

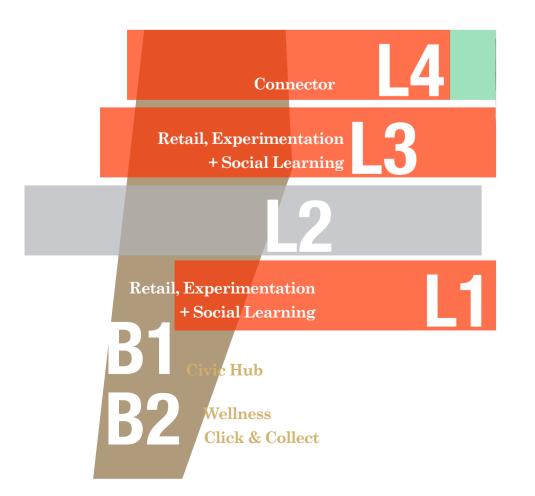
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FUNAN

Location of Project: Singapore

Project Stage: Concept



INTRODUCTION: The Perfect Creative Storm

The project site is an integral part of Singapore's Civic District, located right in the heart with excellent connectivity. In recent years the Civic District has embarked on rejuvenation to further enhance its vibrancy as a thriving art, cultural and lifestyle precinct. It was timely to **redevelop Funan into the area's new landmark** so that it can better synergize with its new surroundings and extend its appeal beyond a niche positioning as an IT mall.

Our client first engaged us in 2014 through a series of knowledge sharing discussions to rethink the future of their mixed-use properties. Through collaborative design workshops with key stakeholders to explore opportunities, the main objective was: "How might we create an environment that encourages discovery, enticing repeat visits, a place for reflection and a place for evolution?".

To create **paradigm shift of a concept for a mixed-use retail environment**, we needed to design a vibrant live-work-play lifestyle hub that fosters emotional connections with its users through lively social and cultural activities. It connects with likeminded people in an inviting public place, and allows them to use the space as a platform to inspire and express themselves.

The results envisaged a **series of 'Passion Clusters' that embody 'tech', 'fit', 'taste', 'craft', 'chic' and 'play'.** This allows consumers interested in these topics to come together and engage in a diversity of activities spanning retail, culture, learning and business. Complimentary partners, whose products and services support the experiences around each passion cluster are curated for the retail offering, with a focus on becoming the new home for local designers and makers. Not only will the mall provide a retail outlet, but it will also play host to performances and talks, workshops and live demonstrations, that support passionate hobbyists and entrepreneurs to foster the creativity of Singapore.

A dense array of programs such as **retail**, **office**, co-living serviced residence, **black box theatre**, **fitness gym and pool**, **rock climbing wall**, a **cycle path**, **cinemas and extensive F&B offers as well as an urban farm** came together to encourage new relationships and to activate the CBD, twenty-four hours a day, seven days a week. This new truly high performance mixed used development is an exciting disruptor in the Singapore context and sets a **new benchmark for global mixed-use projects**.

Singapore is in the midst to pushing itself to be the leading digital economy in the world, with the government in full support of companies that create their own transformative journeys. The project has fully embraced this vision with the creation of a digital eco system that ties into the building to offer users a personalised experience. As smartphones change the way people shop and socialise, the design and operations of this retail space have been re-imagined to meet changing consumer expectations, empower retailers' omni-channel strategy, deepen consumer insights and enhance customer satisfaction through a seamless online and offline user journey.

