Building social connections

Case studies to inspire socially connected multi-unit housing







Acknowledgments

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To learn more about this project, visit:

https://happycities.com/ projects/building-socialconnections-housingdesign-policies-to-supportwellbeing-for-all







Happy Cities is an urban planning, design and research firm that uses an evidence-based approach to create happier, healthier, more inclusive communities. We harness the science of wellbeing to advise housing providers, municipalities, developers and organizations around the world on how to design buildings and urban spaces that support people's health and happiness.

Our firm has spent over a decade collecting evidence on the links between wellbeing and the built environment. Happy Cities has been a key partner in the Hey Neighbour Collective since 2019. Our Happy Homes research shows how intentional design can reduce social isolation and boost community resilience in buildings, culminating in a toolkit to help housing providers turn wellbeing evidence into action. As part of our housing practice, we advise non-profit housing operators on how to support resident wellbeing throughout all development stages.

HEY NEIGHBOUR!

Hey Neighbour Collective (HNC) brings together landlords and housing operators, non-profits, researchers, local and regional governments, housing associations and health authorities. Together with residents of multi-unit housing, these HNC partners take action to alleviate loneliness and social isolation through building social connectedness, resilience, and capacity for neighbourly support and mutual aid. HNC is housed at the Simon Fraser University (SFU) Morris J Wosk Centre for Dialogue. Key academic research partners include SFU Urban Studies, Gerontology, and Health Sciences.

Introduction: Building social connections in multi-unit housing

The crises of social disconnection and housing affordability can be solved together.

Growing evidence shows that we can meet housing, affordability, and climate goals while also supporting community wellbeing. Loneliness and social isolation are a key challenge for many communities, including the Metro Vancouver region. The design of our homes and our neighbourhoods can play a crucial role in solving these challenges, together with public health and policy shifts.

To address these challenges, Happy Cities and Hey Neighbour Collective have been conducting research and engagement to identify impactful design strategies that can support health, wellbeing, and social connection in multi-unit housing.

This report is the first of a series of resources produced as part of the *Building Social Connections* project, in which Happy Cities, Hey Neighbour Collective, and researchers from the Simon Fraser University Department of Gerontology are working with six local governments to co-create new housing design policies that support wellbeing for all.



Purpose of these case studies:

- Provide inspiration for local governments around developing housing that prioritizes social connection, wellbeing, and inclusion
- Offer insights into the policy context that can enable more socially connected housing and development
- Demonstrate how denser housing forms can support local government goals including social connection, health, sustainability, affordability, and inclusion

Understanding wellbeing

Wellbeing encompasses our physical and mental health, including how we perceive our own health. Many factors contribute to our overall health, including our sense of joy, meaning, belonging, and inclusion. In particular, our social ties are key predictors of wellbeing. These include both deeper relationships with family and friends, and casual encounters in the community. Strong social connections can boost a person's overall wellbeing, and is closely linked to health and happiness. Neighbourly social connections in multiunit housing also boost wellbeing.

For more information on the importance of neighbourly social connections, check out the <u>Hey Neighbour Collective evidence backgrounder</u>.

The case studies

The report includes seven multi-unit residential building case studies for sociable design. Case studies are intentionally chosen from Canada, the United States, and international contexts to provide a wide range of design and policy approaches. The buildings each take different approaches to meeting a range of goals through multi-unit housing design.

4 | DR. GEORGE W. DAVIS SENIOR BUILDING

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- Community programming
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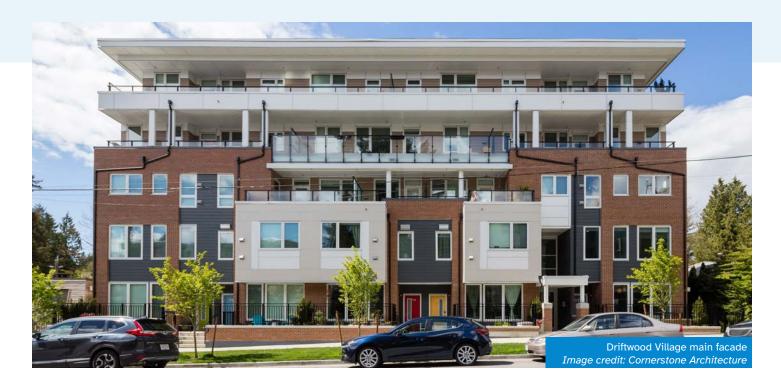
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DRIFTWOOD VILLAGE COHOUSING



Driftwood Village is a cohousing development in the City of North Vancouver. In cohousing, residents own their individual units, but have access to a variety of shared amenity spaces. Cohousing residents participate in and share the planning, design, management, and maintenance of the community, and engage in ongoing community-building activities.

Demographics: The building's community includes residents of all ages, including single occupants, couples, and families.

Accessibility: The building's overall design meets minimum requirements to be 100% adaptable (Level 1 of the City of North Vancouver's Adaptable Design Guidelines), with 30% of units meeting Level 2, including one of the below-market units.

