

# Micro-hood

Building an apartment building is expensive. Really expensive. Land and construction costs are on the rise, along with nearly everything else.

Micro-hood's position is that our neighbourhoods could be made better by supporting apartment buildings on single lots, that communities can be more resilient by sharing in ownership and that the way we built yesterday needs a reset.

**This proposal imagines re-hashing the building rules, constructing with pre-fabricated panels and the creation of a Community Land Trust to bring a resilient, lower-carbon community to life. We've established a Code of Conduct to guide our approach.**

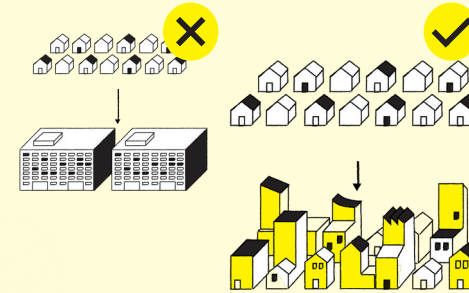


## Macro Micro-hood

The Micro-hood is a comprehensive and philosophical approach to neighbourhood development, not a cut and paste architectural typology. Instead of designing a neighbourhood, we are imagining how new rules building rules could unfold.

# Code of Conduct

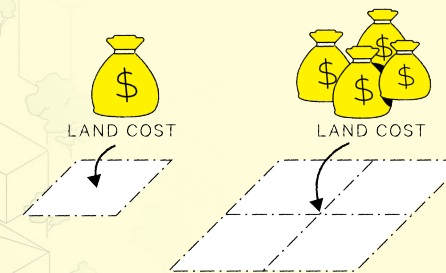
## Let neighbourhoods evolve



There's something special about having neighbours that knew the story of a place before you arrived. Through lot assemblies, communities are being rebuilt from the ground-up with a severed relationship to a place's history.

**Let's pass the torch from what once was, to what will be by respecting the urban fabric.**

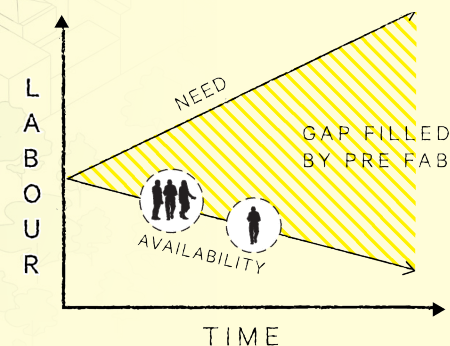
## Give small builders a chance



The more lots required, the more costs are incurred. Interest on that debt can make good projects nonviable. Small-scale builders simply can't afford the same debt load as larger developers.

**Let's tackle the restrictions that make it nearly impossible to build on one lot and give small builders a fighting chance.**

## Fill the labour gap with prefab

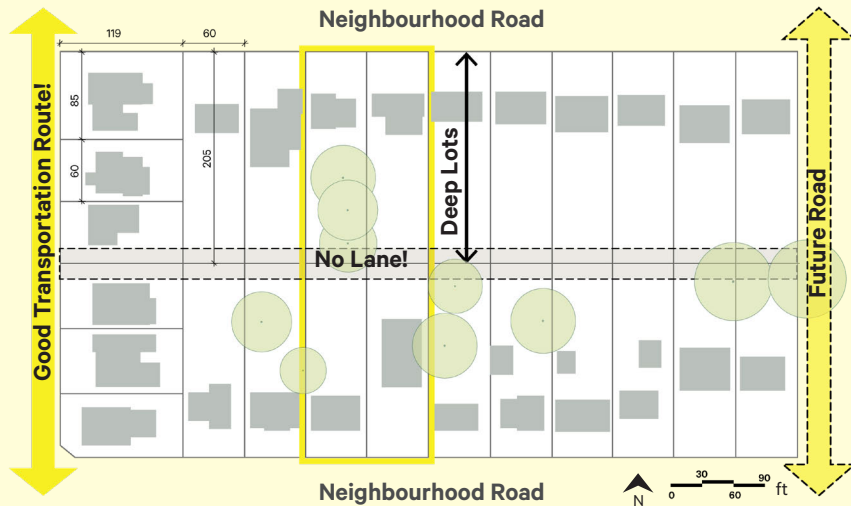


We are in a construction labour crisis and its only getting worse. The average age is increasing faster among skilled tradespeople than it is in the broader labour market. How will we build homes if we don't have the hands to do it?

**Let's accelerate the prefabricated construction industry to fill the labour gap.**

# Breaking, Bending and Rewriting the Rules

We started reviewing Site "C"...



