days, when printing technique was not very advanced, giant cinema movie posters had to be hand painted. This studio was actually a continuation of his signage painting work during the Japanese Occupation. During the Japanese occupation, when we were all still in Muar, the Japanese would round up many school teachers because they didn't want the educated to plot against them. My father was a school teacher and therefore an intellectual. Thus, in order to evade capture, he came to Singapore alone and disguised his identity by working as a sign painter and not a teacher. So, this was how Morrow Studio came about.

**Q** What happened after that? Did your father continue with his studio?

**A:** Yes, later he kept his studio. Soon after the Japanese surrendered, he went back to his old profession as an art teacher but still did some big cinema posters to supplement his meagre salary. At the same time, he took in some students to teach them drawing or painting. I was one of his students.

Later when I was in senior high school, I would occasionally help him out in his studio. By then, I had learnt the basic skills of painting from my father and calligraphy from my uncle who was my mother's older brother as well as a well-known calligrapher. That was very helpful for my subsequent career as an architect, in the sense that I was given the opportunity to develop my aesthetic sensitivities from a young age.

So, this is how I came to choose the name 'Morrow' for my new firm. I liked the name. I grew up with it. In using it, it is like a historical continuation.

**Q** Was architecture a natural or logical choice because of your painting/drawing background or was it your own choice?

**A:** Well, having grown up in a family like that, I had no doubt that I would pursue a career as a painter or a calligrapher. But

when I finished high school, my parents were still so desperately poor that I knew that they could not afford to send me to any university or art school. But fortunately, a few months after I finished school, I was asked at the age of 17 to teach as a temporary teacher in one of the primary schools. That was during the post-war period. Some of my students were older than me because they had missed out on school during the Japanese occupation. After teaching for a few months, I saved enough money to buy a ticket to sail to China aboard a freight ship. My father, knowing that he could not afford to send me anywhere else, tacitly accepted my decision. But my mother didn't, because she thought that she would never see me again if I went to China. This was before the Cultural Revolution, and at that time, China was still in quite a bit of turmoil. So, she asked me to wait for a few days to offer some alternative choices to me.

Two days later, she found out that there was a part-time architecture course in the University of New South Wales and asked me if I would consider taking up architecture for two key reasons. The first was, if I did, then she could hope to see me again. And second, she wished that, as an architect, I could pull the family out of poverty. I thought that made a lot of sense and therefore agreed. Normally, architecture courses take five years, but this one was six years because we could work and study at the same time. Deep in my heart, I thought that I would do architecture just to satisfy my mother's wish and to earn a bit more money to help the family. But my ambition was still to be an artist.

**Q** When and where did you then start your education in architecture?

**A:** When I was in Sydney, I enrolled both in the University of New South Wales and, one afternoon a week, in the East Sydney Technical College, an art school, to do oil painting or figure studies and so on. This went on for four years, and because of my good performance, I befriended some well-known art critics and famous artists in Sydney. At the end of my fourth year at the university, my workload became heavy. So, I decided to give up my half-day attendance at the technical college from the fifth year onwards. It was then that I became more aware that a career in architecture would enable me to

create a better environment for people. In those days, Singapore was desperately backward, and that gave me the impetus to concentrate studying architecture. A couple of years later, I graduated with very good academic results including a medal awarded to me for being the best student in 11 years. At that point, I felt that to be a good architect, I should learn planning. That was why I accepted a scholarship to study planning at Yale University where a few months after I started the course, I realised that, to be a good planner, I needed to know traffic planning.

So, I befriended my traffic planning professor, whom I regularly kept in touch with over the years, who had also passed on a year ago at the age of 94. His death was announced by the American Traffic Transportation Association which shows how prominent he was among American traffic planners. So, exposure to art, architecture, planning and transportation, gave me good foundation in my subsequent career.