City: North Vancouver, located on the traditional and unceded territories of the Squamish and Tsleil-Waututh Nations.

Country: Canada

Year: 2022

Storeys: 5

Units: 27

Unit types: 11 two-bedroom, 14 three-bedroom, 2 four-bedroom

Tenure: Ownership (strata)

- 19 market units (initial purchase at project cost to construct, resold at market value)
- 8 below-market units (25% below)

Parking: One level of underground parking:

 57 vehicle spaces, including 5 vanaccessible spots for people with disabilities **Sustainability:** The project was originally planned to achieve Passive House certification. It includes many passive design features, but is not officially certified.

Surrounding neighbourhood: Driftwood Village is located in Central Lonsdale, with the site zoned for up to six stories of residential housing under the Official Community Plan (OCP), surrounded by a mix of multiplexes and mid-rise apartments. The development replaced lots with a mix of one- and two-unit homes. The building is within walking distance of transit, retail, and other amenities.

- 138 bicycle spots (1.44 bikes/unit), including 9 cargo bike stalls
- 128 long-term underground spots, 10 short-term surface-level spots

Site: 14,391 ft²

Gross floor area: 51,322 ft²

Density: 2.13 FSR

Developer: Driftwood Village Cohousing

Architects: Cornerstone Architecture

Key learnings: Driftwood Village Cohousing

Social corridors and nooks:

Driftwood Village includes wide, single-loaded (meaning there are units on only one side) exterior corridors. Units line one side of the walkway, while the other side faces onto an internal courtyard below. These social corridors have been enabled and encouraged by the City of North Vancouver's *Active Design Guidelines*, which offer incentives for developers that include social, healthy design features in their projects. For example, the Guidelines offer a gross floor area exclusion (up to 8% of the total) for exterior corridors, stairways, and landings that provide access to units and face onto an interior courtyard.

Driftwood makes use of these Guidelines to have exterior circulation, with social nooks at each stair landing and elevator entrance. These nooks all include small chairs and tables where neighbours can sit and socialize. Unit entrances face directly onto the nooks. Residents also personalize their unit entrances. Exterior corridors offer the added benefit or allowing more natural light and cross-ventilation in units.





Key learnings: Driftwood Village Cohousing



Co-located amenity spaces:

At ground level, the play room, common house, and laundry areas are all co-located together, facing onto the interior courtyard. Above, exterior walkways, unit windows, and balconies have direct views of the courtyard below. Co-location increases the likelihood of residents bumping into one another. Over time, this leads to greater familiarity and deeper social interactions.

The two-storey common house includes a number of different functional spaces, including a notice board, mail room, teen lounge, piano, and large dining hall and kitchen for shared meals and events.

Intentional community:

As a cohousing community, Driftwood is built to foster social ties and community support among residents. These are facilitated through both the design of the building and resident-organized social activities. Residents organize weekly meals, decoration of common spaces, and other activities through the building's many Slack channels. Older neighbours sign up for afterschool childcare shifts to help out parents.



Below-market units:

Through the City of North Vancouver's rezoning process, projects can apply for increased density in exchange for a Community Benefit Contribution (CBC). CBCs ensure that the City receives something in return for the increased land value, recognizing that more community amenities may be needed as a result of more people living on a site.

As a not-for-profit cohousing project, Driftwood still had to follow the City's CBC policy, providing either a cash contribution or other community benefits, such as affordable housing, public art, daycares, community centres, and more. Driftwood Village offered its CBC in the form of affordable housing, with eight units sold at 25% below market rate in perpetuity for those who meet income criteria. The project based this model on Quayside Village Cohousing, also in the City of North Vancouver, which has had four below-market ownership units for 20 years.

Driftwood estimates that the below-market units increased the project's overall budget by about \$50,000, mainly in legal costs and additional consultant fees due to a longer timeline for approval.

Courtyard exterior circulation | Photographs





Courtyard exterior circulation | Aerial views





2 823 TO 841 SIXTH STREET



This new multi-unit housing development offers 100% affordable housing for Indigenous and Swahili-speaking communities. The building occupies the site of six former single detached dwelling lots, and began construction in 2022. It is a partnership between the Aboriginal Land Trust (Lu'ma Native Housing Society) and the Swahili Vision International Association, and will be operated jointly by both organizations. The Aboriginal Housing Management Association (AHMA) will provide operational oversight. The project aims to foster cultural and intercultural connections through programming and design.

Demographics: Future residents will be Indigenous and Swahilispeaking families, Elders, and individuals who meet BC Housing's affordability criteria. The building exceeds the City's requirements for the number of two- and three-bedroom units provided as part of the project.

City: New Westminster, on the unceded land of the Halkomelem speaking peoples, and home to the Qayqayt First Nation

Country: Canada

Year: Under construction

Storeys: 6

Units: 96

Unit types: 20 three-bedroom, 37 two-bedroom, 39 one-bedroom

Tenure: Affordable rental units (20% deep subsidy, 50% rent-geared-to-income, and 30% affordable), to meet BC Housing Community Housing Fund requirements)

Accessibility: The project includes 100% adaptable or accessible units, exceeding the City's minimum requirement of 40% Adaptable Dwelling Units in accordance with the BC Building Code. The City of New Westminster offers exemptions from total floorspace calculation for adaptable units (1.85 m² for every one-bedroom adaptable housing unit, 2.80 m² for every two-plus bedroom adaptable housing unit).

