

Wong and Ouyang (HK) Ltd

More than half-a-century of architectural design experience in Hong Kong

Interview with Mr Lam Wo Hei,
Director of Wong and Ouyang (HK) Ltd

Could you tell us about the latest development and activities of W&O in the region?

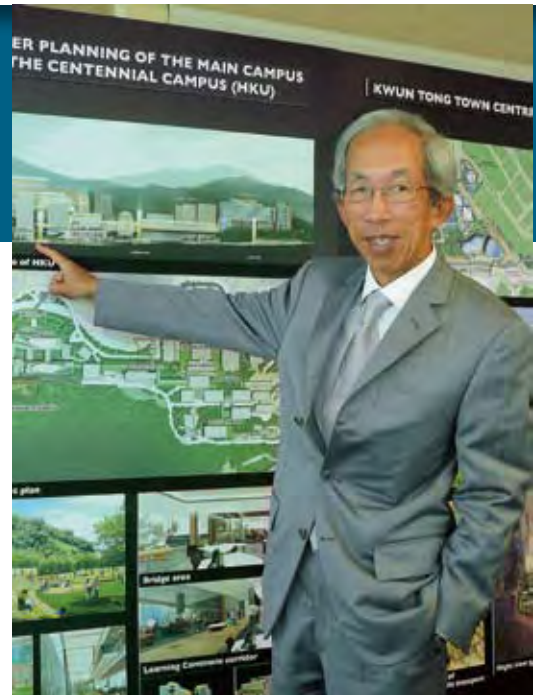
The forerunner of Wong & Ouyang (HK) Ltd was established by Jackson C.S. Wong in 1957. With over 50 years of practicing architecture in Hong Kong and in the region, the firm specializes in large-scale retail, office, hotel and institutional buildings, health care and education facilities, as well as in the planning and design of residential communities and urban renewal projects. With headquarters in Hong Kong, Wong & Ouyang has branch offices in Shanghai and Guangzhou.

Wong & Ouyang (Civil-Structural Engineering) Ltd. and Wong & Ouyang (Building Services) Ltd. are associate companies of the Group.

The company has adjusted its business compass under the prevailing market trend with the passage of time. In 1957, subject to the earlier stage of urban development in Hong Kong, the firm put much effort on housing, school and factory projects.

The completion of Hutchison House in 1972 by Wong & Ouyang, signified a new era of building boom in Hong Kong. After that, the firm had completed many prime projects in Tsim Sha Tsui, including the Holiday Inn, Kowloon Shangri-la Hotel and Tsim Sha Tsui Centre. The firm has secured possible opportunities in other cities and countries such as Singapore, Manila, Penang and Pakistan. In the 80s, a branch office was opened in Singapore.

Due to rapid urbanization in Hong Kong, Wong & Ouyang had participated in projects developed by Mass Transit Railway Corporation (MTRC) such as Worldwide



House and Admiralty Centre. From the 70s to 80s, the firm had also taken part in large-scale housing estate projects including City One Shatin, Whampoa Garden and City Garden. In 1985, we were appointed by Swire Properties to carry out the architectural design and structural engineering work for Pacific Place which was the largest composite development at the time. In the 80-90s, Wong & Ouyang had also completed many significant projects such as Times Square and Harbour City redevelopment.

Wong & Ouyang stepped into Mainland China since 1979. It was until 1984, after a series of preparation work, the firm commenced its first project in China – the Hangzhou Shangri-la Hotel. Afterwards, the firm had completed more projects in Shanghai and Beijing.

In 1993, the firm was awarded the prestigious project of Hong Kong Convention & Exhibition Centre Phase 2 expansion – the venue for the Handover Ceremony in 1997. Reclamation work started in February 1994 and the project was successfully completed on schedule.



In the last decade, Hong Kong is approaching a more developed stage in urban composition. We began to diversify our portfolio with more exposure in academic and hospital sectors. Major projects completed in recent years are Hong Kong Sanatorium & Hospital, Pok Oi Hospital, Caritas Medical Centre and the master planning of the main campus and the centennial campus of the University of Hong Kong. Right now, we also concentrate on commercial and urban redevelopment, such as Langham Place in Mongkok and Pacific Place Phase 3 in Wanchai. TaiKoo Place is another large-scale redevelopment project which the firm has input its invaluable experience to make it a success. The redevelopment of TaiKoo Place began in 1979. A total of 10 buildings with over 5 million sq ft of quality office space have been completed by stages during the past three decades.

Right now, in Hong Kong, one of our prime projects is the Union Square development above Kowloon Station. In 2001, Wong & Ouyang was appointed as lead architect by Sun Hung Kai Properties for the final three phases of the Union Square Development.

In addition, Wong & Ouyang has also continued to secure more opportunities in Manila, Taipei and Vietnam.

What are the major challenges of local architectural practices in the coming years?

In the 70-80s, there was less restriction on land use, most of the urban development plans could be executed with more flexibility. Nowadays, in view of the encouraging response to revitalization, conservation and public consciousness, most of the plans are required to take public opinion into consideration at the early planning stage. Architects have to take care of more matters other than design and planning.

The Kwun Tong Town Centre redevelopment project is a prime example. By listening to the voice of local residents and tenants, we have transformed the final design that will devote much attention to the environmental, greening, heritage, economic

and ecological aspects. The design reflects the community's aspirations to preserve local character.

The office campus design of TaiKoo Place is another example. In the course of developing TaiKoo Place, attention has been given to the creation of urban space. Through subtle planning, TaiKoo Place has had a profound impact not only on the district but also on the rest of Hong Kong.

As one of Hong Kong's leading architectural practices, can you share with us the secret of success?

Wong & Ouyang regards every job as a new challenge. It is our belief that deeper understanding of the project is always in direct proportion to the opportunities of tender rewarding. We also identify that people-oriented design is the most elementary and inevitable principle for all projects, sometimes even better than any imaginative concept.

The master planning of the main campus and the centennial campus of the University of Hong Kong is an example to illustrate the above point. As Wong & Ouyang has in-depth understanding of the university culture and tradition, assisted with a team of international campus design consultants, we created a unique design concept based on the heritage of the campus buildings and landscape. Most importantly, the campus environment will play a key role in linking the students' socialization and education. In other word, the entire campus will become a learning place for students, and students can learn wherever there are opportunities for interaction.

It is our ultimate goal that the vision of Wong & Ouyang will live on. Every project we are taking up, no matter it is big or small, will be regarded as a new challenge to us.



Kwun Tong Town Centre

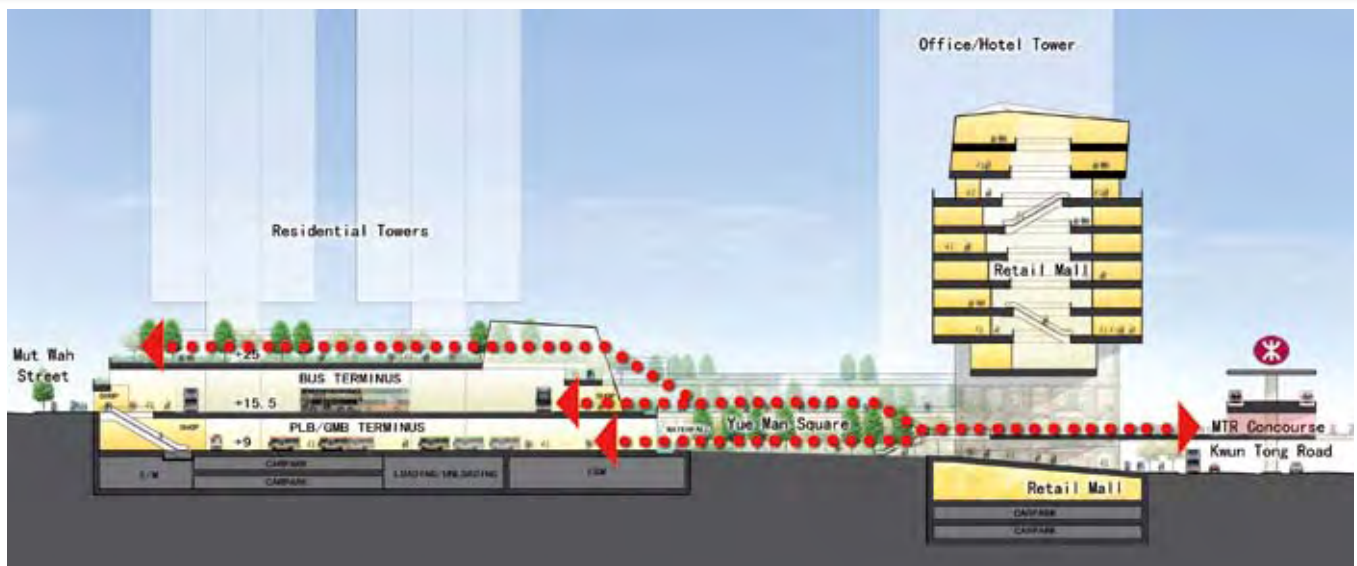
Kwun Tong Town Centre (KTTC) redevelopment project is the largest urban renewal project undertaken by Urban Renewal Authority (URA) with an overall site area of approximately 53,500 sq m. URA intends to redevelop this district built in the 1960s into a city of tomorrow with a vision of sustainability.

Wong Ouyang (HK) Ltd (WO) has produced a design that pays particular attention to environmental, greening, heritage, economic and ecological aspects.

Environmental

The new town centre consists of hotel, offices, retail, communal facilities and residential accommodations. By housing the residential, office and hotel in six high rise towers, the building footprint is minimized and maximum landscaped open spaces are provided. Towers are sensitively placed to improve air movements and to maximize breezeways taking advantage of prevailing wind. The multi-storey shopping mall functions as an effective noise screen.







Cascading terraces and large urban windows are provided at strategic locations to avoid wall effects.

The design process makes full use of an Air Ventilation Assessment to result in best disposition of the building block.

Traffic congestion and pollution in the site are also improved by restricting vehicular traffic to the perimeter and by routing vehicles to landscaped drop-offs and to underground. A whole new pedestrian circulation network is formed at grade and through the terraced landscaped decks.

Greening

More than half of the site area is landscaped to create an oasis in Kwun Tong. Major landscaped areas include the Civic Plaza, the Yue Man Square and the Kwun Tong Square. The development is sufficiently set back to allow landscaping strip to both sides of surrounding streets.

Heritage

The design reflects the community's aspirations to preserve local character. The local landmark, Yue Man Square, is preserved and extended into the multileveled public spaces. Pedestrianized streets with street-side retail facilities and hawker bazaar are provided to recreate the existing street life.

Economic

The rich mix of the development will ensure self-sustainability and act as a catalyst to the peripheral redevelopments.