... then a conversation ensued...

Alright, the Urbanarium said we have to assemble 3-4 lots. So let's assemble. Then add a lane... or maybe a new road?



Wait! Metro Vancouver is full of bulky apartment buildings. When I think of cities that I love, narrow apartment buildings are everywhere.

Why default to lot assembly? And what if the municipality wasn't the one to steward the lane?



Two buildings can fit on each lot. We could use lot coverage and setbacks to help protect greenspace for each building and the neighbourhood.



We should also think about the challenges in the labour market. Prefab construction offers so many opportunities. Let's tackle the barriers getting in their way too.

## Re-hashed Design Rule Book

### 1 Design with single egress

Allow single egress (point access block) up to 12 storeys (just like Sweden!).

### 2 Minimize setbacks

Maximize buildable area while accommodating for fire egress, privacy between facing units, and sunlight penetration in units.

### 3 Minimize expensive parking requirements

Let the market decide.

### 4 Give permits to prefab factories

Just like modular homes, pre-inspect prefab components so that building inspectors can be confident with new building methods.

### 5 Require builders to provide shared outdoor amenities

Focus less on private outdoor space and instead on shared amenities that support community-building.

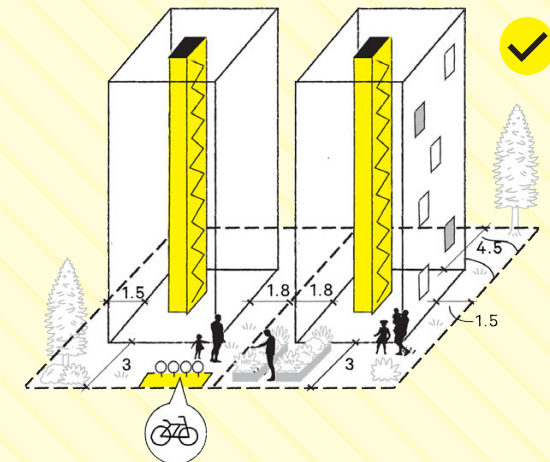
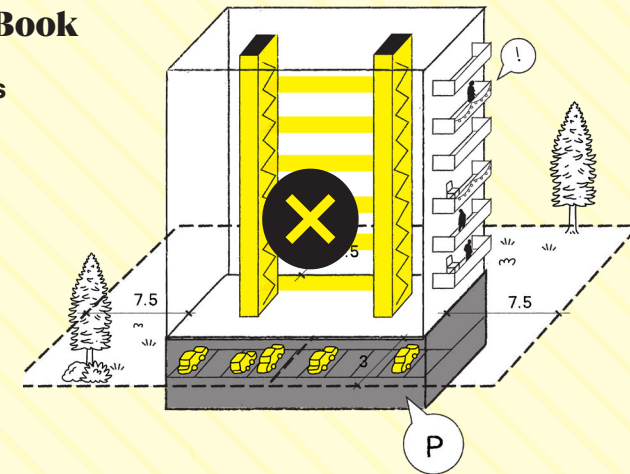
### 6 Permit neighbourhood-scale commercial uses

Who doesn't like corner stores?

### 7 Create a deep rear yard setback

Maintain a 4.5m setback to protect greenspace while allowing space for multiple buildings.

### 8 Allow multiple "principal" buildings on one lot





# Construction 2.0

We are and have been in a construction labour crisis for years. The crisis is worsening, 25% of Canada's 4 million tradespeople will need to upgrade their skills within five years amid significant digital disruption. 700,000 skilled trades workers are set to retire by 2028 and we don't have enough apprentices to backfill those positions. How will we build the homes we need if we don't have the hands to do it?

## Making prefabrication work

### Begin with prefabrication in mind

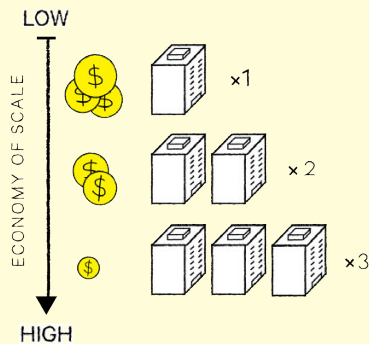
The typologies use a standard maximum panel size of 10 by 16 feet. The panel size forms the space planning module. The largest panel width that avoids expensive wide load permits is approximately 10 feet. With it, one can obtain a floor-to-ceiling height of 9 feet. The maximum panel length is about 16-20 feet. Anything more than that and you begin to get concerned about flying panels over buildings.

