







### KIRK

Multiple studios using small, project focused teams.

A collaborative practice that supports, creates and explores.

Committed to making authentic buildings and places.

Advocating, advancing & delivering sustainable design solutions.

Environmental performative design creating scientifically driven designs.



KIRK makes architecture that is timeless and authentic, an exploration of ideas as well as form and material.

Always mindful of our client's purpose, we search for a constructed form that is legible, true to materials and sensitive to the opportunities of the site.

Our approach to design is collaborative and we believe it is the only way to develop a truly meaningful aesthetics, one that adds to the life of its immediate environment as well as satisfying our clients, project stakeholders, collaborators and consultants.

Our buildings perform well for people and endure long into the future. We make sure our buildings are in tune with their local climate rather than fighting it.

#### KIRK was established in Brisbane, Australia in 1995 as Richard Kirk Architect. The practice has expertise in architecture, urban design and environmentally sustainable design, with studios in Brisbane, Melbourne and Kuala Lumpur.

This commitment to sustainability can be seen in our use of cutting-edge digital techniques that allows us to test and validate design decisions and performance parameters during the design process. We have established our own sustainability design research group, Advanced Buildings and Cities (ABC), to advance our knowledge and design capacity.

It is through our efforts in the planning process, attention to detail and an intimate approach during construction that fine architecture is made at every scale.

Current and recent projects range in values from \$0.2M to \$1B. The diversity of projects include furniture, landscape, single residences, interior fitouts, university and school buildings, master planning, infrastructure and urban design.





# A new benchmark for an affordable township community for sustainability, liveability and lifestyle, health and well being by creating a vibrant and well-connected community with a green and open space focus and healthy buildings.

KIRK are leading a multi-disciplinary team to design and deliver this 375 acre township development 30 kilometres south of Kuala Lumpur City Centre and 20 kilometres north of Kuala Lumpur International Airport.

The planning and design principles are climatically responsive to provide optimal solar orientation and to enhance natural breezes. The township layout focuses on making pleasant pedestrian links to provide easy access to Parklands, Commercial Centres and Community Facilities.

These key design principles are

- Interconnected Precincts a community within the neighbourhood
- Accessibility to Green Space Malaysia's first master planned biophilic community



- Micro-climate Optimisation Malaysia's first climatically optimised master planned community
- Sustainable Site Management Efficient and resilient servicing and infrastructure
- Fine Grain Housing Typologies New housing typologies to create market differentiation

PROGRAM Residential Township CLIENT Confidential AREA 375 acre STATUS Planning Approval

EDUCATION & PUBLIC





## **INTI UNIVERSITY NILAI**

Nilai, Malaysia

The vision for the INTI University Nilai Campus Concept Master Plan 2019 is to enhance the student experience on campus through consolidating and densifying the campus core to create an active campus heart.

The key principles that guide the Nilai Campus Master Plan 2019 are aimed at creating a campus environment with a sense of belonging for its students, staff, industry players and community members. INTI International University Nilai will be a place that all campus users wish to celebrate and actively engage with.

The Master plan principles aim to re-imagine and redefine the identity of INTI University Nilai Campus and provide an immersive experience that celebrates its tropical setting, encourages discipline-blurring encounters and increases student and college interactions.



The Master plan establishes a framework for present and future development of IU campus with a perspective of 10 years until 2029.

The master plan supports the academic mission and strategic vision of the University outlined in the Academic Priorities 2019 and University Strategic Plan 2019, along with the project brief by providing principles and guidelines for campus development and enhancements.

**PROGRAM** Campus Redevelopment Master plan and catalyst project concept design

**CLIENT** INTI International Education Sdn. Bhd.

**STATUS** Master planning and concept design

CULTURAL



### **TAYLORS LAKESIDE CAMPUS**

Kuala Lumpur, Malaysia

The Taylor's University Lakeside Campus Master plan project looked to redefine the strategic planning for the future of the campus to enhance campus identity and amenity for all users. The project involved a vision and brief refinement process where construction efficiencies, campus safety and way finding, and campus sustainability were considered.