Ecological

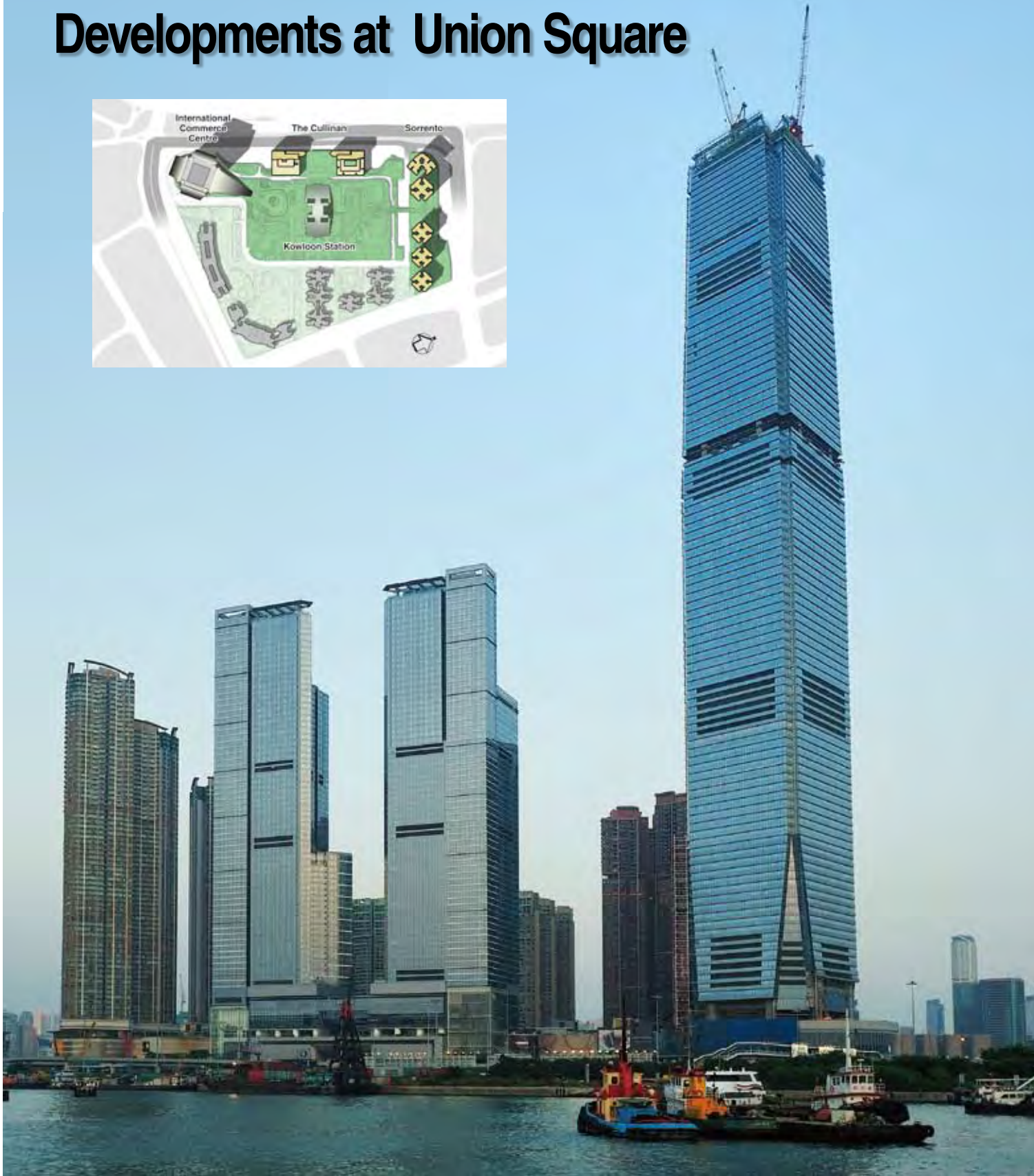
The design has taken full consideration of ecologically sustainable design initiatives. This includes sea water cooling, central refuse collection, onsite water recycling, common utility enclosures and energy saving measures.

Further Sustainable Initiatives

This vision will not stop at the master planning stage. URA and WO will continue to explore more international innovative sustainable designs for the detailed design and construction of this development.



Developments at Union Square



International Commerce Centre and The Cullinan

In 1989 the Hong Kong Government resolved to replace its congested airport at Kai Tak with a new airport to be built on a reclaimed island at Chek Lap Kok and linked to the business core in Central by road and rail.

The Mass Transit Railway Corporation's (MTRC's) Kowloon Station was conceived as the largest of the 10 new Chek Lap Kok Airport core projects to act as a fully integrated interchange between the railway and other forms of transportation, including connecting with the KCRC West Rail. The station was to provide in-town check-in facilities designed to bring the airport into the city and form the core of a new 15-million-sq ft mixed-use city centre in West Kowloon with the right ingredients to make it the new hub.

The Union Square development above Kowloon Station consists of seven development packages, and incorporates some 6,000 residential units, 3 hotels providing a total of over 900 rooms, over 2 million square feet of office accommodation, and almost 1 million square feet of retail mall.

In 2001, Wong & Ouyang was appointed as lead architect by Sun Hung Kai Properties for the final three phases of the Union Square Development.

The project comprises of the 484m tall International Commerce Centre. Kohn Pederson Fox (KPF) are the Consultant Architect, collaborating with Wong & Ouyang to design this landmark tower with 231,800 square metres of grade-A office space, crowned with the 300-room Ritz-Carlton Hotel.

The other components of the project include the 270-metre-tall twin towers. The Cullinan. Designed by Wong & Ouyang, the two towers comprise the W Hotel and the Harbourview Place Suite, 72,472 square metres of serviced apartments and 21,300 square metres of residential development.

The variety of accommodation assigned to The Cullinan twin towers and the necessary integration with the retail component in the podium presented some unique planning



problems requiring innovative solutions. The issue of access and identity was perhaps the most prominent. All vehicular traffic to Union Square is directed to an elevated road system on the west side of the site. To create an arrival experience that compliments the scale of both towers, forecourts were carved out of the podium either side of the towers at this level. These became the shared, formal arrival courts for both buildings and the retail mall.

Large 40-metre-tall glass boxes at the foot of the towers mark the entrances to the W Hotel in the south tower and the north tower serviced apartments in front of the forecourts. These contrast well with the horizontal expression of the podium retail mall facades



giving each element its own presence. An internal road system leads from these drop-offs up to the landscaped podium deck where a separate double height covered drop-off between the towers serve as a more

protected and private arrival. From here, the individual lobbies that serve the various serviced apartment and residential 'zones' and the residents recreation facilities, are accessed through a unique landscaped 'street'.

As a group of three towers, the appearance of The Cullinan towers take their cue from the International Commerce Centre (ICC). Clad in a double-glazed unitized curtain wall system, they are characterized by a modern, clean-lined aesthetic making these essentially 'domestic' buildings stand out from its Union Square neighbours.

With Kohn Pederson Fox as concept design architect, Wong & Ouyang has designed the ICC to become the tallest building in Hong Kong at 118 storeys. For the design of mega-towers, key factors have to be addressed at the conceptual stage. Structural criteria are usually dominant design drivers and symmetry in plan form is an effective solution to minimize the effect of the high wind loads experienced in Hong Kong.

The whole tower is orientated off the orthogonal resulting in a dynamic relationship with its neighbours and offering the best aspects of the harbour and the Hong Kong Island. This orientation also helped place the centre of gravity in an optimum location to avoid a geological fault directly under the tower footprint. Not to be restricted by the square plan, the building core is set off-centre to maximize the frontage with the best harbour views. Differing internal depths of floor plates from 12.6 to 16.0 metres offer a good mix of tenant spaces. Two typical office floor-to-floor heights, 4,200 metres and 4,510 metres, are provided to give further variety.

The tower's recessed corners taper up its height, casting an elegant profile against the sky. The entire skin from top to bottom is articulated by rows of shingled curtain wall. Each row of curtain wall tilts slightly and overlaps to create a shingle effect that accentuates the tower's tapering form. At night, the peak of the tower will be lit to form a glowing 'crown' to the building.

The north facade of the tower facing the landscaped podium peels off the vertical and forms the roof of a large glazed atrium, the 'Dragon Tail' allowing the tall tower to meet the ground and form the space of the main lobby and the connection to the retail mall and MTR Station. The other three facades also peel away to create shelters for vehicle drop-offs for the offices and hotel.

The context of the very tight footprint

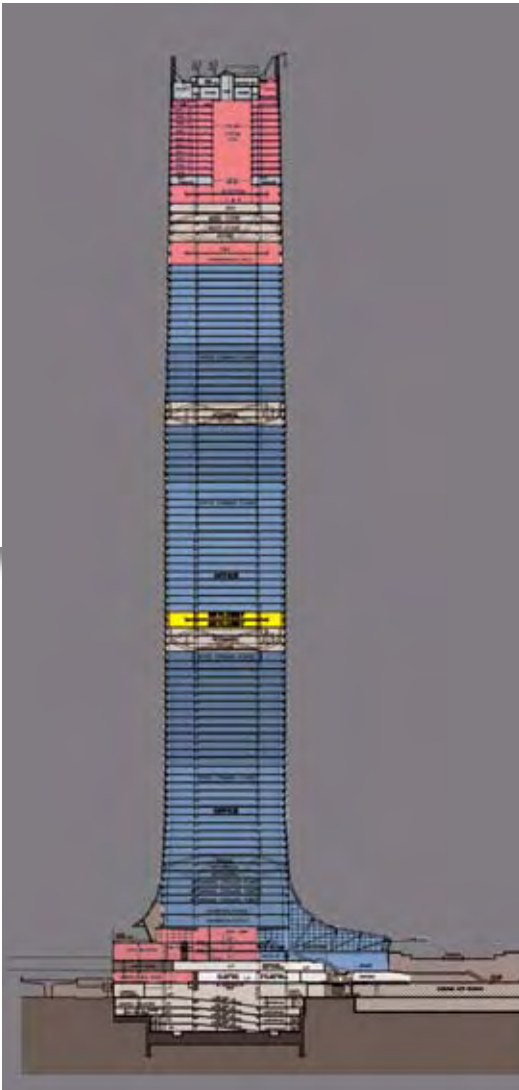


Photo: SIMON LI

of the site allocated and the volume of vehicles expected could not be comfortably accommodated on any single level. A split level arrangement was created with the formal entrance of the building at the upper landscaped deck level and a secondary covered drop-off at the first floor directly off the elevated public road. This provides a protected area for taxis, shuttle buses and access to car parks in the lower floors. A system of escalators connects this area with the main lobbies at the upper landscaped deck level.

Vertical transportation is a critical aspect for tall buildings requiring the tower to be divided into zones. Here, the office accommodation is distributed into 5 zones. Double-deck elevators minimize the provision of lift shafts and are employed to serve the first four zones. Zones 1 and 2 are served by local elevators directly from the split-level lobby floor whilst zones 3 and 4 are reached via shuttle elevators to a sky-

lobby where passengers transfer to local elevators.

The 10-storey fifth zone is unique in that it is served directly by single-deck elevators from the main lobby floor with an independent lobby creating the opportunity to accommodate a large single tenant.

Sandwiched between Ritz-Carlton Hotel at the top and the fifth office zone will be Hong Kong's first public observation deck which will be served by its own shuttle elevators and lobby areas in the podium floors. Designed to allow efficient user flow, the deck will become a very good asset for the public to enjoy what will become an iconic building in Hong Kong.

The Ritz-Carlton Hotel also has its own lobby and drop-off area that overlooks the harbour. Guests take express elevators directly to the main hotel reception floor at the 103rd floor before using local elevators to reach individual guestroom floors, which occupy the top floors.

The tower, which will become the tallest building in Hong Kong, will come on stream in three phases. The first phase, will be ready for occupation at the end of 2007 or early 2008. The second phase will be ready by June 2009 and the final phase, that will include the new Ritz-Carlton hotel and the observation deck, will be ready by February 2010.

At 118 storeys high, the ICC will be as tall as Victoria Peak across the harbour. Standing 60 metres above Hong Kong's current tallest building, Two IFC (International Finance Centre), the ICC will become the city's new landmark and a hub for multinational headquarters when completed by 2010.



The Sorrento

Wong & Ouyang's involvement with the Union Square development started in 1998 when appointed by a developer consortium of Wharf (Holdings) and Wheelock and Co. as Architect for the Package 2, Sorrento residential development. This would house 2,126 units ranging from 830sf to 2,700 square feet, together with its own recreation facilities in the podium and some 1,270 car park spaces.

