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To: ["Direct to Mayor and Council - DL"](#)

Date: 6/29/2022 1:41:48 PM

Subject: [Council Memo - Exploration of Further Retention Incentives - Response to Council Motion - RTS 13491](#)

Attachments: [Memo to Mayor & Council - Exploration of Further Retention Incentives – Response to Council Motion.pdf](#)

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Dear Mayor and Council,

The attached memo from Theresa O'Donnell responds to the Council motion to explore further ways to incentivize character retention and to advise on whether retention aligns with Council's goals for affordable housing and climate protection (RTS 13491). This memo includes the following key data, information and observations:

- Character projects are complex to design and review and are costly to build (up to 50% more than new construction)
- The projects are achieving a low level of actual retention (25 % of the structure) due to upgrades triggered by the Strata Property Act and the VBBL
- The key trigger for determining building code requirements is the number of units in a building. A building with three or more units is considered "multi-family" under the National Building Code, BC Building Code and VBBL.
- Altering the VBBL to reduce requirements to enable two or more suites in a house would be counter to the provincial efforts to align codes across the country.
- Studies completed at UBC estimate that replacing a standard pre-1940s house with a new house provides an immediate reduction in operating GHGs and the payback on embodied carbon would be realized within 10 years.

Should you have any questions, please contact Theresa O'Donnell ([Theresa.o'donnell@vancouver.ca](mailto:Theresa.o'donnell@vancouver.ca))

Best,  
Paul

**Paul Mochrie** (he/him)  
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The City of Vancouver acknowledges that it is situated on the unceded traditional territories of the x̱m̱əθḵʷəy̱əm (Musqueam), Sḵw̱x̱w̱ú7mesh (Squamish), and səlilwətəł (Tseil-Waututh) Nations.

## MEMORANDUM

June 29, 2022

TO: Mayor and Council

CC: Paul Mochrie, City Manager  
Karen Levitt, Deputy City Manager  
Armin Amrolia, Deputy City Manager  
Katrina Leckovic, City Clerk  
Lynda Graves, Administration Services Manager, City Manager's Office  
Maria Pontikis, Director, Civic Engagement and Communications  
Anita Zaenker, Chief of Staff, Mayor's Office  
Neil Monckton, Chief of Staff, Mayor's Office  
Alvin Singh, Communications Director, Mayor's Office  
Neil Hrushowy, Assistant Director, Community Planning  
Doug Smith, Director, Sustainability  
Dan Garrison, Assistant Director, Housing Policy and Regulation  
Andrea Law, General Manager, Development, Buildings and Licenses  
Saul Schwebs, Chief Building Official and Director  
Rick Cheung, Assistant Chief – Fire Protection Engineer

FROM: Theresa O'Donnell  
General Manager, Planning, Urban Design and Sustainability

SUBJECT: Exploration of Further Retention Incentives – Response to Council Motion

RTS #: 13491

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### PURPOSE

This memo responds to the Council motion of October 2019 (Appendix A) that instructed staff to a) investigate a range of possible ways to further incentivize character house retention in order to increase affordable housing and b) advise on whether retention aligns with Council's goals for affordable housing and climate protection. This memo summarizes the investigations over the past two years.

## DISCUSSION

### *Background/Context*

Character Home Zoning Review and Incentives Program (RS Zones) - The Character Home Zoning Review began in 2015 to explore ways to encourage the retention of character homes (generally Dunbar and Shaughnessy). In mid-2016, the review expanded to a citywide approach. While there was strong public support for incentives to retain character homes, there was significantly less support to discourage demolition by reducing the floor area for new single-family dwellings. Accordingly, Council decided to encourage character home retention through optional incentives only, with no change to the outright floor area for new home construction. The RS retention incentives, enacted in 2018, provide optional incentives for character home retention, including additional floor area, additional units, and the ability to strata title units (options shown in Appendix B). In June 2019, staff provided a memo to Council that summarized the program's uptake and provided early observations on challenges.

