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ON THE COVER Emporia in Malmo, Sweden **ARCHITECTURE** The new Westgate shopping mall in Singapore **INTERIOR DESIGN** The Longhouse 36 at 36 Thomson Heights, Singapore; Baan Moom House in Bangkok & Park House in Victoria, Australia **LANDSCAPE ARCHITECTURE** Concrete Paving Stones **SHOW PREVIEWS** Megabuild Indonesia 2014; Architect Expo 2014 & Project Qatar 2014 **PLUS** Application Features on Tekla; Bona & Jakob AG



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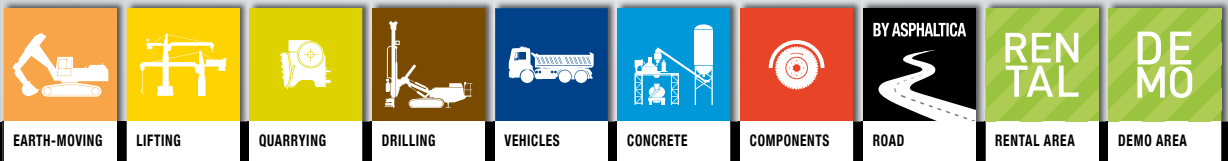
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On the Cover: Emporia in Malmö, Sweden.
Photographer: Mr Tord-Rikard Söderström

Cover design by Fawzeeah Yamin



GCC Sliding And Stacking Wall System



GCC Sliding And Folding Wall System

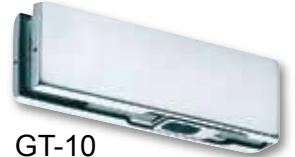
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editor's note



Hello readers, welcome back to another issue of *Southeast Asia Building*. I hope that you had a great Chinese New Year celebration with your family, friends and loved ones, and hopefully, the Year of the Wooden House brings good luck to everyone!

The design of shopping malls is becoming more attractive and interesting these days. Not only are malls becoming iconic landmarks in their cities, but they are also becoming an important part of the urban fabric. Inside this issue, we showcase two beautiful shopping mall projects – Westgate in Singapore and Emporia in Sweden.

In the interior design section, we showcase three residential projects from Singapore, Thailand and Australia. Each house is designed to reflect the owner's needs, personality and lifestyle. Don't forget to read these features as they might just inspire you to design your own house this year.

For those of you planning to visit MegaBuild Indonesia 2014, Project Qatar 2014 and Architect Expo 2014, you may like to read the show previews that we have prepared for you. As leading trade shows in the regions, these three exhibitions promise to be more spectacular than before.

We hope you enjoy reading this issue! If you have any suggestions or if you would like to submit an article, please e-mail it to the editor at seab@tradelinkmedia.com.sg.

Amita Natverlal

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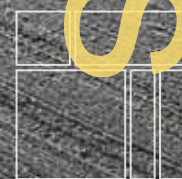
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Crestron Asia expands Singapore office to strengthen SEA region business development

Hong Kong – Crestron Asia Limited (“Crestron Asia”), the Asia headquarters of Crestron Electronics, Inc. (“Crestron”), has officially opened its new Singapore Office on 29 November 2013.

Crestron Asia Singapore office has served the Southeast Asia (SEA) market for more than 18 years, offering first-hand experience of Crestron’s automation technology to customers. The new office – which expands the floor area to 5,000 square feet, underscores Crestron Asia’s tremendous success throughout Asia, its commitment to SEA region as well as to fulfill the increasing demand for control and automation systems in the region.

The well-equipped office forms part of Crestron Asia’s strategic blueprint for business development in the region. It now includes a fully-functional showroom that has three real-life areas: a demonstration and exhibit area, a Crestron RL™ conference room and a living room area with home automation systems. These will allow customers to experience a wide range of Crestron’s products, which are designed for daily life, office use and even entertainment. An immersive exhibit area allows dealers and potential users to experience Crestron’s flagship technology solutions, for example DigitalMedia™, touch panels and integrated lighting control system. It aims to highlight what is possible for today’s demanding commercial and residential market.

In addition, the new office features advanced training facilities and capabilities to support both dealers and end users. “These not only help us to provide personalised face-to-face training, but also solidifies our relationships and opens lines of communication with Crestron’s staff,” said Mr Edmund Chan, Regional Sales Manager (Singapore) of Crestron Asia.

With rapid economic growth and improved living standards, the demand for Crestron’s products in Asia has been growing steadily. “We foresee our DigitalMedia™, a complete end-to-end digital network solution, Fusion RV® (RoomView) and Fusion EM™, an energy management solution and lighting controls to be our major growth areas. Meanwhile, we have positioned our “Integrated by Design™”, a total solution for complete technology control for markets that we see potential, such as the educational, hospitality and residential markets,” added Mr Chan.



The ribbon cutting ceremony represented the official opening of Singapore office.

From left to right:

Mr Edmund Chan, Regional Sales Manager (Singapore) of Crestron Asia
Mr Stuart Craig, Executive Director – Asia Pacific of Crestron Electronics
Mr Kenny Leong, Executive Director, Asia Operations of Crestron Asia
Mr Tony Yeung, Director of Crestron Asia
Mr Ben Lim, Regional Sales Director of Crestron Asia

Atkins reveals the design for iconic building in Ho Chi Minh City, Vietnam

Hong Kong – Atkins has completed the design of the Lavenue Crown Hotel - an iconic new building in Ho Chi Minh City, the largest city in Vietnam. The tower’s elegant lotus flower form is a reflection of the client, Lavenue Investment Corporation’s ambitious vision for this flagship project, set to become an iconic landmark on the emerging skyline of Ho Chi Minh City.

Located at one of the most important junctions on Le Duan Boulevard, close to the city’s cathedral and the historic City Post Office, the 36-storey development will become home to a luxury five-star Langham hotel, a boutique retail mall, serviced apartments and a spectacular sky bar upon completion. The tower is approximately 160 metres high with a total gross floor area of 66,000 square metres and takes full advantage of the excellent views in almost all directions. It features four petal-like facades that extend down to provide a series of canopies and up to shelter the roof terraces of the sky bar.

Ian Milne, Atkins’ senior design director in Hong Kong, said: “Our challenge was to design a tower with a grand entrance on a tightly constrained site. Our design delivers this, along with a generous public space and drop off area while achieving the best building shape to maximise the total gross floor area.”

Tri Quang Mai, Atkins’ chief representative in Vietnam, said: “The tower, once completed, will become one of the most important urban landmarks which reflects the contemporary, vibrant and dynamic nature of Ho Chi Minh City.”

Atkins’ service consists of concept design, schematic design, design development, tender documentation, review of local architects’ design documentation and site review.



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Bristile Roofing reaches new dimensions with new Online Home Visualisation Tool

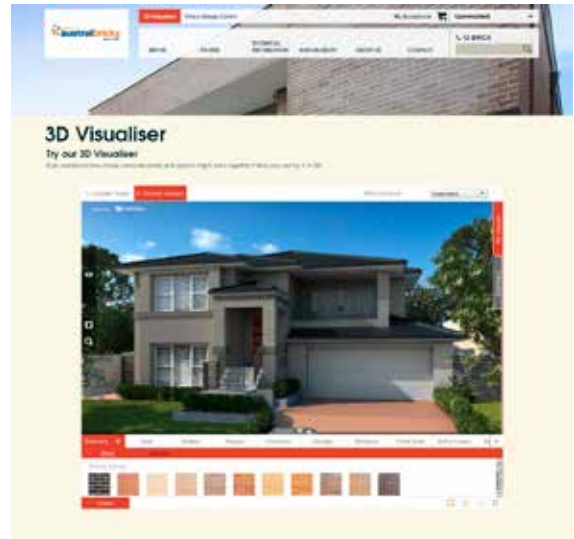
Queensland, Australia – Leading roofing products manufacturer Bristile Roofing has launched a new interactive online 3D home visualisation tool, which will help homebuyers and builders create the look of their home.

The online tool will help users visualise design ideas, colours and styles of a variety of exterior building products such as roof tiles, bricks, fascia, garages, front doors and paved driveways.

Easy to use, the visualisation tool acts as an interactive decision making aid that renders design choices quickly in high-resolution photo quality images. It enables users to view different combinations of building products on a selection of house designs, giving them an idea of how the products will look before they make a purchase. Bristile Roofing believes the tool will allow homebuyers and builders to create a better and more accurate representation of their home and give them a far more enhanced shopping experience.

Commenting on the new online tool, Mr Michael Monro, Sales and Marketing Coordinator at Bristile Roofing said: "We have launched the new 3D visualisation tool with the goal of improving the selection process through the use of an interactive tool that allows people to see a range of building products on house facades.

The 3D tool will give users an end-to-end solution which will allow them to coordinate the look of their home design, and give them a realistic impression of how it will appear, helping to take the guesswork out of the design process."



Katara Hospitality announces new hotel under the management of Merweb Brand

Qatar, Doha - In line with the growth strategy of its Merweb brand, Katara Hospitality announced that it has signed a Memorandum of Understanding (MoU) for managing a new hotel in Doha under the umbrella of Merweb brand.

The MoU was signed by Saeed Abdulla Al Amer Al Kaabi, President of Sphinx Hotels & Resorts and, on behalf of Katara Hospitality, by Hamad Abdulla Al-Mulla, Chief Executive Officer. The signing ceremony took place on 2 December 2013 at Sharq Village & Spa, Doha.

The new hotel will be known as Merweb Plaza Hotel and is located on Jawaan street in Al Sadd District. The hotel has been designed to cater to the growing number of business travelers who seek a high-quality business hotel in the very heart of Doha city.

Currently under construction, Merweb Plaza Hotel is expected to open in late 2014. The property will comprise 175

rooms and suites equipped with the latest technologies and amenities required by business travellers on the move, while restaurants, meeting and banqueting space as well as recreation facilities will complement the offer.

"We are proud to be associated with Katara Hospitality, the national owner, manager and developer of iconic hotels that has become one of the most reputable international hospitality organisations," said Saeed Abdulla Al Amer Al Kaabi, President of Sphinx Hotels and Resort.

"The addition of Merweb Plaza Hotel to the portfolio of managed hotels under the Merweb brand fits perfectly with our strategic expansion plans for this brand", stated Hamad Abdulla Al-Mulla, Chief Executive Officer of Katara Hospitality. "As we are refreshing the Merweb brand to enhance the guest experience, we are looking forward to a successful partnership in managing this new hotel," he concluded.



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Sika acquires leading manufacturer of cementitious powder products in Singapore and Malaysia

Singapore – Sika has acquired LCS Optiroc Pte Ltd. in Singapore and LCS Optiroc Sdn. Bhd. in Malaysia, a leading manufacturer of cementitious powder products. The business generated annual sales of CHF 24 million in the last financial year. With the acquisitions of AkzoNobel's Building Adhesives and Everbuild in 2013 as well as Technokolla in 2011, this take-over strengthens Sika's offerings in powder products and in the interior finishing sector.

Founded by Kim Hong Lim and Choong Fee Chong, LCS Optiroc has achieved a leading position in the Singapore cementitious powder products market. The company has a strong product offering of grouts, mortars, floor screeds, tile adhesives and renders for interior and exterior finishing in the Refurbishment and Flooring target markets. Choong Fee Chong will stay with the company and continue to drive the success of the existing business as well as supporting the development of the cementitious powder business both locally and regionally.

Sika acquires two established factories in Singapore and in Malaysia, which will reinforce the regional supply chain. The acquisition will enable Sika to take a big step forward in the Singapore construction market, increasing sales volume significantly and gaining a local manufacturing base. With the new site in Malaysia, Sika will strengthen its presence in the southern part of the country. In addition to further strengthening Sika's market position in Malaysia and Singapore, the acquisition will also provide a base for the expansion in the cementitious powder products market in the Asia/Pacific region.

Choong Fee Chong, LCS Optiroc, said: "We are proud to join the Sika Group. With Sika we have the possibility to expand our business into new markets and to benefit from their strong R&D capabilities."

Jan Jenisch, CEO of Sika, said: "Optiroc perfectly complements our existing business in the region. The acquisition will open up significant business opportunities and support our successful growth strategy in the emerging markets. We welcome all Optiroc employees into the Sika family. I am convinced that we can significantly grow the business together."



Sika Technology Center, Zurich

Meinhardt appoints new Group CEO

Singapore – Meinhardt Group International has announced that Omar Shahzad has been appointed to the role of Group Chief Executive Officer (CEO). Omar who previously served as Deputy CEO of Meinhardt Group for three years will succeed Dr Shahzad Nasim, who has served as the Group CEO since 2010. Dr Nasim will continue to play a key role as Group Chairman.

Omar joined Meinhardt in late 2008 as Corporate Finance Director and subsequently assumed the role of Deputy CEO in 2010. His responsibilities included overseeing the Group's financial performance, strategic business development, setting up a water division and more recently heading the Group's Middle East business. Prior to joining Meinhardt, Omar has had extensive experience in the financial services industry having worked as an investment banker and research analyst for two international banks in Singapore.

As a global multi-disciplinary engineering and project management consultancy headquartered in Singapore, Omar's new role will include the management of over 3,500 employees across 38 offices. He will also oversee the performance of all Meinhardt offices across the globe, client management, expansion and diversification of the Group's international business.

"I am very honoured and excited to be appointed as the Group CEO. Meinhardt Group has an impeccable track-record and a fantastic global footprint. I believe Meinhardt has an enviable platform for future growth and I look forward to working even more closely with our key people to further enhance our focus on our clients, streamline our delivery and in turn help expand Meinhardt both within our existing markets and beyond," said Omar Shahzad.

Integral to its growth plans, Meinhardt aims to boost its global staff strength to 5,000, double its turnover and undertake an Initial Public Offering (IPO) over the next three years. Expansion plans include new offices in Australia, further expansion into the Middle East, Africa, USA and secondary cities of China and India. The Group will also expand aggressively its services in areas of infrastructure, mining and environmental engineering including the diversification into other complementary disciplines that support its services integration philosophy globally.



