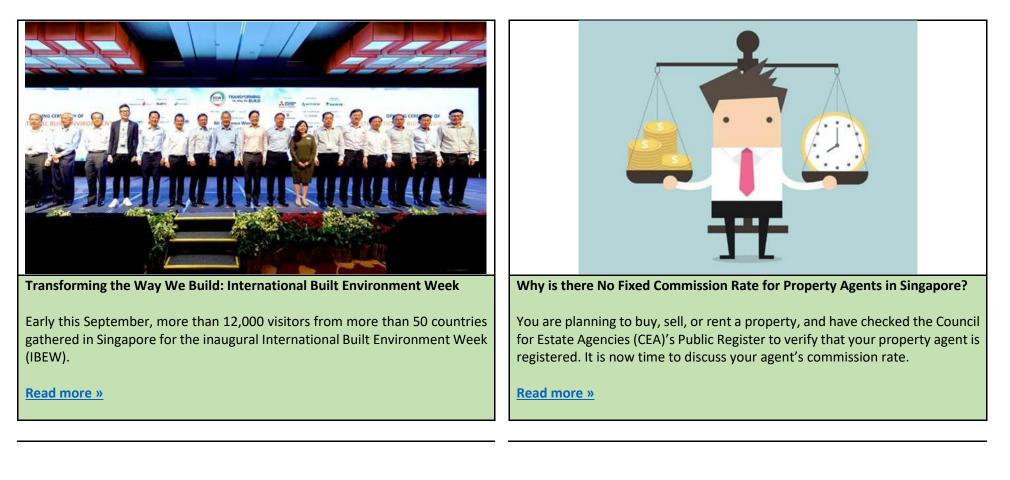


Highlights *links work only for Outlook users





Uncovering Newer, Better Ways of Building Our Homes with 3D Concrete Printing

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Celebrating OneService Officers

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Read more »

Transforming the Way We Build: International Built Environment Week

Early this September, more than 12,000 visitors from more than 50 countries gathered in Singapore for the inaugural International Built Environment Week (IBEW). IBEW is the region's first built environment event featuring innovative technologies from progressive firms across the entire built environment value chain.

The event was co-organised by BCA and Reed Exhibitions, and supported by 12 Trade Association Chambers.

An integrated platform for the built environment

Themed "Transforming the Way We Build", IBEW focused on key transformation areas such as Design for Manufacturing and Assembly (DfMA), digitalisation, sustainability, and smart facilities management.

Over the three days of the International Built Environment Conference, delegates gleaned from the insights of more than 100 distinguished speakers from Singapore and abroad. Customised journey maps for delegates helped them navigate the various conference tracks, and included recommended site tours, tracks, and exhibition booths.

Addressing urban challenges in the region

IBEW 2019 also featured BE Connect, a premier business platform bringing together Singapore-based urban solution providers, developers from the region, and the investment community to address urban challenges in the region. This was a major milestone helping buyers in China, India, and Southeast Asia to access fully integrated solutions across the entire built environment value chain for their building needs.

Through BE Connect, 16 Memoranda of Understanding were signed, with a total estimated contract value of close to \$30 million.

Transforming professionals in the sector

At an IBEW breakfast talk for CEOs, top industry leaders gave their take on how focusing on innovation, instilling collaborative leadership, and a vision for internationalisation were crucial to realising a productive, high-tech, and future-ready built environment for Singapore. The sector also needs to be able to attract and retain talent by changing the culture, improving benefits, and offering development programmes.

Latest innovations and industry solutions

More than 550 companies participated in four tradeshows co-located with IBEW. The companies showcased their latest innovations in the built environment sector, including sustainable solutions, systems that maximise energy efficiency, and construction technologies that improve productivity.

Additionally, industry leaders shared their insights on the hottest technological trends at tech talk seminar areas. Delegations from different markets also came together to discuss and exchange ideas on the latest innovations for sustainable cities.

Curated site tours to a range of developments

Delegates also had the option to join eight curated site tours, ranging from lifestyle hubs and residential properties to university campuses and integrated developments. The tours featured the latest innovations in the built environment sector, which have enabled the sector to become sustainable, productive, and smart.

