

Learning from Vancouver:
GENTLE DENSITY

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CONTENTS

- i Preface
- 1 What can Auckland learn from Vancouver?
- 2 Eco-Density Approaches
 - 2.1 Invisible Density
 - 2.2 Hidden Density
 - 2.3 Gentle Density
- 3 Opportunities for Auckland

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i Preface

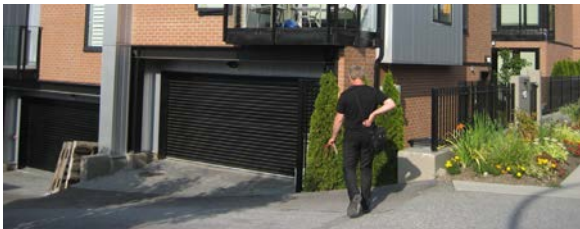
We at Isthmus are searching for types of urban development that suit Auckland's setting and character. We suspect the answers might be found by studying our own urban history more closely, and also amongst our 'new world' cousins in places such as Australia and Canada.

Vancouver interests us, partly because of staff connections, but also because it appears to have successfully accommodated higher density while retaining the landscape and urban character Vancouverites cherish.

In 2011 we hosted Gordon Price, director of the City Program at Simon Fraser University and long time Vancouver City Councillor. Gordon ran some workshops with our clients and engaged with Auckland's planning issues by recounting some of the experiences of Vancouver's innovative urban planning strategies, in particular for transportation and residential intensification.

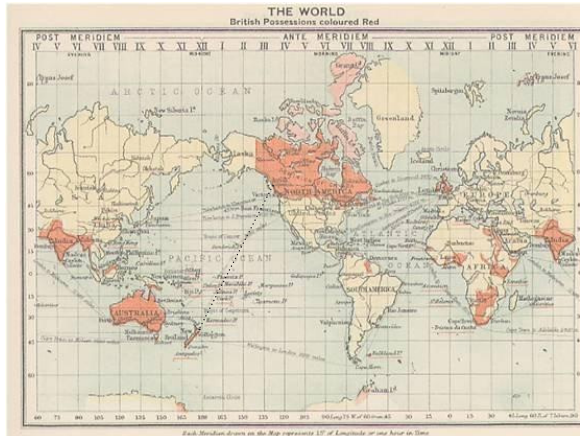
The following year we went on a week-long research trip to Vancouver to go and see for ourselves the effects of these strategies. We took some clients with us, and carried questions for others. What we found surprised us. Vancouver had more in common with Auckland than we had imagined. We thank our many hosts in Vancouver for giving their time generously.

*This short report shares with **Auckland Council** what "density done well" looks like and briefly illustrates some of the innovative techniques that are being used to increase residential density across the city.*

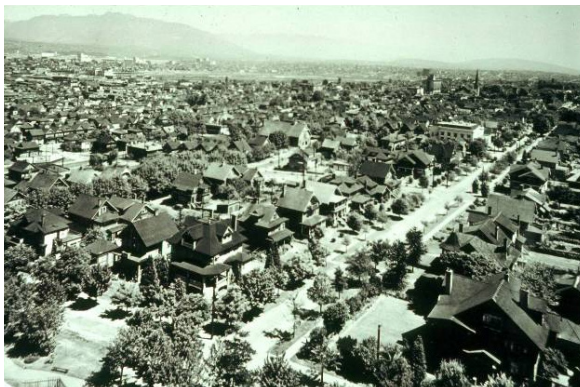


Gavin Lister & David Irwin
March 2013

1 What can Auckland learn from Vancouver?



'British Possessions' circa 1900



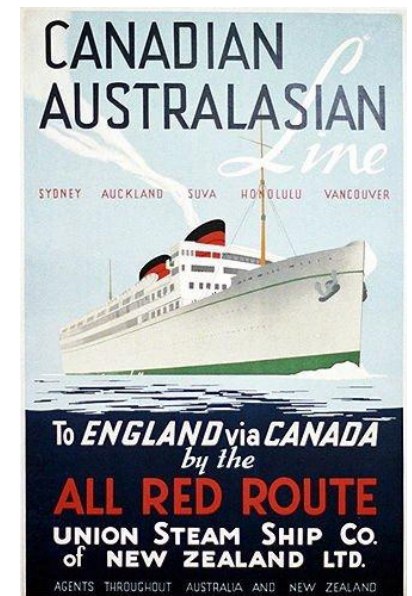
With the arrival of the electric streetcar people could get around five times faster than before, and the city spread out to where the land was cheap.