Occupying the northern edge of the Union Square site, the 17,180 square metre Sorrento site is a long, narrow parcel, separated from the main station podium by an elevated road system and straddling the main railway lines that run east-west almost exactly through the centre of the site. The compact site meant that the tower dispositions would need to be conscious of the possible 'urban wall' effect. As a primary planning concept, the towers were located in two groups avoiding the main railway lines, even though structural provisions had already been made to support a tower of up to 30 storeys directly above the lines.

The separation of the five towers reduced the wall effect and created a significant gap in the perimeter of development that allowed views out from the central landscaped podium and encourage natural breezeways. To further reduce any wall effect, a stepped profile was created for the towers, with the lowest at the east and the tallest at the west, commanding the panoramic harbour views. The towers vary in height from 51 to 65 storeys above a seven-storey car park podium resulting in some of the tallest residential buildings in Asia.

Arrival to the development is via an elevated road system that leads to a dramatic triple height covered drop-off at the second level. Here, escalators lead east and west to the landscaped podium level where indoor, air-conditioned 'galleries' take residents to the lift lobbies of the two tower groups. The landscaped podium for Sorrento connects to the very large public podium on top of the Station and provides the setting for a two storey resident's recreation club.

TaiKoo Place



Photo: SIMON LI

Urban renewal has played a vital part in Hong Kong's evolution. Throughout its history, growth and constant regeneration have caused ceaseless alterations to the urban fabric. Dilapidated tenement housing has made way for high-rise developments. Industrial estates were initially dispersed by centrifugal economic forces to suburban areas and later relocated north of the border. Hong Kong has long accepted that, if it is to remain in the vanguard of a fast changing Asia, it must stay flexible and adaptable through a state of perpetual metamorphosis.

TaiKoo Place is a prime example of this process of revitalisation. It has transformed an erstwhile industrial area into a grade-A office campus in Quarry Bay.

At the turn of the 19th century, the Quarry Bay area was dominated by the TaiKoo

Dockyards and their Godown Factories. With the closure of the Dockyards in the early 1970's, the Swire Group decided to develop a substantial portion of the land into a large housing estate called TaiKoo Shing. Alongside this residential complex, light industrial and ancillary trading buildings such as Cornwall House (1984) and Somerset House (1988) began to appear. These are buildings with different floor heights and allowance for heavy floor loading up to 15kpa. The floor plans offer flexibility in interior planning, as the cores are located at the peripheries of the buildings. Ample loading bays and service lifts are provided.

Hong Kong underwent dramatic changes to its urban infrastructure in the 1980's. The Mass Transit Railway system came into operation and resulted in construction of the Quarry Bay MTR station, which opened in May 1985

in close proximity to TaiKoo Trading Estate. Extensive land reclamation along the northern shore of Hong Kong Island produced the Island Eastern Corridor, commissioned in June 1985 to create easy and direct access to the eastern end of the island.

This period also saw the completion of Pacific Place, Swire Properties' major development in Admiralty, which transformed what was the military enclave of Victoria Barracks into a cohesive development composed of grade A offices, retail space, hotels and service apartments.

A dramatic rise in rental prices for office space led the developer to embark on construction of Devon House as an alternative for corporations and multinationals seeking more affordable premises outside the traditional business environs of Central district. Devon House offers grade-A office space at attractive rents and with easy accessibility. Central is only 15 minutes away by MTR. Ample car parking in the basement is an asset largely unavailable to tenants of Central offices. Travel to Kowloon is also made more convenient via the Eastern Harbour Crossing located nearby, which opened in September 1989. In all respects this 30-storey office tower, featuring large and highly efficient floor plates, measuring 2,800 square metres, has proved a popular option for corporations seeking relocation.

Crucial to accessing this business centre is an air-conditioned footbridge over King's Road. Vehicular traffic at the junction of King's Road and Tong Chong Street, together with the network of narrow streets around the area, is often chaotic. Attempting to cross this busy intersection on foot would be hazardous to the many office workers employed in the complex. The provision of an elevated walkway helped segregate pedestrian traffic from vehicular traffic. This walkway will eventually be extended to create a pedestrian network that links all office buildings in TaiKoo Place.

The completion of Devon House in 1992 was closely followed by the construction of Dorset House/PCCW Tower in 1994, a twin tower development comprising 39 and 42 storeys respectively. Each has a floor plate of 1,600 square metres. To make these towers part of a coherent development, the elevation treatment makes use of curtain walls with white painted aluminium spandrels. Internally, a skylit concourse between Devon House and Dorset House features undulating landscaped



Devon House



Block plan

planters adjoining tall butt-jointed glass walls and a curvaceous colourful metal sculpture called Two to Tango, by British artist Allen Jones. Pastel coloured ceramic murals on the core walls, by Australian artist Michel Santry, flank this internal open space.

In 1990, the Town Planning Board recognised the change in the character of the district and re-zoned the previously designated



Dorset House



Lincoln house main lobby

industrial area into a 'comprehensive development area'. There was also an easing of height restriction at about the same time.

In parallel with the new constructions, the existing Warwick House, Cornwall House, and Somerset House acquired advantages beyond their original goals. Their typical elevated floor heights and generous floor loading made it possible for them to house the latest information technology systems that would form the core for the entire TaiKoo Place. These buildings have also proved to be in high demand for office tenants needing bigger floor plates.

Re-acquisition of the site previously occupied by the South China Morning Post building made way for the construction of Lincoln House in 1999. Its location provides an uninterrupted view towards Victoria Harbour. With a height of 24 storeys, the building mass has been sculpted, parts of the structure being expressed through articulation that is further emphasized by external lighting embedded within a cladding finished in anodized aluminium with reflective blue glazing. The tenant floors, each of 1,450 square metres, are equipped with the

latest state-of-the-art building services and communication technologies. The lobby features exclusively commissioned glass sculptural panels, Chronos Trilogy by Warren Carther. Lincoln House has the distinction of being the first building in Hong Kong awarded an 'excellent' rating by the Hong Kong Building Environment Assessment Method (HK-BEAM), Oxford House and Cambridge House also received this rating after their completion in 1999 and 2003 respectively.

At the eastern portion of TaiKoo Place, along Westland Road, Oxford House was under construction at the same time as Lincoln House. A grand forecourt with a glass canopy to its west signals the entrance to Oxford House, whose 12-metre-high entrance lobby connects to the TaiKoo Place pedestrian network at the first floor, through a glass-encased footbridge. To its east, a walkway through the landscaped Via Fiore links to TaiKoo Shing. At a height of 41 storeys, the typical floor is 1,200 square metres. All floors contain fibre-optic block wiring, facilities for satellite interactive multimedia service and an inter-floor communications trunking telephone system, state of the art communications



Footbridge to Lincoln



Oxford House

technologies that make Oxford House attractive to media related tenants.

The opportunity to secure further a frontage on to King's Road came when Swire Properties obtained the site for Cambridge House, adjoining Devon House. The 36-storey Cambridge House tower is clad in curtain wall that places emphasis on horizontal bands to blend in with the horizontality of the painted spandrels of Devon House. Growing environmental consciousness in Hong Kong was taken into account in the planning of Cambridge House. A mutual supplementary system for chilled water supply was put in place to make full use of Devon House's chiller plant. Heat wheels are interlocked so that extraction systems and fresh air intake fans recover cooling energy from the exhaust air. Pre-cast slabs and beams, produced off-site, reduced air and noise pollution while saving time during construction.

The latest addition to TaiKoo Place is One Island East, located at the Aik San Building site on Westland Road. It will be the tallest office tower in TaiKoo Place, its 70 floors incorporating 59 office floors with a typical floor plate of 2,300 square metres, to provide



Footbridge to Oxford House

a total office area of 140,000 square metres. Attaining a height of 300 metres, One Island East will become the iconic landmark of the district. Shunning the conventional podium structure, the tower sits freely in front of a large landscaped open space to the east, which is designed as a series of platforms at different levels, interlinked by water features. Given the generally dominant dimensions of the building, this urban landscape will serve to reinforce its scale.



Cambridge House



Footbridge from Devon to Cambridge



Cambridge House's lobby



The basic form of One Island East is configured on a square plan with a central core. The four corners are rounded, with the two corners facing north and south 'opened up' at the top floors to address the harbour view. At the base, the two corners facing east and west are also 'opened up' to look out upon the large landscaped space on this side. The edges of the four facades 'sail' beyond their supporting structure to create a floating effect.

The office floors are divided into four zones. The lift servicing divides the building with a sky lobby at floors 37 and 38. Zones one and two are served by local elevators from the main lobby level, while zones three and four are accessed via six double-deck shuttle lifts to the sky lobby, where passengers transfer to the respective local lifts. A floor-to-floor separation of 4.025 metres results in a typical clear headroom of 2.925 metres. At the executive floors, occupying the top floor of each zone, the headroom will be further increased to 3.925 metres.

Eight mega columns constitute the main structure of the building, comprising two on each perimeter of the square plan, tied to the central core. Four outriggers, varying from two to four storeys and starting from the 35th floor, help to reinforce the whole edifice. There are two levels to the main lobby, whose upper floor is suspended from the ceiling to form a gallery. The two levels are integrated as a single volume. The exterior glass wall of the main lobby is supported by suspended clear structural glass fins, which provide the highest transparency and least obstruction when walking along this surface. The detail design of the building facade system was completed in collaboration with Hugh Dutton of HDA. This minimal structure gives a better interior-exterior relationship with the landscaped open space.

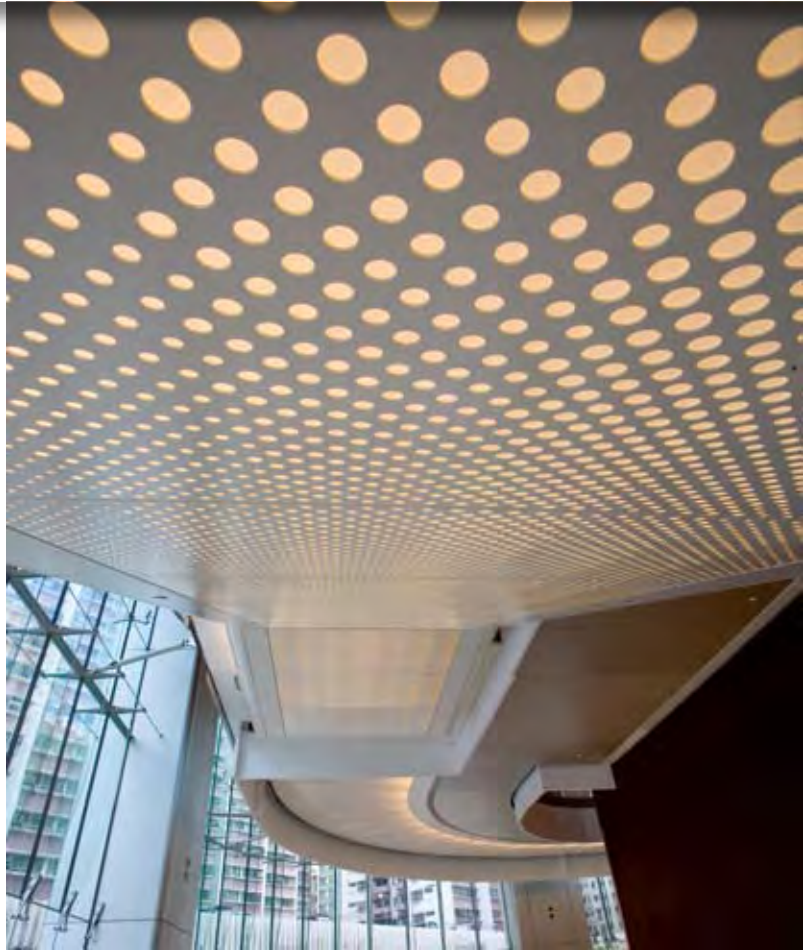
The upper level of the main lobby is connected to the other office buildings at TaiKoo Place via a bridge at the northwest corner. Through a well-established system of link bridges at the existing podium level, pedestrians can gain convenient access to the MTR Quarry Bay station. Scheduled for completion in 2008, the construction is aided by a Building Information Model (BIM) that facilitates collaboration across all disciplines in the development process.

