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WITH BARU BIAN

Brunsfield: Keeping Death at Zero Siti Majidah's Pioneering Journey Dive Deep with Underwater Welders WCT - Builders of World Cup 2020 Venue City



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EDITORIAL MESSAGE

Welcome 2019! We usher in the new year with hope, enthusiasm and ambition to spearhead the challenges facing the construction sector. The new year may be a time of strategic navigation in the slightly dampened economic climate. But we are confident it will be an interesting and transformative year for the industry. CIDB shares Works Minister Baru Bian's vision and aspiration to further elevate the industry to greater heights. This can be achieved with a concerted effort by each and every one of us.

Looking ahead to the first quarter of 2019, we will be seeing a bigger and better International Construction Week (ICW) as well as the new ASEAN Super 8. ICW 2019 is slated to be the largest construction trade show in South East Asia and it is the best place to be in learning first-hand new ways to build and new products that help to build better. Make sure to keep a date with us during this constructive week.

In this issue, *HEIGHTS* focuses on Safety & Health matters. Meaningful ideas and effective ways of doing



things are shared by fellow industry players. You may also find the magazine has embarked on a different look and feel, in addition to new segments that wish to educate and inspire. In all, *HEIGHTS* remains true to its vocation - to continuously feature the successes of the industry for the good of the sector.

Dato' Ir. Ahmad `Asri Abdul Hamid Chief Executive of CIDB Malaysia



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We welcome your contribution while reserving the right to edit for length and clarity.

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ICW 2019 Features Asean Super 8

The International Construction Week (ICW) 2019 will be the most exciting yet as the ASEAN Super 8 joins the lineup. The ASEAN Super 8 highlights a group of **eight distinct exhibitions under one roof** - the most comprehensive construction event in the region.

ICW 2019, to be held from **March 18-21**, is the largest construction trade conference and exhibition in Malaysia and Southeast Asia. This event, organised by CIDB and United Business Media (UBM), is entering its 19th installment in 2019. It will also see a new venue – held at the Malaysia International Trade and Exhibition Centre (MITEC) for the first time. This year's theme is **'Construction Beyond 2020'**.

The ASEAN Super 8 mega-exhibition will enable construction industry stakeholders to be introduced to new products and technologies, as well as explore the innovations available in the market. This includes new sustainable materials and energy sources, innovative design approaches, as well as advances in digital technology.

ICTC will bring together regional and international experts to discuss the impact of technology and innovation in terms of increasing construction industry productivity.

The ASEAN Super 8 mega-exhibition at ICW 2019 will feature:

- Ecobuild Southeast Asia: The leading trade fair on construction, sustainable design, energy and built environment
- Tenaga Expo & Forum: Focusing on the power and electrical industry
- Green Energy Expo & Forum: Dedicated to green technology and renewable energy
- ASEAN Solar Expo and Forum: Focusing on solar power
- ASEAN Ecolight: Showcasing the latest lighting technologies
- ASEAN Lift Expo & Forum: A trade show focusing on the elevator and escalator industry
- Heavy Mach: Showcasing heavy machinery and equipments used in construction
- IFSEC Southeast Asia: Showcasing security, fire and safety systems, and technologies

For more information, please visit www.icw.my and www.super8asean.com



He speaks with ease and candour, acknowledging that, faced with a large range of issues from budget, corruption, environmental conditions to cultures, it is impossible to produce an ideal construction blueprint, but is confident that with a renewed political will and greater transparency, his ministry is looking at change for the better.

Baru Bian carries his Borneo identity as he speaks about his foray as the first Works Minister under the new Pakatan Harapan government. The Sarawak native and lawyer by training is fully aware of the burdens of his new portfolio and admits from the onset that he will require a full term in order to successfully implement his plans

Raised in the pristine forests of interior Sarawak "walking two nights, three days through virgin forest routes to get to school, drinking clear stream water on the way", it isn't surprising that the new minister is emphatic about environmental sustainability. "Whatever we do it must be in an environmentally friendly system. That's where I come from. Environmentally sustainable structures and roads must be developed holistically, and not only from the engineering or technology aspect of things," he affirms right from the start.

Baru Bian's vision is further spurred by a recent visit to the ITS (Intelligent Transport System) World Congress 2018 in the Danish capital Copenhagen, on the theme ITS-Quality of Life. Copenhagen has shown remarkable results working with urban development challenges in relation to the environment, traffic safety and congestion. Its driving ambition is to become the first carbonneutral capital city by 2025. To achieve this, Copenhagen wants to be the European leader in green technology and innovation.

"I came back from Copenhagen learning a lot and must say I was very impressed. I did wonder why KKR was involved since it was on ITS and by right should have been the Transport Ministry's purview but I soon realised that it had relevance to what we are doing here in the Works Ministry. Various ideas and concepts such as the autonomous system on the road, the RFID (Radio Frequency Identification) system and the theme of Quality of Life in the whole context of building infrastructure, fit very well together."

"They also talked about the planning of the city, which was so detailed and I was amazed at the way everything is taken holistically. For us, it's only about the building but for them, every aspect of building and lifestyle is connected and much thought is given to the quality of life. They talk about setting targets for becoming carbon-neutral countries but I had to be honest and told them that at this point we are only working towards the reduction of carbon emission because every year we

Environmentally sustainable structures and roads must be developed holistically, and not only from the engineering or technology aspect of things.

increase the number of vehicles on our roads whereas they are moving towards bicycles and energy efficient modes of transport. It was the same when it came to talking about zero fatalities, be it construction industry or road deaths."

It was while in Copenhagen that the new minister discovered that Putrajaya already has electrically charged battery-operated buses plying its roads and he laments the lack of publicity and follow up to such initiatives. Putrajaya was, in fact, the pioneer city to test a revolutionary new technology for electric vehicle (EV) buses that fully charge their batteries in only 10 minutes - a tremendous difference from the technology currently used in electric vehicles, where batteries must be left to charge overnight.

Baru Bian lays out his challenges, beginning with lack of coordination between inter-linked ministries. "I'm now part of this new government that wants to bring about positive change. If you ask me about my aspiration, I will tell you this, it requires a master plan and a master driver," he says, referring to his reform agenda.

At the same time, he is also aware that the task ahead is a daunting one that requires the concerted efforts of various authorities. "It cannot be undertaken by just my one ministry as there's a clear overlap of jurisdictions. We need the support of, for instance, the DBKL, the Federal Territories Ministry, the Transport Ministry, the Environment Ministry and local governments before we can bring about a complete change."

Who then should be the driver? Baru Bian feels for the city, perhaps the mayor of Kuala Lumpur, Federal Territories minister or DBKL should coordinate the whole machinery and that Putrajaya is a good place for this to be tested since change initiatives are already underway in the federal administrative centre.

We are only working towards the reduction of carbon emission because every year we increase the number of vehicles on our roads whereas they are moving towards bicycles and energy efficient modes of transport.

"There has to be one ministry, person or committee to drive this whole initiative. The problem is, we have so many people and authorities involved now, that we tend to leave things to others. In Japan and Europe, they have merged ministries into one so that decision making is much easier and it also contributes to greater efficiency. I'm going to call for a meeting between ministries and share this idea and concepts and see where we go from there," says the one-time ardent sportsman who now barely has time to spar with his wife over a game of table tennis, which they both enjoy.

In his short tenure as minister, Baru Bian admits that coordinating between various ministries is difficult, as many are very set in their ways. He feels his biggest challenge is in dealing with mindsets, existing work culture and coming up with ways to influence civil servants to change their concept of doing things.

The minister is, however, pleased with the Construction Industry Transformation Programme (CITP) agenda to transform the construction industry to be highly productive, environmentally sustainable, with globally competitive players, while focused on safety and quality standard.

The four-year programme which began in 2016 consistently measures its 115 active KPIs and their individual results are made public on the CITP website.

"CITP is the way forward as we have already achieved our aims and will continue to implement initiatives such as the Industrial Building System (IBS), especially in rural areas. It is now midway and we have identified problems such as cost and transportation, where there's little or no accessibility to rural parts. It comes back to good infrastructure and that's where again we come to a standstill as my ministry is only in charge of highways and the smaller linking roads to remote parts are under the purview of the state or road development. If we want to pursue all these technologies we need to improve all levels of infrastructure since they are all linked."

Baru Bian explains that implementation is an issue. His predecessors perhaps did not fully grasp the issues facing rural environments and this is where he feels his role as the Works Minister now can help bridge the knowledge gap. He is happy to be in a position to highlight these problems directly to



The Malaysian construction landscape is set to change with new way of doing things



The New Minister flies home - warmly welcomed by the people of his kampung

higher authorities and identify ways to overcome them in the coming years.

He is also candid about the image of his ministry as a corrupt institution, which he says needs to undergo a paradigm shift in order to realise his dream of a completely holistic approach to construction.

His plan is to form a special committee with strict guidelines, mainly to monitor the tender process, prevent cost inflation and nab blacklisted directors who get around the blacklist by returning with newly formed companies. There is also the E-procurement system where all documents are submitted online, which goes some way towards providing greater transparency and security, but Baru Bian is quick to admit that it is

I'm now part of this new government that wants to bring about positive change.

If you ask me about my aspiration, I will tell you this, it requires a master plan and a master driver.

just one way or system to curb corrupt practices from taking place.

He places greater hope on MACC officers working in his ministry to help educate staff on integrity and propriety. "In fact, schools should nurture this culture of integrity and teach children from young about the damages of corruption to society. To me, at the end of the day, we

are dealing with humans. We can have a very good system but it still requires man to operate it and when that human being is not transformed from within, you can have the best system and it will still be corrupted."

Baru Bian's other big obstacle is a lack of budget, especially for the maintenance of infrastructure. The allocation for maintenance was supposed to be RM2 billion, including for resurfacing of roads once in seven years but his ministry ended up receiving only between RM600 million to RM800 million, less than half of what they should have got. This puts the minister in a quandary since to him infrastructural maintenance is the biggest, immediate problem that he is facing.



A visit of learning and familiarising - Baru Bian's first visit to the CIDB office

As he goes about dealing with the challenges of his brand new portfolio, Baru Bian is fully aware of his priorities. "Of course, we need the economy moving but there must be a balance. At some point, we need to question ourselves and apply the brakes. Looking at the speed of construction these days we must balance development with the needs of the people. I understand there are many ongoing construction projects and we need continuity and we will be fair.

"Having said that, we want to see whether there is really a need for certain projects. Priority will be for schools and hospitals and projects that benefit the people. We will also be looking into factors such as congestion, sustainability and fatality while prioritising and of course, everything is subject to cost.

"The Pan Borneo Highway, for instance, is a project that is going to bring about major development for the people of Sabah and Sarawak who have been left far behind," he says and to put it in clearer perspective Baru Bian compares Borneo's first highway to the peninsula's more than thirty.

"I will be very straightforward here. The second phase of Pan Borneo is something I want to see realised and I'm very happy that Prime Minister Tun Dr. Mahathir Mohamad in his mid-term

review paid special emphasis to bridging rural and urban Sabah and Sarawak, which is exactly what this highway will do for the two states."

Baru Bian says before reiterating that the Pan Borneo Highway will, as promised, be toll-free.

"Take a pause, look at the direction we are headed, at the concepts that we are trying to advance and do support us. We are very focused and clear," the amiable minister appeals as he feels his ministry can only realise his visions with the corporation of all stakeholders.

We need the economy moving but there must be a balance. At some point, we need to question ourselves and apply the brakes. Looking at the speed of construction these days we must balance development with the needs of the people.

"I will be very happy if after my five-year tenure there is a change in the mindset of the people involved. I want the image to be clean and efficient in the way that we deliver our projects...transparent, in time and at a just, reasonable cost."



