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Learning From 50 Years of Hong Kong Skybridges



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James Robinson

James Robinson was appointed Executive Director of Hongkong Land Limited in June 2002, and is responsible for the project management functions of the company's Asia Pacific investments.

Robinson joined the company in 1988 and has been responsible for a number of major high-rise/tall building development projects, including Chater House in Hong Kong, One Raffles Quay in Singapore, the One Central luxury mixed-use development in Macau, and the ongoing Marina Bay Financial Centre in Singapore, as well as the nearly completed World Trade Centre 2 for Jakarta Land in Jakarta, Indonesia.

Before joining Hongkong Land, Mr. Robinson worked for 10 years with the Hong Kong subsidiary of the American architectural/engineering firm, Leo A Daly, gaining extensive regional design and project coordination experience in Hong Kong, Korea, China, and the Philippines.

Hongkong Land, which now ranks in the top 25 among the world's largest property companies by market capitalization, has been a Patron/Sponsor member of CTBUH since 1991, and its senior management have actively attended CTBUH world conferences since the Fourth World Congress in 1991.

In 2014, Hongkong Land, which owns more than 450,000 square meters of central Hong Kong, is celebrating its 125th year in business. The company was instrumental in developing not only the commercial, retail, and hotel market in Hong Kong, but also the city's famous network of skybridges between buildings, which has grown to encompass many kilometers, much of it air-conditioned and supporting a "street" life all its own. CTBUH Editor Daniel Safarik spoke to James Robinson, Executive Director of Hongkong Land about the past, present, and future of skybridges in an increasingly urbanizing world.

What are some of the main reasons why Hongkong Land decided to start building skybridges between its properties?

Footbridges are a big part of our history after World War II, and you have to go to the early founding of Hong Kong as a cosmopolitan city and the way the government laid out streets and the sizes of the sites to understand their importance. It became very obvious that with a very dense city, the building sites were relatively small in the big scheme of things. As the city developed, many lanes between buildings were absorbed into larger sites, but there wasn't a critical mass between buildings. Hongkong Land actually tried to purchase existing buildings adjacent to our original properties that we bought in the late 1890s so that we could either merge them, or link the buildings across the street with footbridges. After WWII, rent controls made it such that we could not do any major redevelopment of our first buildings in Central until the mid-1950s, when we demolished the old Alexandra Building and adjacent Royal Building, and created the then-new, art-deco Alexandra House, which amazingly was redeveloped

again in 1976 along with the Mass Transit Railway Corporation (MTRC) system in Central. At this point, all of our buildings were 50 or 60 years old. They were the original four-story buildings that we built in the early 1900s.

Hongkong Land's leadership at the time were very intuitive thinkers, and they built the first Mandarin Hotel (now the Mandarin Oriental Hotel), which stands in the same place today. The Mandarin Hotel was built and opened in 1963. The senior managers at the time, who were redeveloping the old Prince's Building, said, "We don't have enough critical mass in the Mandarin Hotel site, so let's link it with an air-conditioned footbridge across the road." The new Prince's Building was completed in 1965. The government granted us a usage license to build, operate, and manage that first footbridge, which has become one of the most iconic footbridges in the world, and very frequently photographed.

This footbridge provided a link for the luxury hotel guests to wake up in the morning and walk across to the adjacent building that

“Putting in the footbridges and allowing retail to expand both vertically and horizontally across buildings has driven enough traffic that it now comprises at least 30 to 35% of our total annual retail profits in Hong Kong.”



Figure 1. Skybridges at Alexandra House, Hong Kong. © Hongkong Land

accommodated three levels of retail. Then, hotel guests who had business in the Prince's Building could use the footbridge to access the office lobbies. It was also our first building where we put the office lobby above the ground floor. The original design had the main office lobby at the second level, linked with double-height escalators on the east and west sides. This was important to maximize traffic to ground- and first-floor shops, many of which were double-height, even back then.

So in a sense, this is a clever way of capitalizing on their adjacency by treating them as one building?

Yes. Both sites are two of the bigger sites in Central, but we still felt that doubling the size of the site by combining them would give them a greater critical mass and would give us an opportunity to blend hotel, retail, office, and restaurants in an integrated link. Once it became obvious that it was successful, we started saying, "Wow, this is the way to go; let's start planning this for all of our other buildings that need to be redeveloped."