Omar Shahzad



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Singapore's construction demand for 2014 to remain strong

Singapore – The Building and Construction Authority (BCA) held its annual BCA-REDAS Built Environment and Property Prospects Seminar at the Grand Copthorne Waterfront Hotel on 9 January 2014. Mr Lee Yi Shyan, Senior Minister of State for Trade & Industry and National Development was the guest of honour at the seminar.

At the seminar, BCA revealed that contracts for the built environment industry could reach between \$31 billion and \$38 billion¹ this year, driven by strong public housing demand and anticipated higher construction demand for institutional developments and major infrastructure projects. This comes on the heels of the sector's strong performance in 2013, where total construction demand reached a historical high of \$35.8 billion, exceeding the upper-bound projection of \$34 billion in 2013 by about 5 percent.

Public sector projects are expected to contribute to the bulk of the industry's total demand at close to 60 percent, or between \$19-22 billion. The expansion will be fuelled by an anticipated higher volume of contracts to be awarded for institutional and civil engineering construction works.

Meanwhile, private sector demand is expected to moderate to \$12-16 billion in 2014, compared to \$21 billion last year. The less favourable outlook is in view of the current market volatility amid the Government's multi-pronged approach to stabilise the property market, the substantial supply of completed housing units coming on-stream over the next few years, as well as the scaling back of new Government land sales for the first half of 2014. (Please refer to Annex A for details on construction demand).

For 2015 and 2016, average construction demand is projected to be sustained at between \$25-34 billion² per annum. 60 percent of the total demand is forecasted to come from building projects while the remaining 40 percent is expected to come from civil engineering projects.

Total construction output³, or payment for work done, was estimated to be about \$33 billion for 2013, supported by stronger on-site activities from the construction of the Marina Coastal Expressway, Downtown MRT Line Stages 2 & 3, and both public and private residential developments. Outlook for on-site construction activities in the following years remains bright at between \$34-36 billion for 2014, and \$29-37 billion annually for 2015 and 2016, given the high level of contracts awarded since 2011.

During the seminar, Mr Lee launched BCA's "Quality Mark Homes" mobile application to allow home owners to search for residential developments that are certified under the BCA Quality Mark scheme, a voluntary scheme launched in 2002 to set the standard for workmanship quality in homes (more details in Annex B). Under the scheme, every unit of a residential development is assessed to meet a high standard of construction workmanship before the developers hand over the units to the homeowners. More than 64,000 homes in 283 private residential developments have been assessed or committed for assessment since the launch of the scheme. In 2012, 60 percent of the private residential units launched that year were committed for the Quality Mark certification.

The seminar also featured several presentations by industry experts. Topics included: Global and Singapore Economic Outlook for 2014; Singapore Construction Prospects; and Singapore and Regional Construction Cost Trends.

The seminar also featured several presentations by industry experts. Topics included: Global and Singapore Economic Outlook for 2014; Singapore Construction Prospects; and Singapore and Regional Construction Cost Trends.

Footnotes

- 1 Construction demand is measured by total value of construction contracts awarded. All construction demand figures stated here exclude reclamation projects.
- 2 Demand forecast beyond the immediate one year will be done on a rolling basis to take into account subsequent changes in economic outlook and other pertinent factors.
- 3 Construction output is measured by total value of certified progress payments.



Mr Lee Yi Shyan, Senior Minister of State for Trade & Industry and National Development. Photo: © BCA



Dr John Keung, CEO of BCA. Photo: © BCA



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39483* Hectare
(395* sq. kms.)

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SolarGy completes 1 MW project at the Keppel Seghers NEWater Plant

Singapore – SolarGy Pte Ltd, a leading solar photovoltaic system integrator based in Singapore, announced that it has completed a 1 MW grid-tied solar PV system at the Keppel Seghers Ulu Pandan NEWater Plant, a wastewater recycling plant. According to the company, the project is the single largest PV installation in Singapore.

SolarGy was awarded the engineering, procurement and construction (EPC) contract for a 1 MW grid-tied solar PV system by K-Green Trust, a business trust, which invests in green infrastructure projects with a focus in Asia, Europe and the Middle East in October 2012.

SolarGy installed about 4,000 Yingli solar panels over the roofs of the plant spanning an area of approximately 10,000 square metres. Yingli is claimed to be the world's largest vertically integrated solar panel manufacturer. In the first half of 2012, they became the world's number one in terms of module shipment.

In 2010, SolarGy also completed the single largest PV installation in Singapore, which is the 500 kWp PV system at the Resorts World at Sentosa. To date, SolarGy has an impressive portfolio of about 3000 kW of completed and ongoing solar projects.

Albert Lim, Managing Director of SolarGy, said: "SolarGy is proud to be selected by K-Green Trust for this 1 MW PV project. We are able to consistently demonstrate professionalism and understanding of the K-Green Trust's unique requirements and provide appropriate responses and engineering solutions. We are confident that we will be able to deliver to the high standards set by the K-Green Trust.

Mr Thomas Pang Thieng Hwi, CEO of Keppel Infrastructure Fund Management, Trustee-Manager of K-Green Trust, said: "The advances in photovoltaic panels have allowed us a cost effective solution to harness renewable energy to reduce the consumption of conventional power at the wastewater



recycling plant. We are happy to be able to lower the carbon footprint of the plant and contribute to the national effort to reduce dependency on traditional sources of energy."

Mr Lim added: "We hope to see more large corporations taking the lead to switch to clean energy so as to set significant reduction of their carbon footprint. With the falling prices of solar panels and coupled with our unique and cost effective way of executing the PV installation which we have developed and improved over the last 6 years, SolarGy was able to offer very good ROI for large PV systems which translate to very low levelized cost of clean electricity of about 12 c/kWh (based on 25 years system lifespan).

The project has been in operation for more than 10 months and Mr Lim said that its performance was higher than expectation with due regard for the quality panels from Yingli and inverters from SMA, apart from good system integration, engineering design and workmanship.



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Hong Kong – With over 30 years of excellence, Asian Elenex has been receiving high recognition from the industry players and become one of the most influential trade fairs of its kind in the Asian region. Bringing the fair into a new height, this regionally renowned tradeshow is now rebranded as Build4Asia - The Electrical Engineering, Building Technology, Material and Decoration Tradeshow, which



comprises Asian Elenex and Asian Buildtex, and it will take place at Hong Kong Convention and Exhibition Centre during 7- 9 May 2014.

The electrical engineering section, Asian Elenex, the 16th Asian International Electrical Engineering and Lighting Show, will be located at Hall 1D and 1E, displaying a wide range of electrical related products such as cable, electrical power distribution and transmission equipment, switch, transformer, power generation equipment, and lighting technology.

Stepping into Hall 1C, the realm of Asian Buildtex, the 11th Asian International Building Technology, Material and Decoration Show, you will discover the latest building technologies, like Heating, Ventilation & Air Conditioning (HVAC) and intelligent building solutions; and find out the hottest building material and decoration such as architectural lighting, ceiling, flooring, wall covering, timber, and all kinds of out-of-the-box interior design.



Apart from showcasing the many different eco-friendly and energy-efficient products, the show will also bring an influential concurrent event 'Build4Asia Conference', which will be held from 7-8 May 2014, featuring hot topics like energy efficiency code and practice, new technology development, application and implementation in building, and end user behavior change, under the theme 'Energy Efficiency Technology and Application for a Green Future'.

The exhibition in connection with the conference will give you a one of a kind experience for sourcing and making important contacts.

For more information, contact the show organiser Hong Kong Exhibition Service Ltd, at tel (+852) 2804 1500, e-mail exhibit@hkesallworld.com or visit www.build4asia.com.

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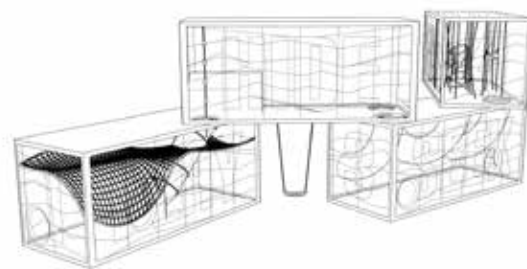
Playpoint (Singapore) creates unique playground for Interlace



Singapore – Playpoint (Singapore) Pte Ltd has designed and installed a bespoke playground for Capitaland and HPL Interlace. Interlace is conceptualised by Ole Scheeren, partner of OMA. The Interlace adopts a new residential typology, which breaks away from the standard isolated, vertical apartment towers of Singapore. The large-scale complex takes a more expansive and interconnected approach to living through communal spaces which are integrated into its lush surrounding greenbelt.

In line with the design language of the development, Playpoint and Carve, a leading playground designer from Netherlands collaborated to design a playground that combines art and play into a single theme.

Comprising of two central playground areas, the first playground designed for kids of ages 6-12 years old, comprises of Play boxes that stack on top of another similar to the architectural design of the development. The Play Boxes made of laser cut metal sheets gives a transparent look with custom-made pattern. From far away the perforation patterns displays wordings, "HIDE, SEEK" and numerical pattern with the numbers 1-8, this effect changes in to a semi-transparent skin when watch from close by.



Play activities in the Play Box comprises of slides, lounge nets, climbing tunnels, swings, hammocks and climbing tunnels for kids to have fun and exploring the spaces within the Play boxes.

The second playground, designed for kids of ages 6-12 years old and situated in the courtyard, comprises of play pearls and spinners. The pearls form a unique abstract feature – consisting of spheres and tubular arches – which blend in each landscape. The unconventional form of this play structure attracts children to discover the hidden functions as it is not directly visible which function each pearl provides, it invites children to explore and discover.

The pearl play structure stimulates physical, cognitive, social, emotional, visual, tactile and creative development of small children. The pearls are designed with at least 6 play functions. The pearls can be seen as modules, so every thinkable combination of pearls and links is possible. They have a safe anti-slip coating, which is attractive for playing, sitting and climbing. An extra dimension to playing is added by a sloping safety ground, creating a dynamic space. It is linked through arched tubes, which creates different horizontal routes to challenge children finding their own way from one pearl to another and discover all different possibilities. It encourages children to climb, hang, swing, slide, run, jump, vault, turn, play hide and seek.

A successful stint for BMAM & GBR Expo Asia 2013

Thailand's international exhibition on Building Maintenance, Facilities Management and Green Building & Retrofits received tremendous success and attracted an impressive line-up of exhibitors, visitors and product showcases.

Bangkok, Thailand - Organised by IMPACT Exhibition Management Co., Ltd., BMAM Expo Asia 2013 is a show on building maintenance & property management products and technology and GBR Expo Asia 2013 is the international exhibition dedicated on green building & retrofits. Both shows were held at Hall 6, IMPACT Exhibition and Convention Center, Bangkok, Thailand from 19-21 September 2013.

BMAM & GBR Expo Asia 2013, organised under Construction & Building Technology Week 2013 – The All-in-one platform for the entire construction and building industry, showcased new technology, machinery and business solutions for construction and building industry from start to finish. More than 348 companies and brands enthusiastically participated to meet with more than 13,178 trade visitors from Thailand and throughout ASEAN region.

The 3-day shows of BMAM & GBR Expo Asia 2013 showcased over 133 companies from different parts of the globe and received more than 7,189 national and international trade visitors from over 41 countries such as from Thailand, Singapore, Malaysia, Cambodia, Vietnam, India, Sri Lanka & other neighbouring ASEAN countries.

Various government and allied institutions namely Ministry of Industry, Ministry of Energy, Department of Alternative Energy Development and Efficiency, Department of Labor Protection and Welfare, Metropolitan Electricity Authority, Bangkok Metropolitan Administration Bangkok City, Solar Thermal Association, Hotels & Buildings Chief Engineering's Club, The Engineering Institute of Thailand Under H.M. The King's Patronage, Building Safety Inspectors And Officers Association, Asian Professional Security Association, Property Management Association of Thailand, Thai Appraisal Foundation, The Safety Officer Association, Hotel Security Association of Thailand, Thailand Facility Management Association Cleaning Contractor's Club, welcomed the show with open arms and provided an overwhelming support to the expo.

Some of the leading brands of the industry that participated in the show were Abo Trading Limited Part, Apl Asia Co., Ltd., Asd Distribution Co., Ltd., Bangkok Solar Power Co., Ltd., C.L.P Engineering Co., Ltd., Commserv Siam Ltd., Energy Master Co., Ltd., Eve Lighting Co., Ltd., Fancy Wood Industries Public Co., Ltd., Five Bond Co., Ltd., Gekko Industries Co., Ltd., Hentech Technology Development Co., Ltd., Hkea Group Ltd., Lighting And Equipment Public Co., Ltd., Nsi (Thailand) Co., Ltd., Phol Dhanya Public Co., Ltd., Pneumax Co., Ltd., Powerade Co., Ltd., Products Consultant Co., Ltd., Propulsion Systems Bvba, S&V Communication Service Network Co., Ltd., Sodexo Thailand, Thai Mangkorn Plastic Industry Co., Ltd., Thai Toshiba Lighting Co., Ltd., Thai Universe Lighting Co., Ltd., Tüv Süd Psb, Utoc (Thailand) Co., Ltd., Vista Inno Co., Ltd., Wall Technology Co., Ltd., Zyne Technologies Co., Ltd., and many more.



Commenting on the show, Mr Arnaud Bialecki, Country Manager, Sodexo Thailand said: "Sodexo is the biggest company in facility management business. We have 420,000 employees in 84 countries around the world BMAM & GBR Expo Asia 2014 is the good opportunity for sodexo to promote our brand to the market and show our professional service. See you in BMAM Expo Asia 2014."

