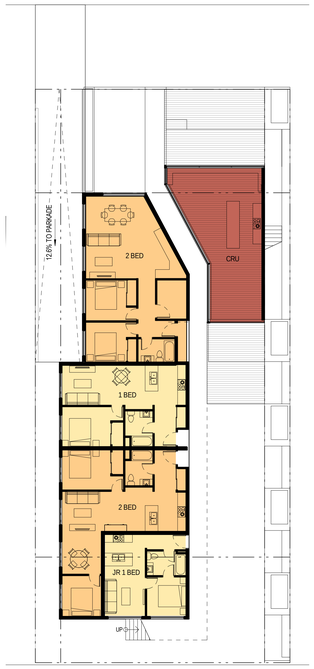
One is good, two is better,
but many is great.

Driven by a co-housing approach and a community typology based on aggregation that provides opportunities for aging in place, this project creates a diversity of unit types to accommodate families and their extended relatives (grandparents, aunts, uncles), students, and singles and couples looking for a starter space who will later need to grow their space with their families.

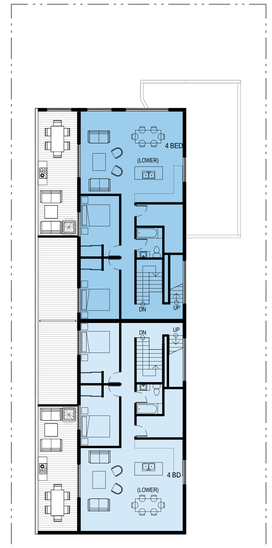
The project also provides a model for commercial insertions through a street-oriented "mortgage helper" (or Commercial Retail Unit, in more conventional terms). The space may be used as a community space for the building and neighbourhood, or leased out to small businesses such as a café, beauty salon, professional services office, or retail establishment.

This approach aims to focus on the benefits of increased density and foster greater interaction between neighbours to stimulate exchange of ideas and create resilient communities that look out for each other.

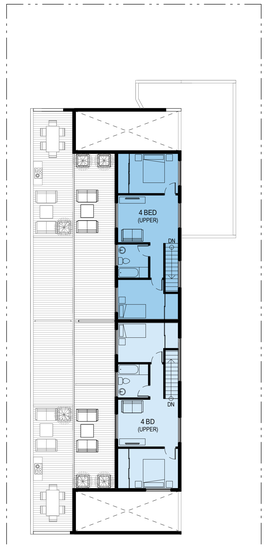


Ground Level — 1:150

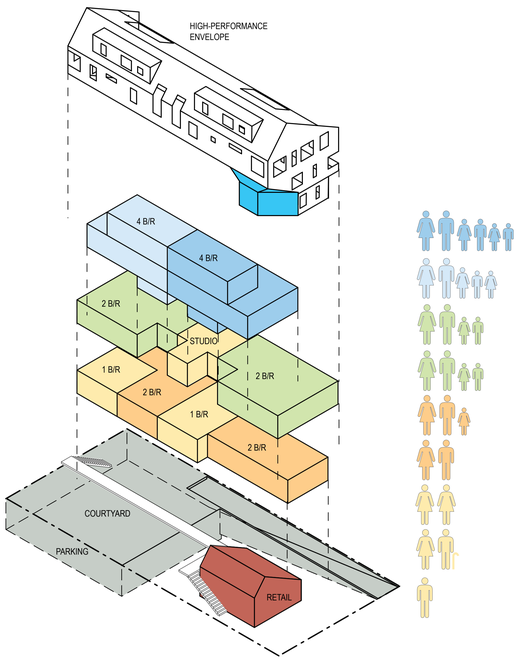
Second Level — 1:150



Third Level — 1:150



Attic Level — 1:150



Design Rationale:

Linear mass
Achieving a 1.2 floor space ratio (FSR) in an established neighbourhood is not an easy task. The proposal groups the residential units into a 3.5-storey linear block biased to one side of the site, opening the ground plane. The mass is large, relative to an existing bungalow, say, but not necessarily out of place compared to some of the existing larger houses.

Commercial/Public Gesture
At the front of the site, the generic space asserts itself along the street to create a viable retail frontage, or community-focused space for use by the building's residents. Potential occupants of this space already exist in the area, evidenced by the handful of informal beauty salons operating out of existing homes.

