



# 香港中文大學 校園發展計劃初步規劃及設計概念

## The Chinese University of Hong Kong Campus Master Plan Initial Planning and Design Concepts



### Background

The Chinese University of Hong Kong (CUHK) campus is the largest and greenest university site in the city. Over the last 40 years, the campus has undergone different phases as the University developed and expanded to meet the needs of the rising population and advancement of its academic programs. As the University continues to grow, coupled with the following challenges, it is of paramount importance that we take a more strategic approach to developing a sustainable campus:

- The university's student population growth arising from the government's policy to implement a four-year undergraduate program for local tertiary institutions;
- The organic development of the University as a leading comprehensive research university;
- The steep topography of the campus site which creates challenges for connectivity, space efficiency and construction costs; and
- The need to balance development and sustainability.

Our goal is to create a comprehensive and visionary blueprint for the campus covering the existing area and, subject to government approval, an additional neighbouring site known as Area 39.

To give our future campus development a unified vision, a Steering Committee on Campus Master Planning was formed in 2006 to oversee the formulation of the CMP. A key task of the Steering Committee is to engage and guide professional consultants to undertake the drafting of Preliminary Master Plan Proposals (PMPP). Four renowned architectural firms with international campus development expertise have been short-listed to prepare the PMPPs covering design concepts, methodologies and approaches. In their proposals, the consultants are required to give special consideration to issues including development potential and constraints; environmental and heritage issues; sustainability; pedestrian and vehicular traffic; spatial re-organisation; landscape; and building design.

### 背景

香港中文大學的校園是本港最大及最綠化的校園。過去四十多年來，為了滿足大學發展的需要、不斷增加的學生人數及學術課程的擴展，校園經歷了不同階段的發展。隨著大學持續發展，以及下列各因素，大學有需要採取更富策略性及前瞻性的整體校園規劃：

- 因應政府政策確立大學本科生課程由三年改為四年制，中文大學本科生人數將大幅增加；
- 中文大學致力發展成為世界一流的研究型綜合大學；科研人員及相關設施的需求；
- 大學校園陡斜的地形帶來一系列涉及校園間的連繫、有效率的空間運用、及建築成本的挑戰；及
- 擴展校園與可持續發展之間需要取得平衡。

我們的目標是為大學現址擬定全面及具願景的藍圖，並因應政府最後決定是否批出毗鄰的第三十九號地段作擴充校園現址，一併就該地段作出規劃。

為了確保未來的校園發展計劃有完善的全盤規劃，大學於二零零六年成立校園發展計劃督導委員會，負責監督制定校園發展計劃。督導委員會的一項重要任務，是委任及指導顧問公司擬定校園發展計劃的初步建議。委員會已經篩選了四家享譽盛名並夥同有發展大學校園經驗的國際專家的建築顧問公司，委託他們就校園發展計劃的設計概念、方法及取向等提交初步建議書。顧問公司在建議書內需要特別注重幾個重要範疇，包括：校園發展的潛力與限制、環境與傳統保育、可持續發展、行人及交通工具流量系統、空間重組、校園自然風貌與園景、及建築物設計等重點。



## Your views and feedback

The University values the comments of all members of the University Community and is committed to listening and responding to their views. Given the importance of the CMP, the Steering Committee will reach out to members of the University Community to collect their feedback on the planning principles and design concepts of the proposals. A stakeholder engagement and feedback collection program is scheduled to commence on 24 September 2007 and will conclude on 31 October 2007. As part of the stakeholder engagement program, the Steering Committee will set up meetings with members of the University Community to enable face-to-face dialogue. The four professional consultants will also attend these meetings to present and explain their proposals.

To further facilitate the University Community's understanding of the CMP proposals, an exhibition of the four consultants' proposed designs will be held at Exhibition Gallery, LG/F Esther Lee Building, CUHK during the feedback collection period.

Members of the University Community are welcome to submit your views via the Feedback Form or the following website: <http://www.cuhk.edu.hk/cmp/index.htm>.