Mr Ryan Hitzman, South East Asia Export Manager, Kingspan Insulation said that: "We are manufacturer of rigid flexible insulations using in the building construction industry. Kingspan operated in 1972. We had head office located in Ireland with operation in 35 countries and 65 manufacturing facilities. We participated in the exhibition to promote our product up throughout the southeast region. This expo, we got people that come throughout southeast region. Our company saw the exhibition as the best ways to meet with decision making people who need to purchase building materials."

Mr Chatchavich Chotivichayaphan, Assistant Project Sales Manager, Wall Technology Co., Ltd. said: "Wall Technology Co., Ltd. is produced and setting up wall panel company. Our target is Cool room, clean room, factory business group. The sales point is saving power building management. In this exhibition, the visitors are similar to our target that is industrial consumer and user group. We get more chance from walk in clients. That is good market. In GBR Expo Asia 2014 I am pleased to join again."

Mr Khrongkhet Khuantham, Project Manager, Thai Toshiba Lighting Co., Ltd. said that: "Our products are incandescent and fluorescent light bulb and all lighting equipments. The company established more than 40 years with leading experienced in lighting products and lighting design. We have recognised that the expo is integrated part of environmentally friendly property management including many entrepreneurs and buyers who focused on green project Also the exhibition match with our CSR activity which concerned about environmentally friendly campaign. Then we can introduce new environmentally friendly product to the clients so that is why I appreciate to join the expo. The overview is good. Lots people are interested in our booth but anyway I hope the clients will come more on the other day as well. One of benefits from joining the exhibition is attracting the customer directly. The exhibition like the centre of people who interested in the same idea of green building management."

The next BMAM & GBR Expo Asia 2014 will take place from 18-20 September 2014 at hall 5, IMPACT Exhibition and Convention Center, Bangkok, Thailand. For further information, please contact Mr Ajinveat Vhongthong at tel (+66) 2 833 5210; fax (+66) 2 833 5127-9, email ajinveatv@impact.co.th or visit www.maintenance-asia.com or www.greenbuilding-asia.com.



19,000 Centrosolar modules in Northern France connected to the grid

Hamburg, Germany – The Centrosolar AG subsidiary Centrosolar France was the main supplier for a large-scale solar project in Northern France, in the department of Seine Maritime.

On behalf of EDF Optimal Solutions, a subsidiary of the state electricity company EDF, roof-integrated solar systems with a combined output of 3.7 MWp have been installed on a total of 190 roofs belonging to the housing association “Habitat 76”.

For that purpose, in total 19,000 Centrosolar modules of the type S-Class Integration Deluxe were exported to France from Centrosolar Sonnenstromfabrik in Wismar, and installed in 42 different municipalities where the municipal housing association has apartment blocks. The project started in summer 2012. The last of the 190 roof systems have now been connected up to the grid. All PV systems were roof-integrated and varied in size from 3 to 36 kWp.

This major contract has helped Centrosolar France to cement the leading position that it has carved out for itself in the French solar market over the past few years, particularly in the specialist field of roof-integrated PV technology. This market position was proved by EuPD, an independent Research Institute which conducts every year a study over French installers. In 2013 Centrosolar has been awarded No. 1 brand in the photovoltaic sector in France.

Centrosolar France has already installed S-Class roof-integrated modules with total output of around 100 MWp. The new glass-glass modules from Centrosolar Sonnenstromfabrik, the S-Class Vision 60, now look set to repeat the success of the S-Class Integration Deluxe module. After 10 weeks since their market launch, Vision modules represent already 15 percent of the order book of Centrosolar France. With the USA, France is one of the principal international sales markets for the whole Centrosolar group, which generated 71 percent of its revenue internationally last year.



Adrian Smith + Gordon Gill Architecture wins international design competition for Expo-2017 in Astana, Kazakhstan

Chicago, USA – Adrian Smith + Gordon Gill Architecture (AS+GG) has won a major design competition for EXPO-2017 in Astana, Kazakhstan. AS+GG’s design was selected as the winner of the international competition that featured 105 entries from all over the world including Coop Himmelb(l)au, Zaha Hadid Architects, GMP International, Massimiliano, Studio Pei-Zhu, UNStudio, Snohetta, HOK, Isozaki, Aoki & Associates, and Safdie Architects.



Photo: © Adrian Smith + Gordon Gill Architecture & Adrian Smith and Gordon Gill, the design architect for the project

AS+GG’s design for EXPO-2017 will embrace the Future Energy concept by becoming the first Third Industrial Revolution city, where energy consumed by the Expo community will be provided from renewable sources. Buildings will become generators of power and their energy will be stored using innovative technologies while being distributed by a smart grid. The Expo community will provide infrastructure to encourage and support the use of vehicles that use renewable fuels.

“The forms and language of the buildings are designed to reduce their energy needs and operate as “power plants” that harness energy from the sun and/or wind,” said AS+GG Partner Gordon Gill, FAIA. “The buildings will use this power directly or supply it to the district-wide smart grid for storage or use,” added Mr

Gordon. The defining symbol of the EXPO-2017 site will be the sphere-shaped Kazakhstan Pavilion (24,000 square metres), located at the centre of Expo City. The pavilion will have a transformative skin that will reduce thermal loss and reduce interior solar glare. A host of integrated systems, including photovoltaics, will save and increase the energy output of the building simultaneously.

Split into two phases, the 174 hectare project will feature exhibition and cultural pavilions (118,620 square metres); a residential development (686,000 square metres); service areas including shopping, socio-cultural, educational and civic facilities; parks (72,000 square metres); and parking.

Phase 1 or the "Expo Mode," will see the design and construction of the exposition buildings including the central Kazakhstan Pavilion; Theme, Corporate and International Pavilions; as well as hotel, retail, art and performance spaces. The first phase will also include the design and construction of a series of buildings that will act as a "covered city," which will include retail, residential and office spaces. Phase 1 will be completed by June 2017 to serve the Expo and its visitors.

Phase 2 or the "Legacy Mode," will finalise the first Third industrial Revolution community. The Expo buildings will be converted into an office and research park, attracting international companies and entrepreneurs. Expo parking and service zones will be transformed into thriving and first class integrated neighbourhoods including an additional 700 residential units, as well as office, hotels, local markets, and civic and educational facilities.

Designs revealed for Bund Finance Centre, under construction in Shanghai

London, UK – Bund Finance Centre (BFC) is a prominent new mixed-use destination in Shanghai designed jointly by Foster + Partners and Heatherwick Studio. The 420,000-square-metre development of eight buildings includes two 180-metre landmark towers, and combines premium 'grade A' offices with a boutique hotel, an arts and cultural centre and a wide variety of luxury retail spaces, all arranged around a generous landscaped public plaza.

Occupying a prominent site on the Bund, the buildings define the 'end point' to Shanghai's most famous street. The masterplan is highly permeable for pedestrians, with the design conceived as a point of connection between the old town, the Bund and the new financial district. Inspired by this urban context, two landmark towers are placed in the south of the site, while the buildings facing the waterfront are staggered in height and relate in scale and rhythm to the grand nineteenth-century landmarks along the Bund.

The scheme brings together premium office space for international headquarters and a unique 'corporate mansion' – an elite networking platform for business partners and VIPs. A boutique luxury hotel provides a glamorous new destination on the Bund. The retail spaces are vertically layered with boutiques, concept stores for international brands, a luxury shopping mall and Michelin-starred restaurants. A palette of crafted stone and bronze details gives the buildings a jewel-like quality. The edges of each volume are made of richly textured, hand-crafted granite and become slimmer as they rise, giving the impression of solidity



Artist's impression of The Bund Finance Centre.
Image: © Foster + Partners and Heatherwick Studio

at the base and transparency at the top. At the heart of the scheme is a flexible arts and cultural centre, which combines exhibition and events halls with a performance venue, inspired by the open stages of traditional Chinese theatres. The centre is conceived as a platform for international arts and cultural exchange, as well as a place for brand events, product launches and corporate functions. The building is encircled by a moving veil, which adapts to the changing use of the building and reveals the stage on the balcony and views towards Pudong.

David Nelson, Head of Design at Foster + Partners: "The project has given us an exciting opportunity to create a

glamorous new destination, as well as a new series of spaces that create a major addition to the public realm, right in the heart of historic Shanghai."

Thomas Heatherwick, Heatherwick Studio: "Sitting at the gateway to Shanghai's Old Town, on the river bank where boats would arrive from the rest of the world, this is an extraordinary site which stood unoccupied for many years. In filling this last empty site on Shanghai's famous Bund, the concept is inspired by China's ambition not to duplicate what exists in the rest of the world but to look instead for new ways to connect with China's phenomenal architectural and landscape heritage."

Glaston signs framework cooperation agreement with Chinese Jinjing Group

Helsinki, Finland – Glaston has signed a framework cooperation agreement with Chinese Jinjing Group. The parties have agreed on a long-term, strategic partnership within the business fields of offline tempering, double and triple silver Low-E glass, machinery and equipment.

The Jinjing Group manufactures and sells and is involved in research and product development of energy-saving glass, including Low Iron double and triple silver Low-E glass and various high-end intensive processing composite products. The Group has markets throughout North America, Europe, Australia, Southeast Asia, the Middle East and other regions. Glaston has a long-term customer relationship with Jinjing Group. Jinjing Group's float glass production lines represent the world's most advanced technology and equipment.

"Energy efficiency and energy savings are topics that concern everyone today. One of the targets for this cooperation is to jointly take part in the setting of the high-end energy saving Low-E glass tempering standard. We will also jointly promote high-end glass products and high quality processing machinery and equipment in China and Asia," said Frank Zhang, General Manager of Glaston Asia.

Glaston's machinery and services are widely used by many leading glass processors all over the world. Jinjing Group's ultra-clear glass has been used on landmarks like Beijing Olympic Bird's nest and water cube.



Mr Xinhua Jiang, GM, sales division of Jinjing technology (left) and Mr Frank Zhang, GM of Glaston Asia shaking hands after signing agreement.

IES Sign Statement of Cooperation with Masdar Institute of Science and Technology

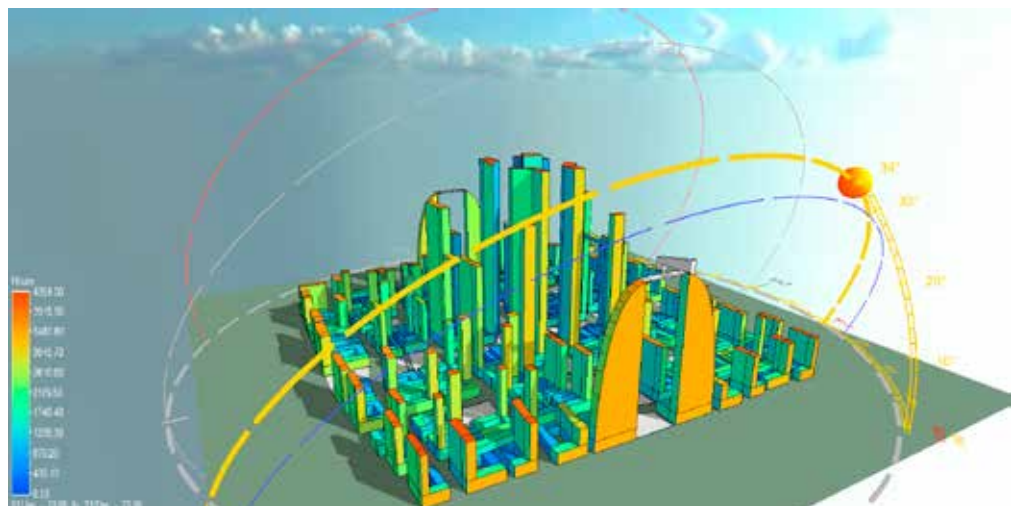
Glasgow, Scotland, UK – IES announced it has signed an agreement with Masdar Institute of Science and Technology to form a working partnership that will promote the creation of a more sustainable built environment. The agreement includes the provision of free academic licenses of the IES Virtual Environment (IESVE) to students studying at the institute. IES will also provide six-week internships to the students.

IES has a vast range of building analysis software tools and will be extending its capability in a number of areas including Masterplanning, Smart Cities and Smart Building Control. Masdar Institute has educational and research and development interests in all these areas and particularly as related to Abu Dhabi and Masdar City in the United Arab Emirates.

This agreement will allow students to use IES software on research and development for the Masdar Institute. IES will benefit from the feedback from this work, incorporating it into its own R&D programme.

Dr Fred Moavenzadeh, President, Masdar Institute, said: "The agreement with Integrated Environmental Solutions (IES), world leaders in precision and intelligent sustainability solutions, reflects our status as a front-runner in clean energy research, seeking collaboration with globally renowned institutions. We are privileged to enter into this partnership that will further facilitate our knowledge and human capital building efforts in the UAE and the GCC region, while helping to curb carbon emissions in built environment."

"IES has an extensive R&D programme with a large portfolio of European funded research projects in progress that are looking at the same areas of interest as Masdar Institute, and Masdar City is an ideal site to test much of this development work," said Don McLean, Founder and CEO, IES. "This partnership is an excellent opportunity to make significant advancements in our joint vision for the creation of a more sustainable built environment," added Mr McLean.



IESVE Smart City Model

schmidt hammer lassen architects wins library competition in China

Aarhus, Denmark – schmidt hammer lassen architects has been announced 1st place winner in the competition to design a 30,000 square metres central library in Ningbo, China. Located in the heart of Ningbo New East Town the new library sits on the edge of a new ecological wetland area which will form a new cultural hub of the city. With its open and accessible design the winning proposal makes it possible to display the library's collection of more than 2 million books and double the number of daily visitors.



Image: © schmidt hammer lassen architects

Founded in 1927, the Ningbo City Library holds the largest collection of historic and ancient books in the region. The old library attracts 3,000 to 4,000 visitors daily. The aim of the new library is to increase the number of visitors to 7,000 to 8,000 per day. To deal with this increase the new library will be organised with an open plan layout containing 3,000 study spaces.