Housing Vancouver Strategy (2017) - The Housing Vancouver Strategy (HVS) is a 10-year strategy that contains three core principles: create the "right supply" of housing that meets the needs of people who live and work in Vancouver; protect the existing rental and affordable housing stock; and increase supports and protections for more vulnerable residents. In shifting to the "right supply" of housing, the HVS includes a strong focus on delivering significantly more secured, purpose-built rental, and below-market and non-market housing. The HVS also addresses the need to enable a greater diversity of housing choice in all neighbourhoods, especially in lower-density areas where existing housing options are not meeting the needs of a large proportion of the city's diverse population. The character home retention incentives enacted in 2018 were intended to both encourage retention and expand housing choice in neighbourhoods.

Climate Emergency Action Plan - In May 2019, Council approved advancing a set of six "Big Moves" to guide the City's work in response to the climate emergency and meet the objective of limiting global warming to 1.5°C. The Climate Emergency Action Plan, approved in November 2020, proposes specific actions to meet the goal of reducing carbon pollution by 50% by 2030.

Fifty-seven percent of Vancouver's carbon pollution comes from natural gas use in buildings and therefore, considerable effort is focused on reducing building emissions. For a number of years, larger buildings have been required to achieve zero emissions as a condition of rezoning. More recently, changes to the Vancouver Building By-law (VBBL) came into effect in January 2022 that require zero emissions heating and hot water systems for buildings that are three storeys or less, including townhouses, duplexes and new single-family homes.

For existing buildings, Council also approved a Zero Emissions Building Retrofit Strategy in fall 2020. The Strategy will improve processes and regulations to support voluntary upgrades to zero emissions space and water heating before 2025, and set carbon pollution limits for most buildings in 2025, and all buildings by 2040, in order facilitate a faster transition than would be achieved by voluntary upgrades. This will support a complete transition away from fossil fuels for space heating and hot water in existing homes by 2050. For existing buildings, Council recently approved changes to the Vancouver VBBL (RTS14232) that require all new air conditioning systems installed in existing buildings to provide both low carbon heating and cooling and require that renovations with a declared construction value over \$250,000 electrify their space and hot

water heating systems. Most retention projects (and major renovations to homes of all ages), exceed the \$250,000 threshold and will be subject to this new requirement.

Vancouver Plan - Participants in Vancouver Plan engagement during spring and fall of 2021 indicated strong support for creating more complete neighbourhoods, including providing additional housing options in neighbourhoods across the city, with notable support for “missing middle” housing and secured rental housing. Engagement has explored considerations around neighbourhood character and identity. While there is general support for retaining neighbourhood character and identity, this objective ranked as a lower priority than expanding housing choices, protecting ecosystems, and reducing Vancouver’s carbon footprint (Appendix C).

### ***Analysis***

The analysis below provides data on retention project applications, technical findings, and reasons for the low level of actual building retention achieved in retention projects. Staff used data and technical findings to draw conclusions and respond to the Council motion.

### **Character Retention Incentives Evaluation**

Take-up of Incentives – The incentives available to encourage character retention include additional floor area and the ability to strata title. The conditional floor area up to 0.85 FSR is similar to that allowed outright for new construction in RS zones.<sup>1</sup> Although the total floor area is similar to new construction, the construction costs for retention/renovation projects are 25% to 50% greater. The principal advantage of the retention incentives is the ability to sell the units individually and recover high project costs immediately following project completion.

The City receives approximately twenty character retention applications each year, or about 100 applications total since the incentives were approved 2018.

Reasons for Low Retention Levels – Monitoring over the past four years shows that the City’s guideline target to retain 60% of the original structure is not being met and only 25% of the original structure is being retained on average. This low level of retention is due to the extent of upgrades and replacement material necessary to meet requirements in both the Provincial Strata Property Act and the Vancouver Building By-law (VBBL). The extent of reconstruction is related to the type of project, number of units, and the age, condition, and size of the existing house.

