

REGULATION REDESIGN PROJECT

Results from the Regulation Redesign Workshop

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Table of Contents

Executive Summary	3
Results from the Regulation Redesign Workshop	5
1.0 Project Background	5
1.1 Context/Issue.....	5
1.2 Objectives of the Regulation Redesign Project	5
1.3 Project Progress to Date	5
2.0 Purpose of the Workshop	6
3.0 Workshop Methodology	7
4.0 What We Heard.....	8
4.1 Summary of Ideas by Themes on Floor Area	8
4.2 Summary of Ideas by Themes on Building Height.....	13
5.0 Conclusion.....	17
Appendices.....	18
Appendix A. Roundtable Agenda	19
Appendix B. Floor Area: Issues by Themes.....	20
Appendix C. Building Height: Ideas by Themes.....	31
Appendix D. What We Heard - Flipchart Notes	38
Appendix E. Parking Lot	73
Appendix F. Registrants	75
Appendix G. Staff List	76

Executive Summary

The City of Vancouver's Corporate Plan 2018 and 2019 identified the Regulation Redesign project as a corporate priority to help achieve excellent service. It is a city-wide project to simplify the City's land use regulations, policies, and online tools in order to improve permit review processes. In 2018, the project held its first stakeholder roundtable to gather issues and ideas from the construction, development and real estate sectors, as well as end-users. In 2019, it held a second stakeholder conversation to workshop ideas to simplify floor area and building height calculations. This report documents the outcomes of the 2019 event.

PURPOSE OF THE IDEAS WORKSHOP

The purpose of this Regulation Redesign Workshop event was to engage and to listen to a variety of representative constituencies involved in various types of development in Vancouver and who have direct experience with the City's land use regulations (e.g. design, construction, development, and real estate industries). This workshop sought input on:

- **Calculating Floor Area (FA)** - ways to simplify floor area calculation and to clarify/update floor area exclusions.
- **Calculating Building Height** - ways to simplify height calculation and clarify/update height relaxations.

This represents the second major stakeholder discussion session as a part of a series of public engagement events for the Regulation Redesign project.

METHODOLOGY

The Roundtable was held on June 19, 2019 at the VanDusen Garden Visitor Centre, 5025 Oak St. Vancouver from 8:30 am to 12:00 pm. Sixty-five (65) individuals attended (of the 78 who registered) and were from the design, construction, development, and real estate industries.

Thirty (30) participants self-identified as working on smaller scale projects and 35 identified as working on larger scale projects. The participants were divided into table discussion groups based on project scale.

WHAT WE HEARD

There were two rounds of table discussions that focused on ways to simplify how to calculate floor area and how to calculate building height. Overall, the most common ideas in both discussions were to improve consistency and clarity of regulations, and to explore a more flexible envelope (“glass box”).

Is there a simpler way to calculate floor area?

- A. Measure to the sheathing or inside wall
- B. Improve consistency of regulations and clarify regulations
- C. More flexible building envelope (“glass box”)
- D. Regulate Floor Space Ratio (FSR) without use of exclusions
- E. Regulate above-grade floor area only
- F. Bundle exclusions as a Percentage of Floor Space Ratio (FSR)

Is there a simpler way to calculate building height?

- A. Keep current approach, but be consistent and clear
- B. A new approach: ‘Glass Box’ or maximum envelope
- C. Don’t regulate storeys
- D. Eliminate Vertical Angle of Daylight
- E. Eliminate relaxations
- F. Regulate mezzanines like the Vancouver Building Bylaw (VBBL)
- G. Eliminate primary and secondary envelopes



Results from the Regulation Redesign Workshop

1.0 PROJECT BACKGROUND

The City of Vancouver's Corporate Plan 2018 and 2019 identified the Regulation Redesign project as a corporate priority to help achieve excellent service. It is a city-wide project to simplify the City's land use regulations, policies, and online tools in order to improve permit review processes.

1.1 CONTEXT/ISSUE

The current Zoning and Development Bylaw (Z & D By-law) was adopted by City Council in 1956. It has been amended extensively but a comprehensive review has never been undertaken. To implement the City's goals and objectives, the Bylaw has grown significantly more complex over the years. Some of the 8,000+ amendments to the original 1956 Bylaw have introduced new terminology or regulations that have resulted in inconsistencies with either other parts of the Bylaw or with other City By-laws. The growing complexity of the regulations, policies and guidelines has resulted in an increasingly complicated permit review process and longer review times.

1.2 OBJECTIVES OF THE REGULATION REDESIGN PROJECT

- Simplify, clarify and update land use policies and regulations to improve ease of use and clarity;
- Update and modernize the format of land use documents and processes to create them;
- Improve consistency between land use documents and integration with other by-laws and City initiatives;
- Improve external and internal communication on the land use planning framework (e.g. policies, regulations) ; and
- Establish a robust land use framework (policies, regulations, protocols, and procedures) that is able to adapt well into the future.

1.3 PROJECT PROGRESS TO DATE

During 2018 the Regulation Redesign project team (the Project Team) did extensive work to launch the project. The initial phase focused on identifying issues with the land use regulations and ideas to address the issues. This included establishing an inter-departmental project team, an external advisory group, reviewing best practices from other civic jurisdictions, and holding multiple events and providing online opportunities for input from, industry stakeholders, the general public, and City staff.

As a result, during the first part of 2019 the project team has worked on simplifying the Z & D By-law and improving information available online which were two of the top concerns from the 2018 engagement process. To date these improvements have included:

- Developing a new format for the Z & D By-law to make it more user friendly and implemented this format for Sections 2, 10 and 11.
- Repealing 24 outdated policies and guidelines.
- Creating a zoning website that has been simplified from 60 pages to 3 pages which take users to a Z & D By-law page, a Zoning and Land Use document library page and an Amendments page with links to respective relevant information.
- Introducing a user guide that helps to explain how the Z & D By-law is structured and how to find zoning information.
- Removing gender references ('he' and 'his').

The Project Team will continue to explore further opportunities to simplify and make improvements and bring these options out for consultation.

2.0 PURPOSE OF THE WORKSHOP

The purpose of this Regulation Redesign Workshop event was to have a more detailed discussion with a variety of representative constituencies involved in various types of development in Vancouver and who have direct experience with the City's land use regulations (e.g. development, construction, architecture and real estate industries).

This workshop sought input on:

- **Calculating Floor Area (FA)** – ways to simplify and clarify/update exclusions from the floor area calculation.
- **Calculating Building Height** – ways to simplify and clarify/update relaxations from the height calculation.

This represents the second roundtable discussion session as a part of a series of public engagement events for public input into the Regulation Redesign project.

3.0 WORKSHOP METHODOLOGY

Date: Wednesday, June 19, 2019 | **Time:** 8:30 am to 12:00 pm

Place: VanDusen Botanical Garden Visitor Centre, 5025 Oak Street, Vancouver

The workshop was held on June 19, 2019 at the VanDusen Garden Visitor Centre, 5025 Oak Street, Vancouver from 8:30 am to 12:00 pm. Sixty-five (65) individuals attended (of the 78 who registered) and were from the real estate industry primarily development, construction and architecture (see Appendix F for full list of registrants and Appendix A for the Workshop Agenda).

Thirty (30) participants self-identified as working on smaller scale projects and 35 identified as working on larger scale projects. The participants were divided into table discussion groups based on project scale. The City sent out notifications of the session three weeks in advance through a mailing list and posted the event details and registration on the City website. Individuals registered online and selection was in order of response with an upper limit of 80 participants. Prior to the event, each registrant received a reminder of the event and was asked to review workshop discussion questions and read the backgrounders on the workshop topics which were calculating floor area and building height.

Once attendance was confirmed, ten discussion tables were organized. Participants were assigned to tables based on the scale of projects they identified at registration. There were five “Part 9” smaller project scale tables and five “Part 3 larger project scale tables, with a maximum of 6-7 participants per table, including an external advisory group member. Two City staff were assigned to facilitate and take notes. Other City staff were available to answer technical questions during workshop topic discussions.

There were two discussion sessions, one on calculating floor area including exclusions and another on calculating building height including relaxations. Participants at each table were asked to share their ideas and discuss alternative ways of calculating floor area and building height. Each discussion session was guided by three questions and all discussions were captured on flip charts (see Appendix D). To close the event and provide a general sense of what was discussed, each table reported out one idea for each discussion topic to all participants.

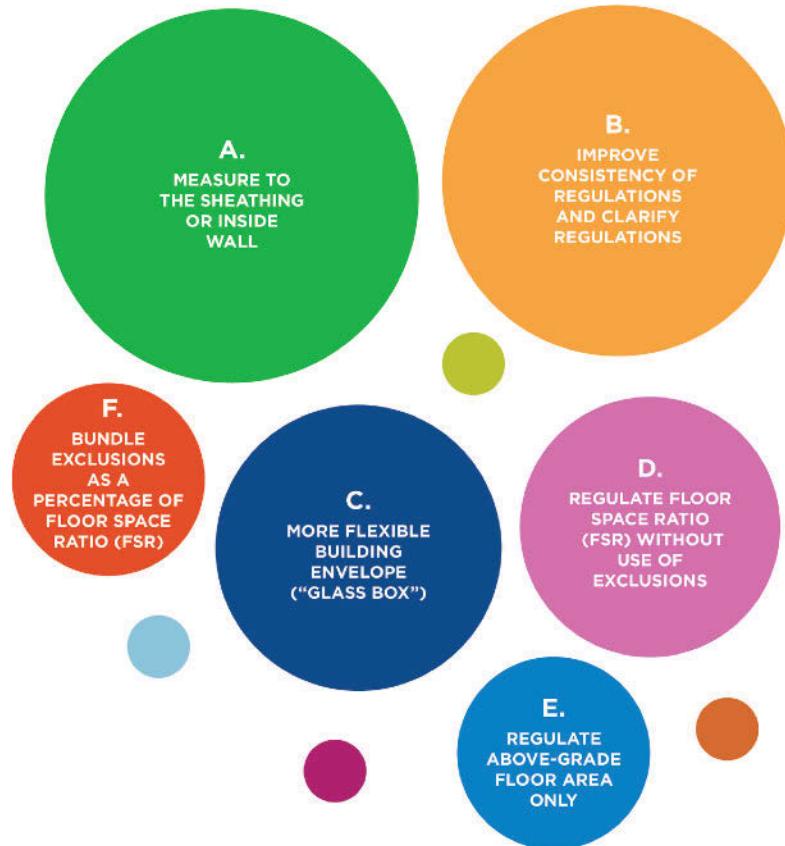
Some points raised during table discussions that were not within the scope of the Regulation Redesign project were incorporated into Appendix E - Parking Lot notes which will be shared with the appropriate city department.

There was a great deal of similarity on ideas with respective grouping categories. Following is a summary of the discussions

4.0 WHAT WE HEARD

4.1 SUMMARY OF IDEAS BY THEMES ON FLOOR AREA

IS THERE A SIMPLER WAY TO CALCULATE FLOOR AREA?



A. Measure to the Sheathing or Inside Wall

Measuring in this manner, in line with some other cities, would allow flexibility for wall assemblies, cladding and insulation thickness, especially as building requirements change and wall assemblies get more complex.

For smaller scale projects (Part 9), determine a consistent setback calculation, for example to the face of the concrete foundation. For larger projects (Part 3), consider aligning the floor area calculation with how the Building Owners and Managers Association (BOMA) measures floor area.

B. Improve Consistency of Regulations and Clarify Regulations

Standardizing floor area regulations across district schedules would improve consistency and make them easier to calculate. This could include a standard FSR across similar zones (e.g. RS zones, C zones), more consistent regulations for duplexes and more consistent measurement of FSR between the Zoning and Development By-law, the Vancouver Building By-law, Parking By-law, and BOMA.

Other ways to clarify regulations could be through the use of diagrams, explaining the intents and updating bulletins that explain calculations.

C. More Flexible Building Envelope (“Glass Box”)

Focus on the permitted building envelope and either do not regulate FSR or create an envelope that is larger than the permitted FSR (“a glass box”) which would allow room for more design flexibility and creativity. The ‘glass box’ approach was discussed by several groups and would address massing while simplifying the regulations. The City could continue regulating height, setbacks, yards, minimum unit sizes and number of family units.

D. Regulate FSR Without Use of Exclusions

Those discussing this supported removing all exclusions in favour of a gross floor area. The developer would then have the flexibility to incorporate elements based on the livability needs of the project, for example porches, storage. This approach simplifies calculations and provides more certainty in what would be approvable. The City should consider how to incentivize community benefits and the potential impact on property values and how to require certain things (e.g. mechanical rooms).

E. Regulate Above-Grade Floor Area Only

For smaller scale projects, some suggest not counting below grade floor area. Non-habitable basement spaces (no light) can be used as storage and mechanical rooms.

F. Bundle Exclusions as a Percentage of Floor Space Ratio (FSR)

This idea was to bundle the exclusions and assign an overall percentage of the permitted floor area. Let the developer have the flexibility to decide how to use it.

**WHICH EXCLUSIONS NEED TO BE CLARIFIED OR UPDATED?
WHICH EXCLUSIONS ARE NO LONGER NEEDED OR RELEVANT?**

A. Remove or Increase the Cap for Balconies, Porches and Decks

For smaller scale projects, covered outdoor patios, free standing decks and open residential balconies and decks that provide livable outdoor space should not be counted. Other municipalities allow greater flexibility for covered porches.