Transparency and a new work culture are part of the Minister's agenda of doing things

GLOBAL NEWS 7



Competition winner: Low cost bamboo house in four hours

A 23-year-old designer has won a top £50,000 (RM270,000) prize at the 'RISC Cities for our Future' competition after creating a low-cost bamboo housing unit to address the Philippines' slum crisis.

Called the 'CUBO' communal housing units, Earl Patrick Forlales' design takes just four hours to construct and at a cost of only £50 (RM270) per sq metre. Not only functional, the bamboo house is designed to turn community waste into energy and other valuable resources.

The bamboo used for construction will be treated and laminated for a 10-times-longer lifecycle. The CUBO homes' slanted roofs catches rainwater and stilts to keep out floodwater. Bamboo was selected because it is eco-friendly, releases 35% more oxygen than trees and can be harvested annually without causing soil degradation.

Source: www.bbc.com



Gulf construction industry calls for global standards

A new study highlights challenges facing the Gulf construction industry and calls for the introduction of global standards to ease market tensions. Industry insiders were interviewed for the new DLA Piper and MEED report, Time for Change, which discusses construction in the Gulf Cooperation Council (GCC) area.

The sector has been under pressure since the 2014 dip in oil prices, says the report. Increased competition amongst contractors, slow payments and delayed certification of project variations have led to a rise in disputes and eroded profit margins. This has created a situation that is at odds with the region's ambitious plans for infrastructure and construction.

The report outlines five ways in which change may materialise. This includes the introduction of global standards for projects, tightening legislation and enforcement, and the increasing use of external and international funding to ease tensions between contractors and their employers, enabling the procurement and delivery of projects to be transformed in the Gulf Cooperation Council (GCC) area.

Source:www.theconstructionindex.co.uk

FEATURE 8



Brunsfield International Group works hard to ensure safety and health remain a top priority in its projects. Here we look at how they achieved 1.36 million hours without any lost-time injury.

Injuries, or even worse deaths, at construction sites create snappy headlines. However not much attention is given towards companies and its people who ensure their worksites are safe and their workers are able to get home safe at the end of the day.

We make Brunsfield the subject of our headline in this issue because they have received the 2018 Construction Industry Excellence Awards (MCIEA) in the Safety and Health category and also the Malaysian Society for Occupational Safety & Health (MSOSH) award for Gold

Class II for the Oasis Corporate Park Project – Block Augustus, located in Ara Damansara, Petaling Jaya.

What are the key ingredients that make a construction project successful in maintaining an excellent safety record?

HEIGHTS met with Brunsfield director Mohamad Hassan Zakaria to get the lowdown on what formula the company uses in ensuring excellent safety and health performance at its worksite.

He said Brunsfield recognises the importance of Health, Safety, Security and Environment (HSSE) and implements them into its project at the earliest possible stage to avoid injuries and illness arising from its operations. For this, its Integrated Management System (IMS) allows the company to manage, control and coordinate work in order to secure the health, safety, security and environment as well as welfare of all personnel involved or engaged in its projects.

It also includes others who may be indirectly involved in the construction operations.

FEATURE 9

He added it was essential that the management and supervising staff of Brunsfield and its subcontractors and vendors were made aware and familiar with the standards and related legal and other requirements to ensure the IMS was effectively implemented. "We are dedicated and committed towards building a team of highly competent and compliant workers in the industry," he said, and listed the numerous aspects put in place to achieve the company's aims.

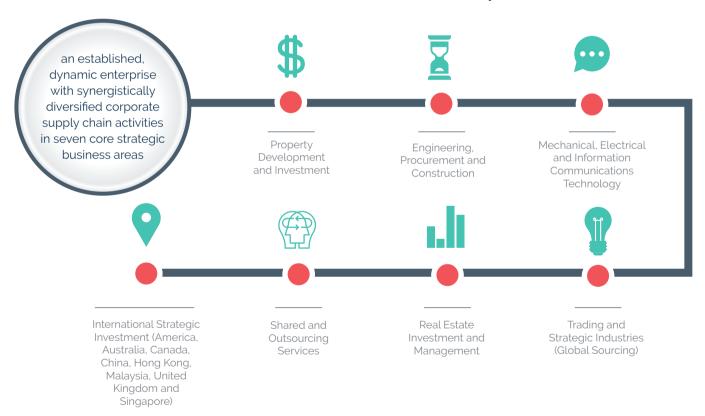
These include the establishment of the Brunsfield Talent Industry Programme (TIP) which targets new staff in engineering and safety areas. This three months programme provides an understanding on the company's current best practices, IMS standards and SOP before they enter the project site.

Brunsfield has also established and communicated HSSE responsibilities to all levels of personnel. On top of this, there is a HSSE Committee which conducts monthly meetings and present issues related to HSSE, where new ideas are presented and implemented accordingly. This committee is also involved in the development and review of Hazard Identification Risk Assessment and

Risk Control (HIRARC). Site walkabouts are also conducted on a monthly basis on scheduled designated areas where workers are educated and misconducts remedied immediately.

All new staff or project personnel entering project sites are also given HSSE induction where roles, responsibilities, HIRARC and other elements are incorporated into the induction modules. HSSE induction stickers are then issued once the personnel have been inducted. The company also conducts HSSE toolbox talks on weekly basis and is attended by all project personnel as well as

The Brunsfield International Group





It is recognised as a progressive and innovative industry player with a portfolio of catalyst buildings and sustainable township development projects. The Group's expertise in operating an integrated global value chain has enabled it to continue to deliver the highest quality development projects that can compete with the best in the world.

FEATURE 10

workers'. Scheduled topics are planned and on occasion awareness talks by trade specialists are also conducted. For HSSE promotions, campaigns are proposed and planned by the HSSE Committee. HSSE notice boards are also placed at every floor level to broadcast information related to safety.

"In order to have an effective communications and immediate information transfer, we have formulated a WhatsApp group among the HSSE Committee members and information is fed real time for immediate knowledge and information. Arrangements and procedures are established and

maintained for receiving, documenting and responding appropriately to internal and external communications related to OSH."

The internal SHASSIC assessors team has also been established to conduct internal assessment in terms of documentations, workplace inspection and also worker's awareness acceptance level. The internal assessors have attended the CIDB SHASSIC Awareness & Assessors training. "Resulting from all the above, we have managed to reach 1,367,386 hours without a lost-time injury for the award winning project Oasis Corporate Park Project – Block Augustus," said

Hassan. He also said that Brunsfield has enrolled for CIDB SHASSIC Assessment to be applied in its entire construction projects as part of measuring the level of HSSE implementation and in line with its high-achiever spirit.

"As a result, for one particular project of an office suites, we have successfully achieved the 5-Star SHASSIC award rating with a mark of 97%. Other than that, we have also won the Malaysian Society for Occupational Safety & Health (MSOSH) award for Gold Class II for the same project," ended Hassan.

Brunsfield's Health, Safety, Security and Environment (HSSE) Commitment:



Prevent injury and ill health to all employees, vendors and visitors



Continual improvement to HSSE processes and performance



Provide adequate control of risks arising from our work activities



Prevent any unsafe acts and unsafe conditions to all employees, vendors and visitors



Comply with applicable legal and other regulations from client and local authorities



Reduce hazardous waste and maximize recycling efforts



Prevention of environmental pollution



Strive towards achieving zero accident rate



Promote health, safety and environmental awareness and develop individual responsibility for all



Optimize consumption of materials and resources

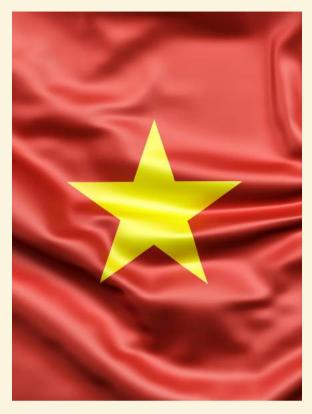


Provide a secure, safe and healthy working environment



Enforce adequate security at all our premises

GLOBAL NEWS 11



Vietnam invites more European FDI

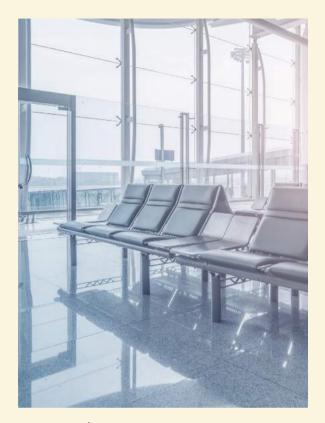
Since the doi moi reforms began Vietnam's process of economic liberalisation, the government has made positive and progressive changes to encourage foreign direct investment (FDI). This makes Vietnam a more attractive destination for foreign companies and these reforms continue to bear fruit.

With that, Vietnam enters into a strategic trade move with the EU. Also, the Investment Protection Agreement (IPA) with the EU is expected to be approved in the European Parliament in early 2019.

Vietnam's growth has been driven by foreign investment over the last three decades. The country is intent on attracting more FDI to unlock Vietnam's economic development further.

The government recognises this and has been deepening Vietnam's international integration through new-generation free trade agreements, foremost among which is the EU-Vietnam Free Trade Agreement (EVFTA).

Source: vir.com.vn



New US\$10b Jakarta waterfront airport to be built

The Indonesian government announced its plans to build a US\$10 billion international airport outside Jakarta to accommodate a surge of demand as the country's economy grows steadily at 5%.

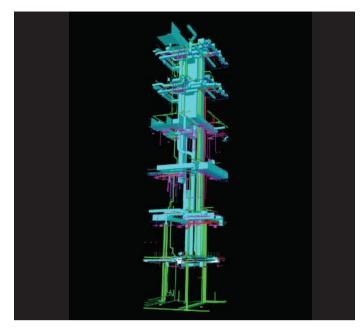
The construction is only expected to begin after 2020 through a private-public partnership. The facility is to be built on reclaimed land, about 15km north of the existing Soekarno-Hatta International Airport.

The new airport is set to feature two runways, a passenger terminal and a maintenance centre for aircraft. A railway and highway are also under consideration to connect with Soekarno-Hatta.

This will be the first new airport around Jakarta since Soekarno-Hatta was opened in 1985. The two facilities are expected to have a combined capacity exceeding 100 million passengers per year, surpassing Singapore's Changi Airport, currently the largest airport in Southeast Asia.

Source: www.construction-post.com





Applying innovation

The process of designing and building Fennel utilised BIM as both design and construction tool. The same 3D BIM model was then refined and detailed, and used all the way up to costing, planning and implementation.

BIM modelling was a key part of the design process, used to innovate the construction process and make it precise. The efficient planning increased productivity and reduced overall labour costs. Innovations achieved during the process of design were also followed through in the construction stage, making it a seamless transfer of innovation from design stage up to construction.



Mixed IBS elements

A mixed IBS formwork systems consisting of aluminium formwork were used for the lift cores, wall form systems for the sheer walls and precast concrete slabs for the majority of the floor plates.

Through BIM models, elements were standardised and modularised to increase the efficiency of pre-casting and reduce wastage and cost.

IBS pre-cast floor slabs were cast on site, labelled, stacked and then hoisted up with tower cranes to the tower blocks directly. Pipe penetrations for each individual pre-cast sled were determined in the design phase. Planning of the casting yard and eight tower cranes were done in BIM to reduce the amount of double handling when hoisting the pre-cast floor slabs to create the structure.



Mechanisation methods

Structural design were used whereby floor-slabs were 'pushed out' incrementally at every floor to sculpt the angled profile of the tower. The building's system of sheer walls allowed the loads to adapt to each cantilevered condition.

The jagged form of the towers prevented normal methods of hoisting, delivery and installation. Eight new tower cranes with higher lifting capacity and tip load capacity were deployed for this project. Common construction methods were rethought and improvised, to allow for better accessibility by numerous trades including the façade.