"We have designed a library which is open and accessible. It is organised around an 8,000 square metres open marketplace containing the most popular library functions and collections," explained Morten Schmidt, partner at schmidt hammer lassen architects. "The marketplace is visually open on all sides connecting to a public plaza and a landscaped ecological park and lake, thus ensuring all interior spaces have a direct connection with the outside," added Mr Schmidt.

In the heart of the library is a central atrium in the form of a giant book stack containing study desks, reading booths, internet stations and media spaces. This generous 28-metre-high space connects the marketplace at ground floor level with a series of quieter research spaces and the historic collections above. The atrium provides natural light to the centre of the building during the day and acts as an urban lantern at night. From a sustainable viewpoint the library design maximises the use of passive solutions over technological additions. For instance the use of natural daylight in all interior spaces is optimised through the building orientation. Natural ventilation will be maximised through the central atrium and the structure of the building will consist of exposed concrete to optimise thermal stability during hot summer months and cool winters.

Cameron Woo Design bags World's Best Interior Design 2013/2014 award

London, UK – Cameron Woo Design (CWD) has received the World's Best Interior Design 2013/2014 award for its apartment project Nassim Park Residences Singapore from the International Property Awards.

CWD competed against the leading interior design firms from all over the world to receive this top global recognition.



Living Room, Nassim Park Residences by Cameron Woo Design

The International Property Awards is the world's largest and richest property competition with 98 countries participating this year and the value of projects entered estimated to be around GB£100 billion.

CWD having won both at the Singapore country and Asia Pacific regional levels to represent the Asia Pacific against the Americas, Europe, UK, Middle East and Africa regions against respective interior design firms, ultimately won the right to be called the best in the world.

This is the third time CWD has represented the fiercely competitive Asia Pacific region at the global level of competition at the International Property Awards, but this is the first time for CWD to claim the World's Best title for the Asia Pacific region.

"I'm humbled that our firm CWD is selected to be part of this very impressive circle of interior design professionals in the world, and that the collective of judges have decided to honour CWD as the world's best for interior design. I thank my talented team, who work tirelessly beside me and my partner; and, we thank our clients, for their continued support of CWD to create and execute the most incredible designs for them," said Cameron Woo, Principal, Cameron Woo Design.

Goettsch Partners selected 2013 AIA Chicago Firm Of The Year

Chicago, USA – Architecture firm Goettsch Partners (GP) has been named the 2013 Firm of the Year, as conferred by the Chicago chapter of the American Institute of Architects (AIA Chicago). The award is the highest honour a firm can receive from the chapter.

Established in 1991, the Firm of the Year Award recognises a single firm's outstanding achievements, consistent excellence, and ongoing contributions made to the advancement of the architectural profession. A firm's entire history is examined, but particular attention is given to the work and achievements of the past 10 years.

"The principles and mission of GP are clearly stated and executed with unwavering conviction and consistency across every design challenge," the jury commented. "Bold ideas reinforced by an obsessed attention to detail have been a hallmark of the firm since its inception. GP has set the bar high for this significant recognition and is well deserving of this honour," added the jury.

With GP offices in Chicago, Shanghai and Abu Dhabi, one juror specifically noted the firm's international reach: "Without a doubt, Goettsch Partners has had a significant positive impact on our profession globally through the work of their talented principals and staff. As a result, they were a unanimous selection to be the 2013 AIA Chicago Firm of the Year."



Northwestern University Music & Communications Building, Evanston, Illinois in USA.
Image: © Goettsch Partners

Onyx Solar appoints official distributor in Australia

Avila, Spain – The collaboration between Onyx Solar, leader in the development of photovoltaic glass solutions for Building Integrated Photovoltaic's, and HiFU Group, its new Official Distributor in Australia, will push and strengthen the market for green building in Australia.

Onyx Solar photovoltaic glass solutions with multifunctional properties are used for the replacement of conventional construction materials from different parts of the building's exterior such as roofs, skylights, windows, façades or anti-slip floors.



Onyx Solar Photovoltaic Ventilated Facade
GENyO Project. Photo: © Onyx Solar Energy S.L.



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Westgate

New Icon of Jurong Gateway



Façade of Westgate shopping mall. Photo: © CapitaMalls Asia

Westgate, the newest family and lifestyle shopping mall in the western part of Singapore, opened its doors to the public on 2 December 2013. Located in Jurong East, the mall offers an exciting array of fashion, lifestyle and F&B offerings under one roof.

Designed by British architects Benoy with RSP Architects Planners & Engineers as project architects and engineers, Westgate's design draws inspiration from Jurong's original landscape, while connecting to its aspirations for the future. The mall has been conceived as an urban oasis, with lush landscaped areas for the public to enjoy.

It is strategically located in the heart of the up-and-coming Jurong Gateway precinct, and is the only mall with direct connections to both the Jurong East MRT and bus interchanges.

Ms Wee Su Lin, Development Manager of Westgate, said, "After two years in the making, we are excited to unveil Westgate as the premier family and lifestyle mall in Jurong East. We are pleased to work with established and new entrant retailers to bring the city lifestyle to the western part of Singapore, as well as deliver original offerings that fulfill the potential of our strategic location in the up-and-coming Jurong Gateway precinct. We hope that the mall's extensive retail and lifestyle offerings, together with its shopper-centric social spaces, will anchor Westgate firmly in the community and become the place where families living in the west and beyond, can enjoy themselves and spend the day."

Westgate is a development by CapitaMalls Asia Limited, CapitaMall Trust and CapitaLand Limited.

Westgate Tower

The development also comprises of an office building called Westgate Tower. The 20-storey prime office tower with 320,000 square feet of lettable area is slated for completion by the end of 2014. Westgate Tower will have good quality finishes and efficient column-free floor plates of about 17,000 square feet, which will allow for flexibility of workspace design. Additional features include a floor-to-ceiling height of about 2.8 metres, Grade A building lift provisions and an integrated security management combining closed-circuit television and security card access system. The office, which will be fully integrated with the mall and its suite of facilities, such as the childcare centre and gymnasium, will offer a work-play environment within one development.



Interior shot of The Courtyard in Westgate. Photo: © CapitaMalls Asia



Another view of the interior. Photo: © CapitaMalls Asia

Rising above the shopping mall, the office building enjoys seamless connectivity to the transport hubs via the mall, and, it is a 20-minute drive to the CBD. Companies who want to be in close proximity to both industrial estates and business parks and the CBD, will find this an attractive location.

What's in Store?

Westgate the shopping mall is seven storeys high (basement 2 to level 5) and houses more than 250 brands over a net lettable area of 410,000 square feet, similar to Raffles City Singapore's retail area.

Beyond its retail and lifestyle offerings, Westgate seeks to promote family and social bonding with purpose-built community spaces. These include Westgate Wonderland, the mall's signature 11,000 square feet thematic outdoor playground on Level 4,

which will be open to the public for free; a supervised play area with a 4,600-square feet outdoor playground and an indoor clubhouse. Both outdoor playgrounds will open in early 2014.

The heart of Westgate will be The Courtyard, a low-rise dining precinct, which is built to resemble a vibrant shopping street with community spaces for people to meet and socialise. Shoppers can enjoy a unique idyllic dining experience amidst a garden setting at The Courtyard, which houses F&B outlets such as Paul Bakery, Brotzeit, Café Crema, Poulet, Miam Miam and Skinny Pizza.

Shoppers are welcome to take a pleasant stroll in The Courtyard along the Westgate art trail, which includes four sculptures installed at different spots. Taking pride of place at the mall entrance is The Panda Family sculpture by French pop art

PROJECT DATA

Project: Westgate
Developer/Owner: CapitaMalls Asia Limited, CapitaMall Trust and CapitaLand Limited
Project Manager: CapitaLand Retail Project Management Pte Ltd
Design Consultant: Benoy
Project Architect: RSP Architects, Planners & Engineers (Pte) Ltd
Main Contractor: Shimizu Corporation
Quantity Surveyor: Davis Langdon & Seah Singapore Pte Ltd
Mechanical & Electrical Engineer: J Roger Preston (S) Pte Ltd
Civic & Structural Engineer: RSP Architects, Planners & Engineers (Pte) Ltd

KEY FEATURES OF SHOPPING MALL

Gross Floor Area: 594,000 square feet
Net Lettable Area: 410,000 square feet
Number of shops: More than 250
Number of car park spaces: 600 for use by both shopping mall and office tower

KEY FEATURES OF OFFICE TOWER

Net Lettable Area: 320,000 square feet
Number of levels: 20 storeys
Number of car park spaces: 600 for use by both office tower and shopping mall
Floor to ceiling height: 2.8 metres

ECO-FRIENDLY FEATURES OF THE DEVELOPMENT

Highlights: Green roof and vertical greenery, recycle paper chute
Estimated energy savings: 13,700,000 kWh/yr
Estimated water savings: 56,200 m³/yr

artist Julien Marinetti, who is known for using his bronze sculptures as three-dimensional canvas. The specially commissioned art piece features a family of four pandas in a sitting posture. The panda subject hints at the proximity of Westgate to the Chinese Garden, whose pagoda and pavilions have long been prominent in the landscape of Jurong. The other three sculptures are caricatures by Belgium artist Kirk De Keyzer, who gave his signature playful twist to snapshots of mundane daily activities, namely The Loudspeaker, The Walk and The Tightrope Walker.



Artist's impression of Westgate Wonderland at Level 4. Photo: © CapitaMalls Asia



Artist's impression of Westgate Kids Club at Level 5. Photo: © CapitaMalls Asia

Green Design - Universal Design Mark and Green Mark

Westgate is a recipient of two Building and Construction Authority (BCA) awards, namely the BCA Universal Design Mark GoldPLUS (design) for its accessibility, connectivity and user friendliness; and the BCA Green Mark Platinum award, the highest accolade for green building certification in Singapore.

Westgate is integrated with resource-efficient and environmentally-friendly technologies and features, such as the use of shading device and glazed glass on its façade to reduce heat absorption; energy-efficient air-conditioning systems, light fittings and lift systems; and the use of harvested rain water to irrigate all the landscaped areas. These provisions will help Westgate achieve about 30 percent savings in both energy and

water consumption. Other green features at Westgate include a naturally ventilated atrium; a recycling chute for paper in the office tower to facilitate recycling; and the use of low volatile organic compound paints and materials to improve air quality.

To maximise its green performance, Westgate integrates its green features – the “hardware” – with Green Lease – the “software”. Under its Green Lease model, retail tenants are required to comply with operations and maintenance guidelines that will contribute towards Westgate’s long-term sustainability.

Besides the green features, the design of Westgate epitomises the seamless connectivity that is characteristic of Jurong Gateway. The seven-metre wide linkway on its ground level and the six-metre wide elevated

pedestrian walkway on Level 2 connect the Jurong East MRT and bus interchanges to the neighbouring buildings.

More than just your typical mall, Westgate takes family and community bonding to a new level. With three CapitaMalls in Jurong – Westgate, IMM and JCube – shoppers can look forward to the equivalent of a three-in-one mall in the heart of Jurong Gateway. Each mall offers something different to meet every shopper’s needs: Westgate is a lifestyle mall, IMM is a value-focused mall with more outlet shopping while JCube is an entertainment hotspot with its IMAX theatre and Singapore’s only Olympic-size ice rink. Shoppers can enjoy shopping at more than 600 stores in the three CapitaMalls, with more than 2,200 car park spaces.



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TOWARDS A SUSTAINABLE BUILT ENVIRONMENT



Photo: © Tord-Rikard Söderström

Emporia



Photo: © Tord-Rikard Söderström



Photo: © Perry Nordeng

Emporia is first and foremost an urban planning project in which offices, housing, and retail come together in a mixed-use development along Boulevarden and Stationsgatan in Hyllie, on the south side of Malmö. Designed by Wingårdhs, the main idea of the company's winning competition entry was to hide inward-looking retail behind a wreath of residential and commercial buildings. The whole shopping complex would thereby eventually become integrated into the fabric of the city.

It is a huge development, of which only the corner building with the Amber Entrance has yet been completed. This entrance will be the only part of the Emporia shopping centre that remains visible when the development is completely built out. The idea of lining the streets with mixed-use buildings demanded a strong form that could attract visitors from Station Square to come in and shop. A sequence of vaults from a previous competition proposal, along with a memory from the Pantheon, reemerged in a bronze-ochre tone. Double-bent glass encloses the diagonal slit that cuts through the building. Here the weather of the Öresund Strait, its fast-moving clouds chasing glimpses of sun, becomes present and tangible.

The diagonal entrance from Hyllie Station Square leads deep into the block. Inside, retail is organised around a three-storey figure eight. Shops are grouped together around boldly coloured atriums, each with a different theme. On the north side of the complex, a ramp leads into a rainbow-coloured parking garage (for 2,500 cars) with direct access to the figure eight. To the east is a surface parking lot (for 500) right outside the supermarket.



Photo: © Tord-Rikard Söderström

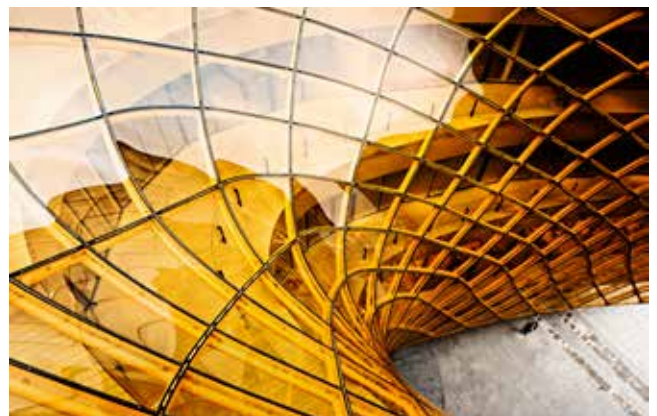


Photo: © Tord-Rikard Söderström



Photo: © Tord-Rikard Söderström



Photo: © Tord-Rikard Söderström

The rooftop park is designed as a bit of cultivated nature. Its vegetation (sedum, prairie grass, and trees) and its sun-facing, wind-sheltered patios are accessible from both inside and outside the building. The hills that provide protection from the wind are actually hiding mechanical rooms. In the future the roof will be developed with outdoor dining and a spa facility – like amusement parks, shopping centers need to offer new attractions at regular intervals.