Larger scale projects had a variety of suggestions which sometimes contradicted. Enclosed balconies make sense on the north side of buildings and facing arterials. Some felt that enclosed balconies should be excluded because they are already in the building mass, but others suggested including them as they add to the massing. Another idea is to allow open balconies without restrictions while counting enclosed balconies as FSR.

Several felt that the percentage allowed was not effective and it would be better to let the envelope set the framework.

B. Bundle Exclusions for Balconies, Porches and Decks

For smaller scale projects it was suggested using a maximum percentage that would bundle porches, decks and balconies together. Thereby using one overall percentage to manage them all.

For larger scale projects it was suggested combining the balcony and roof deck exclusions.

C. Improve Consistency of Exclusions for Balconies, Porches and Decks

For small scale and large scale projects it was felt that the same exclusion should be applied across all zones.

D. Update or Remove Bay Window Exclusion

For smaller-scale projects bay windows are expensive to build and the 1% target is hard to achieve. The City doesn't seem to like bay windows, but clients do if they're attainable without losing overall buildable area.

E. Update or Remove Vented Skylight Exclusion

On smaller-scale projects make it easier to calculate skylights. It is rarely used as the regulations are overly-complicated.

F. Maintain or Broaden Storage Exclusion

The exclusion encourages the provision of storage spaces. In-suite storage is generally seen as a benefit, even though it is often used for other purposes such as inboard bedrooms. This is

especially helpful with constrained sites where there are deep lots resulting in deep units. In-suite storage is convenient and needed in small units. Other ideas included providing some in-suite storage but more storage space in the basement and allowing this exclusion in accessory buildings.

G. Revise or Remove Storage Exclusion

For smaller-scale projects, some thought that storage space should be required and not incentivized, while others thought that a performance review should be conducted.

For larger-scale projects there were many ideas to improve the storage exclusion and requirements that revolved around more flexibility on minimum size, and location - allowing in various places such as in-suite, hallways, other common areas, on rooftops and below grade. Other ideas included eliminating the exclusion because it creates unintended consequences for future renovations (e.g. combining two units) and encourages unintended uses and alterations (e.g. 'work without permit', additional FSR). Existing regulations for storage exclusions often result in awkward spaces.

H. Increase Sustainability Exclusions

For smaller projects, sustainability exclusions need to be higher to be an incentive for high-performance projects, e.g. passive houses.

I. Expand Exclusions for Mechanical

For larger-scale projects, mechanical spaces such as shaft spaces, light wells, elevator shaft exclusions are only excluded at or below the base surface. Allow this to include the 2nd floor.

J. Revise How Stairs Are Counted in FSR

For smaller-scale projects stop counting stairs twice for each floor or the ones that go to the rooftop.

ARE THERE OTHER PRIORITIES OR SPACES THAT COULD BE ENCOURAGED THROUGH AN EXCLUSION? WHAT ARE THE TRADE-OFFS?

A. Exclude Mechanical and Sprinkler Room

For smaller scale heritage projects, mechanical and electrical rooms are now required and included in the floor space calculation. They should be excluded completely or given a certain square foot exclusion. Other ideas were to exclude mechanical as part of the FSR if located under a deck, front porch, or the roof. Some local municipalities allow an exclusion.

B. Broaden Amenity Space Exclusion

For smaller-scale projects, all outside covered areas should be excluded from FSR including outside of basements and cantilevered canopies greater than 4 feet wide.

For larger-scale projects, most comments encouraged removing communal amenity space from the FSR calculation, including rooftop spaces and interior spaces. This would encourage more livable amenity spaces above ground.

Consideration should be given to allowing exclusions from FSR calculations for balconies and outdoor amenity space for office and industrial buildings to improve the working environment.

C. More Exclusions for Circulation Space, Corridors and Stairs

For smaller scale projects exclude elevators from FSR calculation in detached dwellings.

For larger-scale projects open stairs should be excluded from FSR as it is in Part 9 smaller-scale projects. Squamish and Los Angeles exclude circulation space from FSR which allows for better quality shared spaces such as larger lobbies that could be used for meeting spaces. Wider corridors could be designed as an amenity (wider hall) if they are excluded.

For townhouse projects exclude the stairs that access parking below grade.



4.2 SUMMARY OF IDEAS BY THEMES ON BUILDING HEIGHT

IS THERE A SIMPLER WAY TO CALCULATE BUILDING HEIGHT?



A. Keep Current Approach, but be Consistent and Clear

For smaller scale projects it was felt that the base surface as the measuring point is more accommodating for varying lots and deals better with sloped sites. Ensure there is consistency in the approach to height measurement across zones and between staff. Clarify the intent of the different height allowances in the Intent Sections of the by-law and provide a clear definition of 'half-storey'.

For larger scale projects base surface works and building grades are a good idea. Retain compatibility and flexibility of 10.18.3 which allows the Director of Planning (DOP) to determine use of existing grade due to site condition. Define clearly who has the authority and what rules of relaxation or discretion there are.

Ensure consistency of measuring what is considered 'the top' while accounting for uses, grades and loading requirements and consistency between the District Schedule and CD1's. The By-law should clearly reference view cones and shadowing especially in the downtown and around public spaces.

All scales of projects would benefit from use of tables and graphics/diagrams to better communicate height allowance differences and interpolation.

B. A New Approach: “Glass Box” or Maximum Envelope

For smaller scale projects it was felt that this would alleviate challenges and replace the need for relaxations.

For larger scale projects the key suggestion was to set the box size and let people work within it. Keep it simple and ensure the box is larger than the allowable FSR to allow for flexible design within it.

C. Don’t Regulate Storeys

For smaller scale projects regulating storeys on sloping sites does not translate well at the building permit stage and does not allow for variety along the streetscape. The building by-law needs to recognize the 2 ½ storey typology on severe sloping sites as part of Part 9 buildings.

D. Eliminate Vertical Angle of Daylight

For larger scale projects there are enough controls that take into consideration sunlight penetration to neighbouring properties such as setbacks and height. Various municipalities use setbacks in different ways, e.g. Manhattan requires setbacks a higher levels and Vancouver requires them from the street. Also scale (width) of the street has an impact on setbacks required to allow for daylight.

E. Eliminate Relaxations

For smaller scale projects they are used because they are available.

For larger scale projects, the preference was to bundle all relaxations, e.g. decorative rooves, rooftop access for green technology, and build it all into a maximum height.

F. Regulate Mezzanines Like the Vancouver Building Bylaw (VBBL)

Larger scale projects have an issue with this at the building permit stage. The Zoning and Development By-law needs to change to accommodate as the VBBL (Vancouver Building Bylaw) cannot be changed as easily.

G. Eliminate Primary and Secondary Envelopes

For smaller scale projects the primary and secondary envelopes are too complicated to calculate and the intent is unclear especially for RS and RT Districts.

***WHICH RELAXATIONS NEED TO BE CLARIFIED OR UPDATED?
WHICH RELAXATIONS ARE NO LONGER NEEDED OR RELEVANT?***

A. Exclusions Need To Be Clear, Simple, With Stated Intent

Larger scale projects need a checklist of site conditions where discretionary height limits could be applied.

B. Update and Clarify Relaxations for Mechanical and Other Appurtenances

For larger scale projects various opinions were expressed on this topic.

Given the rooftop assemblies for mechanical equipment and elevator shafts there is a need for more flexibility in height relaxation beyond 10% or 1/3 of building width. In these cases discretion within reason was supported, when looking at the amount of overrun and the appurtenances. It was felt there was a need to remove or simplify height relaxations for small sites as they tend to penalize smaller sites when the relaxation is limited to 1/3 of the width of the building.

Wind screens should be excluded. Quality of design should also be considered.

C. Update and Clarify Relaxations for Decorative Roofs

For large scale projects the discussion was around the definition of what constitutes a decorative roof, how high can it be and how much negotiation should there be.

D. Clarify Height Relaxations for High Performance and Green Buildings

For smaller scale projects clarify and explore increasing the height incentives for high performance construction, for example by 5 feet.

ARE THERE OTHER PRIORITIES OR SPACES THAT COULD BE ENCOURAGED THROUGH A RELAXATION? WHAT ARE THE TRADE-OFFS?

A. Use a Two-Tier Approach: Maximum Height for a Standard Building, Additional Height if It Achieves a City Objective

B. Encourage Roof Deck Access and Rooftop Amenity Space To Enhance Livability

For smaller scale projects exclude roof decks from height calculation including the access and roof hatches.

For larger scale projects exclude from the height calculation rooftop amenity rooms, outdoor patio spaces and elevator shaft overruns that gain access to the roof top. Focus more on design and usability of the rooftop spaces.

C. Encourage a Variety of Good Design Aesthetics

For smaller scale projects be less prescriptive to allow for architectural expression. Incentives could be used to encourage good roof design, as design aesthetics should trump arbitrary height restrictions.

For larger scale projects provide flexibility to avoid homogeneous developments.

D. Relax Height for Difficult Site Contexts

For smaller scale projects building heights should abide by a contextual response to height. On deep lots with deep units explore some height relaxations to be able to maximize the FSR

For larger scale projects it is challenging to meet grade and height requirements on uneven or sloping sites. A challenge comes in reflecting shadow impacts.

5.0 CONCLUSION

This report documents the ideas expressed at the focused Regulation Redesign Workshop held on June 19, 2019.

The purpose of the workshop was to gain insight from the perspectives of a variety of stakeholders involved in various scales of development in Vancouver on ways to simplify, clarify and update the calculation of floor area and building height.

The report contains both a summary of the key ideas by themes as expressed during the workshop and, in the appendix, the verbatim notes taken at each group table. It will inform the Regulation Redesign project team's work as they continue to explore options to make improvements to the Zoning and Development By-law.

The report will be available on the project webpage vancouver.ca/regredesign. Please visit the project webpage for ongoing opportunities to engage and stay up-to-date on the project.



Appendices

Appendix A. Roundtable Agenda

June 19, 2019, 8:30am-12:00pm

VanDusen Botanical Garden, Visitor Centre (Great Hall), 5025 Oak Street

Agenda:

- | | |
|----------|---|
| 9:00 am | Welcome + program presentation |
| 9:30 am | Discussion #1 - Calculating Floor Area |
| 10:30 am | Break |
| 10:40 am | Discussion #2 - Calculating Building Height |
| 11:40 am | Report Out |
| 11:55am | Next Steps |
| 12:00pm | End |

Appendix B. Floor Area: Issues by Themes

1. Floor Area

A. Measure to the Sheathing or Inside Wall

Smaller scale projects

- ▶ Measure interior only -this way wall thickness and cladding irrelevant; will future proof for changing code requirements
- ▶ Calculating to the sheathing would be an improvement - all other cities do it this way (cladding changes often and size affects floor area -now there are multiple numbers (for drawings) on site)
- ▶ Measure from inside walls → drywall
- ▶ By measuring to sheathing you encourage thicker insulation R22 and make it easier to upgrade
- ▶ Retro-fits; easier to measure to drywall
- ▶ Consider impacts for concrete vs wood construction
- ▶ Be mindful of effect on setback dimensions; measure from face of concrete foundation
- ▶ Measure site coverage + setbacks to outside wall
- ▶ Increase side yard from 10% to 11% or 12%
- ▶ Could change side yard to allow thicker walls

Larger scale projects

- ▶ Measure to... i.e. how BOMA measures FSR. A dialogue between COV/BOMA is needed to look at alignment. 2+ calculations is not efficient.
- ▶ Measure to inside wall - no wall exclusions; allow for flexible wall assembly
- ▶ Face of sheathing, if concrete then allow for wall assemblies to be fine-tuned simple boundary i.e. exclude shafts, always needed
- ▶ Wall assemblies getting more + more complex - don't dictate cladding
- ▶ DP stage - hard to finalize / know assembly at that early stage, challenge especially for passive house

B. Improve Consistency of Regulations and Clarify Regulations

Smaller scale projects

- ▶ Keep #s consistent in zones, but separate by building height
- ▶ More consistent regulations for duplexes
- ▶ Standardize - one number, ease of use and to calculate
- ▶ RS-5, RS-6, RS-7 are different from RS-1 and it doesn't make sense - 70% + exclusions
- ▶ Use illustrations and diagrams to clarify regulations

Larger scale projects

- ▶ Consistency between zones and city: unify criteria for zones
- ▶ Consistent measurement of FSR (Zoning, VBBL, Real Estate, alignment with BOMA)
- ▶ Diagrams: show ways to calculate, define as much as possible
- ▶ Provide just one way of calculating FSR (parking, in suite)- gross and net differences > parking area, unit area, above ground area are sometimes contradictory
- ▶ Simplify **similar zones** i.e. C clone zones
- ▶ Clarify **intents and priorities**
- ▶ Update the FSR calculation bulletin
- ▶ Clarify CAC, DCL floor area calculation
- ▶ Clarify if density always calculated on net or gross (e.g. road dedication)

C. More Flexible Building Envelope (“Glass Box”)

Smaller scale projects

- ▶ Why have floor area? Focus on envelope (Langley - envelope Coquitlam - exterior wall square footage); massing should be the driver
- ▶ Should be concerned about the visual design and not about what is going on inside
- ▶ Get rid of above grade/below grade FSR - we already have envelope (height, side/rear yard, setbacks)
- ▶ Introduce “glass box” diagram/envelope into zoning - zoning box.
- ▶ Envelope should be bigger than FSR

Larger scale projects

- ▶ Set envelope / frame + FSR that's less -open up creativity / flexibility
- ▶ Would give more freedom to build what the market demands within the City's defined sandbox
- ▶ Set other parameters? Set floor plate max + could include balconies in that (but don't make it possible to fill envelope)
- ▶ Could be other regulations i.e. minimum unit size, # of family units but form is defined.