Specialised facade installation system

With a unique building form, a total working height of over 150m, and with all four towers cladded by aluminium panels and fins, the façade work was a complex and critical element of the overall works.

A new access system was designed to overcome the challenges. The solution was to design a new sliding deck for the mast climbing work platforms that could be manually adjusted to reach various conditions of the tower's façade angles and areas of aluminium cladding. The tower façade is a unique design element which ensured the installation of the façade work was completed safely and efficiently.

Reducing construction time

Due to the dynamic form of the building, conventional construction methods could not meet the overall construction timeline due to The Fennel's unique form. Using innovative construction techniques and IBS allowed for the overall construction timeline of the project to be reduced by a period of five months, compared to a conventional construction system.

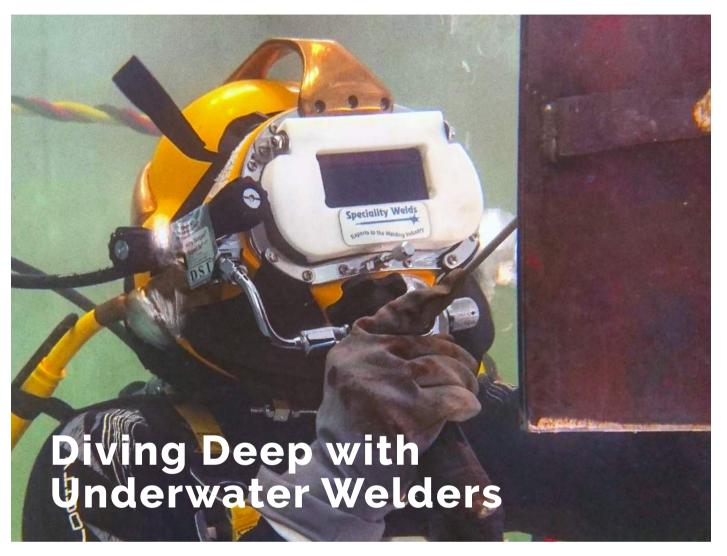


The extensive use of precasting and system formwork, as well as the introduction of the "flat-floor" system and precast concrete wall panels allowed for the total number of workers in the project to be reduced by 20-30%.

Specialisation also reduced the total labour cost for the project by increasing the overall efficiency. The use of BIM enabled the project team to visualise the construction activities up front and plan the works more efficiently.







How does a boy from the backwaters of Terengganu end up being a much sought-after underwater welder? Follow the trail of 29-year-old Wan Muhamad Irfan Hilmi Wan Harun from his days as a boy swimming endlessly in the waters of South China Sea to his present job of spending hours in the deep waters of oceans. Also learn about the risks as well as the perks involved in this job.

The first ever underwater welding was

carried out by British Admiralty Dockyard in the 1930s for sealing leaking ship rivets below the water line and subsequently specific waterproof electrodes and methods to use underwater were developed in Holland in 1946.

Underwater welding is a specialised activity that calls for a high level of technical competency, training and practice. It is an important tool for underwater fabrication works and in recent years the number of offshore structures including oil drilling rigs, pipelines and even nuclear power

facilities have risen significantly, causing a big demand for underwater welders.

A career as an underwater welder is no doubt exciting and lucrative but at the same time it is one of the most dangerous jobs to undertake, simply because underwater, the odds are very much stacked against the welder.

In Malaysia too, this segment is now taken up by local professionals.

"Previously, we had many foreigners coming in to do these jobs but now locals have started to venture in as well and we have a good number of locals doing underwater welding. Not just locally but also in other parts of the world," said the well-tanned, small built and soft spoken Irfan.

He recently spoke to HEIGHTS about his experience as an underwater welder, working in the waters off Malaysian seas as well as for clients overseas. Irfan graduated as a mechanical engineer in 2012 from Universiti Malaysia Pahang. Following that he undertook certifications to allow him to be a welder, ending up with a job at a fabrication yard in Lumut, Perak. There he learned about underwater welding

which incorporates two elements at the same time for the job to be completed - diving and welding.

Hailing from Terengganu, swimming and being in the sea was not an issue for Irfan but to become an underwater welder needed more than just a passion for swimming in the open sea. "I found out that I needed to become a commercial diver first. So I pursued an underwater course and went for a training course in Australia. After three months of training in commercial diving, I became a commercial diver. But not yet as someone certified to be a welder underwater! I then continued to take an underwater welding course in Thailand and only became professionally certified underwater welder in 2017. Now I am a certified underwater welder and a commercial diver." he said.

Apart from performing underwater welding jobs for his clients who are largely from the oil and gas sector, Irfan is also an instructor who trains potential underwater welders. The field is opening up in Malaysia with some private institutions offering certification in this field, and it is in one such institution that Irfan is now sharing his experience and know-how with the new recruits. An underwater welder becomes good at his work with continuous skilful practise. For that, once certificate is obtained,

trainees need to find a job and practise often, said Irfan.

So how popular is this field with fellow Malaysians? Not too popular exactly. The institution which Irfan works in had only three students in its first batch. The good news is they all completed the course and successfully passed. Presently, there is another small batch of students undergoing training to become underwater welders in the school. "In Malaysia underwater welding is not very popular. Offshore and onshore weldings only entail minor or temporary repair. It is not fabrication or major installation by welding. Fabrication is done on site and diver only assist to do minor welding. We do not perform any hyperbaric weld." he said.

Hyperbaric welding refers to a process of welding at elevated pressures underwater but inside a specially constructed positive pressure enclosure so that the environment is dry. Think of a small chamber underwater which attaches itself to the part which needs to be welded and drains out all the water to allow welders to do their job. It is often used to repair ships, offshore oil platforms and pipelines. In Malaysia, our underwater welders are usually involved in wet underwater welding which directly exposes the diver and electrode to the water and surrounding elements.

What is then the draw to this job? For most, it is the pay package. "No doubt you earn well but that also depends on your experience. If you have a certificate, then it is advantageous for you to get jobs. If there is hyperbaric weld job, you must be very skilful, very certified. Usually in Malaysia they just bring in foreigners to do that sort of job," he said.

Freelance divers are paid by the day by their clients and the rate is contractual based on the project timeline. An entry level underwater welder can earn anywhere from RM650 to RM800 per day. An underwater welder can only dive up to a maximum of four hours because of the residual nitrogen gas in the body. Anything more will be dangerous for the diver.

"The pay has to be high because of the risk factors involved. You are dealing with different elements under the water. Choppy waves aside, you also have live wire which we use for welding," said veteran underwater welder Anuar Idris. This man has the scars of the battle to show for his long experience - including suffering from tinnitus as a result of an underwater "accident" about seven years ago, and on another occasion having to take shelter in an island for two days after being "abandoned" due to bad weather. "It's a hazardous work and you must be sharp. The nature of the job



**No doubt you earn well but that also depends on your experience. You must be very skilful and certified.

The nature of the job is such that when you are welding and if you have fillings in your tooth, it can come out.

is such that when you are welding and if you have fillings in your tooth, it can come out. And if you have old wounds, you would be able to see champagne/fine bubbles form."

However he said the safety and health aspects of their job scope have improved tremendously over the years. Now clients or contractors have proper and compulsory procedures and guidelines before divers are sent underwater for welding. There is also someone who keeps watch on the weather. "The industry is more strict now. We can't afford any accidents," said Anuar. But at the end of the day, it's also practical aspects which are very important for underwater welders. "Make sure you don't stand between the cables. If the current is strong, you can get entangled and electrocuted."

But the underwater welders based in Peninsular Malaysia still feel they need an organisation to protect their interest. With that in mind, and since they don't have a union to protect them, the Peninsular Malaysia Oil & Gas Professional Association was formed in early 2018. With a membership of about 200 professionals, the association aims to fight for better rights, better working condition and better salary for its members. "Individual voices will not get heard. With an association, its louder," said Irfan, adding that the association is to be a platform for them to share

their problems and for them to raise their issues with the relevant people. One of the main things they are hoping to get out of their association if for the association to negotiate better salaries for them. "Previously we were paid US\$400-500 per day. Now RM500. See the difference?"

In the words of an office bearer of the association, it's not easy to work underwater for the jobs these professionals undertake is highly risky and unique. Their work is different and it's the same as that done by astronauts as they both work under different kind of pressure. It is not for the faint-hearted because mobility, agility and above average physical strength are all a must to succeed in this job. It will certainly make the job much more enjoyable if you have a love for the waters.

Getting to know underwater welding

Underwater welding can be classified as wet welding and dry welding. In dry welding, a dry chamber is created near

the area to be welded and the welder does the job by staying inside the chamber. In wet welding, the welding is performed underwater, directly exposed to the wet environment, using forms of arc welding that employ a waterproof electrode where the welding supply connects to equipment through cables and hoses. It is a practice used mostly as a last resort. A special electrode is used and welding is carried out manually just as one does in open air welding. The increased freedom of movement makes wet welding the most effective, efficient and economical method. Welding power supply is located on the surface with connection to the diver/welder via cables and hoses.

Either form of underwater welding requires meticulous planning, availability of highly-skilled tradesmen and tenacity to be successful. Proper preparations and practices need to be considered before a project is to be executed safely. Experience, technical skills, and physical strength are additional requirements



Irfan (left) also travels to Singapore and Hong Kong for work while Anuar (right) is a veteran in underwater welding

It's a hazardous work and you must be sharp. The nature of the job is such that when you are welding and if you have fillings in your tooth, it can come out. And if you have old wounds, you would be able to see champagne/fine bubbles form. The industry is more strict now. We can't afford any accidents. ••

you need in order to dive. If the safety procedures are not stringently enforced, fatal accidents are likely to occur. This work is physically and mentally very challenging.

Welding underwater can be a dangerous profession if precautions aren't taken. The main risks are electric shocks and the possibility of producing in the arc mixtures of hydrogen and oxygen in pockets, which might set off an explosion. The other common danger is breathing nitrogen in the air mix, which is absorbed into the blood but not metabolised by the body at depths under pressure. This could turn into bubbles on ascent and paralyse the diver. The number of dives, dive repetitiveness, depth of the operations, time spent underwater and the exhausting nature of a specific task increase these risks significantly. Appropriate safety measures provided to the diver via emergency air or gas supply, standby divers and decompression chambers. The divingrelated health and safety procedures are managed by strict governing guidelines and work procedures.

Accidents causing severe injury or death, in addition to explosions and fires that can lead to complete destruction of the platform are a real possibility even if

they aren't common occurrences. You will need at least three to five years of practical manufacturing or construction welding experience to qualify for most drilling platform welding jobs. Most drilling companies prefer a welding certification but if you've got a lot of practical experience, you still have a good chance of landing a drilling rig job. Most contracts for an offshore welder are three to six months or longer, which means being away from loved ones for an extended period of time. Therefore, working on an offshore drilling rig is a job best suited to young, single men.

Despite the dangers and challenges, thousands take on the responsibility of installing underwater structures, mainly because it pays well. It is certainly not one of the best careers in terms of working conditions and requirements, but it is a great job for those who seek an exciting and challenging career. Additionally, underwater welders are essential components to industries all over the world. Skilled welders are in high demand as technology and robots are yet to acquire human skill and dexterity required for the job and this provides underwater welders with job security.

There's also some respite in knowing that with advancing technologies in robotic capabilities, advancements are being made to protect underwater welders. Despite what the future may hold, today underwater welders help maintain the most integral components of many industries around the world.

Journey to become an underwater welder

Some basic requirements must be fulfilled before venturing into the world of occupational diving. One has to be at least 18 years old, love to dive and seek for a job in the underwater industry. That's a few basic requirements that are checked. Here's a few more must haves:

- · Medically fit
- · Recreational Diver Certification/Sport Diver Certification
- Safety First Aider
- · Welding experience

Once the above criteria is fulfilled, the interested party can sign up for a specialised underwater welding course that is available in Malavsia. It can be completed in about three months.