Emporia can expand upward and to the west, but not in any of the other directions. The freestanding residential buildings facing Boulevarden have yet to be built, as do those that will stand atop the podium along Stationsgatan on the south side.

Emporia's interior challenges established shopping centre conventions. Its bold colours and bent sightlines break with the norm, as do the project's size and ambition – which have made it possible to do custom designs for everything from ceilings, floors, and storefronts to signage, ropes of hanging plants, furniture, and cast glass door handles.

The architect's motto has been "no intermediate scale" – because that is the realm of the products on display. Large-scale patterns and intricate details characterise the interior. The terrazzo floor is typical of this approach, with its oversized triangular joint pattern, its gradual shift from white to graphite in seven steps, and its



Photo: © Tord-Rikard Söderström

flashing inclusions of coloured mirror glass. The design has been wrought with extraordinary attention to detail, down to the leather-wrapped handrails and the colour of the stitching on the built-in seating.

Emporia also includes a quantity of art seldom seen in a commercial environment. A lighting installation (99 bollards) by



Photo: © Tord-Rikard Söderström



Photo: © Tord-Rikard Söderström



Photo: © Traian Cimpeanu

Petteri Nisunen and Tommi Grönlund lifts the Amber Entrance, bronze sculptures by Joep van Lieshout and a glass art piece (4 x 81 metres) by Silja Rantanen adorn the Sea Entrance, and a line painting on film at an extremely outsized format (20 x 114 metres) by Per Mårtensson clads the façade of the parking garage. On the interior is a series of photos by Signe Maria Andersen.

PROJECT DATA

Project: Emporia

Location: Hyllie Boulevard 19, Malmö, Sweden

Client: Steen & Ström Sverige AB

Architect: Wingårdhs through, Gert Wingårdh, Johan Eklind and Joakim Lyth

Interior Architect: Wingårdhs through, Helena Toresson and Sara Helder

Graphic Design: Wingårdhs through, Jennie Stolpe

Landscape Design: Thyréns AB (Anders Dahl, Pamela Sjöstrand)

Landscape Design (roof park): Wingårdhs, Landskapsgruppen Öresund AB (Sofia Hultenberg)

Total area in square metres: 207,000 square metres (including multi-storey car park) + 27,000 square metres roof park

Construction cost: SEK 2,5 billion

Completion date: October 2012

Te Awa at The Base

Flooring laid using Mapei adhesives for this shopping centre of Hamilton in New Zealand.



Te Awa at The Base is a large shopping centre in the Te Rapa suburb of the New Zealand city of Hamilton, which until 1992 was a base for the New Zealand Air Force, and from which it has taken its name.

The land on which it has been built belongs to the Maori Waikato Tainui tribal confederation, located in the central-western area of New Zealand. During a ceremony in 1995, in which Queen Elizabeth II also took part, the local authorities apologised on behalf of the Crown for the indiscriminate appropriation of the land. This area was one of the first settlements handed back to the Maori tribes. Apart from numerous shops, the shopping centre also has an outlet, a large dining area and a multiplex cinema available to visitors. It is also the first building in New Zealand to be covered by a roof (26,000 square metres surface area) made from Efte, a plastic material, which is highly resistant to corrosion, high temperatures and pollution. In 2012 Te Awa was awarded the Silver Medal by the Asia Pacific Shopping Centre Awards and won the Excellence Award New Zealand in the Commercial Buildings category.



An external view of the shopping centre.

A Laying Solution for Every Type of Tile

Mapei Technical Services recommended a series of products to meet all the requirements of this particular site. Firstly, before laying the tiles, all the cracks in the substrates needed to be sealed with EPORIP two-component, solvent-free epoxy adhesive. Then, while it was still wet, the surface of the product was dusted with fine quartz sand.

The substrate was then treated with PRIMER G synthetic resin-based primer in water dispersion diluted 1:2 with water. Large agglomerate tiles were laid on the floor of the covered arcade, which is flanked on either side by shops. A sample of the tiles was sent to the Mapei R&D laboratory in Milan to test its dimensional stability. The tests carried out showed that this type of tile was dimensionally stable.

For this reason GRANIRAPID was recommended, an ideal adhesive for flooring subjected to intense traffic and for sites where flooring needs to be laid and put into service particularly quickly.

Photos 1 & 2:
After preparing the substrate with EPORIP and PRIMER G, laying of the tiles commenced using GRANIRAPID and ULTRACOLOR PLUS.

Photos 3 & 4:
In the dining area, wood-effect ceramic tiles were laid using KERABOND PLUS mixed with ISOLASTIC.



The joints were then grouted with ULTRACOLOR PLUS high-performance, anti-efflorescence, polymer-modified mortar for joints from 2 to 20 mm wide. Once this phase had been completed, the compensation joints were sealed with MAPESIL AC.

In the large dining area, the wood-effect ceramic tiles were laid with KERABOND PLUS cementitious adhesive mixed with ISOLASTIC latex rather than water for better performance and deformability. In this case too, the joints were grouted with ULTRACOLOR PLUS and sealed with MAPESIL AC.



ULTRACOLOR PLUS

Mapei Products

Preparation of the substrates: Eporip, Primer G

Laying ceramic tiles: Granirapid

Laying wood-effect tiles: Isolastic, Kerabond Plus*

Grouting and sealing: Mapesil AC, Ultracolor Plus.

*Distributed in the New Zealand market by Mapei New Zealand Ltd

PROJECT DATA

Project: Te Awa at The Base

Location: Hamilton, New Zealand

Designer: Ignite Architects

Client: The Tainui Tribe (Hamilton)

Contractor: Navlor Love Ltd, (Hamilton)

Laying Company: The Tile People (Auckland)

Period of Construction: 2010-2012

Year of Intervention: 2011

Intervention by Mapei: supply of products to prepare substrates, laying tiles, grout and seal tile joints

Laid Material: ceramic tiles

Mapei Co-ordinator: Chester Becroft, Mapei NZ Ltd

Source: *Realtà Mapei International* issue number 45.

For more information, e-mail mapei@mapei.com.sg.

Revitalise the Retail Experience with Resin Floors

Creating an engaging experience is a vital consideration for shopping malls. If the shoppers are not impressed with their surroundings then it can affect everything from sales and customer retention to conveying the brand message.

For the designer this means striking a balance between appearance and performance, as the building needs to be attractive to visitors whilst withstanding the demanding conditions of a large scale facility.



WV05 is the Westfield London Shopping Centre.



The Bugis+ mall in Singapore.

For few areas of the mall is this as challenging as the floor, which needs to ensure a hygienic, easy to maintain and aesthetically appealing finish in the face of heavy levels of traffic and regular cleaning. Having hard wearing properties is especially crucial if the floor incorporates designs, artwork or signage, as these could quickly deteriorate if the installed floor cannot withstand the environment.

Many shopping venues have utilised the unlimited design potential of seamless resin terrazzo floors to create stunning yet robust surfaces. The Mondéco system from Flowcrete Asia is available in a wide range of colours and with a choice of decorative aggregates. This gives designers the chance to create innovative and wholly original floors that can incorporate unique patterns and a luxurious, shimmering effect.

This system can be installed in corridors, lift lobbies and concourse areas and will reliably maintain its smooth, attractive finish - even when faced with the hundreds of thousands of visitors that world-class shopping facilities attract every year.

The Bugis+ mall in Singapore used Mondéco Crystal on a large scale to install asymmetrical bands of contrasting black and white stripes across its main floor. This irregular pattern blended seamlessly with the building's eccentric, off-centre architecture, creating a captivating overall effect.

The Westfield shopping mall in London wanted its floor to reflect opulence and sophistication. To achieve this, Mondéco Exotic was applied across the floor in long lines of subtly changing shades of grey. The shimmering gleam and simple but stunning layout created a luxurious ambience in the main concourse areas.



A good first impression is vital to creating a superior retail experience and the first impression a visitor has of a shopping mall is not when stepping inside a shop, but from the first second they enter the car park.

The Star Vista Mall in Singapore needed to highlight instructional markings in its car park to increase the safety and usability of the facility. To achieve this it decided to use a range of vibrantly coloured floor coatings that would not only make the building easy to navigate,



The Star Vista Mall in Singapore.

but would suffice it with stylish and eye-catching colour. Flowcrete Asia created this effect by installing over 40,000 square metres of its traffic deck coating system Deckcoat EP in a variety of colours. This solution is ideal for designers that want to enhance the visual appearance of car park environments, as it is available in a range of attractive colours and creates a hard wearing, anti-slip finish.

Meeting the balance of decoration and function in a car park is all the harder once the shopping mall is operational. This was a particularly important factor when the world's largest and most visited shopping destination, the Dubai Mall, which boasts the most expansive car parking facilities in the Middle East & North Africa region, needed to replace its car park floor.

A rapid installation was required to avoid inconveniencing visitors, but with three car parks and over 14,000 spaces the task required 540,000 square metres of Flowcrete's polyurethane traffic deck coating material Deckshield. Within five months the refurbishment was complete and the Dubai Mall had a car park surface that matched the scale, image and quality of the mall itself.

A new Flowcrete Asia innovation for 2014 is the Expressions range of artistic finishes. This has been designed so that retailers can make a real style statement with a one-of-a-kind floor and it is a great way to utilise the floor to enhance the brand message, particularly if you wish to convey an image based on quality and individuality.

This polyurethane resin solution works by blending together complimentary colour shades to create a multi-dimensional marbling effect. Due to the unique nature of the system, the specific look of each Expressions floor can never be fully recreated.

Flowcrete Asia can also provide floor and wall coating systems for the back of house areas of a shopping mall. These floors can be matched to the main colours or imagery of the building to compliment the building's visuals. They can also be tailored to cope with specific workplace demands, for example slip resistance can be increased to improve employee safety or food storage areas can have specialist, ultra-hygienic floors that help to maintain a clean environment.

Installing a floor that can withstand large numbers of daily visitors avoids the risk of failures that would turn previously attractive floors into dangerous and unsightly surfaces that ruin the retail experience. Not only are resin floors available in a wide range of artistic options, but they will remain solid and smooth, safeguarding the decorative and creative choices of the designer.

For more information visit www.flowcreteasia.com.



Dubai Mall





The Longhouse 36

'The Longhouse 36' at 36 Thomson Heights in Singapore recently won the Honourable Mention in the Residential Projects Category at the 13th SIA Architectural Design Awards. Designed by Aamer Architects, the house features a traditional East Malaysian roof with deep overhangs which frames the beautiful distant views at the attic level.

The owner of 'The Longhouse 36', a young family with two children, envisaged their new home to be based on tropical designed, sufficiently private and surrounded by greenery.

The home is designed by Aamer Architects, essentially, as a long block that splits away from the neighbour's common party wall creating an internal garden courtyard, which is the main feature when entering the house. Planters and roof gardens at the second storey level bring nature into the house and create the sense of living in a garden. The main roof is inspired by the traditional East Malaysian roof with deep overhangs. This creates beautiful distant views of the attic level. Mr Aamer Taher Principal of Aamer Architects, said that his main focus is usually on "detaching a semi-detached house, making it a free-standing villa seemingly independent."



Mr Aamer Taher

"When they came to me, they said they liked the old kampong-style houses that is why they bought into this area, which still has a rather old feel to it. They are not totally air-con people and like a casual lived-in lifestyle. They have two small kids so it was more a functional brief. They cooperated and liked what we designed. It was really our response to the site. I draw inspiration from the things I like, things I grow up with, have seen. Internally, we imbibed the traditional longhouse concept of family living. That you live on the same floor and share the common outdoor areas. This is the way we are supposed to live in Asia. So this design kind of suits them. Every site inspires you in a different way and I thought the longhouse would be ideal for this site," said Mr Taher.

For the appearance of the house, the architect used double-storey height slate feature walls and lots of timber and for the structure, concrete and steel were used. Cross ventilation is an essential element of the house, with lots of greenery and a water feature that creates a cooling effect. The master bedroom is open to the elements with privacy created by lush, varied plants/greenery.

"Visually and physically, we love the way we can walk through the corridor to the wide open green space at the back. An amazing, spacious garden ending where the land has a natural split again. We created a higher garden with steps leading up to it. There are some thoughts of making it a pavilion in the future but for now, it is just a raised garden," said Mr Taher.

SIA's Jury Citation

"The Longhouse is a project executed with great clarity, intent and skill. The key brief was 'how to detach a semi-detached house'. The architect is creative in separating the main spaces of the house from the common party wall through introducing an air and light well, resulting in the formation of a seemingly independent freestanding villa. From the standalone form, the main dwelling spaces are organised within this long house. Drawing inspiration from the typology of a traditional long house, along with its passive strategies of an overhanging gable roof and natural ventilation, the house takes on a meaningful form that gives it a distinctive character. The concept of garden living and living among nature is also fully expounded to enhance the quality of the indoor environment, as well as providing privacy. The reinterpretation of the longhouse seems to be an appropriate response for the site, as well as a relevant design for the tropical context."