The University appreciates that members of our community have been taking a keen interest in the development of the campus. The stakeholder engagement program will enable us to consider the proposals with reference to the views of the University Community so as to ensure that the future CMP can best reflect the aspirations of our community, as well as balancing the needs of campus development and sustainability. The feedback collected will serve as input for the Steering Committee to formulate its recommendation to the University. The CMP is expected to be finalised and announced towards the end of 2008.

Highlights of the key design concepts in the four PMPP are outlined in this pamphlet.

## 您的意見與看法

大學非常重視大學成員對校園發展的意見，我們亦致力聆聽及回應您們有關的看法。校園發展是一項很重要的計劃，因此校園發展計劃督導委員會將於二零零七年九月二十四日至二零零七年十月三十一日期間，就校園發展計劃初步建議書的規劃原則與設計概念向大學成員收集意見。校園發展計劃督導委員會將安排與大學成員作面對面的會面及交流，四家顧問公司的成員亦將親臨講解建議書的構思。

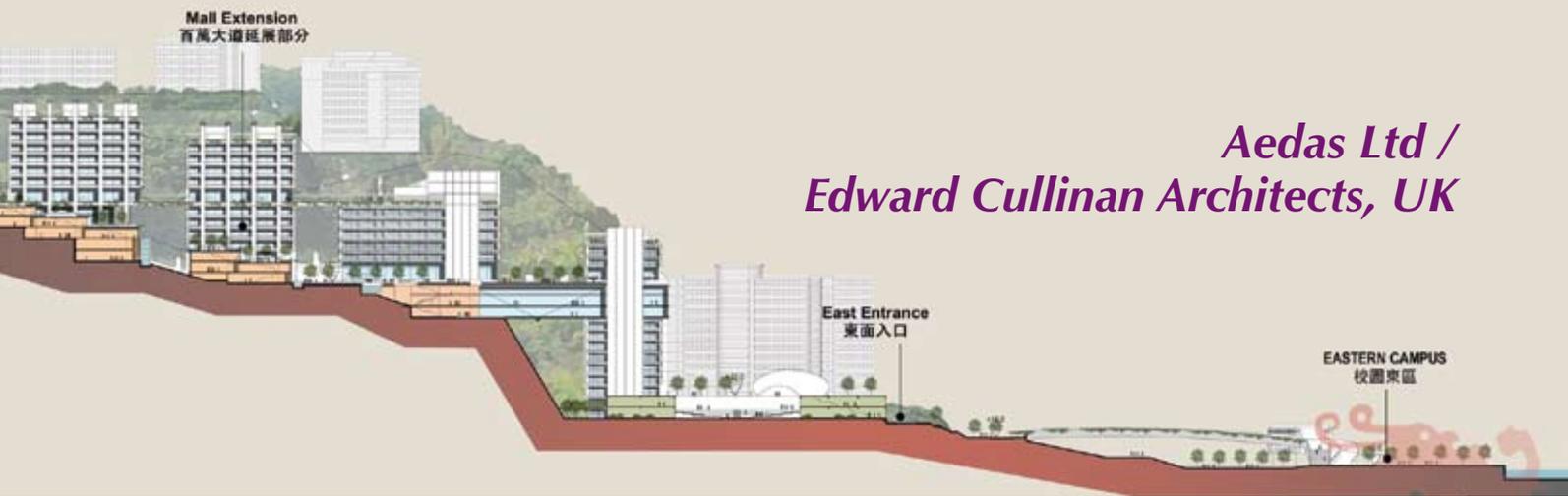
為了讓大學成員充份了解校園發展計劃初步建議書的內容，大學將於收集意見期間假香港中文大學利黃瑤璧樓地下展覽廳展出四家顧問公司的校園發展藍圖。

我們歡迎大學的成員透過回應表格或網站發表意見，網址為 <http://www.cuhk.edu.hk/cmp/index.htm>。

我們深悉大學成員都非常關心校園的未來發展。透過與大學成員的會面及交流取得的意見，我們將之用作考慮各初步建議書時的參考，以確保大學未來的發展藍圖能夠反映大學成員的意見，並可就擴展校園與可持續性發展之間取得平衡。校園發展計劃督導委員會從各方面收集回來的意見將有助我們制定向大學提交有關校園發展計劃的建議書。