This was the trigger for us to create the Central Redevelopment Master Plan, which focused on two major planning decisions: the next redevelopment of the critical Central nodal site, Alexandra House (see Figure 1), to allow for multiple footbridges to radiate out in all directions to our adjacent properties, and more importantly, the massive amalgamation of sites along Queens Road Central and Des Voeux Road Central. Today this stands as The Landmark complex of luxury retail, and contains three office towers, and now the world-famous Landmark Mandarin Oriental Hotel.

When you redeveloped those buildings, did you tear them down and build new or were they gut-rehab projects?

Back then we tore down and built anew, because all of the buildings were way under the allowable gross floor area that we were permitted to build on-site. Essentially all of the buildings were four stories. With the new codes in Hong Kong, you could build with 80% site coverage up to 24 floors, so the plot ratio was a maximum of 18 or 19. But 10 years later, Hong Kong scaled back to a plot ratio of

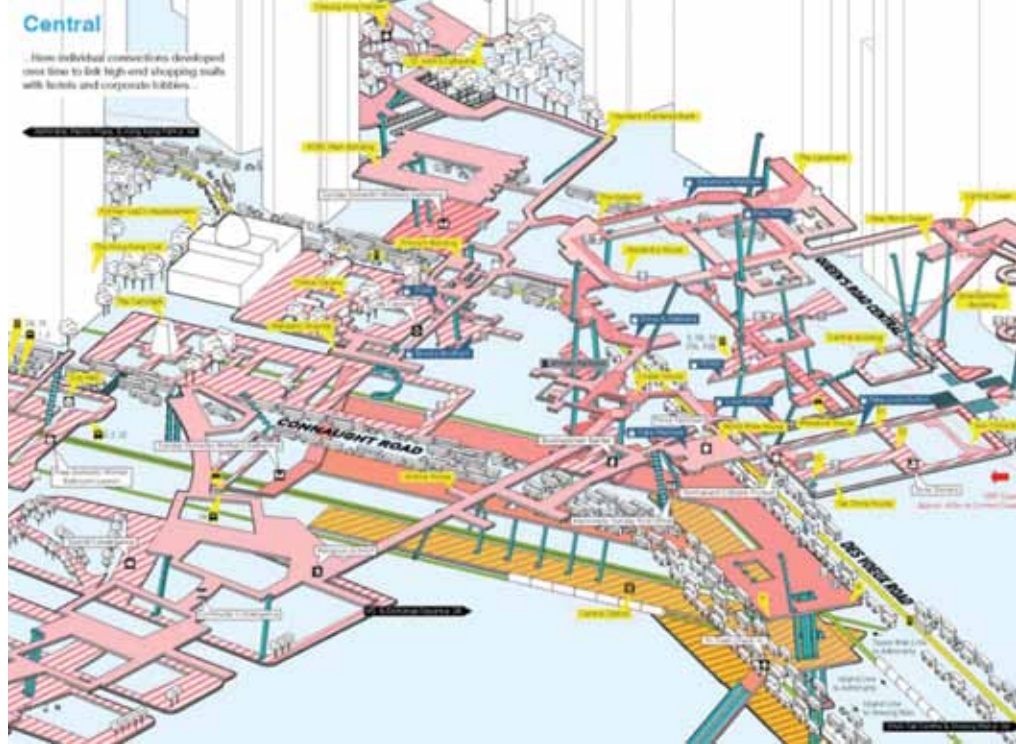


Figure 2. Hong Kong Central elevated skybridge. Source: Frampton, A. et al., 2012, *Cities Without Ground: A Hong Kong Guidebook*

15. At this time, Hong Kong was growing at a tremendous pace, from 600,000 people at the end of WWII to 2.5 million by the mid-1950s, with many coming in from China.

What were some of the competing private interests that had to be dealt with as the network was extended beyond the properties that HKL owned directly?

The Hong Kong government was, and still is, very supportive of the footbridge network. With some developments like the Connaught Centre, there was a requirement that a footbridge be built across Connaught Road. The government has also built its own unbelievable array of footbridges, extending the network that we started in the 1960s (see Figure 2).

