

LEE LI MING PROGRAMME IN AGEING URBANISM

Senior Public Housing in Singapore: Kampung Admiralty

Housing for Older Population ¹

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Older Singaporeans (aged 65 and older) are expected to double to one in four (900,000 people) by 2030. For many, the built environment for growing older is in high-rise public housing where 80% of resident population live; less than 0.3% of Singapore's older population live in institutional care. According to the Housing and Development Board 2013 sample household survey, 11% (113,294) of its households are headed by residents aged 65+ while 13% (144,792) of households have head of household aged 55+.

Continuing with global trend, Singapore has adopted ageing in place as a key principle in its housing and land policies. In public housing, ageing in place is being enabled through a range of urban interventions. These include the development of senior housing design (e.g. granny flats, multi-generation flats), universal design and safety facilities, home care and community services to help older residents to remain in their homes and communities for as long as possible. Homes and neighbourhoods are increasingly being remodelled to become more elder-friendly. Among the latest to emerge is a senior public housing model that integrates housing, health and social care in a single vertical development: Kampung Admiralty.

¹ This is an evolving database. We will be adding more examples and cases over time.

vertical 'kampung' (Malay word for 'village') or 'Village in the Sky for All Ages'.

Kampung Admiralty – Village in the Sky for All Ages

Developed on a 0.9 ha site (53,066 sq m build-up area) in Woodlands New Town, Kampung Admiralty presents a prototype for future senior public housing development in Singapore. First announced in March 2013, completed 2017 and officially opened on 18 May 2018, Kampung Admiralty is conceived as a mixed-use development, comprising senior housing, healthcare, retail and multi-family amenities. It is Singapore's first inter-agency integrated project. Rather than working in silo, the project brings together the various land development agencies that affect senior living – housing, transport, parks, health, family, social development - to develop a coherent response to the housing, health and social needs of older adults.

Designed by Singapore-based private architecture practice, WOHA, the concept is to co-locate senior housing and the amenities needed by older adults and the community in a single development in order to deliver appropriate care and support to older residents while maximizing opportunities for social interaction. Three types of spaces are designed to support these opportunities and promote cross-programming:

- Commercial and leisure amenities comprising retail shops, bank, pharmacy, supermarket and a community plaza on the ground and lower floors;
- Inter-generational amenities comprising food court, medical, senior activity and childcare centres on mid-levels; and
- Residential use comprising senior studio apartments, roof gardens and community parks on upper levels.

Against Singapore's predominantly high-rise landscape, the design objective is to create a

Key Components

Age-friendly apartments (104 dwelling units) in the design of 1- and 2-room studio apartments are located within two 11-storey residential blocks. They are sold on 30-year lease to older adults. The apartments are designed according to universal design principles including for natural cross-ventilation and optimum daylight. They are designed with a range of layout, size (36-45 sq m), accessibility and safety features, e.g. ramp at unit entrance, grab bars, alert alarm system, height option for kitchen cabinet to suit wheelchair-bound residents.

Box 1: General Specification for Kampung Admiralty

- Foundation – piled foundation
- Structure – reinforced concrete structural framework with reinforced concrete slabs
- Roof – reinforced concrete roof slab
- Walls – all external and internal walls are constructed with reinforced concrete precast panels/precast lightweight concrete partitions/drywall partition system
- Windows – aluminium framed windows with tinted glass
- Doors
 - Entrance – laminated solid timber door and metal gate
 - Bedroom – sliding laminated semi-solid timber door
 - Bathroom/WC – sliding laminated semi-solid timber wood
- Finishes
 - Ceilings – skim coated or plastered and painted
 - Kitchen/bathroom/WC wall – ceramic tiles
 - Other wall – skim coated or plastered and painted
 - Living/dining/bedroom floor –

- resilient (vinyl) strip flooring with timber skirting
- Kitchen floor – glazed porcelain tiles
- Bathroom/WC floor – ceramic tiles
- Fittings – quality locksets, water closet suite, kitchen cabinets with cooker hood, electric induction hob and kitchen sink, built-in wardrobe and cabinets, retractable laundry racks
- Services – gas services and concealed water supply pipes, concealed electrical wiring to lighting and power points including water heater and air-conditioning points, television points, telephone points.

Source: Housing and Development Board
Delightful Homes: HDB's Sales Exercises, July 2014.

Accessible transport is an important amenity for older people. Kampung Admiralty is located next to the Admiralty Mass Rapid Transit Station and served by public buses. These services enable older residents to go where and when they like, maintaining their independence.