The Strata Property Act requires buildings that are part of a proposed strata plan be upgraded to the current building code (VBBL). The VBBL requires building upgrades for seismic, energy efficiency and life safety, including sprinklers.

Character house conversion projects often include large additions that trigger extensive upgrades and require substantial reconstruction, while projects adding a strata infill unit to a site with a retained single-family home may not require the same extent of reconstruction (Appendix D).

### **Response to Council Motion (October 2019)**

The Council motion asked staff to investigate ideas for additional incentives (items a – d), and to respond to the question of whether character retention aligns with Council’s goals for affordable housing and climate protection (item e). Staff’s response is provided below.

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<sup>1</sup> New houses are permitted 0.7 FSR and an additional 0.16 FSR is permitted for a laneway house (total FSR of 0.86).

a. Conditional Zoning Mechanisms -- Incentives and Penalties

The conditional retention incentives now available in RS zones are based on the zoning approach used in many historic neighbourhoods to incentivize retention (e.g. RT7). However, a key difference between most RT zones and RS zones is that in addition to incentives, RT zones also include a penalty for demolition (reduced FSR) and there is no penalty for demolishing a character home in RS zones. Council made this decision in spring 2017, based on engagement results showing support for retention incentives, but non-support for reducing the floor area in all RS zones, or “downzoning”, to make retention more viable.

Engagement completed as part of Vancouver Plan indicates that public support for character retention is lower than support for other public objectives, such as adding housing choice in more neighbourhoods and responding to climate change, are growing in importance. The declining importance of character retention, relative to other public objectives, is anticipated to translate to lower public support for penalties to protect character homes. Therefore, staff recommend continuing with the “incentives only” approach for character retention in RS zones.

b. Faster Track for Permitting Process and Additional Incentives (Floor Area)

Each character retention project is a unique design that is specific to the existing house. The inherent complexity of individual design typically takes 48 months in development permit review, with construction costs significantly higher than other options in RS zones. In comparison, a permit for a new house, duplex or LWH typically takes 4 to 6 months in review time. For most homeowners and builders, this extra cost, time and uncertainty of retention is not worthwhile.

Over the past year, staff in PDS and DBL have introduced improvements to the review process to reduce processing times. The current practice for character projects requires both a site sign and mail out to neighbouring properties. Effective August 1, 2022, staff will adjust the practice to require a site sign only, bringing notification more in line with similarly scaled options and reducing processing time by about 3 months.

The most attractive retention incentives for owners and builders are additional units and additional floor space. Staff observe that with the current FSR incentive of 0.85, the additional floor space is often more than the floor area of the retained house. The retained house is sometimes so altered that it is no longer recognizable. Offering more FSR would result in even larger additions and infill buildings that would further reduce the overall level of retention in a project and could undermine the intent of the program. For these reasons, staff do not recommend increasing the FSR.

c. Allowing Two or More Rental Suites in a House (VBBL)

Adding a second rental suite to a house has been proposed as one way to increase the financial incentive for retention and as a way to increase the supply of rental housing. Converting houses to multi-unit buildings has been permitted as an option in many of the older RT zones since the 1980s as a tool to retain larger character houses. When this option was first introduced, the building code upgrades required to convert a house to include three or more units were significantly lower than today and did not require sprinklers or other basic life safety measures. Many of these older multi-unit structures pose life safety concerns, rely on fire escapes for upper storey units and provide low levels of fire protection compared to standards today. For these reasons, converting a single-family house to a building containing three or more dwelling units is far more complex and costly under the current VBBL than in the 1980s (Appendix D.)

The key trigger for determining code requirements in any residential building is the number of units in the building; *more than two units* in the building causes it to be considered “multi-family” under the National Building Code, BC Building Code and the VBBL.<sup>2</sup> Adding a second suite to a house, (i.e., a principle unit and two secondary suites) triggers major upgrades that relate to fire separation, fire safety measures, structural capacity and exiting.