There are many reasons why Vancouver makes a good laboratory to study urban development history, policy, politics and techniques that are directly relevant to Auckland.

Firstly the two cities are products of a similar age of colonialisation; both are major ports and as such retained strong ties to Britain. Emigrants were attracted to the 'new world' by the prospect of a better life, and soon established thriving cities.

Vancouver's urban development pattern follows some of the same drivers as Auckland. Having largely been urbanised in the age of the streetcar (tram), low-rise residential suburbs are spread thinly and evenly out from the main business district and port. However, one aspect of urban development which Vancouver missed out was the era of the urban motorway; schemes were drawn up but never built. This has left the Victorian structure of the city largely intact.

Vancouver and Auckland are Pacific cities founded on the trade routes that have connected them throughout their history. Vancouver was an important stopover for liners travelling between Britain and New Zealand, this regular connection between the colonies enabled the free exchange of goods, people and ideas. Since 1902 British Columbia has been linked with New Zealand by the Pacific telegraph cable.

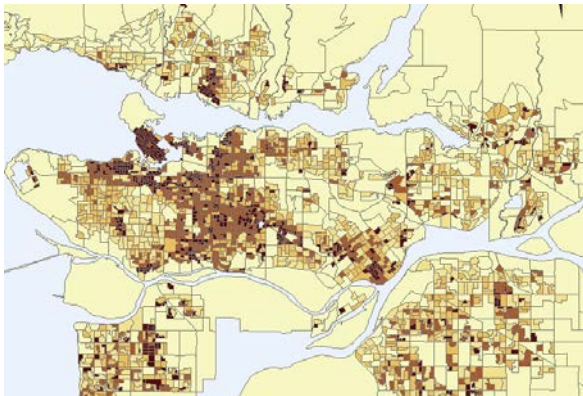


Britain via Canada by the All Red Route, 1930s.

1 Density Done Well



Vancouver has not been afraid to allow tall buildings on the waterfront. But 'one size does not fit all'; Vancouver's densification is being carefully designed, neighbourhood by neighbourhood, and site by site.

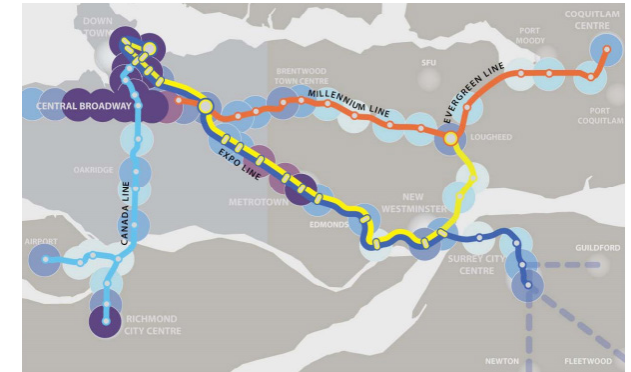


Vancouver density map.
VAN = 2.4m population | 5,250/km²
(AKL = 1.4m population | 2,900/km²)

Over the course of the twentieth century Vancouver faced similar urban issues to Auckland, but it grew faster. In addition to growing out, it also grew up, successfully doubling its density, while still retaining the city's character and quality of life. The rapid pace of urban development in the city over the last thirty years has transformed the skyline of the downtown peninsula, but this development has been carefully controlled by planning zones and rules that have delivered a dense city that is liveable. Vancouver's metropolitan area has nearly twice the population density per square kilometre as Auckland's.

Vancouver has achieved much of this density increase since the 1960s through successive policies that have controlled urban growth and expansion in favour of consolidation and reinvestment within the existing city. Vancouverites are proud of how their city has developed. The central city has become a case study for podium/tower residential development, intensification along skytrain corridors, cooperative planning models, prioritisation of walking and cycling infrastructure, innovative approaches to community participation and strategic approach to intensification. In these areas Vancouver has been at the forefront of international urban design practice.