These innovations included Prefabricated Prefinished Volumetric Construction (PPVC), Building Information Modelling (BIM), and photovoltaic systems.

IBEW will return

IBEW will return in September 2020, providing a comprehensive platform to strengthen partnerships among industry stakeholders and push the boundaries of technology and innovation to transform the way we build in Singapore and beyond.



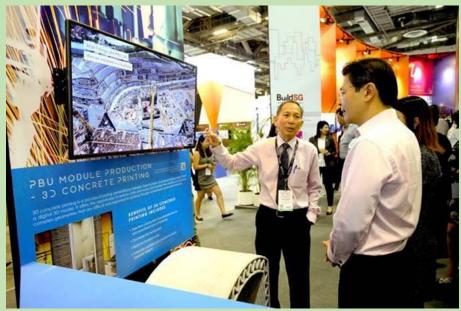
Guest-of-Honour Minister Lawrence Wong and other VIPs graced the opening ceremony of IBEW 2019



Presenting the signed Memoranda of Understanding at BE Connect



Panel discussion at the Breakfast Talk for CEOs



Minister Lawrence Wong visiting the BuildSG Pavilion, one of the many exhibition booths at the tradeshows



Delegates on the site tours to Jewel Changi Airport (left) and Our Tampines Hub (right)

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Why is there No Fixed Commission Rate for Property Agents in Singapore?



You are planning to buy, sell, or rent a property, and have checked the Council for Estate Agencies (CEA)'s <u>Public Register</u> to verify that your property agent is registered. It is now time to discuss your agent's commission rate.

There are no fixed commission rates for property agents in Singapore. CEA does not fix or provide any commission guidelines. You are thus free to <u>negotiate and</u> <u>agree</u> with your agent on the commission quantum and commission fee, based on the scope of work and services the agent will provide for your transaction.

Here are four factors to consider when deciding on your agent's commission rate.

1 Difficulty of selling a property

Some properties are just naturally going to be more difficult to sell than others. Having a clear, realistic idea on how difficult (or easy) it will be to sell your property will help you determine how much the commission rate should be for the effort put in by your agent to facilitate the sale.

2 How quickly do you want to sell your property?

How quickly you want to sell your property may also affect the amount of commission you are willing to pay your agent. A higher commission rate, in addition to a lower asking price, is likely to help the agent you appoint sell your property a lot quicker. However, if you are not in a hurry, you can consider negotiating a lower commission.

3 Your asking price

All other things being equal, a property with a lower asking price is likely to be an easier sell. A higher asking price may mean that the agent has to search harder for more buyers, facilitate more viewings, and dedicate more time and effort to marketing. In such a situation, your agent may ask for a higher commission rate.

4 Added value proposition your agent can offer

Some agents may have a wider network to tap on or are more experienced when it comes to selling specific types of properties in a certain location. Others may employ innovative online marketing strategies to get a wider reach. All these could be reasons why your agent is asking for a higher commission.

After you have agreed on the commission rate, you should document this via a <u>written agreement</u> with the property agent you intend to appoint. This written agreement protects you and the agent from any unnecessary misunderstanding. It states the amount of commission agreed upon, whether GST is payable upon the commission, and other terms and conditions.

In addition, be fair to your agent. Honour and pay the agreed commission after your agent has facilitated a successful property transaction for you. Remember to pay the commission to your agent's property agency, and not to your agent, after a transaction has been completed.

It is illegal for a property agent to take commission from both parties of a transaction. Doing so is considered <u>dual representation</u> and is against the law.

Follow this link to learn the art of engaging a property agent.

This is an abridged version of an article written in partnership with Dollars and Sense.

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Uncovering Newer, Better Ways of Building Our Homes with 3D Concrete Printing

Think of innovative architectural designs such as curvilinear furniture, thematic design, and distinctive sculptural forms; these features – not common in today's housing projects – could soon become a reality for buildings and facilities in future HDB towns, as HDB steps up its investment in construction technology to uncover newer, better ways of building well-designed, quality homes.

Additive manufacturing, or 3D printing, has ushered in a new era of mass customisation, offering the ability to create three-dimensional objects with intricate details or geometric forms that would be near impossible to create using traditional methods. The customisability of 3D-printed concrete will allow HDB to produce more varied and free-form designs.