However, if commercial diving and general welding are part of the curriculum, meaning you have no experience in diving nor have welding experience - the programmme will be longer, anywhere from two to five years.

It doesn't end there. Keen interest in the occupational diving industry can take you further in climbing up the underwater ladder. One can move up to be a supervisor, inspector and a few more steps before becoming the 'boss of the boss' - superintendent.

One thing is for sure – underwater welding is not a common job. All it needs is your interest and commitment.

PRO SPEAKS







Stop Rushing Towards Death Dato Jamaludin Non

Accidents start with tired workers.

To avoid risks, it is important to keep workers fresh - both physically and mentally. Thus there is nothing wrong in drilling in them, on a daily basis, of the potential dangers and risks. After all, this is for their own good too.

I must admit things have changed tremendously over the years, much to the better. Now the safety and health aspects in our work sites are well regulated and adhered to. Not only have the authorities put in place certain rules that must be followed, our contractors as well have adopted their own measures to keep the work sites free from accidents and fatalities.

Things were quite different in the early days and I have witnessed one such deadly accident of a worker.

Many years ago, as a young upstart, I was having my lunch at the site canteen when suddenly everybody rushed to the scene after hearing a thunderous loud noise from the lift shaft area. Without hesitation, I quickly followed and there was a body of a worker in a pool of blood on the concrete floor of the lift shaft. I was a site engineer at the time and we were constructing a 33-storey high rise building in the middle of Kuala Lumpur.

The deceased worker must have slipped and fallen from the 10th floor. The safety belt was still worn but the helmet had flown off. It was gruesome and sad. #

The deceased worker must have slipped and fallen from the 10th floor. The safety belt was still worn but the helmet had flown off. It was gruesome and sad. Much later, after we had taken the body of the unfortunate worker to the hospital for post-mortem, we analysed and evaluated the situation for our report.

We learned our lessons from that incident that day, and from then on, only motor accidents happened at my work sites. But, sadly, it took a fatality to make us aware of the importance of site safety.

Over the years, as contractors and those directly involved in work sites, we are always aware of the risks and dangerous activities there. In truth, we all pray for safety and accident-free environment so that there are no grave consequences, and of course, to avoid

PRO SPEAKS

the much dreaded stop-work order from the authorities. Our policy as contractors must always be to justify the costs and safety, although the parameters are wide and open.

In current times, I am happy to note, a more professional approach has been taken by all contractors and those involved in work sites. Safety guidelines have been introduced and practical procedures are followed. For example, the daily morning briefings (better known as toolbox talks) to all workers are almost a must in all work sites. This is essential and effective.

The rain factor

As I mentioned earlier, accidents happen due to tired minds. And we must do our maximum best to keep our workers sharp, alert and fresh.

Besides this, we have also learned from past experience that the use of safety gears such as shoes, helmets, belts and others are of utmost importance and must be enforced at all times. At the same time, logistics and traffic control must be adhered to at work sites.

However despite all our best efforts, work site accidents still happen. Some of these accidents could be of a new variant but the main causes may be the same - carelessness or rushing without thinking ahead.

There are many examples of these, especially involving the cranes and other heavy machinery. So what do we do and what's next?

These are many ideas and proposals to avoid accidents at work sites, and some of these ideas are rather interesting. For example, getting clients and consultants to also be responsible for the mishaps. Or even converting the whole safety guidelines into law. Will this help? Perhaps we should discuss further.

There are many ideas and proposals to avoid accidents at work sites, and some of these ideas are rather interesting.

Should we go back to basics and look closely on why, how and where accidents occur? I am talking about the working hours, the weather pattern and the working heights and also on the machinery involved at the time of such accidents. We need to get a larger database on the accidents as that can give us a better understanding of avoiding such accidents.

Let's look at accidents resulting from workers falling from top floors of the work site. Falling from high work sites often result in deaths. Using safety belts alone may not be enough. Placing safety nets at intervals at high risk areas to catch the fall perhaps is necessary. Apart from that, a clear and safe pathway for workers to get to or from work with a good hoist available is very important.

But more than that, the workers themselves must not feel they have to rush unnecessarily to work. Rushing is always a risk. Workers, site supervisors and everyone involved in the work site must be constantly reminded of this.

The other factor I want to mention here is the weather, especially working while it is raining. If there is significant rainfall, work should be stopped immediately. This is because it creates opportunities for accidents, especially slipperiness, lack of vision and general discomfort at sites.

Even if the rain has stopped, the work site must be allowed to dry first. I have noticed that work activities continue to take place even if there is a drizzle, especially concrete works. The contractors think that they have to finish

the concreting, or else they will be fined for delays in work.

This is where accidents happen, with the concrete bucket slamming the side of the concrete platform due to heavy wind and/or wet weather, and causing the collapse of the scaffolding support.

Maybe it is high time that contractors are allowed to stop work during rain, and then redeem the stop-work hours so that they can't be accused of being late in handing over their projects. This way, the contractors will not need to hastily rush to finish the job. Here the client and consultants must be considerate and share the responsibility. In some parts of the world, a slight drizzle can stop all activities at site and the contractor is not put at any fault.

Data collection

On the same subject, time is also a factor. If data have shown that most accidents happen at night or dusk, there should not be any activities then. No permit should be allowed and hence, all work contracts or tenders must state this clearly. This should eliminate all accidents at night time. Clients and consultants should be made to understand the consequences and hence, share responsibilities.

I remember during my tenure as chairman of Construction Industry Best Practices Advisory Council in CIDB, we made visits to accident sites to have a clearer view of the situation and to evaluate and analyse the accidents. I have made site visits to get a better understanding of the cause for the incidents during the collapse of the roof truss at Kuala Terengganu stadium, the numerous cases of lifting cranes overturning, landslides in Penang (familiar?) and scaffolding failures.

In certain cases, the reasons were obvious, but otherwise, in depth



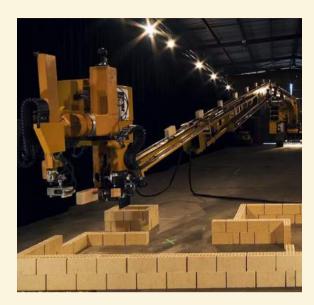
Safety & Health matters require vigilance in implementation

investigations were needed. The Persatuan Kontraktor Melayu Malaysia (PKMM) also has a safety and health committee to monitor and provide good counsel to members to ensure utmost safety awareness through seminars and talks organised regularly.

It is now perhaps time for all parties to sit down again and discuss further if we want to seriously reduce incidents/fatalities at work sites. Data collection is also important and access to this data for analysis and evaluation is necessary in order to categorise these work site accidents. I believe we can achieve a significant reduction of accidents at work sites in the near future. Let us work together in making this good.

Dato Jamaludin Non is the deputy secretary-general of Persatuan Kontraktor Melayu Malaysia (PKMM).

HEIGHTS invites prominent industry players to share their thoughts on critical construction matters that require transformation in the industry.



Australian robot builds house in 72 hours

This is the future. An Australian robot, Hadrian X, has built a three-bedroomed house in less than three days. It was the robot's first full-home structure and was completed in a total elapsed time of less than three days. This achieves a milestone set by the company, Fastbrick Robotics (FBR), in 2015.

The house has an area of 180 m^2 and includes two bathrooms as well as the three bedrooms. Construction followed factory acceptance testing (FAT) at FBR's test facility, where the Hadrian X was put through its paces on three key tasks:

- A two-course structure with a full combination of brick sizes, cuts and laying configurations
- An 11-course pillar structure to demonstrate the Hadrian X's ability to build from slab to cap height
- A two-room structure demonstrating the Hadrian X's ability to build a larger structure on a slab from a 3D CAD model with the required accuracy

Hadrian X then started work on its first full home structure. After completion, the structure was verified as meeting the relevant building standards by a civil and structural engineering consultancy group.

Source: www.theconstructionindex.co.uk

GLOBAL NEWS 23



UK construction dogged by Brexit uncertainty

Brexit uncertainty dogged Britain's builders, according to survey conducted in October 2018. The latest Purchasing Managers' Index (PMI) survey showed optimism falling to its lowest level in six years and firms citing "uncertainty related to Brexit" as a major factor undermining confidence in the month. Civil engineering grew at the strongest pace since July 2017, but housebuilding was the weakest in seven months and commercial construction the weakest in five.

Construction accounts for around 6% of UK GDP.

The latest official data suggests that the sector grew by 1.6% in the three months to August, but this came after a severe contraction earlier in the year during the Beast from the East snow storms.

Source: www.independent.co.uk



Japan welcomes skilled foreign workers

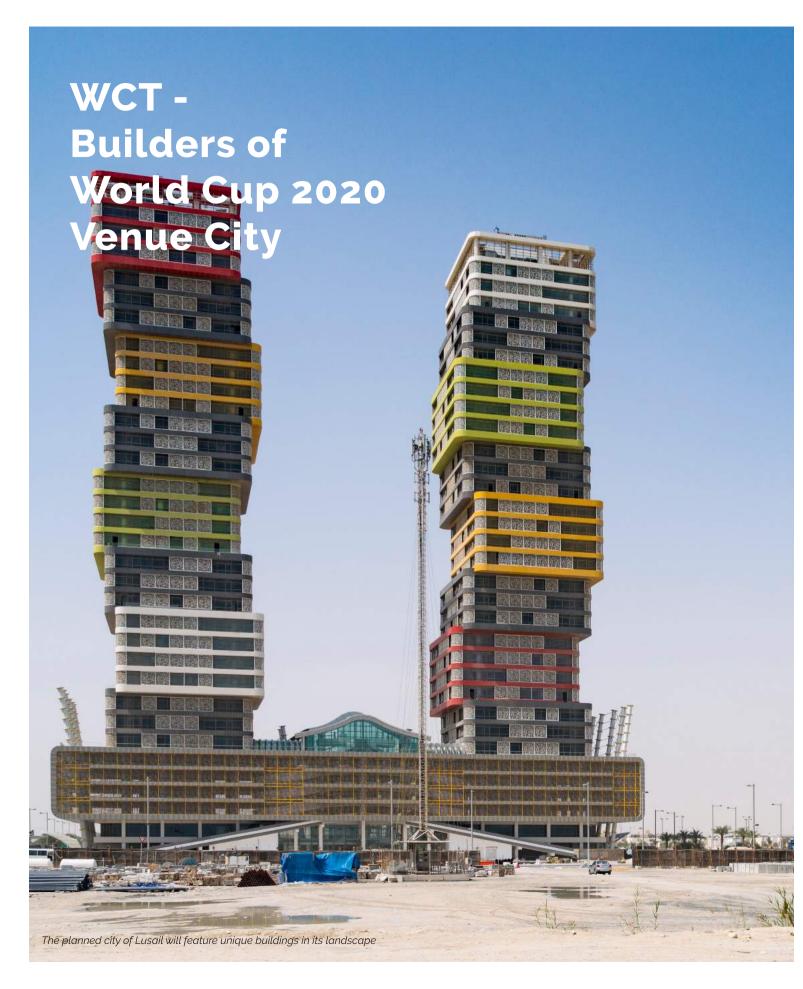
The Japanese government plans to open up the construction and shipbuilding industries to skilled foreign workers under a visa program that will pave the way for new arrivals to gain permanent residence in Japan.

The government is set to pass a revision bill of the Immigration Control and Refugee Recognition Law during the current Diet session to introduce the expanded visa program in April.

The revision envisages two resident categories under the "specified skills" status - the No. 1 for workers with basic skills and the No. 2 for those with a higher level of skills.

Workers in the No. 1 category are allowed to stay in Japan for up to five years and cannot bring their families. But those in No. 2 category can bring their families and renew their visas indefinitely under the proposal.