### Inspect ahead of time

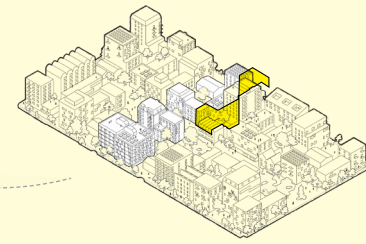
We shouldn't put all the burden of risk on municipalities. Certifying factories, just like we certify mobile home or car manufacturers, will give peace of mind for all involved.

## Economic rationale

Building with panelized pre-fab is not necessarily less expensive than traditional wood frame when just one building is compared to another. The benefit of pre-fabrication is realized when scale is reached. Multi-family housing provides a far greater opportunity for achieving an economy of scale than single-family forms.



## The Prototype



## Legend

- Amenity
- Commercial
- Studio
- 1 BDR
- 2 BDR
- 3 BDR
- TH Townhomes



## Following the New Rule Book

This example - one of many - achieves:

- Units that support all sorts of household sizes ranging from singles to families.
- Space efficiency - corridors are nearly eliminated
- Cross-ventilation
- A variety of indoor amenities
- Outdoor shared spaces
- A coffee shop at your front door

DESCRIPTION	
Building type	6 storey using prefab wood panels
FSR	2.7
Lot Size	12,330 sf.
Gross Building Size	32,453 sf
No. of residential units	40
No. of bedrooms	64

CONSTRUCTION COSTS	MULTIPLIER	VALUE
Wood	\$375 per sf.	\$12,169,946
Elevator	\$40,000 per stop	\$280,000
Parking	\$90,000 per stall	\$1,260,000
<b>TOTAL</b>		<b>\$13,709,946</b>

# Tenure

The housing conversation is focused on owning vs. renting, but there is a wide gradient in-between that can provide affordable options. As Metro Vancouver's age demographics shift and the make up of households changes, more forms of tenure should be explored.

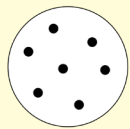
We propose a **Community Land Trust (CLT)** to facilitate **community-oriented development, stewardship of shared open spaces, and non-profit land ownership that provides affordable and secure tenure. It's called Surrey Street CLT.**

## Definitions

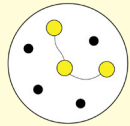
**A Community Land Trust (CLT)** is a form of cooperative ownership where several members of the community and values-aligned funders pool resources to own and develop property. In British Columbia, CHF BC has used a CLT as a mechanism for preserving and developing housing that is affordable to a wide swathe of residents.

**A life-tenancy** is a form of tenure. A current owner can give someone the right to live in a property until they pass away, afterwards, the property can be fully transferred to someone else or return to the original owner.

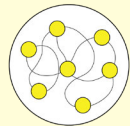
## The Surrey Street CLT is born



Each lot in the neighbourhood is owned separately.



Then, neighbours in the Surrey Street CLT and aligned funders pool money to purchase lots.



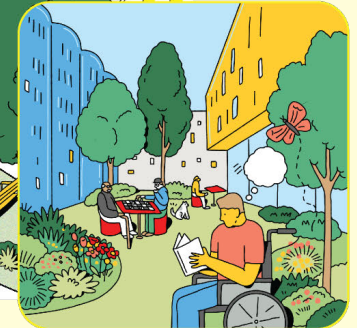
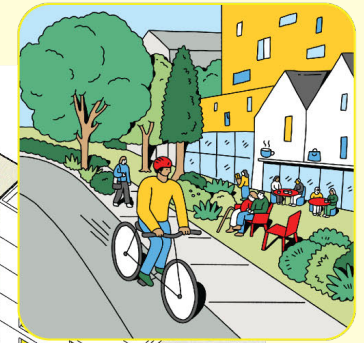
Eventually, the neighbourhood is a network of shared resources.



Walter lives within the Surrey Street CLT community area. He is a retired senior resident and a widower. He is contemplating selling his home but can't find an option in his neighbourhood that suits his need or his limited retirement savings. His home is a keeper of dear memories and Walter doesn't want to leave a place that he shared with his late wife and their children.

Walter offers to sell his home to Surrey Street CLT.

They drum up a life tenancy agreement whereby Walter maintains the right to use the accessible main floor and lease out the ground floor to a member of the CLT. The CLT has the right to develop the remainder of the property. Once Walter passes away, the CLT would be full owners of the property.



## Overtime the Surrey Street CLT redevelops the neighbourhood with shared common spaces and neighbourhood-scale services. Here's how.