For a start, HDB will trial the use of 3D printing to build smaller fixtures, such as benches or pavilions, at selected projects in Tengah and Bidadari.



Potential applications of 3D-printed concrete components

To advance the use of 3D printing in public housing, HDB has set up the largest 3D concrete printer in Southeast Asia at its Centre of Building Research. This printer is capable of printing components up to 9m long, 3.5m wide and 3.8m tall.



Scan to find out more about 3D printing!

Successful printing trials have produced a printed component of about $11m^2$ — the size of a room in an HDB flat — in 13 hours. The complete cycle for this first 3D-printed room, including the insertion of reinforcement bars, took only about six days. In comparison, it would have taken more than two months to build a similar room using traditional methods!

Building on these efforts, HDB will expand its research into other areas to enhance the printer's capabilities, such as using multiple nozzles to increase printing productivity and the development of a robotic system to place steel reinforcements into the concrete during the printing process. This will ensure that the construction of structurally sound rooms can be entirely automated.

Software will also be developed to seamlessly integrate the 3D concrete printer with architectural design software, thereby automating and improving processes that are currently being carried out manually.

Besides offering a revolutionary leap forward in the way homes are built, 3D printing technology could also boost construction productivity while minimising workmanship issues, as well as alleviate critical labour shortages at construction sites.

HDB recognises the potential of 3D concrete printing as a possible game-changer, and hopes to build up industry capabilities so that more players can adopt such technologies for high-rise buildings in future.

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Celebrating OneService Officers

The Municipal Services Office (MSO) organises the annual Municipal Services Awards, which recognises OneService officers' exceptional delivery of municipal services. The awards pay special tribute to inter-agency and community efforts that find effective municipal solutions.

This year's ceremony held on 17 October at Gardens by the Bay, celebrated recipients who showed sterling aptitude in solving complex issues in a systematic and innovative way, with a "do-it-first" attitude.

With 10, nine, and four winners in the Team, Community, and Individual Categories respectively, it is evident that the service flag in the municipal sector is flying high!



Minister Grace Fu's Opening Address



A big thumbs-up to award recipients!



Minister interacting with members from the "Tanjong Pagar-Tiong Bahru Active Mobility Patrol Team".



Today we celebrated the achievements of our OneService officers at the Municipal Services Awards!

#OneService #MunicipalServicesAwards #PeopleofOneService



Working Together as OneService Community



View the Municipal Services Awards 2019 video on the OneService Community Facebook page <u>www.qo.gov.sq/msa2019video-fb</u> and read about the winning cases on the MSO microsite <u>www.mnd.gov.sq/mso/municipal-matters/awards</u>

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Reach Out and Be Enriched

Have fun and bond with family and friends through a monthly outing with pets galore, and two new spaces to immerse yourself in nature, history, and more.

"Op-paw-tunities" for Play and Rehoming Shelter Animals

Pets' Day Out, a new signature event of the Animal & Veterinary Service (AVS), a cluster of the National Parks Board (NParks), was launched on 17 August 2019. Pets' Day Out is a monthly platform that brings together stakeholders in the pet community, including pet owners, animal welfare groups, pet businesses, and veterinarians. A key focus of this regular event is also to encourage the rehoming of shelter animals.

Ms Sun Xueling, Senior Parliamentary Secretary for Home Affairs and National Development, was the Guest-of-Honour for this inaugural event. The event took place at HortPark, alongside HortPark's popular <u>Gardeners' Day Out</u> which features gardening and lifestyle activities.



SPS Sun Xueling interacted with some of the animals that were up for adoption at Pets' Day Out.

Pets' Day Out provides more opportunities for the pet community to network, together with their pets. Animal lovers can learn about pet care and animal health through free pet health check-ups, talks and workshops, and games. They can also shop for pet-related products.

The event aims to be accessible and inclusive to the wider community too. Those considering getting a pet can find out more about pet ownership and pet animals at the event, while non-pet owners can learn about how to interact with animals or participate in fringe activities during the event.

For more details on Pets' Day Out, check out <u>www.nparks.gov.sg/pdo</u>.