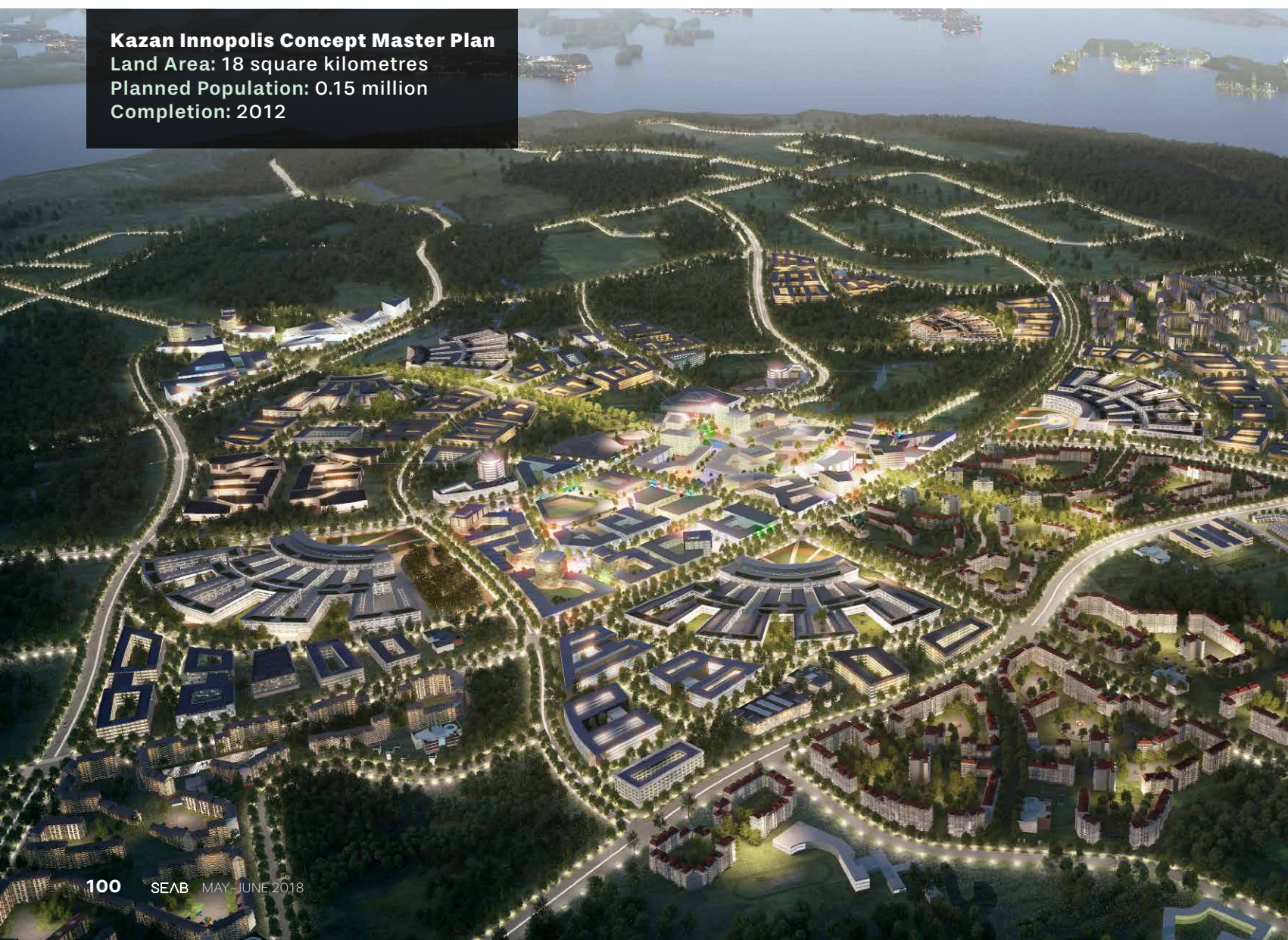
**Q** How many years did you spend at Yale and how did you start your career with HDB?

**A:** In Sydney, I spent seven and a half years because I had to do the leaving certificate for one year to be qualified for the six-year architecture course after which I then worked for another half a year while waiting for Yale's approval. In America, I spent six and a half years. That was two years at Yale and then four and a half years working for I.M. Pei, the famous architect.

I had a pretty good career at I.M. Pei. But, I began to feel increasingly restless because I felt that if I left America, America would not miss me. They had so much talent. But if I came back to Singapore, I might be able to make a difference. Just as I was thinking about coming back to Asia, in 1969 Mr Teh Cheang Wan, then the CEO of HDB who later became a minister, happened to be in New York and somehow knew about me. He asked me to have a cup of coffee with him. After talking to me, he created a job for me on the spot – to head a Design and Research Unit in HDB. So, I accepted it on the spot. I came back to Singapore in 1969 and started working in the Unit. I benefited hugely from I.M. Pei in architectural design and I was equally indebted to Mr Teh Cheang Wan in strategic problem solving skills. That was actually a huge stroke of luck.



**Guilin Watermark Lijiang**  
GFA: 27,900 square metres  
Completion: 2011



**Kazan Innopolis Concept Master Plan**  
Land Area: 18 square kilometres  
Planned Population: 0.15 million  
Completion: 2012



**“To sum up my philosophy, either in architecture design or planning, it is: ‘form follows function follows fun’. You create environment that people enjoy – fun. Once you know what functions you need to include for people to enjoy, then you create the form to incorporate the functions. But unfortunately, a strong tendency nowadays is for architects and planners to subscribe to ‘form follows fashion follows fame’.”**



## Work History of Dr Liu Thai Ker

**Company:** I.M. Pei  
**Designation:** Architect  
**Number of years:** 1965–1969

**Company:** Housing and Development Board  
**Designation:** Chief Architect  
**Number of years:** 1969–1979  
**Designation:** Chief Executive Officer  
**Number of years:** 1979–1989