The project proposes a multi-layered, student-centred campus that integrates and engages with the campus heart, the lake. The project allowed for a sports and recreation and student housing zone amongst academic and commercial zones within the campus.

The pedagogy of education is ever evolving and changing. The Taylor's University Lakeside Campus (TULC) presents a unique opportunity to create a new benchmark for education not just for the building but the university as a whole.

Our vision for TULC is to create a building centered around the pedagogy of the 21st century; integrating collaborative learning, strong sense of community, new knowledge and innovation.



The Sports Centre will provide facilities highly sought by current and future generations that create a vibrant and holistic campus experience.

The desired outcome for the project is to create a forwardlooking University that engages with the student community as well as the broader public. The sports facilities are also to be used for conferencing activities to maximise multifunctionality in effort of ensuring that the facilities are utilised efficiently. They are to be state of the art and provide for the highest level of competitive sports.

**PROGRAM** Campus public realm completion, new Academic Buildings, student support facilities and sporting centre

**CLIENT** Taylors Education Group

**STATUS** Master planning and concept design



EDUCATION & PUBLIC

ULTURAL



### **ESPLANADE MIXED USE DEVELOPMENT**

KUCHING, MALAYSIA

The Esplanade Mixed Use Development in Kuching is located on a strategic riverfront site in Kuching and includes residential, office and commercial components. The project activates the public domain with a pedestrianised ground plane and riverfront.

The development proposal reconciles legacy issues inherited from a previous and partially implemented master plan that restricted design outcomes for the site.

Through an intensive, consultative and demonstrative process with the State Planning Authorities, an optimal design solution was attained and approved within the previous Planning Approval framework.

PROGRAM Mixed Use Commercial, Office and Residential Development

**CLIENT** Confidential

**AREA** 35,000 m<sup>2</sup>

**STATUS** State Planning Approval







EDUCATION & PUBLIC





#### **COLUMBARIA TOWER**

Kuala Lumpur, Malaysia

KIRK's design for this inner city high-rise Columbaria building responds to the difficult site conditions, spiritual and religious needs and range of usage modes to make a memorial facility both monumental and sublime.

The proposed building will consist of columbaria, ceremonial and ancillary facilities and is located on a difficult infill site 6 kilometres from Kuala Lumpur city centre. The site is bound by a petrol station, cemetery and main arterial road with elevated MRT line where upper levels will command expansive views of the Kuala Lumpur skyline.

The memorable fine-screened façade not only protects the building, it is a grand gesture for the function of the building that is sensitive to Malaysia's cultural and religious pluralities.

The intended 100-year lifespan of the building and intermittent mode of occupation requires a rigorous approach to reduce long-term operational and maintenance costs.

The sustainability strategy learns from the new benchmarks in tropical architecture developed at NTU's The Arc in Singapore.



As a permeable and open building, inurnment and festival spaces are designed to provide adequate comfort under natural light and ventilation, complimented by mixed mode and active cooling where the building program specifically requires.

Construction methodology, detailing and material resilience is being holistically considered with low maintenance and durable materials specified throughout to ensure the building has a resilience befitting of its use.

**PROGRAM** Cremated Remains Inumment, ceremonial and reception lounges, services facilities.

CLIENT Confidential AREA 22, 000m<sup>2</sup> STATUS Tender



#### **ISKANDAR** JOHOR, MALAYSIA

# A world-leading new biophilic Asian city of tropical urbanism where an activated waterfront sits against a backdrop of elegant green towers.

KIRK participated in a limited design competition in association with URBIS to propose a new world-leading biophilic Asian city of tropical urbanism where the project vision was to create a benchmark in tropical, sustainable urban living.

Conceived as the most environmentally sustainable urban place in Malaysia, Iskandar biophilic city will be the most environmentally sustainable urban place in Malaysia. Because of this, it will attract significant employment, population and tourism, and be known all over the world as the benchmark in tropical, green urban living.



Clear precincts and quarters offer diversity, a heroic system of green space offer unrivalled amenity, and a truly beautiful waterfront forms the beating heart of the City's diverse people and culture.