Sustainability: The building meets Step 4 requirements in the Energy Step Code, and uses wood frame construction.

Surrounding neighbourhood: The building is located beside a number of single detached homes that may be redeveloped into townhouses in the future. It is located directly across the street from a high school, park, and close to other shops and community facilities. There are a handful of high-rise apartments in the surrounding neighbourhood.

Site: 40,881 ft²

Gross floor area: 84, 741 ft²

Density: 2.2 FSR

Developer: Aboriginal Land

Trust Society

Architects: RLA Architects

Funding: BC Housing Community Housing Fund grant and mortgage; City of New Westminster; CMHC Co-Investment Grant

Key learnings: 823 to 841 Sixth Street

Community support and political will:

This project required Official Community Plan (OCP) amendments and rezoning from a Single Detached Residential District to Comprehensive Development District. Like many multi-storey. affordable housing projects, this development faced vocal public opposition. Many people in opposition expressed that the project was a good idea—just not in their neighbourhood. Despite loud opposition at the public hearing, public engagement results revealed that those who showed up to speak against the project were a vocal minority. Through efforts from the BC Non-profit Housing Association and others. Council received dozens of letters of support from community members, outnumbering those in opposition. Recognizing the urgent need for affordable housing—and the project's alignment with the City's equity and affordability policy goals-Council unanimously approved the project.



Key learnings: 823 to 841 Sixth Street



Lu'ma Native Housing Society Cultural programming at New Beginnings Image credit: Happy Cities (2022)



Cross cultural connections:

The project offers an innovative example of how affordable housing communities can support cultural connections—both among people who share similar cultures, and across different cultures—including long-term inhabitants of the land and newcomers. To honour its community, the building will feature a four-storey metal art sculpture by an Indigenous artist on its exterior facing Sixth Street, and interior artworks by Indigenous and Swahili artists on the main floor.

Lu'ma has an organization-wide cultural coordinator, who helps building managers and staff organize cultural activities, such as dance, beading, and drum making workshops. Lu'ma also works with an Elder who visits all of its buildings to connect with residents. At another location, Lu'ma operates a medical clinic to provide culturally appropriate medical care to its residents and community members.

Social and functional outdoor spaces:

The building includes a planned 1,900 square foot amenity space on the main floor that connects to an outdoor terrace, which can host social activities and gatherings. All the shared amenities are colocated near the entrance to create and easily accessible gathering place.

Outdoors, the landscape plan maximizes use of space surrounding the building, providing a mix of social and functional gathering areas that support health and wellbeing. Features include a community garden, outdoor dining area, gas connections for barbecues, an exercise area, seating, covered areas, a dog area, and more. A multi-use path, which will be maintained by the City, will be built along the edge of the site. Balconies face onto Sixth Street, and there are ground-oriented units on the main floor with individual entrances and small, semi-private front yards.

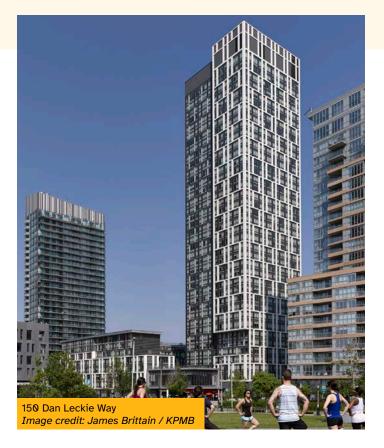
South elevation: 823 to 841 Sixth Street | Along Sixth Street



Exterior landscape plan: 823 to 841 Sixth Street | Level 1



J 150 DAN LECKIE WAY





150 Dan Leckie Way is a family-centred affordable housing development owned and operated by the <u>Toronto Community Housing (TCHC)</u>. The project predated the City of Toronto's <u>Growing Up: Planning for Children in New Vertical Communities design guidelines</u>, but incorporates many of the same ideas for family-centred, socially connected, healthy housing.

Demographics: The building prioritizes affordable housing that meets the needs of families.

Accessibility: The building includes over 100 fully accessible, barrier-free units.

City: Toronto

Country: Canada

Year: 2012

Storeys: 41-storey tower and ten-eleven storey

podium

Units: 427

Unit types: A mix of one-, two-, three-, four-,

and 5-bedroom units

Gross floor area: 536,000 ft² / 49,796 m² of

social housing and amenities

Developer: Context Developments; Toronto

Community Housing Corporation

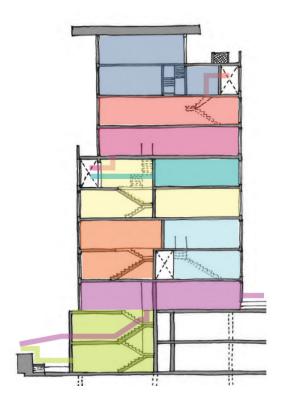
Architects: KPMB Architects; Page + Steele/

IBI Group Architects

Sustainability: The building is certified as LEED Gold, and meets the standard for a minimum of 40% less energy usage than the Model National Energy Code Building. Sustainable design features include rainwater capture, water-saving plumbing, a ground-source heating system with heat recovery units in each dwelling, energy-efficient lights, and rooftop gardens.