D. Regulate Floor Area Ratio (FSR) Without Use of Exclusions

Smaller scale projects

- ▶ Removing all exclusions and increasing FSR would provide more certainty
- ▶ Get rid of all fussy exclusions and provide greater FSR to allow for developer-led responses to livability priorities
- ▶ 72% or 73% and require certain things (i.e. mechanical room); other things aren't necessities (e.g. bay windows)
- ▶ Gross Floor Area idea: better choice in design (veranda, porches) - current regulations max out FSR then add small deck to be expanded later illegally
- ▶ In favour of Gross Floor Area if it incentivized community benefits, i.e. bigger decks (bonus idea); beware of calculations creating boxes

Larger scale projects

- ▶ Get rid of exclusions but increase FSR to match (eg storage spaces and wall exclusions)
- ▶ Trade-off - including exclusions in FSR as percentage will increase the property value as well

E. Regulate Above-Grade Floor Area Only

Smaller scale projects

- ▶ Below grade (no light) - FSR should not be regulated ; use for mechanical, bike rooms, storage, heat pumps
- ▶ Control above grade + 10% flex at discretion of Director of Planning
- ▶ Lots of municipalities don't count basement e.g. West Vancouver; more flexible

F. Bundle Exclusions as a Percentage of Floor Space Ratio (FSR)

Smaller scale projects

- ▶ Other municipalities doing this - good way to incentivize - numerical calculations vs complex (because you need your details to be determined before)

Larger scale projects

- ▶ Look at % overall for building - bundle exclusions
- ▶ Bundle (e.g. 15%) and use how you'd like

Other Ideas

Smaller scale projects

- ▶ Allow % flexibility to encourage good design
- ▶ The outright could “flex”; renovations should be conditional
- ▶ Review how floor area in laneway house calculated – currently don’t count area in front of storage or laundry – affects room size calculations

Larger scale projects

- ▶ Latitude: allow for innovation + performance - “mini-rezoning”, sand box plus - take the best CD-1 rezoning approach where there is a standard and allow for variation if performance merits it;
 - ▶ Green performance
 - ▶ i.e. x% increase in FSR for variation to allow designer/developer to be creative
 - ▶ Perhaps empower UDP to make decisions on performance
- ▶ Allow for some flexibility as long as the intent is accomplished

Comments

Smaller scale projects

- ▶ Need to look @ FSR & height together

Larger scale projects

- ▶ Typically running 3 sets overlays for each project: 1) net sellable (developer) 2) FSR (CoV) & 3) Code - all have digital tools, odd to be still generating overlays
- ▶ Takes too much time for area overlays - should be able to check area with city digitally / electronically
- ▶ Challenge of different scales → could some be used as a pilot? e.g. envelope approach for something like RT-5? + then expand (tower / mid-rise, a different animal)
- ▶ People will build to the max. - max FSR will foster more diverse design. Need to move away from a straight extrusion. FSR allows more moves than a box. Could be undesirable for towers if it leads to a box form. E.g.. Cambie corridor - may be too prescriptive leading to same form
- ▶ Miami Beach - no FSR rules - focus on creativity (e.g. 10% bonus, incentive new approach)

2. Which Exclusions Need To Be Clarified or Updated? Which Exclusions Are No Longer Needed or Relevant?

A. Remove or Increase Cap for Balconies, Porches and Decks

Smaller scale projects

- ▶ Outdoor patio space (trellis, pergola) shouldn't count towards FSR
- ▶ Social + Community Goals: bouncing for certain uses, bigger decks
- ▶ Decks (free-standing) shouldn't count (also shouldn't count as building depth)
- ▶ Open residential balconies & sundecks - need to ditch cap on livable outdoor space; large balconies increase livability
- ▶ Covered porch not included in floor area, but must be within envelope; Burnaby allows 8%, Richmond 10%; allow larger sundecks - now get 4 x 8 landings
- ▶ 20% of permitted floor area used as outdoor spaces e.g. decks roof covered area
- ▶ 5% not enough for porches- 13% is much better

Larger scale projects

- ▶ Go to no limits on exclusions
- ▶ Don't count + keep flexible - different approach for different sites (e.g. north side on arterials?)
- ▶ No regulation for balconies
- ▶ Allow enclosed balconies - bulk is already there
- ▶ Vancouver only municipality that regulates enclosed balconies, other municipalities don't have provision of enclosed balcony
- ▶ Enclosed balconies - makes sense on north side + arterials (acoustic comfort) OR focus on shared rooftop amenity space
- ▶ Get rid of 8% max for balconies -let market practicality balance what's provided- envelope sets frame work
- ▶ OK to include balconies in FSR because they add massing to the building but % of exclusions is not realistic Flexibility to partially cover roof decks - more flexible + usable to reflect how people live
- ▶ If open - no restriction, if enclosed then counted
- ▶ Count outdoor covered space as FSR, but not shading structures
- ▶ % exclusions (i.e. balcony) to be negotiated... (i.e. mini rezoning? Move to another district schedule)
- ▶ Structures open on 3 sides should be excluded
- ▶ Roof decks should be excluded if they are for public use
- ▶ 10% roof top exclusions are not realistic

B. Bundle Exclusions for Balconies, Porches and Decks

Smaller scale projects

- ▶ Need a max % for porches on larger sites - can use 1 percentage to cover them all - If # comes out of their sq. footage then who cares (re. covered porches)

Larger scale projects

- ▶ Combine balcony and roof deck exclusion (sustainability)

C. Improve Consistency of Exclusions for Balconies, Porches and Decks

Smaller scale projects

- ▶ No reason to make a difference across smaller zones (be consistent)

Larger scale projects

- ▶ Apply same exclusions in all zones

Other Ideas for Balconies, Porches and Decks Exclusions

Smaller scale projects

- ▶ Define difference between interior + exterior space
- ▶ City doesn't need to incentivize outdoor spaces, people want them so developer will deliver
- ▶ Look @ opportunities to setback roof decks
- ▶ Break out different categories (e.g. balconies vs decks vs porches) - % can be different in different zones
- ▶ RS-1 30% requirement for front porches (limit on projection into front yard) is killing porches - means no verandas - get rid of regulation
- ▶ 8 % FSR limit for deck is ok
- ▶ Don't count decks in building depth - should be able to build to rear yard setback or use same relaxation as character homes

Larger scale projects

- ▶ Balconies - trade off of setback, height, shadowing allow balcony developments into setback
- ▶ Balcony as an awning to public realm (i.e. Lee Building, Telus); project over sidewalk / setback
- ▶ Define type of uses (balcony, covered deck, patio), structures, outdoor features, shading structures
- ▶ Include diagrams

D. Update or Remove Bay Window Exclusion

Smaller scale projects

- ▶ Bay windows are \$\$ to build - 1% is hard to hit
- ▶ Get rid of bay windows if the city doesn't like them - clients do but not if at expense of sq ft.

E. Update or Remove Vented Skylight Exclusion

Smaller scale projects

- ▶ Skylights - make it easier to calculate + reduce/simplify
- ▶ Vented skylight exclusion - not easy to interpret. Rarely used - over complicated
- ▶ Allow skylights / lightwells of a certain size

F. Maintain or Broaden Storage Exclusion

Smaller scale projects

- ▶ Storage in suites is an exclusion that people are using
- ▶ When you get deep lots you end up providing deep units - so allowing some of the floor space to be rooms excluded as storage / inboard bedrooms that responds to these site constraints
- ▶ Allow in accessory building

Larger scale projects

- ▶ Provide some in unit (e.g. laundry, vacuum, etc.) + more in basement
- ▶ Exclusion encourages the inclusion
- ▶ In-suite is the most convenient and needed for small units
- ▶ Allow the space but open up the possibilities of design and innovation

G. Revise or Remove Storage Exclusion

Smaller scale projects

- ▶ Do performance review → design certain way?
- ▶ Incentivize instead the way we do bedrooms, make it a must
- ▶ Maybe storage incentive / exclusions shouldn't be considered on smaller spaces

Larger scale projects

- ▶ Storage flexibility; some in unit, some communal rooms, flexibility for above/below grade
- ▶ Mandate some in-suite storage, minimum linear ft.
- ▶ Remove incentive / provide flexibility
- ▶ Challenge with 4ft dimension, could 3ft work? 3ft strip won't be a bedroom, is easier to fit into unit layout
- ▶ Storage exclusions have unintended consequences - awkward space
- ▶ Reno's trigger DP process b/c increases FSR → illegal work, long process
- ▶ Podiums, often 'doughnut' in middle that's not usable, exclude for communal storage?
- ▶ Have storage on the floor outside of unit, or in common space off of double-sided elevator
- ▶ Allow at rooftop
- ▶ Exclude upper level built-in storage (e.g. in bathroom) or high cupboards, longer closet in hallway, integrated cabinet

H. Increase Sustainability Exclusions

Smaller scale projects

- ▶ Sustainability exclusions need to be higher (%) , global passive house exclusion is not high enough
- ▶ FSR exclusions for high performance, especially for character projects

I. Expand Exclusions for Mechanical

Larger scale projects

- ▶ Mechanical: shaft spaces / light wells / elevator shaft exclusions - not excluded unless at / below base surface - look at excluding up to 2nd floor
- ▶ Clarify elevator shaft exclusion

J. Revise How Stairs Are Counted in FSR

Smaller scale projects

- ▶ Stop counting stairs twice (count for each floor) - or the ones to the rooftop (third time)

Other Ideas

Smaller scale projects

- ▶ Eliminate 12' ceiling limit
- ▶ Crawlspace - 3' 11" not functional
- ▶ Appurtenances + roof folly, turrets

Comments

Smaller scale projects

- ▶ Intent of exclusion should be stated- if performative, a designer can justify it - Intent into margin of by-law
- ▶ Penalization on going green, get green first (incentivize - fast tracking, permit fee relaxations)
- ▶ 2 exclusions working against each other (i.e. 4ft under, closet counted as (laneway) FSR)

Larger scale projects

- ▶ Building review branch and sprinkler requirement for larger balconies
- ▶ Economics of site would be affected by enclosures and FSR, no developer will pay for setback
- ▶ Condo exclusions: results in work without permit after by tenants; enclosed balconies; walls removed, creates negative behaviour

3. Are There Other Priorities or Spaces That Could Be Encouraged Through an Exclusion? What Are the Trade-Offs?

A. Exclude Mechanical and Sprinkler Room

Smaller scale projects

- ▶ Heritage Projects: Mechanical + Electrical rooms now required + included in floor space, should be excluded; A/C
- ▶ Exclude sprinkler rooms, electrical rooms, pad mounted transformer- for phase 3 power @ grade - respond to sustainability.
- ▶ Roof volume should be explored as useable space (exclude mechanical here)
- ▶ Exclude under deck or front porch, separate entrance and not part of FSR
- ▶ Require mechanical uses in basement - 1% must be mechanical room
- ▶ City of North Vancouver allows 100 sf for mechanical, Burnaby allows 50 sf, if not more than 6 ft high

B. Broaden Amenity Space Exclusions

Smaller scale projects

- ▶ In basement covered areas are included as floor area. Recommend excluding all outdoor areas
- ▶ The external space below a cantilevered canopy, if over 4ft, counts as FSR

Larger scale projects

- ▶ Incentivize roof top access thru FSR exclusions , exclude communal amenity at rooftop
- ▶ No regulation for indoor / outdoor amenity spaces
- ▶ Interior & exterior amenity spaces incentivized through an increase in FSR if a certain % is provided (see San Diego)
- ▶ Allow non-residential amenity spaces
- ▶ Consider facilitating balconies in work/office industrial space (e.g. Iron works: 1st stacked industrial building. Balconies are a big part of project) Passive outdoor space contributes to the work experience (200+ days use). We don't see this often in office buildings
- ▶ Co-housing example: smaller shared seating space, redefine what amenities are
- ▶ No limitation on how much to exclude for amenity spaces but there should be a minimum for projects over a certain size and # of units
- ▶ Encourage "livable" locations for amenity spaces (e.g. not basement areas)
- ▶ Roof decks don't need to be relaxed, they should just be accounted for in FSR (or could be a worthwhile exclusion)

C. More Exclusions for Circulation Space, Corridors and Stairs

Smaller scale projects

- ▶ Exclusion of elevator space in a house

Larger scale projects

- ▶ Open stairs should not be included in floor area - cannot accept this, but in part 9 areas (smaller scale projects) its ok
- ▶ Squamish: circulation space excluded from FSR (same in LA) + allows for better quality shared spaces
- ▶ Idea to encourage lobby as meeting space but not excludable now -look at excluding some space (e.g. count 'access corridor' but not seating area)
- ▶ Townhouse, exempt stairs accessing parking below grade, count FSR same way as strata area
- ▶ Corridor envelope - If used as amenity should be excluded
- ▶ Should public access between buildings to a public space be included in FSR as it was required by the city? Confusing as it's subject to interpretation

Other Ideas/Comments

Smaller scale projects

- ▶ Can we incentivize historical restoration - Additional FSR for material re-use

Larger scale projects

- ▶ Overhangs should not be included in FSR calculations
- ▶ Should not be penalized for over-height areas (e.g. heritage buildings - turrets if already there). Needs more flexibility (less dogmatic) it's not clear -should be consistent from zone to zone

Appendix C. Building Height: Ideas by Themes

1. Is there a simpler way to calculate building height?

A. Keep Current Approach, but Be Consistent and Clear

Smaller scale projects

- ▶ Base surface is more accommodating for varying lots (many different lots) and deals better with sloped sites
- ▶ Need consistent approach across zones
- ▶ Need consistent height measurement approach between staff (e.g. To gable in some instances, to other areas in others? Where to measure to for rooftop decks?)
- ▶ Standardize methods for similar scales of projects. For example, for all laneway houses and infills and all R districts. Consistency for where building grades are required
- ▶ Clear communication of different height allowances through a table format and use of graphics (e.g. West Van guides)
- ▶ Clarify intent of different height allowances in Intent sections
- ▶ Clarify “half-storey” definition.