**Company:** Urban Redevelopment Authority  
**Designation:** Chief Executive Officer  
**Number of years:** 1989–1992

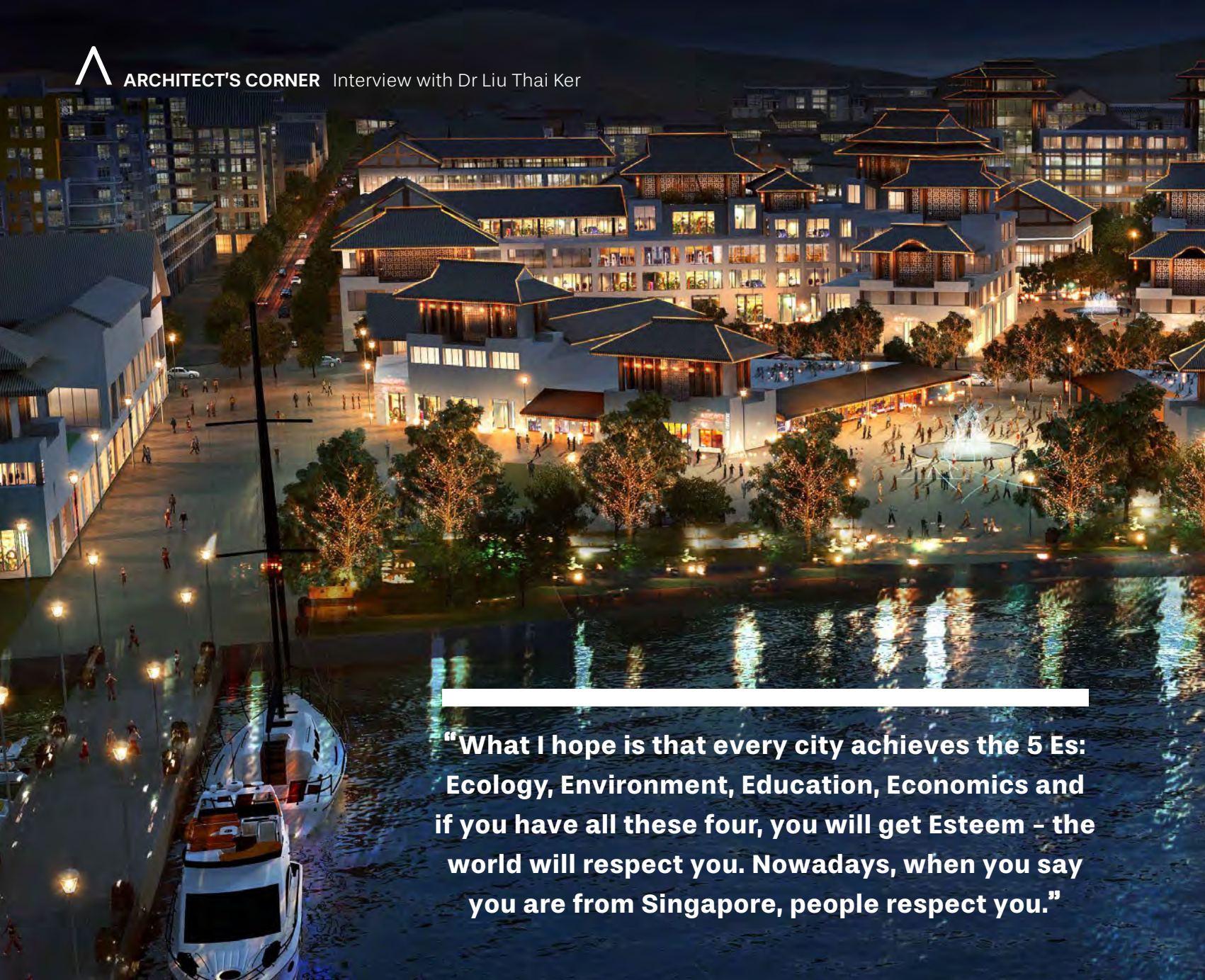
**Company:** RSP Architects Planners and Engineers  
**Designation:** Director  
**Number of years:** 1992–2017

**Company:** Morrow Architects & Planners Pte Ltd  
**Designation:** Chairman  
**Number of years:** December 2017 to present

Currently Founding Chairman of Centre of the advisory board of Centre for Liveable Cities in Singapore since 2008. The Centre for Liveable Cities is a knowledge centre created by the Ministry of National Development and the Ministry of the Environment and Water Resources in 2008, to create and share knowledge on liveable and sustainable cities.

