

AN EDITORIAL BY
VERITAS DESIGN

SHADES OF GREEN

DEC 2021
VOL .02

ARCHITECTURE

Building of the Month: ISKL

ENVIRONMENT

Energy Efficiency Features

Water Efficiency

Indoor Environmental Air Quality

Innovation

LANDSCAPE

Our Mangrove

Best Indoor Plant

INTERIOR

Wellness Design

PLANNING

Resetting Our Cities : Principles Of
Sustainable Urban Places — The
Why, What And How





CONTENTS

01 INTERIOR

- Wellness Design
- Organizations - GWI | MESH | WELL

02 PLANNING

- Proposed Kota Sieramas - Greater KL Township
2,400-acre flagship township located in Nilai, approximately
19km from KLIA and 57km from Kuala Lumpur City Centre

03 ARCHITECTURE

- Building of the Month: ISKL
The International School of Kuala Lumpur (ISKL) - GBI Platinum

04 ENVIRONMENT

- Energy Efficiency Features
- Water Efficiency
- Indoor Environmental Air Quality
- Innovation

05 LANDSCAPE

- Best Plants for your Office environment



Wellness Design

Wellness, welfare, wellbeing; the different adjectives used to describe the fundamental importance of putting an individual or a community's health, happiness and prosperity as the top priority. The wellness of a person or a community is subjective and a deliberate cheffort to the betterment of their mental and physical health, satisfaction of life and emotional state. Wellness design is a practice of art and science merged to create environments with socially conscious systems.

Wellness Architecture and Interiors is at an all time peak in our industry. The consumer demand for better quality of life coupled with the health and environmental crises happening around the world has had a profound impact on what developers and designers are planning. As designers we have always had this problem-solving mentality and in this quest for improved environments, we have seen a direct translation into new business opportunities with sizeable budgets. The Global Wellness Institute (GWI), a non-profit research and advocacy organisation shared that in 2017, 1.5 percent of total annual global construction was accounting for wellness, \$134 billion market that is expected to grow by 8 percent annually through to 2022.



Wellness Organisations

So how do we become a part of this rapidly growing practice?

Firstly, we must be informed and trained. Organisations such as GWI, MESH and WELL are platforms that provide training, certification and connectivity to other professionals. Using the tools and workshops they provide will equip us with the knowledge to share with our clients and better our projects.



Global Wellness Institute

GWI is a) nonprofit organization with a mission to empower wellness worldwide by educating the public and private sectors about preventative health and wellness. GWI's research, programs and initiatives have been instrumental in the growth of the USD \$4.5 trillion wellness economy—and in uniting the health and wellness industries.

Through its five pillars—Research, Initiatives, Roundtable Discussions, wellnessevidence.com and The Wellness Moonshot: A World Free of Preventable Disease—the GWI informs and connects key stakeholders capable of impacting the overall wellbeing of our planet and its citizens. The GWI makes all of its valuable information and resources available at no cost, which allows anyone, anywhere, access.”

MESH

“MESH aims to provide a single interface bringing together parametric design tools in order to meet the operational needs of spatial planners and urban designers. It tackles the complexity of urban morphologies through the prism of environmental quality.

MESH explores new methods of parametric design to assess, compare, and improve urban forms and optimise them against performance indicators: energy consumption and requirements, comfort (thermal, visual, acoustic). It stands at the interface between researchers, designers and decision-makers, contributing to the methods used to analyse urban projects by the development of algorithms that generate, assess and optimise morphologies. Using a multiscale approach – neighbourhood, public space, block, building – MESH is able to adapt to the different phases of the design process and act as a scientific and technical resource for the actors responsible for implementing projects.”

WELL

“We are the International WELL Building Institute (IWBI) and we know that the spaces around us can make everyone, everywhere, healthier, happier and more productive.

It's why we're leading a global movement to transform health and well-being with our people first approach to buildings, organizations and communities. We do this using our WELL Building Standard (WELL), a roadmap for creating and certifying spaces that advance human health and well-being. Developed over 10 years and backed by the latest scientific research, WELL sets pathways for accomplishing health-first factors that help every one of us to do our best work and be our best selves by supporting our physical and mental health across 10 core concepts. Rigorous performance standards for design interventions, operational protocols and company-wide practices are verified by a third party. WELL works at any scale, from a single interior space to an entire organization.

03 ARCHITECTURE

The International School of Kuala Lumpur (ISKL) approaches sustainability in a holistic manner, addressing all issues such as energy efficiency, materials, resources, indoor environment quality, waste disposal, transportation energy, building services and water efficiency. ISKL aims to achieve a minimum of Platinum Green Rating under Malaysia's Green Building Index (GBI) rating tool, with a target of 90 points. The project was done in conjunction with HOK Architects of UK.

Located in a 26 Acres site in Ampang Hilir, The new campus for the International School of Kuala Lumpur will be an opportunity to bring all three parts of ISKL (elementary, middle and high school) back together again in one location in a new space fully appropriate to the school's unique identity. The new school will accommodate 2000 students with a provision to expand to 2,500 students in the future. The school is to be a sustainable exemplar both for the region and the world, aiming to obtain a BGI Platinum rating.