During the second edition of Pets' Day Out on 21 September, children got to try out various pet-related occupations such as dog trainer and vet.

Bonding Through a "Rail" Experience

On 31 August, NParks and the Urban Redevelopment Authority (URA) announced that enhancement works for the former Bukit Timah Railway Station and its surroundings as a community node will begin early next year. At a community event at the station, Minister for National Development Mr Lawrence Wong shared that the Friends of Rail Corridor will lead the community in activating the reopened stretches of the Rail Corridor along its southern half.

Minister Wong also announced plans for a new linear park that will be partly elevated above the Bukit Timah Canal – the Bukit Timah-Rochor Green Corridor – with construction expected to start in 2021.



At the community event, Minister Lawrence Wong (middle), together with (from left) Advisers Mr Liang Eng Hwa, Ms Sim Ann, Dr Vivian Balakrishnan and Mr Christopher de Souza, planted native Binjai (Mangifera caesia) trees to mark the start of enhancement works for the community node.

Several stretches of the southern half of the Rail Corridor have now been reopened, following the laying of the Murnane Pipeline. Totalling around 4.2 km, the reopened stretches now feature a more inclusive and user-friendly track, providing greater access to families with strollers, wheelchair-users, and the elderly while maintaining the natural look and feel of the Rail Corridor.



Part of the reopened track along Rail Corridor

The Friends of Rail Corridor, a part of NParks' Friends of the Parks initiative, has led the way forward in activating spaces along Rail Corridor (Central) and in habitat enhancement and stream restoration efforts there since its formation in 2017. Open to all members of the public, the Friends of Rail Corridor serves as a platform for ground-up initiatives and community-organised activities to activate spaces along the Rail Corridor. As such, the group will also engage the community in activating and enhancing these reopened stretches, such as through events, community involvement, and habitat enhancement works.

Interested in contributing towards the enhancement of the Rail Corridor? Please sign up online at <u>www.nparks.gov.sg/railcorridor/be-our-friend</u>.

A Glimpse of Rich Biodiversity and History

Located to the east of the Central Catchment Nature Reserve and buffered by Old Upper Thomson Road, the 50-hectare Thomson Nature Park opened on 11 October 2019. It complements existing nature parks such as Chestnut, Springleaf, and Windsor Nature Parks to extend the green buffer for the Central Catchment Nature Reserve.

Mr Desmond Lee, Minister for Social and Family Development and Second Minister for National Development, attended the nature park's opening event.



Adviser Mr Henry Kwek and Minister Desmond Lee plant a Hairless Rambutan tree (Nephelium maingayi) together to mark the opening of Thomson Nature Park.

Boasting rich biodiversity, Thomson Nature Park is a key conservation site for the Raffles' Banded Langur (Presbytis femoralis femoralis), which can only be found in Singapore and southern Peninsular Malaysia.

Biodiversity surveys indicate that animals, including the Raffles' Banded Langur, pangolins, and porcupines, frequently move between the Reserve and the nature park via tree canopies, culverts or directly across Old Upper Thomson Road. To facilitate the animals' safe movement, NParks has planted trees with spreading canopies and installed more rope bridges along the road.

Old Upper Thomson Road had also been reduced from a dual lane road to a single lane road in mid-2018. NParks and the Land Transport Authority (LTA) have also launched a 12-month pilot trial of the Roadway Animal Detection System (RADS) along the road, starting in October 2019. The first of its kind in Singapore, RADS uses video analytics to detect animals when they are near the road and alerts oncoming motorists to their presence through flashing road signs.



Video cameras were installed along Old Upper Thomson Road, as part of RADS.

Thomson Nature Park is also the site of a former Hainan Village and rambutan plantations. NParks worked with the former Hainan Village residents to piece together the story of the village and its inhabitants though oral accounts, artworks, and archive materials. Trails have also been specially curated for visitors to explore the remains of the village and the forests.



If you are keen to experience Thomson Nature Park's rich natural and cultural heritage, come on down to visit the park, which is open from 7am to 7pm daily.