校園發展計劃的最終方案期望於二零零八年年底前落實及作出公佈。

本單張詳列四家顧問公司初步建議書的主要設計概念，以供參考。



## Aedas Ltd / Edward Cullinan Architects, UK

### ● The “Axis + Web” concept

- ◆ The Axis: extension of the University Mall, which forms a central learning axis, to provide more learning facilities and act as the campus’ focal point
- ◆ The Web: a holistic connection of individual spaces across the campus connected by various means to provide comfort for pedestrians

### ● A pedestrian-friendly campus

- ◆ Covered walkways, vertical transportation, cascading platforms and escalators to create comprehensive pedestrian linkage

### ● New venues for learning

- ◆ The Mall Extension Teaching Complex frames the new Promenade, forms a new gateway to the Central Campus and establishes a new spatial identity for CUHK
- ◆ A new research complex is proposed at Area 39 to form a second focal point
- ◆ A high-density teaching complex is also proposed near the KCRC station to promote public interaction and pedestrian path interchange

### ● 軸網一體的總體規劃

- ◆ 主軸：林蔭大道將擴展延伸，提供更多教學設施，成為校園中央的教學主軸及校園的視焦
- ◆ 網：透過不同方式將校園的獨立空間聯繫起來及歸於一體，方便行人往返各處

### ● 行人取向的校園

- ◆ 有蓋行人道、垂直運輸系統、層級式建設及自動梯等提供完備的连接系統

### ● 嶄新教學設施

- ◆ 林蔭大道的延伸段教學樓將建構出一條全新的長廊，成為通往中央校園的新玄關，為大學帶來新的空間認同
- ◆ 第三十九號地段建議興建全新的研究大樓，成為大學第二個視焦
- ◆ 於火車站附近興建密度較高的新教學大樓，舉辦促進公眾互動的活動，並成為行人交匯處

### ● Enhancement of university life

- ◆ The “College spine” concept links two new colleges and three new hostels, all with individual identities and areas, to facilitate student participation in campus activities and interaction

### ● Landscape design

- ◆ Natural landscape to be preserved with more open space and landscaping befitting the history and environment of a college

### ● Campus heritage

- ◆ Conservation of heritage buildings with logical methodology

### ● Green campus

- ◆ Green architecture such as shaded courts and breezeways, maximising natural light penetration, green roof, double skin façade will be considered to reinforce commitment to sustainability

### ● East meets West

- ◆ Planning concept bringing together China and the West, and combining tradition with modernity to be explored.