Interstitial Space
As density increases, floor area per home decreases, forcing shared spaces to take on greater significance. The site's courtyard opens on to the rear lane, destined to be recovered as a linear park once the City assembles the land over time. The shared exterior space consists of three primary elements:
1. Open space
2. Community garden
3. Gathering space

Spectral Layering
Physical and visual layering creates a spectrum of spatial character — from the private units, to the semi-private courtyard, to the semi-public faces of the project, to the public edges on the street and on the proposed linear park. Architectural strategies such as screening and semi-covered spaces are used to establish this gradient.

Social Rationale

Low barrier to entry
The proposal uses only a single lot, lowering the barrier to entry and avoiding any complex legal arrangement otherwise needed to develop multiple lots.

Multi-family and Multi-generational Living
A co-housing development model is proposed not only as a financial instrument, but also as a means to provide multi-family and multi-generational housing options. In Surrey, some homes may contain members of an extended family living under one roof. It may be desirable for these families to continue to live in close proximity, but to have their own spaces as well: A growing family with 2 or 3 children may wish to have grandparents live nearby who can provide childcare, or who may need assistance from their adult children.

Co-housing community
The co-housing model also provides a framework for like-minded individuals and families to self-assemble their own community in conjunction with the development. These people are typically motivated and committed community-oriented groups who are open to both shared responsibilities and shared experience, whether it's through sharing meals, partaking in upkeep and maintenance, or providing ad-hoc informal childcare for others in the co-housing group.

Social Contributions
The proposed CRU can act as the public face for the building and different developments may serve different community functions. If used a gathering space, the CRU may provide a venue for local interest groups or enthusiasts, in addition to providing function space for the residents. If used for retail, office or personal services, it can provide small business and employment opportunities close to home, and draw others from outside the immediate neighbourhood into the mix.

Affordability Rationale

Expenses	Area / Quantity	Unit	Unit Rate	Subtotal
A. Land	*Inclusive of transfer tax, legal & brokerage fees, etc.*			**$ 966,010**
Existing House/Land	737 m²	7930 ft²	$118 / ft²	$ 934,961
Transfer tax	*1% first $200K; 2% on next $200K-$2M*			$ 16,699
Legal				$ 5,000
Brokerage Fees	1%			$ 9,350
B. Hard Costs	*Items assoc. with preparing site for a building*			**$ 2,181,200**
Site Preparation				$ 30,000
Demolition				$ 10,000
Site servicing				$ 30,000
Landscaping				$ 100,000
Building: Above-grade	861 m²	9272 ft²	$180 / ft²	$ 1,668,960
Building: Below-Grade	397 m²	4278 ft²	$80 / ft²	$ 342,240
C. Soft Costs	*30% of Hard Cost total*			**$ 654,360**
Subtotal Expenses / Project Cost				**$ 3,801,570**
Escalation			5%	**$ 190,078**
Total Expense / Project Cost				**$ 3,991,648**

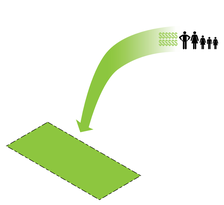
Income	Area	Unit Rate	Subtotal
Sale of laneway land to City for park	950 ft²	$118 / ft²	$ 112,000
Residential Units: Purchase Price / Share Price			
Junior 1 Bedroom	405 ft²		$ 162,588
Junior 1 Bedroom	444 ft²		$ 178,245
1 Bedroom	599 ft²		$ 240,470
2 Bedroom	898 ft²		$ 360,504
2 Bedroom	804 ft²		$ 322,768
3 Bedroom	1131 ft²		$ 454,043
3 Bedroom	1153 ft²		$ 462,875
4 Bedroom	1567 ft²		$ 629,076
4 Bedroom	1567 ft²		$ 629,076
total residential area	*8568 ft²*		
Leaseable Commercial Space	704 ft²	$25 / ft²	$ 1,467 $ 440,000
25-yr income based on $1500/mo rent			
total gross building area	*9272 ft²*		
Total Income			**$ 3,991,648**
Net Overage / (Shortfall)			**$ 0**

Co-housing model
Co-housing has a few appealing financial features:
1. All units are spoken for from the start, eliminating sales risk.
2. Developer profit and marketing costs are extracted, reducing the overall development cost.

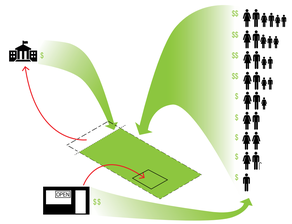
Trade land for green space
At the block scale, the proposal calls for the city to buy a swath of land at the rear of each lot, and create a linear park that ties the area together. The exchange is win-win-win, as the co-housing group receives a capital injection from the sale while gaining access to more open space, and the community receives a new green space.