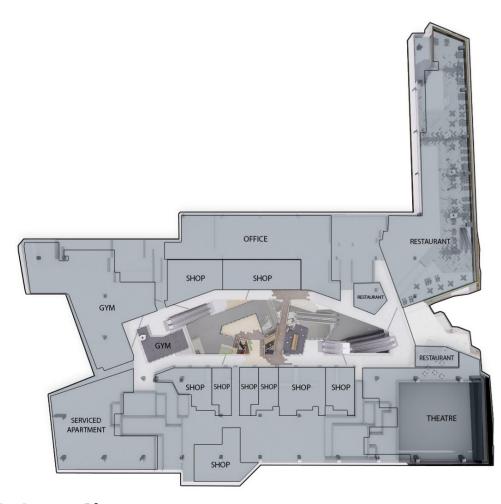


EVALUATION CRITERIA #1: SPATIAL DESIGN

The ground floor is designed as a porous streetscape, featuring multiple access points and gentle slopes with Singapore's first cycle path through a building. This makes it easy for cyclists and pedestrians alike to approach and move through. The exterior flooring finishes continue to the interior to highlight a seamless connection to the city. From the ground floor the development is connected and accessed to all the other parts of the building though easily identifiable lifts; strategically located near the main streetscape entrances for universal access. As the building connects to the MRT for public passage, it is critical to allow easy access and orientation. Corridor visibility was carefully considered, as structural columns were tucked behind shopfronts and away from void edges for clear sightlines. A clear sense of orientation while maximising retail value is simultaneously achieved.

Once inside, the public is welcomed by a majestic design centre piece called "The Tree of Life" that creates a visual focus within the retail loop. It is a physical manifestation of the spirit to foster young brands. Extending from Basement 2 to Level 4, the steel structure houses a variety of brand defining elements to promote new forms of retail, maker and entrepreneur culture, experimentation and social learning. Design ateliers are available to young maker and design brands as a platform for showcasing, while the public may conduct classes in open studios.

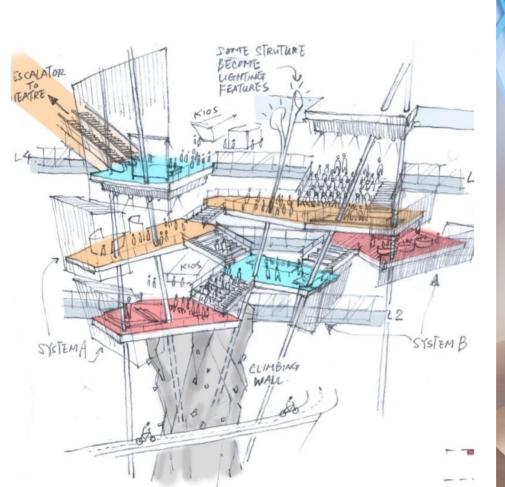
As you climb the Tree of Life and reach **Level 4 (the "Connector** Floor"), it becomes clear the building is highly connected both horizontally and vertically. The Connector Floor becomes a second ground plane where, retail, office, black box theatre, fitness gym, pool, F&B, and co-living serviced residence come together. The building becomes a **social connector** though multi-faceted use allowing for the creation of new relationships.



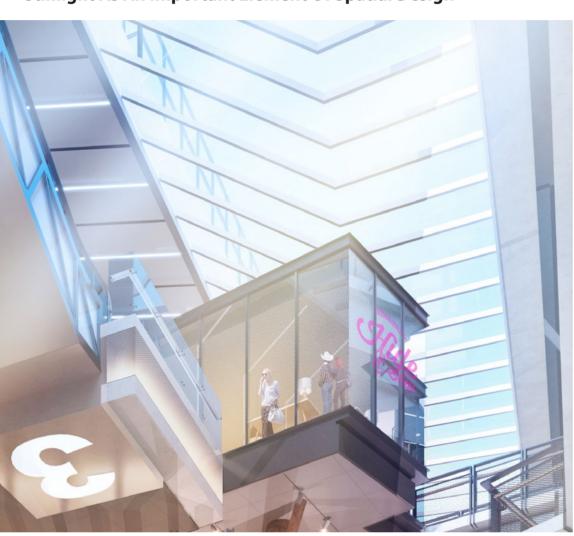
L4 Layout Plan



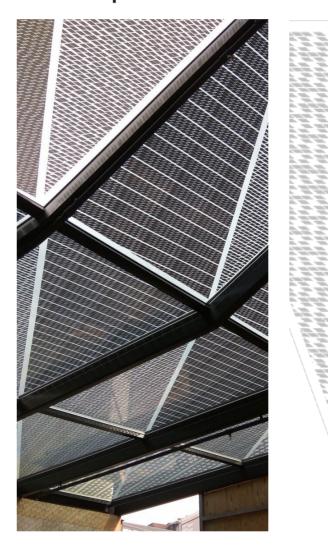
Concept Sketch Of "Tree Of Life"