List of Awards

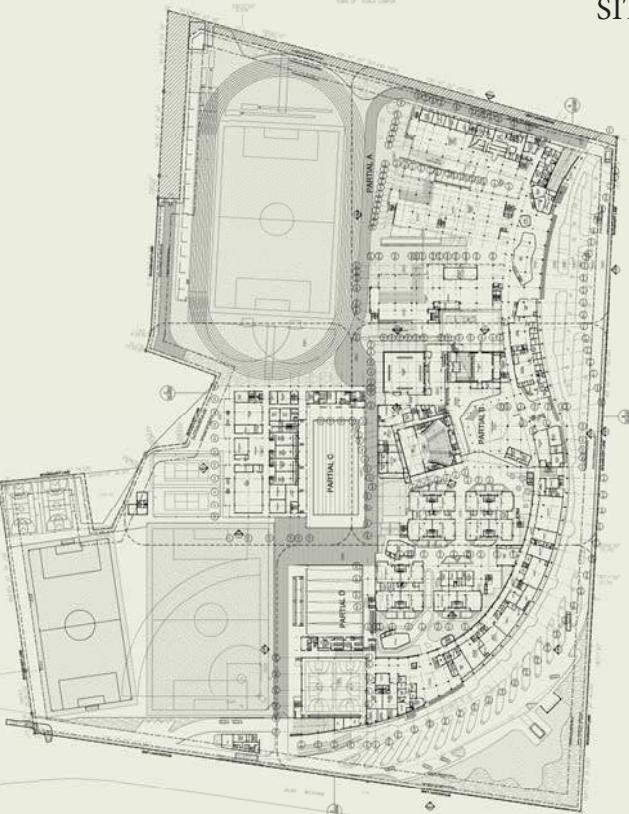
Winner of Cityscape Awards 2019
Sustainability Project Award for International
School of Kuala Lumpur (ISKL), Malaysia
Malaysian Institute of Architects (PAM) 2019
Gold Winner Award for Education Category
GBI Platinum Award



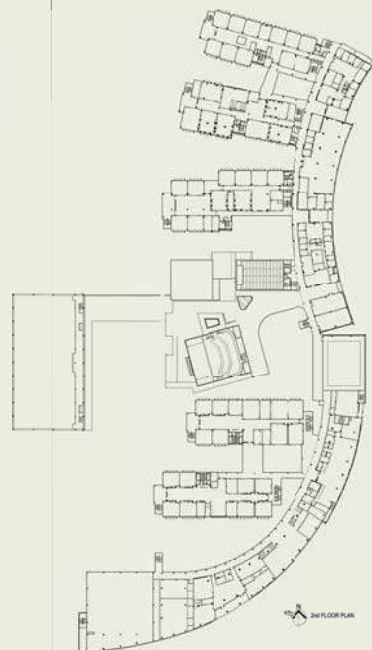
Project : ISKL
 Certification : GBI Platinum
 Design Assessment : GBI 92 Points
 Date of Issuance : 4th March 2019



SITE PLAN



GROUND FLOOR



FIRST FLOOR



SECOND FLOOR



THIRD FLOOR

Active Features

- 1. Chill Slab**
Utilize chill water in pex pipes.
- 2. LED lighting**
Use of high efficient LED lighting to reduce energy consumption.
- 3. Photometric sensors**
Efficient lighting strategy adopted for the project, with photosensors placed at strategic window areas.
- 4. High efficient ACMV system**
Selection of high efficient ACMV system, cooling towers, VSD pumps, AHUs with high efficient motors.
- 5. Lighting levels**
Design to adopt to MS1525 lux level, not to overdesign and overprovide lighting needed.
- 6. Condensate water recovery**
Collect condensate water and recycle back the water to cooling tower.
- 7. Grey water recycling**
To collect and treat water from wash basins.
- 8. Electric Vehicle Charging Station**
Encouraging green/hybrid users by providing charge station for hybrid vehicles.
- 9. Efficient BMS system**
For immediate detection on irregular energy/water consumption.
- 10. Metering & Leak Detection System**
Submeters for both electrical and digital water meter are placed at all major branches
- 11. Renewable Energy**
The school intends to install Photovoltaic system on the rooftop of the spines.



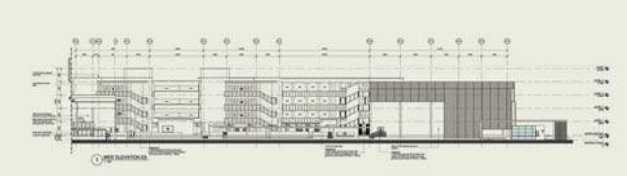
NORTH ELEVATION



EAST ELEVATION



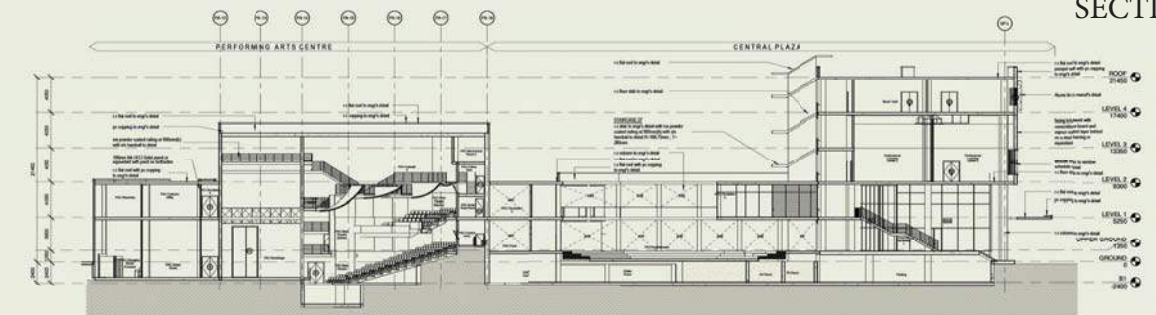
SOUTH ELEVATION



WEST ELEVATION



SECTION 1



SECTION 2

Passive Features

- 1. OTTV**
Main façade to face North and South orientation to reduce solar radiation heat
- 2. Rainwater harvesting**
Utilize the whole roof area as catchment area to reduce potable water consumption of the school.
- 3. Water efficient fittings**
Selection of water efficient fittings for the whole development to reduce water consumption
- 4. Cross ventilation**
Architecture design and planning to ensure cross ventilation as per local authority code requirement
- 5. Low VOC material**
Selection of low VOC painting, furniture and adhesives during construction, to ensure healthy indoor air quality
- 6. Recycling of construction waste material**
Encouraging environmental friendly construction method and to reduce landfill waste.
- 7. Selection of Green materials**
Reduces environmental impact by selecting pre and post-consumer products

Water Efficiency

Rainwater Harvesting

Utilize the whole roof area as catchment area to reduce potable water consumption of the school. Manage to reduce irrigation consumption by 52%.