## Awards won by Dr Liu Thai Ker

- 1976** – National Day Award – Public Administration Medal (Gold)
- 1985** – National Day Award – Meritorious Service Medal
- 2001** – Singapore Institute of Architects Gold Medal
- 2002** – LaSalle–SIA College Award for Distinguished Service to Arts Education
- 2003** – Federation of Art Societies (Singapore) 10th Anniversary Gold Medal
- 2009** – Outstanding Service Award, National University of Singapore
- 2014** – Business China Excellence Award, Singapore
- 2015** – National Day Award – The Distinguished Service Order (DUBC)  
Golden Jubilee Award, Design Singapore Council  
Distinguished Lifetime Achievement Award, Singapore Institute of Planners
- 2016** – Ministry of National Development Dedicated Service Award



**“What I hope is that every city achieves the 5 Es: Ecology, Environment, Education, Economics and if you have all these four, you will get Esteem – the world will respect you. Nowadays, when you say you are from Singapore, people respect you.”**

**Q What kind of work did you do in HDB and what did you achieve there?**

**A:** Within the first couple of weeks after I started work, everybody was talking about HDB new towns and HDB neighbourhoods. I asked my colleagues: “What do you mean by new towns?” Although in the planning textbooks, I learnt about New Towns, Neighbourhoods, yet there was no clear operational definition. Nobody in HDB could tell me either. So, I went to my boss Mr Teh Cheang Wan and asked him: “What is your definition of new towns?” He shook his head and said he also didn’t know. I said: “Good I will find out for you”. So, I spent the next 18 months or so creating the prototypes of New Towns and Neighbourhoods that you see today. Of course, there were continuous subsequent refinements to these prototypes.

A few years later, I felt that the two planning units of New Towns and Neighbourhoods were too big to nurture a good sense of community and effect more varied architectural design. So, after much consultations within and without HDB, I subdivided the Neighbourhood into Precincts with clear operational definition. That was another breakthrough during my time in HDB. Having started the job as a researcher, I kept up with the research throughout my career at HDB. Although later, as the CEO of HDB, I could not devote too much time on research, yet I still set up units to research on construction quality control, productivity improvement and property management issues. And soon after, we also engaged a group of 12 sociologists with PhD degrees to provide invaluable input to me. The findings of all these research efforts were used to

improve and refine the planning and building design of HDB estates. And that went on for nearly 20 years. Can you imagine, how much I learnt!

**Q So, based on your experience, how has the concept of HDB town changed over the years?**

**A:** Admittedly most of the complaints were quite self-serving or impulsive. There are two ways to treat the complaints: one is to throw them into the wastepaper basket and the other is to get my various research teams to sieve out the gems and use the findings to keep refining our planning and design works. Some gems would tell you what mistakes we might have made, while others would suggest good ideas that we might have missed out. After you get the findings, you sow them back to the next New Town plans, Neighbourhood

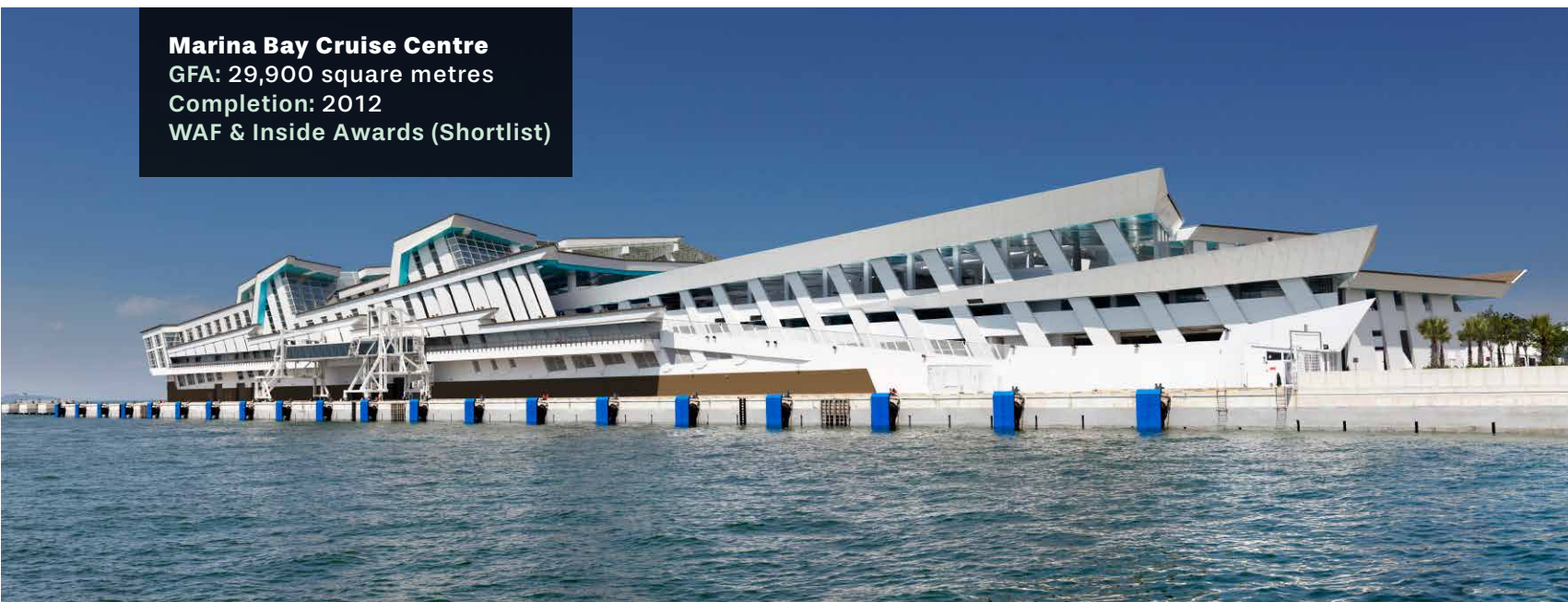


**Changdao County Concept Master Plan**  
 Land Area: 32 square kilometres  
 Planned Population: 0.09 million  
 Completion: 2013

plans, Precinct plans as well as the next Block plans and Floor plans. And then you build them and get further feedback from the estate managers and residents' complaints.