Larger scale projects

- ▶ Base surface works and building grades are a good idea.
- ▶ Streetscape focused
- ▶ Retain compatibility / flexibility 10.18.3 (allows DOP to determine use of existing grade due to site condition).
- ▶ Simplify interpolation with clarification diagrams
- ▶ Be consistent across the city: same methodology while accounting for use needs, grades, loading, etc.
- ▶ For clarity, add note in by-law regulations to reference view cones and shadowing, particularly in downtown zones and around parks and other public areas
- ▶ Consistency across city of defining the top where to measure to (e.g. top of roof slab)
- ▶ Consistent method of calculating height between District Schedules and CD-1s

B. New Approach: “Glass Box” or Maximum Envelope

Smaller scale projects

- ▶ This approach could alleviate challenges and account for relaxations within this method of measurement.

Larger scale projects

- ▶ Set a max height ('box') with everything built in (or plus exclusions for elevator access to roof)
- ▶ Set box + let people work within it (keep it simple)
- ▶ Ensure 'box' is larger than allowable FSR

C. Don't Regulate Storeys

Smaller scale projects

- ▶ Does not translate well on sloping sites
- ▶ Doesn't allow for variety on streetscape
- ▶ VBBL needs to recognize 2.5-storey typology on severe sloping sites still as Part 9 buildings (smaller scale projects)

D. Eliminate Vertical Angle of Daylight

- ▶ There are enough controls to get rid of it (e.g. height + setbacks take care of sunlight to neighbours).
- ▶ Variations in success. Manhattan model requires setback at higher levels. COV from street
- ▶ Depends on scale of street: e.g. Fraser, Victoria need to keep the street open, but not needed on Cambie that runs N/S

E. Eliminate Relaxations

Smaller scale projects

- ▶ They are used because they're available

Larger scale projects

- ▶ Take all reg's (e.g. rooftop access for green buildings technology) decorative roofs, etc. and build it ALL into the max height

F. Regulate Mezzanines Like the VBBL (Vancouver Building Bylaw)

Larger scale projects

- ▶ Creates issues at Building Permit. Can't change Building By-law, Zoning and Development By-law needs to change.

G. Eliminate Primary and Secondary Envelopes

- ▶ Primary + Secondary envelopes are too complicated to calculate and intent is unclear, especially for RS and RT districts

Other Ideas

Smaller scale projects

- ▶ Average grade at building envelope: Simple. Most cities do it this way. Also: Every municipality is different, will never reconcile
- ▶ Use horizontal datum plane (with provision for extreme sloped site)
- ▶ Horizontal datum plane unless sunken patio is bigger than 10'x15' (then average grade calculation)
- ▶ Calculate height to mid-pitch 'mean height': this historical approach can create more elegant roof design e.g. Edwardian. However, this approach may also affect streetscape, need to create a new maximum height, and additional exclusions

Larger scale projects

- ▶ Horizontal Datum Plan is only for the 2 typologies it was created for. It works because of location of those buildings.
- ▶ Be flexible on height if it doesn't affect shadowing.
- ▶ View cones will determine height, but protrusions should be excluded
- ▶ No height restriction in industrial lands but cap FSR.
- ▶ Calculate height to:
 - ▶ The very top or highest point, parapet or guard
 - ▶ Top of roof slab
 - ▶ Top of last floor from grade (if Combustible structure)
- ▶ Various ideas on determining the base for height calculations, including Calculate from highest point of the site (highest building grade)

Comments

- ▶ Need to understand the purpose of controlling height. Is it Massing, shading, streetscape continuity?
- ▶ Clearly distinguish the areas of transition [for height]. [Some] are not as sensitive; single families are more sensitive.
- ▶ Combination of good design and shadowing
- ▶ Is there an appetite to work with industry to workshop different options and model the effects graphically + technically
- ▶ If it can't be enforced/regulated afterwards then don't regulate it at the start
- ▶ Height limits complicated that VBBL and zoning have different calculation
- ▶ Debate over value of alignment of Zoning and Development By-law to the Building By-law, including discussion on advantage of consistency but the disadvantage of loss of street context, difficult of steep slopes, etc.
- ▶ City shouldn't regulate design. Give an envelope and designer works within in it
- ▶ Too much scrutiny on height when it is about the whole building; more tolerance
- ▶ Height should be a subjective matter
- ▶ Innovation is challenged by ordinance
- ▶ Conditionality is not enough, what is the out?
- ▶ More flexibility for case by case basis - Will flexibility affect process times?
- ▶ Reduce discretionary policies - incorporate to the bylaw

2. Which Relaxations Need To Be Clarified or Updated? Which Relaxations Are No Longer Needed or Relevant?

A. Exclusions Need To Be Clear, Simple and With Stated Intent

Larger scale projects

- ▶ E.g. checklist of site conditions where discretionary height limit could be applied

B. Update and Clarify Relaxation for Mechanical Other Appurtenances

- ▶ Remove / simplify height relaxation limits as they penalize small sites. Relaxation limitation to 1/3 width of building is too restrictive and can impact ability to add exits, etc.
- ▶ 10% rooftop exclusion may not be enough (eg mechanical room/ elevator shaft). Review for possible increase
- ▶ Change 1/3 and 10% exclusions > designers never make it
- ▶ Set options e.g. XXX sq ft OR xx% + maybe look at shadows
- ▶ Wind screens should be excluded
- ▶ Roof top equipment is a big deal
- ▶ Roof assemblies pushing some building into over max height → need some flexibility + to recognize grade. (BUT Height: increase within reason, look at # for overrun, appurtenance, etc.)
- ▶ Quality of design is more important over prescribed percentage

C. Update and Clarify Relaxations for Decorative Roof

- ▶ Decorative roofs: What is it? How high can it be? How much negotiation should there be?

D. Clarify Height Relaxations for High Performance and Green Buildings

Smaller scale projects

- ▶ Clarify and explore increasing height incentives for high performance construction (e.g. + 5 feet)

3. Are there other priorities or spaces that could be encouraged through a relaxation? What are the trade-offs?

A. Max Height for Standard Building, Additional Height if It Achieves a City Objective

B. Encourage Roof Deck Access and Rooftop Amenity Space To Enhance Livability

Smaller scale projects

- ▶ Exclude roof deck access from height
- ▶ Every zone to allow roof decks or access and allow new building code compliance roof hatches
- ▶ Roof decks don't need to be relaxed, they should just be accounted for in FSR (or could be a worthwhile exclusion)

Larger scale projects

- ▶ Clarify rooftop amenity room regulations and exclude height
- ▶ Focus on design + usability on rooftop:
 - more flexibility, comprehensive definition
 - City has shadow analysis as 'stick' to direct outcome. e.g. 280ft or 290ft for green roof (tiers but still inclusive height)
- ▶ Elevator overrun for accessibility not allowed in zone but encouraged in rezoning, should be excluded in all buildings.
- ▶ Roof top patios are a big deal
- ▶ Amenity rooms in Cambie / Oakridge are not counted in height. Allows roof utilization without penalty

C. Encourage a Variety of Good Design Aesthetics

Smaller scale projects

- ▶ Be less prescriptive to allow for architectural expression and usability
- ▶ Design aesthetics should trump arbitrary height restrictions
- ▶ i.e. RS-7 incentivizes good roof design

Larger scale projects

- ▶ Flexibility to avoid all buildings to be the same, we don't want homogenous developments

D. Relax Height for Difficult Site Contexts

Smaller scale projects

- ▶ Building heights should abide by contextual response to height
- ▶ Deep lots with deep units are challenging to maximize FSR. Explore height relaxations to accommodate for the site challenges

Larger scale projects

- ▶ Needs to be discretion for uneven sites
- ▶ Challenge of reflecting shadow impacts (i.e. achievable height for site)
- ▶ Relaxations on shadowing should be considered - trees shadow parks anyways
- ▶ Example of C-2 sites + rezonings → challenge to meet grade if sloping site. Same in Mt. Pleasant Industrial Area + topography

Other Ideas

Smaller scale projects

- ▶ Dormers make the top floors more livable - exclude them. Increase for dormers to 50% of the length of the site for laneway houses
- ▶ Flood control: complications upcoming with regard to flood control levels - will CoV compensate for height?
- ▶ Allow wiggle room for mechanical and structural elements in attic. (approx 2' extra needed) - ductwork, height line
- ▶ Allow a bonus of height based on the average of retained trees X 25%

Appendix D. What We Heard - Flipchart Notes

Table 1 – Smaller scale projects (*Indicates a "best idea" as voted by a table member)

Floor Area: Question 1

- ▶ Tech/computer/electronic opportunities
- ▶ Offsets (wall) become challenging
- ▶ Some neighbourhoods require stone cladding as an example
- ▶ Most confusing is the space beside the half-storey
- ▶ Some challenging surveyors are making mistakes
- ▶ Setbacks vs FSR are two separate issues* - Measure to the sheathing
- ▶ Concrete vs wood construction (?)
- ▶ So many different envelope types
- ▶ Wall thicknesses within FSR calculations
- ▶ % of FSR (other Municipalities doing this) - Good way to incentivize - Numerical calculations vs complex (because you need your details to be determined before)
- ▶ Open residential balconies & sun decks - Need to ditch cap on livable outdoor space
- ▶ Large balconies can be extension of living space (increase livability) e.g. criterion
- ▶ Unclear on why we cap roof decks
- ▶ Developers waste \$\$ on huge balconies
- ▶ Look @ opportunities to setback roof decks
- ▶ Breaking out different categories (eg balconies vs decks vs porches) - % can be different in different zones
- ▶ In residential districts if you're maxed out in FSR you lose option for balconies
- ▶ Introducing "glass box" diagram/envelope into zoning - zoning box *
- ▶ Sustainability exclusions need to be higher (%) **
- ▶ Global passive house exclusion is not high enough
- ▶ Need a max % for porches on larger sites - can use 1 percentage to cover them all - If # comes out of their sq. footage then who cares (re. covered porches)
- ▶ No reason to make a difference across smaller zones
- ▶ City doesn't need to incentivize outdoor spaces, people want them so developer will deliver
- ▶ "Box" approach could alleviate these challenges

- ▶ In RS - parking should be allowed under the house - Lanes are becoming streets already so why not allow parking below homes instead of taking up livable space - takes cars off the streets
- ▶ Get rid of #s! All zones
- ▶ What about sprinkler room exclusions? Electrical room exclusions, PMT - for phase 3 power @ grade - respond to sustainability are these BC Hydro requirements? Can we work with BC Hydro
- ▶ Need to look @ FSR & height together
- ▶ Bay windows are \$\$ to build - 1% is hard to hit
- ▶ Livability needs to keep up with sustainability aspirations
- ▶ Interior & exterior amenity spaces incentivized through an increase in FSR if a certain % is provided (see San Diego)
- ▶ Storage in suites is an exclusion that people are using
- ▶ Provide extra FSR and then don't regulate exclusions (e.g. storage)
- ▶ When you get deep lots you end up providing deep units - so allowing some of the floor space to be rooms excluded as storage / inboard bedrooms that responds to these site constraints
- ▶ Storage exclusions in laneway housing is out of control
- ▶ Over regulation creates poorer design & usability (and affordability) *
- ▶ Day light, access to nature, and flexibility = all important factors in livability
- ▶ Removing all exclusions increasing FSR would provide more certainty *
- ▶ City should control density, footprint but everything else - who cares!
- ▶ Encourage innovation within by-law
- ▶ We have envelopes, setbacks, height restriction - It's already there
- ▶ People want to build smaller too! There aren't economic opportunities to do so (e.g. subdivision) *
- ▶ City shouldn't dictate how people live - only incentivize livability, sustainability, innovation
- ▶ Anything below grade shouldn't be included (count less or not at all in FSR) - Why? Put all mechanical, bike rooms, storage, heat pumps.
- ▶ Mixed use buildings (requiring commercial sometimes need an extra podium) so excluding an additional floor (the 2nd floor) when market condos are bring provided to offset cost
- ▶ Deep lots with deep units is challenging to make FSR - exclusions or relaxations on height to accommodate for the site challenges

Priorities Question 1 & 2:

- ▶ “Glass box” idea
- ▶ A consistent datum within the zones
- ▶ Getting rid of all fussy exclusions and providing greater FSR to allow for developer lead responses to livability priorities
- ▶ Keep #s consistent in zones, but separate by building height
- ▶ If it can't be enforced/regulated afterwards then don't regulate it at the start
- ▶ Below grade (0 light) FSR should not be regulated **
- ▶ Roof volume that doesn't change height (would already exist) should be explored as useable space (exclude mechanical here)

Table 1 – Smaller scale projects (*Indicates a “best idea” as voted by a table member)

Height

- ▶ Glass box!
- ▶ Setbacks that are % based?? If it's about fire access then make it that (e.g. 3ft)
- ▶ Need consistency across zones
- ▶ Or even be more clear e.g. tables in Zoning & Development
- ▶ Increases (e.g. sustainability or mass timber) need to be clear as well
- ▶ RS & RT - not that difficult (creates light in yards) - Super sloped sites can be hard to do - but relaxations usually account for that
- ▶ Glass box can account for relaxations within this method of measurement
- ▶ Height limitations restrict floor to floor - (low ceilings) which impact livability
- ▶ Infill height is too low (especially on larger lots)
- ▶ When you have an existing building (e.g. FM district) but the infill can't be as high - ridiculous - Look at % room of error for human input
- ▶ Taking into account context when calculating building height *
- ▶ Transitions between existing grades and building grades can vary by a lot - relaxations to account for this?
- ▶ Complications upcoming with regard to flood control levels - will CoV compensate for height?*
- ▶ Extra ceiling height working within what is possible...