Source: www.asahi.com





Do you know that there is a Malaysian connection – a BIG connection – in the city of Lusail in Qatar when it hosts the opening match of the World Cup 2022? Yes, one of the biggest events in the world will be hosted in a swanky new planned development that has the involvement of Malaysia's WCT Bhd.

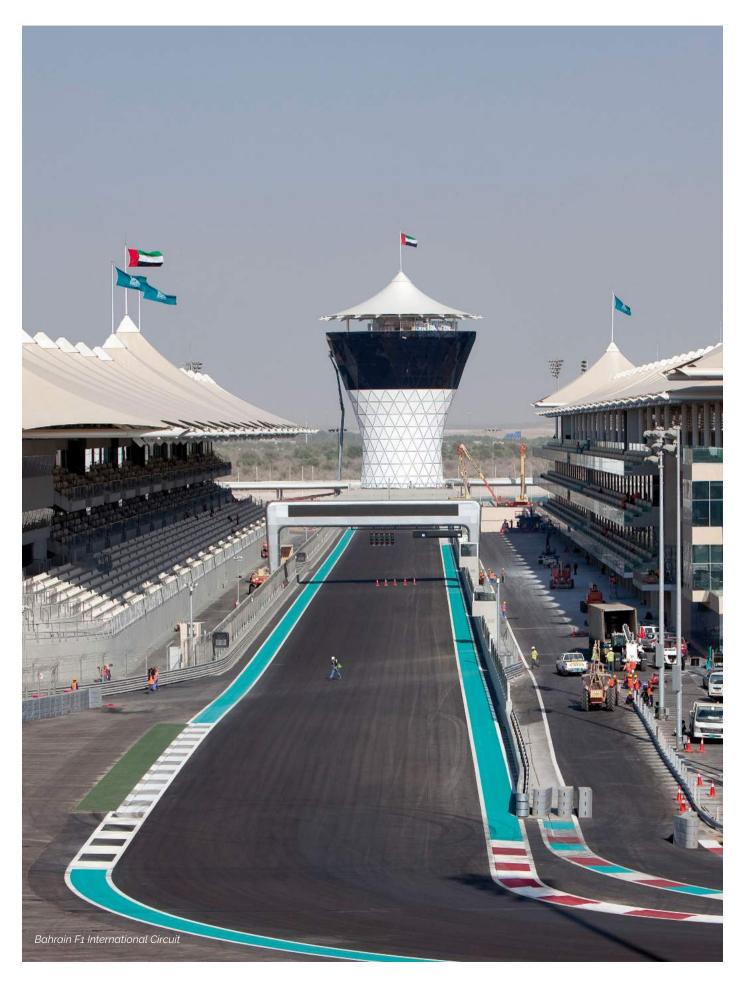
WCT is involved in a 70:30 joint venture with a Qatari construction company to undertake the RM1.3 billion Lusail Development Project in Doha, Qatar. It is a 38-square kilometre master-planned urban development featuring residential developments, entertainment and commercial districts including a world-class stadium that is slated to host the 2022 FIFA World Cup.

The company was a big winner at the 18th Malaysian Construction Industry Excellence Awards (MCIEA) in September 2018. It walked away with two major awards in a glittery ceremony held in Kuala Lumpur, bagging the Builder of the Year Award for the second time as well as the International Achievement Award for its work on the Ministry of Interior Headquarters project in Wadi Al Sail, Qatar. WCT also took home the Green Building Award (Non-Residential) as the main contractor for the Ministry of International Trade and Industry headquarters in Kuala Lumpur.

WCT Executive Director Liang Kai Chong, speaking to the media at MCIEA, said he was encouraged by the recognition which he attributed to best practices and hard work. "We also learned a lot overseas and brought back the technology to Malaysia. We used the knowledge and skill to transform an abandoned building to become a modern shopping centre now known as Paradigm Mall Johor Bahru. We also applied the same experience to MyTOWN Shopping Centre in KL and also in Doha," he said.

The Group's property development portfolio includes townships. luxury homes, high-rise residences, integrated commercial developments, concession assets, hotels and shopping malls. WCT is a reputable developer of three integrated townships in Klang known as Bandar Bukit Tinggi (BBT) 1 & 2 and Bandar Parklands. WCT has also spread its wings to Kota Kinabalu, Sabah with the completion of d'Banyan Residency @ Sutera as well as in Johor with the launch of 1Medini and Medini Signature condominiums at Iskandar Malaysia. Since 1997, WCT has delivered in excess of 16,000 units of residential and commercial properties with a Gross Development Value (GDV) of over RM5 billion. WCT currently has a land bank of approximately 859 acres in Malaysia. Currently, the Group owns and operates four shopping malls, namely the Bukit Tinggi Shopping Centre in Klang, the airport mall known as gateway@ klia2 in Sepang.Paradigm Mall in Petaling Jaya and Paradigm Mall in Johor Bahru. The Group also owns Première Hotel in Klang and New World Hotel in Petaling Jaya.

With a track record of over 37 years, WCT has successfully completed and delivered more than 400 construction projects worth in excess of RM30 billion. From 2015 to 2017, it had completed 26 local and international projects worth RM11 billion. WCT's scope of engineering and construction expertise covers F1 Circuits, airports, shopping malls, hospitals, dam and water supply scheme, iconic buildings/infrastructures, expressways and highways, civil works, buildings and rail-based infrastructure works both locally and internationally.





Ministry of International Trade and Industry Kuala Lumpur

WCT ventured into the global arena in 2000 to complete the Tada-Nellore Highway in Andhra Pradesh, India and successfully completed its first Middle East project – Bahrain International Circuit within a record time of 16 months. For this Bahrain F1 circuit, WCT was accorded the International Achievement Award in Malaysia Construction Industry Excellent Awards 2004.

As mentioned earlier, WCT is also involved in the mega project in Lusail where the scope of works for the project includes construction of commercial boulevard with roads and utilities, LRT stations and underground car parks.

Undoubtedly entering an international market is a complex and difficult process. WCT goes into this arena by understanding the background of a country and performs the necessary risk assessment. It is also important to overcome cultural barriers, especially when clients usually hire international consultants of different nationalities to manage the projects.

"Therefore, our team must be able to communicate effectively with the consultants by hiring the right team of employees to manage and work closely with these consultants. It is important for us to build relationships and trust with the locals including financial institutions. This is done by identifying and working with the right local partner."

For WCT, it was also vital to remain competitive against other bigger contractors from countries like South Korea and China.

WCT readily said Middle East market was diverse and challenging. Its most recently completed project overseas is the Ministry of Interior Project in Doha, Qatar, a large-scale international building that was successfully completed by WCT without any local joint-venture partners.

When asked to list some of the challenges WCT encountered during the construction of the project in Doha, the first to be pointed out was the managing of various aspects of construction from shop drawings to MOI's appointed consultants - the Consulting Engineering Group (CEG) and the subcontractors. WCT said it had to manage the client's meticulous approval process, and had faced challenges in obtaining construction permits. The company had to control the scope of work for this project and the volume of materials required were enormous. It also carried full liability on design aspects.

Another challenge was the procurement process, largely caused by time difference and distance. To overcome this, WCT put in place a strong team and engaged reliable business partners. On top of that, working hours during summer seasons in Middle East was from 5am to 3pm only. Therefore, WCT had to manage the project timeline with limited working hours during this period.

With a strong plan in place, coupled with an increasing experience in the global stage, WCT looks set to continue its aggressive run in the coming years, while definitely playing a bigger and prominent role in the international arena.

It is important for us to build relationships and trust with the locals including financial institutions.

The Group has worked in some of the iconic projects in Malaysia, and these include Selangor Turf Club in Sungai Besi in Kuala Lumpur, Sepang International Circuit, Bakun Hydroelectric Dam, Petronas RAPID Pengerang, Pan Borneo Highway (Sungai Arip Bridge-Bintulu Airport Junction), West Coast Expressway, PLUS Nilai & Seremban Expressway, Tuaran Hospital, MITI Building and Kota Kinabalu International Airport.



Internationally, the Group has been involved in iconic projects such as the Ministry of Interior in Qatar, Bahrain City Centre, Yas Marina Yacht Club in Abu Dhabi, Kempinski Hotel in Bahrain, Panagarh-Palsit and Durgapur Expressway in India, Dukhan Highway in Qatar, North Manama Corridor Improvement Project in Bahrain, New Doha International Airport in Qatar and Yas Marina F1 Circuit in Abu Dhabi. The Yas Marina F1 project was WCT's biggest overseas project at US\$1.17 billion.



This article is an excerpt taken from CIDB Construction Law Report 2017 (pg. 205-210), published annually by CIDB Malaysia since 2015. Starting from the first issue for 2019, *HEIGHTS* will feature one case for lessons learnt and best practices to be adopted. This book can be purchased from CIDB Malaysia at RM250.00. Contact Nursazwaziha Salehudin at 03-40477373 or email ziha@cidb.gov.my.

Case file:

Parties:

Tan Chang Yong Holdings Sdn Bhd v Corporate Sunrise Sdn Bhd

Court: Kuala Lumpur High Court

Case No: Suit No: WA-22C-28-04/2016

Presiding Judge: Justice Lee Swee Seng

Date of Judgment: Sept 15, 2017

Case snapshot:

A dispute had arisen between a building owner (Plaintiff) and a contractor (Defendant) regarding the renovation and refurbishment of a multi-storey building into a hotel. The Plaintiff claimed that the Defendant failed to complete the works

by the date stipulated in the contract and did not install the air-conditioning system correctly in order for it to be fully functional.

Court ruling: Dismissed the Plaintiff's claim and allowed the Defendant's counterclaim with costs.

Issues arising from the case

(1) A party making a claim for damages for breach of contract bears the burden of proving that the Defendant has breached the contract and the damages arose naturally from such breach. In this case, the Plaintiff claimed RM3,823,960.00 as damages for loss

of room charges due to the Defendant's alleged breach of contract. The Plaintiff must prove that the Defendant failed to deliver the project by the date stated in the contract and had directly caused Damages to the Plaintiff.

(2) The Plaintiff had to strictly prove the damages claimed against the Defendant and to do so, it must first prove that the Defendant breached the contract by not performing their obligations under the contract. The judge found that the Plaintiff failed to prove that there is an express deadline and urgency for the project to be delivered on

- time. The judge further found that there was no basis for the Plaintiff to claim for gross room charges and if at all there was a loss, it must be confined to loss of profit.
- (3) The Defendant did not receive any notice or warning to indicate that time was of the essence of the contract. Moreover, the Defendant was instructed by the Plaintiff's agent (M&E Consultant) to carry out variation works which implied that there would be an extension of time considering that there were additional works to be done. The judge found that time has become at large and the Defendant should complete the works within a reasonable time (i.e. 6 January 2010).
- (4) The contract did not contain material clauses such as standard clauses on submission of claims and certification, issuance of Certificate on Non-Completion Certificate of Practical and application for Completion, extension of time and Liquidated and Ascertained Damages ("LAD") clauses. The judge found that the was а provisional contract sum contract which is subject to re-measurement and allowed the Defendant's counterclaim of RM2,233,881.80 with interest at 5% per annum.

Lessons learnt from the case and best practices to be adopted

Lessons learnt

(a) A party claiming damages for breach of contract must ensure that each claim is supported by proper and sufficient documents. The Plaintiff in this case failed to produce substantial evidence to prove the breach. The fact coupled with the lack of material clauses in

- the contract or insufficient documentation resulted in the Plaintiff's claim being dismissed.
- (b) A claim for LAD must be proven. Generally, a LAD clause which includes a provision for issuance of a Certificate of Non-Completion ("CNC") is inserted into the contract. If the works are incomplete at the expiry of the Completion Date, the CNC would be issued so that the Defendant would be put on notice that LAD was payable. However, the Plaintiff is required to prove the damages by producing evidence to validate its claim for LAD.