PROJECT DATA

Project: The Longhouse 36
Location: Thomson Heights
Client/Owner: Young family with 2 children
Architect: Aamer Architects
Principal Architect: Mr Aamer Taher
Contractor: Aikco Construction Pte Ltd
Total Floor Area: 5,200 square feet
Site Area: 7,400 square feet
Total Storey: 3
Number of rooms and bathrooms: 2 studies, living, dining, 3 bedrooms, master bedroom, 5 bathrooms, maid's room, 1 powder room
Completion: 2012
Photographer: Mr Sanjay Kewlani





Baan Moom House

Corners for sharing and privacy



Exterior of the Baan Moom House



IF Partners

The Baan Moom house is a beautifully designed three-storey residential home for a family of five by Integrated Field Co Ltd (IF), a Thailand-based design office. The house is located on Sukhumvit Rd., Soi 101/1, next to the owner's old house where they had been living since long time ago. According to the scale of the site and owner's love of nature, open space, and gardening gave IF an initial idea for this house design. All functions are packed and stacked into three storeys to provide the most open space possible on the ground level. Functional usages are one master bedroom with master bathroom for parents, two bedrooms and two bathrooms for sons, a living/dining space, a working room, an open kitchen, a Thai kitchen and a lap pool.

The Baan Moom house was positioned on the southwest part of the site. All bathrooms are on the west part on each floor of the house to protect all other functions from the sunlight during daylight hours, and for the hygienic reason of the bathroom as well. With the bathroom on the west, each bedroom can face either north or east for the proper quality of natural light, and left the court on the ground level in L-shaped.

Two main characters that are most likely to be found in this house are the 'stairs hall' and 'corners' on each floor. This stairs hall consists of the triangular staircase, the triangular skylight on the rooftop and internal voids for every room. The skylight provides the natural light throughout stairs hall and even for the living space on the first floor, internal voids provides the ventilation for each room and also the visual connection for family members, and of course, this stairs hall acts as the main vertical circulation for this house.

Another thing mentioned earlier is the 'Corner'. This later became a name of this house, 'Baan Moom' (Moom means 'Corner' in English). There are two types of corners in this house, 'individual' and 'shared'. Individual ones became bedrooms, those reflect the character of each family member, and shared ones became open spaces connected to stairs hall on each floor for different family usage, such as living space on the first floor that connect to the deck and lap pool outside, the multipurpose family space on the second floor and the terrace that leads to the rooftop of the house.

Materials to be mentioned are steel frame, insulated glass and fishnet from the ocean liner. Steel window/door frames are mostly used to create smaller profile and make door sets look the most disappeared, especially for the set of sliding doors at the corner of the living room that can be slid all the way into walls on the both side and give the continuity of space from living room to the open space outside. Insulated glass helps skylight not to let the heat into the house too much. Fishnet used in the ocean liner was selected to be used as a hammock in the double space between working room (second floor) and the bedroom (third floor).



The Stairs Hall



Master bedroom



Bedroom 3



Bedroom 2



Details of the Baan Moom House



Rooftop

PROJECT DATA

Project: Baan Moom
Location: Sukhumvit Rd., Soi 101/1, Bangkok, Thailand
Owner: K. Boonyarit Kitcharoenroj
Architect: Integrated Field Co., Ltd.
Interior designer: Porntida Kruapat & IF
Landscape architect: Kirin Tanglertpanya & IF
Structural engineer: Piyapong Suwanmaneechot
System engineer: Mongkol Pichayakittisin
Main contractor: SPC Technocons Co., Ltd.
Area: 400 square metres (Indoor) + 150 square metres (Outdoor)
Cost: 12,000,000 Baht
Design: 2007
Completed: 22 December 2012

The Park House



Park House located in Victoria, Australia is an award-winning residential project. The approach by the architect and interior design firm Leeton Pointon Architects + Interiors was to seamlessly integrate all elements of interiors, architecture, furnishings, decoration and landscape into the Park House. Photos by Peter Bennetts

Park House is the outcome of profound respect between collaborators on a new single residential project – liaison between architecture, client, builder, landscape and interiors was seamless & essential to the integrity of the project, and is evident in every aspect of the finished home. It was the inherent undertaking of each element to complement the other – no individual component vying to overshadow another.

Interior design was given early and careful consideration in all aspects and at all stages of the project – the selection of form, material, finishes, fixtures & fittings were influenced by interior elements, which informed architectural decisions throughout the project, from the early concept stages through to completion.

Organic shapes, curved soft plastered walls, textures and finishes, practicality and sustainability inherent in each inclusion, considered selection of artworks, materials, form & texture. The palette and detailing is purposefully restrained and selected in respect of their materiality. Subtle nuances differentiating each space & their individual uses – a more robust & relaxed approach in Kid's Living through to more refined selections in the 'Good Room' - always maintaining seamless transitions throughout the various interior spaces, as well as between the internal & external.

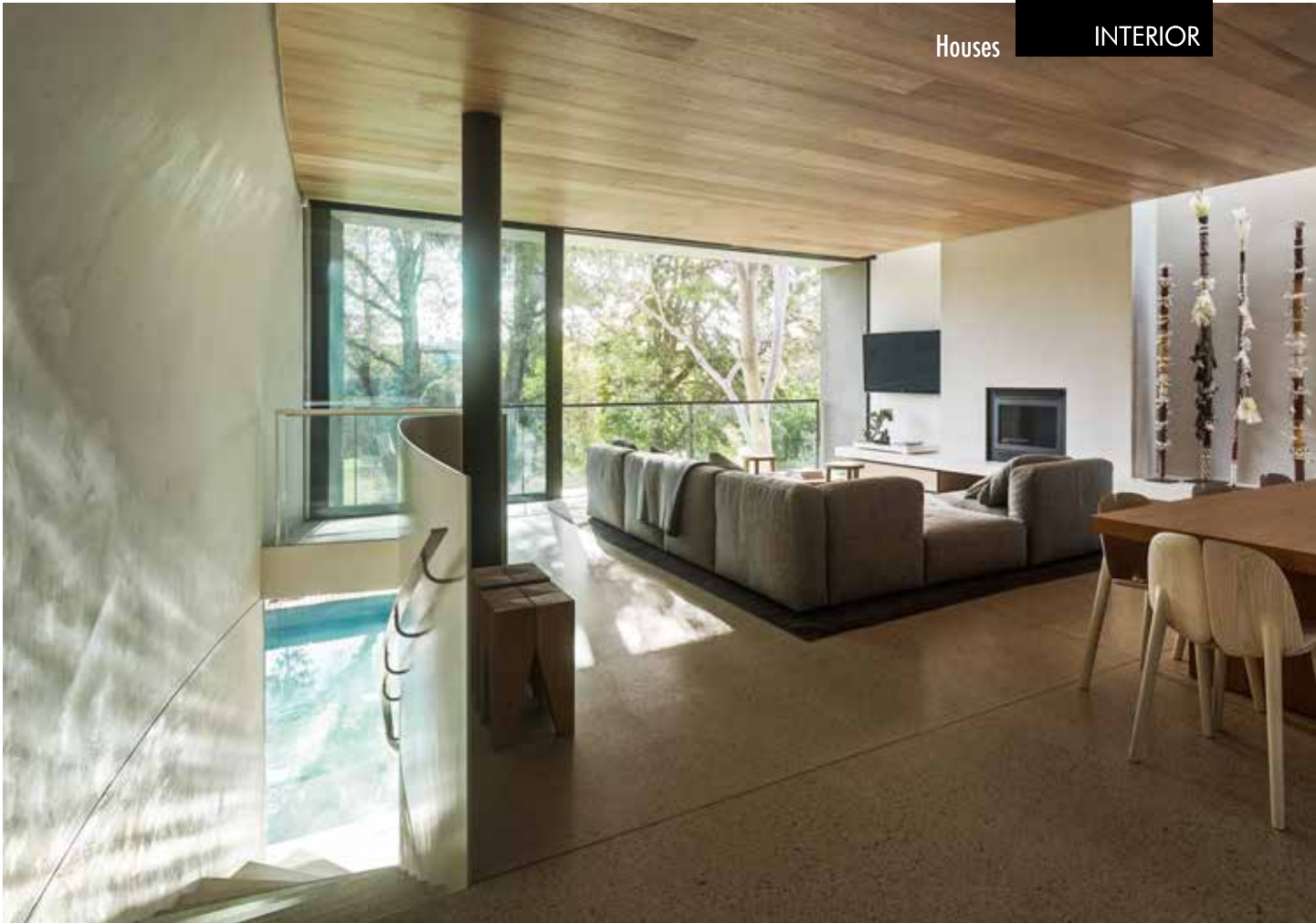
Skylights have been used to wash walls with light from above. Furniture, curtains, rugs, lighting, artwork and decorative items were selected for each space with a focus on softness in form and finish, comfort and integrity in design. Items such as the front door handles, glass display cabinet and tapware were custom made for the project.

Sustainability is integrated into the building fabric with concealed solar panels, concealed water storage tanks, external sunscreens, concealed blinds, large overhangs, curtains and blinds and LED lighting.

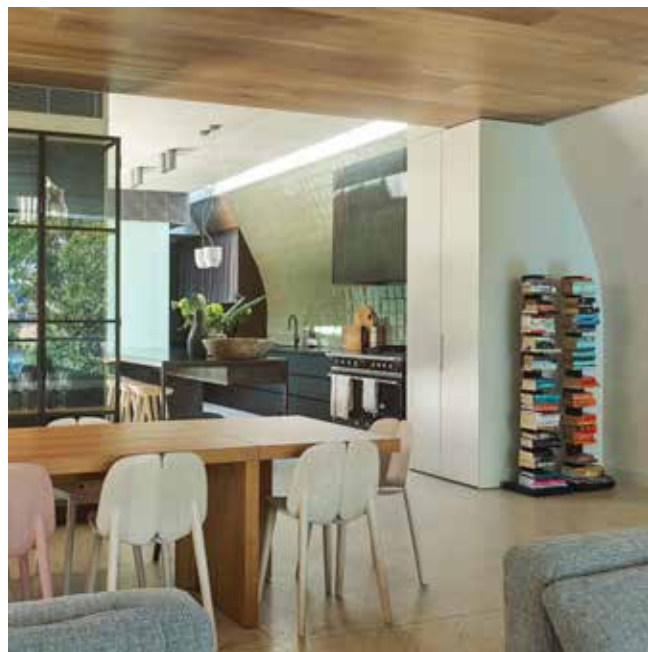
Sustainability was also considered in the selection and detail of materials, furnishings & lighting. Natural timbers with oiled finishes are used. Natural fibres – wool and linen fabrics are through out the project in curtains, upholstery & cushions. Wool, alpaca & bamboo were used in floor rugs, and feathers, fibre and bark featured in artworks.

The final outcome of the design was a comfortable, inviting and very livable family home. The Park House bagged three awards at the Australian Interior Design Awards 2013 - Premier Award - Interior Design Excellence and innovation; Residential Design Award and Best of state (Victoria) in Residential Design.



**Jury's Comment:**

"The interiors of this residence has continuity with its exterior spaces – from the integration of the landscape through to the interior decoration. The exterior's sculptural form is echoed throughout the interiors and scale is carefully considered right down to the design of intricate joinery detailing. The connection displays the designer's command of material and form. The interior spaces are effortlessly designated within an organic free-flowing arrangement. Material and surface textures are expressed through the harmonious integration of natural light, with subtle shifts shown from space to space. The designers have demonstrated a respectful and empathic understanding of residential design by offering a variety of delightful spaces for the owners to inhabit."



Floored by Sunway Paving Solutions

Sunway Paving Solutions Sdn Bhd was established in 2 November 1981. Sunway Paving Solutions manufactures and supplies Interlocking Concrete Pavers (ICP), Compressed Concrete Paving Slabs (Eurotiles) and Decorative Concrete Mansory Units such as Split Face Bricks, Hollow Blocks and Lockstones. Sunway Paving Solutions Sdn Bhd is a certified MS ISO 9001: 2008 Quality Management Systems and ISO14001:2004 Environmental Management System.

The company has three operating plants located strategically in the Northern, Central and Southern region of Peninsular Malaysia. The fourth plant is under construction in the East Coast region is expected to be operation by July 2014.

Sunway Paving Solutions products have achieved the Green Buildings Index certification in Malaysia and Green Label in Singapore. All the company's products are in compliance to MS1380:1995 specification for precast concrete paving blocks or BS 6717:1993 specification for precast concrete paving blocks, and its Eurotiles are in compliance to MS738:1981 Specification for terrazzo floor tiles.

ICP are predominantly been used in ports for containers yard area and roads. Other usages for interlocking concrete pavers are warehouses, factories, traffic junctions, slip roads, commercial housing roads, car parks, bus terminals, driveways and pedestrian walkways. Among the prominent projects that the company completed are Westport, Northport, Port Klang, Tanjung Pelepas Port and South Quay.

Pavement works especially new roads (housing perimeter roads, gated and guarded development roads, backlanes) are significantly cheaper to build using ICP as compared to asphalt roads. They are also user friendly, easily maintained especially for services or utilities and most importantly RECYCLABLE at anytime. Aesthetically ICP can be replaced periodically to enhance the environment and landscape requirement and it is strongly recommended for its Green Index and sustainability.



Product: ICP
Product profile: Trafika
Thickness: 80mm
Size: 225mm X 197mm
Location: Dataran Glomac, Petaling Jaya, Malaysia



Product: ICP
Product profile: Sunpave
Thickness: 80 mm
Size: 223mm X 111mm
Location: SILK Highway, Kajang, Selangor, Malaysia.



Product: ICP
Product profile: Anchorlok
Thickness: 80mm
Size: 223mm X 111mm
Location: South Quay, Bandar Sunway, Selangor, Malaysia

Eurotiles are widely used for external pavement areas such as walkways, patios, pool decks, light vehicular traffic area, park and garden landscape. The visually impaired slabs under the Eurotiles range provide aid to visually impaired people to move around easily and safely. The visually impaired slabs are widely used by local town councils and authorities across Malaysia such as Dewan Bandaraya Kuala Lumpur (DBKL) and Putrajaya.



Product: Prime Pavers
Product profile: Multiple sizes (four in one)
Size: 201x201x80mm, 201x268x80mm, 201x335x80mm and 268x335x80mm
Location: Austin Height, Johor, Malaysia

Product: Eurotiles
Product profile: Visually Impaired Slabs
Size: 400mm X 400mm X 40mm
Location: Beach Road, Penang, Malaysia



Decorative Concrete Masonry Unit mainly used as internal and external decorative wall of residential and commercial buildings, garden surround and landscaping, garden planter boxes, perimeter fencing of residential houses and gated and guarded communities.