If a developer has a number of contiguous sites, they have typically connected their buildings with footbridges. Rarely have competing developers connected their buildings. It comes down to the fact that they don't want to share the costs of construction and maintenance. Some developers only see the initial dollar sign; not realizing that the potential increase in footfall and rentals in 20 or 30 years will render huge profits compared to the initial capital costs.

Have you determined how much value footbridges bring to a project?

It's a hard number to determine, but putting in the footbridges and allowing retail to expand both vertically and horizontally across

buildings has driven enough traffic that it now comprises at least 30 to 35% of our total annual retail profits in Hong Kong. That's because we are able to go up a couple of extra floors and move office lobbies to upper floors in order to provide more space for ground-floor retail. Also, the linkage between buildings adds value to all the retailers.

One of our current priorities right now is to convince the public and overseas tourists that our four main inter-connected retail podiums in Central south of Connaught Road are actually in fact one integrated retail development. Several years ago, we rebranded all of these connected retail podiums into what is now called "The Landmark" (see Figure 3).

This way, you're within Central, but you're also within The Landmark. It's been a challenge because people still know the buildings as the Prince's Building, Alexandra House, Chater House, and the original Landmark. Nonetheless, we're making headway with a number of other initiatives that convince people that they're in the same retail setting. We use the same floors, signage, branding, music, and smells to project an image to people that they're in the same cohesive horizontal development.

What actions have you taken to reinforce this branding?

The footbridges were renovated 15 years ago to be the same, but all of the buildings were



Figure 3. The Landmark, Hong Kong. © Hongkong Land



Figure 4. Domestic helpers gathering on the skybridge network in Hong Kong every Sunday. © Annelotte

still different in their retail areas. Alexandra House became a catalyst after we did major renovations 12 years ago. We and our design consultants came up with a strikingly beautiful palette of openness, visual links to the outside with full-height glazed walls, a new mezzanine level with F+B outlets overlooking the main lift lobbies and footbridges, Aurisina limestone floors, Gascoigne Beige limestone walls, great lighting, full-height retail shopfronts, and the warmth of elegant timber veneers.

We have successfully connected our buildings with those of other developers. A very short footbridge now connects the Landmark, Central Building, Central Tower, and the Entertainment Building with Lan Kwai Fong, which belonged to another local developer who had the foresight to work with us. On rainy days, it is the busiest thoroughfare in the world. The link from the Prince's Building and the Standard Chartered Bank to the Hong Kong Shanghai Bank (HSBC) Building and Battery Path was also successful. An arrangement was made so that the connected buildings would share the costs of the footbridge. It was a very creative way for two competing banks to link up to each other, our network, and government offices.

How is responsibility for coordinating security, maintenance, and opening hours handled?

If the footbridge is licensed to a third-party developer, then that developer takes up the security and maintenance responsibilities.

Government footbridges handle their own security and maintenance. Opening hours on the footbridges has to be 24/7 in all cases. However, footbridges linking through a private building can be handled in many ways. You can have an agreement to dedicate the internal arcades, which in most cases can be acquired with bonus plot ratios (BPRs), or just a standard linkage without BPRs. In some cases, the internal arcade is shut at say, 10:00 p.m., and the footbridge licensee or the government would have escalators and stairs down to ground. In some cases, the building owner would provide an external walkway around the building to the next connected footbridge. This was how we used to do some of our first footbridges in and around the first Alexandra House and Union House (later renamed Swire House) from the 1960s until just 15 years ago. Definitely the way to go is to integrate the footbridge into and through one's private development and "capture" the public and the shoppers alike.

Have safety concerns prevented the construction of inter-building connections at greater heights?

The major safety concern for anyone on a footbridge has to be a fire within the adjacent connected building, and of course, smoke is the big worry. Non-air-conditioned, partially open-sided footbridges would not be a major concern because of natural ventilation, however, codes should still require a two- or four-hour fire shutter at the connection with the building, a by-pass lobby, and a natural way for the pedestrians to reverse and go

back to the other building. Fully enclosed footbridges become more of an issue of concern for the public's safety. A fire on a footbridge would of course be a rarity, however, all of our footbridges are fully fire-rated and sprinklered.