In the course of developing TaiKoo Place, attention has been given to the creation of urban spaces highlighted by specially





One Island East exterior wall



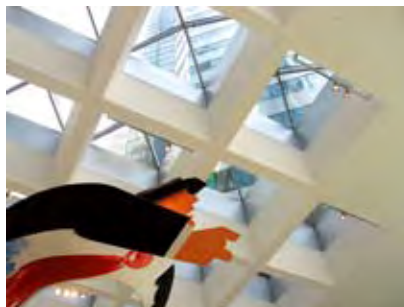
Ground floor lobby ceiling of OIE

commissioned artworks. The pedestrian thoroughfares, through which office workers and visitors pass each day, are made more pleasant with visible green areas and sitting corners. Swire Properties also acquired ground level shop spaces in neighbouring buildings and transformed these into restaurants with alfresco dining areas. A private club managed by the Peninsula Hotel Group was created to cater for the dining, entertainment and fitness needs of office tenants. Art exhibitions and music performances are organised regularly for the enjoyment of the public.

The foresight of Swire Properties, in developing TaiKoo Place as the island east business centre, through more than 26 years of carefully predetermined planning, land acquisition, and construction, has had a profound impact not only on the district but also on the rest of Hong Kong. It has demonstrated a unique brand of urban renewal that has mirrored the changes in technology and public consciousness through time. The design of the structural components of this office campus has evolved in step with advancement in available technologies, while the creation of public spaces, with specially commissioned artworks, has afforded major benefits not only to the tenants but also to the people of the neighbourhood. Wong & Ouyang is proud to have contributed to this urban growth through the design of this office campus.



Office lift lobby



Atrium



Feature glass wall



Master Planning of the main campus and the centennial campus of the University of Hong Kong

The following is the extract of the presentation given to the University of Hong Kong (HKU) selection panel for the Ideas Competition for the Masterplanning of the Main Campus and the Centennial Campus in November of 2006. The University subsequently selected Wong & Ouyang/Sasaki's submission as the winning entry.

We understand that the academic vision of the University is 'to excel in the core functions of teaching and research so that it will be recognized globally as an international, research-intensive university of world-class standing that engages the community it serves'.

To achieve this goal, and to meet the University Grants Committee's (UGC) requirements to migrate from a three to a four-year program, it is imperative that more space is made available. The Brief asks for an additional 100,000 nett square metres to the campus.

Research universities are competing to attract and sustain high-quality faculty, students and staff. Talented faculty and students look for those institutions that will best support the development of their talent

and support their individual achievement. Along with the instructional content and access to research, the students and faculty look to the quality of facilities, and the amenities of the campus.

Most of the great universities had their beginnings with a clear campus form and dialogue of buildings and open spaces. During times of rapid expansion, many institutions allowed those recognizable campus structures to deteriorate. They forfeited their character and identities.

The last two decades have seen many distinguished institutions recognize the renewed importance of the campus environment. They seek to restore the unique qualities of place, and to create a more exhilarating campus community.

Universities have also seen dramatic shifts in technology, teaching paradigms, study habits, cross-disciplinary programs, diversity, and the evolution of the living/learning campus where the line between a student's socialization and education cannot be distinguished. The physical campus



environment plays a key role in expressing and achieving the institution's mission and objectives. Students increasingly learn wherever there are opportunities for interaction. The entire campus is a learning place.

Among college and university campuses, sustainability is no longer considered a craze. Institutions are recognizing the need to be leaders in teaching environmentally responsible behavior. Healthy places, with fresh air and natural light contribute to more productive working and learning environments for staff, faculty and students. Colleges and universities are actively marketing their commitment to the environment and addressing environmental issues.

Sustainability starts with the overall organization of the campus and its buildings and open spaces. The orientation of buildings and their spacing and the orientation and size of open spaces can be used to take advantage of climate conditions and to set the stage for designs that will assist in energy reduction.

The university campus, like a living organism, is a changing and evolving entity;

today's needs may be quite different from those of twenty years from now. Recognizing this, the master plan is explicit in establishing an essential framework for access, movement patterns, and civic and academic spaces and it is flexible in determining the exact means of implementation or details of program. And very important, the master plan must be able to be implemented or else it is of no use to the institution. This master plan is designed to be implemented.

The existing HKU campus consists of a complex array of buildings and spaces that have little relationship to one another. Pedestrian movement and connections between spaces is ill-defined, often circuitous, and without consistent or unified treatment resulting in a campus that is segmented and lacking coherence. There is no sense of a hierarchy of spaces.

Our proposed master plan organizes the campus into a clearly defined framework of pedestrian spaces, both indoor and outdoor.

The framework consists of two main elements: the first a clearly defined east-west



pedestrian street at approximately the mid-elevation of the campus. It is the backbone of the campus. Like a living urban street, the concourse is the organizer of the great variety of educational and social activities harboring opportunities for encounter and giving clear access to teaching and amenity, civic and academic spaces. It is interior and exterior extending almost the length of the campus at a consistent elevation along the hillside.

The second major organizing element is a 'Civic Spine' running north-south beginning at the Main Building then extending to the south edge of the Main Campus.

Employing the means to negotiate the steep campus terrain, the Civic Spine links prominent outdoor civic spaces including the courtyards of the Main Building, the Library Plaza, the Lily Pond and the new courtyards of the south science and engineering campus.

The Civic Spine and the University Street

have a crossroad at the Lily Pond, the most revered of the open spaces on the campus.

The framework is supported by three clear points of entry to the campus. These entries are defined by architectural 'gateways' marked by street-level plazas. The gateways, associated with bus stops and the Mass Transit Railway (MTR), campus housing, and the 'front door' vehicular entry, move pedestrians from the street level to the main campus circulation system.

Key to the open space framework of the campus is the courtyard, which has specific relevance to the heritage of the University. One of the most endearing elements of the University today is the quartet of courtyards in the Main Building. These have stood the test of time and made indelible marks in the memories of all who have studied at HKU.

Courtyards can form the centre of activity, facilitating a dynamic learning community, serving as open space and day-to-day uses. The courtyard have the advantage of being numerous enough to relate to individual faculties and become the memorable spaces students associate with the time spent at the University.

Among the oldest buildings on campus, the Main Building is the most iconic and memorable, having stood the test of time. Yet it is difficult to access and has no presence from the street. We propose to improve the whole of the setting to the Main Building to restore it as the public 'front door' to the University.

In our Master Plan, the Main Building will be where the Vice Chancellor presides together with the administrative team who manage the University. The Senate Room is also relocated to a prominent position at the front of the building.

With a new traffic management system, the elevated road and the exit road onto Bonham Road on the east side of the Main Building become redundant and can be removed. The space vacated becomes a site for a ground hugging, low-level building to re-house the University museum and allow it room to grow. The campus returns to the city.

At the Bonham Road level, the space outside the Fung Ping Shan building is transformed into a street-level entry plaza from which a new 'East Gate' elevator tower takes pedestrians directly up to the principle level of the campus circulation framework.

The East Gate elevator tower leads up to the Sun Yat Sen Plaza outside the Main

Library building. Historically, the symbolic 'heart' of the campus, shown in the 1960's plan, has been the relationship between the Main Building, the Library, the Students' Union and the Lily Pond. This should be re-established and reinforced by its accessibility and visibility so that the use of these iconic parts of the University reflect their symbolic nature.

To achieve this, the Old Library Wing will be remodeled to a much more efficient and better equipped lower building with larger floor spans, and higher ceiling height. This opens up the whole Lily Pond on the west side so that it can be visible again and allows it room to expand. It offers a much improved east-west link via the University Street to the Centennial Campus. By relocating the student union to the Hui Oi Chow building behind the library, the relationship between the Main Building, the Library and the Student Union is also restored.

Having introduced a new campus framework, created a campus 'front door' and reinstated the campus 'heart', the issues of additional space required by the brief can be addressed within this new context.

There remains a problem of meeting the space requirements for science and engineering. They need new, heavily serviced buildings. The Technology and Incubation Building, No.2 University Drive and Robert Black College are potential sites for adding new buildings suitable for use by science and engineering. These are relatively old buildings with minimum academic content and make inefficient use of their sites. Construction here would also be of minimum disturbance to teaching activities. Together with the space available to the south of University Drive, four new buildings are proposed to form a new 'South Campus' at the top of the Main Campus.

The South Campus base is stepped to respect the sloping terrain and local excavation limits, forming a series of stepped courtyards in keeping with the overall organizing concept for the campus. The profile of the buildings is also stepped, to break up any possible 'wall effect' and avoid obstructing the views of surrounding buildings.

Eventually, every building will outlive its useful lifespan. When this happens, the in-built flexibility and robust nature of our proposal will be able to cater for any future growth. In keeping with this long term approach and to

fully unite the campus, the master plan seeks to create a 'car free campus', by segregating pedestrian and vehicle movement. Shuttle bus stops and entrances to the car parking should be kept by the point of entrance at the edges of the campus. Service, maintenance and emergency access is managed so as to provide an emission-free-campus.

The Centennial Campus is located at the western edge of the existing campus on a site extensively utilized by the Water Supplies Department for fresh and salt-water reservoirs and associated facilities. The engineers commissioned by the University have proposed relocating the existing salt water service reservoir into a cavern under the hillside to provide a site for the Centennial Campus buildings. The two existing saltwater reservoirs at the southern edge of the site will be rebuilt for fresh water storage.

Vehicular access to the site can be achieved by the extension of University Drive that already exists up to the adjacent Chow Yei Ching Building.

The University Street naturally extends into the Centennial Campus at its principle formation level, where it leads to the West Gate elevator tower which provides access to the MTR Station and students' village below. The West Gate becomes the beacon for the Centennial Campus.

Along this section of the Street, three courtyards form the focus for the base of the building which contains the learning commons, law library, lecture theatres, university-wide teaching laboratories, facilities for faculties and amenities. The courtyard is designed as an outdoor room, with a scale and proportion that will provide shade, weather protection and facilitate air movement. It offers an indoor-outdoor environment that is conducive to student/teacher interaction. Day-to-day functions such as lift lobbies, stairs and student lockers are also placed around the courtyards.

The design of the building blocks follows sustainable principles. The layout of the blocks provides space between buildings to create breezeways and promote cross ventilation. The disposition of the buildings favours north-south orientations. Their scale respects the neighbourhood and avoids dominating the site. These serviceable buildings minimise the use of elevators and encourage the use of stairs.

The three towers fit in with the program areas for the three faculties. Social Sciences



takes up the north tower while the Arts faculty takes up the south and Law faculty the building to the west. These towers will house essentially offices and classrooms as prescribed by the brief. A degree of flexibility is in-built so that the accommodation of the towers can be interchangeable between faculties should the program change. The overall number of floors and size of floor plates can be adjusted based on more detailed program.

The concept of sustainability will be built into the architectural design of the buildings of the Centennial Campus. By way of example, for west-facing buildings such as the Law faculty building, a ventilated atrium is provided on the west side, relying on stack effect to reduce the impact of solar-gain and glare.