Architectural design and urban planning are both science and art. The scientific aspect requires research and the artistic aspect depends on the aesthetic judgement of individual architects and planners. Evidently, the scientific aspect requires a lot of hard analytical work. I told my staff during those days that every line we drew would affect the lives of millions of people, every day, at every hour of the day. We must deliver something that makes their quality of life good. That was also my demand on myself. So, even for a simple HDB flat layout, I did not allow a single architect to independently change the floor plan by herself or himself. Every few months, we would sit down to sieve through the research findings by the different committees, discuss the solutions and make amendments. We treated the amendments to Floor Plan Neighbourhood and New Town layouts as laboratory projects. Only after we got the layout scientifically sound, did we then ask our architects to design the building elevations of their choice. As for the choice of colours, our architects were also free to decide, preferably reflecting the flavor of our tropical flora and fauna. No extra cost was to be spent on adding frills to the building design; we wanted the floor area to be as big as necessary, while keeping

**Marina Bay Cruise Centre**  
 GFA: 29,900 square metres  
 Completion: 2012  
 WAF & Inside Awards (Shortlist)



the construction cost as low as possible, to make the housing prices affordable.

So, it was a balancing act between three factors: the floor area must be right, the cost must be low and the selling price, after taking government subsidy into account, must be affordable. The selling prices, in those days, for a HDB flat was equivalent to two and a half years' worth of annual family income of each buyer. That was very low by world standards.

**Q** Over the years you have done different jobs. Are you bringing some of your work experience to your new firm and what direction are you looking at?

**A:** This spirit of research carried on when I went to URA. The Singapore government emphasizes law and order. By setting out a clear master plan, by laying down clear rules and regulations and enforcing them strictly ensures that you have an orderly and well-coordinated city. On the surface, one may think that developers won't like it because it is too inflexible or they cannot make windfall profits. Yet the positive side of this practice is that everything is transparent. Therefore, when a developer invests in buying a piece of land, he knows exactly what he is paying for. And that partly explains why the pace of development in Singapore has been so rapid and active, with the steady rise in property value which is good for the development of Singapore. But behind the strict planning rules, you must make sure that the plan itself is sound. Admittedly the HDB experience gave me a firm foundation to know how to plan the City. But even then, a planner cannot be sure that he and his team can make all the right decisions. So, in URA, I encouraged developers whenever they send their submissions of their projects for approval, to make requests for justifiable amendments of the plans or amendments of the rules and regulations. Every month I would get a few useful suggestions. After that, I would convene a masterplan committee meeting. With the good ones, we would amend the rules and relevant plans and have the amended rules and plans gazetted. These amendments would apply to all other similar projects so the improvements would benefit all, instead of a particular developer. Thus, the spirit of research carried on. That's why when I joined RSP, my team and I continue to do research whenever the need arises.

**Q** For *Morrow*, what sort of projects are you currently working on?

**A:** Well, although this sounds like a new firm, a brand new start, yet it is not quite like that. For when I was in RSP, I had my own team of people working for me for the last 25 years. Of course, some of them have moved on to do other jobs. So, when RSP decided to move out from its original location to Kallang, I felt it was a good opportunity for me to set up my own company and to intensify the training of

my own small group of people, not only in urban planning, but also in architectural design. While intensifying my coaching, I also hope that they will be better exposed to managing a firm and securing jobs. Currently, they are working on projects, both locally and mostly overseas. The ratio of work load is approximately two-thirds in urban planning and a third in architectural design.

**Q** What advice would you give to young architects who want to be skillful and successful architects?

**A:** There is no substitute for hard work. But if you work hard blindly, it is also no good. You must work hard with a clear sense of purpose. To know what you are looking for is important. And despite the fact that the world is changing more and more rapidly, there will always be new problems cropping up. The most important thing to remember is that if you are not humble enough to learn from past success stories, and to supplement with new information, but try to be ignorantly innovative, only to reinvent the wheel, then you tend to make unnecessary mistakes. That is unfortunate. An urban planner to a city is like a doctor to a sick man. When a person is sick, he goes to the doctor who will cure him based on hundreds of years of accumulated medical knowledge. But if this doctor thinks that he is so clever and throws away hundreds of years of medical knowledge and says he is going to use his own creative and innovative methods to cure the patient, then what do you think is going to happen to the patient? He may die. But a medical doctor will not do that. Yet planners tend to unwittingly do so. This is partly due to the fact that the planning profession has not quite become a science. More importantly if you give the wrong treatment to a city, your mistake will not be detected until 30 years or more later. By then the planner would probably have already been promoted somewhere else. So, this is a big challenge for planning. Fortunately, in architecture you can't do that. If you throw away the established knowledge and produce a building that doesn't work, within a very short time, people can see the mistakes. And partly because of that, I want to impart solid planning skills to my young colleagues and hope that they will continue to do good work and perhaps spread the good practice of urban planning to many more people.