### ● 豐富大學生活

- ◆ 透過「書院群」將兩所新書院及三座新宿舍連接起來，包含不同特性及區域的書院，促進學生參加校園活動及交流

### ● 園景設計

- ◆ 保存自然園景設計，以廣闊的休憩空間配合書院的歷史背景與環境脈絡

### ● 校園古蹟

- ◆ 以有效及合理的方法保護校園建築及文化遺產

### ● 綠山城

- ◆ 透過綠色建築建造可持續發展的環保校園，有關概念包括遮陽院落、自然採光、綠化屋頂、雙層玻璃外牆等

### ● 承匯中西

- ◆ 設計結合傳統與現代，融會中國與西方





## Andrew Lee King Fun & Associates Architects Ltd / Moore Ruble Yudell Architects & Planners Ltd, USA

- **Pedestrianisation - Covered Mechanised Pedestrian Path / Social Spine**
  - ◆ The pedestrian path or the Social Spine, formed by escalators and stairs, is proposed to be the primary mode of pedestrian movement from the train station to the Central Campus and from there to other areas of the University
- **Green Campus**
  - ◆ Mechanised spine to reduce vehicle use and emissions, changes pedestrian / bus-use ratio from the existing 40/60 to 80/20
- **Centralising major academic and amenity facilities**
  - ◆ New academic buildings proposed to be concentrated along the social spine enabling better access, sharing of facilities and academic interaction
  - ◆ A series of “amenity terraces” proposed to be situated mid-way between the lower and central campus areas to offer some “breathing space” among surrounding buildings
- **Heritage**
  - ◆ Existing buildings at Central Mall and other buildings unique to the University’s heritage to be preserved
  - ◆ Older buildings to be refurbished and upgraded, wherever necessary
- **步行化的校園：有蓋自動化行人徑 / Social Spine**
  - ◆ 行人徑 / Social Spine 由扶手電梯及樓梯組成，成為連接火車站與中央校園及校園其他地方的主要行人交通幹線
- **綠色校園**
  - ◆ 將行人/校巴使用比率由現時的40/60改為80/20，減低車輛應用及廢氣排放
- **集中教學設施**
  - ◆ 集中於自動化行人徑兩旁興建新的教學樓，增強交通聯繫、分享設施的使用及學系之間的互動
  - ◆ 於中央校園與山腳之間興建一系列分層平台花園，以綠化空間提供休閒與活動的地方
- **保育有價值建築物**
  - ◆ 保留林蔭大道兩旁的樓宇及其他有價值的建築
  - ◆ 將舊有建築物改建及翻新
- **Community use**
  - ◆ A plaza on both sides of Station Road to provide gathering spaces outside the train station and direct access to the elevated Social Spine
  - ◆ A “Great Space”, an elevated section of the “Social Spine” with Wei Yuan Lake as its central focus, to enhance community life and the University’s main open-air functions
  - ◆ A “Grand Walkway” through the new Integrated Teaching Buildings to create a second pedestrian linkage between the “Great Space”, University Sports Centre and social gathering places
  - ◆ A new Library Complex, a new University Hall and Cultural Complex adjacent to the University Station to facilitate usage by the University and the public
- **Area 39**
  - ◆ Six blocks of new post-graduate residences proposed to be built within this area.
  - ◆ Centralised General Laboratories and Research and Development Laboratories located at the northern-most part of Area 39 to be designed as signature structures
- **Flexibility**
  - ◆ Allow campus to develop in phases
- **社區使用**
  - ◆ 火車站兩旁設入口廣場，作為人流聚集的地點、及自動化行人徑的起點
  - ◆ 「大廣場」為自動化行人徑的一部分，以未圓湖為焦點，成為大學主要的戶外活動場地
  - ◆ 行人徑新建的扶手電梯及階梯貫穿新建的綜合教學樓，成為第二道主要行人幹道，連接大廣場、大學體育中心及其他聚會地點
  - ◆ 於火車長旁興建一座新圖書館及一座大禮堂與文化綜合大樓，供校內外人士使用
- **第三十九地段**
  - ◆ 於該地段興建六座研究生宿舍
  - ◆ 於第三十九地段北部興建科研實驗大樓，以獨特的建築繪畫出校園北部的輪廓
- **具彈性的方案**
  - ◆ 容許校園分期發展的方案

# Dennis Lau & Ng Chun Man Architects & Engineers (HK) Ltd. / Woods Bagot, Australia

## World-class campus

- ◆ Create a world-class campus with the highest level of international design
- ◆ Provide urban quality for spaces between buildings so that buildings collectively create a network of open spaces, squares, gardens and streets
- ◆ Promote walking around the campus and increased social interaction in the network of urban spaces, which are specially created for discussions, study, reflection and play

## Pedestrian-friendly campus

- ◆ Campus to be tied together with a strong pedestrian spine through covered walkways, outdoor escalators and lifts to reduce dependence on motor vehicles such as buses
- ◆ New carparks to be built on perimeter of campus; park-and-walk and park-and-ride facilities to be promoted
- ◆ Minimisation of traffic to make existing road network sufficient despite campus growth

## Town squares

- ◆ Individual colleges and campus lifestyle to be enhanced through newly created town squares

- ◆ Town squares to incorporate cafeterias, learning spaces with Wi-Fi access, landscaped casual meeting spaces and other facilities to promote a new, vibrant campus lifestyle