Surrounding neighbourhood: The project is located in the CityPlace neighbourhood of Downtown Toronto, surrounded on many sides by other condo towers, retail, and near to a public park and school.

Podium section demonstrates the two-level units that eliminate the need for a corridor on every floor. Image credit: Growing Up Guidelines, City of Toronto



Key learnings: 150 Dan Leckie Way

Family-centred affordable housing with social circulation

The building's three- and four-bedroom units, located in the nine- and 11-storey podium, are designed in a skip stop section with two-storey units. This design seeks to minimize internal access corridors and maximize play space within the units. Through the skip stop section, the building eliminates six corridors and allows for cross ventilation of the stacked units. Skip stop sections are included as an innovative idea in the City of Toronto's Growing Up design guidelines. Two-storey units are relatively rare in Toronto high-rise buildings, and allow for extra storage under stairs for children's toys. Within the podiums, corridors are wide and include operable windows, creating a pleasant, semi-private transition space outside of individual units. The lobby is a dynamic space with ample daylight, which encourages people to linger. The lobby features an open stair that connects directly to the amenities. The building also includes large, colourful wayfinding.





Key learnings: 150 Dan Leckie Way



Integration with the street edge

Despite the building's tall height, the design aims to create a more human-scaled street and ground experience through smaller podiums and integration with the street edge, including grade-level units at the base of the podium. The building also includes retail at ground level on the corner of the building that faces the public park across the street.

The City of Toronto's <u>Downtown Tall Buildings</u> <u>Guidelines</u> encourage considerations around how various tower building typologies can support a vibrant street realm and positive pedestrian experience, while contributing to economic, environmental, and social sustainability.

Community programming

Tenant representatives organize community events, such as barbecues. TCHC offers Tenant Action Funds, which can be applied to cover the cost of food and supplies. The building also houses a TCHC Tenant Service Hub, providing a "one-stop shop" where tenants can meet staff and get support. Toronto Community Housing is the largest social housing provider in Canada, and offers a model of how cities can play a key role in building and operating affordable housing.



Co-located indoor and outdoor amenity spaces

The building is designed to include several indoor and outdoor amenity spaces, many of which face onto an interior "courtyard" that is located on the roof of the podium. This courtyard is conceived of as an outdoor living room for the community, with features including planter boxes, seating, and space to play—like a lawn and splash pad. Communal kitchen, playrooms, and day-lit laundry facilities line the rooftop-courtyard.

On the second floor, there is a multi-purpose room with a view of the public park across the street. The lobby is designed to use natural light, encouraging people to linger in the space, and is connected by stairs to the building's amenities. The interior includes large and colourful wayfinding that is easy for children to follow.

DR. GEORGE W. DAVIS SENIOR BUILDING



The Dr. George W. Davis Senior Building combines affordable homes for seniors with social services, amenities, and a 15,000 square foot community centre for both residents and the surrounding neighbourhood. The project provides a healthy, supportive, social community for low-income seniors in the area, which has a large African American population. The land for the building is owned by San Francisco's Office of Community Investment and Infrastructure (OCII), provided as a ground lease.

Demographics: The building is designed as a home and community hub for low-income seniors, including 23 units for formerly chronically homeless seniors, and two supportive transitional housing units for seniors leaving incarceration. Bayview Senior Services focuses on meeting the needs of older African Americans, a long-established community in San Francisco and the Bayview Hunters Point neighbourhood. The housing serves 120 seniors aged 62 or over, of whom 102 are African American. More than half of the incoming residents at building opening did not have a permanent residence before they moved in.

City: San Francisco

Country: United States

Year: 2016

Storeys: 5

Units: 121

Unit types: 117 one-bedroom, 4 two-bedroom

Tenure: Affordable rental units (resident income below \$1000/month)

Parking: 57 vehicle spots (garage and drop-off), and 34 bicycle spots

Site: 83,017 ft² / 1.91 acres

Gross floor area: 154.398 ft²

Density: 61 units per acre

There is a massive need for affordable housing in the area: The building received over 4,000 applications for its 121 homes. Certificates of Preference allowed 25 residents displaced during local redevelopment in the 1960s and 70s to return to the neighbourhood and reunite with their community. Through a housing preference for veterans, 18 residents are veterans or spouses of veterans.

Accessibility: 5% accessible units, 95% adaptable units

Sustainability: The building is certified as LEED for Homes Multifamily Mid-Rise Platinum.

Incentive-based policy highlight

Low-income housing tax credit (LIHTC) is a U.S. Federal Affordable Housing program that provides developers and investors with dollar-for-dollar value tax credits (allocated over a period of 10 years) in exchange for financing affordable rental housing. Projects must meet affordability criteria for a minimum of 30 years after construction.