East and North facades should be protected by the use of horizontal shading devices. The South facade should also combine solar panels within the shading devices. Choices for building materials should take into account issues of long-term maintenance and tactile quality.

As we move on to the next stage of the Master Plan development, there are other

sustainability measures, such as stormwater harvesting and geo-thermal technology that can be considered in collaboration with the University research teams. The master plan also supports the principles of sustainability by the use and reuse of existing buildings and heritage structures. Of the three historic buildings on the Centennial Campus site, we proposed to retain and refurbish the Senior Staff Quarters and Workmen's Quarters on site for compatible uses such as a cafeteria and students' co-op adjacent to the West Gate. Further studies are required for the Elliot Treatment Works as it relates to the reservoir re-provision works and the associated technical requirements.

In summary, our campus master plan creates a campus with a sense of place expressive of the University's mission and strategic principles. It builds on the heritage of the campus buildings and landscape. It introduces a framework that will unify the campus and renders the campus more understandable and easier to navigate. It establishes strong linkage to the community. It provides the setting for a vibrant learning environment and facilitates implementation along principles of sustainability.



Pok Oi Hospital

The brief called for an acute general hospital of 622 inpatient beds, 53 departments including Accident & Emergency, two basement levels including a covered carpark, with a total floor area of about 65,000 square metres. Thirty-eight beds in six-bed wards were to be clustered around a central nurses' station with minimum and equal distance to all beds and direct visibility from the station to maximize service. The Pok Oi Hospital ward design

adopted the triangular ward concept used in the U.S., and first introduced in Hong Kong at the Tseung Kwan O Hospital. Six six-bed wards are planned around a central nurses' station in a triangular shape so that the criteria for maximum visibility and minimum and equal distance to every bed is achieved. Two isolation rooms with one bed each made up the 38 beds required. Although there are only two isolation rooms per ward due to budget constraints, care is taken to





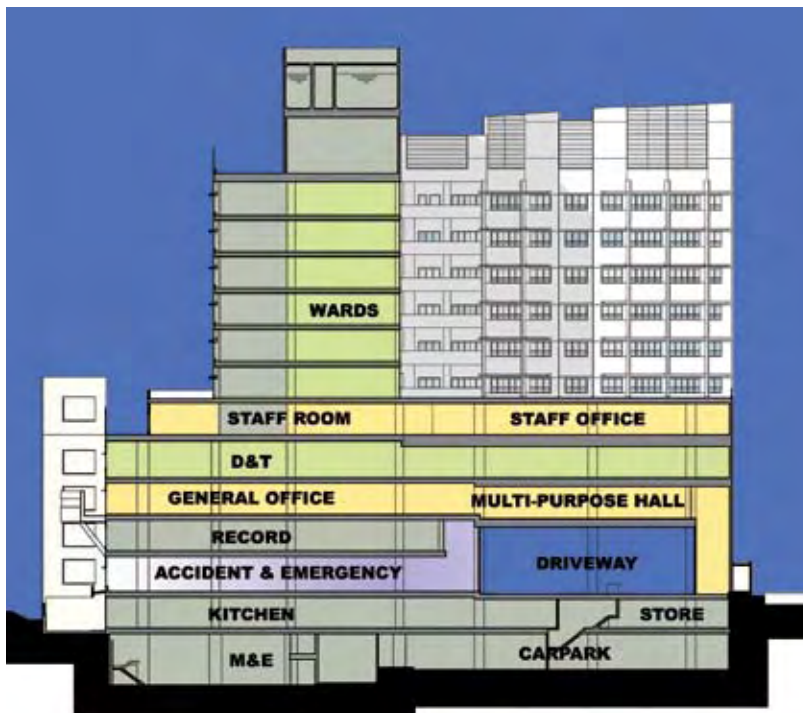
ensure aseptic conditions throughout the hospital as a result of SARS. For example hand washing facilities are provided in virtually every clinical room in the hospital. Also the ventilation systems are designed to minimise cross contamination between patients in wards.

Support facilities are located at the corners of the triangle and three of these triangular wings are planned around a central vertical circulation core to form a ward floor housing 114 beds. The 622-bed requirement could be met with five such floors with the rest of the beds in the Accident & Emergency observation ward in the podium floors. The triangular ward design proved popular with the medical staff, as it enables the duty nurses to look after the 38 patients in an efficient manner and helps to reduce the workload and walking distances.

The three-winged floor plan with central lift cores also proved popular for patients and visitors for its logical layout and easy wayfinding. The T-shaped corridor provides visibility to all three wings and also minimises walking distances to all wards.

The Diagnostic and Treatment Departments are arranged on five podium floors and 1½ basement floors measuring approximately 165 meters north-south by 45-50 metres east-west. The Accident & Emergency and Radiology Departments are on the ground floor for direct access by ambulances. The other departments are located according to the access demand either for visitors in case of outpatient or ambulatory care services or from internal circulation in case of the Operating Theatres and Delivery Suites. For ease of wayfinding and circulation efficiency, the long west side of the podium floors are designed as a virtual 'hospital street' off the main passenger lift lobby accessing the different departments. Most of the length of the street is provided with windows and a view towards the landscaped main drop-off area. This helps patients and staff to orientate themselves easily and provide a logical wayfinding aid for the podium floors. Internal circulation is effected via a parallel corridor serving the hospital and service lifts.

In planning and designing to these guidelines Wong & Ouyang has delivered a hospital that is highly efficient and cost effective as it relates to appropriate public hospital patient accommodation while at the same time providing second-to-none medical care and technology.





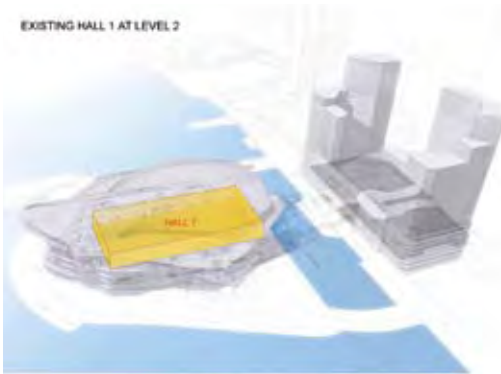
Hong Kong Convention and Exhibition Centre Expansion Project



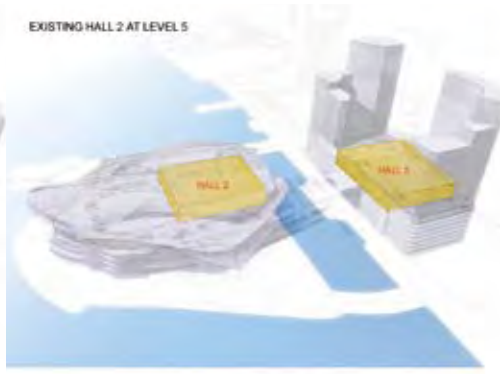


Built on the one of the world's most magnificent waterfront sites within Hong Kong's Victoria Harbour, the existing Hong Kong Convention and Exhibition Centre (HKCEC) were developed in two phases. Phase I was completed in 1998 with 2 exhibition halls of 17,800 sq m, complemented by the Convention Hall, meeting rooms, theatres and supporting facilities. Phase II was opened in 1997. It consists 3 exhibitions halls and a Grand Hall at 3 levels amounting to 28,460 sq m of designated exhibition space. The two phases are connected by a bridge like structure known as the "Atrium link" over a water channel. It serves as the main circulation light exhibition and registration venue. With its soaring roofline, the centre remains one of the most iconic buildings at the Hong Kong water front.