Sunlight As An Important Element Of Spatial Design



Mock Up Of Glass Frit Pattern On Skylight



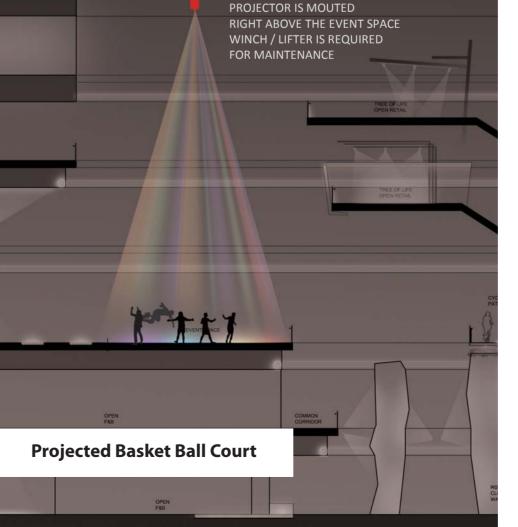
EVALUATION CRITERIA #2: COMFORT

In line with an experiential focus, accessibility and inclusivity are key. Throughout the property, any change in level is mediated using gentle gradients. All facilities are accessible to wheelchair and pram users, including the development's futsal court and urban greenery. Voice-activated interactive directories are located at escalators and lift lobbies of every level to facilitate wayfinding. **NFC technology** will also allow transfer of directions from directory to personal smart phones. The property will be guide dog friendly and all levels of the development are accessible via lift. Accessible parking lots and family parking lots are located close to the lift lobbies to ease access for users. There will be braille indicators on staircase handrails and child-height handrails in the retail area. There are designated restrooms fitted with adult and **child-friendly sanitary facilities** such as wash basins and toilets for children, as well as nursing rooms with diaper changing station etc.

Sporting culture will feature prominently for people to pursue their well-being. A **50-lane indoor climbing wall** extends from Basement 2 to Level 2, with the highest climb being 15 meters. Enthusiasts can enjoy a game of **street basketball in a laser projected court** within the atrium. There will also be a world class gym with an adjacent 25-metre swimming pool.

Being in a tropical zone, **balancing sunlight radiation versus lighting comfort levels** became an important consideration. The **skylight frit pattern** was studied to minimize glare and heat gain on the upper levels of the podium, while delicately balancing the amount of natural light for plants to grow indoor on the lower levels.







EVALUATION CRITERIA #3: AESTHETICS

While the site is within the CBD, it is also adjacent to Fort Canning Park, which acts as the green lung of Singapore's CBD. The project becomes a **conduit that connects the urban context to the lush green park, and this approach is reflected within the building by weaving nature though the interiors**. Areas such as the rock climbing wall at the base of the Tree of Life, and the cycling bridge have greenery incorporated within. To build on this cohesion with nature, **fully operable windows** are used to create inside / outside spaces on the Connector Floor. These are also alfresco dining areas, the pool, and the gym to blur the boundary between interior and exteriors.

To allow for maximum flexibility in the floor plan, the Tree of Life uses flexible partitions to cater to any programmatic changes. Fixtures systems were also designed to cater for these changes with the retail component adopting an industrial chic design aesthetic such as exposed steel structures and mesh balustrades that will be enlivened by an abundance of lush greenery. Elements of urban culture was incorporated into the design to reinforce notions of ideation, creation, and experimentation.