Best practices

- (i) Parties should ensure that relevant material clauses are incorporated into their contract as these clauses govern the conduct and obligation of the parties, as well as protecting the parties' interests should a dispute arise. In this case, the contract was in itself defective as it was missing material clauses, such as the clauses of LAD, issuance of certificate of non-completion or application for extension of time. If the material clauses had been included in the contract, it would have allowed both parties to clearly understand their respective rights and obligations under the contract at outset and avoid misunderstandings on how the contract operates.
- (ii) Parties should keep proper records and comprehensive documentation regarding the works under the contract. One main issue in this case was the Plaintiff's failure to provide evidence of the Defendant's alleged breach of the contract and in proving the loss caused by the breach. This matter escalated

- as the Plaintiff failed to keep proper documentation and could not adduce evidence to the court. This issue could have been avoided if the Plaintiff had kept records of any agreements, whether to extend time or otherwise, and recorded it in formal documentation. In this case, the Plaintiff claimed that the Defendant had failed to rectify the air-conditioning problem in the hotel rooms. However, there was no written notice to the Defendant setting out the works that were required to be done. The reports of maintenance team who attended to the problem were also not produced. The court stated that this fell below the standard of proof that was required on a balance of probabilities and deemed that the Plaintiff had failed to prove its loss.
- Parties should take steps to ensure that they are aware of and understand their rights and obligations under the contract. In this case, even though the Plaintiff claimed that there was an express deadline and urgency for the project to be delivered on time, it failed to produce any written notice or warnings to indicate that time was of the essence of the contract. Moreover, the Defendant had been instructed to carry out variation works by the Plaintiff's agent which implied that there would be an extension of time as there were additional works to be done. This suggested that the matter was not urgent at all and the Defendant was allowed to complete the works within a reasonable period of time.

Sabarina Samadi, FCIArb, Dip. Int. Commercial Arb., is an advocate and solicitor, and a partner at Messrs. Zaid Ibrahim & Co.

Siti Majidah's Pioneering Journey

The dynamic Siti Majidah A. Majid, 74, a trailblazer who has set the style and tone in the world of interior design in the past five decades, is indeed a tough act to follow.

Her contributions to the industry are farreaching. Not only is she the founder and managing director of Majidah Design Sdn Bhd, but she was also the founding president of the Malaysian Society of Interior Designers in 1990 and a leading activist in the campaign for the legislative recognition of the interior design profession, which culminated in the amendment of the Architects Act 1967. The Act allowed for the registration of interior designers under Lembaga Akitek Malaysia between 1990-2015.

Firm and fearless, Siti Majidah has also become somewhat of a controversial figure, with a reputation for pulling out people if she feels they have erred in their ways. "I'm not one who goes behind your back and talk about you. I will demand a meeting straightaway or see you to set things straight," the lady begins, setting the tone for the interview.

The strength of character probably comes from being part of a big family of nine for this KL born and bred whose father was a policeman and mother a teacher. Growing up in government quarters, she had her early education in the mission run Convent Peel Road. After completing Form 5 she worked as a temporary school teacher in St. Mary's Primary School for two and a half years before going abroad to pursue her life's dream.

"I have always wanted to do something different and my interest in art began as a child when my mother sent me for art classes conducted by the USIS (United States Information Service). I received a scholarship to study Interior Design in Brixton School of Building (now London South Bank University) in 1964. At the time, there were no art schools like there are now in Malaysia."

Siti Majidah goes on to say that being in the UK was a major culture shock for her in terms of the environment and the education offered there. "In university, I had to survive on RM500, which was about £68 then. To earn extra income, I worked every Saturday, all public holidays and summer holidays. It was tough, but it developed my character, discipline and professionalism, which are reflected in my work."

Right after completing her education in the UK Siti Majidah returned to Malaysia and, despite several better offers, accepted a low-salaried job with BEP Akitek Kuala Lumpur. "I wanted to learn from the best and I did. I learned right from the clerks up to my bosses and after about 10 years in BEP, I set up my own firm in a one-room office in 1979."

I am not an interior decorator...I am a consultant who focuses on space planning of buildings, and I work closely with architects and contractors.

The journey has not been smooth sailing all the way, especially not in the early days when there was little understanding of what interior design was about and that proved to be Siti Majidah's biggest challenge.

"When I came home from studying abroad in 1968, people didn't know what the job entailed. It was such a foreign concept in the Malaysian industry! Many asked if I was an interior decorator, and I had to educate them that interior decorators are contractors who look at



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One of Majidah's favourite projects - wood carving in Masjid Wilayah Persekutuan

the decorative details, the aesthetics such as wallpapers, paintings and furniture, and that we are consultants that focus on space planning of buildings and we work closely with architects and contractors."

If I have worked with
Kelantanese wood carvers
who had been in the trade
for generations. They were
like poets...absolutely
creative and
a joy to watch.

If

Siti Majidah has an enviable track record that includes a number of special projects such as the Maybank headquarters, KL Hilton in Jalan Sultan Ismail, the Malaysian Embassy in Bangkok, Istana Hinggap Negeri Sembilan and Carcosa Seri Negara, to name a few.

One project that remains close to her heart is the Masjid Wilayah Persekutuan. "We were commissioned to look at the wood carvings for doors, railings and screens and I worked with Kelantanese wood carvers who had been in the trade for generations. They were like poets... absolutely creative and a joy to watch. Their designs, drawings and carvings were so intricate and yet they didn't go to any art school!"

Majidah Design Sdn Bhd now has a strong team of nine staff and Siti Majidah admits the growth of her firm has been satisfying, from the time when it was just a one-man show to where they are today. In fact, she began as an enterprise and changed to private limited within just a year as she was already earning well, despite facing the same challenges faced by other companies such as not being paid by clients or interference from certain parties.

It comes as no surprise that this muchdecorated professional has been named the winner of the Construction Leading Lady Award in the 18th Malaysian Construction Industry Excellence Awards (MCIEA) in September 2018. She was also made a CIDB Fellow two months later.

Yet, in characteristic style, Siti Majidah says, "I'm already 74 years old. At this golden age, the recognition is not so important as I plan to retire soon. I've been blessed in life and with a good career. I have received a number of awards through the years and I am satisfied."

Siti Majidah was nominated by an architect in JKR for her contributions to the profession, as well as founding the Malaysian Society of Interior Designers and having assisted in a local university's syllabus in interior design.

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She has also surmounted the challenge of being a minority in the male-dominated industry. "It hasn't been easy but I am very professional, very committed to my work and stand my ground. I also had to be tough and very knowledgeable. I read a lot and am always learning. I attend exhibitions, conferences and industry-related events all the time in pursuit of knowledge. It's also been to my advantage that I have not ventured into other business nor diluted my energy with other pursuits such as lecturing for instance," explains the lady who is now well-respected in not just her field but also in the construction industry at large.

While the interior design industry continues to be male-dominated, female participation too continues to increase, with people like Siti Majidah looked upon as pioneering role models.

"I think the construction industry is open to everyone, as long as you are committed. I feel women have a deeper commitment to their work compared to the male professionals. Women are meticulous in whatever they do. In my case, I was not only committed to my clients, but also to the contractors. In fact, I have given up some clients/ projects because their professionalism, ethics, or mentality did not fit mine."

Refusing to play the gender card Siti Majidah prefers to be identified as one who inspires all interior designers. "I think I have not only inspired women interior designers, but the men too, and that began 40 years ago." she says matter of factly.

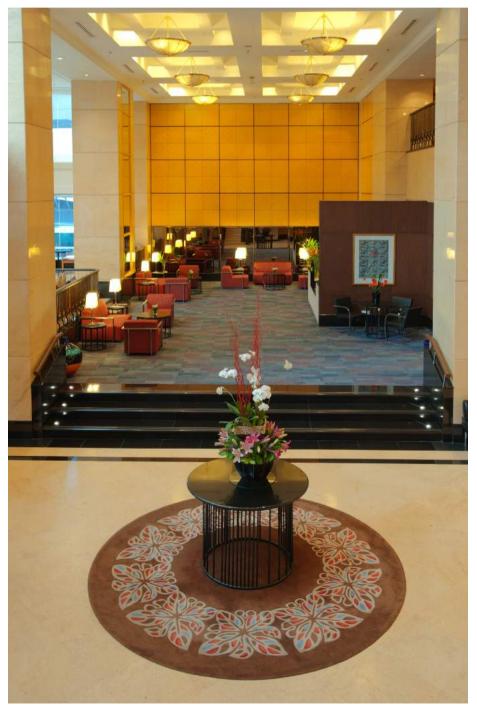
"What's important is you must be very knowledgeable. You must know what works and provide as much information to the contractors who will carry out the designer's vision. One thing for sure, interior designers must not be corrupt. Make sure contractors deliver and do not compromise on materials such as using cheaper materials when the original contract states differently. So be

tough on contractors in ensuring there is no hanky-panky. If you have staff, make sure you practice the same thing with them. Have regular meetings and check works properly."

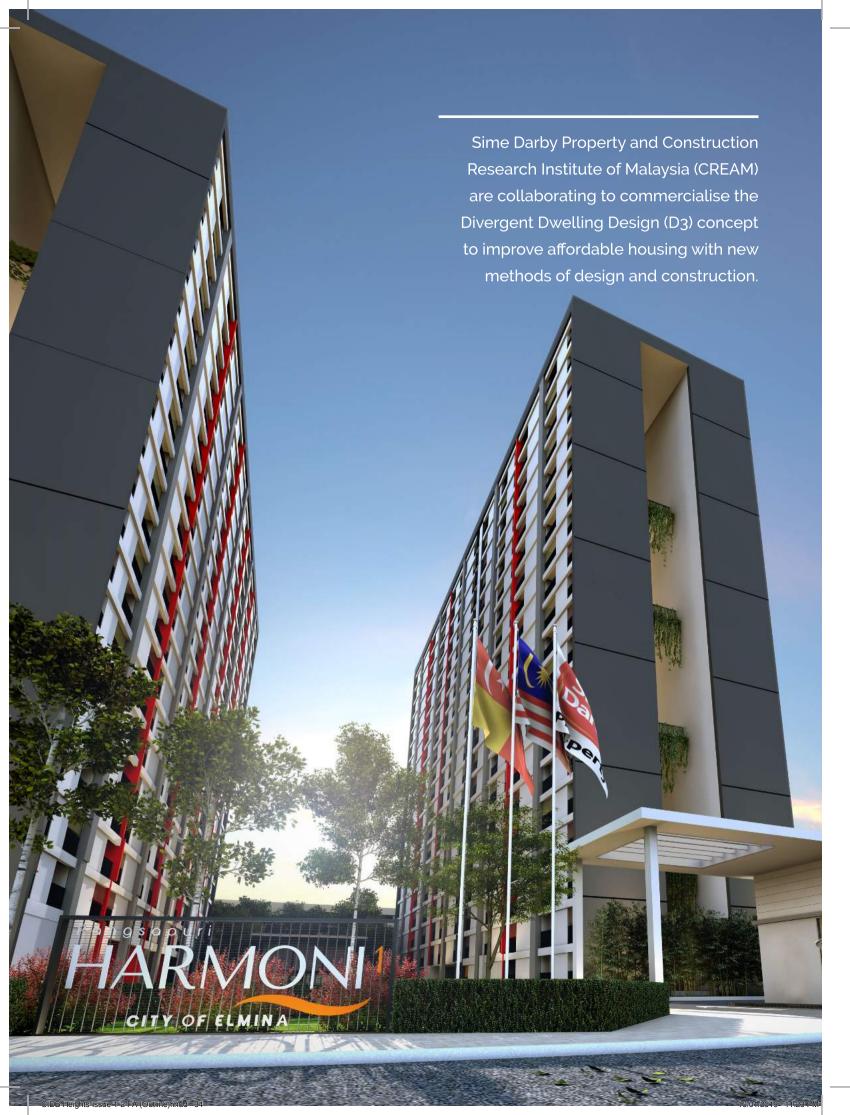
The future of Majidah Design Sdn Bhd once Siti Majidah retires looks just as bright since one of her sons is already managing her business and a nephew is an interior designer with over 15 years

of experience. Siti Majidah plans for her nephew to take over once she retires, while she will remain behind the scenes, assisting when needed.