Grey Water Recycling

Reduces water dependency by 36%

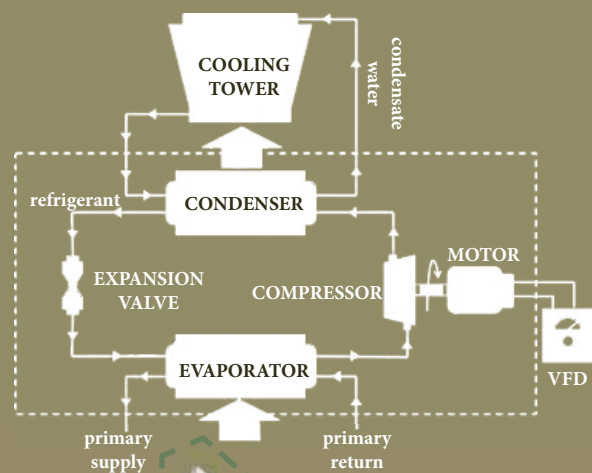


Water Efficient Fittings

Reduce water consumption by 59% in comparison to conventional fittings.

Condensate Water Recovery

Collect condensate water from at least 50% of the AHUs and recycle back the water to cooling tower. Cooling tower water consumption reduced by 30%

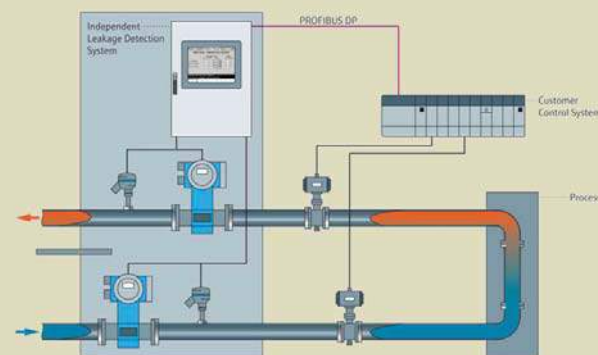


INNOVATION

Electric Vehicle

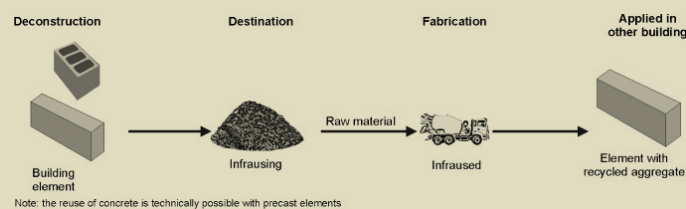
Charging Station

Encouraging green/hybrid users by providing charge station for hybrid vehicles.



Metering & Leak Detection System

Submeters for both electrical and digital water meter are placed at all major branches for detection and connected to the BMS system for monitoring purposes

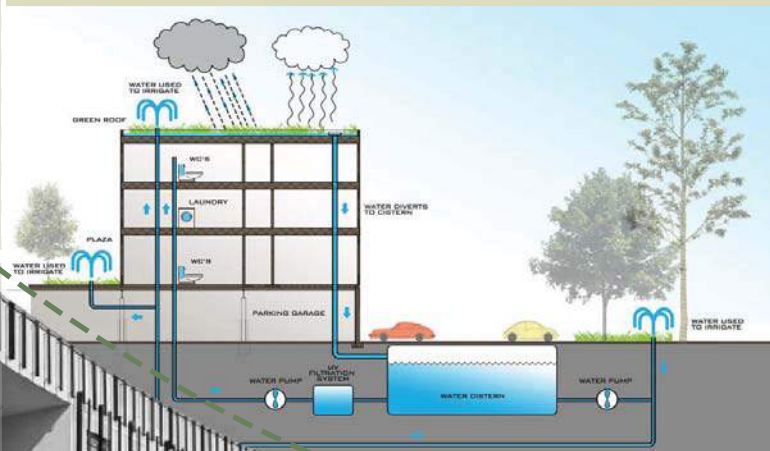


Recycling of construction waste material

Encouraging environmental friendly construction method and to reduce landfill waste.

Selection of Green materials

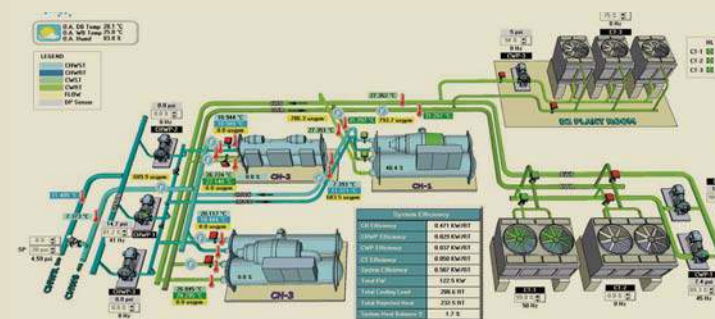
Reduces environmental impact by selecting pre and post-consumer products which is environmental friendly during production. Eg. Green Cements