- ▶ Roof hatches
- ▶ Inconsistency between PCs interpretation of where you measure to for roof top decks
- ▶ Roof decks don't need to be relaxed, they should just be accounted for in FSR (or could be a worth while exclusion)
- ▶ Open stairs should not be included in floor area - cannot accept this but in part 9 areas its ok *
- ▶ Leave roof deck in total FSR calculations
- ▶ Living spaces should be used for living
- ▶ Exclusions are used just because they're available
- ▶ NOT that complex - height calculations
- ▶ Rooftop amenity room regulations need to be clarified/updated - exclude these!
- ▶ Building heights should abide by contextual response to height *
- ▶ Different planners interpreting height measurement differently (e.g. To gable in some instances to other areas in others?)
- ▶ Method for measuring height is OK - it's when the interpretation comes into play is where there's challenges *
- ▶ Averaging as a method for responding to "neighbouring height contexts"
- ▶ Base surface is more accommodating for varying lots (many different lots)
- ▶ Average finished grade is the most difficult to do
- ▶ Be consistent ***
- ▶ More flexibility for laneway height on a sloping site - focus on livability **
- ▶ Subjectivity of livability (could increase permitting times)

Table 2 – Smaller scale projects (*Indicates a "best idea" as voted by a table member)

Floor Area: Question 1

- ▶ Sheathing - calculating to the sheathing = would be an improvement - all other cities do it this way *** (Example size of cladding would affect floor area - multiple numbers (for drawings) on site - Problem from beginning (application) to end (on-site))
- ▶ Why have floor area? Focus on envelope *** (Langley - envelope Coquitlam - exterior wall square footage)
- ▶ Get rid of above grade/below grade FSR * - Still fits within envelope (height, side / rear yard)
- ▶ Lots of municipalities don't count basement
- ▶ Most of the time people go for the max FSR - land value is so high - won't leave basements on the table
- ▶ RS-5, RS-6, RS-7 are different from RS-1 and it doesn't make sense to client
- ▶ 70% + exclusions
- ▶ Measure to something other than cladding and tell us what you want for cladding
- ▶ Increase side yard from 10% to 11% or 12%
- ▶ RS-1 30% requirement for front porches is killing porches
- ▶ Decks (free-standing) shouldn't count (shouldn't count as building depth) *
- ▶ 8% FSR limit for deck is ok
- ▶ The exclusions make it so that the average person can't understand them - need professional help
- ▶ Get rid of bay windows if the city doesn't like them - clients do but not if at expense of sq ft.
- ▶ Vented skylight exclusion - not easy to interpret. Rarely used - over complicated
- ▶ By measuring to sheathing you encourage thicker insulation R22 and makes it easier to upgrade
- ▶ For smaller lots some clients might not build the thicker walls
- ▶ Some cities allow for mechanical
- ▶ 72% or 73% and require certain things (ie mechanical room) other things aren't necessities (bay windows)
- ▶ Mechanical room - under deck and not part of FSR
- ▶ Count stairs twice - why or the ones to the rooftop (third time)
- ▶ Laneway house - why is parking included?
- ▶ Laneway room size interpretation needs to be looked at - rooms are too large **

Table 2 – Smaller scale projects (* (*Indicates a "best idea" as voted by a table member)

Building Height

- ▶ RS-1/RS-5 Datum calculation is complicated
- ▶ For laneway - 4 points/ 4-simple - most cities do it this way (average height) *****
- ▶ Retaining walls in neighbourhood properties - why are they relevant? - Measure at building envelope ***
- ▶ RS-5 successfully addressed "monster houses" in terms of massing/design (5%). RS-1 = "wedding cake"
- ▶ Get rid of secondary envelope in RS-1 and you will see more craftsman/interesting character ****
- ▶ **Get rid of secondary envelope to allow cross gable roofs**
- ▶ RS-5 raise the height to 31 ft or why not 35?
- ▶ Exclude dormers
- ▶ 10ft main floor height would limit basement but clients do want them
- ▶ Dormers make the top floors more livable - exclude them
- ▶ Where are we calculating height from? - Ex. Laneway house measure from envelope
- ▶ Laneway house height increase made them more livable
- ▶ Increase for dormers to 50% of the length of the site for laneway houses

Table 3 – Smaller scale projects (*Indicates a "best idea" as voted by a table member)

Floor Area

Question 1: Status Quo

- ▶ In basement covered areas are included as floor area. Recommend excluding all out door areas.
- ▶ The external space below a cantilevered canopy, if over 4ft cantilever counts as FSR
- ▶ 5% not enough for porches- 13% is much better
- ▶ Building depth relaxation for decks. Use same as character homes
- ▶ Underneath deck counts as FSR
- ▶ 20% of permitted floor area used as outdoor spaces e.g. Decks roof covered area
- ▶ Stop double counting stairs esp. duplex
- ▶ A. Measure to face of exterior insulation + 20% (Simpler + provide extra FSR or B. Setbacks to exterior
- ▶ Interior FSR - This way thickness irrelevant. Note sometimes not possible to accommodate all FSR
- ▶ May also need to look at set backs
- ▶ Skylight exclusion
- ▶ Interior condition space - Space where temperature can be regulated
- ▶ Storage exclusion accessory building!
- ▶ Maximum FSR for parking
- ▶ Character separate
- ▶ Propose of redefining - Better regulation of future uses? - Can we incentivize historical restoration - Additional FSR for material re-use
- ▶ Skylight exclusions

Regulate GFA

- ▶ Massing should be the driver e.g. Burnaby

Priorities: (Define)

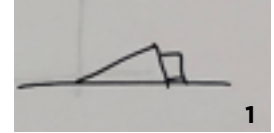
- ▶ 1. Define difference between interior + exterior space
- ▶ 2. Floor area from inside wall
- ▶ 3. UP FSR to encompass all exclusions so there are no exclusions

Table 3 – Smaller scale projects (*Indicates a "best idea" as voted by a table member)

Building Height

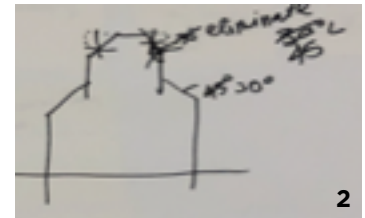
Question 1

- ▶ Access to roof an issue doghouse access not working (Image 1)
- ▶ Tall people not welcome: every inch of height will be used. max height above mean 9ft
- ▶ Allow engineering to dictate base - no 24hrs sump pump



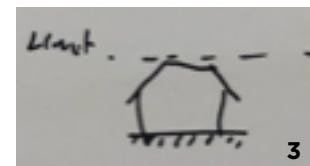
Question 2

- ▶ Eliminate RS1 (Image 2)
- ▶ Eliminate all envelope - just maximum height
- ▶ Consider design aesthetics should trump arbitrary height restrictions – this is particularly important in the heritage contexts (Image 3)



Question 3

- ▶ Calculate max roof height as mean height:
- ▶ Streetscape may change as a result of the changes
- ▶ Current approach - create strange requirements for basement in particular
- ▶ A maximum height may be needed for mean height option! - Or exclusions may be needed
- ▶ Storage may be needed as exclusion



Post-it Notes:

- ▶ Average finished grades for horizontal datum
- ▶ Average at corners of envelope of existing grades - Horizontal datum
- ▶ Based on average
- ▶ Horizontal datum plane (with provision for extreme sloped site)
- ▶ Option height calculation from floor level of lowest floor to peak of roof
- ▶ Horizontal datum plane - Horizontally
- ▶ Use horizontal datum plane unless sunken patio bigger than 10'x15' then average grade calculation
- ▶ Datum plane - Allow a bonus of height based on the average of retained trees X 25%
- ▶ Let engineers decide because they already dictate sewer grades
- ▶ Don't penalize existing heritage/character buildings
- ▶ Bonus height for houses that are high performance construction, probably + 5 feet

Table 4 – Smaller scale projects (*Indicates a "best idea" as voted by a table member)

Floor Area

- ▶ Simpler – Yes!
- ▶ Can't make it harder
- ▶ What would gross floor area look like?
- ▶ Can eliminate:
 - Exclusion crawl space
 - 3' 11" not functional
- ▶ Condos: Exclusions
 - Results in work-without-permit after by tenants
 - Enclosed balconies
 - Walls removed, creates negative behaviour
- ▶ West Vancouver: Encourages basements (not exclude crawlspace) - Homeowner (HO) should be able to encourage suites
- ▶ Allow skylights / lightwells of a certain size
- ▶ Punitive regulations – exclusions
- ▶ Exclusions for porches - limits designers desire for appealing architecture
- ▶ Should be concerned about the visual design and not about what is going on inside
- ▶ 1986 - shift toward market demand for suites → illegal suites
- ▶ Lift basement - freezing level 2'0" (go 3' down) - reduces pumping, less risk if electrical lost - but increase height, being looked at "missing middle" program
- ▶ Gross Floor Area Idea: excellent, better choice in design (veranda, porches), current reg's max out FSR then add small deck to be expanded later illegally. Should include some exclusions
- ▶ Heritage Projects: Mechanical + Electrical rooms now required + included in floor space, should be excluded; A/C **
- ▶ Floor area measured to inside wall = supported
 - To inside wall surface BUT be mindful of effect on setbacks dimensions; measure from face of concrete foundation
 - Need to think about plan checker interpretation - some can be very strict - example of turning a washer/dryer, needed supervisor approval
- ▶ In favour of Gross Floor Area if it incentivized community benefits, i.e. bigger decks (bonus idea). Beware of calculations creating boxes

- ▶ Design Guidelines necessary
- ▶ Measuring setbacks to concrete foundation may create accessibility issues
- ▶ Powder room → enlarged doors for accessibility, not making sense
- ▶ What about clarification of exclusions?
 - Favour for conditionality + discretion as a means for design control - use design guidelines to drive elegant solutions
- ▶ Development Planners lost the ability to be brave + autonomous (more typical for 20 years ago)
- ▶ Planners not available - no customer interface or Director of Planning contact
- ▶ Strong desire to talk to Director of Planning → face to face
- ▶ Regulations taken joy out of design
- ▶ Need a new **generation of fixers** (Kevin Cavell, Rick Michaels, Rick Scobie)
- ▶ Exclusions → preferred → decks → overhangs/eaves → covered porches
 - Example: moving a post inward on covered porch out of fear the porch will be covered in
- ▶ French doors discouraged currently out of fear the space will become a suite
- ▶ Staff need field trips to better understand real world
- ▶ Need to think about flexibility of structures overtime i.e. evolution of suites → how?
- ▶ Passive Homes
- ▶ Floor Area, calculate 2 items: 1. measure to inside walls - but what surface? 2. measure site coverage + setbacks to outside wall
- ▶ Current 8" walls - varied, needs to be drywall, V.B.B.L → moving to performance wall (rather than described)
- ▶ Measure to drywall will future proof for changing code
- ▶ Retro-fits; easier to measure to drywall
- ▶ Be mindful of trends in insulation materials - do not 'penalize' if insulation trends change
- ▶ Any exclusions no longer needed?
 - Eliminate problematic design conflicts - current regulations
 - Appurtenances + roof folly, turrets
- ▶ Eliminate 12' floor to ceiling requirement → skylights - make it easier to calculate + reduce/simplify
- ▶ If it is hard to administer then likely reg is overly complicated
- ▶ Like the idea of illustrations and diagrams to clarify regulations
- ▶ West Vancouver very flexible

- Don't count basements
- Allow % flexibility to encourage good design
- The outright could "flex"
- Reno's should be conditional

Floor Area Summary

- ▶ Control above grade + 10% flex at discretion of D.O.P.
- ▶ Eliminate 12' ceiling limit
- ▶ Do not include basements
- ▶ Regulate gross floor area (in favour)
- ▶ Measure from inside walls → drywall
- ▶ Social + Community Goals: bouncing for certain uses, bigger decks
- ▶ D.O.P + Discretion: guidelines, outright + flex, conditional
- ▶ Staff: planners need more independence to make good design decisions
- ▶ Architectural elegance

Table 4 – Smaller scale projects (*Indicates a "best idea" as voted by a table member)