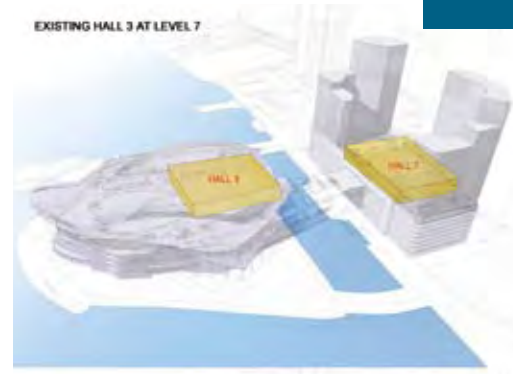
EXISTING HALL 1 AT LEVEL 2



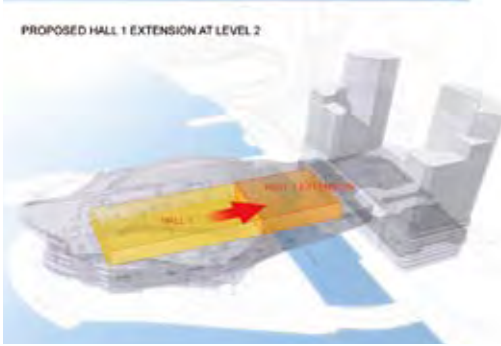
EXISTING HALL 2 AT LEVEL 5



EXISTING HALL 3 AT LEVEL 7



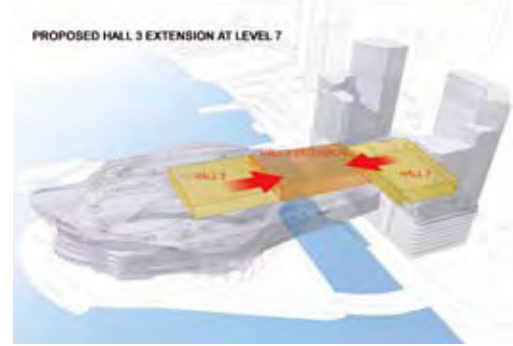
PROPOSED HALL 1 EXTENSION AT LEVEL 2



PROPOSED HALL 2 EXTENSION AT LEVEL 5



PROPOSED HALL 3 EXTENSION AT LEVEL 7

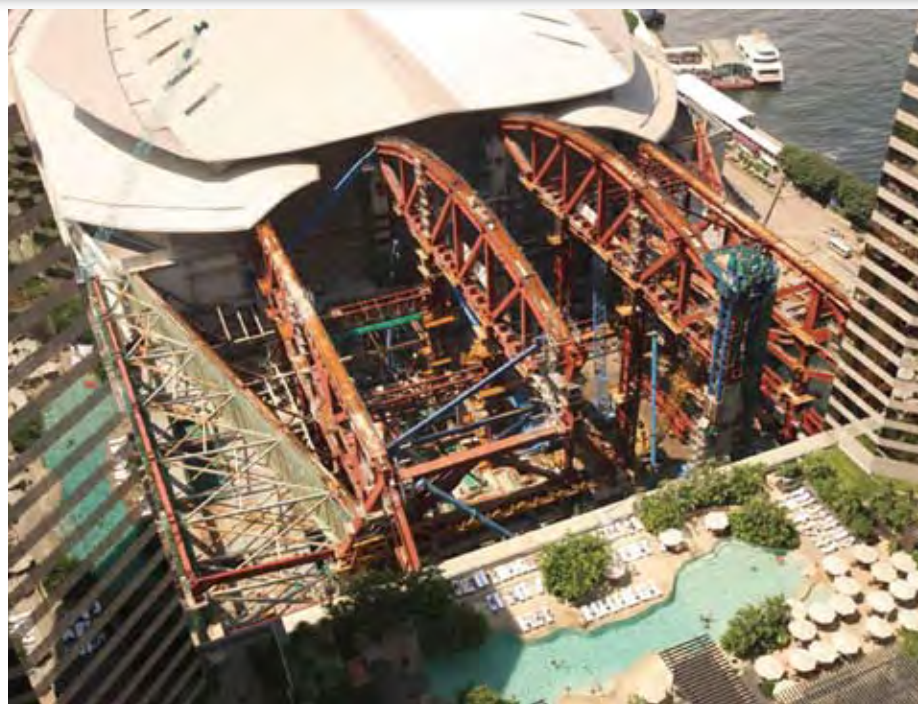


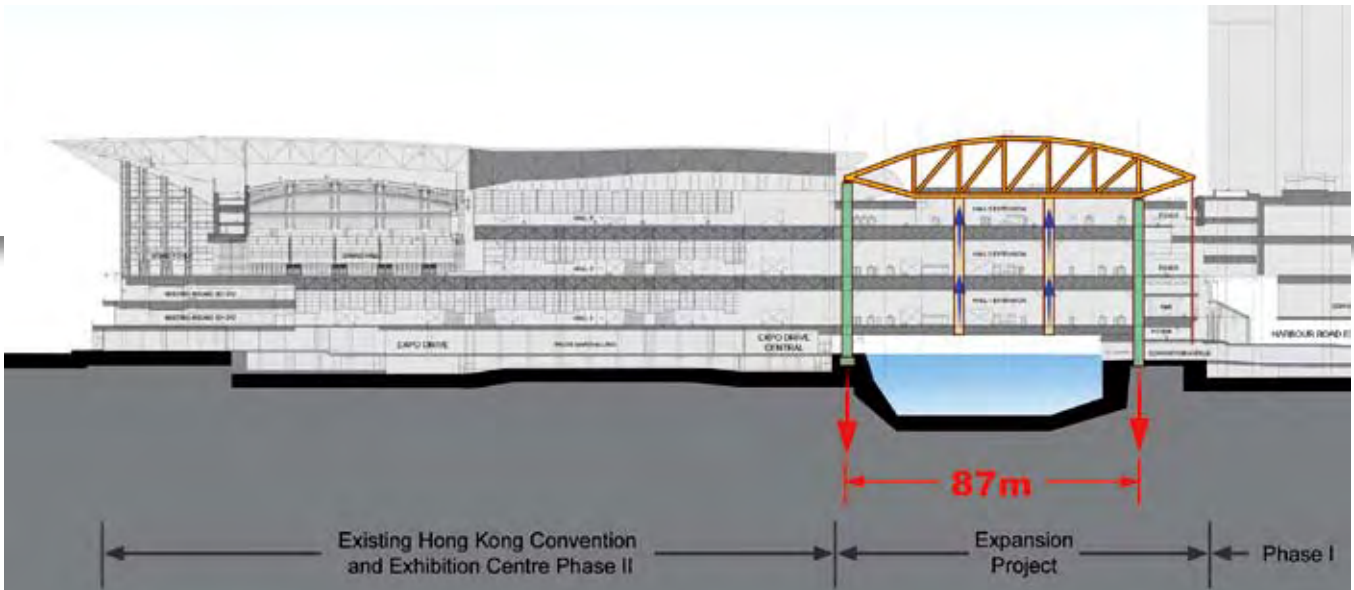
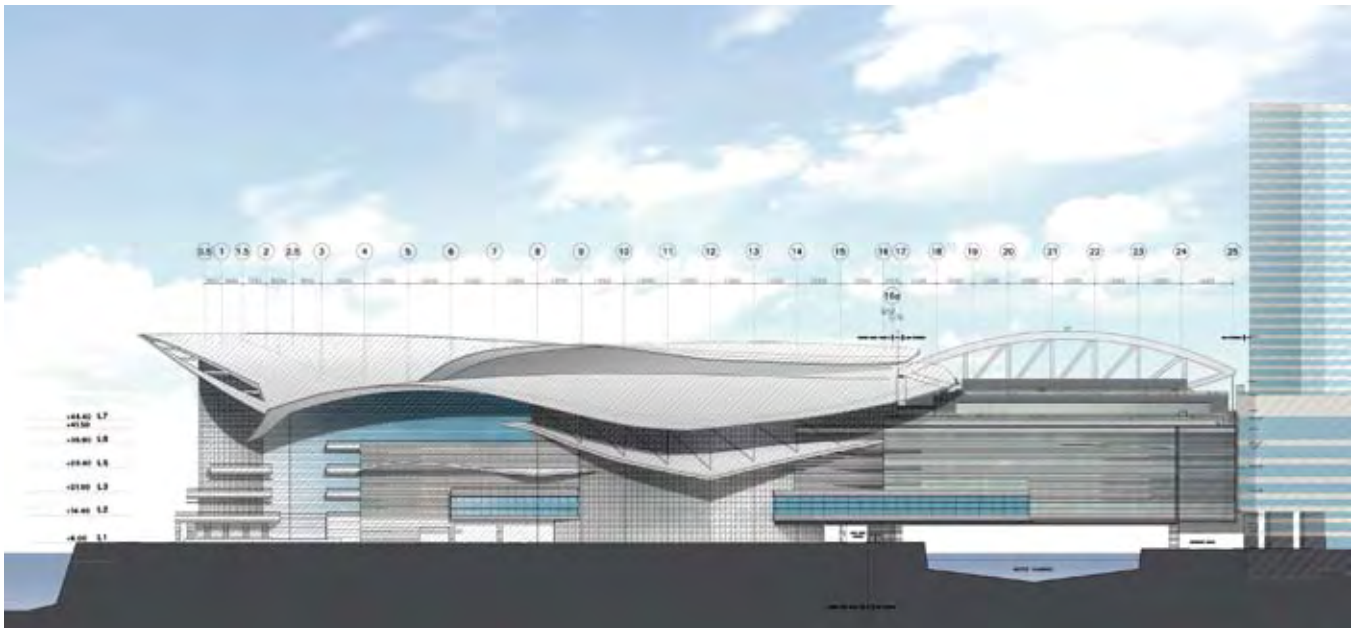
Due to the increasing demand on the downtown exhibition space, the Trade Development Council is looking for expansion in the near vicinity.

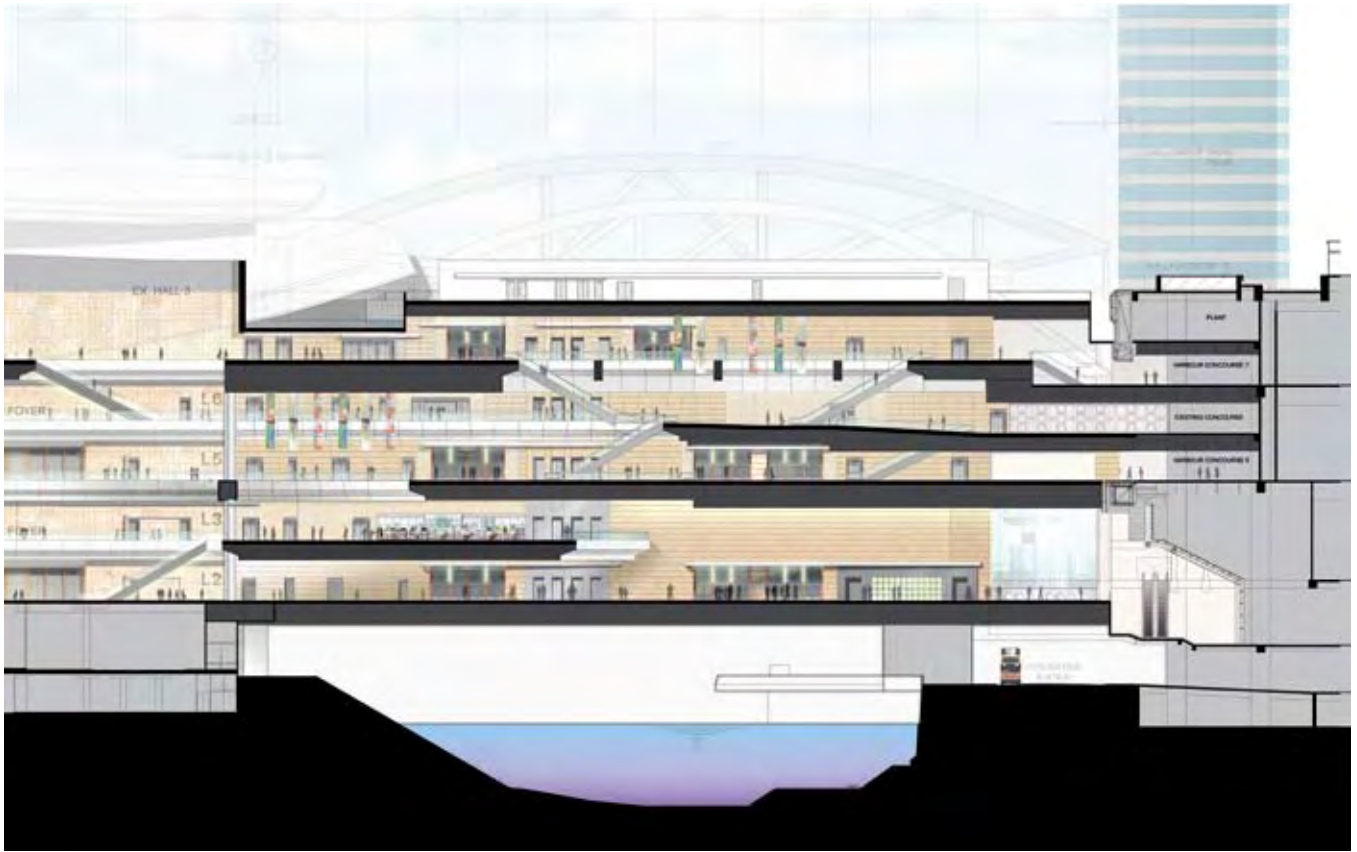
In simple terms, the expansion project involves widening of the bridge structure for 3 levels of the halls to expand toward Phase I.

The required loading for exhibition use is much higher than the existing structure and the span across the water channel is more than 90 metre. Since no permanent structure are allowed onto the water channel, the structural solution calls for 5 mega trusses spanning over 85 m at the roof top, with columns at approximate 27 m suspended from the these trusses.

With this solution, the expansion hall space is seamlessly connected to the Phase I and Phase II building to form an integrated exhibition space. This proposal increases







the three existing halls area by a total of some 19,400 sq m, creating space for 1,000 additional standard booths. The additional space will be serviced from the Phase II building via extensions of the service cores on the east and west sides of the present Exhibition Halls.

To enhance the smooth connection of the new and the existing building, there are interfacing issues between Phase I and II such as external façade treatment, building service integration and structural that requires careful architectural treatment and advance planning.

As the mass of the expansion project increase significantly, the external treatment is designed as a continuation of the existing building, subtly merged with the existing façade and thus maintain the iconic nature of the existing roofline.

One of the challenges in the construction aspect is to maintain the centre in full operation throughout the construction period. Temporary connection for visitors is constructed and switching over is necessary.

The construction started at 2006 and completed at 2008. It is no doubt that the Centre will remain its iconic nature and its leading position for down town exhibition venue.







One Kowloon

One Kowloon is an office tower development located at the intersection of Wang Yuen Street and Wang Tai Road in Kowloon Bay. The project is one of the first re-development from industrial to commercial within the Kowloon Bay Industrial District.

The brief of the development is to maximize the full development potential of the site as well as to create a modernistic, grade A standard office building amid an area populated with 80's industrial buildings.

Main facade of the office tower oriented to north fronting on Wang Yuen Street. A grandiose main lobby is located on ground floor with main vehicular entry court lushly landscaped, acting as buffer to screen off busy street traffic on three sides of the site. The project's retail component is situated on back half of ground floor and all of 1/F. Car parking floors sandwiched between 2/F through 4/F with typical offices rise above 5/F and upward.

The building facades are clad with low-e coating on extra white insulated glazing panels. The building is highly energy efficient.