In 2011, Sunway Paving Solutions introduced Prime Pavers are modern and contemporary interlocking concrete pavers with different sizes, ranging from 200mm X 200mm to 600mm X 600mm, which provides the flexibility to create limitless designs. Prime Pavers are in compliance to MS1380:1995 specification for precast concrete paving blocks or BS 6717:1993 specification for precast concrete paving blocks.

In 2012, Sunway Paving Solutions introduced NeuPave, an innovative paving alternative to more traditional types of hardscape flooring materials, where water is now allowed to permeate through the surface to underlying soil. Besides contributing to flood reduction, NeuPave reduces erosion caused by flooding, promotes groundwater recharge, reinforces and stabilises soil and improves water quality by trapping and treating pollutants. NeuPave can be used for light to medium vehicular traffic pavement, parking lots, driveways, back lane, pedestrian paths, bicycle paths, pool decks, jogging and buggy tracks and emergency vehicle access lanes. NeuPave are in compliance to MS1380:1995 specification for precast concrete paving blocks. NeuPave can be produced in any existing ICP and Prime Pavers profiles as and when required by architects or consultants.

Sunway Paving Solutions recently introduced 60mm ICP with 45 MPa compressive strengths to provide heavy duty pavement for heavy vehicular traffic, which is in compliance to MS1380:1995 specification for precast concrete paving blocks. In addition, Sunway Paving Solutions also introduced innovative LED Pavers, which integrate well with existing Interlocking Concrete Pavers, to enhance the aesthetics of the landscape. Compare to other hardscape pavement materials, ICP clearly provides lot of advantages as follows:

1. **Cost Saving**
Unlike others hardscape pavement, ICP can be recycled at all time.
2. **Aesthetics**
ICP with variety of colours, which bring out aesthetics value in landscaping.
3. **Absolute durability**
ICP need minimal maintenance, while provides hard wearing surface and high skid resistance.
4. **Immediate Use Advantage**
The pavement can be opened to traffic upon completion of ICP installation.
5. **Easy Access to Underground Utility Services**
ICP can be easily removed and replaced to gain access to repair underground utility services such as power and telecommunication cables.
6. **Versatile of Colour Coding Possibilities**
ICP with different permanent colours can be used to delineate separate areas.
7. **Ease of laying**
Inaccessible areas with slopes and gradients can be paved without use of heavy equipment.



Product: NeuPave
Product profile: NeuPave Prime Pavers
Size: 200mm X 200mm X 60mm
Location: SS19 Subang Jaya, Selangor, Malaysia

For more information, visit www.sunwaypavingsolutions.com.

Tekla helps build Promenada Resort Mall

The Promenada Resort Mall in Chang Mai, Thailand features stunning steel architecture made possible through the partnership of Rig Thai Engineering and Tekla Structures software.



Promenada Resort Mall at a glance

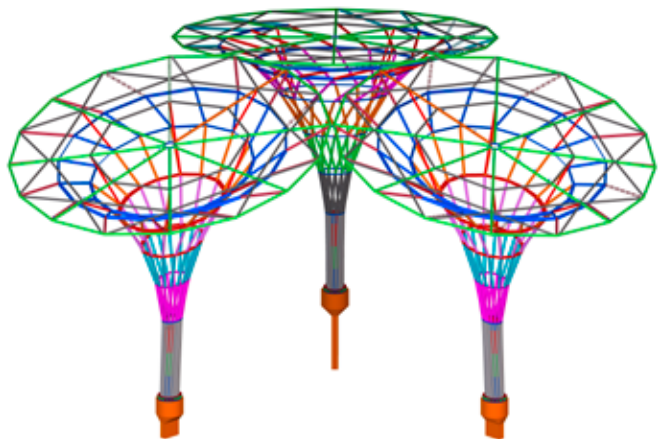
At Promenada Resort Mall, visitors find space designed to meet the needs of the modern retail industry. Inside the mall, visitors find trees and water features bathed in natural sunlight from the roof and glass facade. Outside the mall, tropical gardens and cool green places abound. The mall is about creating a more holistic retail experience, balanced by room to stretch out, relax and be entertained. The Promenada Resort Mall contains features and an architectural design to please and excite both local shoppers and tourists from all over the world.

The Promenada Resort Mall features stunning, complicated white steel structures that rise 20 metres from the floor to the ceiling. These beautiful structures support the key architectural feature of the complex, the umbrella-like roof.

The distinguishing design element of this roof is the way it spirals upward and spreads out to the top. Each of the eleven umbrella structures includes an estimated 300 steel tubes, all of which must fit precisely together. One steel tube or one joint formed in the wrong dimension would risk putting off the entire umbrella shape and design.

Considering the requirement for accuracy, the project fabricator Rig Thai Engineering decided to adopt Tekla Structures software to enable creation of highly detailed models. Tekla also helped Rig Thai Engineering by providing an extensive library of steel structures from which the company was able to pick and choose elements that fit with the Promenada Resort Mall style and needs.

Considering the requirement for accuracy, the project fabricator Rig Thai Engineering decided to adopt Tekla Structures software to enable creation of highly detailed models.



The distinguishing design element of this roof is the way it spirals upward and spreads out to the top.

The future is with BIM in Rig Thai Engineering

One year after Rig Thai Engineering began working with Tekla, Project Manager Somsak Panyamee has become a proponent for Building Information Modeling (BIM).

Q: What can BIM do that the “old way” of working cannot?

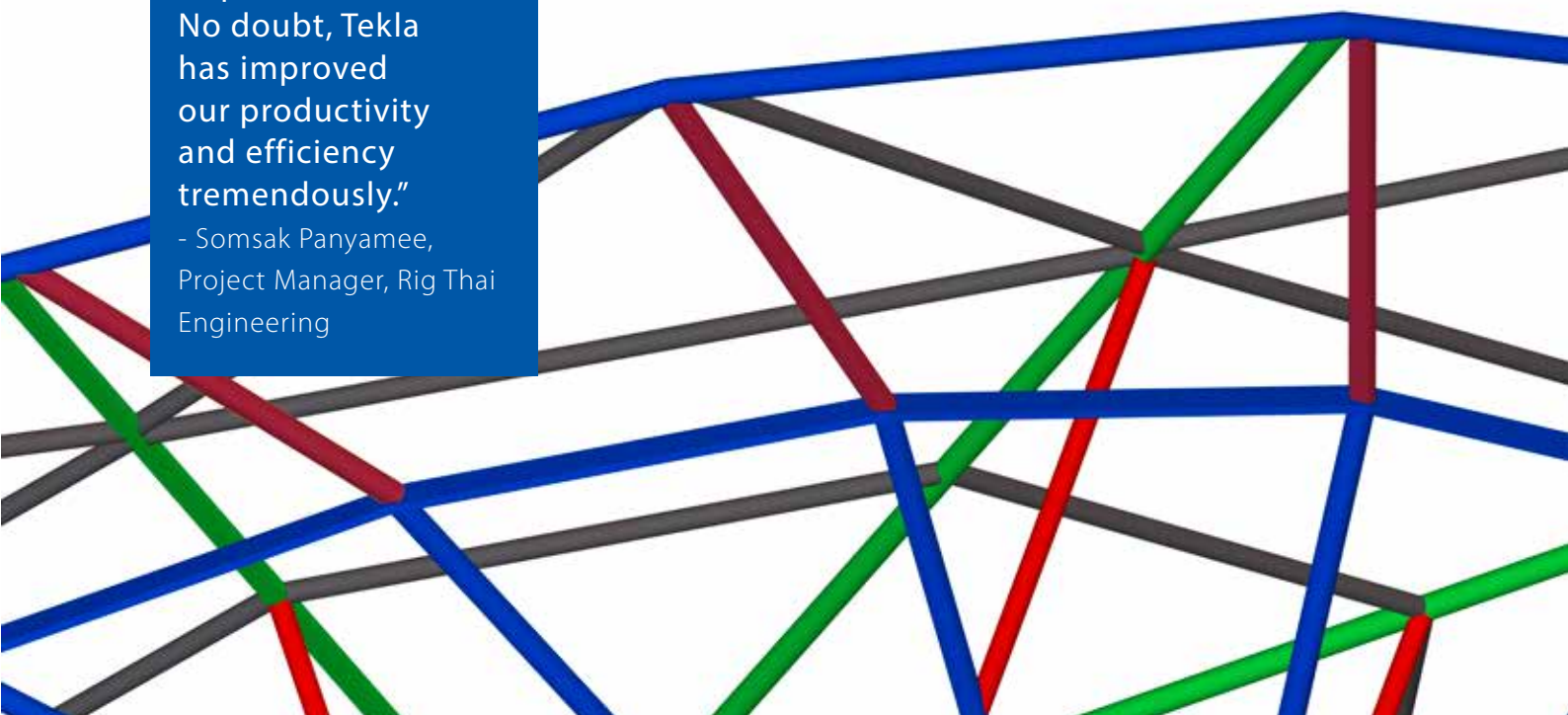
SP: BIM lets us build project documentation in a much more structured way. BIM-enabled working allows this information to be shared by different project participants and also between different stages of design, construction and operation. For example, an engineer is able to use information sourced from the architect to prepare calculations or a contractor can check the coordination of contributions from different members of the project team. Cost information can also be captured using BIM. Most importantly, BIM has the potential to allow information about the use of the building to be collated and held in formats usable for the operators of facilities – enabling buildings and other assets to be used and maintained efficiently.

Q: BIM requires significant investment – Has the return been good for your company?

SP: Yes the return has been great. The reality is BIM has the potential for your company to unlock more efficient ways of collaborative working and will offer better value to your customers. BIM is much more than a technology – it is a new way of working. The best advice I can give is to concentrate on your people by raising BIM awareness. Understand your role in the process – irrespective of what your business does you will be supplying and managing information, so it is crucial to understand how BIM can be a collaborative tool.

“Using Tekla makes us up to 100 percent more productive in some cases. Having 100 percent accuracy for drawing and real modeling precision, it’s indeed helped us overcome many challenging design requirements. No doubt, Tekla has improved our productivity and efficiency tremendously.”

- Somsak Panyamee,
Project Manager, Rig Thai
Engineering



Complex design makes Tekla a must for steel fabrication

Rig Thai Engineering Co. Ltd has helped build hundreds of buildings, factories, industrial plants and other structures in Thailand and Southeast Asia since the company was founded in 1980. Through attention to detail and precise engineering capabilities, the company has developed a reputation for building complex steel structures on time and within budget. The company's workshop is located at Latkrabang and has a capacity to fabricate more than 1,000 tons of structural steel per month. The facility is well equipped with cranes, cutting machines, welding machines and an assembly machine for construction of pre-engineered buildings.

Rig Thai Engineering relies on technologies such as Tekla Structures to take the guesswork out of their process. The company uses only genuine Tekla software in order to have access to the global software updates and the local support provided by Tekla's staff in Thailand and the ASEAN region.

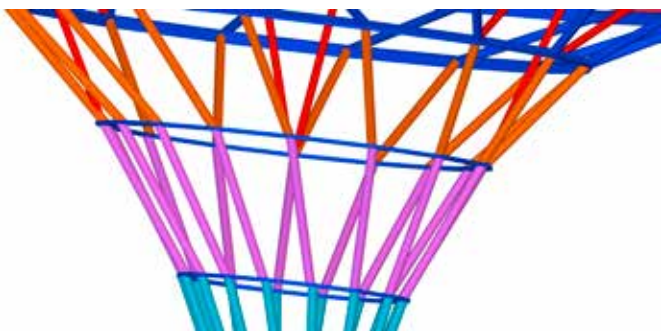
Rig Thai Engineering is proud of its role in fabrication of steel structure for the Promenada Resort Mall in Chang Mai, and attributes the opportunity to work on this complicated project to the company's 33 years of heritage in Thailand and its effort to stay up to date with the best available technologies.

After Rig Thai Engineering began using Tekla, the executives recognise a number of benefits brought to the company. In terms of working with clients and architects, changes to drawings can be made fast and on the fly. This faster modeling speed means that more options can be explored as opposed to using the standard CAD software. The excellent visualisation delivered by Tekla software is another major benefit, allowing fabricators to illustrate the complex geometries of each part, right down to the smallest nuts and bolts.

For more information, visit www.tekla.com.

"The work on the Promenada Resort Mall's umbrella was so intricate and complex that without the detailed 3D modeling made possible by Tekla we would easily have doubled our time spent detailing. We would also have spent more on raw materials due to fabrication trial and errors. Tekla kept us accurate and efficient because the software allows us to see the whole model structure with precision before it is built."

- Somsak Panyamee, Project Manager, Rig Thai Engineering



FABRICATION - BETTER AND FASTER

"Before using Tekla we used traditional 2D software. Ever since we have used Tekla, we see the value that this technology has brought to our business. It is clear Tekla Structures makes us better at taking on the toughest jobs."

- Somsak Panyamee, Project Manager, Rig Thai Engineering



Each of the eleven umbrella structures includes an estimated 300 steel tubes, all of which must fit precisely together.