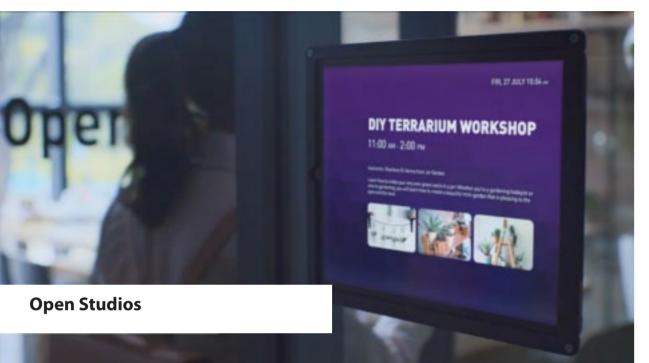
When you step into the space there will be a plethora of juxtaposition in the design. The vibrant tree of life is contrasted against a simple backdrop of a white atrium balustrade to make the tree of life stand out.

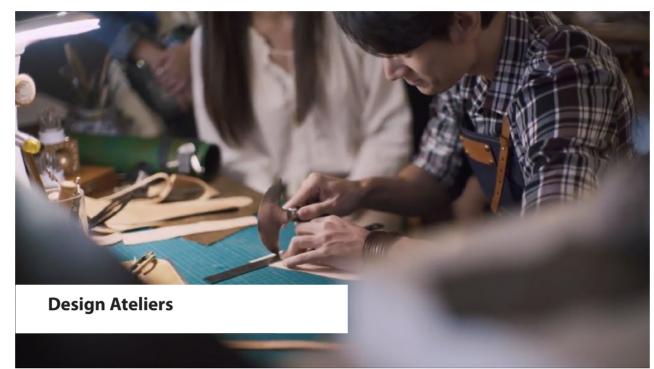
The red bicycle path is used against the grey toned floor finishes to create a **strong visual contrast.** Both bicycle and pedestrian safety is gained through heightened awareness.

The communal grand staircase on the L1 is a focal point where the basketball court, bicycle path, stage, and office entrance lobby converge. Juxtaposition of program was used to express new and exciting human relationships.

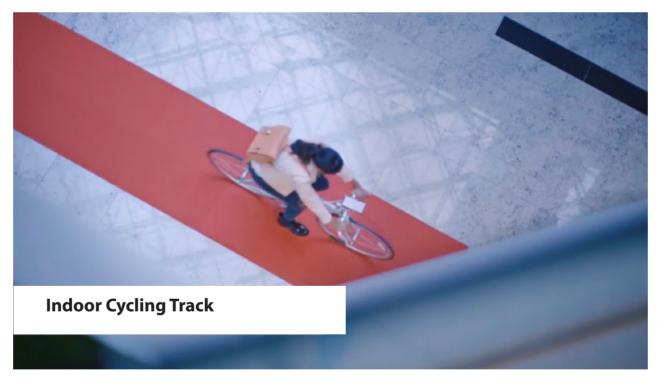


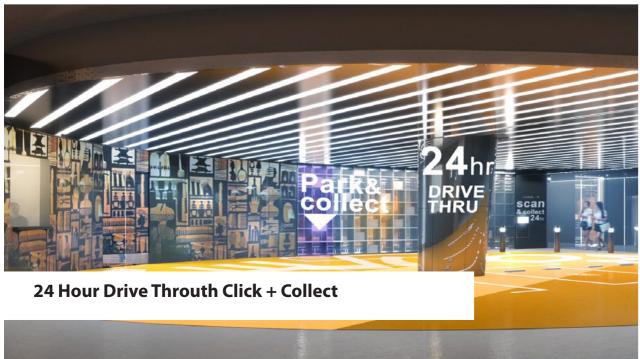














EVALUATION CRITERIA #4: INNOVATION

While the current market share of online sales is small, growth for this sector will grow exponentially. Brick-and-mortar businesses must go beyond passively selling products and services to become experience environments that has an emotional connection with consumers. The project is a collection of creative ideas, that will characterize how the digital and physical retail realms coexist and complement tomorrow's consumers and economy by engaging technology in a seamlessly integrated experience.