ENERGY EFFICIENCY

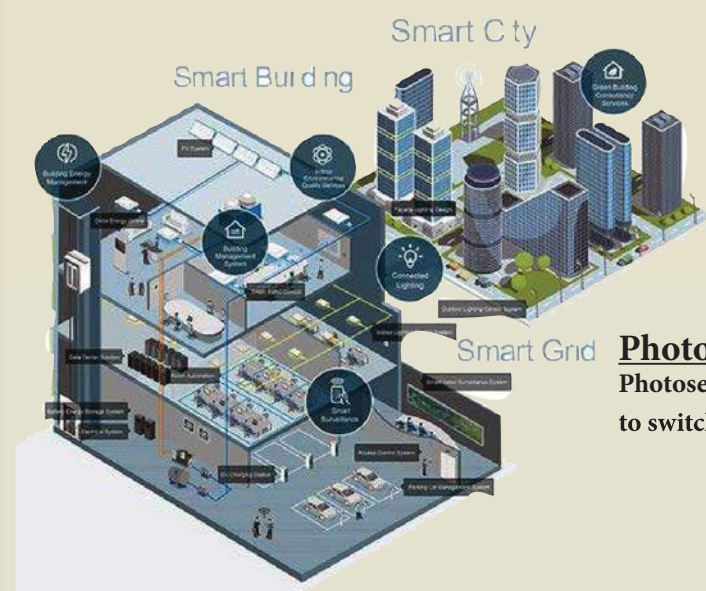
Chill Slab

Utilize chill water in pex pipes to cool off and charge the slab. Charging of chill slab to be done during TNB off peak tariff to reduce energy cost. During daytime, chill slab will discharge to offset the original tonnage needed for air-conditioning consumption.



Efficient BMS System

To impose Energy Monitoring System into the conventional BMS system, for immediate detection on irregular energy/water consumption, and to have maximum demand limiting programme.



High EfficientACMV System

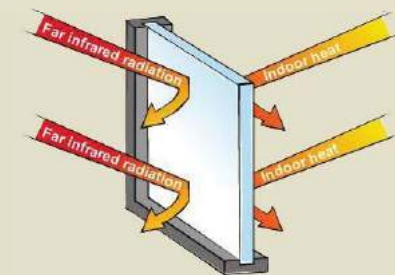
Use of high efficient LED Lighting for all areas to reduce energy consumption from 24W to 10W

LED Lighting

Use of high efficient LED Lighting for all areas to reduce energy consumption from 24W to 10W

OTTV

North-South orientation to reduce solar radiation heat from direct sun. Single Glaze low E to reduce radiation heat on East - West side. OTTV value of 45.02 W/m2K.

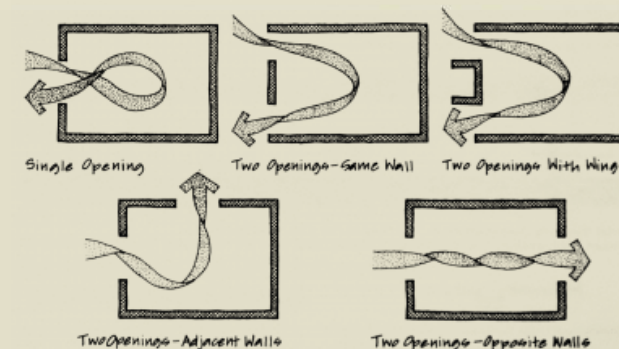


Low VOC Material

Selection of low VOC painting, furniture and adhesives during construction, to ensure healthy indoor air quality during pre and post consumption.

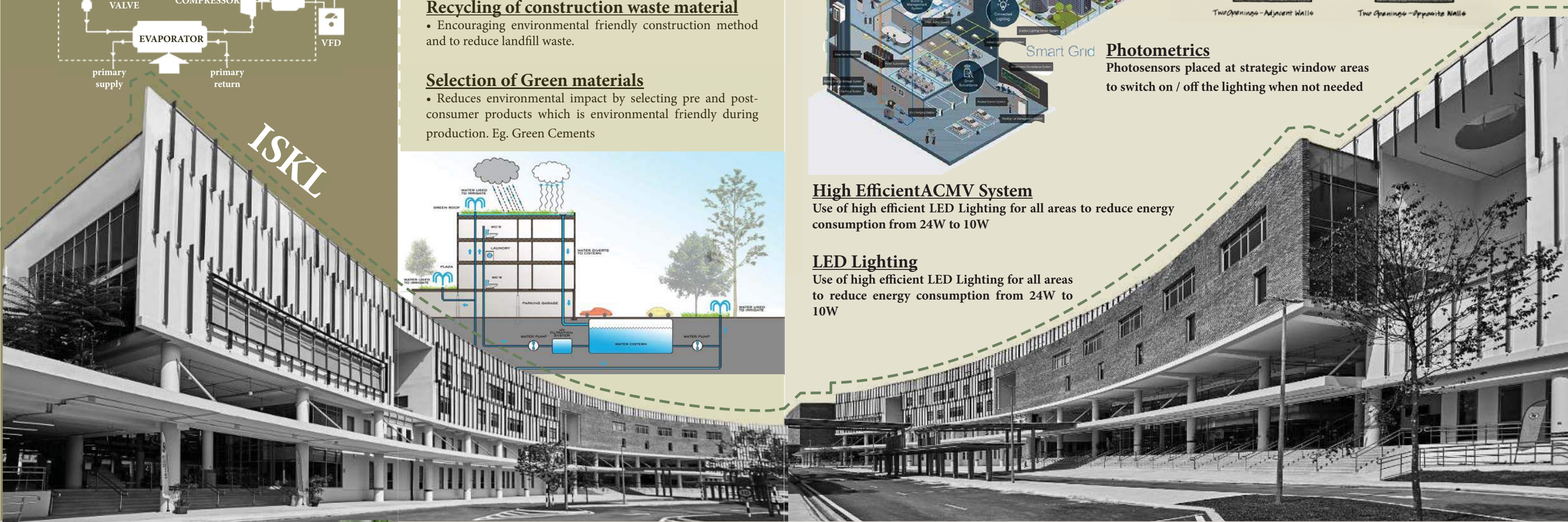
Cross Ventilation

Architecture design and planning to ensure cross ventilation as per local authority code requirement, reduces stagnant air and for natural cooling



Photometrics

Photosensors placed at strategic window areas to switch on / off the lighting when not needed



02 PLANNING

Embarking on a wellness journey is a process of searching for the appropriate tools to make healthier and better choices, plus discovering effective methods to use these tools for continued growth and development. Focusing on interior design whether residential or commercial, we will break it down to a few key elements.