Building Height

- ▶ Very difficult
- ▶ Best way?
 - 4 corners - needs better interpretation on sloped sites
 - Work from survey but inter-polation is difficult, example - 3 corners the same, 1 different
- ▶ What is the purpose of controlling height? Massing, shading, streetscape continuity
 - Market desire → 10' ceiling
 - Drives deeper digging + pumping
- ▶ Liquid waste + draining issues
- ▶ RS-1, current regulations lead to 'cookie cutter', bad design
- ▶ Often designers prefer asking staff to interpret (interpolate)
- ▶ Is 'averaging' preferred?
 - Must be flexible

- Results of interpolation not always effective
- ▶ Eliminate the 'outliers'
 - Use setbacks points at property line
- ▶ Maybe varied streetscape is more interesting?
- ▶ Use same methods for all R zones (Standardize)
- ▶ Historical: measure to mid-pitch 'mean height' instead of top peak
- ▶ Can create more elegant roof design e.g. Edwardian
 - Consider more modern bldg. systems spatial requirements (irrigation, mechanical)
- ▶ Primary + Secondary envelope? (too complicated)
 - How to measure
 - Current intent → to reduce massing as viewed from street
- ▶ Incentive vs regulations: i.e. RS-7: has mechanism for incentive - roof design. Preferred, encourage good design
- ▶ What about # stories?
 - 35 foot height cap - preferred
 - V.B.B.L. → punishes renovation opportunities for livable attics since a 3rd story
 - Prefer regulate height but not # stories
- ▶ Height cap should allow wiggle room for mechanical and structural elements in attic (approx 2' extra needed) - ductwork, height line
- ▶ V.B.B.L. should recognize 2.5 storey
- ▶ Issues with storeys when house on slope, look at Kelowna and West Vancouver (image 4)
 - Coach house does not count basement
 - Everything above is first storey
 - Code does not restrict storeys
- ▶ Building height for basic Part 3 buildings should be relaxable
- ▶ Think about emerging standards for noise abatement + passive house
- ▶ Try to resist giving in to overheight lobby → need to be more holistic
- ▶ Give extra 1.5' to 3.5' for Reno's and conditionality
- ▶ Height cap with or without exclusions?
 - Should have some exclusions especially Reno's
 - Exclusions need simplification
- ▶ 2 +D Intent Section



- Does not always reflect the regulations
 - Add language to intent section to include height and parameters (conditional uses)
- ▶ Is there an appetite to work with industry to workshop different options and model the effects graphically + technically

Building Height Summary

- ▶ Use 4 points (average) close to house
- ▶ Regulations for height but not stories
- ▶ Incentives for passive

Table 5 – Smaller scale projects (*Indicates a "best idea" as voted by a table member)

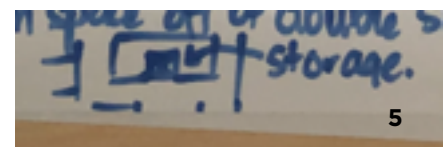
Calculating Floor Area

1. Simpler Way?

- ▶ Regulations changing during time of application submittal and issuance (long time, changes)
- ▶ Measure interior only***
- ▶ Calculate from outside and add additional for family friendly spaces
- ▶ Different regulations for duplexes, no consistency*
- ▶ Standardize - one number, ease of use and to calculate*
- ▶ Thicker walls - allows for design expression, creativity
- ▶ Marry FSR w/ strata plan calculations - ease of use - centre line of exterior wall
- ▶ Be clearer with complexities in 1 & 2 family zones - regulate buildable envelope, not FSR
- ▶ FSR exceeds buildable envelope (envelope should be bigger)

2. Exclusions

- ▶ Penalization on going green, get green first (incentivize)*
- ▶ Exclusions don't incentivize those who weren't wanting to do it
- ▶ Incentivize (fast-tracking, permit fee relaxations?)
- ▶ Will developers put in extra sq. ft. offered by exclusion incentives?
- ▶ Decks too small, give up solariums for larger deck*
- ▶ Be careful about storage space in calculation
- ▶ Storage exclusions have unintended consequences - awkward space
 - Incentivize instead the way we do bedrooms, make it a must
 - Reno's trigger DP process b/c increases FSR → illegal work, long process
 - Reduces usable space
 - Do performance review → design certain way?*
- ▶ Maybe storage incentive / exclusions shouldn't be considered on smaller paces
- ▶ Alternative - storage in common space off of double-sided elevator (Image 5)



3. Exclusions

- ▶ Outdoor amenity space:

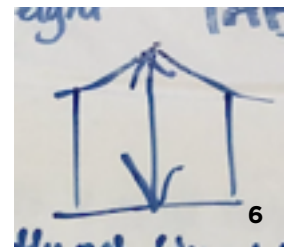
- Incentivize roof top access thru FSR exclusions**
- Exclusions: storage + amenity at rooftop - outdoor amenity space*
- Infill, covered porch space - outdoor amenity space*
- ▶ Outdoor patio space (trellis, pergola) shouldn't count towards FSR**
- ▶ 2 exclusions working against each other (i.e. 4ft under closet counted as (laneway) FSR)
- ▶ Consistency for how we administer height, slope spaces
- ▶ Intent of exclusion should be stated, if performative, a designer can justify it*
 - Intent into margin of by-law
- ▶ Livability should supersede what if
 - Don't anticipate bad behaviour*
 - Make revenue source?
- ▶ Exclude stairwell → 2nd level open - don't count

Table 5 – Smaller scale projects (*Indicates a "best idea" as voted by a table member)

Building Height

1. Simpler Way?

- ▶ Basements, calculate depth in ground, currently not livable (Image 6)
- ▶ Measuring height currently is acceptable
- ▶ Would like to see more diagrams - more graphic content in 2+D, refer to West Vancouver*
- ▶ Height limit can be reflective of topography
- ▶ Transitions between tower to single family
- ▶ More clear when requiring building grades (i.e. duplex in RM zone)
 - Can it be outsourced to surveyor to expedite process?
 - Relating building grades to scale



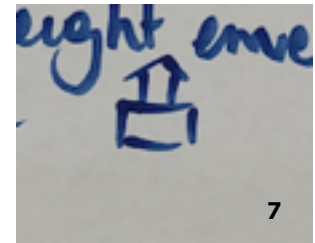
2. Relaxation Clarification?

- ▶ Existing character already exceed height
- ▶ Increase height for flexibility on new build
- ▶ Vertical distance should be relaxed*
- ▶ Relate height to industry standard to ceiling heights*

- ▶ Every zone to allow roof decks / access to allow new building code compliance roof hatches**
- ▶ Height relaxation for solar panels

3. Height Related to Context - Streetscape

- ▶ Less prescriptive in how we measure —> architectural expression, usability*
- ▶ City shouldn't regulate design. Give an envelope and designer works within in it**
- ▶ Restrictions limit livability***
- ▶ Consistency with laneway house height and infill height
- ▶ Don't tie height to roof pitch**
- ▶ Secondary height envelope in RS creates a wedding cake (Image 7)



Sticky Notes

- ▶ PC's / intake need clarification on DP process / review / relaxations
- ▶ More training so they understand

Table 6 – Larger scale projects (*Indicates a "best idea" as voted by a table member)

Floor Area

1. Simpler Way to Calculate Floor Area?

- ▶ Different industries / professions calculate differently (e.g. realtors)
- ▶ Challenge of different scales → could some be used as a pilot? e.g. envelope approach for something like RT-5? + then expand (tower / mid-rise, a different animal)
- ▶ Envelope approach w/ FSR smaller than envelope → room for creativity / flexibility / articulation
- ▶ Get rid of 8% max for balconies
- ▶ Set other parameters? Floor plate max? + could include balconies in that (but don't make it possible to fill envelope)
- ▶ Typically running 3 sets overlays for each projects: 1) net sellable (developer) 2) FSR (CoV) & 3) Code, all have digital tools, odd to be still generating overlays
- ▶ Wall exclusions confusing → measure to inside face, more flexibility for all wall systems. Don't count balconies, flexibility on perimeter
- ▶ Wall assemblies getting more + more complex, shouldn't dictate cladding
- ▶ Miami Beach - no FSR rules - focus on creativity (e.g. 10% bonus, incentive new approach)
- ▶ LA, performance based focus gets additional FSR
- ▶ DP stage - hard to finalize / know assembly at that early stage, challenge especially for passive house
- ▶ C-2: challenge to achieve ground floor FSR with required setbacks
- ▶ Challenge to balance required door / corridor widths + provide livable spaces in units
- ▶ Squamish: circulation space excluded from FSR (same in LA) + allows for better quality shared spaces
- ▶ Tension: massing versus FSR, still technical calculation challenges

2. Which Exclusions Need To Be Clarified or Updated?

- ▶ Tricky: RT w/ 13% - impact on built form
- ▶ Q: Do you relate % to whole building or to suite itself? Flexibility to partially cover roof decks - more flexible + usable to reflect how people live
- ▶ Remove % - don't link % to suite - let market practicality balance what's provided. Envelope sets frame work

- ▶ All will have green roofs soon - will change roof deck spaces; shading + green roofs, will impact balcony
- ▶ Focus on flexibility within envelope
- ▶ Balcony exclusion shouldn't be determined based on habitable floor area above, details of whether its a roof deck, balcony, etc. - keep it simple
- ▶ Example of enclosed balconies → makes sense on north side + arterials (acoustic comfort)
- ▶ Bayshore (Acoustics, Georgia Street) origin → but we don't need it any more in new buildings
- ▶ Do we need balconies on N/side arterial? Or better to focus on shared rooftop amenity space?
- ▶ Don't require balconies on all units - flexibility for trade-offs / can focus on communal space? Community building benefits (example South East False Creek (SEFC building))

Storage Space

- ▶ Challenge with 4ft dimension, could 3ft work?
- ▶ P + W survey asking about what people need - storage is key - but is 40 sq ft being used as storage?
 - Provide some in unit (e.g. laundry, vacuum, etc.) + more in basement
- ▶ 3ft strip won't be a bedroom, is easier to fit into unit layout
- ▶ Podiums, often 'doughnut' in middle that's not usable, exclude for communal storage?
- ▶ Mandate some in-suite storage, minimum linear ft
- ▶ Other ideas: upper level built-in storage (e.g. in bathroom)
- ▶ Remove incentive / provide flexibility
 - Incentivize below-grade space? E.g. bike + unit storage? Or shared / communal storage above grade
 - Challenges / knock-on impact, corridor access, etc.
- ▶ Remove exclusions, allow communal storage at grade / above grade
- ▶ Be flexible about where it is
- ▶ Townhouse, exempt stairs accessing parking below grade, count FSR same way as strata area

Wall Thickness Exclusions

- ▶ Count to inside wall → allow flexibility in assembly
- ▶ Zoning and Development Bylaw Structure
- ▶ Broadcast commonalities, general regulations as much as possible vs. District schedule specific
- ▶ Consistency where possible, plain language

Amenities

- ▶ Idea to encourage lobby as meeting space but not excludable now, look at excluding some space (e.g. count 'access corridor' but not seating area)
- ▶ Co-housing example: smaller shared seating space, redefine what amenities are
- ▶ Mechanical: shaft spaces / light wells / elevator shaft exclusions
 - Mechanical not excluded unless at / below base surface
 - Look at excluding up to 2nd floor
- ▶ Clarify elevator shaft exclusion

3. Other / Emerging Spaces That Could Be Excluded?

- ▶ Technical: don't rely on poly line but look for overall % of whole; tough for design revisions
- ▶ Bundle (e.g. 15%) and use how you'd like
- ▶ Gets tough when getting down to last # sq. ft.
- ▶ CoV has CP process; shifting responsibility to professional, would this work for architect sign-off?

FSR Summary

- ▶ Measure to inside wall (no wall exclusions) - assembly = flexible*****
- ▶ Set envelope / frame + FSR that's less (open up creativity / flexibility)
- ▶ Set floor plate maximum
- ▶ Balconies: don't count + keep flexible. Different approach for different sites (e.g. n/side on arterials?)
- ▶ Encourage communal rooftop space - tradeoffs
- ▶ Flexibility for circulation / amenity*
- ▶ Storage flexibility; some in unit, some communal rooms*
- ▶ Look at % overall for building - bundle***

Table 6 – Larger scale projects (*Indicates a "best idea" as voted by a table member)

Building Height

1. Is There Simpler Way to Calculate Building Height?

- ▶ Calculate from highest point of the site (highest building grade) + set maximum 'box' to work within (FSR < THIS ENVELOPE) and keep exclusion to allow elevator access to roof
- ▶ Take all reg's (e.g. rooftop access for green buildings technology) decorative roofs, etc. and build it ALL into the max height
- ▶ Roof assemblies pushing some building into over max height → need some flexibility + to recognize grade
- ▶ Height: increase within reason, look at # for overrun, appurtenance, etc.
- ▶ Set box + let people work within it (keep it simple)
- ▶ Two-Part: outright height plus # for guard rail, mechanical, etc.
- ▶ Challenge of reflecting shadow impacts (i.e. achievable height for site)

2a. Relaxations To Be Clarified / Updated?