As part of the **tech-enabled user experience**, the proprietary mobile app platform will allow access to services. As part of the tech-enabled user experience, the proprietary mobile app platform will allow access to services, including booking of the futsal court and booking tickets to catch a movie at the cinema." The app also comes with a smart carpark feature for drivers to reserve parking lots, find their car and pay or redeem their parking fees. Shoppers can conveniently leave their wallets at home and make purchases using the in-app ePayment feature, while working professionals benefit from the latest facial recognition technology for cardless access to offices. Sensors will be placed throughout the mall, providing data on shopper traffic and demographics through video analytics, allowing retailers to tailor personalized offerings to customers.

Our innovation journey has scored several "firsts" in Singapore and beyond, including the first to deploy automated guided vehicles, provide shoppers with a hands-free shopping experience and the first to utilize a robotic arm for its twenty-four-hour drive-through click-and-collect service.

To support environmental awareness, healthy living, and Singapore's ambition towards a car-lite society, end-of-trip facilities and amenities for cycling enthusiasts will be offered, including bike shops, bike cafés, lockers and shower facilities. And true to its raison d'être of charting new territory, the building will become Singapore's first commercial building to allow cycling through the building.







EVALUATION CRITERIA #5: REALISATION EFFICIENCY

Despite having challenges such as a tight site with limited access, efficiency and time savings are achieved through innovation in construction methods, and the choice of building materials and equipment to avoid redundancies and inefficiencies in the construction process.

These include applying Virtual Design and Construction software at the onset to minimise surprises in the construction process. Although the Tree of Life is a complex component of the building due to its multi-functional and multi-layer nature, the design was studied thoroughly with **BIM software** that allowed for both steel structure and interior design elements to be sequenced and prefabricated to fit seamlessly into the construction schedule to easily actualise the design.

The surrounding **balustrade details** have been **standardized** in a practical manner to maximise economic efficiencies of the design backdrop, while the adoption of an industrial chic aesthetic has allowed for the construction cost to be brought down. This was a very deliberate choice from the very beginning, with project budget in mind.

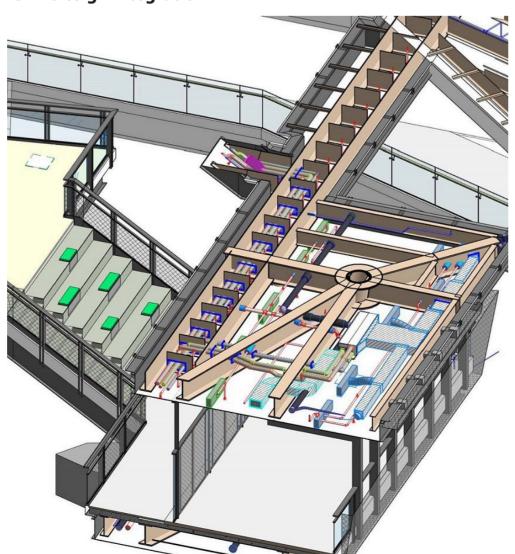
A top-down construction method, which allows for the building's basement and superstructure to be built concurrently was adopted to allow for an accelerated program schedule.

Precast concrete structural building components are also used to further reduce the construction time. In addition, the construction of the underpass connecting Funan and City Hall MRT station will deploy the Rectangular Tunnel Boring Machine to save time and manpower, and minimises traffic disruption. The underpass is targeted for completion in 2021.

Due to these techniques, the retail and office components are slated to open in 2Q of 2019, instead of the earlier announced 3Q 2019 date. The co-living serviced residence component has also been brought forward from 2020 to 4Q 2019.



BIM Design Integration



Modular Standard Design Details For Balustrade Series