Biophilia Design – The connection with nature and living things boosts our productivity and our morale. Bringing the outdoors indoors can be referenced in both obvious and subtle ways.

Materials – The optimization of a material is to consider the composition of the product to minimise the impact to humans and the environment. Understanding the maintenance of the material, whether it requires daily or weekly cleaning, use of low-hazard cleaning products and how the material is recycled, reused and its impact on waste levels.

Air, Light, Water and Sound – People spend approximately 90% of their time indoors. Indoor air quality has many new technologies and systems to assist in better conditions. Light smart systems to mimic natural light creating better moods. Water and Sound management to avoid contamination, disturbance and provide all round comfort.

Wellness design is clearly the next chapter in our design industry and there is no time to waste in training and gaining new understandings. Our desire to be better, feel better and work better is only going to get stronger as the world continues to understand and do more for climate change, women in the workforce and racial equality.

by Branca J. Purkins



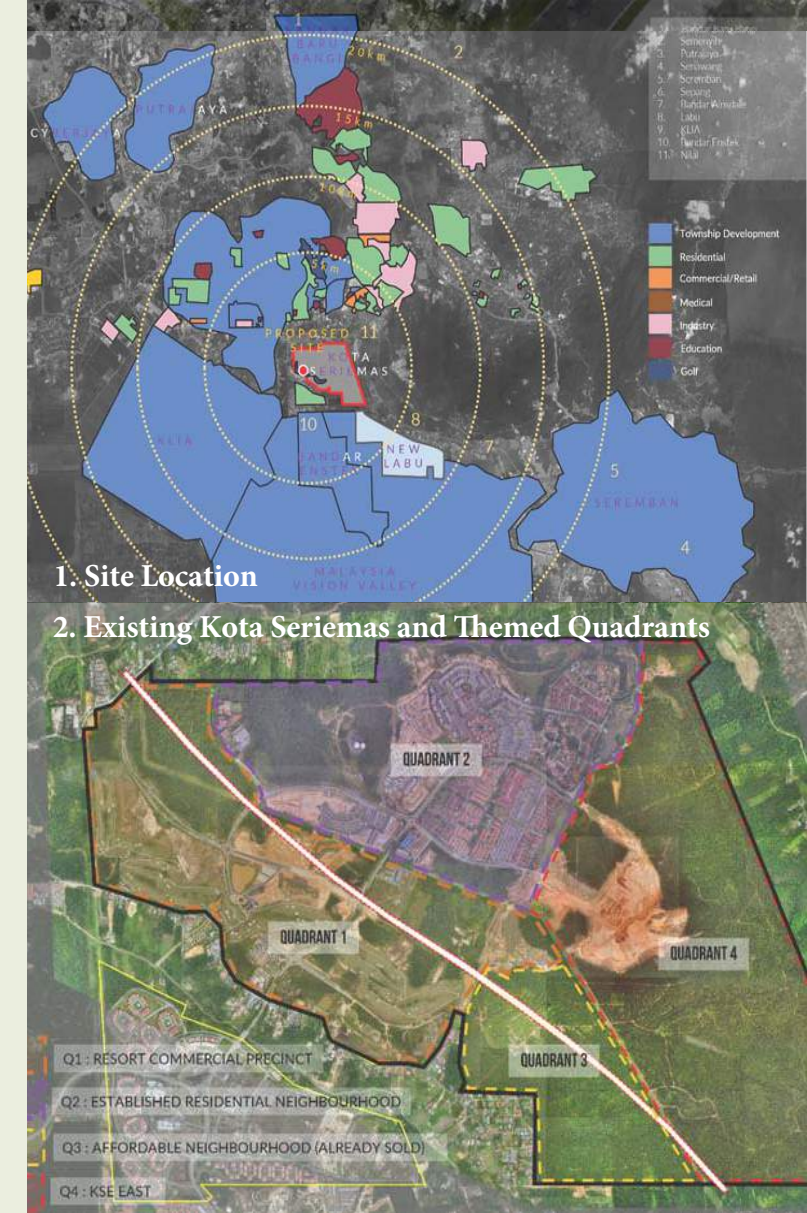
Movement – Physical activity can be accumulated through a variety of ways and its important for our buildings and environments to encourage movement whether it is through flights of stairs, ergonomic tables and chairs or with a community driven outdoor space.

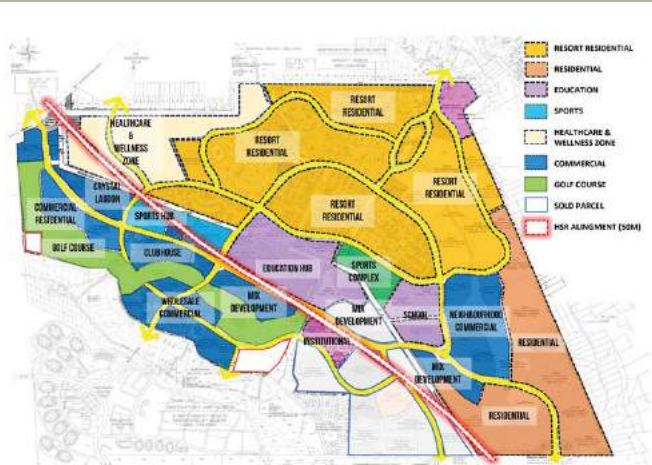
Community – Occupancy types and levels, the different types of occupants and the number of them has a profound impact on the wellness of a space. The level status of an occupant for example a visitor plays a dissimilar role and interacts differently in an environment than a regular occupant. Bringing occupants together to connect and manipulating how they use a space and move within the environment.