## College system

- ◆ College system reinforced and activated via campus development

## A focused laboratory cluster

- ◆ Area 39 to incorporate a critical mass of laboratory research facilities

## Minimising building footprint

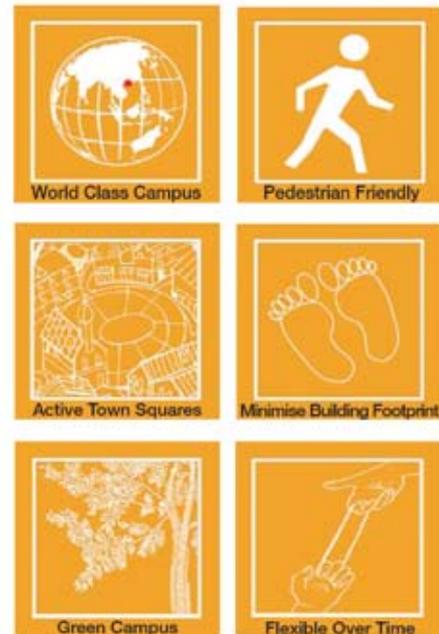
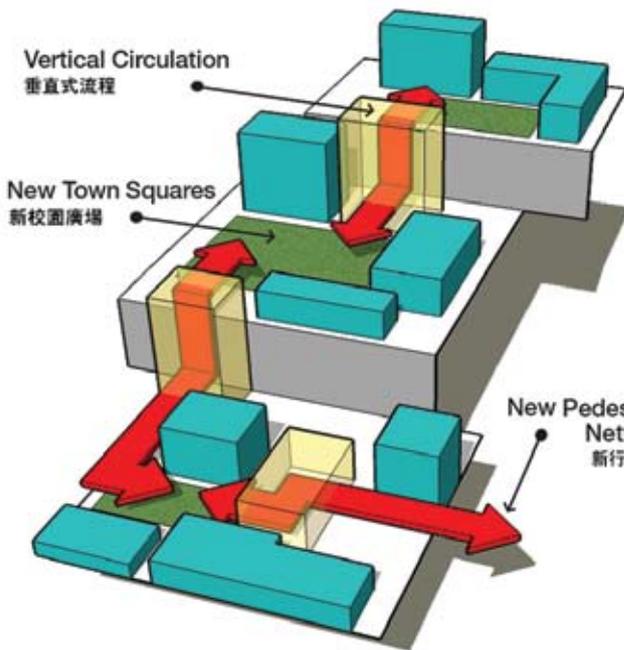
- ◆ Minimal number of new buildings planned
- ◆ Heritage buildings kept intact
- ◆ Minimum impact of construction on day-to-day functioning of campus

## Green campus

- ◆ Preserve green campus and natural feeling
- ◆ Preserve ecological resources
- ◆ Raised walkways specially located to highlight the natural environment

## Flexibility

- ◆ Allow campus to develop in phases



## 世界級的校園

- ◆ 以最高水準的國際設計締造世界級的校園
- ◆ 於建築物之間的空間運用城市規劃原則，透過露天場所、廣場、花園與街道將公共空間提升整合成為一個活動的網絡
- ◆ 鼓勵師生於校園內步行，透過行人系統增加社區互動作用，將都市空間網絡融入其中，令校園生活更為多姿多采

## 方便的行人通道

- ◆ 以有蓋通道、室外扶手電梯、升降機等建立行人系統，將校園建築物聯繫起來，減少對校巴及其他交通工具的倚賴
- ◆ 於校園周邊興建新的停車場，於校園內推廣「停泊及步行」或「停泊及搭乘校車」的政策
- ◆ 減低校園內的車輛數目及減少交通，以致即使校園繼續擴展，現時的道路網絡仍可繼續及足夠使用