Developer: Bayview Hunters Point Multipurpose Senior Services; McCormack Baron Salazar

Architects: David Baker Architects; MWA Architects; Gelfand Partners Architects; Miller Company Landscape Architects

Funding: A combination of traditional loans, low-interest loans, and LIHTC funding

Project cost: \$54,947,121 US

Surrounding
neighbourhood: The
building is located along
San Francisco's mixed-use
Third Street Corridor in
the Bayview Hunters Point
neighbourhood.

Key learnings: Dr. George W. Davis Senior Building

A community hub

The Dr. George W. Davis building combines affordable housing with shared amenities, social services, and a public community centre that serves both residents and the surrounding neighbourhood. The building has two wings—one residential, and one community—that share a central courtyard with seating, greenery, and shade.



The Dr. George W. Davis Senior Center is located on the ground floor of the community wing, and operated by Bayview Senior Service. It serves over 1,000 seniors annually from all walks of life, offering a community hub for seniors looking for support, information, a hot meal, access to care, or a place to meet new and old friends. During the day, the Center offers a safe place and shelter for seniors experiencing homelessness in the neighbourhood. Programming at the Senior Center includes lunch meals, exercise classes, arts and crafts, computer classes, pool and dominoes, cooking, and events.

Key learnings: Dr. George W. Davis Senior Building



The "Unique Boutique" sells items hand made by clients and residents. Image credit: Bruce Damonte / David Baker Architects



Social, healthy aging

In addition to close access to the public Senior Center, residents in the building have access to privately shared amenity spaces in the residential wing, including a common room, kitchen, and fitness centre on the ground floor. On each floor above, there are social nooks, shared lounges, laundry rooms and decks. The building is designed so that shared decks on the second and fourth storeys overlook the central, shared courtyard.

Many people are long-time residents of the neighbourhood. By providing more affordable units for seniors—particularly for when they are ready to downsize or need more at-home support—the building supports aging in a familiar community.

Connected housing for low-income seniors

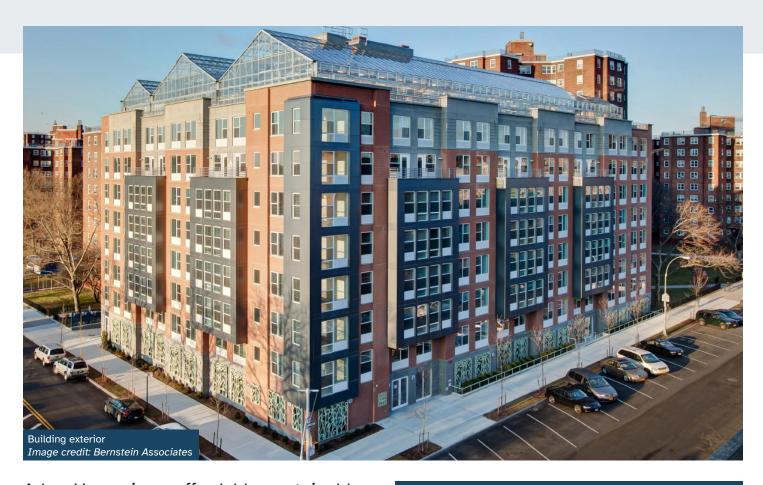
The building has dedicated support staff and programming for senior residents. Additional programming at the public Senior Center fosters connection between residents and older adults in the wider community. The project demonstrates how affordable housing for vulnerable residents can support wellbeing, health, and social connection, allowing seniors to age with dignity and supportive services nearby.



Floor plan: Dr. George W. Davis Senior Building | Level 1



ARBOR HOUSE



Arbor House is an affordable, sustainable housing development in the Bronx that aims to promote healthy living and physical activity through design. The building is Active Design Certified, meeting the criteria of New York City's Active Design Guidelines. The L-shaped building occupies a corner infill lot. The project was developed under the NYC Housing Development Corporation's Low-Income Affordable Marketplace Program (LAMP), receiving a mix of public and private funding. Blue Sea Development purchased the land for the development at below-market value from the New York City Housing Authority (NYCHA).

City: New York City

Country: United States

Year: 2012

Storeys: 8

Units: 124

Unit types: 16 studios; 33 one-bedroom

units; 75 two-bedroom units

Parking: Includes a bicycle storage area, and

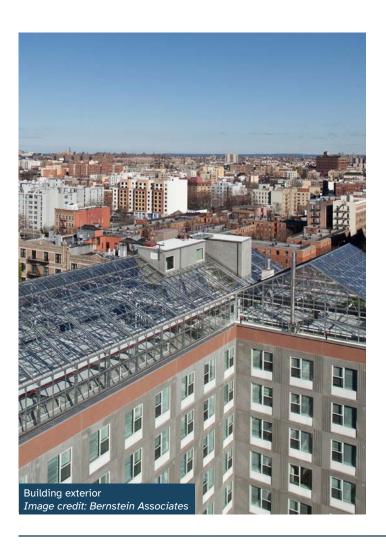
43 vehicle spaces

Tenure: 100% affordable units (25% of units set aside for current and waitlisted NYC Housing Authority (NYCHA) residents, with the remainder for households making up to 60% AMI (Area Median Income))

Demographics: The building serves residents with household incomes that are 60% or lower than the area median income (AMI). It is located in the Morrisania section of the Bronx, an area with statistically lower life expectancies and higher rates of preventable chronic diseases like diabetes, compared to more affluent New York neighbourhoods.