---

**“Younger planners place too much blind faith in technology to solve urban problems. Technology cannot produce the good design created by human intelligence. A planner needs to know what it takes to design a good city like a healthy human body. But technology can enhance the functioning of the city plan. By the same token, Technology can help you breathe better or make you stronger through medication, but it is not a substitute for the intelligent design of the human body.”**



**NAFA Campus 1 Extension**  
GFA: 7,500 square metres  
Completion: 2017

**Q** Your body of work in urban planning is unique in the world. Is this applicable to other parts of the world?

**A:** You may say that by working in Singapore government for 24 years, I have been given a precious opportunity to develop a body of planning theory and skills which seem to have served Singapore well. Since leaving the Singapore government, for the past 25 years, I have done about 50 cities outside Singapore. Can the Singapore experience be applicable to other cities anywhere in the World? My answer is Yes. To help you understand this, a set of sound urban planning principles is like the grammar of a language. Regardless of what stories you are telling, and where in the world you are telling, if you use the correct grammar, people understand your stories. Urban planning is the same. If you have the right set of planning principles, it can be used anywhere for any city of any size. It is like the knowledge on human anatomy. It is

universal. Looking at the symptoms of a sick city is like examining the body of a patient. In both cases, you have to diagnose its problems, and then prescribe the well-established cures to them.

Of course, an urban planner would have to consider the context of local climate, custom, cultural value, etc. in much the same way I imagine a doctor would have to take into account of the particulars of the patients' age, gender and temperament, etc.

**Q** A few years ago, you said that urban planners in Singapore should plan for a population of 10 million. How did you come to this 10 million figure and in your opinion, How can this be achieved given the tight land constraint?

**A:** When I was doing the 1991 concept plan, Singapore had a population of 3.2 million. One of the characteristics of being a good Singaporean is being *kiasu*, afraid of losing. I am *kiasu* also. So, I felt that I had to plan for

100 years to make sure that we didn't make any serious mistake of miscalculating the population size and ended up running out of land for development. Because I realised that if we ran out of land, there would not be anywhere else to go.

So, that was why I planned for 100 years from 1991 to 2091 for 5.5 million people. Fortunately for Singapore, its economy has been doing so well that this 5.5 million for 2091 was reached in 2016, only about 75 years early. What is the lesson? The lesson is that when you plan a city, first you must plan long term. Second, it is better for you to over-project than under-project the population size. For if you under-project the population size, then every time it is exceeded, you have to revise the plan and all your infrastructure have to be enlarged. For example, in many cities, you find their airports in the middle of the cities because they planned for a smaller population over a smaller land area. Fortunately, in Singapore, our political leaders had the foresight to

put our airports at Changi. So, you must plan long term. Actually being a *kiasu* Singaporean, even though I planned for 2091, I made sure that I still had ample land available. It is still there. There are also a few pieces of sea area in the main island still waiting to be reclaimed. On top of that, our government in recent years has enlarged the reclamation areas of Pulau Tekong. So, when you add them all up, the available unbuilt land is quite ample. But to plan for 10 million now, I did some rough calculation, you cannot plan the new development areas to the same density that we know now. We have to plan them at a somewhat higher density. But if we don't plan now and carry on as usual, by the time you have to face your 10 million, the density in the new development areas would have to be significantly higher. People worry that my 10 million would destroy the Singapore environment. I am proposing 10 million precisely because I wish to protect the good environment of

Singapore. If we do it now, even though I am proposing 10 million, I am saying that all the conservation areas, all the landed areas, all the ecological areas, all the rivers and hills will be kept. If we do it now, we can do so. If we do it later, we may have no choice but to convert them to development areas. That is not what I want to see for my own country. So, in the name of good environment, in the name of keeping all the good things we are enjoying now, I feel we must start planning long term and plan for 10 million. One further point, I hope our economy will continue to do well. With good economy, despite technological advances, we can still create new jobs. We need more people to fill up the vacancy. For Singapore, to remain as a sovereign nation, I hope we will continue to exist for thousands of years. There is no guarantee that our population growth will stop at 10 million, the earlier we plan, the more we can preserve our good environment,

the more we can cater for long term nationhood. It is my love of our nation and our good environment that drives me to make this proposal.