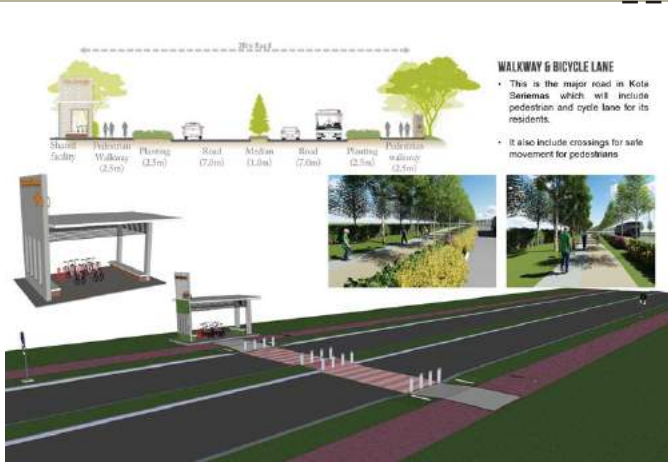
The 2,400-acre Kota Seriemas, a flagship township located in Nilai, approximately 19km from KLIA and 57km from Kuala Lumpur City Centre. Kota Seriemas aims to revitalize their existing township into a township that focuses on functionality, multi-use destination (specific hubs with catalyst developments), community driven that is also pedestrian focused. The creation of a new Kota Seriemas was based on sustainable urban planning principles, which guided the design of the master plan to be more well connected through series of green spaces and diverse, by introducing “Highstreet” retail and office spaces and residential on top, that links to multiple social points and other commercial areas adjacent to it, to enliven the streets, promoting shared spaces, shaded streets with wide pedestrian walkways to encourage connectivity and more tight knit community atmosphere.

The proposed High Speed Rail alignment will be crossing the township and the nearest Seremban station will be developed approximately 3.5km from Kota Seriemas. The series of green spaces were carefully curated to connect to the green area of the proposed Malaysia Vision Valley (MVV) master plan, where it could potentially provide an unobstructed bike route. A potential feeder bus route within Kota Seriemas with dedicated neighbourhood transport hub facilities was also proposed to connect residents to and from the HSR Seremban station.

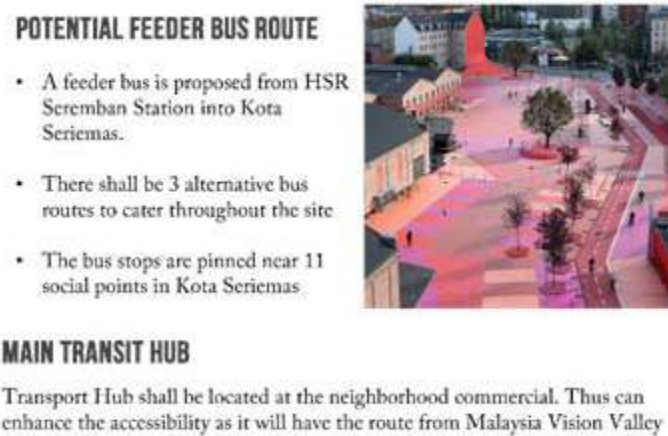




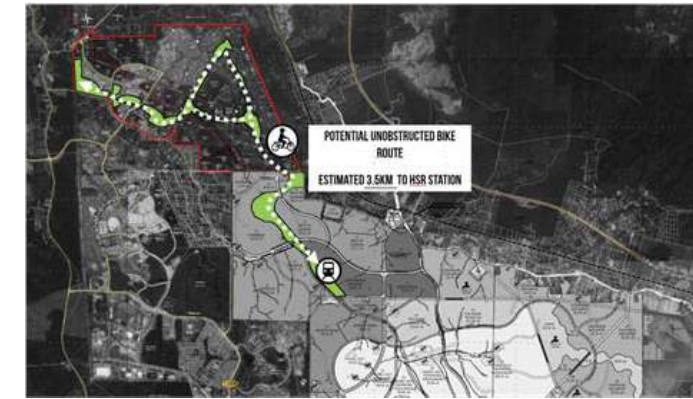
3. Re-zoning - Catalytic Development Components



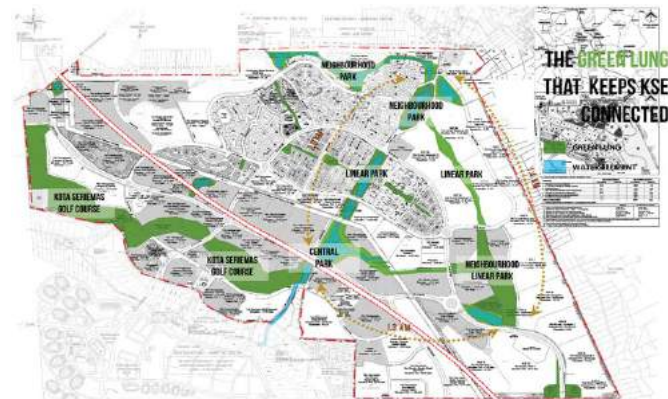
4. Proposed New Road within Kora Sieramas