A fine grain urban realm of streets, lane ways, urban plazas and parks. Towers are slim to ensure light and ventilation with layered facades to incorporate a breathing landscape skin.

**PROGRAM** Concept Masterplan

**CLIENT** Iskandar Waterfront

**STATUS** Planning



CATION & PUBLIC

CULTURAL

#### THE ESTATE RESIDENTIAL DEVELOPMENT KUCHING, MALAYSIA

quality of design, sustainability and amenity.



# A new benchmark for medium and high density living in Kuching in terms of liveability,

The residences are housed in 3 towers ranging from 8-12 levels in height, 3 lower rise buildings of 3 bedroom units and an 8 level street fronting building.

The project goes above and beyond government planning requirements. This is achieved through ample setbacks, generous landscape areas and vehicular parking over and above the planning requirements.

The orientation and the stepped form of the buildings with open spaces in between reduces visual impact and allows natural breezes and sunlight to flow through the site and into the neighbouring residential lots.

The units themselves are open, light and airy where the space planning encouages natural ventilation and access to views and natural light. Living spaces have generous openings and balconies that afford distant panoramic views.



**PROGRAM** Residential Development (322 Units) **CLIENT** Confidential **AREA** 30,000 m<sup>2</sup>



#### **COLUMBARIA** NILAI MEMORIAL PARK, MALAYSIA

The building is located at Nilai Memorial Park, recognised as Malaysia's premier internment facility that incorporates the classic architecture and horticultural art of the orient with the sophisticated planning, layout and design of the famous and the modern cemeteries of the West.

The building completes an existing collection of other memorial buildings and unifies the precinct with a central community focus. The building caters for different religious groups and is respectful of traditional cultural values and spiritual belief.

The client's corporate philosophy of gratitude and filial piety that embraces notions of extending family relationships to the broader community, respect for the elderly as a person's parents, and care for the young as a person's children informed the initial design strategy.

Working closely with the client in the design process, the precedent and standard typology for columbaria buildings was critiqued, challenged and reinterpreted to provide more welcoming spaces for family members of deceased during inurnment ceremonies, religious festivals and general visitation.



The building makes meditative and contemplative spaces and is deliberately restrained and neutral in its aesthetic. The monumentality of the simple geometric forms is softened by reflective water features and openings to frame views outwards and up to the sky with fine screens that filter tropical daylight and allude to eternal and infinite of the sky.

The range of different modes of occupation of the building drove innovative strategies towards lighting, air cooling and ventilation to reduce energy consumption and longterm operational costs. The briefed 100-year lifespan for the building required particular considerations of sustainability in construction methodology, detailing and material resilience.

**PROGRAM** Cremated Remains Inurnment, ceremonial and reception lounges, service facilities

**CLIENT** Xiao En Group

**AREA** 1800 m<sup>2</sup>

**STATUS** Completed



#### **RESIDENTIAL RESORT MASTERPLAN** MALAYSIA

#### A fully integrated resort, golf and residential destination set within a lush tropical forest and parkland environment.

Pulai Residential Resort Master plan is a redevelopment master plan for an established resort development on a 130 hectares hinterland site ..

Golf and landscape are the key drivers of brand with the creation of clearly defined and appropriately scaled development precincts inclusive of resort, commercial, hillside residential golf side and affordable living.

The master plan incorporates a range of new residential villages nestled within the established forest landscape.





The master plan consolidates and enhances the existing resort hub with additional facilities and improved public space amenity.

PROGRAM Resort and Golf Course redevelopment with new residential and commercial components.

AREA 128 ha

**STATUS** Documentation Complete

EDUCATION & PUBLIC

CULTURAL

#### **INTERNATIONAL SCHOOL @ PARKCITY**

DESA PARKCITY, KUALA LUMPUR, MALAYSIA

# The school will establish new standards in childhood and teenager learning with innovative learning spaces informed by new types of pedagogy.

KIRK was commissioned by Perdana ParkCity Sdn Bhd to design a new facility to cater for a full K12 school programme, including an auditorium and indoor and outdoor sporting facilities for 1800 students.