Council has asked whether two or more suites could be enabled by considering changes to the VBBL. The VBBL is consistent with the general assumptions and requirements of the National and Provincial building codes. The provinces have recently signed a new memorandum of understanding regarding the harmonization of provincial building codes, with the expressed goal of reducing jurisdictional variances in the construction industry.<sup>3</sup> Altering the VBBL to reduce requirements to enable more suites in a detached single-family home, would be counter to national harmonization objectives.

d. Offering Character Retention Tax Incentives and Density Transfers for A listed Heritage

The character retention incentives in place provide financial incentives for the retention of pre-1940s character homes through additional floor area and the ability to stratify multi-unit conversions and infill units. Providing municipal tax incentives for the retention of character homes would result in forgone tax revenue that the City would seek to recover through higher taxes to other residents and/or businesses. A tax incentive for retention would likely require a legal undertaking to retain the house (not demolish) for a number of years. Therefore, the tax incentive would need to be of significant value for an applicant to forego other options.

There may be a stronger case for considering tax incentives for the retention and conservation of “A” listed and designated heritage houses, since these houses are considered to have greater value to the public. This route would require staff to explore the feasibility of this incentive, identify approaches to secure the conservation, and verify the number of “A” and designated houses.

The transfer of density is a complex planning tool that is potentially available, but requires a Council approved framework like the former Heritage Building Rehabilitation Program (2003-2015). That program required the use of a Heritage Revitalization Agreement, or a rezoning process, which is onerous for smaller projects. The Program ended in 2015 for reasons related to Density Bank oversupply and market inability to absorb the density created.

e. Is Character Retention a Way to Achieve Affordable Housing and Reduce GHG Pollution?

Secondary suites are an important part of the city’s rental housing stock. However, it is clear from engagement over the past few years that many renters are not happy living in secondary suites because of the low livability of a below grade unit and the high risk of eviction. For these reasons the HVS includes no target for secondary suites and prioritizes the delivery of secured, purpose-built rental, and below-market and non-market housing to better meet the needs of renters.

There has been an ongoing public dialogue about whether an existing house is the “greenest” form of housing. Buildings contribute to GHG pollution through the embodied carbon of the construction materials and through energy required to heat the building. Heating buildings with fossil fuels is the single greatest contributor to GHG pollution in Vancouver. For example, data

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<sup>2</sup> Major additions and renovations to old houses can also trigger major upgrades, even when the house is not being converted to multiple units.

<sup>3</sup> British Columbia signed the Construction Codes Reconciliation Agreement under the Canadian Free Trade Agreement

shows that houses built between 1900 and 1940 have a carbon footprint of 12 to 14 tons annually, on average. A house built to the new 2022 VBBL requirements has a carbon footprint of only 0.8 tons annually. Studies completed at UBC<sup>4</sup> have estimated that replacing a standard pre-1940s house with a new house will provide an immediate reduction in operating GHGs and the payback on embodied carbon would be realized within 10 years.

The average post-retrofit home (typically including a new furnace, windows and some level of insulation) achieves an annual operating carbon footprint in the 8.23-8.56 ton range, significantly more than new construction. While retention projects (substantially rebuilt) can achieve an operating carbon footprint that is close to new construction, they cost up to 50% more per square foot to build than new construction and are an expensive way to reduce GHG pollution.

## CONCLUSION

The character home incentives program provides an important, but limited pathway for homeowners and builders to develop a boutique housing option. Analysis demonstrates these projects achieve a low level of actual retention and offer limited new housing choice in neighbourhoods. Given the complexity and cost of projects, character retention alone is not an effective tool to meet housing affordability and climate goals. Based on staff research, additional retention incentives will not significantly change this outcome and therefore staff do not recommend any major changes to the program at this time.