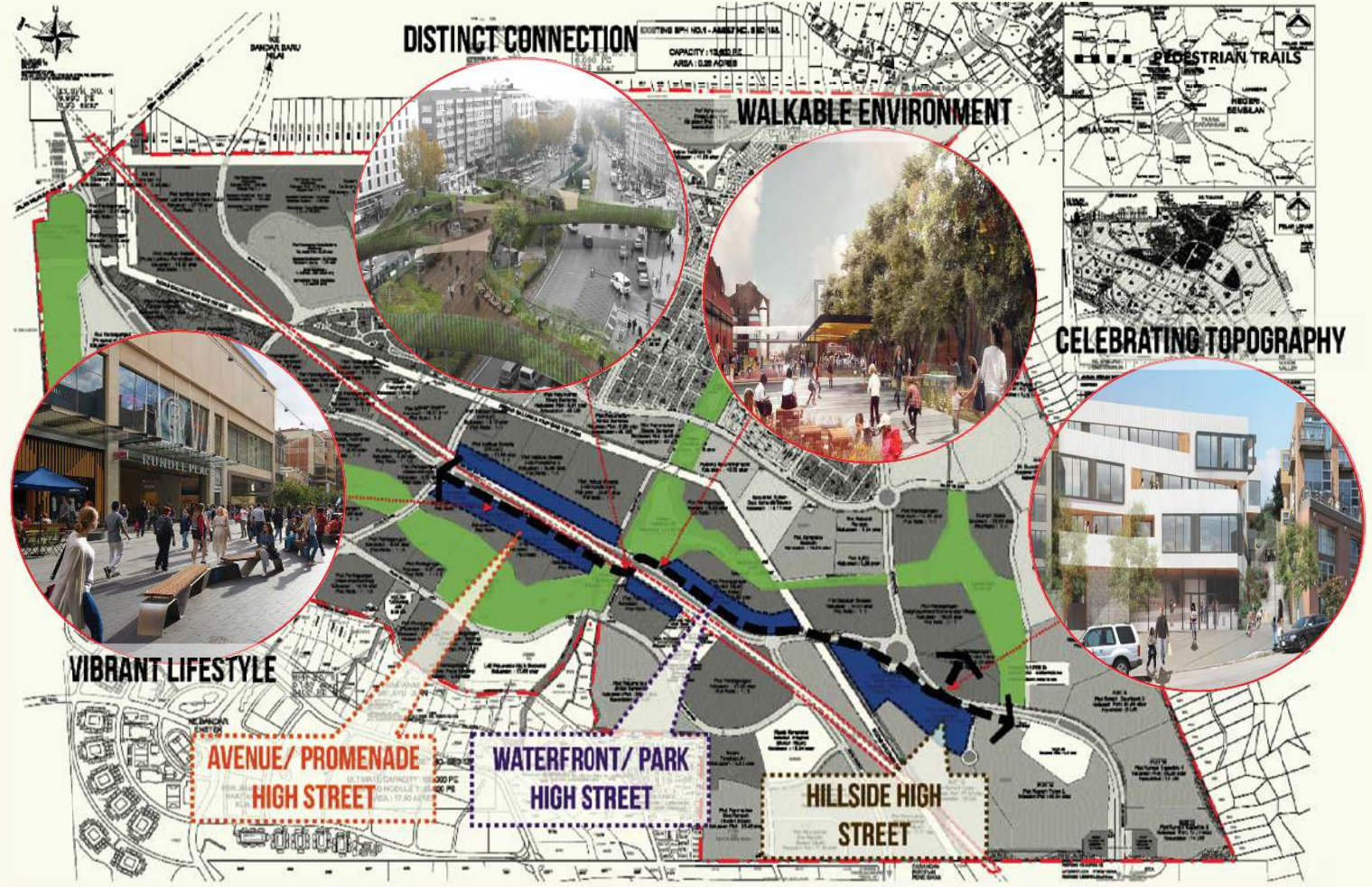
5. Proposed Social Points and Potential Feeder Bus Routes That Connects to Proposed HSR Station



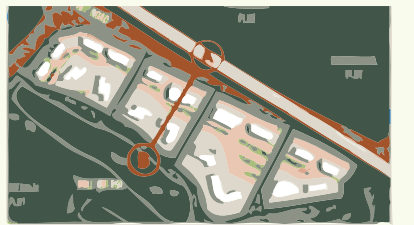
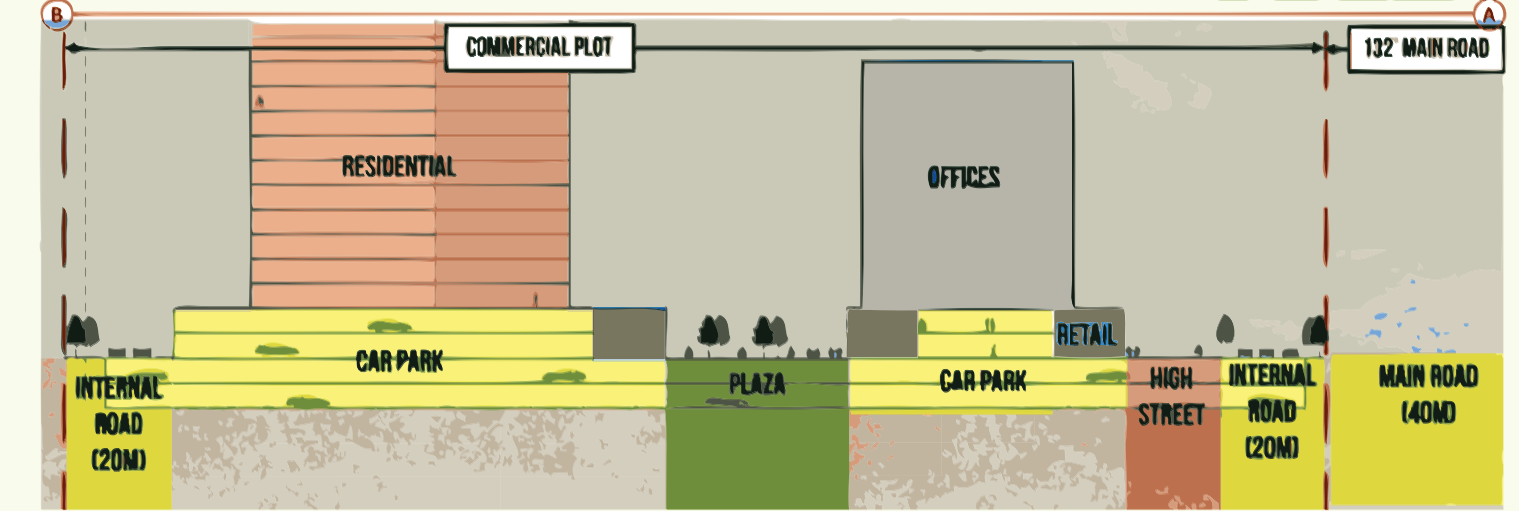
6. Potential Unobstructed Bike Route to the HSR Station.