It is heartwarming to note that Siti Majidah's legacy will live on with future generations not just through her kin but also through her volume of impressive work, indomitable spirit and work ethic.



A prestigious project carried out – PNB Perdana Hotel



The D3 Way for Affordable and Sustainable Homes

Usually the words sustainable and affordable do not appear in the same sentence. But the Divergent Dwelling Design (D3), developed by CREAM and Sime Darby concept may just improve affordable housing with new methods of design and construction. At the same time, it can improve the quality and standards of affordable homes and lifestyle.

D3's pilot project is undertaken by Sime Darby Property in Harmoni 1 project in Elmina West at the City of Elmina, Shah Alam. This will be the developer's first statutory affordable housing project to adopt the D3 concept. It comprises 562 units of Rumah Selangorku (RSKU) apartments.

So what is the D3 concept?

In a nutshell, the D3 concept focuses on affordability, adaptability, quality and sustainability. It is an innovation in home building and applies a holistic approach that includes technology usage and overall design, and construction. It also involves pre-fabrication and mass production of components for residential units that enable cost savings, higher product quality, reduction of on-site labour and minimised wastage. The

concept reduces construction time from 36-42 months to 24-30 months, which is 28-33% faster than conventional methods.

"It is aimed to provide short-term solution for maximum number of houses in the shortest possible time to meet urgent housing demand. Adequate and affordable housing is one of the main challenges faced by developing countries like Malaysia which is heading towards the status of a high-income nation. This challenge requires an integrated solution through the combination of science, technology and innovation," said Chief Executive Officer of CREAM, Ir. Dr Zuhairi Abd. Hamid.

D3 concept is a result of research by Ar. Gan Hock Beng of G&A Architects and CREAM, which is the research arm of CIDB Malaysia. Sime Darby Property collaborated with G&A Architects and CREAM to further research and develop the D3 concept into a D3 Commercially Viable Design. For Sime Darby Property, this collaboration is also part of its innovative efforts to focus on various aspects of its products. The company said this innovation elevates it further as a significant developer of affordable

It is aimed to provide short-term solution for maximum number of houses in the shortest possible time to meet urgent housing demands.

housing in Malaysia and a socially responsible company that fulfills the housing needs of the nation.

D3 also features simple assembly. Prefabricated components such as toilet pods, floor slabs, columns and beams and concrete wall panels facilitate easy plug-in and plug-out application, ensuring accuracy, fast assembly at site and lower labour dependency. Finally, a flexible layout which provides the flexibility for occupants to modify their units according to different needs at different times.

The developer has also said that it would decide whether to replicate the D3 concept for other township projects subject to the successful implementation of the D3 method in Elmina West.

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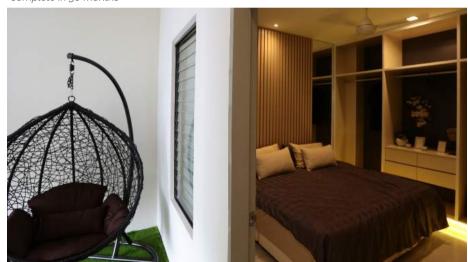
The developer also highlighted the following advantages of the D3 concept:

- Flexibility to modify the internal spaces according to different needs at different times
- Improves standard of living without the penalty of high prices
- Improves livability with superior designs
- Seamless outdoor/indoor space and adaptable layout
- Urban farming at the 'halaman'/green terrace to promote sustainability
- Improves construction speed with the use of Industrial Building System (IBS)
- Improves quality of homes with the use of IBS materials
- Improves site cleanliness and safety
- Lower labour dependency via off-site fabrication
- Reduces material wastage and preliminary cost through modularisation

Sime Darby also told *HEIGHTS* that by using D3 innovation, it is adopting a semi-Blue Ocean Strategy where this new product innovation is able to effectively meet the needs and requirements of the lower- and middle-income purchasers. It is confident the D3 design will be able to transform the affordable housing needs by improving the quality of affordable homes and opening up great opportunities.



Harmoni 1 project - the D3-concept construction is expected to begin this quarter and to complete in 30 months



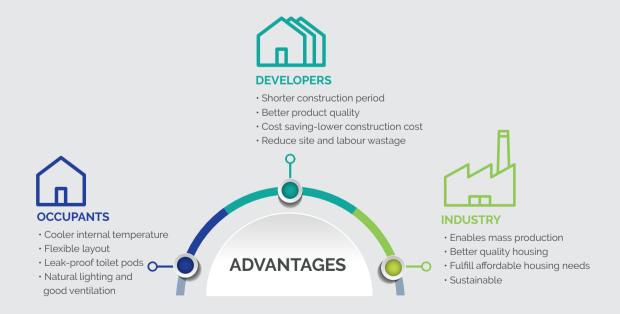
Appealing and good space utilisation in the D3 home



One of the three 'halaman' or balconies for better natural lighting, ventilation and space for urban farming.

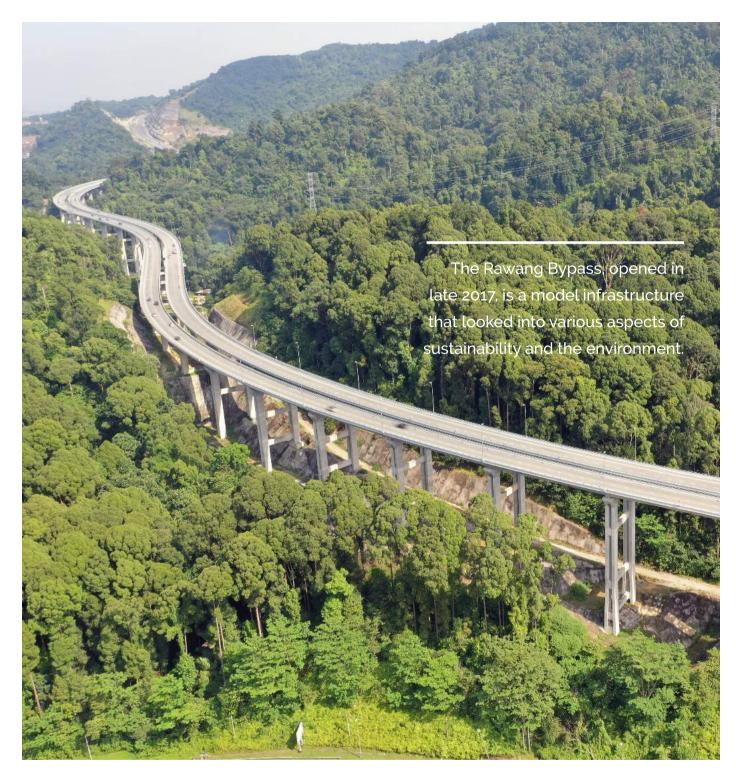
D3 New Innovation Design Concept

Conventional Construction Method		D3 Divergent Dwelling Design Method	
TIME Construction Period	36-42 months	24-30 months (28-33% faster)	
\$ cost	Preliminary cost on construction: 5-7% Construction cost: Higher cost and lower value	Preliminary cost on construction: 3-5% (30% reduction) Construction cost: Estimated reduction of 10% psf	
QUALITY On-site labour	Prone to defects and leakage	Ensured accuracy with off-site production Leak-proof toilet pods	
PLANET Wastage	Min. 3-5% construction wastage	Close-to-0% construction wastage	
GREEN	No space for planting within own unit	Urban farming within own unit	
PEOPLE Spatial Quality	Dependency on air-conditioning and artificial lighting	Natural ventilation and lighting	
SAFETY	Site: Less organised, accident prone, Labour intensive	Site: More organised and better environment, safety and health, Less labour intensive	



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Making Our Roads Sustainable and Environment Friendly

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There is a need to re-think on how to build and maintain our road assets so that they can last longer and is cheaper to maintain. The problem is that over the last two decades, we have seen a tremendous increase in population and its subsequent demand for goods and services. This has resulted in high traffic volumes on our roads and its effects on maintenance and operating costs. Making things worse is the fact that the roads are ageing.

With that in mind, Works Minister Baru Bian recently shared his ministry's policy to ensure that our roads and highways are built and maintained to be sustainable and environment friendly. Among the strategies applied as part of sustainable development are:

- The implementation of Construction Industry Transformation Programme (CITP) which promotes efficiency in construction and reduction in cost through technology such as the use of Industrialised Building System (IBS);
- The application of Cold-in-Place Recycling (CIPR) for its pavement maintenance as it is an eco-friendly pavement rehabilitation process, which utilises the existing pavement materials;
- The utilisation of Green Product Scoring System, which is a system to measure the percentage of green products used in an infrastructure project. Such tools will assist the Ministry of Works in ensuring that its road projects will have minimal impact on the environment; and
- The use of Renewable Energy road furniture in road projects.

Speaking at the 10th Malaysia Road Conference 2018 and PIARC International Seminar on Asset Management on Oct 29, 2018, the minister said an efficient and reliable transportation system was key towards creating better regional cooperation and wealth creation among nations.

"In order to sustain the economic growth of a nation, a reliable, safe and comfortable road network is of utmost importance. Roads are expensive to build and maintain and this conference's theme - Global Approaches to Advance Road Asset Management - is timely to enable us to sit down together and think of ways to improve on how to manage our road assets." he said.

We must fervently embrace innovation in driving productivity for the road industry.

The effective management of road networks requires budget levels to be sufficient to keep the road assets in an acceptable condition. With rapid development and the corresponding increase in the number of motorised vehicles, a nation's budget allocation is normally expected to increase in tandem with the increase in road length and axle load of commercial vehicles.

The limited operating and maintenance budget is always a challenge to asset owners. Maintenance activities are now more focused on minimising costs rather than assessing and enhancing the value of the asset to the organisation. The shortfall in maintenance funds will result in road maintenance and strengthening works being deferred to a later date. Delay in rehabilitation works will inevitably result in more funds being required at a later stage to make good the damage.

"Hence, getting an adequate maintenance funding remains a major

concern in the good up-keeping of road assets," said Baru Bian.

The road authorities must keep abreast with the latest cutting-edge technologies and innovations. Baru Bian gave the example of the Pan Borneo Highway for which the government and the Project Delivery Partner (PDP) has adopted Integrated Project Management System (IPMS) that consists of cutting edge technologies.

The use of this technology-driven integrated system has also seen development of skills in the highway project where 45 fresh engineers from Sarawak trained on Building Information Modelling (BIM). It also allowed for the building of a culture of using BIM in construction through local consultants and contractors. Related government agencies use, manage, report, make decisions with Common Data Environment (CDE) system and process.

The minister also said the establishment of the new Centre of Excellence for Engineering & Technology (CREaTE) in PWD encourages all those involved in road planning, design, construction and maintenance, including academia to collaborate and lend their expertise in doing research and development on construction related issues, for the mutual benefit of all parties. Local manufacturers and suppliers are also invited to test and develop their products at this centre of excellence.

"We must fervently embrace innovation in driving productivity for the road industry," said Baru Bian.