Fast Facts

location	1 Wang Yuen Street, Kowloon Bay
site area	5,306 sq m
plot ratio	12
total floor	38
basement	1
floor to floor height	3.8 m
building height	176 m
total car parking spaces	263
commencement date	1 April 2005
completion date	21 March 2007

Hong Kong Sanatorium & Hospital



The redevelopment programme was initially conceived in the early 1980s in the light of the growing demand for quality health services. It comprises the following four phases :

Phase I

An 18-storey hospital block with two-level basement carpark and a gross floor area of 21,200 square metres. The hospital block accommodates 26 private wards and 52 bed geriatrics wards, delivery suites, dental and ophthalmic departments.

Phase II

Comprises the construction of an eight-storey new extension block with a five-storey basement/semi-basement carpark. The extension block accommodates the outpatient department, specialist clinic, radiology department, radiotherapy department, operating theatres, lecture theatre and nurse' quarters.

Phase III (Completion 2008)

An extension of 20 storeys with a gross floor area of around 21,000 square metres on top of the existing Phase I hospital block. The extension will provide additional patient rooms and beds as well as providing the necessary expansion space for various departments such as maternity, physiotherapy and hospital administration.

Upon completion of Phase III in 2008, the hospital is able to house all departments in the Phase I, II and III buildings. The existing Li Shu Fan Block, Central Block and ancillary buildings at the back would be available for further redevelopment.



Prince of Wales Hospital

The Prince of Wales Hospital is the regional acute hospital serving the New Territories East Cluster. It is also the teaching hospital for the Medical School of the Chinese University of Hong Kong. The existing hospital was built in the 1970s and opened in 1984. The extension project is the first stage in the re-provisioning of the core facilities of the existing hospital which have become outdated.

The extension block will have about 800 beds and will provide the following services:

Diagnostic & Treatment

- Accident and emergency services
- Mortuary
- Inpatient/outpatient pharmacy
- Diagnostic radiology and organ imaging
- A&E observation
- Operating theatres and recovery
- Core/rapid response laboratory
- Blood bank

- Intensive care coronary care unit
- Burns surgery

Medical Wards

- Private wards
- Medical and surgical wards
- Orthopaedic and traumatology wards
- Renal wards
- Infectious disease wards

Support Functions

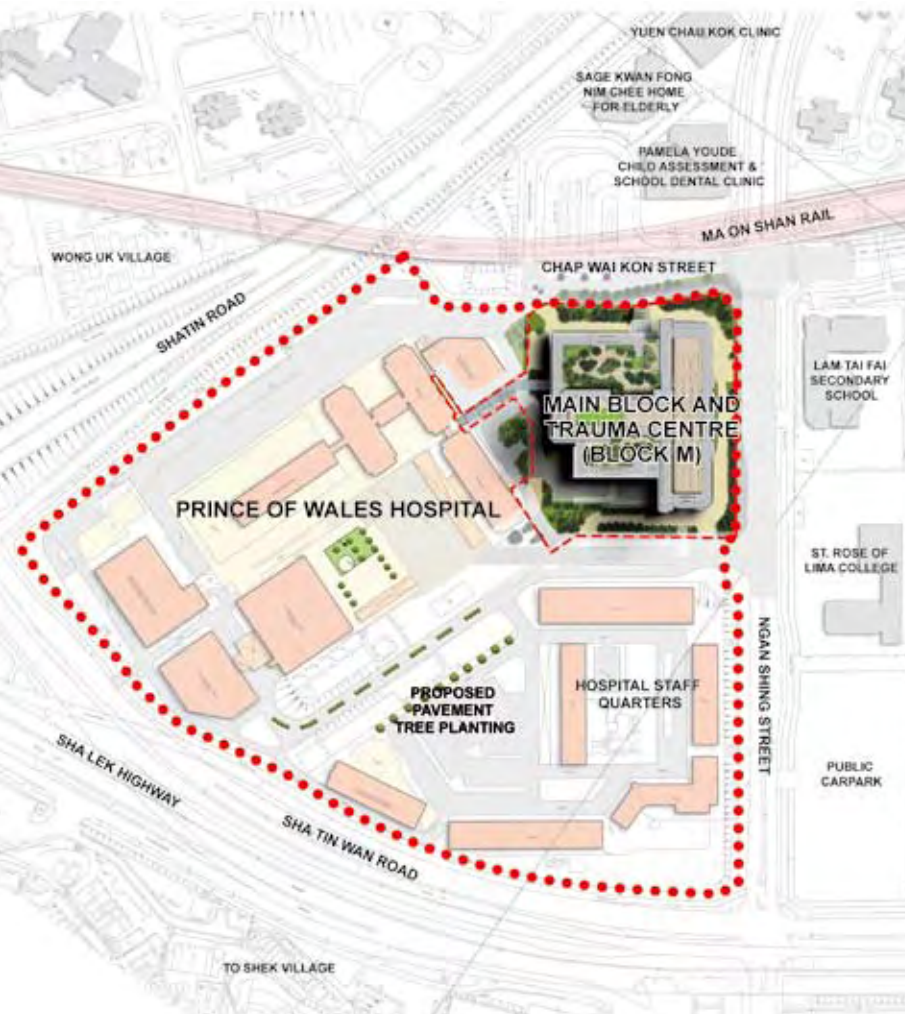
- Admissions
- Central sterile supply
- M&E plant rooms
- Shared facilities for staff

As a number of specialized out-patient and ambulatory care facilities will be maintained in the existing complex, adequate connections with the extension block will be provided.

The site for the extension block is the existing open-air carpark and helipad at the



View from Chap Wai Kon Street



Site plan

northwest corner of the complex abutting Ngan Shing Street and Chak Wai Kong Street.

The stacking of the required services follows the logical layout of having the departments requiring the most accessibility on the lower floors and the nursing services requiring more seclusion on the upper floors. The Accident and Emergency Department requiring access for ambulances is therefore on the ground floor, other diagnostic and treatment departments such as the operating theatres, radiology and intensive care units are located on the podium floors. The nursing units or wards are arranged in three wings in a 'T' form above the podium with the infections diseases wards on the top floor for more effective isolation.

On the typical ward floors, the three wings share the common patient rehabilitation and staff facilities located centrally opposite the lift core. The nurses' stations for each ward are placed in the centre of the ward for maximum visibility and efficiency with minimum distance to all beds. The vertical circulation core is located at the centre of the floor plate and central to the T-shaped tower floors.

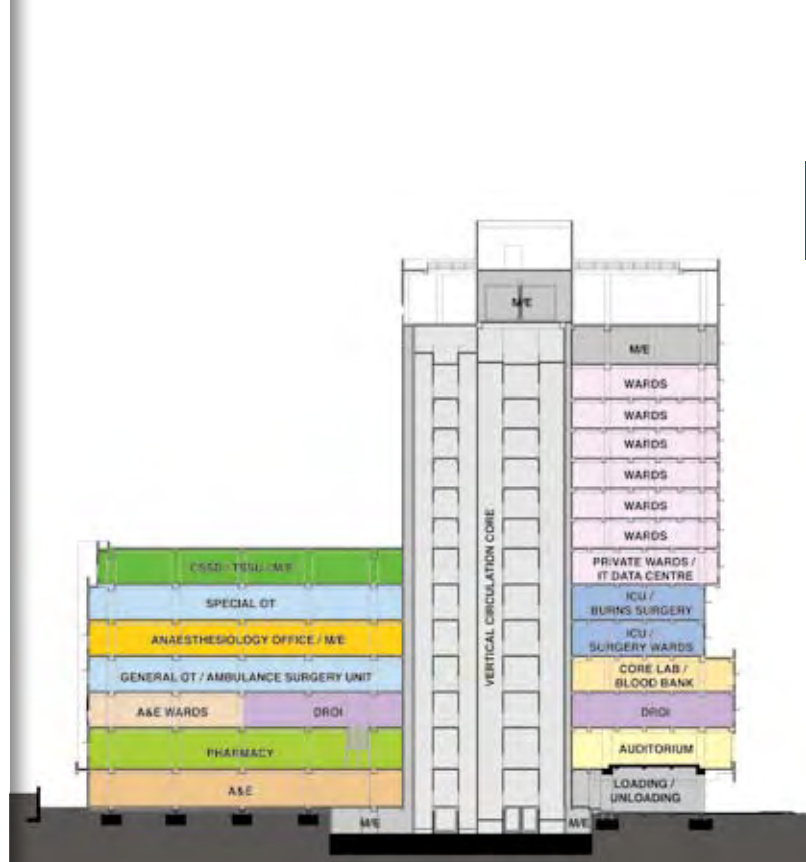
The podium roofs at level six and level seven are used to provide large landscaped gardens. One wing of the top roof is used to provide 'greenroof' in-line with government buildings.

Public access to the new extension block are planned from street level opposite a

public transport interchange while those arriving in private cars, taxis, and public light buses are routed from Ngan Shing Street to a separate drop-off area on Level one. The main entrance lobby is planned on two levels linked by escalators. Connection to the existing main block is via a footbridge at level two and provision is made for connection to a future phase to the southeast at this level.

External treatment concentrates on reducing the large scale of the podium and expressing the three-winged tower as the dominant element. The scale of the three-wings is also reduced through the use of a feature colour to all accommodation on one side of the central corridor. The glazing and sun-shades are expressed as horizontal bands and provide articulation and scale to the building. The two main entrances at level 0 and level 1 are highlighted by large projecting canopies and glass wall and warm colours are used on the external walls.

The design create a healing environment for patients and a stress-free environment for staff by providing soft colours, indirect lighting; easy wayfinding, natural lighting and provision of landscaped areas. The layout is flexible to allow for future changes and growth. The building sets the trend for future phases and establishes a warm and articulated identity for the whole campus.





First level floor plan



Ground floor plan

The Hong Kong Pavilion For HKSAR's Participation in the World Exposition 2010

The design concepts originated from two young architects who won the Concept Design Competition for "World Exposition 2010 Shanghai China The Hong Kong Pavilion" organized by the HKSARG in 2008. The main theme of the Pavilion is "Hong Kong – A City with Unlimited Potential".

The Hong Kong Pavilion has three levels and a sleek contemporary look to showcase the infinite imagination and creativity of Hong Kong and its people. The Pavilion represents a city slashed open to unfold the dynamic nature of its content. The void, being the distinctive visual element of the Pavilion faÁade stimulates curiosity and imagination. During the evening, dynamic facade lighting illustrates the Hong Kong night scene.

The Pavilion has three exhibition levels and each level has been designed to have a different concept and experience: Ground-level has the theme of "Tangible Connectivity"; Mid-level has the theme of "Intangible Connectivity"; and Top-level has the theme of "Connectivity to Nature". The internal link bridge, transparent staircases, ramp areas in-between the floors, enhance the visitors experience as they pass from one level to the next.

The Pavilion uses prefabricated lightweight metal and glass panels. Sustainable designs are incorporated throughout the Pavilion. The corrugated aluminium cladding is detached from the glass enclosure, it allows air to flow through the glass surface to cool down the building in hot climate during the exhibition period. The perforation of aluminium cladding allows natural lighting into the queuing and main circulation areas inside the Pavilion, reducing the use of artificial lighting. Water elements such as waterfall features on the facade and reflection pool around the building edge, improves the micro-climate around the Pavilion. Roof top vegetation provides a green blanket over the Pavilion to help reduce heat gain into the building and also reduce reflective surfaces.