What is less known well know, however, is the city's approach to increasing density in the suburbs, it's Green City aspirations and how it plans to tackle housing affordability issues. These approaches, loosely called 'EcoDensity', are the subject of this report.



Rapid transport corridors support and encourage residential and employment density and connect the regional centres.



Podium/tower development rules control separation to allow light into all apartments. Perimeter block townhouses with retail units below bring the scale down and animate the street.

2 Eco-Density Concepts



Proposed pre-fabricated rooftop addition adds two levels of residential accommodation to an existing building.



Three story 'rowhouses' relate to the character of the existing neighbourhood.

Vancouver has shown successive leadership to create the planning framework for a livable city of neighbourhoods and compact, mixed-use, walkable communities and has embraced density as a powerful opportunity to improve environmental sustainability along with affordability and livability.

However, Vancouver has extensive 'heritage' suburbs, similar in age to Auckland's inner suburbs, where changes to character are strongly resisted. In order to deal with resistance to the "D-word", the City of Vancouver's Planning Department developed three kinds of density that would be acceptable to residents of existing communities. These approaches were embedded in the EcoDensity Charter of 2008.

Invisible Density

When a 'secondary suite' is added within an existing house, almost no change at all is seen from the street. Additional rental units within a house are popular 'mortgage helpers' and contribute to affordable rentals in established areas.

Hidden Density

When a lane cottage is built behind an existing house, it can barely be seen from the street. Lane houses require no new infrastructure and are rapidly being retrofitted into established suburbs. More comprehensive development builds new houses and laneway houses over two or more lots.

Gentle Density

Larger than the individual house, 'gentle' development might add a few extra floors above the retail frontages along a commercial street or introduce rowhouses (townhouses) into a neighbourhood.

EcoDensity



The Vancouver EcoDensity Charter: *"how density, design and land use will contribute to environmental sustainability, affordability and liveability".*

2.1 Invisible Density

This approach fits more households into the existing buildings of the neighbourhood. These might be “suites within suites”, secondary suites within apartments and podium rowhouses, or a rental unit in the basement of a family house.



While Canada has a heritage of basements and Auckland does not, the principle of incorporating secondary units as 'mortgage helpers' is directly applicable to our housing stock.



2.2 Hidden Density

Laneway cottages are secondary units on the same title as the main house. Tucked behind the house, but fully accessible from the lane, they do not affect the 'heritage' residential streetscape and make use of underutilised space to provide housing for aging family members, adult children, caregivers, and homeowners wishing to downsize.



Made possible by zoning changes in the EcoDensity charter, over 1,500 laneway houses have been approved since 2009. Specialist design/build companies - Smallworks, Lanefab etc - have responded to market demand.



2.2 Hidden Density

The success of laneway housing owes a lot to the extensive network of service lanes built between the backs of properties in Victorian times. Originally used for deliveries, storage and garaging they offer ready made access to rear lots.

Auckland doesn't have laneways, however the principle is applicable - secondary, small houses, in complementary style, located unobtrusively on a single lot, as a mortgage helper or home for a relative. Sections of laneway could be created in Auckland by aggregating 2 or 3 corner sites.



Vancouver Council's Laneway House design guide illustrates the rules and design principles for a complying unit. Height, setbacks and parking determine the site layout out, while access to sunlight, turning windows onto the lane, and responding to the vernacular of the main house influence the architectural design



2.2 Hidden Density

Another technique to achieve hidden density is the aggregation and redevelopment of multiple lots. For example 2 houses on 2 lots can be replaced with 3 houses on the street and 3 laneway houses at the rear, all of which appears in-keeping with the scale and character of the neighbourhood.