## 校園廣場 Town Squares

- ◆ 新建的校園廣場促進書院與校園生活
- ◆ 校園廣場設有小食休憩亭，無線上網令廣場蛻變成學習、休憩及小組活動的場地，令校園生活更豐富

## 書院系統

- ◆ 透過校園發展進一步鞏固書院系統，令系統更為生活化

## 集中的實驗室組群

- ◆ 將第三十九號地段發展成實驗室組群

## 減少新建建築物

- ◆ 減少新建建築物
- ◆ 保存現有建築物的風貌
- ◆ 減少校園發展對校園日常運作的干擾

## 綠化校園

- ◆ 提倡環境綠化及保留自然景色
- ◆ 保存生態資源
- ◆ 空中走廊為行人提供更多欣賞生態資源的機會

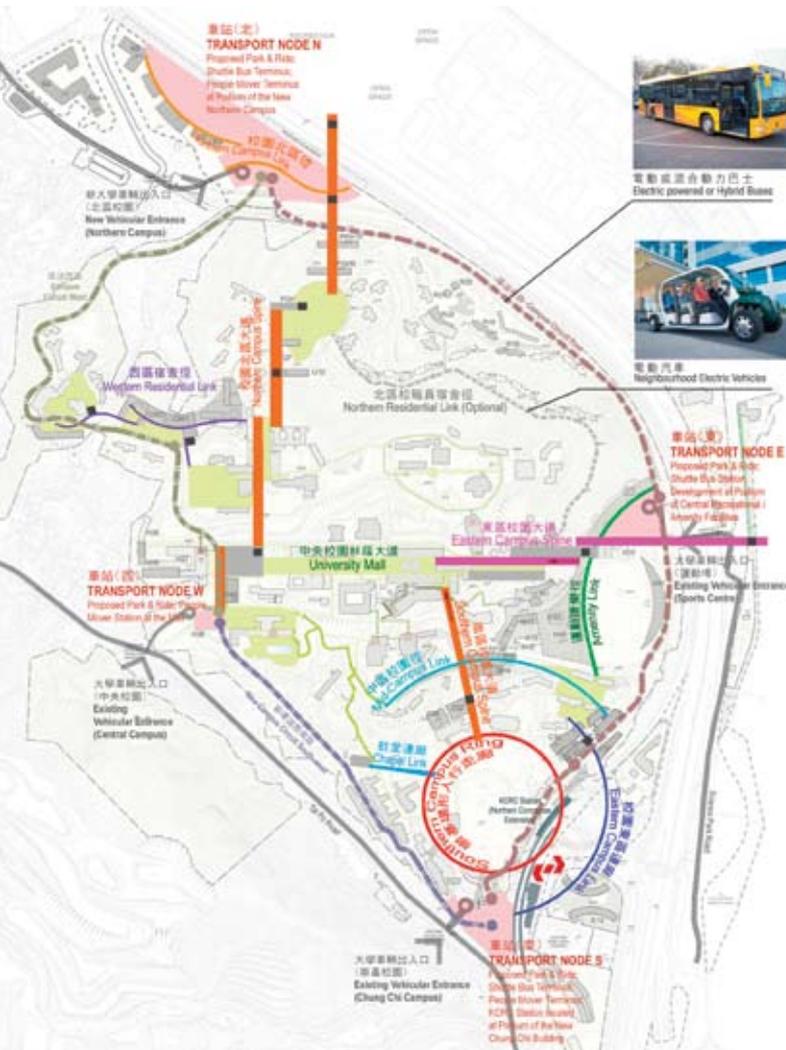
## 長遠發展的彈性空間

- ◆ 按步就班地開拓未發展的空間

# P&T Architects & Engineers Ltd / Perkins + Will, USA

- **Preservation of campus heritage and environment**
  - ◆ Preservation of historical landmarks including the Central Mall Gate and Beacon, New Asia Water Tower and Amphitheatre, United College Water Tower and Sculptured Garden, Shaw entrance sculpture, Chung Chi Chapel and Alumni Trail
  - ◆ University Mall: To be upgraded while relocating the parking and vehicular traffic to the new integrated transport nodes and expanding the landscaped pedestrian area
  - ◆ Chung Chi college: A covered and elevated pedestrian ring route, with Weiyuan Lake and Lingnan Stadium as visual focus, to link up the existing scattered Chung Chi facilities and connect to the Central Campus
- **Continuous development of college system**
  - ◆ Existing colleges to be developed with new teaching facilities to fulfill individual needs of each College
  - ◆ New colleges to be located at the western part of the campus and integrated into the proposed pedestrian network system to facilitate the linkage to Shaw College
- **Comprehensive research university**
  - ◆ Expansion of Central Campus with upgraded size and facilities of central library
  - ◆ Centralised research community at Northern Campus to be connected with the adjacent Science Park facilities and to be supported by centralised postgraduate hostels and staff residential area at northeastern part of the campus fronting Tolo Harbour
  - ◆ Eastern research campus adjacent to the KCRC station to enhance the communication between the University and the society
  - ◆ Sir Philip Haddon Cave Sports Field to be upgraded with new sports facilities; linked bridge connects Water Sports Centre along Tolo Harbour to centralise sports facilities at eastern part of campus, to raise the standard of amenity facilities and to achieve the goal of holistic education