Accessibility: Five per cent of units are allocated for people with disabilities.

Sustainability: Arbor House meets NGBS Gold, LEED Platinum, and Energy Star certifications. The building's sustainable features include rainwater capture, healthy building materials, and a stormwater management system. Through energy-efficient homes, the project also seeks to reduce utility costs for residents.



Site: 27,900 ft²

Gross floor area: 129,000 ft²

Density: 4.6 FSR

Developer: Blue Sea Development Company (partnership with the NYC Housing Partnership Development Corporation)

Architects: ABS Architects; Danois Architects

Funding: Mix of public and private funding, including:

- NYC Housing Development Corporation Low-Income Affordable Marketplace Program (LAMP);
- Housing Preservation and Development Mixed Income Rental Program (MIRP);
- NYS Homes and Community Renewal Homes for Working Families (HWF) Program;
- NYS Energy Research and Development Authority (NYSERDA) Multifamily Performance Program;
- Low-Income Housing Tax Credits;
- RBC Capital Markets;
- JP Morgan Chase;
- Bronx Borough President, Ruben Diaz, Jr.;
- City Council Member Helen Foster

Total construction cost: \$31 million US (\$28.875 million, residential; \$1.32 million, greenhouse; \$1 million, parking)

Surrounding neighbourhood: Arbor House is located in the Morrisania section of the Bronx, directly across the street from a public park. It is a mixed-use area with residential, retail, and other services. The building is surrounded by several other low- to mid-rise apartment buildings.

Key learnings: Arbor House





Improving health through design

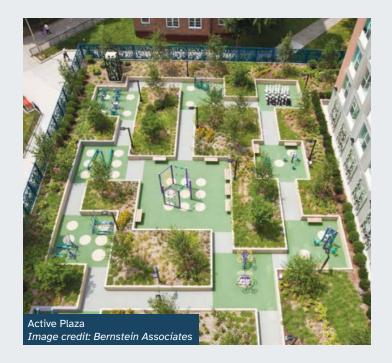
A central feature of the building is its outdoor "fitness plaza," which includes exercise equipment and signage explaining how to use the equipment. The building also has a large, all-ages, indoor fitness centre that is free for residents to use.

Researchers from Mount Sinai conducted a study of residents living in Arbor House and compared results with residents at another building without any active design elements. The study found several positive outcomes in Arbor House, including increased stair use and greater self-reported feelings of safety and health.

The building is also unique for its 9,000 square foot rooftop greenhouse and hydroponic farm, operated by Sky Vegetables. The farm grows green vegetables that residents can buy at affordable prices, follows a Community-Supported Agriculture (CSA) model, and seeks to improve access to healthy foods for residents in the building and the surrounding neighbourhood.

Active design policy

The affordable housing building meets New York City's Active Design Guidelines, which aim to promote wellbeing and physical activity among residents. The project was built under Quality Housing zoning, allowing FAR of 3.0 in the site's R-6 zone. The project received a waiver for street-wall setback height requirement, allowing developers to maximize buildable area.



KAMPUNG ADMIRALTY



Kampung Admiralty is a mixed-use public housing development with two 11-storey blocks, designed to support healthy aging and living for adults age 55+. Kampung Admiralty is a new and innovative example of Singapore's public housing model, incorporating mixed-use development, sustainability, accessibility, and social connection as key principles. The building includes several community amenities, which are typical of Singapore's public housing estates. But instead of spreading housing and amenities across different sites, it layers them vertically, including green spaces, housing, a food centre, medical centre, childcare, and more to create a "vertical village."

City: Singapore

Country: Singapore

Year: 2018

Storeys: 11

Units: 104

Unit types: Studio apartments

Parking: 2 basement levels, with 252 car lots and 12 motorcycle lots (includes public

parking).

Tenure: Public housing, where tenants purchase up to 99-year leases

Site: 0.9 ha (8,981 m²)

Gross floor area: 32,331 m²

Demographics: Adults age 55+, including singles or couples.

Accessibility: Units are designed to follow universal design principles. For example, the design includes barrier-free access, accessible kitchen features, and slip-resistant tiles in the bathrooms.

Sustainability: The building integrates plants and greenery throughout, including green walls, green roofs, and rooftop gardens. The building's hydrological system saves over one million gallons of water every year, taking advantage of Singapore's tropical climate: Stormwater runoff is collected in rainwater tanks and reused for irrigation. There is also a bioretention basin outside of the medical centre that aims to engage residents collecting and harvesting rainwater.