**Q What is your vision for Asian cities in 10 to 20 years? What are the possible architectural/urban planning solutions for a growing population in the face of climate change?**

**A:** Just some rough calculation, if India, China and Indonesia were to be urbanized to the same level as American cities today with the same quality of life, then in the next half century, India will have to build around 5 USAs, which means that for every office tower, bungalow, sewage plant in USA, India has to build 5 of them. That means India needs to build 5 USAs in the next 50 years. China has to build 3 USAs. Indonesia has to build 2 USAs. 10 USAs in total. That's the key reason why I want to start Morrow at this ripe old age. Because there is so much work to do. And

**Weifang Cultural Centre**  
GFA: 294,000 square metres  
Completion: 2013



if we plan the cities well, we have a better world. If we plan the cities poorly, we will destroy the world. My staff members know my message. They know that they have a sacred mission to deliver.

What I hope is that every city achieves the 5 Es: Ecology, Environment, Education, Economics and if you have all these four, you will get Esteem – the world will respect you. Nowadays, when you say you are from Singapore, people respect you. In other words, if good urban planning can contribute to the improvement of the first four Es, then you earn the fifth E. To me Esteem is the ultimate goal of urban planning.

**Q What about robotics and artificial intelligence? How will it change the way architects design buildings?**

**A:** No, it won't change much. For whether it is to design a building or plan a city, it is like constructing a human body. What you need is the right components required by a city: the right number of each component, the right size of each component the right mixture of each component at the right locations. In short, to prepare a good urban plan, a planner needs to know: right things, right numbers, right sizes, right mix and right places. These 5 rights have nothing to do with technology. It is to do with solid research and understanding of the basic needs in a city. So, putting a city together is like creating a human body. If you don't know what the parts are, you don't know how many parts you need and so on, then you cannot create a healthy city. That is why I spent all my life researching right things, right sizes, right numbers, right mix and right place in the hope of creating good design for cities. And technology is not a substitute for this basic understanding and skills. Therefore, I am rather concerned about today's trend in planning. Younger planners place too much blind faith in technology to solve urban problems.

Technology cannot produce the good design created by human intelligence. A planner needs to know what it takes to design a good city like a healthy human body. But technology can enhance the functioning of the city plan. By the same token, Technology can help you breathe better or make you stronger through medication, but it is not a substitute for the intelligent design of the human body.

**“People worry that my 10 million would destroy the Singapore environment. I am proposing 10 million precisely because I wish to protect the good environment of Singapore. If we do it now, even though I am proposing 10 million, I am saying that all the conservation areas, all the landed areas, all the ecological areas, all the rivers and hills will be kept. If we do it now, we can do so. If we do it later, we may have no choice but to convert them to development areas. That is not what I want to see for my own country.”**

**Q That is a common misunderstanding that technology will change the way buildings are designed.**

**A:** Yes that is why I want to take time to explain. It is not a substitute. In fact, technology is part of the reason for global warming. For example, if you design a building with a curtain wall facing the west, in the old days you can't do that. Because the interior will be very hot. But today that is no problem. Just turn up the electric power to use up more energy to cool the interior. That of course is not intelligent design, with its dependency on environmentally unsustainable technology which leads to global warming. So, I often advocate for Intelligent Planning and Intelligent Design.

**Q Can architecture play a role driving the country towards a Smart Nation?**

**A:** Smart Nation is more about management, about operation. Obviously, I am not denying their usefulness. But they are no replacement for good design. Singapore government cares a lot about the good use of technology. For example, as an architect nowadays, we don't need to submit our plans in paper, we just send our schemes to the Building Authority electronically. That is helpful. But that has nothing to do with architectural design and urban planning. That has nothing to do with where you put the expressways or where you put the factories or where you put the schools.

**Q In terms of urban planning how has it changed over the last 20-25 years from the time you started to now? Have you noticed any significant changes?**

**A:** Well I can only speak for myself. Between 1969 and 1991, I filled in more details in terms of planning components in the HDB new town model; I put in more refinements to make things work better.

Of course, we started by studying the major components such as shopping centres, industrial sites, schools, etc. But as time went on, we even looked at smaller components. For example, I first got my staff to study how many petrol stations we needed inside a new town. We needed to know the right number of stations to make sure that they serve the residents well and yet would not create unhealthy competition among the petrol suppliers in Singapore. We then had to think in terms of the needs of the car and bus drivers. So, we studied the sizes of each station so that they had just the right amount of space for all the retail services required of a petrol station but not so large that they would start to compete with the shops in the neighbourhood centres. We even studied whether we should put the petrol stations on the side of the roads as people come into the new town to go home or on the side when people go out of the new town for work. We went to that extent. We also did a study on how

many religious sites we needed in each new town. That is, how many for Chinese temples, mosques, Hindu temples and churches. We went to that extent after we sorted out the needs for big components.