- **Vehicle-free campus**
  - ◆ Transforming the Pond Crescent, University Avenue, Central Avenue, United Road and New Asia Road to vehicle-free pedestrian areas, and limiting other road use to electric powered or hybrid buses.

- ◆ Pedestrian circulation network to enable 15-minute walking time from Central Mall to northern, eastern and southern campus spines using covered walkway, elevators and escalators
- ◆ With closure of road and parking spaces to facilitate landscape upgrading and extension of outdoor facilities such as outdoor café, student plaza and communal spaces; park-and-ride complexes are proposed at east, south, west and north entrances of the campus. They will be linked to pedestrian network system and shuttle bus terminal to facilitate access to other parts of the campus
- **Green campus with low carbon emission**
  - ◆ Long-term environmental strategy is suggested to reduce the carbon emission within campus and to achieve a sustainable green university campus supported by implementation of the environmental friendly people mover system and the employment of wind turbines, solar panels and green roofs at the Northern Campus



- **校園傳統與自然環境保育**
  - ◆ 保留傳統地標，包括中央校園的門雕塑及烽火台、新亞書院的水塔及圓形廣場、聯合書院的水塔與雕塑園、逸夫書院入口的標記、崇基書院的教堂及校友徑等
  - ◆ 於林蔭大道進行提升工程，將中央道一帶的停車及停車位位置於新建交通運輸站，增加綠化及行人範圍
  - ◆ 崇基學院以未圓湖為焦點提供全天候有蓋綠化行人走廊，連接崇基學院現時分散的設施及中央校園
- **書院體制的持續發展**
  - ◆ 原有書院將按各書院需要增設新的教學設施
  - ◆ 新建書院位於大學西面，連接逸夫書院並融入行人連廊系統
- **研究型綜合大學**
  - ◆ 擴建中央校園，將大學圖書館設施擴展及提昇
  - ◆ 將新的科研設施集中於校園北部，與科學園設施連接，並於校園東北部面向吐露港的位置興建研究生及教職員住宅區
  - ◆ 於校園東部的火車站附近興建實習教學校園，提供更多大學與社會人士互動交流的機會
  - ◆ 夏鼎基運動場將增建新設施，以橋樑連接運動場與大學位於吐露港的水上活動中心，將校園東部的體育設施集中起來，提高文康及學生生活動設施的水平，以達致全人教育目的
- **無車校園**
  - ◆ 將池旁路、大學道、聯合路及新亞坊轉為行人專區，以將行人與交通分開，使用電動和混合動力校巴。
  - ◆ 以升降機及行人自動電梯組成的行人連廊系統讓行人於十五分鐘內從林蔭大道步行至校園北部、東部及南部
  - ◆ 透過取消行車道及部份停車位改善校園環境及擴展戶外綠化設施如露天茶座、休憩及集會廣場，於臨近大學圖書館、大學體育中心、火車站、北部科研校園等地的東部、南部、西部及北部入口出興建停車及轉乘設施大樓，並以行人連廊及穿梭校巴將之連接起來
- **低碳排放綠色校園**
  - ◆ 建議大學定立長遠減少碳排放的目標，以保存現有樹木及加強綠化，並於校園北部利用風能收集場、太陽能收集板及綠化天面，充份運用再生能源，再配合環保集體運輸系統，成為一所真正的綠色校園大學