7. Connected Green Spaces with Series of Lakes.



8. Introduced High Street Typology to Promote Vibrancy : Integrating Public Realm with Retail and Entertainment.



5 LANDSCAPE

Did you Know, the mangrove forest is keeping the firefly magic alive?"

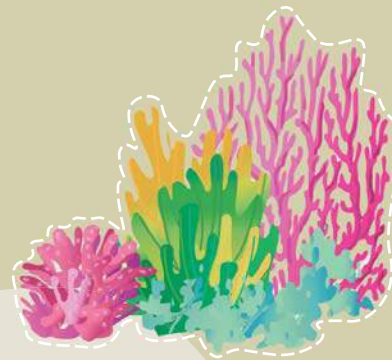
A fact not widely known is that the Malaysian mangroves are home to fireflies, and the spectacle of them lighting up the mangrove trees at night is a sight to behold. It's been said that the firefly population in the area upstream of the Kuala Selangor mangroves is one of the "wonders of the world", due to the high density of the firefly population there. The fireflies congregate mainly on a type of mangrove tree (*Sonneratia caseolaris*) at night.

1 It can be a bit salty



Mangroves are the only species of trees in the world that can tolerate saltwater. Many mangrove species survive by filtering out as much as 90 percent of the salt found in seawater as it enters their roots. Some species excrete salt through glands in their leaves. These leaves, which are covered with dried salt crystals, taste salty if you lick them.

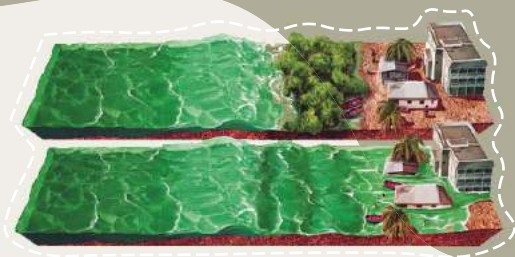
2 It helps fight coral bleaching



The young corals grow among mangrove roots, and healthy mangrove forests could provide shelter for coral species at risk of extinction from coral bleaching.

3 It is a form of defence against floods

Mangroves' roots, trunks and canopy can reduce around 60% the force of oncoming waves. Mangroves can also provide adaptive defences for sea level rise.



4 It helps fight climate change



Mangrove forests remove more carbon dioxide from the atmosphere than other forests. Offsetting carbon emissions is an essential component of climate action, as carbon dioxide leads to global warming and sea level rise.

Mangroves thus have superpowers: They help remove carbon while mitigating the effects of sea level rise.

5 Supports biodiversity



Because mangroves grow between coastal and terrestrial ecosystems, they provide a wide array of habitats. They also host a variety of species, offering nutrients to the marine food web for endangered mammals, reptiles, amphibians and birds, and providing spawning grounds for fish and shellfish.

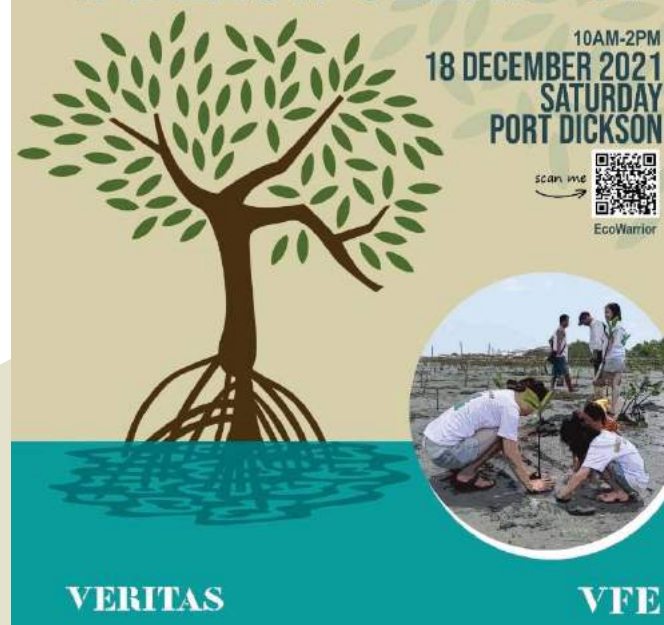
Mangrove Tree Planting

Port Dickson, 18 Dec 2021 – VERITAS Design Group with VERITAS Fund for Excellence (VFE) together with the help of ECOMY, the premier national NGO that is focused on sustainable ecotourism and the Beach School restore mangrove forest to benefit the coastline of Port Dickson and the environment as a whole.

Despite the weather conditions, 65 volunteers from VERITAS, ECOMY and other organizations participated in the effort of planting a total of 200 Mangrove Trees. This will be our 2nd Mangrove Tree planting event with the first one back in 2015 where VERITAS Design Group with the help of Kuala Selangor Nature Park planted 200 mangrove trees of one species *Rhizophora mucronata* the notable red mangrove species.



EcoWarrior MANGROVE TREE PLANTING & BEACH CLEAN-UP



Preparation of saplings for planting



Guest of Honour - Dato' Seri Haji Anwar bin Ibrahim



Planting of the Mangrove Tree



Top 10 Best Plants For Your Office:

Office life usually consists of being so busy you forget to eat lunch, wrapping up in a blanket in the frigid temperatures, and totally abandoning everything the second 5 p.m. rolls around on Friday. But that doesn't mean you can't incorporate a little life into your space. A plant is a great way to add color and warmth to even the most boring of cubicles.

Sticking with an easy-to-care-for plant means you don't have to stress about its survival alongside your workload, which is definitely important. Whether you're lucky enough to have a sunny office or you're stuck in a dark corner cubicle, these great plants will thrive at your job—even if you feel like you aren't.



String of Pearls



Snake



Kentia Palm



Jade



Fiddle Leaf Fig



Spider



Rubber



Calla lily



Cactus



Aloe