To the issue of a footbridge at height: if one building is on fire, the strategy should block the spread of smoke and fire onto the bridge, ensure that the footbridge's end support structures are robust and capable of standing throughout the fire. Then, the people on the footbridge need to either safely evacuate to the other building, or, in a worst-case scenario, stay in place on the footbridge with the option of opening windows, or opening an "escape door" to where an external rescue can be arranged safely. Rooftop footbridges are of course inherently "roof refuge areas," which I strongly believe in for all tall buildings.

Having connected so much property over the decades, do you see the footbridge trend continuing, or are there obstacles that could prevent other developers from building them at height?

In order to make useful linkages, footbridges have to be something required by a master plan or created by a developer who owns adjacent properties. There also has to be a strong desire to move between buildings at height. If you have a hotel lobby that begins at an upper floor, and you want to link people staying at the hotel with retail and offices across the way, you can use a footbridge to provide access, without making them go all

the way to the bottom floor. Vertical high-rise mixed-use developments really provide an opportunity to link different amenities and land uses.

Buildings like the Shanghai Tower apply the “city-within-a-city” concept vertically, but you’ve been doing it horizontally in Hong Kong since the 1960s, just at a few meters above the ground rather than a few hundred?

Connections between buildings make sense at a variety of levels. I think that it’s unbelievably obvious to connect buildings below ground to subway systems. Making connections on top of a building is obvious too. It can give fantastic destinations for people to go, like a green roof, swimming pool, running track, or a restaurant, that also serves to link buildings together. It’s actually amazing to me that we haven’t had more linkages on the tops of buildings. It’s a fantastic amenity.

Creating linkages in the middle of the building is a little more interesting, because there has to be a reason to connect between the buildings. It could be a simple need for fire safety, which is a little mundane, but it could also be justified by a centrally located amenity. For example, you could have a mid-building beer garden that creates movement between buildings. What they should have done on the Petronas Towers Kuala Lumpur was turn that footbridge into a restaurant overlooking the whole KLCC Park area.

Here’s another argument. At the end of the day, what is more expensive: a 400 meter-tall tower, or two 200 meter-tall towers that are linked horizontally? From HKL’s point of view, the tallest building we’ve ever built is 245 meters. We try to be cautious with our money. We think, “Why don’t we just build two towers next to each other that are linked at multiple levels, which will result in a less expensive and more efficient building complex?”

In the book *Cities without Ground*, which documents the multi-layered life of Hong Kong, it’s really interesting how non-sponsored activities, which most

developers wouldn’t implement on-purpose, can really give life to the skybridges. How has the skybridge network dealt with these sorts of ad-hoc uses?

There is a bit of a balance you try to achieve. Sometimes we have peddlers handing out brochures or someone playing an instrument, and we are generally ambivalent towards those uses. We also coordinate with the Hong Kong police to manage the government footbridges that connect with our network. Some of these footbridges have many domestic helpers gathering in the space (see Figure 4). The government has decided that as long as the flow of the footbridge isn’t being significantly obstructed, one side of the footbridge can be used for domestic helpers to congregate. So a lot of it has to do with the flow of people. Our footbridges are much narrower, so we don’t allow domestic helpers to congregate, because there is no room.

Since your footbridges are public spaces controlled by private entities, you have the right to eject people who are interfering with the flow of tenants. How do you go about exercising that?

We really do try to strike a balance between managing our footbridges and allowing them to be vibrant and to have some atmosphere. We believe we should be allowed to have marketing and kiosks on the footbridges. We’ve been working with the government to have small windows of opportunities to have non-profit-making events that stimulate activity on these footbridges.

Our ongoing retail philosophy is that it is important to have flower stalls, chocolate shops and coffee shops at or near the nodal points of our footbridge connections for people to meet, stop and enjoy life. Can some of these functions be allowed in small measures on the footbridges themselves? For sure, as they once were allowed in all major cities, where licensed hawkers were granted the right to set up their carts on the pavements. For a footbridge, can we create these cantilevered extensions on either side? Of course, yes, and I see this happening more and more with the support of the local governments. This philosophy will be important to the functioning of all skybridges/footbridges in our evolving cities of the future. ■

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Shanghai Conference | 上海会议

James Robinson will be speaking at the Shanghai Conference. His presentation is entitled “Beyond Icons: Developing Horizontally in the Vertical Realm” in Session 11: *Skybridges: Connecting Tall Buildings at Height*, Thursday, 18th September, 11:15 a.m. – 12.45 p.m.

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