The CLT builds a small apartment building in the remainder of the property and operates it as a Co-Op, tying fees to the incomes of residents. The apartment residents share a large food garden with Walter. Sulay, a resident of the apartment building moves her pottery studio and gallery into Walter's ground-floor unit. Walter gets first dibs on newly fired works of art.



The CLT continues to form life-tenancies within the neighbourhood, allowing existing homeowners to age-in-place while developing the property. With each property acquisition the CLT registers a covenant on title to maintain a large rear yard setback. Overtime, a semi-public park emerges that is stewarded by the residents of the neighbourhood.

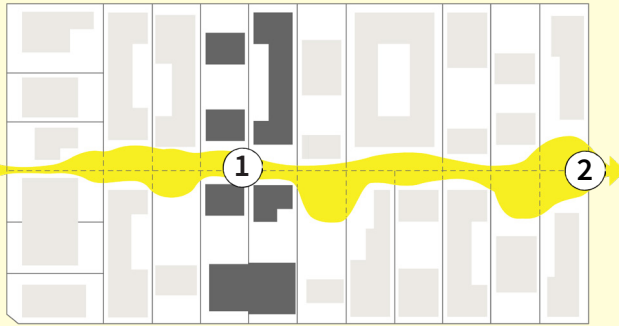




# Living in the Open

When ample open spaces stitch dense neighbourhoods together, less private space is required. Over time and through intentional development, Surrey Street CLT forms a semi-public park that runs through the middle of the neighbourhood block. **They name it the Lifeline.**

## The Lifeline



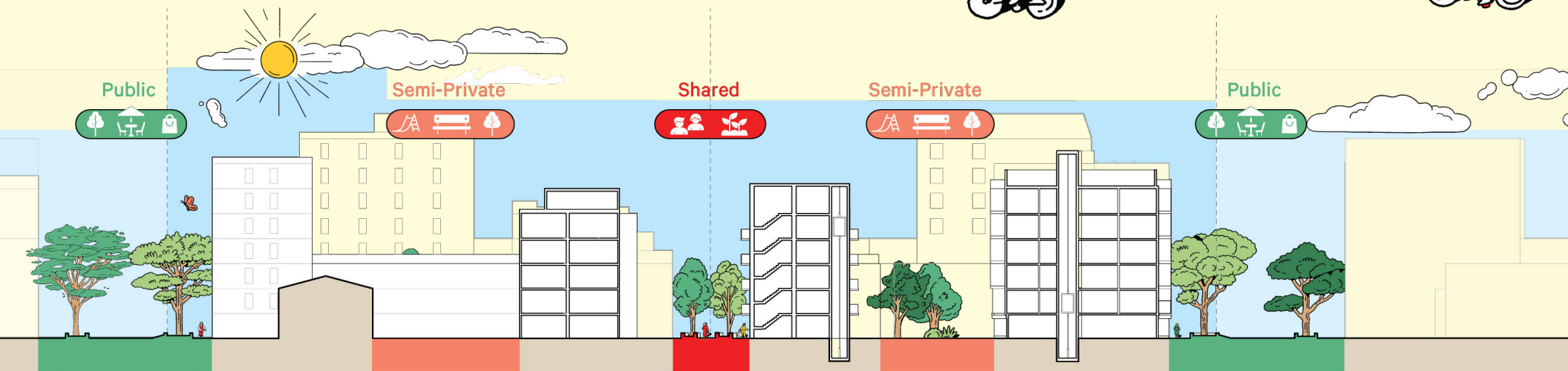
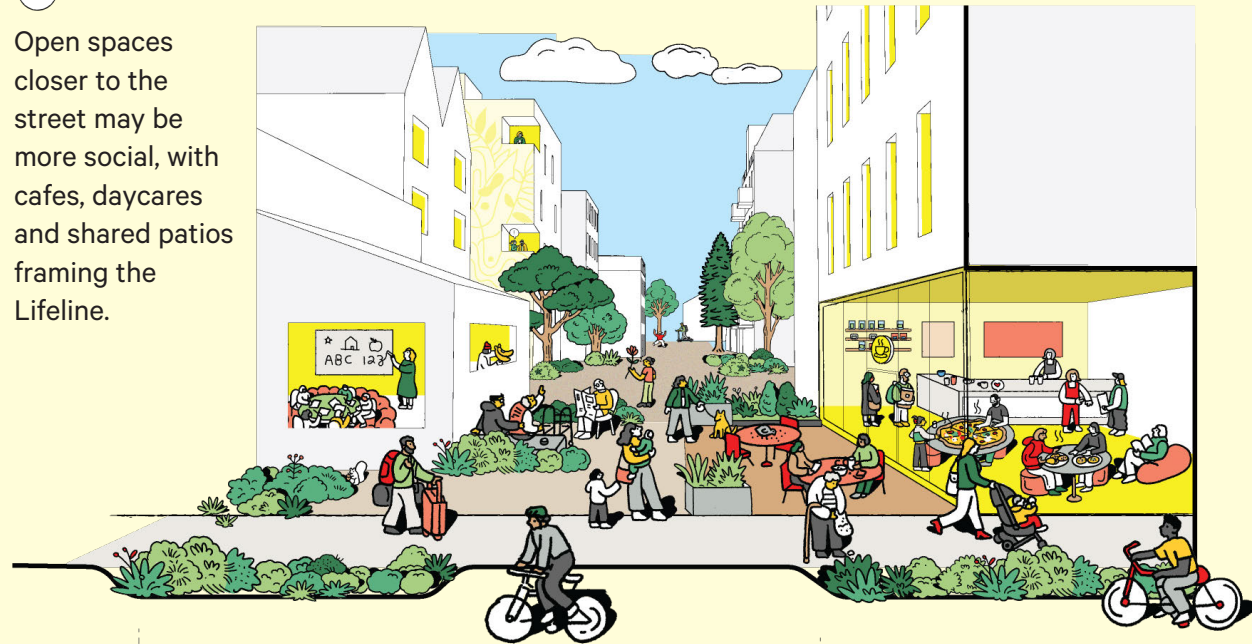
The Lifeline includes the rear yard setback and any remnant outdoor spaces. While each building would steward their portion of the lifeline, together the outdoor spaces form a shared network, governed through the Co-Ops that make up the Surrey Street CLT.