The project is located at the periphery of the township adjacent to the elevated NKVE highway on a triangular 6 acre site, presenting considerable challenges accommodating the spatial and functional brief requirements.

The planning response places the indoor sporting facilities and auditorium at the rear boundary adjacent to the highway as an acoustic and visual buffer to insulate the social and teaching spaces.

The building is broken into a group of open, interconnected clusters that respond to the program. The resulting landscape voids improved legibility by communicating circulation, function, and facilitate sustainability initiatives by bringing daylight into the depth of the building and improve natural ventilation for social and informal learning spaces.





The hexagonal teaching spaces are organised in year group clusters around central breakout spaces for informal teaching and student interaction.

**PROGRAM** K12 full school programme, auditorium, science, arts and indoor and outdoor sporting facilities for 1800 students.

**CLIENT** Desa ParkCity

**AREA** 30,000m<sup>2</sup>

COST MYR 120M

**STATUS** Schematic Design



#### BANDAR BARU KLANG 2015 MASTERPLAN BANDAR BARU KLANG, MALAYSIA

Bandar Baru Klang is an existing 200 acre existing township 30 kilometres from Kuala Lumpur City Centre where a proposed Light Rail public transport system offers a unique opportunity for increased connectivity and revitalisation. KIRK was engaged to prepare an innovative redevelopment master plan to position the township as a dynamic, attractive, liveable and sustainable exemplar of tropical urbanism.

Within the existing build fabric key moves include the reorganisation of traffic networks, a major transportoriented mixed use development, the addition of significant residential components, consolidation of commercial precincts and new educational facilities to facilitate a balanced and vibrant community and commercial program.

Underpinning the proposal, a comprehensive sustainability strategy informed the master plan incorporating buildings, infrastructure and landscape to integrate and articulate public spaces, streets, buildings and sidewalks.



The introduction of linear parks seamlessly connect higher density commercial, residential, mix use precincts and recreational components, facilitates a walking culture to enhance local activity and quality of life, whilst also resolving key environmental and infrastructural aspects of the plan.

PROGRAM Concept Master Plan

AREA 230 acre

**STATUS** Concept Master Plan

EDUCATION & PUBLIC

CULTURAL

RESIDENTIAL





### **ELDERLY DAY COMMUNITY CENTRE**

KUALA LUMPUR, MALAYSIA

#### "A home away from home"

KIRK were successful in the limited design competition for Sentul Aged Care Community Centre, Malaysia. The Centre caters for seniors, their families, caregivers, and the broader community offering services for recreation and care to elderly participants.

The planning and tectonics are derivative of traditional local vernacular whilst adaptability is optimised with the simple modular structure. This allows a flexibility in program that can cater for diverse modes - larger spaces suitable for dining, exercise, arts, seminars and library space to smaller configurations suitable for personalised services including counselling, medical consultation and rehabilitative therapies.

**PROGRAM** Community Centre with offices, multipurpose spaces, allied health, consultation and service facilities

**CLIENT** KLCSI

**AREA** 800 m<sup>2</sup>

**STATUS** Limited Design Competition Winning Entry





#### **NTU ACADEMIC BUILDING** SINGAPORE

The concept responds to the constrained courtyard site by a series of landscape filled internal voids. The voids provide a great sense of space but also improve the building's legibility by communicating its functions as a place for research, learning and workplace. The voids are lined by active spaces where informal meetings and gathering of researchers, students and visitors are encouraged to occur. The form of the voids change from level to level, maximizing daylight for both people and landscape while also promoting ventilation in mixed mode areas.

The introduction of natural light throughout and landscape within a series of connected, organically-shaped voids is the memorable quality of the building.

#### An open, interactive and connected facility. It establishes a new benchmark for sustainability in the Tropics by implementing a range of innovative strategies that can inspire and engage – it is a transformative building for engineering pedagogy.

The ambition of the cascading of voids permits long horizontal and vertical views within the building that are dominated by landscape and natural light to overcome the internalized and land-locked site.