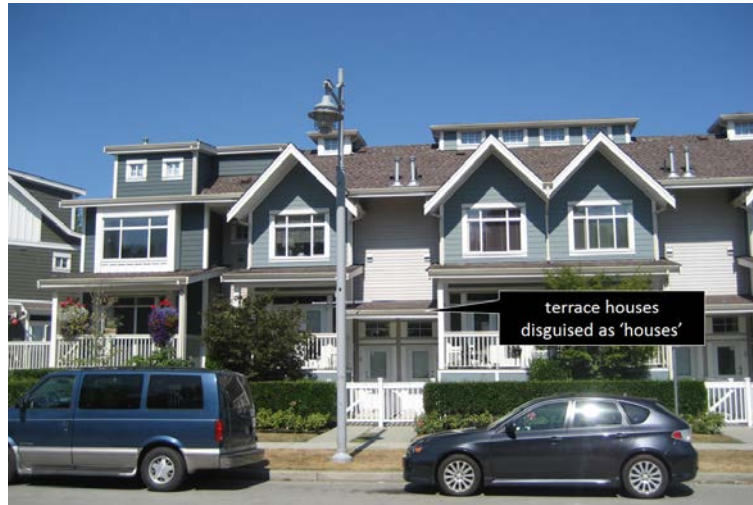
High quality front yard and streetscapes provide a layering of private - semi-private - public space and respond to city design guides as well as the tastes of the market.



2.2 *Hidden Density*

At higher densities traditional domestic architecture is used as a 'comforter' to merge developments into existing neighbourhoods.

These row houses are articulated to read as separate houses, each with its own front gate, yard and verandah.



The care taken with the details helps ease higher density housing into existing suburbs while maintaining quality of life. In this example there is good street front transition (public-private spaces), articulation and depth of facades and treatment of corners, reference to traditional vernacular architecture, transition from larger buildings to neighbouring smaller houses, outdoor space integrated into the house and high ceilings.



2.3 *Gentle Density*

Gentle density is generally targeted at streets with good transport connections. In this example its take the form of multiple apartments retro-fitted in an old warehouse, bringing a residential population to a formerly run-down city fringe precinct.



In this example a few extra floors of apartments have been added above a reused warehouse building. Retail and office units front the street to give business opportunities and help create a vibrant mixed-use neighbourhood.



2.3 Gentle Density

The introduction of 'rowhouses' into a neighbourhood can significantly increase density without dramatically altering the residential character. Again, the attention to architectural and landscape detail creates a high quality residential environment.



Corner sites can make use of the double frontage to bring vehicles onto the development, in this case offering basement car parking under new rowhouses.



2.3 Gentle Density

Multiple units are designed with privacy and individuality expressed through the articulation of roof, entries, balconies and terraces. In this corner lot development vehicle access to basement car parking has been brought into the site between a new four story block and a new two storey house that transitions the scale down to the existing houses on the street.



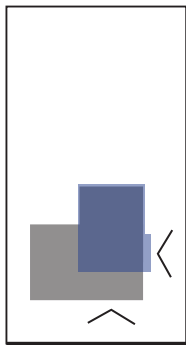
Good urban design principles are applied to this apartments-over-retail development. There is variety and articulation in the facades, good access to natural light, base-middle-top massing, expressed corners, legible separate entries to retail units and apartments and access to outdoor space.



3 Opportunities for Auckland

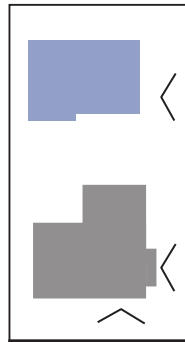
Opportunities to be explored in the new Unitary Plan:

- a* Allow for single houses to be split into the main house and a secondary unit 'mortgage helper'. Develop design controls for privacy, noise, access, outdoor space etc.
- b* Allow for secondary units to be built on front or rear lots, on same title as existing house. Develop design controls for privacy, noise, access, outdoor space, setbacks etc.
- c* Encourage high quality comprehensive development of aggregated lots, especially where corner lots allow laneway access. Develop design controls for privacy, noise, access, outdoor space, setbacks, laneway, streetscape etc.