- ▶ 10.18.3 compatibility / flexibility, probably need to retain this?
- ▶ Horizontal Datum Plan created for 2 typologies, works because of location of building
- ▶ Relaxation units (1/3) too restrictive + can impact ability to add exits, etc. especially on small sites
 - Set options e.g. XXX sq ft OR xx% + maybe look at shadows
- ▶ Focus on design + usability on rooftop:
 - More flexibility, comprehensive definition
 - City has shadow analysis as 'stick' to direct outcome. e.g. 280ft or 290ft for green roof (tiers but still inclusive height)
- ▶ RT zones, should not have building grades embedded (if not already cleaned up)
- ▶ Question, of why still paying engineering for building grades? (Future/Ongoing discussions w/ reg redesign on how to continue/address this)
- ▶ Consistency across city, prefer top of roof slab, currently a mix of methodologies. Avoid need for continual redesign
- ▶ Average grade has its own issues
- ▶ Example of C-2 sites + rezonings → challenge to meet grade if sloping site, plus minimum 18ft commercial plus 9ft floor-ceiling (new industry standard). Same issues with Mt. Pleasant Industrial Area + topography

- ▶ Height limits should make sense for uses, grades (also issue of double counting FSR if > 12ft.)
- ▶ Question: Appropriate to have different standards for district schedules versus rezoning?

Building Height Summary

- ▶ Calculate from highest point of site (building grade)*****
- ▶ Set a max height with everything built in (ie set a box, let people work within it, room for flexibility)**
- ▶ Use a two-tier approach; e.g. X ft max or x+ ft if green / accessible roof**
- ▶ Remove / simplify height relaxation limits (don't penalize small sites)
- ▶ Be consistent across the city: same methodology + account for use needs + grades / loading (e.g. 9ft for ceiling for residential, 18ft CRU, etc.)*

Table 7 – Larger scale projects (*Indicates a "best idea" as voted by a table member)

Floor Area

1. Simpler Way to Calculate Floor Area?

- ▶ Measure from the inside of the wall
- ▶ Define type of uses, structures, outdoor features, shading structures
- ▶ Have really clear definitions
 - Indoor Space
 - Outdoor covered space (Is FSR)
 - Shading Structures (Shouldn't be FSR)
- 1. Flexibility
- 2. Intent
- 3. Definitions
- 4. Consistency
- 5. Diagrams
- ▶ Structures opened in 3 sides should be excluded
- ▶ Reduce discretionary policies - incorporate to the bylaw
- ▶ Encourage amenity areas
- ▶ Using just gross area could be a problem
- ▶ Organize precedents
- ▶ Clarity for new users / designers
- ▶ Unify different zones
- ▶ Conversations between departments (there are contradictory prior-to's)
- ▶ Promote roof-top amenity space
- ▶ Clarify **intents and priorities** > definitions*
- ▶ Increase % of exclusions
- ▶ Area overlays: 3 different ways of calculating now > not working
- ▶ Provide just one way of calculating FSR (Parking, in suite)
- ▶ Roof deck vs. Balcony > we might need to lose some balconies. Combine balcony and roof deck exclusion (sustainability)
- ▶ Calculate inside wall floor area

- ▶ Provide **diagrams***
- ▶ Apply some **flexibility**

2a. Exclusions To Be Clarified?

- ▶ Daycares
- ▶ Amenities
- ▶ Storage - in suite storage is not creating nice spaces
- ▶ Roof exclusions
- ▶ Walls
- ▶ Green roofs
- ▶ Roof decks; should be excluded if they are for public use
- ▶ Micro units are not clear
- ▶ Gross and net differences > parking area, unit area, above ground area are sometimes contradictory
- ▶ CAC, DCL Floor area calculation to be clarified
- ▶ Update the FSR calculation bulletin
- ▶ % of open private space
- ▶ Tower separation to the balcony or to the wall?

2b. Which Exclusions Are No Longer Needed or Relevant

- ▶ **Storage** - M³ (not accurate)
- ▶ **10%** roof top exclusions are not realistic
- ▶ OK to include balconies in FSR because they add massing to the building but % of exclusions is not realistic

Other Priorities

- ▶ Non-residential amenity spaces
- ▶ Livability: Smallest units - how do we calculate them?
- ▶ Revisit and provide new guidelines for RM-3 / RM-4
- ▶ OK to have **exclusions** to provide interesting spaces and improve livability, but clarification on the way we calculate
- ▶ Focus on the intent, not the number
- ▶ **Diagrams** will solve the problem
- ▶ Ex. Roof deck and balcony

FSR Summary

- ▶ INTENT: Allow for some flexibility as long as the intent is accomplished
- ▶ DEFINITIONS: Define as much as possible
- ▶ CONSISTENCY BETWEEN ZONES AND CITY: Unify criteria for zones, apply precedent on discretionary approaches *
- ▶ DIAGRAMS: Show ways to calculate. Diagrams that clarify definitions

Table 7 – Larger scale projects (*Indicates a "best idea" as voted by a table member)

Building Height

1. Simpler Way to Calculate Building Height?

- ▶ Where we measure from
 - Simplify interpolation: clarification diagrams
 - Base surface plane (it works). Could be clarified with graphics. Building grades are a good idea
- ▶ Where we measure to;
 - Top of the parapet
 - Wind screens should be excluded
 - Should be measured to the very top > vs. View cones will determine height, but protrusions should be excluded
- ▶ Speed up building grades
- ▶ Change 1/3 and 10% exclusions > designers never make it
- ▶ Roof top equipment and roof top patios are a big deal
- ▶ Relaxations on shadowing should be considered - trees shadow parks anyways
- ▶ Flexibility to avoid buildings to look different
- ▶ Convince neighbourhood and public, landmark buildings could be possible
- ▶ Avoid homogeneity of the skyline
- ▶ Combination of good design and shadowing

Top Ideas

1. **Flexibility to avoid all buildings to be the same, we don't want homogenous developments***
2. Avoid flat equal roofs
3. Clearly distinguish the areas
 - ▶ Areas of transition are not as sensitive
 - ▶ Single families are more sensitive
4. Allow exemptions; subsection is OK

2a. Relaxations To Be Clarified or Updated

- ▶ What is a decorative roof?
- ▶ Clarify how high a decorative roof could be

- ▶ How much negotiation should there be?

2b. Relaxations That Are No Longer Needed

- ▶ Update 10.18.5
- ▶ Update 10.18.6
- ▶ Different opinions about neighbourhood compatibility

3. Other Considerations

- ▶ Height should be a subjective matter
- ▶ Will flexibility affect process times?

Table 8 – Larger scale projects (*Indicates a "best idea" as voted by a table member)

Floor Area

1. Simpler Way to Calculate Floor Area?

- ▶ Balconies
 - Same exclusions in all zones
 - What is the intent? Go to no limits on exclusions***
 - Covered balcony/patio/deck terminology
- ▶ Bylaws tend to be created for worst off scenario and mistrust, cannot prevent all
- ▶ Scale of building differs in impact with balcony enclosures, house vs. High-rise
- ▶ Additional bylaw to deal with unintended consequences
- ▶ What is problem of inclosing balconies? If it is appearance then it is guidelines that need to change bulk is already there
- ▶ Balconies enhance livability
- ▶ Larger floor plates and setback impacts of enclosing
- ▶ Definition needed for all zones;
 - Balcony
 - Covered deck
 - Patio
- ▶ Limits vs. Exclusion
- ▶ Vancouver only municipality that regulates this, other municipalities don't have provision of enclosed balcony
- ▶ "all dreams die at building review branch"
- ▶ Many things that can trigger building upgrades pending on definitions
- ▶ If open - no restriction, if enclosed then counted
- ▶ Economics of site would be affected by enclosures and FSR, no developer will pay for setback
- ▶ Balconies - trade off of setback, height, shadowing allow balcony developments into setback***
- ▶ Balcony as an awning to public realm (i.e. Lee Building, Telus); project over sidewalk / setback**
- ▶ Enclose balconies more of an older building issue

- ▶ What is priority?
 - Livability
 - Light, reflected light
 - Affordability
- ▶ Exterior applied/hung balconies are becoming the norm. They can now be lighter in appearance
- ▶ Building review branch and sprinkler requirement for larger balconies

2. Exclusions To Be Clarified?

- ▶ Corridor Envelope
 - If used as amenity should be excluded
 - % exclusions - what is the bump up needed
- ▶ Storage
- ▶ Can storage exclusion be high cupboards?
- ▶ Why does it need to be a prescribed volume/look?
- ▶ Moving storage to basement, less usable and expensive
- ▶ Exclusion encourages the inclusion
- ▶ Have storage on the floor outside of unit
- ▶ In-suite is the most convenient and needed for small units
- ▶ Have different types of storage other than room with certain handle and size; exclude longer closet in hallway and integrated cabinet
- ▶ How big of a problem?
 - As a room / den etc.
 - Health problem
- ▶ Allow the space but open up the possibilities of design and innovation
- ▶ Book of decks and porches
- ▶ Is a design guideline a bylaw?

Other

- ▶ Parking and loading - Double height spaces
- ▶ Exclusion of elevator space in a house

Table 8 – Larger scale projects (*Indicates a "best idea" as voted by a table member)

Building Height

1. Simpler Way to Calculate Building Height?

- ▶ Parapet vs. Guard
- ▶ Too much scrutiny on height when it is about the whole building; more tolerance **
- ▶ Any that doesn't affect shadows
- ▶ Top of slab structure, everything else not counted. Can mean something different for scale of building without view cone*****
- ▶ Combustible structure, top of last floor from grade regulated to firefighter ladder - relevant still?
- ▶ High parapet unlikely because of cost and view; key is to not limit design
- ▶ Solar panel and roof deck in RS
- ▶ Half storey definition
- ▶ Innovation is challenged by ordinance

2. Relaxation To Be Clarified or Updated?

- ▶ Conditionality is not enough, what is the out?
- ▶ Need rezoning policy for housing innovation
- ▶ Allowance to project for architectural innovation hide mechanical structures/systems
- ▶ 10% 1/3. Quality of design is more important over prescribed percentage
- ▶ Elevator overrun for accessibility not allowed in zone but encouraged in rezoning, should be excluded in all buildings.
- ▶ Vestibule
- ▶ What is the intent?
- ▶ Trellis and covered spaces counting towards the FSR and height; better design and livability

Other

- ▶ Flexibility for relaxation
 - Who has authority
 - Create clear rules for discretion
- ▶ Base surface
 - Streetscape focused instead

- Measure from highest point
 - Complicated that Vancouver Building Bylaws and zoning have different calculations
 - Every municipality is different, will never reconcile
 - Average grade could be below grade i.e. Strathcona, Beatty
- Table 9 – Larger scale projects (*Indicates a "best idea" as voted by a table member)

Floor Area

1. Simpler Way to Calculate Floor Area?

- ▶ Achieving consistency across the board for FSR calculations
- ▶ No exclusions - calculate to sheathing but don't lose sight of setbacks
- ▶ Get rid of exclusions for balconies
- ▶ Take FSR to inside wall - get rid of exclusions - walls will be dictated by city policies
- ▶ Takes too much time for area overlays - should be able to check area with city digitally / electronically
- ▶ Storage area could be accommodated in parking area
- ▶ Consistency with base surface and storage areas
- ▶ Exclusions should be included in FSR calculation
- ▶ Amenity rooms and roof decks should continue to be excluded - important spaces!

2. Exclusions To Be Clarified?

- ▶ No limitation on how much to exclude for amenity spaces but there should be a minimum for projects over a certain size and # of units
- ▶ Encourage "livable" locations for amenity spaces (eg. Not basement areas)
- ▶ Overhangs should not be included in FSR calculations
- ▶ Is density always calculated on net or gross (eg road dedication)? Needs to be clarified
- ▶ Should not be penalized for over-height areas (eg heritage buildings > turrets if already there). Needs more flexibility (less dogmatic) it's not clear - should be consistent from zone to zone
- ▶ Trade-off - including exclusions in FSR as percentage will increase the property value as well

3. Other Priorities

- ▶ Other spaces that could be encouraged through exclusion;
 - Amenity spaces
 - Balconies should be excluded
 - Overhangs should be excluded >its too restrictive

- Storage should be excluded
- Need to consider how building is constructed in order to determine exclusion
- ▶ Should public access between buildings to a public space be included in FSR as it was required by the city? Confusing as it's subject to interpretation
- ▶ Should have an envelope that's bigger than the FSR
- ▶ Design guidelines must be consistent and applicable - not vague

FSR Summary

- ▶ Top three changes for calculating FSR;
 1. FSR to be calculated to inside of wall
 2. Get rid of exclusions but increase FSR to match (eg storage spaces and wall exclusions)
 3. No regulation for balconies and indoor / outdoor amenity spaces

Table 9 – Larger scale projects (*Indicates a "best idea" as voted by a table member)

Building Height

1. Simpler Way to Calculate Building Height?

- ▶ Needs to be discretion for uneven sites - depends on the site - more flexibility on a case by case basis***
- ▶ For clarity, included additional line in bylaw regulations re: consideration of view cones and shadowing, particularly in downtown zones and around parks and other public areas*
- ▶ Flexibility in height restrictions for sloped sites i.e. set percentage of flexible height to accommodate site anomalies
- ▶ How are discretionary height limits used? Under what circumstances? Needs clarification! (eg. Checklist with site conditions where discretionary height limit could be applied (eg. C2 zone))

2. Relaxations To Be Clarified or Updated?

- ▶ On industrial lands, remove height limit and regulate thru FSR?
- ▶ Is 10% rooftop exclusion enough (eg mechanical room/ elevator shaft)? Possible increase slightly based on analysis/review**

3. Other Considerations

- ▶ Survey grades should be used for calculation of height
- ▶ "The quicker we can get the building grades from the city, the better"

Table 10 – Larger scale projects (*Indicates a "best idea" as voted by a table member)