This project is in collaboration with Gammon Construction Limited as a Design and Build project. Construction is scheduled to be completed in March 2010.

client / owner
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design & build contractor
Gammon Construction Ltd

architect
Wong & Ouyang (HK) Ltd

civil & structural engineer
Scott Wilson Ltd

mechanical & electrical engineer
Scott Wilson Ltd

landscape designer
Adi Ltd

exhibition / interior / lighting design
BC Syma Exhibition Contractors Ltd

foundation contractor
Shanghai Beiseng Building Engineering

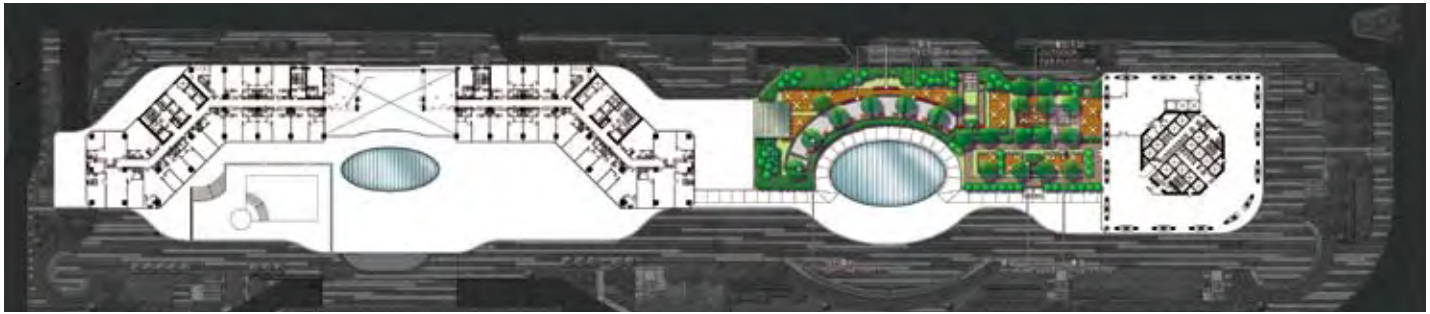


OneLink Walk 萬菱滙

TianHe, Guangzhou



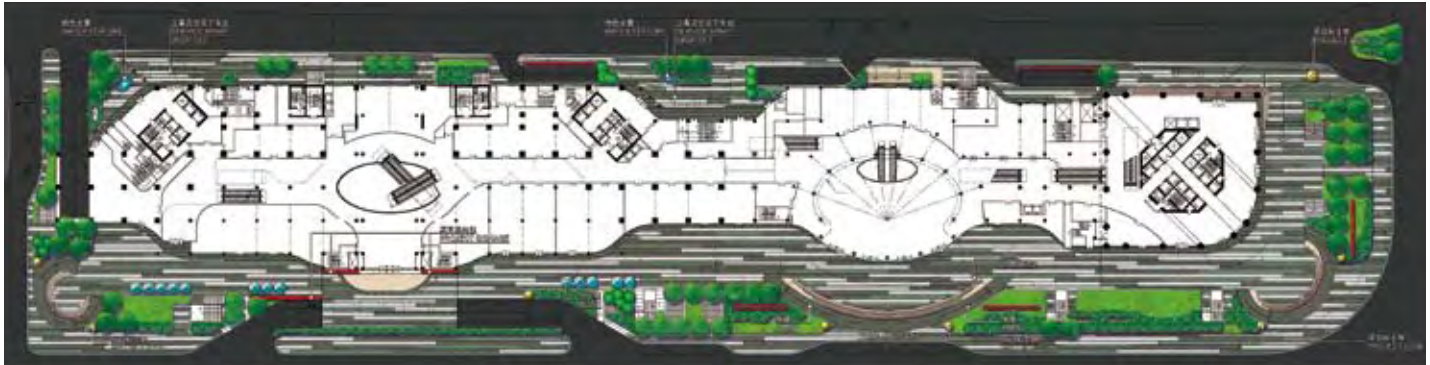
Located at one of the major intersections of the new CBD in TianHe District, Guangzhou, this previously distressed, mixed-use development of 234,800 sq m has been designed to comprise of a 49-storey Grade A office tower, a 5-level Shopping Mall, two Serviced Apartment Towers comprising of 33 and 29 storeys and a two-level basement car parks. Its 330 sq m long site has enabled us to create a fluid and dynamic podium to form the retail mall, while also providing maximum Retail street frontage for tenants and shoppers. Wide pavements have been created along the street frontage to allow easy access to the two main atria for the mall. This development is currently under construction and is scheduled for completion in December 2009.



5th floor plan



4th floor plan



Ground floor plan



Primary entrance perspective



Entrance lobby



Secondary entrance perspective

East Pacific Centre, Shenzhen

Vision

East Pacific Centre's strategic location occupies a highly prominent location and presents a unique opportunity to create a new landmark, a premium shopping and entertainment address and future office centre, to become a focal point on Shennan Road.

East Pacific Centre, is set to be a new, fully integrated mixed use complex consisting of grade A offices, service apartments, hotels and high quality shopping. It serves as a new point of excitement of the district and to create on-going attractions for the local community as well as visitors.

Urban Context

The site is located along Shennan Road, a wide boulevard that establishes an East to West axis in Shenzhen. Shennan Road is a major thoroughfare of paramount significance, epitomizing the vibrancy of the new district. Adjacent to the China Merchants Bank Headquarter Tower, the site is located in the heart of the new Shenzhen commercial city and occupies a unique position along the boulevard. It is also located above the metro lines that generate great circulation. All the above attributes have resulted in a highly prominent site with great potential for a landmark commercial development.



Urban Design

A main shopping spine bisects the rectangular site and provides a vibrant shopping experience. Two pairs of towers anchor each end of the spine with gateway features. A series of nodes, such as plaza and landscaped open spaces along the major spine energize the area. The urban nodes engage the public and offer a new city living experience to the neighbourhood.

Shopping

Create a new retail experience with a rich and diverse trade mix. and provide high quality lifestyle and entertainment facilities to attract local residents as well as regional travellers.

Provide underground connection between the shopping mall and the metro concourse to enable seamless transition.

Devise an efficient and comfortable pedestrian flow system to feed all levels.

Bring abundant daylight into the retail mall to create open, spacious and relaxing ambience. Fully integrate the office and hotel elements into the shopping mall to create synergy.

Open Space

Design all external areas with appropriate landscaping including water features, artworks, paving patterns, hard and soft landscape. Landscaped piazzas serve as civic squares for outdoor performances, exhibitions, alfresco dining and general public enjoyment.

Service Apartment

- The twin residential towers, located at the western end of the development, set a high quality urban dwelling experience to the district. Reaching 300 m, the towers capture a panoramic view of the city and become an icon of premium living. Flats ranging from 2-bedroom, 3-bedroom to unique combined units meet the markets

of different demographics.

- Environmental issues are well considered in the design, and maximum advantages are taken from the elements. The curtain wall facade system provides maximum light gain to the interiors and hence reduces lighting energy consumption.
- Sky gardens are integrated into the building form to bring in outdoor green space into sky-high units. Residents not only enjoy exclusive privacy but also great openness of the sky gardens. Self regulatory landscape system is integrated in the sky garden to create comfortable micro-climate that is very much valuable to city dwellers.
- A sky-bridge connecting two towers functions as the residential club house. Generous facilities will be provided including a state-of-the art gym, swimming pools, spa, library and a banquet hall to the residents.

Offices

Create intelligent and technologically advanced grade-A office space. Design space around a central elevator core with an optimum depth of not less than 11 m from window to core to maximize flexible interior planning arrangement.

Provide typical floors with floor-to-floor height of 4.42 m to enable clear height of 3.0 m after raised floor and integrated ceiling.

Achieve net to gross efficiency of 80% with a floor plate of 1700 sq m for typical office floors.

Design energy efficient facades with insulating glass units with high performance low-e coating.

Hotels

Hotel guest rooms of international 5 star standard.

Incorporate hotel public areas in the podium floors.





Mixed use development, Dazhongli, Shanghai

The comprehensive development is strategically located in the heart of Puxi at the junction of Nanjing Xilu and Shimen Yilu, occupying the majority of one whole city block. A pedestrianised street, Wujiang Lu runs through the site isolating a small portion abutting Nanjing Xilu from the main site.

The development comprises two grade A office buildings complemented by one 4 star hotel, two boutique hotels and a retail mall on the main site. An internal street is created in the main site running parallel to Shimen Yilu. This street is lined with shops on both sides and serves for drop off and pick up. This street may also be pedestrianised during special occasions through traffic management to serve as outdoor event space. Three landscaped plazas will be provided along the frontage of Shimen Yilu to serve as

forecourts to the retail mall and to the pair of office towers. The southernmost of these plazas will feature Minli School, a historic building conserved and relocated from its present location surrounded by nondescript structures to a more prominent facing Wei Hai Lu.

A building devoted to art and culture will be developed on the small site along Nanjing Xilu and will house a multi-purpose performance venue, galleries and shops featuring traditional arts and crafts.

Basement levels 1 and 2 of the development will be connected to the retail level of the planned underground railway under Shimen Yilu for convenient access.

The theme of the development is to create a place for a lifestyle with emphasis on leisure, entertainment and culture. The scale of the podium buildings are designed to be compatible with the existing architecture in the area.



Level 1 floor plan



Block plan



Jing An Mixed-Use Development

NanJing Xi Lu, PuXi, Shanghai

Located at Nanjing Xi Lu, Shanghai, at the interchange of 2 Metro lines, lies this mixed-use development of a 360,000 sq m, in collaboration with Kohn Pederson Fox as the design consultant and Benoy as the retail design consultant, comprises of a two towers, retail, convention and hotel facilities. In the north site along Nanjing Xi Lu, is 50,800 sq m of Retail fronting the main road. A 40-storey Grade-A office tower is located to the south of this site, fronting AnYi Lu. Across from

AnYi Lu is the Mao's Square, forming the heart of the development, with al fresco dining, Convention facilities and the south tower. The south tower is a 60-storey mixed-use tower comprises of 71,500 sq m of office space and 66,000 sq m of hotel and convention facilities, with 5 restaurants and 400 rooms to this 6-star hotel. The two sites are connected at podium level via a bridge and in the basements by means of two tunnels. The project is scheduled for completion in 2011.



Wynn MACAU

Orientated at 45 degrees towards the city centre and the main avenue, the 600-room Wynn Macau features a 3,500-square-metre musical fountain in front of its main entrance.

The 20-storey resort hotel sits above a two-level podium that consists of a high-end retail promenade, six specialty restaurants, a grand ballroom and meeting rooms, a spa, a lushly landscaped outdoor swimming pool, and 9,000 square metre gaming/entertainment area.

The design of the complex was developed in collaboration with Wynn Design & Development, LLC under the leadership of Stephen A. Wynn, Chairman of the Board and Chief executive Officer of Wynn Resorts. The Construction of Encore at Wynn Macau has commenced, which will add a fully-integrated resort hotel to Wynn Macau, with approximately 400 luxury suites and four villas along with restaurants, additional retail space and additional gaming space.





Residential / Commercial Development at Lot V

The development, with a site area about 13,699 square metres, provides about 123,377 square metres of residential areas in 1,330 flats distributed in five residential towers together with 557 carparks and 4,987 square metres of commercial areas. The project comprises five 45-storey residential towers, a landscape podium with a clubhouse and two levels of carpark with retail area on G/F.

The development is currently under construction and is schedule for completion by the end of 2010.





Proposed Residential / Commercial Development at Lot P

The site area of this development is about 68,000 square metres. It comprises about eighteen residential tower blocks sitting on a retail and landscaped podium providing approximately over 7 million square foot residential and commercial areas. The development also comprises carpark facilities providing approximately over 3,000 carparking spaces for the residents and visitors to the commercial retail areas in the podium.

The development was planned to be carried out in multiple phases. The first phase is expected to commence in 2010.