**PROGRAM** Workshops and laboratories for engineering students, offices, breakout spaces and car parks

**CLIENT** Nanyang Technological University

**AREA** 29,000m<sup>2</sup>

**STATUS** Proposed

\*Local Architect: DCA Architects Pte Ltd



#### **PINNACLE BANGSAR** KUALA LUMPUR, MALAYSIA

The exclusive development consists of 8 single-level apartments, 8 duplex apartments and 2 rooftop penthouses with shared access to communal facilities.

Double height living spaces, deep balconies, outdoor rooms and private plunge pools afford views and maximise living opportunities

Landscape is used as material with the above ground car park wrapped by a vertical veil of creepers, tropical sky gardens at apartment balconies, and tree bosques at the recreational podium and crowning the building at the penthouse roof decks.

A refined palette of natural, tonal and textural materials provide an improved environment and solution for tropical high rise living.

**PROGRAM** 18 boutique units and common facilities.

**CLIENT** Priwarga Holdings

COST MYR 50M

**STATUS** Construction Documentation



EDUCATION & PUBLIC

CULTURAL

RESIDENTIAL



#### NTU ACADEMIC BUILDING SOUTH SINGAPORE

...Knitting the site with the context...Form reflects the program...A ceremonial and symbolic heart for the campus...Creating a significant and memorable space...Make a permanent, breathable building...Bringing the landscape into the interior...A new benchmark in sustainability...

Our design for the Academic Building South (ABS) creates a world class and highly relevant education setting that provides a supportive, quality learning environment and enhanced student life opportunities fostering graduates who are resourceful and adaptable leaders, well versed in collaborative team learning.

There are communal gathering zones and activated circulation areas where chance encounters can lead to conversations and new ideas, critical to creating a vibrant sense of place and fulsome life on campus for students, staff and members of the community. The planning responds to the rising awareness that these in-between spaces are significant as non-formal learning places that promote learning beyond curriculum. Plenty of space for comfortable, flexible loose furniture, well-appointed communal hubs and seamless access to high speed Wi-Fi will create the sticky campus spaces that are fundamental to a vibrant and energetic student presence on campus.

Importantly we have endeavoured to make the building address its setting and respond to the very diverse building quality and formal aesthetic that creates its context. We do this by ensuring we create a series of memorable places around and within the building itself. The courtyard in particular is designed as a Great Room – this will be a unique space for students, staff and visitors to the campus to occupy and enjoy. **PROGRAM** Research facilities, teaching spaces and office accommodation for Post-graduate and Under-graduate Business programmes. Accommodation for World-class business-related research centres.

**CLIENT** Nanyang Technical University

**AREA** 40,000m<sup>2</sup>

COST \$140M SGD

**STATUS** Proposed





#### **SELECTED PROJECTS**



Commercial Development, Kuching, Sarawak, Malaysia



Ministry of Education Building, The Goh Keng Swee Centre for Education at One North, Singapore



Multi-Purpose Hall, Brisbane, Australia



University of Queensland Business School Brisbane, Australia



Busan Opera House Concept Design South Korea



Nanyang Technological University (NTU), Residential Hall, Singapore



Boer War Memorial Brisbane, Australia



Ampang Heights Conceptual Master Plan Kuala Lumpur, Malaysia



Mixed use tower Bangsar Kuala Lumpur, Malaysia



Pulai Springs Conceptual Master Plan Johor, Malaysia



Binhai Water Palace Tianjin, China





Residential Tower Johor, Malaysia



Richard's Residence, Brisbane, Australia



Elysium Lot 170, Noosa, Australia



Wilston Residence, Brisbane, Australia



Granville Residence, Brisbane, Australia



Damansara Heights Private Residence Kuala Lumpur, Malaysia



Courtyard House, Brisbane, Australia



Elysium Lot 176, Noosa, Australia



Bukit Tunku Private Residence Malaysia



Purple Jade China



Arbour House, Brisbane, Australia



PD Villa Port Dickson, Malaysia



Glue Lam Villa Johor Bahru, Malaysia



Kangaroo Point Bridge, Brisbane, Australia



Albion Flour Mill Redevelopment, Brisbane, Australia



Southgate Business Park Brisbane, Australia



Gold Coast Rapid Transit, Gold Coast, Australia



Chasely Street Apartments, Taringa, Brisbane, Australia



Duncan Street Housing Brisbane, Australia



Business Park, Singapore



Commercial Precinct Brisbane, Australia



Musgrave Park Cultural Centre Brisbane, Australia



Tai Tai Restaurant, Brisbane, Australia



Anting School Shanghai, China



Technology Hub Gold Coast, Australia

# ADVANCED BUILDINGS & CITIES

Unparalleled research specialising in the performance based design of buildings, precincts & cities.