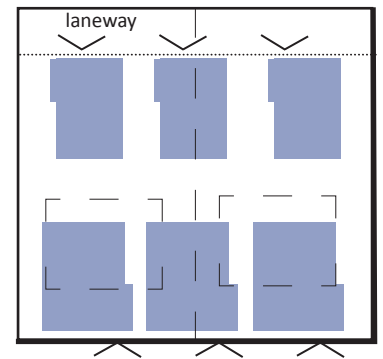
invisible density 'mortgage helper'

a



hidden density 'mortgage helper'

b

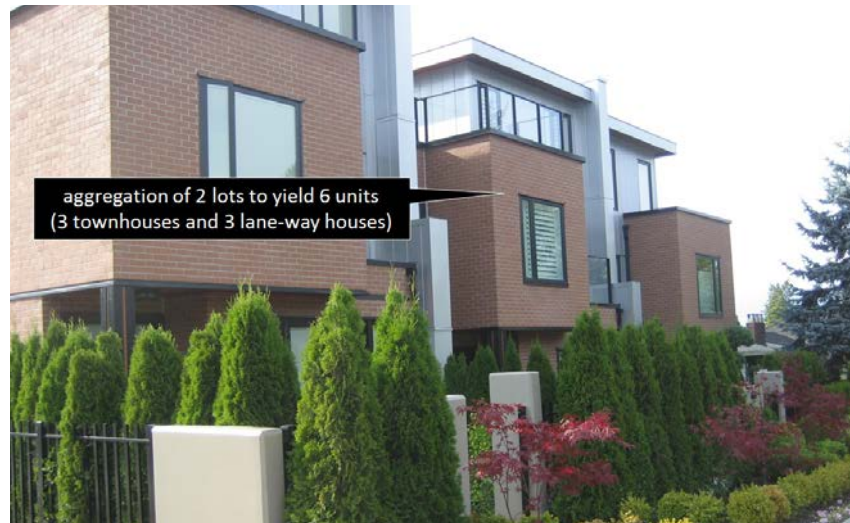


gentle density lot aggregation

c

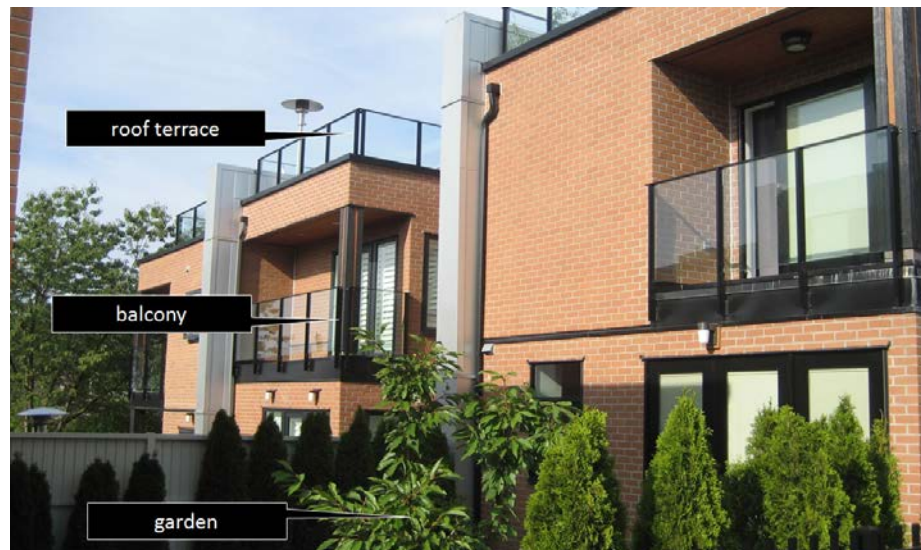
3 *Gentle Density on Aggregated Lots*

This case study from Vancouver has an approach to site design that we think is very appropriate for Auckland. Conceptually similar to diagram (c) on the previous page, the aggregation and redevelopment of two lots removed two dwellings and replaced them with three townhouses and three laneway houses.



Each house has its own semi-private yard space and a roof terrace and balcony integrated into the building.

The gardens are well designed with a layering to increase their perceptual depth and create a quality streetscape.