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<sup>4</sup> "Greenhouse Gas (GHG) Assessment of New Versus Renovated Homes in Vancouver" by Haibo Feng, Dr. Kasun Hewage, Dr. Thomas Froese UBC; and, "Teardown Index: Impact of property values on dioxide emissions of single family housing in Vancouver" by Joseph Dahmen, Jens von Bergmann, Misha Das of Mountain Math Software and Analytics & UBC.

## Appendix A

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### Council Motion: Increasing Affordable Housing Options through Character House Incentives in RS Zones

- A. THAT Council direct staff to report back to Council, on a priority basis in Q1 of 2020, on measures to further incentivize the retention of character houses as a means to facilitate the rapid creation of a diverse supply of affordable rental housing, including rental suites and laneway homes, while exploring and assessing the following:
- a) Conditional zoning mechanisms, that enable outcomes similar to Kitsilano RT7 & RT8 zones, for areas with high concentrations of pre-1940s homes with increased FSR incentives for character retention;
  - b) Creating a faster track stream that offers enhanced incentives and streamlined approval for character house renovation/adaptation/retention;
  - c) As a further option for character house retention, explore two or more secondary suites through the Secondary Suite Program or by expanding the Multiple Conversion Dwelling option for affordable rentals and owners' mortgage helpers, with any required related changes to the Vancouver Building Bylaw, the Secondary Suite Program, and other bylaws and policies to make them legal and safe;
  - d) Explore other options as incentives for character house retention, including potential tax incentives and local area heritage density transfers for Heritage A listed properties;
  - e) Consideration of the extent to which retaining character homes aligns with Council's affordable housing and climate emergency targets.
- B. THAT, subject to the report back in Q1 of 2020, increased resources be allocated in the City's Budget, to support the actions under this motion and an enhanced recently established Renovation Centre, specifically specialized staff and new processes that would significantly speed up and simplify the approval process for character and heritage house renovations and the implementation of retention incentive programs.
- C. THAT, subject to the report back in Q1 of 2020, Council direct staff to report back on character house demolition rates one year after the implementation of any and all of the enhanced character house retention policy measures.
- D. THAT staff consider how to use housing agreements to ensure that character house owners who get incentives for character house retention provide at least half or more of the resulting units at Housing Income Limits (HILs) rental rates or below.