Accessible food option is important to older people. There is both cooked food (food court on level 2) and fresh food supermarket on ground and basement levels. A wet market is nearby, less than 5 minutes' walk. The 900-seat 3400 sq m food court on level 2 has about 45 stalls, offering a wide range of food: Chinese, Malay, Indian. Every stall offers at least two budget meals at S\$2.80 or less. About 50% of all dishes served conform to healthier choice standards set by the Singapore Health Promotion Board.



Photo 1: Food court at Kampung Admiralty

Accessible healthcare - medical centre is located on levels 3 and 4 while the active ageing hub and childcare centre are on levels 6 and 7 of the development. The active ageing hub provides not only active ageing programmes but also centre-based and home-care services for frail seniors such as helping older residents with their groceries, household chores or personal hygiene, if necessary. Older residents can activate an emergency alert system in their studio apartments to call for this assistance.

Greenery is another important component; it is provided at various levels throughout the development. The amount of green space on the development is greater than the building's overall footprint. The development is designed with several eco-friendly features as well, e.g. bio swales to treat surface runoff water, solar panels to power common services in the housing blocks, motion sensor-controlled energy efficient lighting, separate chutes for recycling waste, pneumatic waste conveyance system for waste disposal.



Photo 2: Benches and landscaped gardens offer contact with nature and social opportunity at Kampung Admiralty

Aside from amenities, a further aspect of Kampung Admiralty is the activation of social enterprise to support active and healthy ageing. Developed by the National Trades Union Congress (NTUC), there are four components, covering food (both fresh and cooked food to provide affordable healthy food choices), pre-school and childcare service, active ageing hub (e.g. group exercise at the community plaza, community cooking, share-a-pot and community nurse programmes), and eldercare services (e.g. day care, assisted living care for older people).

Kampung Admiralty reflects an evolving wider national effort to develop a supportive network of core amenities, community and eldercare facilities in public housing town to expand at-home and community-based health and social care so people can age in place and maintain independent lives. The overarching goal is to help older people stay in good health, stay independent, stay connected and purposeful while bringing the community together.

Box 2: Built Environment and Ageing

International evidence suggests that people age more actively within supportive and accessible neighbourhoods, e.g. local shopping and services provide older people with destinations to walk to and meet others; presence of outdoor recreational

spaces like parks, cafes, etc. encourage physical activity and social interaction among older people; adequate and convenient transportation facilities are required to independently age in community; concerns about environmental safety and pedestrian friendliness make older people feel unsafe and encourage a preference to stay at home.

Source: Handy, S. L., Boarnet, M. G., Ewing, R. and Killingsworth, R. E. (2002) How the built environment affects physical activity, *American Journal of Preventive Medicine* 23 (Suppl 2):64-73; Michael, Y. L., Green, M. K. and Farquhar, S. A. (2006) Neighbourhood design and active ageing, *Health and Place* 12:734-740.

Residents' Reaction

What are residents' reactions to this development?

All 104 flats were sold when they were first offered in July 2014. Following completion in 2017, residents and services have progressively moved in. Even as we await post-implementation evaluation, initial resident feedback seems positive. A 64-year-old, one of its first residents to move in shared²,

This is actually better than a kampung. The people who live here are our age, and have more time on their hands, and it's easier to communicate with them. When new neighbours move in, I quickly go over to say hello. We hope to organise more events such as gatherings and having tea together.

Another, a Mr Ahmad, Kampung Admiralty's 1st resident and grandfather of 8 who grew up in a kampung, said³,

I go around, and walk around the floors to see if there are any other residents. I like to make

² Toh, W. L. (2017) Singapore's first 'retirement kampung' is self-contained with many practical features, *The Straits Times* 16 Oct 2017.

³ Ibid.

friends. We usually sit in the lobby and chit-chat with neighbours.

The Kampung Admiralty development testifies to the possibility of moving away from silo and one-size-fits-all approaches to the immense opportunity of understanding and responding to the needs of older people. This project has been accorded the World Building of the Year 2018 during the World Architecture Festival in Amsterdam, the Netherlands, with the following comment⁴,

This is a project that does something necessary in an intelligent fashion from the way it connects to transport to its natural ventilation strategy, all benefitting from a decision to layer a series of buildings rather than separating them into separate tall blocks... The jury felt that this was a project with potential lessons for cities and countries around the world.

Sources:

- Housing and Development Board (HDB) (2014) Public Housing in Singapore: Social Well-being of HDB Communities, HDB Sample Household Survey 2013, Singapore: HDB.
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- Yuen, B. and Soh, E. (2017) Housing for Older People in Singapore: An Annotated Bibliography, Springer.

⁴ WOHA creates green community for senior citizens with Kampung Admiralty in Singapore, <https://www.dezeen.com/2018/12/07/kampung-admiralty-woha-singapore-world-building-year/> Accessed 19 May 2019.