Example mortgage calculation

3-bedroom unit:	$460,000
10% down payment:	$46,000
5-year fixed rate:	3.04%
Amortization:	25 years
Monthly payment:	$1967/mo



Single Family Model
Major capital investment AND mortgage debt



Proposed Model
Cohousing + City buyback of land + Retail mortgage helper

Project Data

The building contains a variety of types, with an emphasis on 3- and 4-bedroom units on the upper levels. In addition to smaller 1- and 2-bedroom units on the lower levels, a generic space (CRU) is provided – variable in size depending on the needs and desires of the co-housing group – that can be occupied as a community space or lease-able revenue generator. Units are designed to be self-contained. However the design provides opportunities for residents to occupy the exterior spaces around the building. Underground parking provides 11 stalls, anticipating that some residents will take public transit but most are still likely to drive.

Site Area	7932 ft²	737m²
Gross Building Area	9872ft²	917m²
FSR	1.24	

	AREA (ft²)	AREA (m²)
MAIN FLOOR		
1 BED	599 ft²	56 m²
2 BED	898 ft²	83 m²
2 BED	804 ft²	75 m²
CRU	704 ft²	65 m²
JR 1 BED	405 ft²	38 m²
	3410 ft²	317 m²
SECOND FLOOR		
3 BED	1131 ft²	105 m²
3 BED	1153 ft²	107 m²
JR 1 BED	444 ft²	41 m²
	2728 ft²	253 m²
THIRD FLOOR		
4 BED LOWER	1252 ft²	116 m²
4 BED LOWER	1256 ft²	117 m²
	2508 ft²	233 m²
ATTIC LEVEL		
4 BED UPPER	613 ft²	57 m²
4 BED UPPER	613 ft²	57 m²
	1225 ft²	114 m²
	9872 ft²	917 m²

Better Together

A Linear Co-housing Prototype for Surrey

MIZA architects

Master Plan Design

Strategically placed co-housing projects connect lane ways mid-block. By activating this City-owned land and converting them into linear parks, the neighborhood becomes a connected network of pedestrian oriented pathways, overlaid on the existing road network.

Small-scale land buybacks from the City allow for dynamic linear parks with small places to pause on a walk or gather with neighbours. In time, as more properties take advantage of the increased density, additional mid-block connections are introduced resulting in an ever improving network of pedestrian accessible pathways.

With commercial zones, Newton Elementary school and larger City parks all within a 1km radius, these precise changes to the master plan create a cohesive, walkable neighborhood that improve the quality of life for all residents, both existing and new and provide natural relief from the added density.

Without disrupting major road networks, the evolving Master Plan would become a dynamic neighborhood housing a diversity of families, businesses, small offices, and parks all within walking distance.