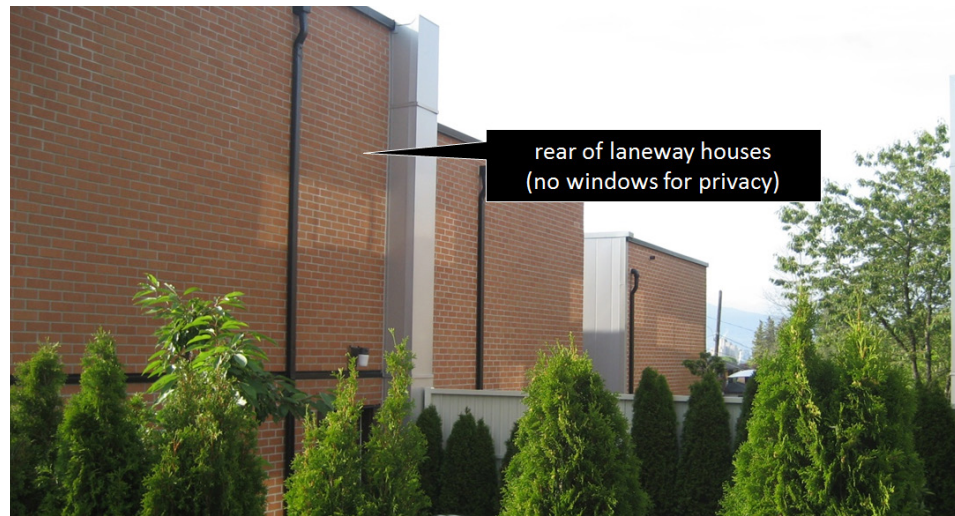


3 *Gentle Density on Aggregated Lots*

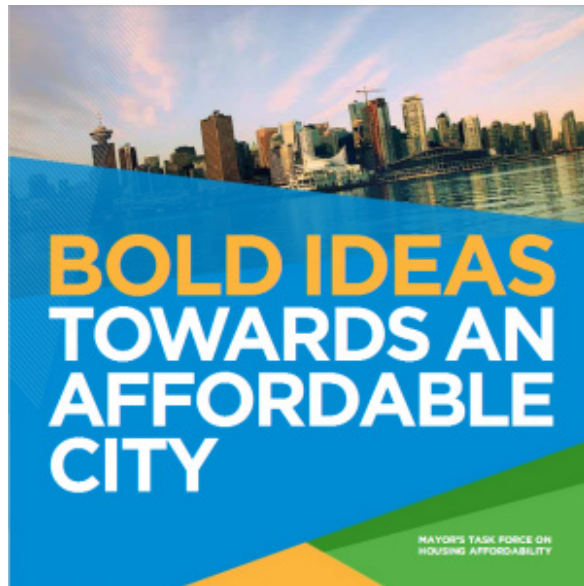
At the rear smaller, but complementary, laneway houses front to the lane and do not compromise the privacy of the larger houses at the front. Garaging is integrated into the house, with a high volume above with mezzanine living.



The development increases density by four dwellings whilst retaining the scale of the residential neighbourhood. The choice of housing is diversified, with the smaller laneway houses being more affordable than the main houses and more likely to be offered for rent.



3 *Housing Affordability*



While it is definitely having an impact on density and increasing the diversity of supply, there is much debate in Vancouver about whether the EcoDensity Charter is actually making much difference to housing affordability.

In late 2012 the Mayoral Task Force on Housing Affordability (set up to examine the barriers to affordability) published their findings; Bold Ideas Towards an Affordable City. There is much for Auckland to learn from Vancouver's experience.

The four task force recommendations are:

1: Increase supply and diversity of affordable housing

Density increases in appropriate locations create important opportunities to enhance housing affordability and diversity. The City should accelerate planning programs that increase density in large developments and transit oriented locations, and those that increase housing diversity in residential neighbourhoods, including the creative use of underutilised city land, such as streets. Improving housing affordability and diversity should be a primary focus of these planning initiatives.

2: Enhance the City's and the community's capacity to deliver affordable rental housing and social housing

Create a new City-owned entity to deliver affordable rental and social housing by using City lands. Mobilise the community to support affordable housing through community land trusts and alternative financing models.

3: Protect existing social and affordable rental and explore opportunities to renew and expand the stock

Protect existing non-profit, social and co-operative housing that may be under threat and continue to protect the affordable market rental stock using the community planning process to focus on strategies to repair, renew and expand the stock neighbourhood by neighbourhood.

4: Streamline and create more certainty and clarity in the regulatory process, and improve public engagement

Enhance certainty, efficiency and transparency of approval processes and clarify regulations in order to reduce development costs and enhance affordability.