Myanmar is prioritising infrastructure and housing development as it strides ahead to the future

Opportunities for Malaysian Firms In Myanmar's Booming Construction Sector

For Malaysian construction industry players who are looking for opportunities outside the country, Myanmar may prove to be worthwhile. The construction sector in Myanmar registered a 7.2% compound annual growth rate from 2011 to 2015, and is set to carry a 10.37% annual growth rate from 2016 to 2020.

Myanmar government has accorded high priority to infrastructure development projects, looking into roads, railways, bridges, ports facilities, airports, electric power, irrigation networks, communication systems, private schools construction and private hospitals. There is an increasing trend of private sector participation in these projects which is expected to escalate

as Private Public Partnership (PPP) is gaining momentum.

The housing market currently requires more than 30,000 new homes per year to cope with urban migration, especially in the growth centres of Yangon, Mandalay, Naypyidaw, Bago, Pathein and Dawei. The government has plans to offer homeowners access to mortgages at reasonable interest rates over longer instalment periods. This will complement Myanmar's Vision 2030 development plan, which has the goal of providing one million new homes across the country by 2030.

The country's construction sector is going through a reform process under the new government with particular emphasis on quality control, and the governing rules, regulations, codes and standards. The Myanmar National Building Code 2016 has been approved by the government as the basic standard for all types of new buildings and civil infrastructure, and building material standards such as cement, steel and sand.

Myanmar has opened up the trading sector to foreigners, including for construction sectors. Warehousing are now open to foreigners, which will make it easier for Malaysian companies to supply their products locally. In

addition, Myanmar has committed to reduce its import tariff taxation to 0% under the free trade agreement (ATIGA) by 2020. Among the enquiry for Malaysia's construction services and building materials are:

- Joint venture to build high-end hospitals, hotels and condominiums in Yangon and Myeik
- Joint venture for water treatment projects
- Importing building materials (gypsum board, ceiling joist and accessories, glass bricks, etc)
- Waste management solution to produce green energy from the dump site

As Myanmar is opening up its market, Malaysian construction services companies should seize this opportunity to collaborate with Myanmar's major players. While for building material, apart from sourcing from China and Thailand, Myanmar is currently diversifying their import source. This presents an opportunity for Malaysian companies to expand their market share in Myanmar.

Industry players interested to know more about the country's construction sector can contact Matrade Myanmar at myanmar@matrade.gov.my.

Are you a construction material manufacturer? Are you an importer or exporter of construction material? (i.e. glass, ceramic, tiles, steel)

How sure are you that your products are of **QUALITY and complies to the STANDARDS?**

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EXCERPT FROM ACT 520 All construction material/products listed in Schedule 4 of CIDB Act (amendment 2011) are required to obtain Standards Compliance Certification from CIDB.

*visit www.cidbholdings.com.my for complete listing of material/products











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Individuals who have contributed significantly to the Malaysian construction industry

46 Eminent Personalities Received CIDB Fellowship Award

There are many distinguished players in the industry sector who hold vast experience in various fields of the industry. They include contractors, developers, construction professionals, academia, manufacturers and government agencies.

In November 2018, the Construction Industry Development Board Malaysia (CIDB) celebrated 46 such distinguished individuals by according them the esteemed CIDB Fellowship Award. The award is to recognise these industry role models who have continuously

contributed to the development and improvement of the construction sector in the past 20 years.

The Fellowship Award was presented by the Works Minister Baru Bian during

We also acknowledge and appreciate the tireless efforts put in by the industry players as we enter the final lap towards achieving our goal of becoming a world-class industry as envisioned in the CITP. We encourage more industry players, from the public and private sectors, to emulate these movers and shakers in driving construction excellence together.

- Chief Executive of CIDB Malaysia Dato' Ir Ahmad 'Asri Abdul Hamid. ••• CIDB's Industry Appreciation Night. Also present were Chairman of CIDB Malaysia Tan Sri Dr. Ir. Ahmad Tajuddin Ali, and Chief Executive of CIDB Malaysia Dato' Ir Ahmad 'Asri Abdul Hamid.

The CIDB Fellowship Award is an opportunity to recognise the industry pioneers who have championed construction excellence in a myriad of ways. Nominations were vetted through by two levels of industry committees, with the final nod coming from the Board of CIDB Malaysia.

"We are paying homage to their illustrious careers, as well as their vast experience that span decades," said Ahmad Tajuddin.

This year's CIDB Fellowship Award 2018 marks its second installation. The inaugural Award commemorated 65 Fellows, which was presented in conjunction with the statutory body's 20th anniversary in 2015. At the ceremony, a coffee table book highlighting the 46 Fellows was also released by CIDB.



WCT Berhad Operations Director James Andrew Chai receiving the International Achievement Award for building Qatar's Ministry of Interior

MCIEA 2018: WCT Bags 2 Major Awards

CIDB's Malaysian Construction Industry Excellence Awards (MCIEA) 2018 saw 29 industry players being recognised for their contributions to the construction industry.

The biggest winner was WCT Berhad, who won two major accolades – Builder of the Year Award and the International Achievement Award for the Ministry of Interior Headquarters project at Wadi Al Sail. Qatar.

For the first time, the Construction Leading Lady award went to two winners, Dato' Yeoh Soo Keng, a director at YTL Corporation Berhad, and Siti Majidah A. Majid, director of Majidah Design Sdn Bhd. It was also the first time the QLASSIC Award was included in the Awards, which went to Idaman Ikhlas Sdn Bhd for the construction of Sime Darby Property Berhad's Azalea 2 Project in Negeri Sembilan.

Other recipients of MCIEA's individual awards included Dato' Srikandan Kanagainthiram, Managing Director of KPK Quantity Surveyors (Semenanjung) Sdn Bhd, who was awarded the highest accolade of the evening – Prominent Player Award. Foo Chek Lee, Managing Director of Pembinaan Mitrajaya Sdn Bhd was awarded as CEO of the Year.

"We certainly encourage more industry players to up the ante and emulate the winners we are celebrating today, in order to continue raising the standard of the Malaysian construction industry to be globally competitive," said CIDB Chief Executive Dato' Ir. Ahmad 'Asri bin Abdul Hamid.

Some of the notable projects that received the MCIEA accolades include Damansara Uptown Retail Centre

(Starling Mall), winning the Best Project Award – Building (Major), and MITI Headquarters which took home the Green Building Award. Special mentions during the Awards include Brunsfield e-FM (Electronic Facility Management) for the Innovation Award and the Malaysian Anti-Corruption Commission headquarters for the Best Project Award – Building (Major).

MCIEA 2018 received 195 nominations for 22 awards under 10 categories. There was a total of 22 winners and seven special mentions at the awards ceremony.

MCIEA 2018 marks the 18th installment of the industry awards, recognising individuals, organisations and projects that have contributed and demonstrated excellence in enhancing the image, performance and improvement of the construction industry. MCIEA includes the achievements of top performing developers, contractors as well as projects, and is intended to be the premier accolade for all round excellence in construction.



Sarawak Firm Wins Bentley Award for Digitalising Infrastructure

Pan Borneo Highway Sarawak's project delivery partner (PDP), Lebuhraya Borneo Utara (LBU), won the Bentley System's 'Year in Infrastructure 2018' award for the Roads and Highways category in October 2018.

LBU beat two other finalists - Alabama Department of Transportation for its Birmingham AL I-59/I-20 Corridor Project, and Henan Provincial Communications Planning and Design Institute for its Yaoshan-Luanchuan Section of the Zhengzhou-Xixia Expressway in Luoyang, China.

A spokesperson from Bentley said "LBU's implementation of a Building Information Modelling process through the comprehensive use of technology solutions is impressive. But most important is they are leaving a legacy that they created through a training programme for local talents which will establish the wider use of BIM practices throughout industry, government and the future ahead."

The award was presented at a glittering awards ceremony held in London.

Events to look out for in the first quarter of 2019

EVENT	VENUE	DATE
International Conference on Architecture and Civil Engineering (ACE 2019)	Sydney, Australia	2-4 Jan 2019
International Conference on Geological and Civil Engineering (ICGCE)	Osaka, Japan	9-11 Jan 2019
International Conference On Advances in Civil Structural and Environmental Engineering (ACSEE)	G Tower Hotel, Kuala Lumpur	12-13 Jan 2019
InfraBIM Open Conference	Tampere, Finland	15-16 Jan 2019
Real Estate & Building Technology	New Delhi, India	3-5 Feb 2019
DesignX Indonesia	Jakarta, Indonesia	19-21 Feb 2019
International Conference on Building Materials & Construction	Singapore	25-28 Feb 2019
International Construction Week (ICW)	Malaysia International Trade and Exhibition Centre, Kuala Lumpur	19-21 Mar 2019
Ecobuild Southeast Malaysia	Malaysia International Trade and Exhibition Centre, Kuala Lumpur	19-21 Mar 2019
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Get your events listed by sending an email to heightscidb@cidb.gov.my



CITP Midterm Review: Closing the Loop Between KPI Settings and Overall Outcomes

The government has announced a midterm review of the Construction Industry Transformation Programme (CITP) to close the gap between KPI setting and achievements and the actual attainment of CITP overall outcomes and aspirations. This was announced by Works Minister Baru Bian after chairing

the first Ministerial Committee meeting on the CITP in November 2018.

The midterm review will take into account the relevance of KPIs, reevaluate the current performance against the aspired end-goals or intermediate end-goals, revisit the governance structure and take stock of how the industry can continue to contribute to the CITP in a more meaningful manner.

"In ensuring a more certain and impactful outcome by 2020, the CITP midterm review is indeed a strategic and timely approach. We believe with the review, the aspirations of the CITP can be better realised and felt by the country's entire stakeholders," said Baru Bian.

The CITP was launched in 2015 as a national blueprint for the transformation of the construction industry, within the

implementation period of 2016 to 2020. In all, the original CITP has nine thrust KPIs, 21 initiatives and 115 active KPIs. Up until the second quarter of 2018, the achievement of the 115 CITP initiatives KPI against the target set has been excellent with an overall achievement of 98%.

However, the actual industry performance did not appear to be in tandem with the encouraging performance of CITP, said the minister who then proposed the midterm review exercise to assess the overall achievements.







Works Minister stressed the importance of stakeholders working together in his keynote speech

IFAWPCA Forges Stronger Ties Among Contractors

Master Builders Association Malaysia (MBAM) hosted the 44th International Federation of Asian and Western Pacific Contractors' Association (IFAWPCA) Convention on November 12-16, 2018. Strongly supported by Construction Industry Development Board (CIDB) Malaysia, the event themed **Strategic Alliance with Innovation and Human Capital** saw the participation of more than 1,000 delegates from 19 countries.

MBAM also organised the second edition of Building and Construction

Conference 2018 Global Mega Wave. It addressed the ever-growing challenges faced by the construction industry in dealing with unexpected external factors such as fluctuation of commodity prices with new competition and global economic changes moving towards Industrial 4.0.

Key issues highlighted:

Belt & Road Initiative (BRI) – IFAWPCA member countries are well positioned to benefit from China's Belt & Road Initiative (BRI) which holds the promise of investments in badly needed infrastructure projects such as railways, roads and other infrastructures.

Global Mega Wave - The coming decade is set to see some of the most significant and fundamental economic, demographic and technology change ever witnessed. The impact to the global construction industry were analysed.

Emerging Trends – This will enable companies to prepare for the future. With

the continuing growth and evolution of the construction industry, companies looked into ways to stay up-to-date to remain competitive and relevant.

External Threats and Opportunities

- Ambitious construction companies are venturing into new frontiers and challenging established contractors on funding and new approaches. External threats were identified as to convert them into opportunities for success.

Industry Challenges - Contractors are facing the increase in domestic and international competition due to the current economic globalisation. Participants looked into dealing with material and commodities price fluctuation, rising personnel cost and low productivity.

This is the third time MBAM hosted IFAWPCA in Malaysia. The last was 20 years ago in 1998, and before that in 1983.