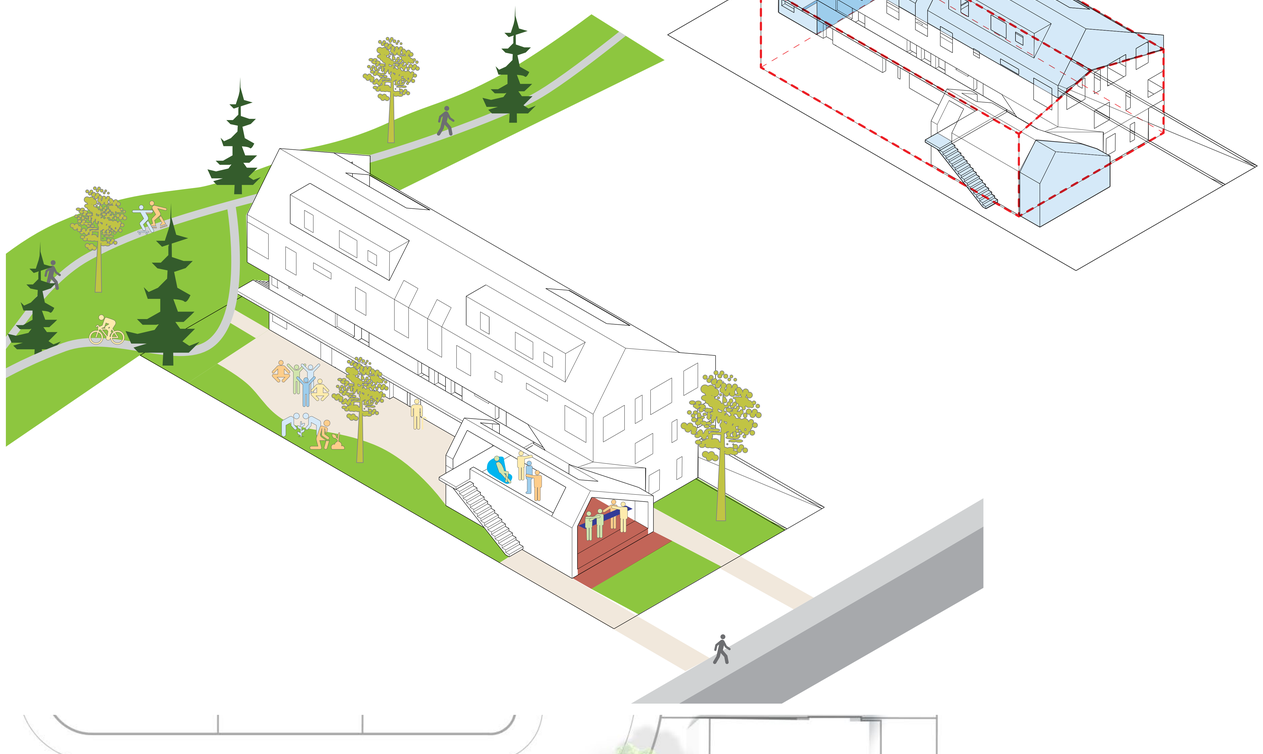
LEGEND

- Commercial Floor Area
- Commercial Property
- Developed Residential Floor Area
- Co-housing Developed Property
- City Developed Linear Park
- City Purchased Property

Zoning Commentary

The proposal attempts to meet the zoning guidelines in general, but as the site and zoning are intended for single-family dwellings, the project does diverge in some cases in order to achieve the required density and simultaneously preserve open space on site.

	Permitted	Proposed
Front Yard Setback	7.0m	7.4m 5.4m at CRU
Rear Yard Setback	7.0m	3.1m
Side Yard Setback	1.8m	1.8m / 1.5m
Maximum Height	9.0m 7.2m for flat roofs	12.8m
Parking	15 parking spaces required	11 parking spaces in below-grade parkade



A Street facing Commercial units provide an opportunity for locally owned and operated small businesses to thrive.

B Pedestrian walkway through the Co-Housing site connects laneways that are converted to linear parks.

C Existing pedestrian paths are connected to City developed linear parks drawing foot traffic into the block and away from vehicles creating lively and safe communities.

D City land buybacks allow for more dynamic linear parks with space more residents.

E Multiple Co-Housing projects in one block allow further pedestrian oriented connectivity.

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A Linear Co-housing Prototype for Surrey

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PERSPECTIVE OF SHARED OUTDOOR SPACE

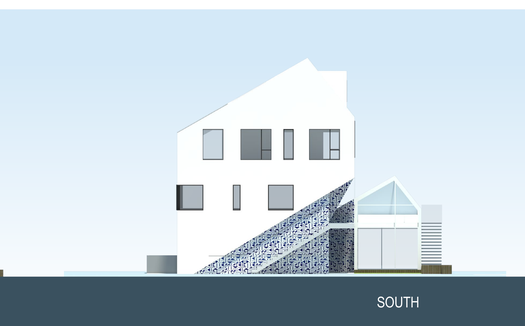
CROSS SECTION

PERSPECTIVE VIEW THROUGH PEDESTRIAN WALKWAY

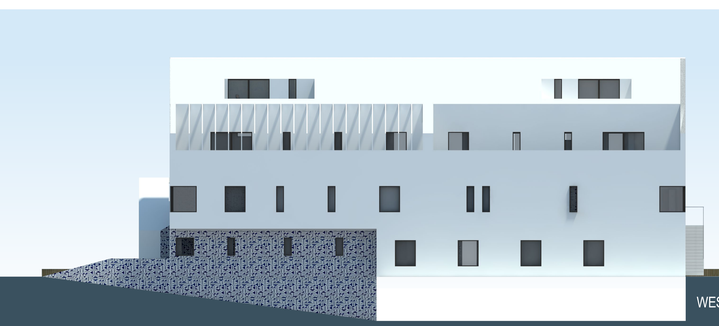
PERSPECTIVE FROM SOUTH WALKWAY

NORTH

EAST



SOUTH



WEST

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