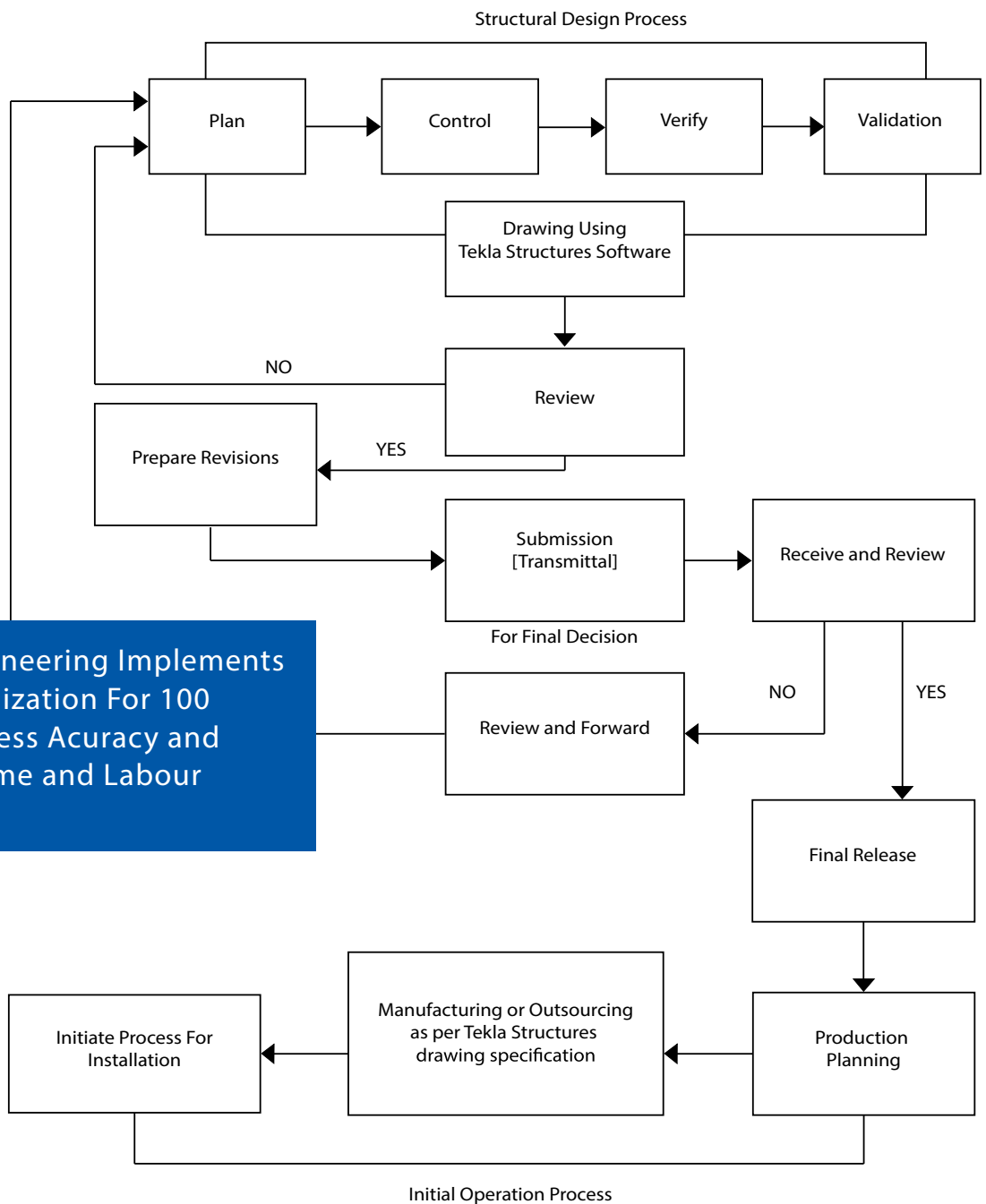
Not only are the white umbrella structures visually appealing, but they also serve the structural purpose in supporting the roof.

FACT BOX

Steel weight: 2,500 tonnes
Steel surface area: Approximately 35,000 square metres
Structure type: Complex
Fabrication time: 12 months
Erection time: 12 months (concurrent)
On site errors: 0

PROJECT DATA

Project: Promenada Resort Mall
Location: Chiang Mai, Thailand
Owner: ECC International (ROH) Limited
Fabricators: Rig Thai Engineering Co., Ltd
Site Area: 58 rai (92,800 square metres)
Height: 20 metres
Facilities: The mall is arranged into zones, including Fashion, Sports, Home Decoration, Books and Music, Health and Beauty, Banking and one of Thailand's best Multimedia centres.
Completion date: February 2013



Big Thai Engineering Implements ISO Standardization For 100 Percent Process Accuracy and Maximum Time and Labour Efficiency



Recoating of the wooden floors for the Basketball and Volleyball courts at the Wuhan Olympic Sports Center

The Wuhan Olympic Sports Center

As can be seen by the below pictures the wooden sports floors for the basketball and volleyball courts were showing huge signs of wear and the surface was full of scratches and scuff marks. It was also clear that the maintenance has not been done properly. Bona was called in to inspect the floors together with our local partner Nanjing Yanming Sports Industrial Co. Ltd.. As the scratches were not too deep it was deemed that it would be sufficient to conduct a Deep Clean and Recoat in order to restore the beauty of the wooden floor and also ensure that the surface has the right slip resistance according to the international standards DIN 18032 & EN 14904.

As can be seen the wooden floors are heavily scratched and full of scuff marks. The first step was to use the Bona Deep Clean System using a Power Scrubber and a Special "Deep Clean Solution" to clean the wooden surface to take away scuff marks and other contaminants to prepare the surface for recoating. This step is very important as if you do not remove all contaminants there is a big risk for poor adhesion and delamination as a result.

Using the Bona Power Scrubber and Bona Deep Clean Solution to clean the wooden floor surface. As you can see from the below picture of before and after the result is astonishing and all scuff marks have been removed.



Before



Before



Deep cleaning



Before & After deep cleaning

Before and after result. The left has not been cleaned and the right side has been cleaned using the Bona Deep Clean System. Once the surface is cleaned, Bona proceeded to make a light sanding on the surface to take away any residual contaminants and to slightly abrade the surface to remove scratches and prepare the surface for recoating in order to ensure good adhesion.

Using a Bona Buffer together with a white pad, Bona scrad grit 320 and Bona scrad wing 150 the surface was slightly abraded. After this Bona Prep was applied. After this treatment the wooden floors are now ready for recoating. As the sports floor owners wanted an environmentally sustainable coating with the highest durability and resistance to scuff marks Bona Traffic was chosen.



Scrad



Application of Bona Traffic using a Bona T-Bar.



The final result of the recoating using Bona Recoat System.



The sports floor in action and everybody is happy with the result.

Bona Power Scrubber

The Bona PowerScrubber is a compact, powerful scrubbing machine for cleaning varnished and oiled wooden floors. When used with Bona Deep Clean Solution, it removes the toughest dirt and grime from wooden floors with ease. The two counter-rotating cylindrical brushes clean deeply, even on rough, brushed parquet and wooden floors with beveled edges.



Bona Deep Clean Solution

Bona Deep Clean Solution is a concentrated cleaner for thorough, deep cleaning of varnished and oiled wooden floors. The unique formula delivers optimal cleaning efficiency and removes stubborn scuff marks without risk of staining the wood. Use it to revitalize dull wooden floors or to reset and degrease the surface before applying maintenance polish or oil. Can be used with scrubber driers and is particularly suited for the Bona PowerScrubber. Can of course also be used for manual cleaning. Try and experience a new level of clean.



Bona Prep

Bona Prep is a ready to use conditioner/cleaner designed for preparing existing or pre-finished surfaces, prior to the application of Bona waterborne finishes. Adhesion of the finish will be optimised. Particularly useful for preparing existing sealed sports floors prior to the application of Bona Sportive Finish, where additional contaminants may be present on the surface.



Bona Traffic

Bona Traffic is a two-component, waterborne, 100 percent polyurethane finish for the surface treatment of timber floors in commercial premises or wherever a high resistance to wear is required. Bona Traffic provides a clear, natural appearance, giving almost invisible protection when the IP (Matt) version is used.



For more information, contact Pontus Forssell, Vice President and Director, Division Asia Pacific at tel (+65) 6377 1158; email pontus.forssell@bona.com or visit www.bona.com.



Webnet for suicide prevention

Text & photos courtesy of Jakob AG

Suicide is among the topics no one likes to talk about. As understandable as this taboo may seem, it is also short-sighted and ultimately irresponsible. Because unlike what most people might think, suicide is not a marginal social phenomenon, it is a frequently encountered problem that needs to be taken seriously. This fact can be impressively backed by just a few figures. In countries like Switzerland, Austria, and Germany, many more lives are lost by suicide than by traffic accidents. In Switzerland, suicide is even the most frequent cause of death among men aged between 14 and 55. According to statistical surveys conducted in this field, about ten percent of the population in the countries mentioned above seriously consider committing suicide at least once in their lives. This means that practically every person is sooner or later directly confronted with suicide by a relative, friend, or acquaintance.

It is a long-known and generally accepted fact that turning a blind eye to suicide and moral condemnation do not represent a solution to the problem. Various government organisations and social-welfare institutions have devoted their attention to this topic which is also a focus of the World Health Organization (WHO). The emphasis in their activities is on identifying causes and,



derived from the findings, developing suitable suicide-prevention measures. The approaches are diversified and consequently, similar activities tend to be concurrent and parallel.

In the context of suicide prevention, structural measures play a significant role. The primary issue is to restrict the availability of certain suicide methods. One example is suicide by jumping



from heights. In many countries, it is the method most often chosen by people to end their lives. In Switzerland, Germany, and Austria, about 10 percent of all suicide cases per year are attributable to such jumps. Statistics show that in Switzerland alone, 4664 individuals died this way between 1969 and 2001. The favored spots for jumps from great heights are tall buildings, especially monument-type structures, and tall bridges. Remarkably enough, there are specific structures around the world that seem to appeal especially to people determined to commit suicide. The identification of such locations – referred to as “hotspots” in the literature devoted to this topic – based on statistics is thus one of the first steps that must be taken to implement suitable protective measures.

As regards structures and particularly bridges, two basic types of protective measures must be distinguished: 1.) The installation of a high railing that, even if it cannot totally prevent them, significantly discourages jumps from great heights. 2.) The installation of safety nets that make fatal falls practically impossible and give suicidal persons the strong impression that jumping would be futile. Incidentally, both safety concepts – implemented individually or as a combination – not only help prevent acts of suicide but also reduce the occurrence of accidents caused by juvenile overconfidence and dangerous recklessness.

There can be no doubt as to the effectiveness and sustainability of professionally executed structural measures for suicide prevention. Scientific analyses in the USA have shown that a prevented suicide is also ultimately the life-saving event in the

overwhelming majority of all documented cases. This statistical insight is supported by the psycho-medical finding that so-called suicide-inducing crises, those desperate moments during which an individual is determined to commit suicide, are absolutely exceptional situations that as a rule do not reoccur.

Structural suicide-prevention measures must always be carefully matched to the respective local circumstances. Regardless of the chosen protection approach, a material such as the Jakob Webnet is practically always a sensible option. Extremely flexible with respect to applications and comparatively easy to install, it is a compelling solution thanks to its discreet and inconspicuous appearance. The advantages of Webnet also include its high load-bearing capacity, its impressive longevity, and the fact that it entails virtually no maintenance costs. These benefits have meanwhile been confirmed in a series of projects in Switzerland and abroad.

The Hohe Brücke

The Hohe Brücke between Sachseln and Kerns in the canton of Obwalden is said to be Europe's highest covered wooden bridge. Built in the 1940s, the 30-metre-long bridge spans the Melchaa creek at a height of roughly 100 metres above the water level. This regional landmark fell into undeserved disrepute due to a number of tragic acts of suicide. Since 2002, the bridge is secured on both sides with a widely cantilevered, horizontally tensioned Webnet safety net. A conventional fence prevents access to the fallstop net from the sides.

Ganter Bridge

The Ganter Bridge is part of the Simplon Pass road that connects the Swiss canton of Valais with Italy. Built according to the plans of renowned Swiss civil engineer Christian Menn and completed in 1980, the 678-metre-long hybrid cable-stayed girder structure is still Switzerland's longest bridge.

Within the scope of a comprehensive rehabilitation project, the bridge – which had regrettably gained fame as the site of numerous suicides – was upgraded with suicide-prevention measures from 2006 to 2008. To avoid undue contrast with the elegance and prominent architectural poise of the bridge, it was obvious that the safety concept would have to be unobtrusive. Once again, Webnet turned out to be the solution of choice. The perimeter of the bridge was secured by a fence-like 3-metre-high vertical Webnet structure along the piers and the inclined stay-sail cables cast in concrete. A slight inward inclination of the Webnet fence, which is secured with metal rods and steel cables, and the rather loosely tensioned web make it even more difficult to climb over this effective barrier.

Haggen Bridge

With a span of about 350 metres at a height of over 100 metres, the Haggen Bridge traverses the Sitter Ravine between St. Gallen and the township of Stein in the canton of Appenzell Ausserrhoden. Built in the 1930s, the impressive filigreed steel structure of this bridge – it is used mainly by pedestrians and cyclists – had to undergo extensive rehabilitation in 2009/2010. On this occasion

and in response to relevant events, structural suicide-prevention measures were implemented as well. Because the bridge is under cultural heritage management, the barrier solution had to be as inconspicuous as possible. For static reasons, a lightweight construction was mandatory. Given these constraints, the authorities selected a horizontal Webnet safety configuration. For this purpose, horizontally cantilevered steel rods were attached on both sides at the bottom of the steel lattice construction that carries the bridge; Webnet sections were then tensioned between the rods and secured with wire rope. For pedestrians that use the bridge, this discreet protective measure remains largely concealed. It becomes visible to those who look over the railing down to the ravine, making it clear that any attempt to jump would be meaningless.

Eiffel Tower

The Eiffel Tower in Paris is no doubt one of the most prominent structures that were ever secured with Webnet. First, to thwart rogue climbers, the four pillars were secured above the concrete abutments in 2004 with a Webnet grid of about 6 metres in height. To prevent any visual interference, the Webnet was painted with a primer of the same color as the steel structure of the world-famous monument. This was also done with the ropes that secure the net to the tower lattice. Again, the choice fell upon a relatively soft-structured netting material that makes it virtually impossible to defeat the barrier without technical resources.

For further information, visit www.jakob.ch.