Floor Area

1. Simpler Way to Calculate Floor Area?

- ▶ 12% Exclusion, 8% Exclusion not clear in district schedules
- ▶ Volumetric / envelope based set of regs. This approach is specific to end user. Would give more freedom to build what the market demands within the City's defined sandbox
- ▶ Could be other regs i.e. minimum unit size, # of family units but form is defined. Simplifies and allows for more flexibility
- ▶ Clarity is critical in mixed use. i.e. shared utility space
- ▶ Storage is required and needed if within unit limit size. Face of sheathing, concrete then allow for wall assemblies to be fine tuned simple boundary i.e. exclude shafts, always needed.
- ▶ People will build to the max. Max FSR will foster more diverse design. Need to move away from a straight extrusion. FSR allows more moves than a box. Could be undesirable for towers if it leads to a box form. Ex. Cambie corridor - may be too prescriptive leading to same form.
- ▶ May need to acknowledge base, middle and crown for towers (i.e. via setbacks)
- ▶ Incentives for better design?
- ▶ Have a clear intent for purpose i.e. size, building design
- ▶ Worry about full freedom, **empower Urban Design Panel** to make **decisions** about **incentives based on performance**
- ▶ CD-1's have been successful. If enough plusses to community allows performance within limits, with incentives. Examples of CD-1 successful items to consider in district schedules;
 - Recognize not all floors are the same
 - Innovation application / latitude
 - Performance assessment - outside the box
- ▶ Amenity rooms in Cambie / Oakridge not counted in height. Allows roof utilization without penalty.
- ▶ **Future idea**; simplify **similar zones** i.e. Cyclone zones

2. Exclusions To Be Clarified?

- ▶ % exclusions (i.e. balcony) to be negotiated... (i.e. mini rezoning? Move to another district schedule)
- ▶ Thicker walls eat into FSR. Measure to.. i.e. how BOMA measures FSR. A dialogue between COV/BOMA is needed to look at alignment. 2+ calculations is not efficient *

- ▶ I.E. Iron works. 1st stacked industrial building. Balconies are a big part of project. Passive outdoor space contributes to the work experience (200+ days use). We don't see this often in office buildings. Heard noise in I-1 zone to restrict balconies. As regs evolve, consider facilitating balconies in work/office industrial space
- ▶ If we regulate too tightly end up with banality. Allow variations, experiments, latitude, lessons learned. Boring city. Two streams; mini rezoning / latitude and outright *
 - Consider max FSR / Box plus x% for innovation that is a desirable feature. Allows applicant to innovate. Sand box plus. Incentive across the spectrum
 - Innovation can become marketable. Will be critical as market changes, to set projects apart

3. Other Priorities

- ▶ [Idea for future discussion] Residential in industrial / vice versa. Don't regulate land use within building i.e. live-work
 - (craft breweries / light industrial)
 - Fraser river adjacent is prime for this
 - Challenge to get 1.0 FSR of industrial on ground floor. Limitations on mezzanines. Non coordination between Vancouver Building By-law + Zoning Bylaw
- ▶ * [Latitude stream / sand box +] [Mini rezoning] Further discussion:
 - Talk with residents first / consultation
 - Innovation has to have an eye on green / sustainability performance to push forward
 - How do we get actual row houses in Vancouver? Not only on arterials. (Freehold) No strata - i.e. California 8 in separation, Toronto-Small lot subdivision. Can be phased, zero lot line, green bldg. benefits with a party wall. **Can we revise the zoning to better accommodate freehold row houses?**
- ▶ Opportunity to make spaces such as setbacks to be more flexible. If it is a fire issue, fire rate the walls
- ▶ **Measurement**
 - For ease / simplicity measure floor area face to sheathing/concrete
 - Key is to be consistent across the board i.e. **zoning, code, real estate**
 - As walls get thicker, losing floor area. Current exclusions are complicated and don't "help" with exclusions
 - Consider additional density to be more permitted, give more density and remove exclusions to alleviate supply // more residents in downtown // permit times.
 - Remove parking minimums
- ▶ Sticking points

- Balcony exclusions hard to work with on tight sites

FSR Summary - 2 Big Ideas

- ▶ Zoning, Vancouver Building By-law, Real Estate, Alignment with BOMA
- ▶ **Latitude:** Allow for innovation + performance - “mini-rezoning, sand box plus) Take the best CD-1 rezoning approach where there is a standard and allow for variation if performance merits it;
 - Green performance
 - i.e. x% increase in FSR for variation to allow designer/developer to be creative
 - Perhaps empower UDP to make decisions on performance

Table 10 – Larger scale projects (*Indicates a "best idea" as voted by a table member)

Building Height

1. Simpler Way to Calculate Building Height?

- ▶ Measure to the top of the building
- ▶ **Vertical angle of daylight.** There are enough controls to **get rid of it.** It has little impact
 - a. Height + setbacks take care of sunlight to neighbours
 - b. VAD reg. Not overlap. Currently DOP can relax VAD in zones such as C-2. Variations in success. Manhattan model requires setback at higher levels. COV from street
- ▶ Depends on scale of street i.e. Fraser, Victoria - need to keep the street open. 4-6 stories at street would be acceptable. Why is it needed on Cambie that runs N/S
- ▶ Height - is there a more general approach? Have the datum - where grades measured from shouldn't matter
- ▶ Vancouver Building Bylaw (VBBL) uses lowest point of site for Fire access / safety. **Harmonize BUILDING BY-LAW + Zoning Bylaw (ZBL).** BUILDING BY-LAW can't be changed because National Building Code. **Use BUILDING BY-LAW approach.** Zoning to take into account BUILDING BY-LAW approach. Steeply sloped sites would be disadvantaged. BUILDING BY-LAW counts storeys. 18m cutoff for high-rise buildings
- ▶ **Different approach for BUILDING BY-LAW + ZONING AND DEVELOPMENT BY-LAW;** ZONING AND DEVELOPMENT BY-LAW has to consider;
 - Need to look at zones + heights within zones
 - MF highrise different than SFD
 - Steep slope
 - Street context

2. Relaxations To Be Clarified or Updated?

▶ Breakpoints re cost of construction

- 7-6 storey
 - approx 40 storeys
 - mass timber opportunities
- ▶ If desire is e.g. 6 storey street wall; **measure height from street**. Considers urban design and impacts to neighbours. City needs direction for all areas with this approach, provide direction on general envelope. Could be through regularly updated guidelines (ex: 5 Years update)
- ▶ Various calculations in ZONING AND DEVELOPMENT BY-LAW for height not ideal **simply to one approach**

3. Other Considerations

- ▶ [Ideas for future discussion] Full DP drawings needed for enquiry
- ▶ **ZONING AND DEVELOPMENT BY-LAW and BUILDING BY-LAW should align on regs for mezzanines**. Creates issues at BP currently, re. storeys + height. Can't change BUILDING BY-LAW, ZONING AND DEVELOPMENT BY-LAW needs to change. Alternative solutions provide a work around
- ▶ Consider livability as baseline. e.g. basement suite should be livable with windows

Future ideas

- ▶ Upzone SFD
- ▶ All more height for towers in downtown

Appendix E. Parking Lot

This section contains items that are out of scope for Regulation Redesign project. These comments will be shared with appropriate COV staff teams.

1. Smaller Scale Projects

- Policy-related comments
- Laneway room size interpretation needs to be looked at - rooms are too large
- People want to build smaller too! There aren't economic opportunities to do so (e.g. subdivision)
- In RS - parking should be allowed under the house - lanes are becoming streets already so why not allow parking below homes instead of taking up livable space - takes cars off the streets
- Laneway house - why is parking included (in FSR)? Can it be excluded?
- Maximum FSR for parking
- Powder room → enlarged doors for accessibility - not making sense
- Conditionality + discretion as a means for design control - use design guidelines to drive elegant solutions:
 - French doors discouraged currently out of fear the space will become a suite
 - Need to think about flexibility of structures over time i.e. evolution of suites
- Relate height to industry standard to ceiling heights; market desire → 10' ceiling
- Increase height to improve appropriate ceiling levels:
 - Infill height is too low, especially on larger lots and where there are taller existing buildings (e.g. FM District).
 - Laneway house height increase made them more livable, especially on sloping sites
- "Tall people are not welcome" every inch of height will be used. max height above mean 9ft
- Subjectivity of livability (could increase permitting times)
- Transitions between tower to single family
- Avoid flat equal roofs
- Secondary height envelope in RS creates a wedding cake
- RS-1, current regulations lead to 'cookie cutter', bad design
- Give extra 1.5' to 3.5' for renovations
- Increase height to prevent deeper digging + pumping and liquid waste draining issues
- Process-related comments
- So challenging. Surveyors are making mistakes. Can building grades be outsourced to surveyor to expedite process?

- PC's / intake need clarification on DP process / review / relaxations. More training so [staff] understand
- Setbacks that are % based?? If it's about fire access then make it that (e.g. 3ft). Eliminate the 'outliers': Use setbacks points at property line

2. Larger Scale Projects

Policy-Related Comments

- Challenge to balance required door / corridor widths + provide livable spaces in units
- Revisit and provide new guidelines for RM-3 / RM-4
- Residential in industrial / vice versa. Don't regulate land use within building i.e. live-work, craft breweries / light industrial; Fraser River adjacent is prime for this
- Challenge to get 1 FSR of industrial on ground floor. Limitations on mezzanines. Non-coordination between
- VBBL + zoning bylaw
- Opportunity to make spaces such as setbacks to be more flexible. If it is a fire issue, fire rate the walls
- Trellis and covered spaces counting towards the FSR and height
- Different opinions about neighbourhood compatibility
- Convince neighbourhood and public, landmark buildings could be possible
- Avoid homogeneity of the skyline
- Minimum 18ft commercial plus 9ft floor-ceiling is the new industry standard

Process-Related Comments

- Speed up building grades. "The quicker we can get the building grades from the city, the better"
- Need? rezoning policy for housing innovation
- Future discussions: Full DP drawings needed for enquiry; Upzone SFD; More height for towers in downtown; should applicants pay for building grades
- CoV has CP process; shifting responsibility to professional, would this work for architect sign-off?
- Conversations between departments (there are contradictory prior-to's)

Appendix F. Registrants

ABBARCH Architecture Inc.

Adwell

AIBC

Alabaster Homes Inc

Alexandre Ravkov Inc

Amacon

Amex Fraseridge Realty

Arno Matis Architecture

BFs

Cadlab Design Inc.

Carscadden Stokes Mcdonald Architects Inc

Conwest

Conwest Group

Cornerstone Architecture

Dhir Developments

Draft On Site Services

DWG Design Work Group Ltd

GBL Architects

Heaccity Studio Architecture Inc.

Hearth Architectural Inc.

IBI Group

Keltic Development

Kenorah Design + Build

Luxmi Enterprises

Maison D'etre Design-Build Inc

McEwen Architects

MCM Partnership

Merrick Architecture

Novell Design Build

NSDA Architects

Patkau Architects

Perkins+Will

Quadra Architecture

Regeneration Design Studio

Regis Group

Ronse Massey

Ronse Massey Developments

RPLouie Consulting Ltd.

SHAPE Architecture Inc.

Silk Properties

Simplex Home Design

SLA

Suvic Homes

Tavan Developments Ltd.

Tourism Vancouver

Vanwell Homes Ltd

VictorEric Design Group

W.T. Leung Architects

Appendix G. Staff List

Alena Straka - Planning, Urban Design, and Sustainability
Andrea Wickham - Planning, Urban Design, and Sustainability
Andrew Power, Project Manager - Development, Buildings, and Licensing
Berg Balantzyan - Development, Buildings, and Licensing
Beverly Chew - Planning, Urban Design, and Sustainability
Bill Boons - Planning, Urban Design, and Sustainability
Brenda Clark - Planning, Urban Design, and Sustainability
Diana Leung - Planning, Urban Design, and Sustainability
Eóin O'Connor - Planning, Urban Design, and Sustainability
Haizea Aguirre - Planning, Urban Design, and Sustainability
Hayley Hoikka - Planning, Urban Design, and Sustainability
Heather Burpee - Planning, Urban Design, and Sustainability
Ingrid Hwang - Planning, Urban Design, and Sustainability
Jason Olinek, Assistant Director - Planning, Urban Design, and Sustainability
John Greer, Assistant Director - Development, Buildings, and Licensing
Joyce Uyesugi - Planning, Urban Design, and Sustainability
Kevin Cavell - Planning, Urban Design, and Sustainability
Kirsten Langan - Civic Engagement and Communications
Lee Beaulieu - Planning, Urban Design, and Sustainability
Linda Gillan - Planning, Urban Design, and Sustainability
Lisa King - Planning, Urban Design, and Sustainability
Mandy So, Manager - Development, Buildings, and Licensing
Marco D'Agostini, Project Manager - Planning, Urban Design, and Sustainability
Marie Linehan - Planning, Urban Design, and Sustainability
Matthew Lam, Assistant Director - Development, Buildings, and Licensing
Michelle Au, Assistant Director - Development, Buildings, and Licensing
Mihajla Vitkovic - Development, Buildings, and Licensing
Ryan Dinh - Planning, Urban Design, and Sustainability
Sailen Black - Planning, Urban Design, and Sustainability
Sonia Erichsen, Manager - Development, Buildings, and Licensing
Tami Gill - Planning, Urban Design, and Sustainability
Tony Chen, Manager - Development, Buildings, and Licensing
Zoë Greig - Planning, Urban Design, and Sustainability