Density: 3.6 FSR

Developer: Partnership between Housing Development Board (HDB), Ministry of Health, and other government entities

Architects: WOHA Architects; AECOM; Ramboll

Funding: Government owned and operated

Cost: \$128,000,000

Surrounding neighbourhood: The building is directly connected to the Admiralty Metro Station. Typical to Singapore, there are several mid- to high-rise apartment blocks nearby, integrated with commercial and institutional uses and public parks.

Key learnings: Kampung Admiralty

Community connections

Kampung Admiralty follows Singapore's mixeduse "town centre" development model for HDB estates, including housing, food centres, community spaces, services, and parks. The building layers these various uses and services on top of one another to form a vertical village. At Kampung Admiralty, there are close connections between all these uses and services. For example, the building includes a hawker centre (food court) overlooking a public, groundlevel plaza that hosts community events and activities, like exercise classes. Senior residents in the building are encouraged to volunteer or work part-time jobs in the hawker centre or supermarket below to stay connected and active. The large, open air, semi-private and public spaces at lower levels help integrate Kampung Admiralty with the wider community, taking advantage of the building's location next to the Admiralty subway station.





Key learnings: Kampung Admiralty





Healthy aging

Kampung Admiralty integrates housing with amenity spaces, programming, and services for seniors and the wider neighbourhood. For example, the second floor includes a medical centre, while there is a childcare centre on the sixth floor alongside an active aging hub. On the same floor, there are also several common spaces, including a function hall, playground, fitness area, link bridge, and sky terrace. This mix of services promotes intergenerational interactions and opportunities for seniors to stay engaged in their communities.

One of the building's central features is an extensive landscaped rooftop podium, which includes a community farm, gardens, and wheelchair-accessible green space that is open to both residents the public. The building creates social nooks through benches placed at shared entryways to studio apartments, encouraging residents to spend time outside their homes and connect with neighbours. Units are also designed to increase natural light and cross-ventilation. Exterior corridors are a common feature to many HDB buildings, including rain protection for Singapore's tropical climate.

National public housing for all

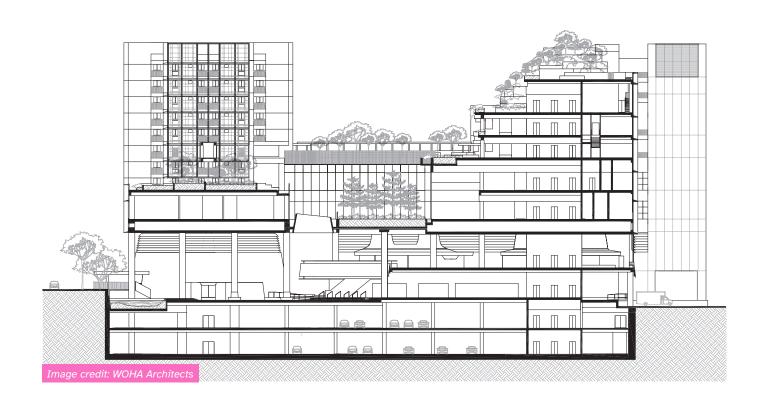
Singapore is renowned for its high proportion of public housing, where residents purchase up to 99-year leases on individual units. These homes are built and managed by the Housing Development Board (HDB), which was first established in 1960 to improve housing access and conditions for the country's citizens. Around 80% of Singaporeans live in HDB, with home ownership being a key national priority for the government.

There are a range of HDB estates and units, with newer buildings focused increasingly on providing diverse and high-quality housing choices that cater to different demographics. Many new HDB developments have more amenities, larger units, and often sell for higher prices than older estates. As a newer development, Kampung Admiralty incorporates many features of sustainable and social design, aimed at supporting healthy aging, social connection, and care for seniors. Despite government loans and grants to support first-time homebuyers, the difference in quality between newer and older estates mean that not all HDB units are universally affordable.





Cross section: Kampung Admiralty



HOUSE OF GENERATIONS



The House of Generations is a municipal housing project and care home that seeks to create an intergenerational community where people can live throughout all stages of life. The building's design aims to prevent loneliness by creating spaces for community events and social connections, both among the approximately 300 residents and with the wider neighbourhood. The development's unique design includes eight conjoined but distinct houses, each with its own identity. The municipality manages the building and services, with the exception of the family and youth homes, which are managed by a non-profit organization.

Demographics: The development offers intergenerational housing for people with diverse ages and abilities, including designated homes for seniors—both nursing homes and independent living—families, youth, and people with physical disabilities.

City: Aarhus

Country: Denmark

Year: 2020

Storevs: 3-9

Units: 304

Unit types: 100 nursing homes, 100 homes for seniors, 40 youth homes, 40 family homes and 24 homes for people with physical disabilities.

Tenure: Rental

Parking: Underground parking, with 41 regular and 3 disability spots. There are 7 drop-off parking spots at ground level.

Site: 7,130 m²

Gross floor area: 28,000 m² of building + 3,000 m² of basement

Density: 4.3 FSR

Developer: City of Aarhus

Architects: RUM

Funding: Aarhus Municipality and a private housing association. The family and youth apartments are owned by a social organization, and the municipality owns the rest of the homes.