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Designing an Age-Friendly City

How can we promote healthy ageing through the better design of our built environment? How can nursing homes evolve to meet the changing needs of our people? These are key topics explored at the latest Urban Lab exhibition "Designing Our Age-Friendly City" organised by the Urban Redevelopment Authority (URA), to share ideas and generate more discussions on how to realise a more age-friendly Singapore.

Ageing population

One in four Singaporeans will be aged 65 or older by the year 2030, compared to one in seven today. More seniors will be living alone as well – approximately 83,000 in 2030 compared to 43,000 now. In view of these projections, URA and various other government agencies have been collaborating with research institutes and design firms to explore possible design solutions to encourage healthy ageing in Singapore.

Age-friendly neighbourhoods

One such collaboration is the "Innovative Planning and Design of Age-Friendly Neighbourhood" multidisciplinary research study led by the Singapore University of Technology and Design (SUTD). The research study investigated three neighbourhoods (Toa Payoh, Hong Kah North and MacPherson) to understand older adults' day-to-day interactions with the built environment and its effect on their overall physical, social, and mental health.

By integrating research and design on healthy ageing at the neighbourhood level, the project sought to develop and deliver context-specific planning and design recommendations to improve the age-friendliness of neighbourhoods in Singapore.

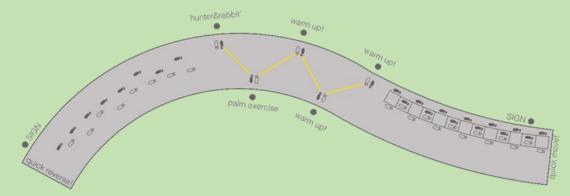
For example, seniors living in Hong Kah found sheltered connections between HDB blocks "disconnected", indicating possible wayfinding difficulties. To address this, architectural firm CPG came up with design ideas to ease navigation, and proposed age-friendly features along the paths to mitigate falls and provide comfort.



Motifs proposed to highlight sheltered connections, with block numbers along the path enlarged for greater visibility.

With more seniors living alone due to a desire for more personal space and independence, there is also an increased risk of social isolation. An age-friendly neighbourhood can create places that encourage seniors to interact with their communities. A good mix of lively and quiet spaces for social interactions, regular exercise, and cognitively stimulating activities can also contribute to seniors' quality of life and may even delay the onset of dementia.

In this regard, architectural firm Tierra Design looked at ways to integrate play elements into existing walkways and open spaces, to create opportunities for incidental cognitive exercise and social activities for seniors in Toa Payoh West.



Agility path proposed by Tierra Design to encourage seniors to do regular exercises while making daily trips to the market or train stations.

Lekker Architects, which worked on reducing the risk of social isolation among seniors living in MacPherson, came up with the idea of a mobile kopitiam. The premise is to bring familiar settings to HDB void decks, thereby drawing seniors out of their homes to interact with the community.

Nursing Homes: Now and Future

Also on display at the exhibition is the research study "Designing Future-Ready and Sustainable Nursing Homes for Person-Centric Care Models in Communities". This interdisciplinary project led by the National University of Singapore is a collaboration between geriatric care researchers, industry partners, and agencies.

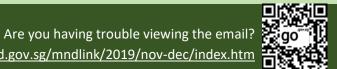
The primary focus of the study is to recommend innovative design typologies for nursing homes that support person-centric care models and are well integrated with their surrounding communities.

Key design ideas that surfaced among design firms included introducing flexible bed configurations that respond to future needs and changing demand; creating a supportive living environment that encourages movement and promotes interaction among residents; and incorporating shared spaces such as multi-generational playgrounds and community cafés to encourage interaction with neighbouring communities.

"As we plan and shape Singapore for the future, we have to take into account how people's needs might change as they grow older. Hence, this exhibition is a timely exploration of aspects and strategies that URA can consider, to support people in living healthy and happy lives," said URA Chief Executive Officer Lim Eng Hwee.

The "Designing Our Age-Friendly City" exhibition is on at The URA Centre atrium until 31 December 2019. Explore key highlights of the exhibition by joining one of the community tours led by URA volunteers by visiting <u>www.ura.gov.sg/agefriendlycity</u>.

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View the latest MND Link issue at: <u>https://www.mnd.gov.sg/mndlink/2019/nov-dec/index.htm</u>

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