ABC is an inhouse research group of KIRK. Our focus is the environmental micro-climate optimisation of urban precincts and buildings. We achieve this through the delivery of measurable performance criteria and principles for precinct planning and design. We believe that we are the only architectural practice in Australia able to deliver this unique embedded environmental service in-house.

Climate Change is happening and it's happening fast. And it all comes down to how we use and produce energy. All the current studies and policies are focused on reducing pollution during the production yet the usage of energy itself is left unexamined. Combating climate change is a two way street and it does not stop with just energy production. From the atmosphere, the seas, the land, down to our everyday built environment, climate change affects all. The built environment is one of the biggest contributing factors to the climate we inhabit, where we spend 90% of our time. Science and technology has evolved to a point where we can start to understand our inhabited environment, down to every single contributing element. This is known as Microclimate analysis.

Our built environment is something within our control. The design of our environment has the power to change our climate. If we can change our usage without changing our behaviour, we have a very powerful way of combating climate change.



Honeybee



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Ladybug

Our advanced Climatic Parametric Design tools allows us to create truly informed, passive building and urban designs through analysis and simulation. We can accurately mitigate the negative effects of climate through this process.

To ensure the required controlled environment is achieved we will utilise state of the art digital analysis software to protect the inner environment. The design process will include a range of sophisticated design analysis developed by the KIRK inhouse research team at ABC including:

- Building form optimisation minimising solar radiation parametrically – comparative analysis of a range of design volumes;
- Envelope optimisation to reduce material use;
- Façade optimisation for Daylight penetration or minimisation as required;
- Building form analysis to encourage natural ventilation from prevailing breezes and wind pressure; and
- Building siting analysis to optimise the external affects of the proposed building on the surrounding environment.

#### **Specialist Software**

KIRK and ABC utilise specialist software to undertake the Building Physics analysis and modelling.



Rhino



Revit





(ABC & KIRK)



ABC Computational Fluid Dynamics (CFD) Building Wind Flow & Micro Climate Analysis (ABC & KIRK)



(ABC & KIRK)



Internal Daylight Analysis (ABC & KIRK)

# **ADVANCED BUILDINGS &** CITIES

Transformative design

for a sustainable future

#### **OUR FOCUS**

Micro-climate design optimisation of urban space - achieved through measurable performance criteria & principles.

#### **OUR EXPERTISE**

ABC provide real, measurable, and quantifiable outcomes, and identifies opportunities otherwise impossible with traditional design processes.

We are a global team with international expertise and outlook.

Advanced Buildings & Cities is unique and exclusive to KIRK

#### **A NEW PARADIGM**

The ABC process utilises advanced computational tools to verify and optimise design at any project stage. Our holistic, quantitative analysis surpasses the limitations of conventional methods.

We now have the capacity to measure and quantify the performance of outdoor spaces – a significant change.

#### **POTENTIAL FOR CHANGE**

Our built environment is undergoing rapid transformation in the advent of global urbanisation and climate change.

ABC represents a real potential for change for our cities and precincts.



CFD Analysis, De La Salle Academic Building Foyer, Manila Phillipines.





Ventilation Analysis, NTU 'The Arc', Singapore







Parametric Roof Optimisation, JCU Technology Innovation Complex, Townsville, Australia



Existing Climate Analysis, JCU Cairns Masterplan



Cyberjaya South Apartments CFD Analysis, Cyberjaya South, Malaysia



Ventilation Analysis, NTU 'The ARC', Singapore



CFD Analysis, JCU Cairns MP, Cairns, Australia







2050 Climate Analysis, JCU Cairns Masterplan

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