Accessibility: There are 24 units reserved for people with disabilities.

Sustainability: The project aspires to follow Aarhus Municipality's 360° sustainability model, and is designed according to Denmark's Energy Class 2020 standards. Building materials were intentionally chosen based on their durability and longevity, low environmental impact, and minimal maintenance costs. The project includes rainwater capture and uses this rainwater to help to irrigate outdoor gardens. Water drainage doubles as an aesthetic feature that enhances the social and acoustic environment.

Surrounding neighbourhood: The House of Generations is located in Aarhus Ø, a new mixeduse neighbourhood that has been built along the harbour on reclaimed land.

Key learnings: House of Generations

Intergenerational living

Within the buildings, there are nursing homes for seniors with medical support, independent living homes for seniors, family homes, smaller flats for students, and apartments for people with disabilities. There is also a 1,485 m² daycare with 150 places. This mix of residents and units allows younger residents to help seniors with technology and other challenges, while older residents can babysit young kids. Students and young adults are encouraged to volunteer with the senior residents. Children from the nursery do various activities in different sections of the houses, allowing older residents to interact with younger ones. A key national priority for Denmark is to support aging in place, particularly as Danish municipalities are legally responsible for providing social care for residents after they are discharged from the hospital.





Key learnings: House of Generations





Themed houses

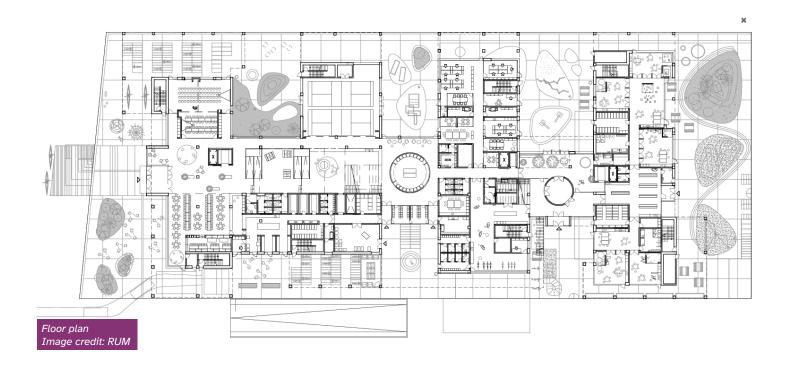
The House of Generations takes the traditional square building with a central courtyard and transforms it into eight distinct but integrated houses, which all function together as one intergenerational community. Each building is connected by the central outdoor space and walkways throughout, and each has its own theme. Within the buildings, all the apartments are grouped in small communities, with common facilities geared towards the demographics of residents. For example, the nursing homes are placed in units of 14 or 15 apartments in order to increase ease of management and resident care. The homes for people with disabilities are divided into units with 12 apartments in each community, and support staff on hand 24/7. Some of the senior apartments are located in groups of seven apartments, while the restincluding senior, family, and youth apartmentsare dispersed throughout the buildings in mixed communities. This allows people of all ages to live close together with access to the same shared spaces. The project also identifies that seniors need twice as much light as younger people to see at the same level, and is designed to ensure seniors live in well-lit units.

Tackling loneliness through housing design

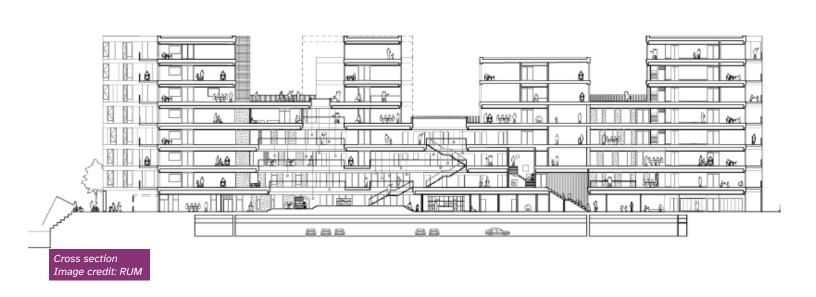
The House of Generations feeds into national initiatives to combat loneliness: In the summer of 2023, <u>Denmark launched a national strategy against loneliness</u>. Denmark estimates that loneliness—affecting over one in eight Danes—costs the country over seven billion kroner (1.35 billion CAD) per year. The House of Generations seeks to create more spaces where people can be together and form relationships, while reducing carbon emissions and environmental impacts. The House achieves this by reducing the size of individual units by 20% to allow more space for common amenities.

Common areas are included throughout the buildings, including on the ground floor of each building and the outdoor spaces between the buildings. Each of the ground floor common areas are designed to be publicly accessible to people living in the neighbourhood, with space for community events. Other amenities include a health centre, a variety of different workshop spaces, a cafe, shared kitchen, laundry, and more. Each floor has its own outdoor areas, designed for children to be able to play in without direct adult supervision. The project has 1,900 square metres of outdoor space in total, including greenhouses, vegetable garden beds and an outdoor kitchen.

Floor plan: House of Generations | Level 1



Cross-section: House of Generations



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