# APPENDIX B

## Character Retention Incentives (RS Zones)

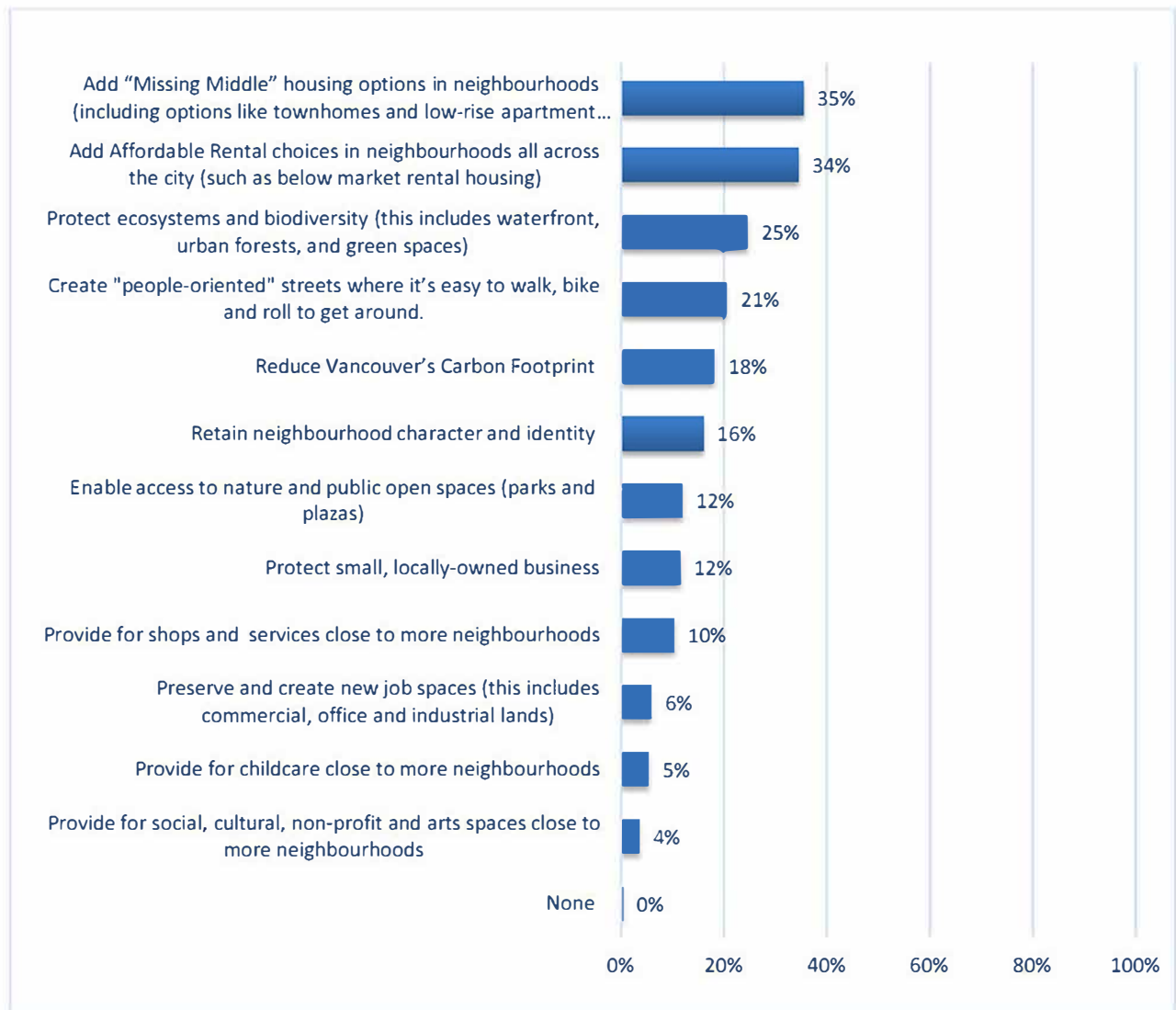
| Incentive   | Uses   | Illustration   |
|---|--|--|
| <p><b>Addition</b><br/>0.75 FSR +<br/>0.16 LWH</p>                              | <p>One-Family Dwelling<br/>with or without<br/>secondary suite and<br/>Laneway House<br/>(LWH)</p> |    |
| <p><b>Multiple<br/>Conversion<br/>Dwelling</b><br/>0.75 FSR</p>                 | <p>2+ unit Multiple<br/>Conversion Dwelling</p>  |    |
| <p><b>Infill</b><br/>0.85 FSR</p>   | <p>One-Family Dwelling<br/>with or without<br/>secondary suite<br/>plus Infill</p>                 |   |
| <p><b>Multiple<br/>Conversion<br/>Dwelling with<br/>Infill</b><br/>0.85 FSR</p> | <p>2+ unit Multiple<br/>Conversion Dwelling<br/>plus Infill</p>                                    |  |

# APPENDIX C

## Vancouver Plan Survey Information - Key Priorities - 2021

Participants were invited to “Think about how Vancouver might grow and change over the next 30 years” and rank up to five of their priorities in order of importance. The graph below displays the frequency of each option rated as the most important or the second most important

N = 3738



## APPENDIX D

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### Further Details on extent of upgrades

One of the fundamental challenges of character home retention is the age of the home and extent of non-compliance with current VBBL requirements including fire and life safety requirements. From the retention projects completed so far, staff have observed the following:

- New concrete foundations and basement slabs are provided to support the structural changes made to the reconfigure the interior of the house, allow the house to be attached to the foundation to limit seismic risks and improve ceiling height/livability
- Existing framing is “sistered” (a technique where new studs, joists and rafters are added side-by-side to existing framing) to bring the undersize structure up to code.
- Interior walls are removed and additions are provided to accommodate a new layout with additional units, new electrical, plumbing and heating systems, fire and acoustic separations, and sprinklers. Interior walls may be “furred-out” to add insulation.
- Cladding is replaced to provide a rain screen system, additional exterior insulation, and in some cases, non-combustible cladding, as required. Single-pane wood windows are replaced with double or triple-glazed, energy-efficient units.

Figure 1: Character house retention and conversion project under construction

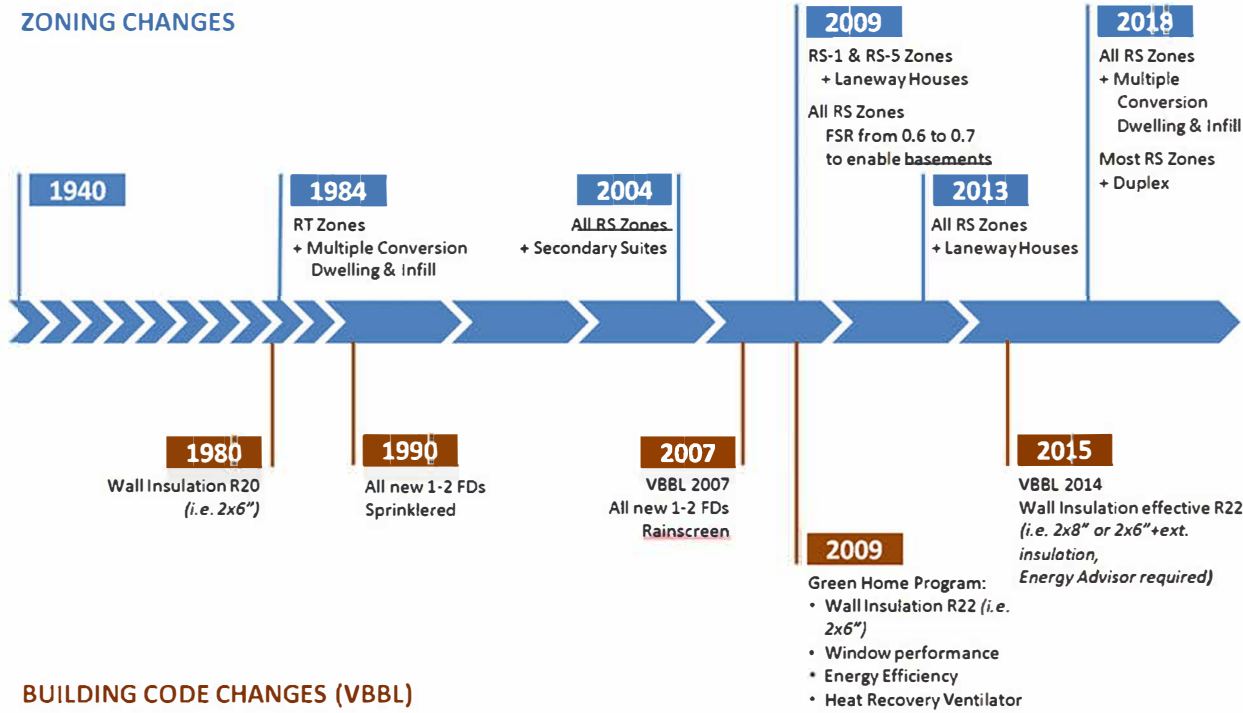


200 block west 11<sup>th</sup> Avenue

# APPENDIX D

## Timeline of changes to Vancouver's Zoning and Building By-Laws

### ZONING CHANGES



### BUILDING CODE CHANGES (VBBL)