The Lifeline is just one of a series of open space typologies. With neighbourhood-scale shops allowed fronting any neighbourhood street, there is a spectrum of highly public to semi-private spaces throughout the Micro-hood.



1 Open spaces between buildings deeper in the Lifeline may be more private: think of spaces for gardening, hosting a long-table dinner, or walking a dog.

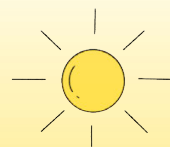
2 Open spaces closer to the street may be more social, with cafes, daycares and shared patios framing the Lifeline.





# A Day in the Lifeline

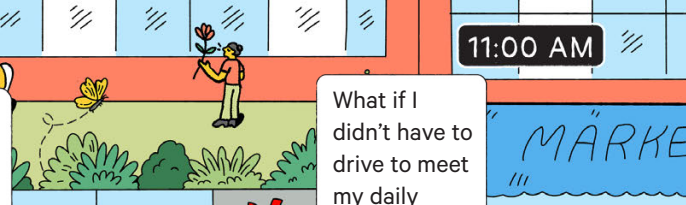
The Lifeline is full of open spaces and neighbourhood shops. It is where neighbours build life-long connections across generations. Imagine all the possibilities!



7:00 AM



What if I could walk to the daycare just down the street? What if my neighbours could offer childcare in a reciprocal exchange?



11:00 AM

What if I didn't have to drive to meet my daily needs?



5:00 PM

What if it was easy to convert old neighbourhood homes into new uses? Like an art studio or gallery!

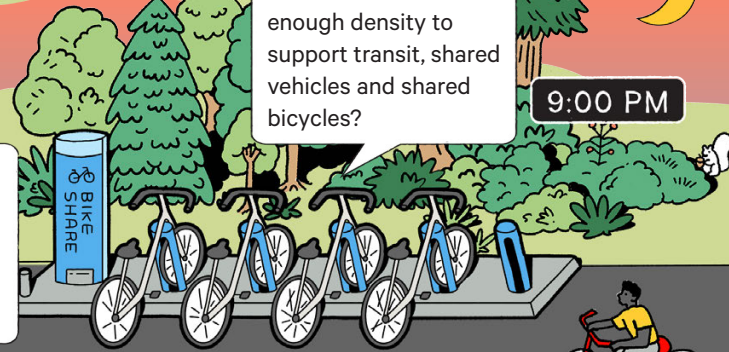


What if we had shared spaces for gardening and gathering that were stewarded by the neighbourhood?



2:00 PM

What if we had enough density to support transit, shared vehicles and shared bicycles?



9:00 PM

What if small businesses were allowed wherever, including in upper floors of buildings?



7:00 PM