**Q What challenges do you see for architects and urban planners in the next few years?**

**A:** For urban planners you must know what it takes to put a city together; that is: right thing, right size, right number, right mix and right place; for architects, what it takes to put a building together is easier to understand and not as nebulous as urban planning. But as the world is changing and the stature of Asia is rising rapidly, I believe it is increasingly more important for us as architects to design buildings with Asian identity. I subscribe to three basic principles. One, the building must be modern, using modern technology, modern aesthetics and so on. Two, it must be locality related to geographical and social context such as climate, lifestyle, customs and so on.

Three, it must be expressive of ethnic culture. Even in Singapore, I often ask myself, "When will Singapore step out of its colonial mentality?" It hasn't quite yet. We are still ever ready to believe that things from the west are presumed good. For example, we often see in a newly completed building architectural design elements easily recognizable from western architectural magazines. That is neither good for us nor for visitors from the West. When people from the west come to Asia, they don't want to see another western building. They want to see Asian buildings. They want to see something that reflects locality and culture.

If they are in Singapore, they would appreciate seeing a kind of modern tropical architecture incorporating all the tropical expressions rather than one copying the features from the western temperate climate. In short, modernity, locality and ethnicity are three factors we must think of more consciously now than ever before.

**Q What is your biggest goal now and what do you want to be remembered for?**

**A:** I want to help my staff become highly respected planners and architects in the hope that they can make bigger contributions to the world. To sum up my philosophy, either in architecture design or planning, it is: 'form follows function follows fun'. You create environment that people enjoy – fun. Once you know what functions you need to include for people to enjoy, then you create the form to incorporate the functions. But unfortunately, a strong tendency nowadays is for architects and planners to subscribe to 'form follows fashion follows fame'. In order to become famous, you do the fashionable things which determines your form. Actually when you do that, you may get short term fame, but sooner or later when fashion changes, you are forgotten. But if you do 'form follows function follows fun', people may not remember your name but will appreciate your good works for a long time.

**ADVERTISERS' INDEX**

ARCHIDEX 2018	2	HUNTER DOUGLAS	1
ARCHXPO 2018	50	LANKABUILD 2018	72
ARCHITECT THAILAND 2018	20	LAOBUILD 2018	74
ASEAN M&E SHOW 2018	22	MALAYSIAN TIMBER COUNCIL	13
ASEAN SUSTAINABLE ENERGY WEEK	24	MAPEI	5
BMAM EXPO ASIA 2018	26	MYANBUILD 2018	78
BONA	9	MYANMAR BUILD & DÉCOR 2018	82
BUILD4ASIA 2018	30	PARK GAMES EQUIPMENT	11
BUILDTECH ASIA 2018	36	PISCINE GLOBAL EUROPE 2018	17
CAMBUILD 2018	38	PLAYPOINT	3
CT-ART CREATION	7	SAPA BUILDING SYSTEMS	15
DORMAKABA	OBC	THAILAND LIGHTING FAIR 2018	86
FENESTRATION BAU CHINA 2018	IFC	VICTAULIC	19
GEBT 2018	44		

# Our tribute to Architecture...

- TradeCards Global mobile application is offering **50% discount** for one-year organisation listing to suppliers and service providers that serve our Architecture Community. With the reduced price of USD500 / \*SGD700 for one-year organisation listing, suppliers and service providers get to enjoy an **additional 10MB of product listing** tagged to your organisation listing.

Visit [www.tradecardsglobal.com](http://www.tradecardsglobal.com) to sign up for a new account and your organisation listing. Input "**ARCHITRIBUTE**" as promo code before proceeding to payment page. The promo code is valid until 31 December 2018.

\*Rate excludes 7% GST applicable for Singapore-registered companies

**TRADECARDS**  
GLOBAL

Supporting mobile version of:

**SEAB**  
SOUTHEAST ASIA BUILDING

SOUTHEAST ASIA  
CONSTRUCTION

**Security**  
Solutions

**bathroom**  
+kitchen

**lighting**  
today



# MUNDUS

## The patch fitting with a unique design for toughened glass assemblies



**MUNDUS Premium – for unique, customised toughened glass assemblies.**  
**MUNDUS Comfort – for demanding toughened glass assemblies.**

- Multi-dimensional adjustment of the door even when mounted
- Allowing the vertical gap dimensions to be continuously adapted
- Ensuring perfect alignment in terms of the rotary axis of the pivot point and the zero position
- Secure hold of laminated safety glass thanks to Clamp&Glue technology
- Glass thickness: 8 to 22 mm and door weights up to 200 kg
- Easy to retrofit

[www.glas-innovationen.com](http://www.glas-innovationen.com)

dormakaba offices in ASEAN:

Singapore	Tel : +65 6268 7633
Malaysia / Brunei	Tel : +603 5523 5015
Philippines	Tel : +63 2 893 4077
Indonesia	Tel : +62 21 2930 3762
Vietnam	Tel : +84 903 704172
Thailand/Cambodia/ Myanmar/Laos	Tel : +662 236 4994

[www.dormakaba.com.sg](http://www.dormakaba.com.sg)

**dormakaba** 